

The Economic Value of Bilingualism among 1.5- and Second-Generation Korean Americans*

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This study examines whether there is an earnings premium for fluent bilingualism among 1.5-generation and U.S.-born Korean Americans in the labor market. The data come from the 2009-2011 American Community Surveys, and the sample is restricted to wage and salary workers. Logged annual wage and salary income was regressed on two dummy variables for bilingual competence—bilingual with fluent English proficiency and bilingual with limited English proficiency (English monolingual as reference category), controlling for indicators of human capital and the language-use environment. Findings show greater economic returns to fluent bilingualism among 1.5-generation Korean women and U.S.-born Korean men, but there is no convincing evidence of a wage premium for fluent bilingualism among U.S.-born Korean women. Surprisingly, there is evidence of wage penalties for fluent bilingualism among 1.5-generation Korean men in certain geographic areas and occupations. These mixed findings are consistent with the recent discussion of bilingualism as both human capital and ethnicity.

Keywords: Bilingualism, Earnings, Korean American, Generation, Gender

*This paper was presented at the Fourth Conference of the Research Center for Korean Community held at Queens College of CUNY on April 5 and 6, 2013. I thank Thomas Chung, the English-language editor of the Research Center, for his excellent copy-editing of the manuscript.

Introduction

There has been much controversy over the economic value of bilingualism among the adult children of new immigrants in U.S. labor markets. Some studies have asserted that the 1.5- and second-generation bilingual descendants of new immigrants earn more than their English monolingual counterparts (Cortina, de la Garza, and Pinto 2007; Saiz and Zoido 2005). However, others have found no evidence of higher economic returns to bilingualism (Fry and Lowell 2003; Shin and Alba 2009). Some bilingual groups were even found to face a wage penalty (Chiswick and Miller 2007). Besides these mixed findings, the competing theoretical explanations for the role of bilingual ability in the labor market are documented in the literature. Some researchers view language ability as a productive resource that can be translated into labor market outcomes (Chiswick and Miller 2007). Others, however, consider language as an element of ethnicity that is not always functional in the labor market (Pendakur and Pendakur 2002).

Despite these heated debates over the past decades, however, 1.5- and second-generation Korean Americans have seldom been the centerpiece of research into the economic value of bilingualism. There are only a few notable exceptions in the literature, including Oh and Min (2011) and Shin and Alba (2009). Therefore, relatively little is known about the economic benefits to fluent bilinguals among 1.5-generation and U.S.-born Korean Americans in the labor market. This study is intended to fill this gap in the literature.

The primary purpose of this study is to examine whether there is an earnings premium for fluent bilingualism among 1.5-generation and U.S.-born Korean Americans, using data from 2009-2011 American Community Surveys. Given the mixed findings and competing theoretical explanations in the literature, this study poses further empirical questions: To what extent and under what circumstances would bilingual ability provide a competitive edge over English monolingualism in the labor market? To address these questions in context, this paper starts with a review of the debates on the economic value of bilingualism, and compares the competing theoretical explanations developed in the literature. And then it describes the data and methods before discussing the main findings.

Debates on the Economic Value of Bilingualism

Controversies over the Economic Value of Bilingualism

Past studies have found cognitive development and educational performance as the major benefits of bilingualism (Portes and Rivas 2011). There is compelling evidence that fluent bilingualism is associated with cognitive development (Peal and Lambert 1962; Hakuta 1986). In addition, several studies show that youths fluent in both English and their mother tongue have higher academic performance than those who speak limited English or only English (Feliciano 2001; Lutz and Crist 2009). The relationships between fluent bilingualism, cognitive development, and educational performance imply that fluent bilingualism has something to do with earnings in the labor market. It may directly affect earnings due to higher productivity, or indirectly through higher educational attainment. However, past studies investigating the returns to bilingual ability in the labor market have produced quite mixed results.

Some studies have found a significant and positive relationship between bilingual competence and earnings. Particularly, the wage premium for bilingual competence is evident in multicultural and multilingual contexts. For example, fluency in a second official language increases earnings in Quebec, Canada (Christofides and Swidinsky 2010). There is also evidence of a positive association between using a second language at work and higher earnings in the European Union (Saiz and Zoido 2002). In these cases, the returns to bilingual ability are higher in particular occupations, such as management and business services, due to its value in economic activities. However, the wage premium for bilingualism is not exclusively associated with its value in economic activities. The demand for bilingual workers, and the corresponding wage premium, can be created by government incentives and policies in countries with more than one official language, such as Canada (Chiswick and Miller 2007).

Compared to ample research in Canada, there are relatively few studies in the United States that have examined the wage premium for bilingual ability. Instead, past studies in the United States have focused on the returns to fluency in English among immigrants (McManus, Gould, and Welch 1983), or the costs of limited English proficiency among the U.S.-born (Chiswick and Miller 2007). Notable exceptions include a research report that documented slightly higher earnings among bilingual Hispanics using data

from the 2000 Census (Cortina et al. 2007). In this report, fluent bilinguals among Hispanics earned only about three percent more than their English monolingual counterparts. Surprisingly, however, fluent bilinguals earned less than their English monolingual counterparts in some occupations and industrial sectors. Researchers interpreted these complicated findings as a consequence of accent discrimination in the labor market, uneven access to quality education due to residential location, and a lack of skill building opportunities due to occupational segregation. An important implication of these findings is that “English is the dominant language in U.S. labor markets, and English proficiency is a key determinant of the success in labor markets” (Cortina et al. 2007, p. 2).

