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The Effect of Culture on Female Labor Force Partcipation

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1. Introduction

The effects of culture on economics have long been debated. Economists such as John Stuart Mill believed that cultural constraints were perhaps more important than an individuals' pursuit of personal interest (Mill 1843, 484). Max Weber believed that religion played a crucial role in the formation of markets (Weber 1905). According to Guiso et. al. (2006, 2) economists have been reluctant to see culture as an explanation of economic outcomes due to the breadth of the term and the difficulty in establishing testable hypotheses. However, in recent years there has been resurgence in the research of how culture affects economic outcomes. For example, economists such as Simon (1955, 99-118) have discovered that in order to model economic outcomes, one cannot exclude the role of the individuals. Indeed the individual choice is the most difficult to predict in economic theories. It has been generally accepted that culture play a role in individual behavior.

Culture is a broad term to define. However, it is necessary to have a working in this discussion I use Webster Dictionary definition, "the customary beliefs, social forms, and material traits of a racial, religious, or social group as well as the characteristic features of everyday existence shared by people in a place or time," as my definition of culture. One may also think of culture as defined by Hofstede, the "programming of the mind" (Hofstede 1980, 3). Since culture is endogenous to the way individual think and behave, it is not possible to think about economic outcomes without first thinking about culture. In particular, culture is important in the discussion

of national female labor force participation. The rate of female labor force participation in a country could be thought of as simply the product of the sum female choice to or to not work. Since this takes into account individual tastes and preferences, it intrinsically takes into account culture.

In this paper, I examine how certain aspects of culture affect female labor force participation across countries. The focus of this article is specifically national culture, hereafter referred simply as culture. I use data from the International Social Survey Programme (ISSP) 2002 in conjunction with both Hofestede's five dimension cultural model (Hofstede 2005) and Globe's eight dimension cultural model (House et.al. 2004, 343-386) as a proxies for culture in order to determine the role culture plays in explaining female labor force participation. This paper adds to the existing literature on female labor force participation by combining for the first time, cross-cultural psychology constructs to act as a proxy for culture. Prior research, some of which are discussed below, have used ethnicity or home country variables as proxies of culture. Unlike cross-cultural psychology constructs, ethnicity or home country variables do not show what specific aspects of culture explain observed differences in economic outcomes. Moreover, no one has previously used both Hofstede and Globe cultural constructs to proxy for culture in the same paper. Using these two constructs will allow cross checking of the validity of each construct to a certain extent, since there are overlaps in some cultural dimensions. Also, Globe's eight dimensions provide a bigger picture compared to Hofstede's four dimensions used.

The remainder of the paper is as follows. Section 2 briefly discusses previous literature on labor force participation and culture. Sections 3 and 4 present the data and estimation strategy and results, respectively. Finally Section 5 concludes.

2. A Short Literature Review

There have been a number of studies that explore the effects of culture on female labor force participation in the United States. There are two threads of literature. In the first thread of literature, ethnicity and home country values are used as cultural proxies. In the second thread of literature, gender role attitudes are used as cultural proxies. I discuss each in turn.

Reimers (1985, 251-255) was the first to look at the effect of culture on female labor force participation. She examines the labor force participation rates of married women in the United States by race, ethnicity, and immigrant status. She finds that women born in the United States have higher labor force participation than those who are foreign born. She also finds that US born Asian women had the highest labor force participation rate, and foreign-born Hispanic women had the lowest. Reimers (1985, 251-255) posits that cultural factors could play a small part in influencing female labor force participation between these different groups of women. Antecol (2000, 409-426) extended the analysis of Reimers (1985, 251-255) by examining cross-country differences in male and female labor force participation rates across home country groups in the United States. In her comparison of immigrant outcomes and home country outcomes, Antecol (2000, 409-426) suggests that cultural factors of tastes may contribute to the explanation of the gender gap. Fernandez and Fogli (2009, 146-77) extend Antecol (2000) by using past values of female labor force participation rates and ancestral country fertility rates to proxy for culture. Their paper differs from Antecol (2000, 409-426) because they also investigate the effects of culture on fertility. They find that their proxies for culture are significant in predicting female labor force participation and fertility rates. They also

find that in areas where ethnic groups cluster together, the effect of culture is even more significant in predicting these economic outcomes.

