

The Employment Status and Employment Assimilation of Marriage Immigrants in Taiwan

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Abstract

This study investigates empirically the employment behavior for the Southeast Asian foreign spouses and the mainland Chinese spouses with a focus on their assimilation process based on the combined data set of the *2003 Survey of Foreign and Mainland Spouses' Life Status* and *2003 Women's Marriage, Fertility and Employment Survey*. The conceptual framework is based on the family labor supply model, human and social capital theory, and immigrant assimilation theory. Our findings from the Probit model of the employment probability indicate that family background variables including the presence of small children and husbands' characteristics play fairly significant roles in determining the employment probability for these marriage immigrants as compared to the influence of the human capital variables. In particular, for spouses from Southeast Asia, each additional child is correlated with a decrease in the working probability of 11.8%, while college education has a positive effect of 2.5% only. Employment assimilation for these marriage immigrants may be confirmed by the finding that the employment probability of foreign spouses rises rapidly with the number of years that have elapsed since migration. This study further apply the nonlinear decomposition analysis developed in Yun (2004) to examine the gap of the employment probability between the Southeast Asian spouses and mainland Chinese spouses as well as that between the native and foreign spouses in Taiwan. Our findings indicate that the employment probability differentials are mostly due to the difference in coefficients and the effects of the two age variables dominate the effect of the other variables.

Keywords: Foreign Spouses, Marriage Immigrants, Employment Probability, Employment Assimilation, Decomposition Analysis

JEL Code: J21, J61

1. Introduction

A sizable body of literature has evolved in the past 30 years that examines the integration of immigrants into the developed countries such as U.S. and U.K. Labor market assimilation is a central issue in this line of literature. This is because most immigrants in developed nations migrate for economic purposes and therefore actively participate in the labor market of the host country. The key hypothesis of labor market assimilation is that poorer initial labor market outcomes among immigrants will be followed by convergence towards the outcomes of the native-born working-age population with time lived in the receiving country. Pioneer works by Chiswick (1978, 1983) and Borjas (1985, 1995) have found that the earnings of immigrant workers increased with years in the host countries. Some studies have extended the attention to employment assimilation based on the comparison of the employment rate of immigrant and native population (see Duleep and Sanders, 1993; Schoeni, 1998 and Clark and Lindley, 2009 for examples).

The number of immigrants through marriage in Taiwan increase rapidly as a result of the continuing growth in the number of cross-border marriages since the early 1990s. According to statistics compiled by the Ministry of Interior, R.O.C. in 2011, there were about 451,470 foreign spouses living in Taiwan, with female spouses from Southeast Asia and mainland China accounting for approximately 95% of them. Although participating in the labor market is not the main reason for the migration of the foreign spouses in Taiwan, quite a few have participated in the labor market. The *2003 Survey of Foreign and Mainland Spouses' Life Status* indicates that about 32% of spouses from Southeast Asia and 24% of spouses from mainland China hold full-time or part-time jobs. These percentages are expected to rise since the

government has been gradually relaxing the work regulations for foreign spouses.¹ As a result, we should pay more attention on the labor market performance of these marriage immigrant women.

The focus of the literature on the labor market performance of immigrants has usually been to determine the trends in employment and earnings of the immigrant population in the host country in order to understand the assimilation process of immigrants. As there is no earning information provided in the *2003 Survey of Foreign and Mainland Spouses' Life Status*, this study aims to examine the employment behavior and the employment assimilation of female immigrants, namely, foreign spouses from Southeast Asia and mainland China. Unlike most immigrants in the U.S. or other developed countries, while the family and their role in it is the main reason for the migration of these foreign spouses in Taiwan, there may be some specific feature of the employment behavior of these marriage immigrants. Therefore, we attempt to find the factors that motivate these female marriage immigrants to participate in the labor market. Examining employment assimilation from a family perspective may shed light on the questions of what kind of government program should be offered to help these marriage immigrants adapt into Taiwan.

Two alternative hypotheses have been proposed to explain the increase in the labor force participation rate (or employment rate) of the immigrants. On the one hand, Chiswick's skills assimilation hypothesis emphasize the role of skill transferability. That is, the level of U.S. labor market skill among immigrants accumulated with time in the U.S. underlies both the apparent growth in immigrant earnings and labor force participation. On the other hand, Reimers (1985) found that

¹ The amendment to Article 48 of the Employment Services Act in 2003 indicates that spouses from Southeast Asia who hold resident certificates in Taiwan can work without applying for additional permits. The addition of Article 17-1 to the Statute Governing Relations between the People of the Taiwan Area and the People of the Mainland Area in 2000 states that spouses from mainland China holding resident certificates can work after applying for permits.

the labor force participation of immigrant women increased with time in the U.S. and this growth can be attributed to cultural assimilation. This study will try to distinguish the skill assimilation effect and the cultural assimilation effect by comparing the employment assimilation between the Southeast Asian and mainland Chinese spouses based on the combined data set of the *2003 Survey of Foreign and Mainland Spouses' Life Status* and *2003 Women's Marriage, Fertility and Employment Survey*.

The employment behavior of foreign spouses in Taiwan should be further studied, not only due to the insufficiency of research in the existing literature, but also because of the growing potential of their labor market participation. This study adds to the growing literature on immigration by documenting the contribution of the foreign spouses to the economic status of their families in Taiwan with a focus on their assimilation process.

2. The Relative Employment Status of Marriage Immigrants

The *2003 Survey of Foreign and Mainland Spouses' Life Status*, the first nationwide survey on foreign spouses in Taiwan, was administered by the Ministry of Interior, R.O.C. and was conducted by selected and trained village administrators and household registration officers as field interviewers, checkers, and supervisors. A total of 240,837 foreign spouses were included in the study, and 73% of them completed the interview. The survey provides data related to the demographic characteristics, socioeconomic backgrounds, and family conditions of foreign spouses. The survey also collected information regarding training program participation and the need for counseling services. The present analysis focuses on the employment status and employment assimilation of female spouses from seven Southeast Asian countries and mainland China, who were mostly migrants through marriage and accounted for more than 85% of total foreign spouses in 2003. We have 72,898 observations from

Southeast Asia (denoted by SEA hereafter) and 79,902 observations from mainland China (denoted by MCH hereafter) in our sample.

The figures in Table 1 indicate that nearly two-third of the foreign spouses is recent immigrants with the time lived in Taiwan less than 5 years as of 2003. The pattern of the time of migration is similar between the SEA and MCH immigrants. It is noticed that among the SEA group, almost 74.0% of the immigrants are from Vietnam among the recent immigrants while this ratio is only about 24.0% among SEA spouses who have migrated into Taiwan before year 1997. SEA immigrants tend to be much younger than MCH immigrants. Nearly 48.3% of the SEA immigrants are of age less than 25, whereas only 12.0% of MCH immigrants are younger than 25 years old in 2003. This gap may be attributed to the difference in the trend of arrival age between SEA and MCH immigrants. Among SEA immigrants, more younger-age spouses migrant into Taiwan in recent years. There is about 77.5% of more recent immigrants are of arrival age less than 25 while this ratio is 59.2% among those who have stayed in Taiwan more than 6 years as of 2003. To the contrary, the proportion of younger-arrival-age immigrants among the MCH group has declined from 46.5% for earlier immigrants to 29.5% for recent immigrants.

The employment status for our sample foreign spouses and native spouses are presented by country of origin in Table 2, which shows that the employment percentage varies significantly across countries of origin. Myanmar has the highest proportion of working foreign spouses (48.3%) while mainland China has the lowest (24.0%) among all the countries. There is an apparent variation in the employment percentage among different age groups across countries of origin as shown in Table 2. The employment percentages for the SEA spouses and MCH spouses are generally smaller than the employment percentage of the native married women reported in Table 2 based on the data of the *2003 Women's Marriage, Fertility and Employment*

Survey. Regarding the employment percentage of foreign spouses with Taiwanese citizenship, there exist smaller yet still apparent differences across countries. For example, this percentage is higher for the Philippines (67.2%) than for Cambodia (49.2%), with the difference being 18.0%.

Table 3 reports the percentage of women working by arrival age and years since migration to shed some light of the assimilation process of these marriage immigrants. Several studies have found that the propensity of immigrant women to work increases with years since migration. The figures in Table 3 show that the employment percentage of our sample women increases with their years since migration and suggest that the assimilation effect found in the literature for economic immigrants of the developed countries also holds for the marriage immigrants in Taiwan. It seems reasonable to expect the assimilation to be easier for younger immigrants compared to the older ones. This is confirmed by a sharper increase in the percentage of working immigrant women with arrival age under 25 than that for those with 25 and older arrival age. For instance, among the SEA groups with arrival age less than 19, the percentage of working women increases from 17.2% to 62.1% with the years since migration while this percentage changes from 32.1% to 41.7% for those with 40-44 arrival age. By comparing the employment assimilation between SEA and MCH, we may be able to tell the difference of skill assimilation and culture assimilation. If we look at those spouses with years since migration more than 6 years, the percentage of working women increase faster among MCH spouse than that among SEA spouses. Compared with SEA spouses, MCH spouses share a more similar culture background with Taiwan women. As a result, culture assimilation may reinforce the skill assimilation effect and make the working percentage of MCH spouses grows faster than that of SEA spouses.

Researchers have emphasized the presence of preschool children to be negatively

associated with female labor force participation. Figures in Table 4 suggest that this negative relationship holds for the SEA immigrants. However, among the MCH women, there is no apparent difference in the employment percentage between immigrant women with and without preschool children. The difference in education shows a stronger impact on the working percentage for the SEA spouses than that for the MCH spouses. There are more regional differentials in the working percentage among the SEA immigrants as compared to that among the MCH immigrants. A greater urban-rural differential in employment percentage among SEA immigrant than that among MCH immigrants is also found as shown in Table 4. Current age seems to be more relevant to the working decision than the arrival age for both the SEA and MCH immigrants. As expected, immigrant women of husbands with full-time work tend to be less likely to work and the employment differential is larger among MCH women than that among SEA women. Finally, for MCH immigrants, holding a citizenship plays a critical role in their working decision as compared to all other factors reported in Table 4.