The above point raises an important question: Is bilingualism really less relevant for U.S. labor markets in which English is the dominant language? This question is important because contradictory forces appear to affect the demand for a foreign language. On the one hand, as Fry and Lowell (2003, p. 128) assert, “an increasingly global economy, multinational corporations, and import/export businesses need those rare workers . . . who can speak both English and another language.” Despite the speed, scale, and scope of globalization, on the other hand, there is no dramatic change in the demand for foreign language skills because English becomes a global, if not universal, language. Saiz and Zoido (2005) addressed this issue. Using a representative sample of U.S. college graduates, they found a slight (2-3%) but significant wage premium for those speaking a language other than English. Besides the possible advantages of bilingualism in terms of higher cognitive development, cross-cultural communication skills, and academic achievement, these researchers concluded that knowledge of a second language may be a valuable asset due to the demand from multinational corporations, government agencies, and ethnic businesses.

There are also many studies that have failed to find any significant earnings premium for bilingualism. Using data from the National Adult Literacy Survey, for example, Fry and Lowell (2003) found that bilingual workers earned higher wages than their monolingual counterparts when no other variables were considered. After taking into account nativity, human capital, and other variables, however, they found no significant difference in earnings between bilingual and English-monolingual workers. In other words, the initial higher raw wages of bilinguals were largely attributed to their higher educational attainment and other attributes of human capital, rather than to their knowledge of a second language valued in the workplace. They concluded that there was no incentive in U.S. labor markets to acquire

or maintain proficiency in a second language, which contributed to a rapid shift to English monolingualism across generations.

In a recent study, Shin and Alba (2009) examined the economic value of fluent bilingualism among three Asian (Chinese, Filipino, Korean) and three Hispanic (Cuban, Dominican, Mexican) workers using data from the 2000 Census. They developed an elaborated model, considering both individual and metropolitan characteristics. They examined the conditions under which fluent bilingualism might procure a wage premium. Findings from the separate analyses of each group show that fluent bilingualism made no significant contribution to earnings among 1.5-generation and U.S.-born Asian and Hispanic workers, compared to their English monolingual peers. In some cases, surprisingly, fluent bilinguals earned significantly less than their English-monolingual co-ethnics. Based on their findings, Shin and Alba (2009, p. 274) drew a similar conclusion as Fry and Lowell (2003) that “fluent bilingualism is a pattern hard to maintain across multiple generations in the United States” due to a lack of economic incentives.

In their study investigating the effects of ethnic concentration on earnings, Oh and Min (2011) provided us with a much nuanced understanding of the economic value of bilingualism. Based on two competing perspectives on the effects of living in an ethnically concentrated area on earnings (i.e., assimilation theory and the ethnic enclave economy thesis), they deliberately confined their sample to Chinese, Filipino, and Korean men who belonged to the 1.5 and second generation living in the New York-New Jersey metropolitan area. Using data from the 2000 Census, they found that bilingual ability was beneficial only to Chinese Americans. According to Oh and Min (2011), the monetary returns for bilingual ability among Chinese Americans were attributed to high-paying professional and managerial jobs available in the ethnic enclave economy. Yet, they also found that ethnic concentration and limited English proficiency had a negative effect on earnings for all three groups. Therefore, like the other researchers, Oh and Min (2011, p. 866) suggested that “English proficiency is more important than bilingual ability in the labor market.”

Theoretical Explanations for the Mixed Findings

Among various theoretical models that researchers have developed and supported, two competing perspectives stand out in the literature: language as human capital and language as a dimension of ethnicity (Pendakur and Pendakur 2002). These theories provide explanations for the mixed findings

in the literature.

Labor economists tend to examine language skills as a form of human capital primarily because of their potential capacity to produce positive labor market outcomes. For the 1.5- and second-generation children of new immigrants, proficiency in both English and their mother tongue is not easy to develop without investing significant time and resources. In the human capital model, fluent bilinguals are expected to receive higher wages as a return to their investments (of time and resources) and higher productivity than their monolingual counterparts, especially when bilingual ability is valued in economic activities. However, bilinguals with limited English proficiency incur costs when an accent or intonation serves “as a basis of discrimination in the labor market” or reflects “isolation from the mainstream American economy” (Chiswick and Miller 2007, pp. 414-5).

Chiswick and Miller (1995, 2007) have developed a general model for acquiring language skills from a human capital perspective, which focuses on three key determinants of destination-language fluency among immigrants. In this model, destination-language proficiency among immigrants can be explained by a combination of exposure to the language, efficiency in the acquisition of the language, and economic incentives to learn the destination language. Other economists (e.g., Lazear 1999) have developed a similar model in which individuals acquire a language when the benefits, such as opportunities in the labor market, outweigh the costs, such as time and effort. From this human capital perspective, immigrants are motivated to learn the destination language due to economic incentives, such as improved employment opportunities and higher earnings. Likewise, the 1.5-generation and U.S.-born children of new immigrants would likely develop and maintain fluent bilingualism if there were expected benefits from it.

In the human capital model, fluent bilingualism is a productive resource that can be rewarded with improved employment opportunities and higher earnings in the labor market. However, bilingual competence among the children of new immigrants may serve as an ethnic marker that has different implications for labor market outcomes (Pendakur and Pendakur 2002).