There is one particular study, which is similar to this paper in its approach to investigate the effect of culture on female work. It differs from Reimers' study in its consideration of both religion and philosophy above and beyond ethnicity and race. Clark et al. (1991, 47-66) discuss the relationship between culture, gender, and labor force participation. They use Islamic, non-Islamic African, Latin American, non-Islamic Asian, Marxist and Western—6 different categories to define culture. They find that in 1980, women in Islamic and Latin American nations had the smallest share of the labor force. They argue that this can be attributed to a custom of gender segregation in Islam, and entrenched traditional gender roles in Latin America. They also find that women in Marxist Nations and in Africa had the largest share of the labor force, although they do not explicitly discuss what may explain this result. Most interestingly, they find that cultural variables quadrupled the explanatory value of how material conditions affect women's share of labor force. Although this paper attempts to distinguish the different traits that influences of culture by using categorical labels, these labels are at best imprecise measure of culture, which is also acknowledged by the authors themselves.

I now turn to the studies that focus on gender role attitudes and female labor force participation. Vella (1994, 191-211) uses Australian survey data to construct an attitudes index on gender roles and estimates a model for human capital investment in order to find a relationship between gender role attitudes and labor market outcomes. He finds that female attitudes toward labor force participation are developed outside educational settings, and are influenced by religion and parents' education. He confirms that females in Australia with "modern" attitudes toward gender roles were more likely to invest in human capital and participate in the labor force than females with "traditional" attitudes to gender roles. Fortin

(2005, 416-38) uses data from World Values Surveys to investigate the effect of gender role attitudes on labor market outcomes across 25 countries. She also confirms that "anti-egalitarian" attitudes toward men and women gender roles have the strongest negative association with female employment rates in OECD countries. Antecol (2003) uses responses on gender attitudes and sex roles from ISSP data as a proxy for culture to determine how male attitudes toward family and sex roles affect female labor force participation. She finds that men's gender attitudes are negatively correlated to female labor force participation. Finally, Contreras and Plaza (2010, 27-46) analyze the determinants of labor force participation, age, education, marital status, number of children and culture from a feminist perspective. They use two indicators of variables from the ISSP data to identify if a woman has internalized machista or has conservative values to proxy culture. They results also indicate that women with conservative are less likely to participate in the labor market.

I contribute to the existing literature on culture and female labor force participation by examining two alternative proxies for culture. Specifically, I use two cross-cultural psychological constructs—Hofstede 5 dimension culture variables and the Globe 8 dimension culture variables to proxy for culture.

To my knowledge, the Hofstede model has not been used to determine the effect of culture on female labor force participation. There are however a limited number of studies that use Hofstede's five-dimension model as a proxy for culture in the investigation of other economic outcomes. In particular, Hofstede et al. (2009, 205-16) uses the dimension model to explore the relationship between deceit and trust in international trade. They find that trust depends strongly on the trader's cultural background. Connelly and Ones (2008, 353-85) use Hofstede's five-dimension model as a measure of national personality to examine the effect of

culture on perceived national corruption. Although not conclusive, their work suggests that personality at the national level is related to perceived national corruption.

Moreover I am aware of only one study that uses the Globe cultural dimensions to explore female labor force participation. However, this study is very limited in scope. Specifically, Baughn, Chua and Neupert (2006, 687-708) cite the Globe study in their discussion on how culture influences female participation in entrepreneurial activity. They find that the level of gender equality in a country is significant in predicting rates of female participation in entrepreneurial activity.

3. Data

The data set used for this analysis is from the International Social Survey Programme (ISSP): Family and Gender Roles III (2002). This data set contains responses from males and females about issues pertaining to family life and gender roles. This data set is ideal for my purposes because it contains detailed information on labor market participation, as well as family income. It also contains important information on demographics (such as, sex, age, education, household size, and marital status). Finally, the data also has a larger number of observations by country, which allows me to merge in country specific data on culture (discussed in detail below).