3. Conceptual Framework and Empirical Specifications

3.1 Conceptual Framework

Female labor supply theory emphasizes that family is a major concern in married women's employment decisions. Women's roles in the family shape and constrain their labor market outcomes (Boyd, 1992). This theory also applies to female immigrants. More specifically, based on the Longitudinal Survey of Immigrants to Australia, Cobb-Clark and Connolly (2001) found that the labor supply decisions of immigrant spouses or 'tied movers', who are viewed as secondary workers in immigrant families, depend on their partners' labor market behavior, including the partners' income and working hours. Following this line of the literature, our conceptual framework of the labor market activity of foreign spouses in Taiwan starts

with the “traditional family” labor supply model. This model suggests that the labor supply of a wife depends on her husband’s attributes or behavior, including those features such as wage rates and labor supply. However, the labor supply of a husband is not affected by the attributes or behavior of his wife. In conjunction with the concept of the human capital earnings function developed by Mincer (1974), the wife’s labor supply is not only a function of her own human capital and her personal characteristics, but is also a function of her husband’s human capital and personal characteristics.

Social capital is another factor that has been emphasized in the immigrant literature. It refers to any resources created through an individual’s relationship with other people, for example, friendship networks. Social capital can be used to improve an individual’s economic well-being. Many studies have discussed the links between social capital and labor force participation, earnings, business start-ups, and job tenure. For example, Aguilera (2002) studied the effects of friendship networks on labor market outcomes and found that friendship networks have a positive influence on labor market participation. In general, making good use of personal networks to obtain better labor market information may lead to labor market advantages (Coleman, 1990; Portes, 1995). To help the immigrants through marriage to assimilate into our society, government and non-profit organizations have provided a number of programs for the foreign spouses in Taiwan. Participating in these programs will extend the outside contacts of foreign spouses and build up their friendship networks. Social capital theory may help explain the effects of non-familial networks on the employment status of these foreign spouses.

The assimilation of immigrants is a key issue in the literature on migration. As for their labor market performance in the host country, the labor-market assimilation hypothesis developed in the literature suggests that poorer initial labor-market

outcomes among immigrants will be followed by convergence towards the outcomes of the native-born working-age population with time lived in the receiving country. Most studies focus on the comparison of the earnings of immigrants and native-born workers in order to test the labor-market assimilation hypothesis, with Chiswick (1978, 1983), Borjas (1985, 1995), Baker and Dwayne (1994), and Barth, Bratsberg and Raaum (2004) being prime examples. A few studies test the labor-market assimilation hypothesis from both the earnings and employment dimensions. Among them, Clark and Lindley (2009) analyze the earnings and employment assimilation for immigrants in the UK and find that the pattern of assimilation varies among different racial and educational groups. A comparison of the labor market outcomes between immigrants and natives is, however, required to formally test for the labor-market assimilation hypothesis. We, therefore, test for the employment assimilation hypothesis based on the combined data set of the *2003 Survey of Foreign and Mainland Spouses' Life Status* and *2003 Women's Marriage, Fertility and Employment Survey*.

Studies on the labor market outcomes of female immigrants in developed countries have also investigated the roles of ethnicity, nativity, and language proficiency in the labor market outcomes of such female immigrants. For example, Hirschman (1982) and Sullivan (1978) argued that different ethnic groups vary in their access to employment-related resources and opportunities, and differences even exist within the same ethnic group due to the variations in nativity or residential status. Yamanaka (1987) compared the labor force participation rates (LFPRs) of Asian women and non-Hispanic white women in the U.S. in the 1980s and found ethnicity to have a significant effect on the LFPRs of Asian women, while nativity was not as influential as expected after controlling for the effects of ethnic enclave opportunities, socioeconomic status, and the family life cycle. With respect to the role of language

proficiency, Boyd (1992) observed that poor language skills are related to lower labor force participation rates, higher unemployment rates, concentration in the manufacturing industry, a higher percentage in full-time jobs, and lower earnings. Indeed, several studies have found that language proficiency has a significantly positive effect on earnings based on various arguments (McManus, 1985; Kossoudji, 1988; Rivera-Batiz, 1990; Chiswick and Miller, 1995).²

To sum up, our empirical model with regard to the employment status of foreign spouses will consider the roles played by family conditions, human capital, social capital, assimilation as well as ethnicity and language proficiency in the employment outcomes of the marriage immigrant.

3.2 Empirical Specifications

The specification of our empirical model is based on the conceptual framework discussed in the previous subsection. As we consider a dichotomous choice for the decision regarding employment status, a typical binary choice model is applied to the analysis of employment status. Specifically, the random utility model is formulated as follows:

$$Y_i^* = X_i' \beta + u_i, \quad Y_i = 1 \quad \text{if} \quad Y_i^* > 0, \quad (1)$$

where Y_i^* is the latent utility for the decision to work (including full-time and part-time jobs), X_i is the vector of explanatory variables related to family background, human capital, social capital, assimilation and other control variables, Y_i denotes the observed working status, and β is a $K \times 1$ coefficient vector. We estimate the

² McManus (1985) argued that if producers' identities are relevant to consumers, or their products are tailored for each customer, then communication skills are important, and a lack of language proficiency is likely to have a detrimental effect on their earnings. However, if products are standardized and there is little need to communicate with each customer face-to-face, then the producers' language skills are not crucial in determining their earnings. Likewise, Kossoudji (1988) stressed that the contribution of language skills to earnings varies by occupation, because jobs are not homogeneous in their use of language. Chiswick and Miller (1995) tackled the endogeneity between language proficiency and earnings to obtain a robust estimation of regression.

employment probability equation in (1) through the Probit model.³

We examine the causes of the difference in the employment decisions between the Southeast Asian foreign spouses and the Mainland Chinese spouses using the decomposition analysis for the nonlinear model developed in Yun (2004), which is a systematic framework by extending the Blinder-Oaxaca decomposition approach to nonlinear models. In the following, we introduce Yun's approach.

Note that Y is a binary variable for employment status which is denoted as 1 for the respondents with full-time or part-time jobs, and 0 otherwise. As specified earlier, we can estimate the employment probability equation in (1) through the Probit model. Accordingly, we can specify the Probit decomposition method for the racial differences in the employment probability between native spouses, denoted by subscript A , and foreign spouses, denoted by subscript B . The difference in Y represents the mean difference between two groups, i.e., the mean employment probability of native spouses, Y_A , and that of foreign spouses Y_B :

$$\bar{Y}_A - \bar{Y}_B = \overline{\Phi(X_A\beta_A)} - \overline{\Phi(X_B\beta_B)},$$

where Φ is the standard normal cumulative distribution function.

The Probit decomposition by setting the natives as the non-discriminatory labor leads to:⁴

$$\bar{Y}_A - \bar{Y}_B = \left[\overline{\Phi(X_A\beta_A)} - \overline{\Phi(X_B\beta_A)} \right] + \left[\overline{\Phi(X_B\beta_A)} - \overline{\Phi(X_B\beta_B)} \right], \quad (2)$$

where the first term in (2) is the difference in characteristics, and the second term is the difference in coefficients. To obtain the detailed decomposition (i.e., the contribution of each covariate to the total difference), the key is to find the proper weight of each covariate to both the characteristics and coefficients effects. Using a first order Taylor expansion with respect to (2), we have the following detailed

³ In our particular data set, the Logit specification produces quite similar results.

⁴ Alternatively, we can pick the foreign spouses as the non-discriminatory labor.

decomposition:

$$\bar{Y}_A - \bar{Y}_B = \sum_{k=1}^K W_{\Delta X}^k \left[\overline{\Phi(X_A \beta_A)} - \overline{\Phi(X_B \beta_A)} \right] + \sum_{k=1}^K W_{\Delta \beta}^k \left[\overline{\Phi(X_B \beta_A)} - \overline{\Phi(X_B \beta_B)} \right], \quad (3)$$

where

$$W_{\Delta X}^k = \frac{\left[(\bar{X}_A^k - \bar{X}_B^k) \beta_A^k \right] \phi(\bar{X}_A \beta_A)}{\left[(\bar{X}_A - \bar{X}_B) \beta_A \right] \phi(\bar{X}_A \beta_A)} = \frac{\left[(\bar{X}_A^k - \bar{X}_B^k) \beta_A^k \right]}{\left[(\bar{X}_A - \bar{X}_B) \beta_A \right]}, \quad (3.1)$$

$$W_{\Delta \beta}^k = \frac{\left[(\beta_A^k - \beta_B^k) \bar{X}_B^k \right] \phi(\bar{X}_B \beta_B)}{\left[(\beta_A - \beta_B) \bar{X}_B \right] \phi(\bar{X}_B \beta_B)} = \frac{\left[(\beta_A^k - \beta_B^k) \bar{X}_B^k \right]}{\left[(\beta_A - \beta_B) \bar{X}_B \right]}, \quad (3.2)$$

$$\sum_{k=1}^K W_{\Delta X}^k = \sum_{k=1}^K W_{\Delta \beta}^k = 1, \quad (3.3)$$

where $W_{\Delta X}^k$ and $W_{\Delta \beta}^k$ are weights of the k th covariate for the characteristics and coefficients effects, respectively, and ϕ denotes the standard normal probability density function. With the weights defined in (3.1) and (3.2), we are able to retrieve the Probit decomposition results through (3).

The dependent variables are the employment status (WORK) of foreign spouses. As for employment status, the employed/non-employed choice rather than the labor force participation decision is measured due to the limitations of the survey questionnaire design. By definition in the survey, the employed include those who have full-time or part-time paid jobs and those who work without pay in a family business; all others are categorized as non-employed. The independent variables are categorized into four sets and their definitions, measurements, and basic descriptive statistics are reported in Table 5.

4. Estimation Results

The estimation results for the employment status for the foreign spouses are presented in Tables 6 and 7. We will first compare the role of family background variables versus human and social capital variables in explaining the employment status of the foreign spouses in Taiwan. The discussion of the effect of assimilation

on the employment probability will then follow, before the decomposition analysis between the SEA and MCH spouses. Finally, we include the sample of native spouses into our analysis and conduct the Probit estimation and the decomposition analysis between native and foreign spouses. The results are reported in Tables 8-11.

4.1 Family Background versus Human and Social Capital Variables

Family Background

The effects of CHILD<6 on employment status parallel the findings from the literature that foreign spouses with more small children are less likely to hold a job (Waite, 1980; Oppenheimer, 1982; Yamanaka, 1987). For spouses from Southeast Asia, each additional child is correlated with a decrease in the working probability of 11.8%. This effect is smaller, representing an average decrease in the probability of working of 5.2%, for spouses from mainland China. These results suggest that a mother's decision to work involves a careful assessment of her time allocation between work and family as child-bearing and childcare are relatively time-consuming.