Mother-tongue maintenance among the children of new immigrants is indicative of their ethnic attachment. Although the 1.5-generation and U.S.-born children of immigrants may express their ethnic distinctiveness in English, those who maintain their mother tongue are more likely to share ethnic identity and culture with their parents (Shankar 2011). As recent studies suggest (Rumbaut 2002), mother-tongue maintenance is also pivotal to transnational ties to their homeland among the 1.5- and second-

generation children of new immigrants. Moreover, the development of their bilingual competence helps them to build ethnic ties to immigrant communities and enclaves, and thereby extend the odds of their economic success. Nevertheless, bilingual ability may not have a positive impact on labor market outcomes for two reasons.

First, as Lang (1986, 1993) points out, language ability is a means of differentiating workers and sorting them into different jobs that creates occupational segregation and wage differentials. Employers may have difficulty in assessing the productivity of bilingual workers without relying on educational attainment and other indicators of productivity. Given the fact that productivity is not readily observable, bilinguals may be at a disadvantage unless they are as fluent in English as English-speaking monolinguals in the screening process. Employers may refuse to hire potential workers who speak English with an accent, although this practice can be a violation of Title VII of the Civil Rights Act of 1964. One of employers' justifications is that, because jobs involve communication with the general public, an accent would make communication difficult. Therefore, bilingual speakers with an accent are likely to be placed in the lower hiring queues. Even if hired, they are likely to be concentrated in certain jobs because employers attempt to minimize intergroup communication that would incur costs.

Second, fluent bilinguals among the 1.5 generation and the U.S.-born generation who live in ethnically concentrated areas or enclaves are likely to have lower earnings than their English monolingual counterparts. It is also likely that they would have found better employment opportunities and higher earnings if they moved elsewhere. However, they prefer to live in ethnic enclaves for various reasons. For example, easy access to "ethnic goods" (Chiswick and Miller 2002) in everyday life is an important factor in choosing an area of residence. In this case, "ethnic goods" are ethnic-specific necessities and amenities that are readily available in ethnic communities. In addition to available jobs in the ethnic economy, examples of ethnic goods include ethnic foods, ethnic ties, ethnic organizations, and the ethnic media. The amount and variety of ethnic goods available in ethnic communities depends on the degree of "institutional completeness" (Breton 1964). The degree of institutional completeness may vary across immigrant communities and enclaves, but in general, larger enclaves are more likely to provide a variety of goods and services than smaller ones.

The Current Study

The competing perspectives and mixed findings in the literature suggest that the economic value of bilingualism is a matter of theory-informed empirical research. This study improves on past research (e.g., Shin and Alba 2009; Oh and Min 2011) in three important ways. First, this study considers the language-use environment. As Chiswick and Miller (1995, 2007) point out, exposure to the language is an important factor affecting language fluency. It includes not only the length of exposure, but also the intensity of exposure. The intensity of exposure to the language depends on the language-use environment. For the 1.5 and the U.S.-born generations, the household and community settings in which more people communicate in their mother tongue are favorable to the development of fluent bilingualism, given the fact that the 1.5 generation and the U.S.-born are educated in the United States and thus the majority of them are fluent in English.

Second, this study contemplates the generational and gender differences in the effect of fluent bilingualism on earnings. A vast majority of the fluent bilinguals are likely to speak the mother tongue that they learned when they were young. As Chiswick and Miller (1995, 2007) suggest, bilingual ability among the 1.5 generation and the U.S.-born depends on efficiency in learning and maintaining their mother tongue. Factors affecting mother-tongue maintenance include nativity and gender. As the three-generation model of language assimilation suggests (Alba et al. 2002), fluent bilingualism is more prevalent among the 1.5 generation than among the second generation and beyond. In addition, men and women may have different socialization experiences in childhood and marital patterns in adulthood, which engender gender differences in mother-tongue maintenance and bilingual ability. Because bilingual ability may differ by generation and gender, so does its effect on earnings.

Finally, this study posits that the economic value of bilingualism may vary across occupations and geographical areas. As Oh and Min (2011) suggest, the economic value of bilingualism may depend on the size of the ethnic community and the strength of the ethnic economy. Large ethnic enclaves in gateway regions, especially with a strong ethnic economy, provide immigrants and their children with avenues for economic success by creating managerial and professional jobs. They have the capacity to shield against accent discrimination in the mainstream workplace. In these geographical areas, bilingual workers whose productivity is not readily observable may still

be valued in the workplace because more bilinguals occupy higher managerial positions. Moreover, the demand for bilingual workers may vary not only across places but also across jobs (Cortina et al. 2007). Bilingual workers may receive a higher wage premium than their equivalent English monolingual counterparts if their jobs require bilingual proficiency. For example, the demand for bilingual ability is likely to be higher in managerial and professional occupations dealing with customers, clients, suppliers, and other stakeholders of diverse racial, ethnic, and cultural backgrounds.

Data and Methods

The data for this study come from the 2009-2011 American Community Surveys, and the sample is restricted to 1.5- and second-generation Korean Americans who were wage and salary workers, ages 25 years and older, reporting positive earnings in the preceding survey year. The 1.5 generation is defined as those who immigrated to the United States at age 12 and younger in 1965 and after. As information about parents' place of birth is not available, the second generation is restricted to those who were born in the United States in 1965 and after. Therefore, the age of the sample ranges from 25 to 58 for the 1.5 generation, and from 25 and 46 for the second generation. The data were weighted in the analysis to represent the proportion of actual persons in the population from which the sample was drawn.