The sample is restricted to females who are between the ages of 18 and 64. I restrict the sample to females only because I am only interested in how culture affects the female choice to join the labor market. I was not interested in investigating how male attitudes influenced female labor force participation because the focus of the paper is not to determine if cultural attitudes of males or females are more important in determining female labor market outcomes. I limit my sample size to females aged 18 to 64 to ensure I am focusing on working age women. I exclude

11 countries for the ISSP that had a large number of missing data for the variables of interest or because these countries were not part of Hofstede or the Globe investigation. My sample size is 17813 observations for the first 5 specifications. For the next 10 specifications, I drop 4 countries because of missing Globe data, which brings my final sample size to 15494 .

3.1 Labor Force Participation Rates

I construct an indicator variable for labor force participation (LFP) equal to one if the respondent was currently employed, and zero if otherwise. If data was not available, I supplemented 'currently employed' with data that showed the respondent worked a positive number of hours a week or if the responded was working in the private, public sector, or declared self- employed.

According to Table 1.1, it can be seen that Brazil has the lowest female labor force participation rate (46.1 percent) and Sweden has the highest female labor force rate (83.0 percent). The average labor force participation rate is 67.2 percent. Moreover, regional averages for Europe, the Middle East, and North America lie above the overall average whereas regional averages for Asia, Eastern Europe, and Latin America fall below the average. The determinants of these cross-country differences in female labor force participation rates are the focus of the remainder of this analysis.

3.2 Individual Characteristics

In order to control for an individual's highest level of education I create the following indicator variables. Less than high school equals one if a respondent had 'no formal qualification,' 'lowest formal qualification,' and 'above lowest qualification', and zero otherwise. High school equals one if a respondent completed high school, and zero otherwise. Some college equals one if a respondent completed higher secondary school but who did not complete a full university degree, and zero otherwise. College equals one if a respondent finished a university degree, and zero otherwise. Table 1.2 reveals that Sweden has the highest percentage of individuals who have a college degree (33.7 percent) and the Philippines has the lowest percentage of individuals with a college degree (1.0 percent). The overall average of individuals who attend college is 15.5 percent.

In order to control for a respondent's marital status, I create an indicator variable equal to one if the respondent was married, and zero if the respondent was widowed, divorced, or never married. The average marriage rate is 60 percent (see Table 1.2). Marriage rates differ by country. For example, at 86.4 percent of females in the Japan sample are married, whereas only 44.8 percent of females in the Brazil sample are married.

Self-reported household size is used to measure the number of individuals in a household. Ideally, it would have been useful to control for the number of children in the household, as opposed to household size. However this data was missing for a large number of the countries in the ISSP and therefore is not possible. The average household size is 3 persons (Table 1.2). Switzerland has smallest average household size, whereas the Philippines has the largest average household size.

The family income data recorded in the original dataset contained both monthly and yearly income in the currency of the respective countries. To create the family income variable, I converted the annual income values by dividing by 12 to obtain monthly income. I then used

historical monthly exchange rates from the Oanda website to obtain family income values in US dollars. According to Table 1.2, the average monthly income in a country is 8,975. Norway has the highest average monthly income (US$65,072) and the Slovak republic has the lowest average monthly income (US$35)

3.3 Country-Specific Culture Variables

I consider two alternative proxies for culture: Hofstede five culture dimensions (Hofstede 2005) and the Globe culture dimensions (House et al. 2004, 343-86). Hofstede is considered the pioneer of cross-culture psychology (Søndergaard 1994, 447). Researchers such as Schwartz and Bilsky (1987, 550-62), Trompenaars (1993), Hampden-Turner and Trompenaars (1993), and House et. al. (1997, 535-625) have based their new models of culture on Hofstede's work. Søndergaard (1994,447) investigates the robustness of Hofstede's findings and reports that out of 61 experiments, the majority of them supported Hofstede's predictions, 4 experiments showed complete replication, and 15 showed partial replication.