The effects of the husband's health status are partially consistent with our prior expectations. HEALTHG has a positive impact on employment status, while for HEALTHB and HEALTHVB no significant effects are found. This result indicates that better health may be related to better economic well-being, and so marrying a very healthy husband reduces the probability of working. However, the influence of marrying a husband with a bad or very bad health status on employment probability is insignificant. A possible explanation for this is that when husbands are unhealthy, foreign spouses need on the one hand to stay home to look after them, and to share more of the financial responsibilities of the family by working for pay on the other. Hence, these opposite effects on the working probability may offset each other and yield an insignificant result.

Both variables indicating the husband's employment status, HUSFULLT and HUSPARTT, are found to have negative influences on the employment probability of foreign spouses. Among SEA spouses, those whose husbands work full-time and those whose husbands work part-time have lower probabilities of working than the reference group by 3.1% and 2.0%, respectively. Among MCH spouses, these negative influences are 4.9% and 1.9%, respectively. These results are consistent with the study by Cobb-Clark and Connolly (2001). The husband's educational level is also found to be associated with the employment status of female foreign spouses with the expected sign - that is, foreign spouses who marry husbands with a higher level of education are less likely to work.

The other family background variables, PARENT and SIBLING, are found to have positive effects on the employment probability of SEA spouses, whereas no significant effects are found for MCH spouses. For SEA spouses, the presence of parent(s)-in-law raises the working probability by 2.0%, and the presence of sibling(s)-in-law raises it by 1.5%. On the one hand, this result implies that family members are more likely to help than to create burdens for SEA spouses in terms of domestic chores. On the other hand, it also suggests that living with family members gives rise to an additional financial burden, and so they are encouraged to work.

Human and Social Capital

A foreign spouse's educational level is generally found to have a positive influence on the probability of working, although the influences for SEA spouses differ from those for MCH spouses. Among SEA spouses, those with lower educational attainments have a significantly lower probability of working, while among MCH spouses, only those with a college or above education are found to have a significantly higher probability of working than senior high school graduates. The significantly positive coefficient of the AGE variable indicates that the older the

women are, the more likely they are to work. An additional year of age is associated with an increase in the probability of working of 3.1% for SEA spouses and 2.6% for MCH spouses.

The LANGFLU variable is found to have an insignificant effect on the employment status of SEAs, indicating that speaking the host language fluently has little to do with the employment probability of these marriage immigrants, which is incompatible with previous research (Boyd, 1992; Rosenzweig and Oded, 1997; McManus, 1985; Kossoudji 1988; Rivera-Batiz, 1990; Chiswick and Miller, 1995). However, it is not surprising to observe this finding given the indirect measure of the language ability used in this study. The variable is statistically significant with a negative sign for MCH spouses. A possible explanation is that the accents of MCH spouses may make employers have some reservations in hiring them, even though they can communicate with local people fluently.

Compared to those with little host language ability, foreign spouses with unidentified host language ability (LANGUNCE) are found to have significantly higher probabilities of working in the case of both the SEA and the MCH samples. It is difficult to interpret this result as there are many reasons why we cannot identify their language ability including illness, absence because of working, visiting their home countries, separation, and leaving home for unknown causes, etc.⁵ We may need a more quality measure of the language ability in order to have a better assessment regarding the influence of language ability on the employment probability of the marriage immigrants.

⁵ One may attempt to explain that the finding of the significantly positive effect of the LANGUNCE variable is due to those foreign spouses who are absent from the interview due to working. However, our sample indicates that 8% out of the 21% Southeast Asian spouses with unidentified language ability is attributed to the reason for the absence because of working, and 7% out of the 35% Chinese spouses with unidentified language ability is attributed to the reason for the absence due to working. The employment percentage of these spouses with unidentified language ability is similar to the employment percentage of all foreign spouses reported in Table 1.

As expected, the NUMPROG variable is found to have a significantly positive influence on the employment probability. The results reveal that, for SEA spouses, each additional program participated in is associated with an increase in the working probability of 4.9%, and for MCH spouses the probability is increased by 4.0%. This result parallels previous studies (Coleman, 1990; Portes, 1995; Aguilera, 2002) and therefore confirms that personal networks beyond the family are positively associated with the employment probability of foreign spouses.

In sum, we find that family background variables including the presence of small children and husbands' characteristics play fairly significant roles in determining the employment probability for these foreign spouses as compared to the influence of the human capital variables. Since a high percentage of foreign spouses marry Taiwanese men through commercial agencies,⁶ they know little about their husbands and the Taiwanese culture before entering into their arranged marriages. A lack of familiarity with the environment and culture makes them heavily dependent on their husbands. The family therefore plays an important role in their decision-making. Moreover, their husbands and parent(s)-in-law expect more in terms of their family responsibilities, including childcare, care of the elderly, and various household chores. Thus, it is reasonable that their decision to work is likely to be largely influenced by family-related factors.

A common finding in the literature on female labor supply for Taiwanese women (Chou and Staiger, 2001; Spohr, 2003; Yu, 2005; Chuang and Lin, 2006) suggests that women's human capital variables such as schooling and age are the most significant factors affecting the employment probability for Taiwanese women, while husbands' characteristics play a less important role in this respect. By comparing our empirical

⁶ According to the *2003 Survey of Foreign and Mainland Spouses' Life Status*, about 38% of female spouses met their husbands through commercial agencies and 48% through friends or relatives. Only 13% met their husbands by themselves.

results for the foreign spouses with the findings for the Taiwanese women in the existing literature, we may infer that the marriage immigrants in Taiwan may assume greater family-role orientations when making their employment decisions compared to the native women in Taiwan.

Finally, we find some differences between SEA spouses and MCH spouses. Regarding family background, our findings imply that SEA spouses may be more likely to give up work due to having pre-school children at home. Our data indicate that many more SEA spouses have given birth to children than have MCH spouses.⁷ This may imply that SEA spouses are expected by their husbands and parent(s)-in-law to play more of a role in child-bearing and child-rearing. As a result, SEA spouses will assume a heavier responsibility for caring for children so as to constrain their labor force participation. Moreover, living with parent(s)-in-law or sibling(s)-in-law has a significant effect on the employment status of SEA spouses, but has little effect on the probability of working for MCH spouses. A possible interpretation of this finding is that more SEA spouses are living with their in-laws than are MCH spouses, as indicated in Table 5. This may imply that the families of the SEA spouses are less demanding with regard to the family chores of these foreign spouses because of the presence of in-laws, and they are therefore more likely to participate in the labor market. As for human capital, educational attainments of less than senior high school are associated with lower employment probabilities for SEA spouses, but this situation does not hold for MCH spouses. A Wald test on the equality of the coefficients for the two samples indicates that the estimated coefficients for the SEA spouses are significantly different from those for the MCH spouses.⁸

⁷ According to the *2003 Survey of Foreign and Mainland Spouses' Life Status*, about 71% of Southeast Asian spouses have given birth to children, compared to the ratio of 50% for mainland Chinese spouses. It is of interest noting that approximately 98% of both the Southeast Asian and mainland Chinese spouses are under the age of 40.

⁸ The Wald statistic is 1338.8, which significantly rejects the null hypothesis for the equality of

4.2 Assimilation Effect on Employment Probability

A significantly positive sign of the YSM variable for both the SEA spouses and MCH spouses indicates that the employment probability of foreign spouses rises rapidly with the number of years that have elapsed since migration. Each additional year is correlated with a 7.5% increase in the employment probability for SEA spouses and a 7.0% increase in that for MCH spouses. There is an apparent difference in the employment probability across the duration of residence. Foreign spouses who have been in Taiwan for the mean period of residence (3.6 years) will have about a 7.5% higher probability of working compared to the new arrivals. However, this positive effect on the employment probability will decline with the duration of residence as shown by the negative sign of YSMSQ. In other words, our results imply that the employment probability of these marriage immigrants may catch up to the level that is compatible with native women as they spend time in Taiwan. However, the rate of convergence will decline with the length of their stay.

The results of the interactive terms of the YSM variable and the age group dummy variables show that there is little difference in terms of the assimilation effect among the four age groups for the SEA spouses. A possible interpretation of this finding is that the SEA spouses are more likely to be in their 20's. The age variation is much smaller and therefore it is hard to reflect the effect of the age group on the employment assimilation based on our samples. However, for MCH spouses, a significant difference in the assimilation effect among the four age groups is found. The assimilation effect is stronger for the younger age groups and weaker for the older age groups. This finding is intuitively plausible since it is easier to adapt to a new environment when one is younger.

the coefficients.

4.3 Decomposition Analysis of Employment Probability

We apply the non-linear decomposition method developed by Yun (2004) on the Probit estimation results of the employment probability in order to examine whether the employment probability differentials between the SEA and MCH spouses are due to the difference in characteristics or the difference in coefficients. Table 7 reports the results regarding the Probit decomposition between the SEA spouses and MCH spouses.

As shown in Table 7, the employment probability differentials between the SEA and MCH spouses are mostly attributed to the difference in coefficients. The difference in coefficients, in sum, contributes to increasing the gap of the employment probability, while the difference in characteristics, in sum, tends to reduce the employment probability differentials between the SEA and MCH spouses.

Specifically, the age variables play the most influential role in explaining the employment probability differentials between SEA and MCH spouses. Both the difference in characteristics and difference in coefficients of the age variables contributes to reducing the gap of the employment probability. The presence of small children tends to lower the employment probability. The differences in coefficients contribute to reducing the racial gap in employment probability. The effects of difference in the number of children under age 6 are non-negligible since there is a significant difference in this number between the SEA and MCH spouses as shown in Table 5.

As to the impact of the assimilation variables, the employment probability of the SEA spouses rises with the number of years that have elapsed since migration. This positive effect of the YSM variable is also found for the MCH spouses. However, the differences in coefficients contribute to reducing the racial gap of the employment probability since MCH spouses have larger coefficients. In sum, YSM variable

contributes to reducing the differences in employment probability between SEA and MCH spouses.