The ACS asks three questions about language use at home: "Does this person speak a language other than English at home?" (yes, no); "What is this language?"; "How well does this person speak English?" (very well, well, not well, not at all). Combining the first and the third questions, a single measure of bilingual ability with three categories was constructed: fluent bilinguals (those who speak a language other than English at home, as well as those who speak English "very well"), limited bilinguals (those who speak a language other than English at home, but speak English less than "very well"), and English monolinguals (those who do not speak a language other than English at home; reference category). The descriptive statistics of the sample are available upon request.

Along with the bivariate analyses using the respondent's annual wage and salary income as the dependent variable, multivariable analyses were conducted to assess the unique effect of bilingual ability above and beyond other variables. In multivariate analyses, logged annual wage and salary income was regressed on two dummy variables for bilingual competence—

bilingual with fluent English proficiency and bilingual with limited English proficiency (English monolingual as reference category), controlling for the typical human capital variables such as educational attainment, attending school, years of work experience, weeks worked last year, and usual hours worked per week. Additionally entered in the model were variables affecting bilingual fluency in the household and community settings. These variables include marital patterns, presence of the foreign-born and bilinguals in the household, and ethnic concentration in the residential area. The identical models were assessed for males and females across the 1.5 generation and the second generation separately because both bilingual fluency and its economic advantages might differ within and across generations.

Bivariate Results

Generational and Gender Differences in Bilingual Ability

Table 1 shows the percentage distribution of bilingual competence broken down by generation and gender. The vast majority of 1.5-generation and U.S.-born Korean Americans who speak a language other than English at home speak Korean (97.1%). The percentage of limited bilinguals is relatively small, declining over generations for both men and women. The highest rate of fluent bilingualism is found among 1.5-generation men, whereas the lowest rate of fluent bilingualism is observed among 1.5-generation women. For Korean-American men, the percentage of fluent bilinguals declines along with an increase in the percentage of English-only speakers over generations. This finding is consistent with the prediction of the three-generation model of language assimilation. However, the patterns of linguistic assimilation for Korean-American women are quite different from those for men. Surprisingly, U.S.-born Korean women have a higher rate of fluent bilingualism than their 1.5-generation counterparts. The higher rate of fluent-bilingualism for U.S.-born Korean women runs counter to the three-generation model of language assimilation.

Why U.S.-born Korean women have a higher rate of fluent bilingualism than their 1.5-generation counterparts is a puzzle. Supplementary analyses suggest that as a group, U.S.-born Korean women have higher educational attainments than their 1.5-generation counterparts (15.9 years versus 15.7 years). The percentage of Korean women with “college or more” educational attainment is higher for U.S.-born Korean women than their 1.5-generation

TABLE 1
PERCENTAGE DISTRIBUTION OF BILINGUAL ABILITY BY GENERATION AND GENDER

	1.5 Generation		Second Generation	
	Men (N=1,370)	Women (N=1,703)	Men (N=839)	Women (N=856)
Total	100.0	100.0	100.0	100.0
English monolingual	42.4	57.7	57.4	52.8
Fluent bilingual	50.0	35.6	37.6	42.6
Limited bilingual	7.6	6.7	5.0	4.5

SOURCE.—2009-2011 American Community Surveys from IPUMS (Ruggles et al. 2010)

counterparts (74.3% versus 62.3%). The higher percentage of fluent bilingualism among U.S.-born Korean women can be attributed to a higher level of education. That is, the likelihood of learning and retaining their mother tongue may be enhanced by a higher level of education. However, the increase in educational attainment over generations is not a plausible explanation, because for Korean-American men, fluent bilingualism declines over generations despite an increase in educational attainment over generations.

It is a more probable explanation that household and community environments in which more people communicate in their mother tongue have had more of an effect on bilingualism among U.S.-born Korean women. Supplementary analyses show that U.S.-born Korean women are more likely to live in a household where the foreign-born or bilinguals are present, compared with their 1.5-generation counterparts. U.S.-born Korean women are also more likely to live in ethnically concentrated areas, compared with their 1.5-generation counterparts.

What is the significance of environments in which the mother tongue is used? It seems that young Korean-American women who have never been married are more likely to live with their family or relatives in areas where co-ethnics are concentrated than their married counterparts. That is, the higher rate of fluent bilingualism for U.S.-born Korean women is mainly driven by those who are young and have never been married. U.S.-born Korean women are, on average, younger than their 1.5-generation counterparts. Additionally, they have a higher percentage of women who have never been married. Among the never-married, those who are U.S.-born Korean women, less than 34 years old, have a higher rate of fluent bilingualism than their 1.5-generation counterparts.

TABLE 2
BILINGUAL ABILITY AND ANNUAL WAGE AND SALARY INCOME

	1.5 Generation		Second Generation	
	Men (N=1,370)	Women (N=1,703)	Men (N=839)	Women (N=856)
English Monolingual	74,179 (88,024)	54,056 (60,997)	73,677 (80,574)	57,233 (51,837)
Fluent bilingual	74,940 (79,737)	61,303 (59,856)	63,030 (65,135)	50,431 (46,088)
Limited bilingual	63,055 (62,847)	44,566 (38,874)	52,289 (75,127)	48,394 (48,100)

SOURCE.—2009-2011 American Community Surveys from IPUMS (Ruggles et al. 2010)

NOTE.—Annual wage and salary income was converted into 2011 constant dollars to adjust for the impact of inflation. Numbers in parentheses represent standard deviations.