I consider the Globe measures in addition to the Hofstede measures because the latter has also recently come under question by a number of researchers. Specifically, Tayeb (2001, 113-29) discusses how breaking down culture into dimensions provides an incomplete and myopic look at how national culture should be defined. She argues that national culture is too complex to be simplified into neat tidy compartments. McSweeney (2001, 89-118) also has criticized Hofstede for dividing cultures by nations, because cultures are not necessarily bounded along territorial lines. The Globe variables provide a different perspective on cultural dimensions that will enrich the cultural proxy data. Some dimensions of the Hofstede measure are repeated in the Globe measure. In particular, power distance, individualism, and uncertainty avoidance. It will be interesting to see if there is variation in the results for these dimensions. The Globe model

is more recent and gives a more comprehensive model of culture. It will be interesting to see how some of the new dimensions (assertiveness, humane orientation) affect female labor force participation. I now discuss each of the proxies.

3.4 Hofstede Culture Variables

Hofstede defines five culture dimensions: power distance, individualism and collectivism, uncertainty avoidance, masculinity and femininity, and long term orientation. I define each of these in detail below, as well as present descriptive statistics by country.

Hofstede defines power distance as the degree to which individuals without power accept and expect differences in power among individuals in society. Countries that have a lower power distance score are more accepting of interdependent relationships, and are more likely to believe in equal rights. Countries that have a higher power distance score are more accepting of hierarchal relationships, and are more likely to accept that the powerful are entitled to privileges. Table 2.1 reveals that Slovak Republic has a power distance score of 104, which is the highest among the countries considered in this analysis. Austria has the lowest power distance score of 11. The average power distance score is 49.

Hofstede's individualism and collectivism dimension is a bipolar dimension where individualism and collectivism lie on opposite ends of the scale. According to Hofstede, individualistic countries are countries where individuals do not form cohesive in-groups and generally take care of themselves and their next of kin. He defines collectivistic countries as countries where individuals integrate themselves into strong cohesive in-groups where individuals give support and unquestioning loyalty to each other throughout their lives. Countries that are highly individualistic tend to value privacy, and have loose relationships. Countries highly collectivistic tend to place a low value to privacy, and are more likely to have tight-knit

relationships. In Table 2.1, we see that the average score for individualism is 59.2. The country with the highest score, 91, is the United States. The country with the lowest score, 17, is Taiwan.

Hofstedes' uncertainty avoidance is defined as how comfortable individuals in a society are with uncertainty and change. According to Hofstede, high levels of uncertainty avoidance positively correlate with conservatism. Countries with high uncertain avoidance scores are more likely to be wary of differences. Countries with low uncertainty avoidance scores are more likely to be open to change and curious of differences. Table 2.1 shows the average uncertainty avoidance score of 65.1. The maximum score of 104 belongs to Portugal, and the lowest uncertainty avoidance score of 23 belongs to Denmark.

In the Hofstede's Masculinity and Femininity dimension, masculinity and femininity represent two ends of a bipolar scale. Hofstede defines a masculine country as one where "social gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success; women are supposed to be more modest, tender, and concerned with the quality of life,"(Hofstede 2005, 297). He defines a feminine country as one in which "social gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life,"(Hofstede 2005, 297). In Table 2.1, Slovak Republic has the highest masculinity score, at 110, and Sweden has the lowest score at 5.

Long term orientation and short-term orientation also lie on two opposing poles of a spectrum. Long-term orientation is defined as the tendency to look toward future rewards with an emphasis on perseverance and thrift. Short-term orientation is defined as a tendency to look toward the past or present with an emphasis on respecting tradition, perseverance face and fulfilling social obligations. Societies that are short term oriented tend to prize leisure time over their long term oriented counterparts. Short term oriented societies also tend to value past and present events, while their long term counterparts tend to emphasize future events. However, due

a significant number of missing values in long-term orientation data, this culture variable was dropped.

3.5 GLOBE Culture Variables:

The GLOBE study defines eight culture dimensions: performance orientation, future orientation, gender egalitarianism, assertiveness, individualism and collectivism, power distance, humane orientation, and uncertainty avoidance.

Performance orientation is defined as the extent to which a community encourages and rewards innovation, high standards, and performance improvement (Javidan 2004, 239). Countries that have a high performance orientation practices score, such as Switzerland, 4.94 and New Zealand 4.72 (see Table 2.2), also tend to be societies that have higher economic success, are more competitive economies, but have a low human development index score. Countries that have a higher score on performance orientation practices, such as Portugal (3.6) and Russia (3.39) (see Table 2.2), are more likely to a lower economic success, less competitive economies, but are more likely to have a higher human development index.