We also conduct a similar analysis for native and foreign spouses in Taiwan. The explanatory variables included in the Probit specification are not exactly the same as those shown in Table 6 due to the difference in the contents of the survey questionnaire between the *2003 Survey of Foreign and Mainland Spouses' Life Status* and *2003 Women's Marriage, Fertility and Employment Survey*. The Probit estimation results are reported in Table 8.

Most of the Probit estimation results for the foreign spouses are consistent with our expectation and also lead to similar implications as those indicated in Table 6. As for the native women, similar to the finding in the existing literature, human capital variables such as schooling and age are the most significant factors affecting the employment probability for Taiwanese women, while husbands' characteristics play a less important role in this respect. It is also noticed that, different from the findings for the foreign spouses, husbands' employment status shows a positive and significant impact on native spouses' employment probability. In addition, the YSM variable which represents the potential labor market experience for foreign spouses has a strong influence on their employment decision. However, the potential labor market experience since marriage as denoted by YSM for the native spouses shows no significant role in their employment decision.

The Probit decomposition results between the native and foreign spouses are reported in Tables 9-11. It is noticed that the employment probability differentials between any two groups of spouses (native versus foreign spouses, native versus SEA spouses, or native versus MCH spouses) are mostly due to the difference in coefficients in general. Similar to those found in the employment probability gap between the SEA and MCH spouses, the effects of the two age variables are very large.

However, the decomposition results shown in Table 7 indicate that the role of age variables in the employment probability gap between the SEA and MCH spouses comes from the difference in characteristics while it is mostly due to the difference in coefficients for the gap between any two groups of native and foreign spouses. This finding implies that, in terms of the age effect, the labor market in Taiwan may reward differently to the native and foreign spouses but there is little differential in the labor market reward in this aspect between SEA and MCH spouses.

5. Conclusion

Little is known about the labor market activity of the foreign spouses in Taiwan due to the lack of studies on this issue. Our study attempts to fill this gap in the literature by examining the employment status of female spouses from Southeast Asia and mainland China with a focus on their assimilation process using the nationwide micro data compiled in the *2003 Survey of Foreign and Mainland Spouses' Life Status*. This study further apply the decomposition analysis for the Probit model developed in Yun (2004) to examine the gap of the employment probability between the Southeast Asian spouses and mainland Chinese spouses as well as that between the native and foreign spouses in Taiwan.

The conceptual framework of this study incorporates the family labor supply model, human and social capital theory, and immigrant assimilation theory. The estimation results for the employment probability based on our conceptual framework indicates that family background variables including the presence of small children and husbands' characteristics play fairly significant roles in determining the employment probability for these foreign spouses as compared to the influence of the human capital variables. In particular, for spouses from Southeast Asia, each additional child is correlated with a decrease in the working probability by 11.8%, while college education has a positive effect on their employment probability by 2.5%

only. Employment assimilation for these marriage immigrants may be confirmed based on the finding that the employment probability of foreign spouses rises rapidly with the number of years that have elapsed since migration.

The Probit decomposition analysis suggests that the employment probability differentials between the Southeast Asian and mainland Chinese spouses as well as that between the native and foreign spouses in Taiwan are mostly attributed to the difference in coefficients. The difference in coefficients, in sum, contributes to increasing the gap of the employment probability, while the difference in characteristics, in sum, tends to reduce the employment probability differentials. Moreover, the effects of the two age variables dominate the influence of all other variables in explaining the employment probability differentials.

Some policy implications may be derived based on our empirical results. For example, our findings suggest that the marriage immigrants may assume greater family-role orientations when making their employment decisions compared to the native married women. As a result, policies that aim to encourage the labor market participation of the foreign spouse should be directed through the family channel in order to ensure the policy's effectiveness.

To sum up, this study provides a benchmark platform for future studies on issues related to the labor market behavior of foreign spouses in Taiwan. There are many ways in which this study could be extended in future research. For example, it is essential to have a refined measurement of language fluency to better understand the relationships between the foreign spouses' labor market outcomes and their language skills. Analyses of the earnings and occupational attainments of foreign spouses could also be worthwhile extensions. To make these extensions possible, a more extensive survey of foreign spouses that contains questions regarding the language ability as well as earnings and occupation information should be conducted as soon as possible.

References

- Aguilera, M. B. (2002). The Impact of Social Capital on Labor Force Participation: Evidence from the 2000 Social Capital Benchmark Survey. *Social Science Quarterly*, 83(3), 853-874.
- Baker, M., & Dwayne, B. (1994). The Performance of Immigrants in the Canadian Labor Market. *Journal of Labor Economics*, 12(3), 369-405.
- Barth, E., Bratsberg, B., & Raaum, O. (2004). Identifying Earnings Assimilation of Immigrants under Changing Macroeconomic Conditions. *Scandinavian Journal of Economics*, 106(1), 1-22.
- Borjas, G. J. (1985). Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants. *Journal of Labor Economics*, 3(4), 463-489.
- Borjas, G. J. (1995). Assimilation and Changes in Cohort Quality Revisited: What Happened to Immigrant Earnings in the 1980s? *Journal of Labor Economics*, 13(2), 201-245.
- Boyd, M. (1992). Gender Issues in Immigration and Language Fluency. In B. R. Chiswick (Ed.), *Immigration, Language, and Ethnicity: Canada and the United States*. Washington D.C.: American Enterprise Institute.
- Chiswick, B. R. (1978). The Effect of Americanization on the Earnings of Foreign-born Men. *Journal of Political Economy*, 86(5), 897-921.
- Chiswick, B. R. (1983). An Analysis of the Earnings and Employment of Asian-American Men. *Journal of Labor Economics*, 1(2), 197-214.
- Chiswick, B. R. & Miller, P. W. (1995). The Endogeneity between Language and Earnings—International Analyses. *Journal of Labor Economics*, 13(2), 246-288.
- Chou, Y. J. & Staiger, Douglas (2001). Health Insurance and Female Labor Supply in Taiwan. *Journal of Health Economics*, 20(2), 187-211.

- Chuang, Hwei-Lin & Lin, Eric S. (2006). The Evolution of the Empirical Study of Taiwan's Female Labor Supply. *Taiwan Economic Review*, 34(2), 119-72. (In Chinese)
- Clark, K. & Lindley, J. (2009). Immigrant Assimilation Pre and Post Labour Market Entry: Evidence from the UK Labour Force Survey. *Journal of Population Economics*, 22(1), 175-198.
- Cobb-Clark, D. A. & Connolly, M. D. (2001). A Family Affair: The Labor Market Experience of Immigrant Spouses. *Social Science Quarterly*, 82(4), 796-811.
- Coleman, J. S. (1990). *Foundations of Social Theory*. Cambridge, Mass.: Belknap Press of Harvard University Press.
- Duleep, Harriet & Sanders, Seth (1993). The Decision to Work by Married Immigrant Women. *Industrial and Labor Relations Review*, 46(4), 67-80.
- Hirschman, C. (1982). Immigrants and Minorities: Old Questions for New Directions in Research. *International Migration Review*, 16(2), 474-490.
- Kossoudji, S. (1988). English Language Ability and the Labor Market Opportunities. *Journal of Labor Economics*, 6(2).
- McManus, W. S. (1985). Labor-market Assimilation of Immigrants - The Importance of Language Skills. *Contemporary Policy Issues*, 3(3), 77-89.
- Mincer, J. (1974). *Schooling, Experience, and Earnings*. New York: National Bureau of Economic Research.
- Ministry of Interior, R. O. C. (2004). *2003 Survey of Foreign and Mainland Spouses' Life Status*. Taipei: Ministry of Interior, R.O.C. (In Chinese)
- Oppenheimer, V. K. (1982). *Work and the Family: A Study in Social Demography*. New York: Academic Press.
- Portes, A. (1995). *The Economic Sociology of Immigration: Essays on Networks, Ethnicity, and Entrepreneurship*. New York: Russell Sage.

- Reimers, Cordelia W. (1985). Cultural Differences in Labor Force Participation Among Married Women. *American Economic Review*, 75(2), 251-255.
- Rivera-Batiz, F. L. (1990). English Language Proficiency and the Economic Progress of Immigrants. *Economics Letters*, 34, 295-300.
- Rosenzweig, M. R. & Stark, O. (1997). *Handbook of Population and Family Economics*. New York: Elsevier.
- Schoeni, R. F. (1998). Labor Market Assimilation of Immigrant Women. *Industrial and Labor Relations Review*, 51(3), 483-504.
- Spohr, Chris A. (2003). Formal Schooling and Workforce Participation in a Rapidly Developing Economy: Evidence from 'Compulsory' Junior High School in Taiwan. *Journal of Development Economics*, 70(2), 291-327.
- Sullivan, T. A. (1978). Racial-Ethnic Differences in Labor Force Participation: An Ethnic Stratification Perspective. In F. D. Bean & W. P. Frisbie (Eds.), *The Demography of Racial and Ethnic Groups* (pp. 165-187). New York: Academic Press.
- Waite, L. J. (1980). Working Wives and the Family Life Cycle. *American Journal of Sociology*, 86(2), 272-294.
- Yamanaka, K. (1987). *Labor Force Participation of Asian American Women: Ethnicity, Work, and the Family*. Cornell University.
- Yu, Wei-Hsin (2005). Changes in Women's Postmarital Employment in Japan and Taiwan. *Demography*, November 2005, 42(4), 693-717.
- Yun, Myeong-Su (2004). Decomposing Differences in the First Moment. *Economics Letters*, 82, 275-280.