Gender differences in bilingual competence within the generation also stand out in Table 1. Among the 1.5 generation, men have a higher percentage of fluent bilingualism than women. Among the second generation, however, fluent bilingualism is more common in women than men. Given the fact that intermarriage is more prevalent among women, however, fluent bilingualism is expected to decline over time among U.S.-born Korean women.

Bilingual Ability and Earnings

Table 2 presents the annual wage and salary income for English monolinguals, fluent bilinguals, and limited bilinguals by generation and gender. Limited bilinguals have the lowest earnings, compared with English monolinguals or fluent bilinguals, regardless of gender across generations. Of particular interest is the earnings gap between English monolinguals and fluent bilinguals.

Among the 1.5 generation, fluent bilingual Korean women have higher earnings than their English monolingual counterparts. This earnings pattern is distinct from any other earnings gap between English monolinguals and fluent bilinguals within and across generations. Among the 1.5 generation, fluent bilingual Korean men command only a slightly higher earnings premium than their English monolingual counterparts. Among the U. S.-born, however, both male and female fluent bilinguals have lower annual wage/salary incomes than their English monolingual counterparts.

Besides differential bilingual competence as shown in Table 1, these different patterns of the earnings gap for men and women across generations justify a separate analysis of each group. Each earnings distribution of the corresponding group disperses widely from the mean, resulting in the large standard deviation. In addition, the median wage and salary income for each group is smaller than the mean, suggesting that the earnings distribution is positively skewed with many high income cases. Therefore, the natural logarithm of annual wage and salary income is used in subsequent regression analyses.

Multivariate Results

The Earnings Gaps between English Monolinguals and Bilinguals

Table 3 reports the results from a series of multiple regression analyses with different models for each group separately. Model 1 enters only dummy variables for bilingual ability. Model 2 includes human capital variables, including years of labor market experience (age-years of education-5) and its quadratic term, level of education (high school or less [reference category], some college, BA degree, advanced degree), school attendance (yes, no [reference category]), weeks worked last year, and usual hours worked per week, along with dummy variables for bilingual ability. Model 3 adds to the Model 2 household and community contexts of bilingual competence, such as marital pattern (in-married, intermarried, separated/ divorced/ widowed, never married [reference category]), presence of the foreign-born in the household (yes, no [reference category]), presence of bilinguals in the household (yes, no [reference category]), and ethnic concentration (high, low [reference category]). High ethnic concentration is identified by the Public Use Microdata Area (PUMA) where Koreans constitute more than five percent of the population.

1.5-Generation Korean Men: For 1.5-generation males, fluent bilinguals have slightly higher earnings than their English monolingual counterparts, but this difference in earnings is not statistically significant. When human capital variables are entered along with dummy variables for bilingual competence in the model, fluent bilinguals appear to have lower wage/salary incomes than English monolinguals. Although this earnings gap is not significant, it deserves further investigation. Supplementary analyses show that, among 1.5-generation Korean men, fluent bilinguals have longer labor

market experience and higher educational attainment than their English monolingual counterparts. If these human capital variables are held constant, then annual wage/salary incomes of fluent bilinguals is less than that of English monolinguals, although this gap is not significant. The final model shows that, among 1.5-generation Korean men, limited bilinguals have significantly less earnings than English monolinguals when household and community contexts of bilingual competence are considered.

1.5-Generation Korean Women: Among 1.5-generation Korean women, fluent bilinguals have higher wage/salary incomes than English monolinguals in Model 1. Fluent bilinguals among 1.5-generation Korean women have annual wage/salary incomes 16 percent higher than their English monolingual counterparts. Such an earnings premium remains after controlling for human capital variables in Model 2, although the earnings premium is smaller than that in Model 1. Supplementary analyses show that, like fluent bilinguals among 1.5-generation Korean men, fluent bilinguals among 1.5-generation Korean women have a higher level of educational attainment than English monolinguals. When educational attainment is considered in the model, the earnings premium for fluent bilingualism is reduced because its effect on earnings is in part mediated indirectly through educational attainment. When household and community contexts of bilingual ability are considered in Model 3, the earnings gap is further reduced; yet, there is a significant earnings premium for fluent bilingualism.

U.S.-Born Korean Men: Among U.S.-born Korean men, limited bilinguals in Model 1 have significantly lower annual wage/salary incomes than their English monolingual counterparts, but there is no significant earnings gap between fluent bilinguals and English monolinguals in Model 1. A noteworthy finding across models is that the negative coefficient for fluent bilinguals in Model 1 turns into a positive one when human capital variables are considered in Model 2. The reason for this change is that, compared with English monolinguals, fluent bilinguals are younger with less labor market experience, and have lower educational attainment, as they are still more likely to attend school. When these human capital variables are held constant, fluent bilinguals are at an advantage, if not significantly different. Another noteworthy finding across models is that a non-significant earnings premium for fluent bilingualism in Model 2 becomes significant when household and community contexts of bilingual competence are considered in Model 3. The reason for this change is attributed to differences in household and community contexts between fluent bilinguals and English monolinguals. Compared to English monolinguals, for example, more fluent bilinguals tend to have never been married and are

more likely to live in ethnically concentrated areas. When these household and community contexts of bilingual competence are held constant, fluent bilinguals are significantly at an advantage.

U.S.-Born Korean Women: Among U.S.-born Korean women, fluent bilinguals have lower earnings than English monolinguals in Model 1, although such an earnings penalty is not as significant as it is in the model for U.S.-born Korean men. After controlling for human capital variables in Model 2, the negative coefficient of fluent bilingual competence in Model 1 turns into a positive one in a similar manner observed for U.S.-born Korean men. Yet, unlike in the model for U.S.-born Korean men, the earnings premium appears after further controlling for household and community contexts for bilingual competence, and the difference is not significant.