Future orientation is defined as the degree to which a collectivity encourages and rewards future oriented behavior such as planning and delaying gratification (Ashkansy et al. 2004, 285). If a country has low future orientation, it by default has high present orientation and vice versa. Countries that score low on future orientation practices, such as Poland, 3.11 and Russia, 2.88 (see Table 2.2), are more inclined to be spontaneous and do not tend to plan ahead. Countries with low future orientations are more likely to engage in behavior that may negatively impact future goals (Keoug et.al. 1999, 149-164). Countries that score high on future orientation practices, such as Switzerland 4.73, and the Netherlands, 4.61 (see Table 2.2), tend to have greater economic success and higher saving rates.

Gender egalitarianism refers to modern gender role attitudes and practices. Gender egalitarian societies do not practice traditional gender roles. This dimension has roots in Hofstede's masculine and feminine dimension. Countries with a high gender egalitarian practice scores, such as Hungary, 4.08 and Russia 4.07, tend to have higher women literacy rates, a larger percentage of women working, and lower level of occupational sex segregation (Emrich et al. 2004, 359). Countries with low gender egalitarian rates, such as Switzerland, and Spain, 3.01, are likely to have lower female labor force participation rates and literacy rates (see Table 2.2)

The individualism collectivism dimension is essentially a measure of collectivism of a country, or the degree to which individuals are proud, loyal to their family, and to what extent they form interdependent relationships with family members (Gelfand et.al. 2004, 463). Countries with high levels of in-group collectivism, such as, the Philippines (6.4), are more likely to value duties and obligation in decisions regarding social behavior. Countries with low levels of in- group collectivism, such as, the United States (4.3) and Denmark, (3.5), are more likely to value attitudes and personal needs in decisions regarding social behavior (see table 2.2).

The assertiveness dimension measures the extent to which assertive and aggressive behavior is accepted and expected from individuals in society (Hartog 2004,395-437). Countries that score high in the assertive dimension, such as, Hungary, 4.08 and Russia, 4.07 (see Table 2.2), are more likely to value competition, success and progress. Countries that score low in the assertive dimension, such as, Switzerland, 2.95 (see Table 2.2), are more likely to value co-operation, people and warm relationships.

Power distance in the Globe study is based on the same principles of power distance in Hofstede's culture dimensions defined above, which is the degree to which individuals without power accept and expect a power disparity among individuals in society. Religions and philosophies have played a predominant role in the formation of a country's level of power

distance (Carl et al. 2004, 518-523). Carl et al. (2004, 518-523) argue that countries where the majority population is Roman Catholic, Muslim, or have Confucian influences tend to have high power distance, and countries where the majority of the population is Protestant tend to have lower power distances because of inherent power distance norms in the practice of the religion. Table 2.2 reveals that countries with a high power distance score such as Hungary (5.56) and a low distance score such as in Denmark (3.89). However, despite the fact that power distance is defined the same way in both Hofstede and Globe, the scores of some countries do not tally. Hungary has a low power distance score in Hofstede, but a high score in Globe. It is not certain why this is the case. However, it has been shown that Hofstede's power distance has only a 0.57 correlation with Globe's power distance social practices (Carl et al. 2004, 543), which might explain some of the variation between the two measures.

The uncertainty avoidance dimension in the Globe study is also based on the same principles as uncertainty avoidance in Hofstede's culture model. Uncertaintity avoidance is essentially a measure of how comfortable individuals in a society are with uncertainty and change. Despite the similarities in Hofstede's uncertainty avoidance and Globe's uncertainty avoidance definitions, these two constructs are measured very differently. Therefore, countries that score highly in Hofstede may not necessarily score highly in Globe. An example to illustrate this would be Japan. In Hofstede's model, Japan has a high score in the uncertainty avoidance index, however, in the Globe model, Japan has a low score.