Table 1. Marriage Immigrants Sample by Age and Years Entered Taiwan

YET/Country of Origin	Age							Sample Size
	<19	20-24	25-29	30-34	35-39	40-44	45+	
YET : 2001-2003								
Southeast Asia	4320	13595	4039	1431	537	219	185	24326
Vietnam	3848	11214	2738	776	227	79	62	18944
Indonesia	409	1501	693	264	102	63	77	3109
Mainland China	28	6670	9182	6235	3904	2410	2641	31070
YET : 1999-2001								
Southeast Asia	170	13453	6684	2275	722	278	200	23782
Vietnam	63	10332	4597	1251	293	90	38	16664
Indonesia	105	2399	1233	487	219	122	124	4689
Mainland China	5	2524	7417	4553	2012	1276	1771	19558
YET : 1997-2001								
Southeast Asia	2	3094	4208	1996	729	283	197	10509
Vietnam	1	1856	2464	901	237	75	28	5562
Indonesia	1	976	957	488	225	119	117	2883
Mainland China	0	327	5009	3837	1393	755	1282	12603
YET : 1995-1997								
Southeast Asia	0	513	2990	1978	815	375	263	6934
Vietnam	0	204	1353	764	216	76	16	2629
Indonesia	0	273	1096	563	306	192	177	2607
Mainland China	0	14	2434	3655	1189	544	1138	8974
YET : 1993-1995								
Southeast Asia	0	38	1471	1501	765	359	261	4395
Vietnam	0	9	296	264	105	23	10	707
Indonesia	0	24	960	806	399	240	194	2623
Mainland China	0	4	641	2346	946	371	837	5145
YET : 1993 or before								
Southeast Asia	0	0	314	874	725	497	542	2952
Vietnam	0	0	26	36	19	5	4	90
Indonesia	0	0	239	488	280	195	183	1385
Mainland China	0	0	62	908	586	249	747	2552
Sample Size	8,952	69,020	61,103	38,677	16,951	8,895	11,094	214,692

Note: YET denotes the year when the foreign spouse entered Taiwan

Table 2. Employment Status of Female Spouses by Country of Origin

	Vietnam	Thailand	Philippines	Cambodia	Myanmar	Malaysia	Indonesia	Southeast Asia	Mainland China	Taiwan
Employment Percentage of All Spouses	28.94	46.07	44.97	28.44	48.32	40.82	35.46	32.31	23.98	43.91
Employment Percentage by Age Group										
15-24	24.65	41.59	28.30	21.63	50.88	42.86	23.68	24.53	10.02	39.87
25-34	35.52	44.36	44.77	35.43	44.01	42.65	40.48	38.33	23.46	59.17
35-44	39.65	50.32	47.67	40.74	58.99	39.26	44.31	44.86	31.85	62.27
45-54	34.21	49.47	50.84	70.00	50.00	44.34	42.13	44.03	33.44	49.09
Employment Percentage of Foreign Spouses with Taiwanese Citizenship	57.70	60.28	67.20	49.24	60.76	61.97	51.45	54.53	56.78	--
Sample Size	44,596	3,180	3,476	2,848	892	610	17,296	72,898	79,902	16,827

Table 3. Percentage of Women Working by Arrival Age and Years since Migration

Arrival Age/ Country of Origin	Years Since Migration							Sample Size
	0-1	1-2	2-4	4-6	6-8	8-10	10+	
<19								
Southeast Asia	17.18% (2514)	20.75% (4314)	26.00% (7853)	35.21% (3096)	49.80% (1769)	59.71% (1092)	62.10% (314)	29.53% (20952)
Vietnam	17.34% (2341)	20.92% (3704)	27.29% (6119)	36.94% (1857)	50.83% (779)	59.29% (226)	- (26)	27.13% (15052)
Indonesia	15.44% (136)	19.03% (536)	20.80% (1524)	33.27% (977)	48.59% (780)	60.35% (744)	65.27% (239)	35.43% (4936)
Mainland China	- (19)	- (22)	14.55% (323)	22.02% (327)	32.89% (377)	50.75% (266)	48.39% (62)	29.37% (1396)
20-24								
Southeast Asia	19.20% (4172)	22.06% (7783)	27.64% (10630)	38.74% (4208)	53.40% (2721)	59.12% (1688)	58.35% (874)	31.32% (32076)
Vietnam	18.59% (3496)	22.33% (6188)	29.32% (7702)	40.91% (2464)	57.10% (1226)	65.18% (313)	72.22% (36)	29.07% (21425)
Indonesia	19.94% (341)	19.15% (1008)	21.66% (1828)	32.71% (957)	48.90% (867)	58.33% (924)	61.07% (488)	34.79% (6413)
Mainland China	6.30% (3526)	9.44% (4236)	16.12% (6801)	23.38% (5009)	39.54% (3809)	57.31% (2326)	65.31% (908)	23.75% (26615)
25-29								
Southeast Asia	24.05% (1289)	26.50% (2170)	27.74% (3439)	39.13% (1996)	50.81% (1415)	53.82% (877)	55.03% (725)	35.35% (11911)
Vietnam	21.42% (845)	23.90% (1385)	29.14% (2107)	43.06% (901)	55.30% (443)	58.54% (123)	- (19)	31.70% (5823)
Indonesia	29.06% (234)	22.41% (406)	18.78% (719)	28.48% (488)	43.02% (444)	56.21% (459)	60.36% (280)	34.69% (3030)
Mainland China	8.63% (4227)	11.54% (4609)	19.74% (5998)	25.20% (3837)	41.25% (2555)	54.19% (1216)	63.99% (586)	22.30% (23028)
30-34								
Southeast Asia	33.26% (469)	31.97% (785)	30.11% (1139)	38.68% (729)	49.33% (594)	49.18% (429)	52.72% (497)	38.73% (4642)
Vietnam	26.42% (265)	29.10% (402)	29.87% (519)	35.86% (237)	50.36% (139)	55.88% (34)	- (5)	32.48% (1601)
Indonesia	34.29% (70)	22.37% (152)	25.00% (288)	32.89% (225)	43.28% (238)	48.70% (269)	54.87% (195)	37.93% (1437)
Mainland China	10.11% (3165)	14.13% (2789)	29.98% (2692)	36.25% (1393)	46.53% (864)	59.17% (458)	61.85% (249)	24.57% (11610)
35-39								
Southeast Asia	38.73% (173)	32.54% (295)	33.26% (439)	44.17% (283)	43.92% (255)	54.27% (199)	50.17% (291)	41.34% (1935)
Vietnam	30.86% (81)	24.56% (114)	30.07% (153)	49.33% (75)	41.94% (31)	- (7)	- (4)	32.90% (465)
Indonesia	- (26)	22.54% (71)	30.59% (170)	37.82% (119)	41.83% (153)	55.56% (144)	49.02% (102)	40.25% (785)
Mainland China	11.44% (2098)	17.82% (1723)	40.75% (1600)	41.19% (755)	50.96% (416)	53.79% (264)	59.20% (201)	28.10% (7057)
40-44								
Southeast Asia	32.10% (81)	44.26% (122)	35.63% (160)	44.35% (124)	57.38% (122)	39.74% (78)	41.67% (144)	42.48% (831)
Vietnam	32.26% (31)	38.46% (39)	32.56% (43)	- (22)	- (9)	- (4)	- (0)	36.49% (148)
Indonesia	- (21)	33.33% (45)	30.26% (76)	42.03% (69)	55.00% (80)	35.09% (57)	43.48% (46)	40.61% (394)
Mainland China	10.98% (1248)	17.80% (927)	45.42% (918)	45.18% (560)	42.60% (392)	50.49% (204)	40.25% (159)	29.63% (4408)
45+								
Southeast Asia	22.81% (57)	26.47% (102)	32.79% (122)	19.18% (73)	41.38% (58)	25.00% (32)	31.78% (107)	29.04% (551)
Vietnam	- (19)	26.47% (34)	- (21)	- (6)	- (2)	- (0)	- (0)	23.17% (82)
Indonesia	- (17)	17.39% (46)	33.33% (84)	16.67% (48)	44.44% (45)	- (26)	28.57% (35)	26.91% (301)
Mainland China	8.55% (1240)	6.53% (1241)	30.18% (1226)	30.06% (722)	22.28% (561)	22.87% (411)	15.50% (387)	18.19% (5788)

Note: 1. Arrival age is calculated by subtracting YSM variable from the Age variable.

2. The figures in parentheses are the number of observations in the corresponding category.

Table 4. Employment Percentage of Foreign Spouses by Characteristics and Country of Origin (%)

	Group			
	SEA	VI	IN	MCH
Total Employment Percentage	32.31	28.94	35.46	23.98
Year Entered Taiwan				
0-4	24.82	24.62	21.58	15.69
4-10+	48.82	46.05	46.85	38.32
Child of Age < 6				
Yes	30.57	28.27	33.09	24.06
No	36.06	30.34	41.81	23.91
Education				
Primary or below	30.48	27.01	36.21	24.88
Junior	32.15	29.46	36.01	23.18
Senior	33.81	30.97	33.70	23.95
College or above	38.76	32.41	34.65	25.44
Urban/Rural				
Urban	26.05	23.40	29.00	23.15
Rural	33.59	30.19	36.31	24.30
Region				
North	30.97	26.43	33.42	25.22
Central	36.06	33.90	38.28	24.05
South	30.77	27.12	36.30	21.71
Residential Status				
Residency	40.94	36.90	42.44	34.00
Citizenship	54.32	57.13	51.40	56.49
Age				
Under 25	24.53	24.65	23.68	10.02
25 and above	39.57	35.85	41.23	25.88
Arrival Age				
Under 25	30.61	28.27	35.07	24.03
25 and above	36.84	31.93	36.20	23.96
Husband with Full Time Job				
Yes	31.47	28.35	34.04	21.88
No	36.15	31.75	41.10	28.58

Note: 1. SEA=Southeast Asia, VI=Vietnam, IN=Indonesia, MCH=Mainland China.

2. Residency denotes holding Permanent Residency status for the SEA spouses and holding Residency status for MCH spouses.