Predicted Wage/Salary Income

Figure 1 visualizes the predicted annual wage/salary incomes for fluent bilinguals and English monolinguals, calculated from the regression analyses of Model 3 in Table 3. For ease of interpretation, the natural logarithm of annual income is transformed back to the original dollar amount. In addition, the predicted incomes of fluent bilinguals and English monolinguals for each group are compared at four different levels of education (high school, some college, BA degree, advanced degree), holding other variables in the model constant at their mean values. For ease of comparison, moreover, the predicted income of limited bilinguals is not included in the graph.

In Table 3, the significant earnings premium for fluent bilingual competence is found only among 1.5-generation Korean women and U.S.-born Korean men. Figure 1 corroborates these findings. Fluent bilinguals among both 1.5-generation Korean women and U.S.-born Korean men have higher predicted incomes than their English monolingual peers, compared at four levels of education. Additionally, among U.S.-born Korean men, the earnings premium for fluent bilingualism seems to increase slightly with the increase in the level of education. Fluent bilinguals among U.S.-born Korean women appear to be at an advantage, but the earnings premium is not statistically significant. Fluent bilinguals among 1.5-generation Korean men seem to be at a disadvantage, but the earnings penalty is also not statistically significant.

As discussed above, there is evidence that the relationship between bilingual ability and earnings depends on generation and gender. It is also

TABLE 3
THE EARNINGS GAPS BETWEEN ENGLISH MONOLINGUALS AND BILINGUALS

Model	1.5 Generation		Second Generation	
	Male N=1,370	Female N=1,703	Male N=839	Female N=856
Model 1				
(Intercepts + bilingual dummies)				
English monolingual	--	--	--	--
Fluent bilingual	0.073	0.160**	-0.146	-0.094
Limited bilingual	-0.034	-0.161	-0.625***	-0.101
R^2	0.001	0.007	0.017	0.002
Model 2				
(Model 1 + human capital variables)				
English monolingual	--	--	--	--
Fluent bilingual	-0.074	0.122***	0.083	0.059
Limited bilingual	-0.151	0.078	-0.250*	-0.164
R^2	0.555	0.581	0.552	0.606
Model 3				
(Model 2 + family and community contexts)				
English monolingual	--	--	--	--
Fluent bilingual	-0.086	0.114*	0.121*	0.076
Limited bilingual	-0.168*	0.067	-0.212	-0.125
R^2	0.570	0.582	0.558	0.612

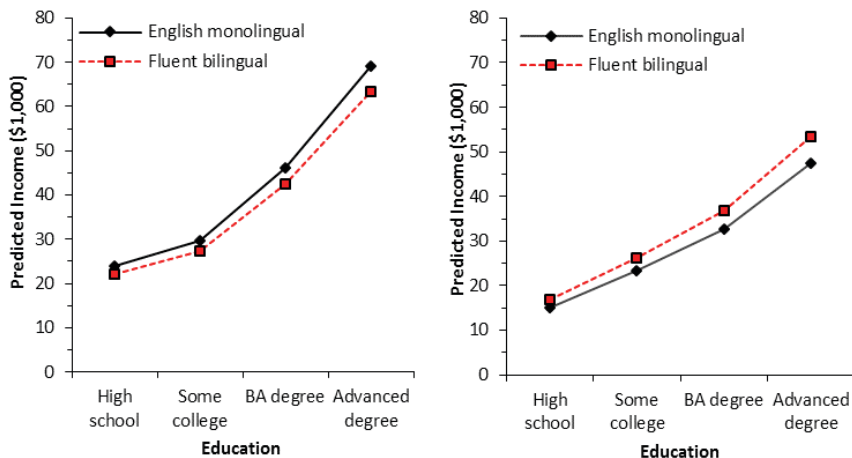
SOURCE.— 2009-2011 American Community Surveys from IPUMS (Ruggles et al. 2010)

NOTE.—*p < .05, ** p < .01, *** p < .001 (two-tailed tests)

possible that the value of bilingual ability may vary across geographic areas and occupations. Of particular concern is whether the generation and gender differential effect can be found in particular geographical areas and occupations where Korean Americans are relatively concentrated.

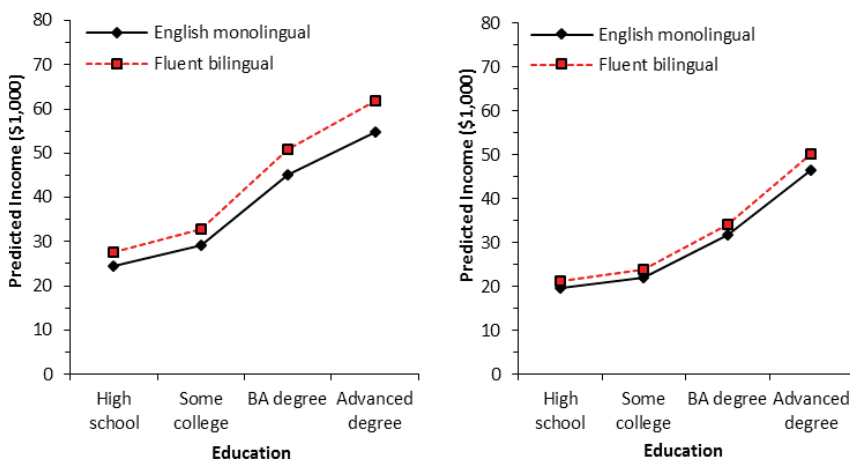
The Economic Value of Bilingualism in Selected Metropolitan Areas