Table 2.2 shows that Switzerland has the highest uncertainty avoidance social practice score (5.37) in the Globe study and Russia, has the lowest uncertainty avoidance practice score (2.88).

Humane orientation in the Globe study is defined as the degree to which a society encourages and rewards kind or altruistic behavior (House 1997, 535-625) According to Kabasakal and Bodur (2004, 571) countries that have high humane orientation, such as,

Philippines (5.12) and Ireland (4.96), are more likely to accept paternalistic forms of government. Countries with a low humane orientation, such as, West Germany (3.18) and Spain (3.32) are more likely to have formal welfare systems, which replace these paternalistic forms of government (see table 2.2).

3.6 Additional Country-Specific Variables

I created country dummy variables for each of the 29 countries. Each dummy variable equals one for that specific country and zero otherwise. This allows control for each country's characteristics. It is also useful because leaving a country dummy variable (e. the United States) out will allow comparison of all the other country's to the United States.

I also include a number of country-specific control variables: gross domestic product (GDP), human development index (HDI), and trade union density (TUD). GDP data is from the World Bank. HDI data is from United Nations development program dataset, TUD data and Unemployment data are from the International Labor Organization bureau of statistics. .

Gross domestic product is the total amount of goods and services (in US dollars) produced by a country in a given year in 2002. I then multiplied these values by the 2002 GDP deflator to control for inflation. According to table 1.2, the average GDP is 820 billion dollars. The country with the highest GDP is the United States (942 billion) and has the lowest is Bulgaria (13 billion).

Human development index is measures the level of development in a country through indicator variables such as life expectancy, education levels, and gross national income of a country. Each country is scored from 0 to 1. I use 2005 HDI data because 2002 data was unavailable. According to table 1.2, the average HDI score is 0.82. The Philippines has the lowest HDI score (0.62) and Taiwan has the highest HDI score (0.94)

Trade Union Density measures the percentage of unionization in a country. According to Table 1.2, the average trade union density is 30.8 percent. The country with the highest trade union density is (78 percent) and the country with the lowest trade union density is (8.2 percent).

Unemployment rate measures the percent of individuals who are in the labor force but are not employed. According to Table 1.2, the average unemployment rate is 7.1 percent. Spain has the highest unemployment rate (18.1 percent) and Norway has the lowest unemployment rate (3.2 percent).

4. Estimation Strategy and Results

In order to determine the effect of cultural factors on female labor force participation rates, I first estimate a probit model of the following form:

$$LFP_{ic} = \alpha + \beta X_{ic} + \delta CO_{ic} + \varepsilon_{ic} \quad (1)$$

where LFP is an indicator variable equal to one if a woman participated in the labor market, and zero otherwise, X is a vector of personal characteristics (age, marital status, education, household size, family income), CO is a vector of country dummy variables, *i* and *c* represent individual and country, respectively, and ε is an error term with the usual properties.

I then estimate a model that replaces the country dummy variables with a cultural proxy separately for the Hofstede and the Globe Measures of the following form:

$$LFP_{ic} = \alpha + \beta X_{ic} + \delta CUL_{c} + \varepsilon_{ic} \quad (2)$$

where CUL is a vector of cultural proxies (either Hofstede or Globe) and all remaining variables are defined above. I estimate equation (2) for the Hofstede model based on the full sample of countries (29 countries) with Hofstede values that are included in the ISSP, as well as on the sample of countries available for the Globe measures (24 countries) that are included in the ISSP.[1] This ensures that when comparing the Hofstede results to the Globe results they are based on the same countries.

The third specification adds controls for country specific variables. Specifically, I estimate a model of the following form:

$$LFP_{ic} = \alpha + \beta X_{ic} + \delta CUL_c + \eta CSV_c + \varepsilon_{ic} \quad (3)$$

where CSV is a vector of country specific variables (GDP, HDI, TUD, Unemployment).