Table 5. Definitions, Measurements and Basic Statistics of Variables for Foreign Spouses

Variables	Definition and Measurement	Mean and SD for Total SE Asian Spouses		Mean and SD for Total Chinese Spouses		Mean and SD for Total Foreign Spouses	
Family Background							
CHILD < 6	Number of children younger than six years old	0.955	(0.80)	0.651	(0.77)	0.796	(0.80)
HEALTHVB	Dummy variable: one if the respondent's husband has very bad health	0.000	(0.02)	0.002	(0.04)	0.001	(0.03)
HEALTHB	Dummy variable: one if the respondent's husband has bad health.	0.005	(0.07)	0.016	(0.13)	0.011	(0.10)
HEALTHG	Dummy variable: one if the respondent's husband has good health	0.048	(0.21)	0.069	(0.25)	0.059	(0.24)
HEALTHVG	The respondent whose husband has very good health is set as the	0.946	(0.23)	0.913	(0.28)	0.929	(0.26)
--- Reference	reference group for husband's health status						
HUSFULLT	Dummy variable: one if the respondent's husband works full-time	0.820	(0.38)	0.686	(0.46)	0.750	(0.43)
HUSPARTT	Dummy variable: one if the respondent's husband works part-time	0.114	(0.32)	0.110	(0.31)	0.112	(0.32)
HUSNOWORK	The respondent whose husband does not work is set as the reference	0.066	(0.25)	0.204	(0.40)	0.138	(0.34)
--- Reference	group for husband's employment status						
HUSPRIMA	Dummy variable: one if the respondent's husband is illiterate, graduated	0.137	(0.34)	0.177	(0.38)	0.158	(0.36)
	from						
HUSJUNIO	Dummy variable: one if the respondent's husband graduated from	0.422	(0.49)	0.295	(0.46)	0.356	(0.48)
	junior high school, or studied by herself						
HUSCOLLE	Dummy variable: one if the respondent's husband graduated from college	0.080	(0.27)	0.157	(0.36)	0.120	(0.33)
HUSSENIOR	The respondent whose husband graduated from senior high school is set	0.361	(0.48)	0.371	(0.48)	0.367	(0.48)
--- Reference	as the reference group for the husband's educational level						
PARENT	Dummy variable: one if the respondent lives with her parent(s)-in-law	0.572	(0.49)	0.389	(0.49)	0.476	(0.50)
SIBLING	Dummy variable: one if the respondent lives with her sibling(s)-in-law	0.184	(0.39)	0.138	(0.34)	0.160	(0.37)
Human and Social Capital							
PRIMARY	Dummy variable: one if the respondent is illiterate, graduated from	0.365	(0.48)	0.202	(0.40)	0.280	(0.45)
	elementary school or studied by himself						
JUNIOR	Dummy variable: one if the respondent graduated junior high school	0.361	(0.48)	0.410	(0.49)	0.387	(0.49)
COLLEGE	Dummy variable: one if the respondent graduated from college	0.064	(0.24)	0.107	(0.31)	0.086	(0.28)
SENIOR	The respondent that graduated from senior high school is set as the	0.211	(0.41)	0.281	(0.45)	0.247	(0.43)
--- Reference	reference group for educational level						

Table 5. Definitions, Measurements and Basic Statistics of Variables for Foreign Spouses (Continued)

Variables	Definition and Measurement	Mean and SD for Total SE Asian Spouses		Mean and SD for Total Chinese Spouses		Mean and SD for Total Foreign Spouses	
AGE	The respondent's age at the time of survey	26.465	(6.54)	32.776	(8.93)	29.765	(8.49)
AGESQ	The squared term of respondent's age	743.172	(419.13)	1153.959	(732.16)	957.981	(637.35)
LANGFLU	Dummy variable: one if the respondent speaks the host language fluently	0.577	(0.49)	0.619	(0.49)	0.599	(0.49)
LANGUNCE	Dummy variable: one if the respondent's language skills are	0.206	(0.40)	0.343	(0.47)	0.278	(0.45)
LANGNOFLU	The respondent that does not speak the host language fluently is set as the	0.217	(0.41)	0.038	(0.19)	0.123	(0.33)
--- Reference	reference group for language fluency						
NUMPROG	Number of programs or courses attended in the past	0.216	(0.46)	0.060	(0.28)	0.135	(0.38)
Assimilation Effect							
YSM	The respondent's years since migration	3.693	(2.65)	3.597	(2.76)	3.643	(2.71)
YSMSQ	The squared term of respondent's YSM	20.645	(26.84)	20.546	(26.62)	20.593	(26.73)
YSM-AGE1524	Interactive term of YSM and AGE1524 - a dummy variable of value one if the respondent's age is between 15 and 24 years old in 2003	1.104	(1.51)	0.198	(0.68)	0.630	(1.24)
YSM-AGE2534	Interactive term of YSM and AGE2534 - a dummy variable of value one if the respondent's age is between 25 and 34 years old in 2003	1.890	(2.84)	2.191	(2.75)	2.047	(2.79)
YSM-AGE3544	Interactive term of YSM and AGE3544 - a dummy variable of value one if the respondent's age is between 35 and 44 years old in 2003	0.543	(1.98)	0.739	(2.01)	0.646	(2.00)
YSM-AGE4554	Interactive term of YSM and AGE4554 - a dummy variable of value one if the respondent's age is between 45 and 54 years old in 2003	0.133	(1.04)	0.300	(1.33)	0.220	(1.21)
RESIDE	Dummy variable: one if the immigrant status is residency	---	---	0.152	(0.36)		
P-RESIDE	Dummy variable: one if the immigrant status is permanent residency Only respondents from Southeast Asia may hold this status	0.007	(0.08)	---	---	0.083	(0.28)
CITIZENS	Dummy variable: one if the immigrant status is citizenship	0.192	(0.39)	0.107	(0.31)	0.147	(0.35)
RESIDE and STAY	The respondent whose immigrant status is residency (stay) is set as the	0.801	(0.40)	0.741	(0.44)	0.770	(0.42)
--- Reference	reference group for Southeast Asian (Mainland Chinese) spouses						

Table 5. Definitions, Measurements and Basic Statistics of Variables for Foreign Spouses (Continued)

Variables	Definition and Measurement	Mean and SD for Total SE Asian Spouses		Mean and SD for Total Chinese Spouses		Mean and SD for Total Foreign Spouses	
CITY	Dummy variable: one if the respondent lives in a city or a municipality	0.081	(0.27)	0.121	(0.33)	0.102	(0.30)
MUNI	Dummy variable: one if the respondent lives in a municipality	0.089	(0.28)	0.156	(0.36)	0.124	(0.33)
COUNTRY	Dummy variable: one if the respondent lives in a country	0.831	(0.37)	0.723	(0.45)	0.775	(0.42)
---	Reference						
NORTH	Dummy variable: one if the respondent lives in the north of Taiwan	0.376	(0.48)	0.475	(0.50)	0.428	(0.49)
CENTRAL	Dummy variable: one if the respondent lives in central Taiwan	0.300	(0.46)	0.218	(0.41)	0.257	(0.44)
EAST	Dummy variable: one if the respondent lives in the east of Taiwan	0.022	(0.15)	0.029	(0.17)	0.026	(0.16)
KINMA	Dummy variable: one if the respondent lives in Kinmen County or Lienchiang County	0.003	(0.06)	0.006	(0.08)	0.005	(0.07)
SOUTH	The respondent that lives in the south of Taiwan is set as the reference	0.299	(0.46)	0.272	(0.44)	0.285	(0.45)
---	Reference group for region of residence						

Note: 1. SD, the standard deviation, is in parenthesis.

2. The sample size of total Southeast Asian spouses is 72898; the sample size of total Chinese spouses is 79902.

Table 6. Binary Probit Estimates of Employment Probability for Foreign Spouses

Variable	Foreign Spouses			Southeast Asian Spouses			Mainland Chinese Spouses			
	Coeff.	t-ratio	ME	Coeff.	t-ratio	ME	Coeff.	t-ratio	ME	
<i>Family Background:</i>										
CHILD < 6	-0.268 ***	(-46.89)	-0.087	-0.335 ***	(-42.05)	-0.118	-0.182 ***	(-21.03)	-0.052	
HEALTHVB	0.059	(0.56)	0.020	-0.007	(-0.03)	-0.002	0.064	(0.52)	0.019	
HEALTHB	0.010	(0.28)	0.003	0.001	(0.01)	0.000	0.014	(0.34)	0.004	
HEALTHG	0.177 ***	(11.65)	0.060	0.123 ***	(5.18)	0.044	0.217 ***	(10.82)	0.067	
HUSFULLT	-0.122 ***	(-9.69)	-0.040	-0.088 ***	(-4.13)	-0.031	-0.166 ***	(-10.11)	-0.049	
HUSPARTT	-0.073 ***	(-4.75)	-0.023	-0.058 **	(-2.33)	-0.020	-0.069 ***	(-3.34)	-0.019	
HUSPRIMA	0.126 ***	(10.91)	0.042	0.031 *	(1.84)	0.011	0.151 ***	(9.16)	0.045	
HUSJUNIO	0.066 ***	(7.68)	0.021	0.027 **	(2.35)	0.010	0.057 ***	(4.38)	0.017	
HUSCOLLE	-0.112 ***	(-8.90)	-0.035	-0.047 **	(-2.31)	-0.016	-0.111 ***	(-6.66)	-0.031	
PARENT	0.039 ***	(4.82)	0.013	0.058 ***	(5.38)	0.020	-0.009	(-0.71)	-0.003	
SIBLING	0.018 *	(1.71)	0.006	0.044 ***	(3.23)	0.015	-0.003	(-0.17)	-0.001	
<i>Human and Social Capital:</i>										
PRIMARY	0.005	(0.46)	0.002	-0.083 ***	(-5.95)	-0.029	0.021	(1.36)	0.006	
JUNIOR	-0.006	(-0.60)	-0.002	-0.021	(-1.49)	-0.007	0.005	(0.40)	0.001	
COLLEGE	0.070 ***	(4.88)	0.023	0.071 ***	(3.11)	0.025	0.070 ***	(3.75)	0.021	
AGE	0.025 ***	(7.29)	0.008	0.087 ***	(11.21)	0.031	0.091 ***	(16.71)	0.026	
AGESQ	0.000 ***	(-9.74)	0.000	-0.001 ***	(-10.36)	0.000	-0.001 ***	(-16.55)	0.000	
LANGFLU	-0.127 ***	(-10.97)	-0.042	-0.021	(-1.57)	-0.007	-0.088 ***	(-3.14)	-0.026	
LANGUNCE	0.182 ***	(14.57)	0.061	0.431 ***	(27.73)	0.159	0.181 ***	(6.33)	0.053	
NUMPROG	0.206 ***	(22.82)	0.067	0.140 ***	(12.89)	0.049	0.138 ***	(7.84)	0.040	
<i>Assimilation Effect:</i>										
YSM	0.214 ***	(23.31)	0.069	0.212 ***	(11.06)	0.075	0.245 ***	(21.20)	0.070	
YSMSQ	-0.017 ***	(-29.63)	-0.005	-0.012 ***	(-13.72)	-0.004	-0.021 ***	(-25.11)	-0.006	
YSM-AGE1524	0.091 ***	(11.33)	0.030	0.024	(1.40)	0.009	0.091 ***	(7.36)	0.026	
YSM-AGE2534	0.076 ***	(10.33)	0.024	0.013	(0.76)	0.005	0.074 ***	(8.65)	0.021	
YSM-AGE3544	0.077 ***	(10.91)	0.025	-0.009	(-0.56)	-0.003	0.069 ***	(8.13)	0.020	
YSM-AGE4554	0.069 ***	(10.91)	0.022	-0.007	(-0.52)	-0.003	0.056 ***	(7.50)	0.016	
<i>Other Control Variable:</i>										
P-RESIDE/RESIDE	0.164 ***	(11.99)	0.055	0.155 ***	(2.64)	0.056	0.286 ***	(18.09)	0.089	
CITIZEN	0.534 ***	(40.78)	0.190	0.422 ***	(25.72)	0.156	0.756 ***	(31.63)	0.260	
CITY	-0.126 ***	(-10.20)	-0.039	-0.125 ***	(-6.57)	-0.043	-0.082 ***	(-4.96)	-0.023	
MUNI	-0.136 ***	(-11.56)	-0.043	-0.249 ***	(-12.97)	-0.083	-0.035 **	(-2.30)	-0.010	
NORTH	0.053 ***	(6.01)	0.017	0.020	(1.59)	0.007	0.083 ***	(6.47)	0.024	
CENTRAL	0.111 ***	(11.10)	0.036	0.116 ***	(8.71)	0.041	0.081 ***	(5.25)	0.024	
EAST	0.022	(0.95)	0.007	-0.067 *	(-1.90)	-0.023	0.131 ***	(4.07)	0.040	
KINMA	-0.300 ***	(-5.31)	-0.087	-0.668 ***	(-6.18)	-0.187	-0.053	(-0.77)	-0.015	
CONSTANT	-1.521 ***	(-25.12)		-2.238 ***	(-19.65)		-3.126 ***	(-29.27)		
Chi-squared	19,671.18			9,150.45			12,367.88			
Sample Size	152,800			72,898			79,902			