Past studies have found that the value of bilingual ability depends on the absolute and relative size of the local community with the same linguistic characteristics (Bloom and Grenier 1996; Chiswick and Miller 2007). For example, Oh and Min (2011) suggest that the value of bilingual ability for certain ethnic groups depends on the strength of their ethnic economies in



(a) 1.5-Generation Korean Men

(b) Second-Generation Korean Men



(c) 1.5-Generation Korean Women

(d) Second-Generation Korean Women

FIG. 1.—Predicted Wage/Salary Income Estimated from Selected Regression Models.

the metropolitan area. Past studies also have found that residence in ethnic enclaves reduces the earnings penalties for limited English language proficiency (Chiswick and Miller 2002; Fry and Lowell 2003), although it may impede the acquisition of English language proficiency for immigrants and their children. To examine whether the effect of bilingual ability is more salient in ethnic enclaves, 14 metropolitan statistical areas with more than

TABLE 4
EARNINGS GAPS BETWEEN ENGLISH MONOLINGUALS AND BILINGUALS IN
SELECTED METROPOLITAN AREAS

Model	1.5 Generation		Second Generation	
	Male N=1,370	Female N=1,703	Male N=839	Female N=856
Model 1				
(Intercepts + bilingual dummies)				
English monolingual	--	--	--	--
Fluent bilingual	-0.129	-0.067	-0.088	-0.201*
Limited bilingual	-0.131	-0.350**	-0.413*	-0.237
<i>R</i> ²	0.003	0.008	0.009	0.009
Model 2				
(Model 1 + human capital variables)				
English monolingual	--	--	--	--
Fluent bilingual	-0.179***	-0.002	0.133*	0.068
Limited bilingual	-0.139	-0.071	-0.223	-0.179
<i>R</i> ²	0.554	0.563	0.528	0.566
Model 3				
(Model 2 + family and community contexts)				
English monolingual	--	--	--	--
Fluent bilingual	-0.163**	0.040	0.157*	0.151*
Limited bilingual	-0.123	-0.006	-0.209	-0.095
<i>R</i> ²	0.571	0.567	0.541	0.578

SOURCE.—2009-2011 American Community Surveys from IPUMS (Ruggles et al. 2010)

NOTE.—**p* < .05, ** *p* < .01, *** *p* < .001 (two-tailed tests)

20,000 Korean-American residents were selected. It is estimated that two-thirds of total Korean Americans live such enclaves. However, the proportion of the 1.5 generation and the U.S.-born living in these population centers is relatively small, reflecting their spatial dispersal and residential mobility associated with their jobs, schooling, or family formation.

Table 4 presents the results from the analyses of the same models reported in Table 3. As shown in the full model, fluent bilinguals among both U.S.-born Korean men and women receive higher earnings than their English monolingual counterparts. However, bilingualism has no significant effect on earnings for 1.5-generation Korean women. Surprisingly, among 1.5-generation Korean men living in these population centers, fluent

TABLE 5
EARNINGS GAPS BETWEEN ENGLISH MONOLINGUALS AND BILINGUALS IN
MANAGERIAL AND PROFESSIONAL POSITIONS

Model	1.5 Generation		Second Generation	
	Male N=1,370	Female N=1,703	Male N=839	Female N=856
Model 1				
(Intercepts + bilingual dummies)				
English monolingual	--	--	--	--
Fluent bilingual	-0.001	0.137*	-0.121	-0.049
Limited bilingual	-0.163	-0.114	-0.467*	-0.008
<i>R</i> ²	0.002	0.005	0.013	0.001
Model 2				
(Model 1 + human capital variables)				
English monolingual	--	--	--	--
Fluent bilingual	-0.138**	0.111*	0.139	0.179**
Limited bilingual	-0.238*	0.070	-0.136	0.010
<i>R</i> ²	0.502	0.520	0.538	0.589
Model 3				
(Model 2 + family and community contexts)				
English monolingual	--	--	--	--
Fluent bilingual	-0.170**	0.102	0.172*	0.246***
Limited bilingual	-0.241*	0.054	-0.087	0.100
<i>R</i> ²	0.519	0.522	0.541	0.598

SOURCE.—2009-2011 American Community Surveys from IPUMS (Ruggles et al. 2010)

NOTE.—*p < .05, ** p < .01, *** p < .001 (two-tailed tests)

bilinguals earn 16 percent less than their English monolingual counterparts.

The Economic Value of Bilingualism in Managerial and Professional Positions

The economic value of bilingual ability may vary across occupations and labor market sectors. For example, Cortina et al. (2007) reported that bilingual Hispanics who were in the agricultural, mining, and construction sector earned more than their English monolingual counterparts. In addition, bilingual registered nurses are found to have higher earnings than their English monolingual counterparts (Coomer 2011; Kalist 2005). These findings suggest that bilingual ability as a form of human capital may be valued in particular labor markets. Given the fact that more than half of 1.5-generation and U.S.-born Korean Americans have managerial and

professional positions, it is worthwhile to examine the effect of bilingual ability in these occupations.

As shown in Table 5, fluent bilinguals among both U.S.-born Korean men and women earn significantly more (17% and 25%, respectively) than their English monolingual counterparts. However, bilingual ability has no significant effect on earnings for 1.5-generation Korean women. Surprisingly, fluent bilinguals among 1.5-generation Korean men in managerial and professional occupations earn 17 percent less than their English monolingual counterparts. Among 1.5-generation Korean men, the earnings penalty for limited bilingualism in these occupations is more severe, receiving 24 percent less than their English monolingual counterparts.

Conclusion

The economic value of bilingualism has become a recurring theme in economics and sociology alike. Using the 2000 Census, past studies (Shin and Alba 2009; Oh and Min 2011) found no significant earnings premium for fluent bilingualism among 1.5- and second-generation Korean Americans. However, findings from this study suggest that the effect of bilingual ability on earnings depends on generation and gender. For example, the earnings premium for fluent bilingualism was found among 1.5-generation Korean women and U.S.-born Korean men. Findings from this study are different from the past studies for three reasons.

First, this study used the most recent data available—the 2009-2011 American Community Surveys—to examine the effect of fluent bilingualism on earnings. Given the relatively short history of Korean immigration to the United States, it is very important to use the most recent data to include the full spectrum of 1.5-generation and U.S.-born Korean Americans. In addition, the growing trends toward globalization, transnationalism, and multiculturalism cherish bilingual ability in everyday life, although there is no official support for learning and maintaining a mother tongue in the United States. For example, 1.5-generation and U.S.-born Korean Americans are exposed to Korean culture, including drama and music, through the Internet and YouTube. The popularity and visibility of Korean culture in the United States and elsewhere, known as the Korean wave (*hanryu*), helps them to develop ethnic attachment.

Second, this study considered the language-use environment in which 1.5-generation and the U.S.-born Korean Americans speak a language other

than English at home. Both the 2000 Census and the 2009-2011 American Community Surveys ask whether the respondent speaks a language other than English at home. If the respondent speaks a language other than English at home, then both the Census and the ACS further ask which language the respondent speaks and how well the respondent speaks English. However, neither the Census nor the ACS provides information about how fluent the respondent is in a second language. This study considered marital patterns, the presence of foreign-born and bilingual individuals in the household, and ethnic concentration in the residential area as confounding factors affecting both fluency in a second language and earnings. For example, the in-married are more likely to speak a mother tongue at home, and to earn more in the labor market, than their counterparts who have never been married. It is important to control for possible confounding factors to isolate the effect of bilingual ability on earnings.

Finally, this study analyzed the effect of bilingual ability on earnings for men and women across generations separately. One of the reasons is that fluent bilingualism, most prevalent among the 1.5 generation, declines over generations. That is, there is a generational difference in fluent bilingualism among the children of new immigrants. In addition, there is a gender difference in fluent bilingualism within the generation. Because the ACS does not provide information about fluency in a second language, separate analyses of men and women across generations help us to control the complex interaction effects of gender and generation on bilingual ability and earnings. Another reason is that there are differences in the demographic composition between men and women across generations in terms of labor market experience, attending school, marital status, and other indicators of human capital. Therefore, it is more desirable to analyze men and women across generations separately, instead of entering multiple interaction terms in the models.

Another distinct feature of this study is that it considered the possibility of geographical and occupational variations in the economic value of bilingualism. Findings suggest that, for both U.S.-born Korean men and women, fluent bilingualism appears to be valued in managerial and professional occupations, and in major metropolitan areas, where Korean Americans are populated. But there is no further convincing evidence that bilingual language skills themselves are valued in the workplace because fluent bilinguals among 1.5-generation Korean men have the earnings penalty in these selected geographic areas and occupations. For U.S.-born Korean Americans, fluent bilingualism has the earnings premium perhaps

because of its association with unmeasured or unobservable productive resources. For example, fluent bilinguals can access a variety of family and community resources in searching for a job.

The most striking finding in this study is that fluent bilinguals among 1.5-generation Korean men earned less than their English monolingual counterparts in major metropolitan areas with large Korean populations, as well as in managerial and professional occupations. These fluent bilinguals had an earnings penalty perhaps because they spoke English with an accent. This interpretation is consistent with other studies that documented subtle and overt accent discrimination in the labor market (Dávila, Bohara, and Saenz 1993; Lippi-Green 2012; Wang and Kleiner 2001). However, accent discrimination in the labor market is not the sole reason for the earnings penalty. Supplementary analyses show that, among 1.5-generation Korean men, fluent bilinguals are far more likely than their English monolingual counterparts to have occupations in which they are overqualified (18% versus 12%). In addition, they are more likely to concentrate in major metropolitan areas with large Korean populations (59% versus 32%). They may prefer to live in these areas, despite the earnings penalty, perhaps because of family ties and easy access to ethnic goods there.

Findings from this study have significant theoretical and practical implications. In a theoretical sense, the mixed findings are consistent with the recent discussion of bilingualism as indicative of both human capital and ethnicity (Pendakur and Pendakur 2002). Neither the human capital model nor accent discrimination alone can explain these mixed findings. The dual role of bilingual ability as a productive resource and as an ethnic marker, which remains to be theorized in the literature, will guide future research in a new direction. The practical implication of this study is that the net economic value of bilingualism in the labor market may motivate Korean immigrant families and communities to invest more resources for the 1.5 generation and the U.S.-born to learn and maintain their mother tongue. In other words, the pressure on the 1.5 generation and the U.S.-born to assimilate into the mainstream culture, without family and institutional support for learning and maintaining a mother tongue, may result in unintended consequences for their social mobility.

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