Notes: *** Statistical significance level at 1%. ** Statistical significance level at 5%. * Statistical significance level at 10%.

Table 7. Probit Decompsiton of Employment Probability-Southeast Asian and Mainland Chinese Spouses

Variable	Decomposition (YUN)		Decomposition (FAIRLIE)			
	Diff. in Characteristics		Diff. in Coefficients		Diff. in Characteristics	
Family Background:						
CHILD < 6	-0.0357	(-42.88)	-0.0290	(-34.80)	-0.0426	(-51.27)
HEALTHVB	0.0000	(0.00)	0.0000	(-0.04)	0.0000	(0.00)
HEALTHB	0.0000	(-0.01)	0.0000	(-0.06)	0.0000	(-0.01)
HEALTHG	-0.0009	(-1.05)	-0.0018	(-2.21)	-0.0009	(-1.10)
HUSFULLT	-0.0041	(-4.90)	0.0155	(18.64)	-0.0042	(-5.00)
HUSPARTT	-0.0001	(-0.08)	0.0003	(0.42)	0.0000	(-0.01)
HUSILLIT	-0.0004	(-0.52)	-0.0061	(-7.31)	-0.0005	(-0.58)
HUSJUNIO	0.0012	(1.48)	-0.0025	(-3.02)	0.0011	(1.38)
HUSCOLLE	0.0013	(1.51)	0.0029	(3.45)	0.0011	(1.31)
PARENT	0.0037	(4.49)	0.0075	(9.04)	0.0036	(4.35)
SIBLING	0.0007	(0.84)	0.0018	(2.21)	0.0006	(0.74)
Human and Social Capital:						
PRIMARY	-0.0047	(-5.66)	-0.0061	(-7.27)	-0.0041	(-4.92)
JUNIOR	0.0003	(0.42)	-0.0030	(-3.61)	0.0003	(0.39)
COLLEGE	-0.0011	(-1.31)	0.0000	(0.05)	-0.0010	(-1.15)
AGE	-0.1927	(-231.58)	-0.0347	(-41.70)	-0.1602	(-192.98)
AGESQ	0.1881	(226.02)	-0.0429	(-51.57)	0.1536	(185.03)
LANGFLU	0.0003	(0.37)	0.0120	(14.47)	0.0001	(0.18)
LANGUNCE	-0.0207	(-24.84)	0.0246	(29.52)	-0.0203	(-24.49)
NUMPROG	0.0076	(9.15)	0.0000	(0.01)	0.0072	(8.69)
Assimilation Effect:						
YSM	0.0071	(8.59)	-0.0347	(-41.72)	0.0139	(16.70)
YSMSQ	-0.0004	(-0.50)	0.0527	(63.31)	-0.0003	(-0.40)
YSM-AGE1524	0.0075	(9.04)	-0.0038	(-4.56)	0.0072	(8.62)
YSM-AGE2534	-0.0013	(-1.56)	-0.0386	(-46.40)	-0.0012	(-1.40)
YSM-AGE3544	0.0006	(0.76)	-0.0164	(-19.73)	0.0006	(0.77)
YSM-AGE4554	0.0004	(0.53)	-0.0055	(-6.55)	0.0005	(0.55)
Other Control Variable:						
P-RESIDE/RESIDE	-0.0079	(-9.54)	-0.0055	(-6.66)	-0.0079	(-9.46)
CITIZENS	0.0128	(15.39)	-0.0100	(-12.06)	0.0139	(16.76)
CITY	0.0018	(2.10)	-0.0015	(-1.79)	0.0018	(2.15)
MUNI	0.0058	(7.00)	-0.0095	(-11.46)	0.0064	(7.71)
NORTH	-0.0007	(-0.84)	-0.0084	(-10.15)	-0.0007	(-0.85)
CENTRAL	0.0033	(3.97)	0.0022	(2.64)	0.0036	(4.32)
EAST	0.0001	(0.16)	-0.0016	(-1.92)	0.0001	(0.17)
KINMA	0.0007	(0.85)	-0.0011	(-1.33)	0.0009	(1.10)
CONSTANT	n.a.	n.a.	0.2535	(304.73)	n.a.	n.a.
Sum	-0.0271	(-32.59)	0.1103	(132.59)	-0.0280	(-33.46)

Note: Shares of $F(X_A B_A) - F(X_B B_B) = 0.083$ are reported in parentheses in percentage.

Table 8. Binary Probit Estimates of Employment Probability for Native and Foreign Spouses

Variable	Native Spouses			Foreign Spouses			Southeast Asian Spouses			Mainland Chinese Spouses			
	Coeff.	t-ratio	ME	Coeff.	t-ratio	ME	Coeff.	t-ratio	ME	Coeff.	t-ratio	ME	
<i>Family Background:</i>													
CHILD < 6	-0.207 ***	-8.49	-0.078	-0.259 ***	-46.42	-0.084	-0.325 ***	-41.69	-0.115	-0.195 ***	-23.38	-0.057	
HUSFULLT	0.483 ***	15.59	0.175	-0.155 ***	-12.96	-0.052	-0.147 ***	-7.27	-0.053	-0.184 ***	-11.75	-0.055	
HUSPARTT	0.464 ***	4.20	0.182	-0.097 ***	-6.46	-0.031	-0.100 ***	-4.11	-0.035	-0.084 ***	-4.16	-0.024	
HUSPRIMA	-0.058	-1.56	-0.022	0.122 ***	10.67	0.041	0.024	1.47	0.009	0.137 ***	8.42	0.041	
HUSJUNIO	-0.122 ***	-3.83	-0.045	0.066 ***	7.74	0.022	0.025 **	2.15	0.009	0.052 ***	3.99	0.015	
HUSCOLLE	-0.080 **	-2.39	-0.030	-0.111 ***	-8.85	-0.035	-0.054 ***	-2.69	-0.019	-0.096 ***	-5.82	-0.027	
<i>Human Capital:</i>													
PRIMARY	-0.080 **	-2.25	-0.030	0.023 **	2.27	0.007	-0.076 **	-5.54	-0.027	0.030 **	1.94	0.009	
JUNIOR	-0.211 ***	-3.74	-0.077	-0.008	-0.88	-0.003	-0.017	-1.27	-0.006	-0.001	-0.06	0.000	
COLLEGE	0.643 ***	12.52	0.251	0.056 ***	3.96	0.019	0.038 *	1.69	0.014	0.077 ***	4.13	0.023	
AGE	0.151 ***	8.97	0.057	0.025 ***	7.19	0.008	0.082 ***	10.71	0.029	0.096 ***	17.35	0.028	
AGESQ	-0.002 ***	-10.82	-0.001	0.000 ***	-9.15	0.000	-0.001 ***	-9.97	0.000	-0.001 ***	-16.51	0.000	
<i>Assimilation Effect/Potential Labor Market Experience:</i>													
YSM	0.012	1.55	0.005	0.180 ***	19.99	0.059	0.223 ***	11.77	0.079	0.176 ***	15.83	0.051	
YSMSQ	0.000	-0.80	0.000	-0.011 ***	-19.46	-0.003	-0.011 ***	-12.82	-0.004	-0.009 ***	-12.27	-0.003	
YSM-AGE1524	-0.029	-1.05	-0.011	0.112 ***	14.08	0.037	0.039 **	2.26	0.014	0.101 ***	8.21	0.029	
YSM-AGE2534	-0.018 **	-3.06	-0.007	0.093 ***	12.75	0.030	0.037 **	2.23	0.013	0.088 ***	10.30	0.026	
YSM-AGE3544	-0.013 ***	-4.46	-0.005	0.087 ***	12.44	0.028	0.008	0.51	0.003	0.079 ***	9.34	0.023	
YSM-AGE4554	-0.006 ***	-3.69	-0.002	0.071 ***	11.41	0.023	0.002	0.18	0.001	0.057 ***	7.74	0.017	
<i>Other Control Variable:</i>													
CITY	-0.160 ***	-4.87	-0.059	-0.122 ***	-10.01	-0.039	-0.121 ***	-6.45	-0.042	-0.069 ***	-10.01	-4.190	
MUNI	0.009	0.31	0.004	-0.148 ***	-12.65	-0.046	-0.273 ***	-14.36	-0.091	-0.039 ***	-12.65	-2.580	
NORTH	-0.013	-0.54	-0.005	0.051 ***	5.82	0.017	0.020 *	1.62	0.007	0.090 ***	5.82	7.160	
CENTRAL	-0.045	-1.06	-0.017	0.123 ***	12.53	0.041	0.134 ***	10.24	0.048	0.084 ***	12.53	5.550	
EAST	-0.018	-0.32	-0.007	0.032	1.38	0.011	-0.070 **	-1.99	-0.024	0.142 ***	1.38	4.450	
CONSTANT	-2.693 ***	-8.23		-1.447 ***	-24.25	n.a.	-2.004 ***	-17.93	n.a.	-3.119 ***	-24.25	-29.990	
Chi-squared	4,589.48			15,908.29			6,837.98			10,659.16			
Sample Size	16,827			152,800			72,898			79,902			

Notes: 1. YSM variable denotes years since being married for native spouses. This variable represents the potential labor market experience after marriage.

2. *** Statistical significance level at 1%. ** Statistical significance level at 5%. * Statistical significance level at 10%.

Table 9. Probit Decomposition of Employment Probability-Native and Foreign Spouses

Variable	Decomposition (YUN)				Decomposition (FAIRLIE)	
	Diff. in Characteristics		Diff. in Coefficients		Diff. in Characteristics	
Family Background:						
CHILD < 6	0.0089	(5.61)	0.0141	(8.89)	0.0268	(16.80)
HUSFULLT	-0.0028	(-1.74)	0.1650	(103.82)	0.0011	(0.67)
HUSPARTT	-0.0037	(-2.35)	0.0217	(13.63)	-0.0153	(-9.61)
HUSPRIMA	-0.0007	(-0.45)	-0.0098	(-6.16)	-0.0018	(-1.13)
HUSJUNIO	0.0017	(1.05)	-0.0230	(-14.48)	0.0052	(3.23)
HUSCOLLE	-0.0007	(-0.43)	0.0013	(0.81)	-0.0030	(-1.86)
Human Capital:						
PRIMARY	-0.0007	(-0.46)	-0.0099	(-6.21)	-0.0009	(-0.55)
JUNIOR	0.0050	(3.13)	-0.0270	(-16.98)	0.0178	(11.16)
COLLEGE	0.0030	(1.88)	0.0175	(11.01)	0.0131	(8.18)
AGE	0.2072	(130.36)	1.2962	(815.38)	0.2234	(140.05)
AGESQ	-0.2412	(-151.69)	-0.5472	(-344.22)	-0.3194	(-200.26)
Assimilation Effect/Potential Labor Market Experience:						
YSM	0.0198	(12.45)	-0.2114	(-132.97)	0.0906	(56.78)
YSMSQ	-0.0078	(-4.90)	0.0740	(46.54)	-0.0328	(-20.57)
YSM-AGE1524	0.0013	(0.81)	-0.0306	(-19.22)	0.0059	(3.72)
YSM-AGE2534	0.0013	(0.82)	-0.0781	(-49.15)	0.0061	(3.81)
YSM-AGE3544	-0.0037	(-2.33)	-0.0224	(-14.06)	-0.0182	(-11.40)
YSM-AGE4554	-0.0032	(-1.99)	-0.0059	(-3.72)	-0.0154	(-9.65)
Other Control Variable:						
CITY	-0.0006	(-0.35)	-0.0013	(-0.83)	-0.0025	(-1.59)
MUNI	0.0000	(0.02)	0.0067	(4.21)	0.0002	(0.10)
NORTH	0.0001	(0.04)	-0.0094	(-5.91)	0.0003	(0.16)
CENTRAL	0.0006	(0.39)	-0.0148	(-9.34)	0.0029	(1.84)
EAST	0.0000	(-0.01)	-0.0004	(-0.28)	-0.0001	(-0.06)
CONSTANT	n.a.	n.a.	-0.4302	(-270.61)	n.a.	n.a.
Sum	-0.0161	(-10.15)	0.1751	(110.15)	-0.0163	(-10.21)

Notes: 1. Shares of $F(X_A B_A) - F(X_B B_B) = 0.159$ are reported in parentheses in percentage.

2. YSM variable denotes years since being married for native spouses.

This variable represents the potential labor market experience after marriage.

Table 10. Probit Decomposition of Employment Probability-Native and Southeast Asian Spouses

Variable	Decomposition (YUN)				Decomposition (FAIRLIE)	
	Diff. in Characteristics		Diff. in Coefficients		Diff. in Characteristics	
Family Background:						
CHILD < 6	-0.0153	(-13.21)	0.0387	(33.48)	0.0351	(30.29)
HUSFULLT	0.0072	(6.20)	0.1783	(154.20)	-0.0075	(-6.44)
HUSPARTT	0.0051	(4.38)	0.0221	(19.15)	-0.0150	(-12.94)
HUSPRIMA	0.0011	(0.93)	-0.0039	(-3.36)	-0.0020	(-1.76)
HUSJUNIO	-0.0031	(-2.65)	-0.0214	(-18.52)	0.0075	(6.46)
HUSCOLLE	0.0012	(1.07)	-0.0007	(-0.61)	-0.0040	(-3.48)
Human Capital:						
PRIMARY	0.0003	(0.23)	-0.0004	(-0.37)	0.0015	(1.31)
JUNIOR	-0.0061	(-5.24)	-0.0241	(-20.84)	0.0157	(13.58)
COLLEGE	-0.0055	(-4.74)	0.0133	(11.52)	0.0183	(15.75)
AGE	-0.3271	(-282.92)	0.6313	(546.13)	0.2582	(222.70)
AGESQ	0.3673	(317.74)	-0.2227	(-192.61)	-0.3329	(-287.18)
Assimilation Effect/Potential Labor Market Experience:						
YSM	-0.0262	(-22.70)	-0.2684	(-232.21)	0.0907	(78.27)
YSMSQ	0.0104	(8.96)	0.0782	(67.66)	-0.0331	(-28.58)
YSM-AGE1524	-0.0031	(-2.70)	-0.0256	(-22.18)	0.0107	(9.20)
YSM-AGE2534	-0.0014	(-1.24)	-0.0360	(-31.15)	0.0050	(4.29)
YSM-AGE3544	0.0051	(4.38)	-0.0040	(-3.43)	-0.0187	(-16.09)
YSM-AGE4554	0.0043	(3.70)	-0.0004	(-0.35)	-0.0153	(-13.20)
Other Control Variable:						
CITY	0.0011	(0.94)	-0.0011	(-0.93)	-0.0038	(-3.24)
MUNI	-0.0001	(-0.07)	0.0086	(7.48)	0.0003	(0.24)
NORTH	0.0000	(-0.00)	-0.0043	(-3.71)	0.0000	(0.01)
CENTRAL	-0.0010	(-0.88)	-0.0185	(-16.01)	0.0036	(3.12)
EAST	0.0000	(0.03)	0.0004	(0.35)	-0.0001	(-0.10)
CONSTANT	n.a.	n.a.	-0.2380	(-205.88)	n.a.	n.a.
Sum	0.0141	(12.20)	0.1015	(87.80)	0.0141	(12.20)

Notes: 1. Shares of $F(X_A B_A) - F(X_B B_B) = 0.116$ are reported in parentheses in percentage.

2. YSM variable denotes years since being married for native spouses.

This variable represents the potential labor market experience after marriage.

Table 11. Probit Decomposition of Employment Probability-Native and Mainland Chinese Spouses

Variable	Decomposition (YUN)				Decomposition (FAIRLIE)	
	Diff. in Characteristics		Diff. in Coefficients		Diff. in Characteristics	
Family Background:						
CHILD < 6	0.0136	(6.84)	-0.0026	(-1.29)	0.0199	(9.98)
HUSFULLT	-0.0007	(-0.37)	0.1509	(76.03)	0.0069	(3.46)
HUSPARTT	-0.0076	(-3.83)	0.0199	(10.04)	-0.0159	(-8.01)
HUSPRIMA	-0.0013	(-0.65)	-0.0114	(-5.74)	-0.0016	(-0.82)
HUSJUNIO	0.0023	(1.13)	-0.0169	(-8.51)	0.0032	(1.59)
HUSCOLLE	-0.0009	(-0.47)	0.0008	(0.42)	-0.0021	(-1.04)
Human Capital:						
PRIMARY	-0.0025	(-1.25)	-0.0073	(-3.68)	-0.0029	(-1.44)
JUNIOR	0.0111	(5.58)	-0.0284	(-14.29)	0.0191	(9.62)
COLLEGE	0.0040	(2.03)	0.0200	(10.08)	0.0086	(4.33)
AGE	0.3547	(178.66)	0.5975	(300.97)	0.2039	(102.46)
AGESQ	-0.4316	(-217.39)	-0.3441	(-173.33)	-0.3175	(-159.53)
Assimilation Effect/Potential Labor Market Experience:						
YSM	0.0410	(20.64)	-0.1948	(-98.11)	0.0905	(45.47)
YSMSQ	-0.0161	(-8.11)	0.0597	(30.10)	-0.0327	(-16.41)
YSM-AGE1524	0.0007	(0.34)	-0.0085	(-4.26)	0.0015	(0.77)
YSM-AGE2534	0.0031	(1.56)	-0.0766	(-38.60)	0.0072	(3.59)
YSM-AGE3544	-0.0075	(-3.75)	-0.0224	(-11.28)	-0.0177	(-8.87)
YSM-AGE4554	-0.0065	(-3.26)	-0.0063	(-3.17)	-0.0155	(-7.77)
Other Control Variable:						
CITY	-0.0007	(-0.33)	-0.0036	(-1.83)	-0.0014	(-0.72)
MUNI	0.0000	(0.01)	0.0025	(1.25)	0.0000	(0.02)
NORTH	0.0002	(0.11)	-0.0161	(-8.09)	0.0005	(0.24)
CENTRAL	0.0010	(0.50)	-0.0093	(-4.67)	0.0023	(1.15)
EAST	0.0000	(-0.02)	-0.0015	(-0.76)	-0.0001	(-0.04)
CONSTANT	n.a.	n.a.	0.1405	(70.75)	n.a.	n.a.
Sum	-0.0437	(-22.03)	0.2423	(122.03)	-0.0437	(-21.97)

Notes: 1. Shares of $F(X_A B_A) - F(X_B B_B) = 0.199$ are reported in parentheses in percentage.

2. YSM variable denotes years since being married for native spouses.

This variable represents the potential labor market experience after marriage.