The final specification adds regional dummy variables. Specifically, I estimate a model of the following form:

$$LFP_{ic} = \alpha + \beta X_{ic} + \delta CUL_c + \eta CSV_c + \mu RO_c + \varepsilon_{ic} \quad (4)$$

where RO is a vector of regional dummy variables (Asia, Middle East, Europe, Eastern Europe, North America, Latin America, Oceania)

These variables are used as indicators and controls. Personal characteristic variables control for the effects of age, marital status, education, household size, and family income. Country specific variables control for the effects of GDP, trade union density of a county, unemployment rate, and human development index. Both personal characteristic variables and country specific variables control for factors that might confound the investigation of culture on

[1] Bulgaria, Czech Republic, Norway, Slovak Republic are excluded from the model due to insufficient data available for the Globe culture dimensions.

labor outcomes. Country and regional dummy variables allow control over the selection of regions and countries. Withholding a country dummy variable (eg. United States) will allow for comparison between other countries and the withheld country dummy. Likewise, the same can be said of regional dummy variables. Country and regional dummies also show purely the effect of being a female in one country or region and how this affects female labor force participation.

4.1 Hofstede Results

Tables 3.1 and 3.2 present the results for Equations (1) through (4) for the full sample of 29 countries and the restricted sample of 25 countries based on the Hofstede cultural dimensions, respectively.

I first discuss the results pertaining to personal characteristics. Given the findings are similar between the full and restricted samples for these variables, I focus on the former in the discussion below. All personal characteristics are significant in explaining female labor force participation.

Female labor force participation is increasing at a decreasing rate with age. A female is 7.2 percent more likely to be in the labor market than a female who is one year younger. (see Table 3.1) This intuitively makes sense, since some women will enter college and therefore will only join the labor force at around 24 years of age. As women age, more of them will begin to retire, hence female labor force increases at a decreasing rate.

As a female's household size increases, for every additional family member, a female is 2.9 percentage points less likely to be in the labor market. This result makes intuitive sense. One would expect females with larger families to be more invested in the family, since she is willing to have more children. It is also possible that having many children will cause the mother to be

away from the work force for a longer period of time and therefore make returning more difficult.

Females with a high school degree (some college) are 8.5 (9.5) percentage points, more likely to participate in the labor force than females who dropped out of high school. Females with a college degree are 17.9 percentage points more likely to participate in the labor force in relation to females who did not attend high school. This result reproduces findings by Fernandez et.al (2009, 146-177), and Fortin (2005, 416-438). They both find that college/tertiary education was the strongest predictor of female labor force participation.

Finally, married females are 8.0 percentage points less likely to participate in the labor force relative to their unmarried counterparts. This makes sense because married women usually have the option of being supported by their partners, whereas unmarried women are more likely to have to support themselves. Antecol (2003) also shows a negative relationship between married females and labor force participation.

These patterns continued to hold as country specific variables, including culture, are added to the analysis.

Turning to the country indicator variables, it can be seen that, a greater number of countries have a lower labor force participation rate in relation to the US. (see Column 2, Table 3.1) The countries with the greatest variation from the US were Brazil and Sweden. Females in Brazil were 17.3 percentage points less likely to be in the labor force than females in the US. Females in Sweden were 14.7 percentage points more likely to be in the labor force than females in the US. The cross-country differences relative to the US continue to hold in the restricted sample (see Column 2, Table 3.2).

Column 3 of Table 3.1 presents the results for equation (2) where the country indicator variables are replaced with the Hofstede cultural dimensions. Perhaps surprisingly, the cultural

dimensions that are significant at the 1 percent level are masculinity and uncertainty avoidance but their explanatory power is relatively small. A one percentage point increase in masculinity (uncertainty avoidance) in a country would decrease the probability of a female joining the labor force by 0.06 (0.1) percentage points. Moreover, when the restricted sample is considered (see Table 3.2, Column 3), the importance of the Hofstede measures is further reduced. Only masculinity is significant in explaining the female labor force participation variable in the restricted sample. A percentage point increase in masculinity would decrease the probability of a female joining the labor force by 0.14 percentage points.

Column 4 of Table 3.1 presents the results for equation (3) where country specific variables are included. The personal characteristic variables are all significant in explaining the variable female labor force participation. All country specific variables were significant in explaining the dependent variable. HDI had the most explanatory power. A percentage increase in the human development index score increase the probability of a female joining the labor force by 33 percentage points. This is likely because HDI captures life expectancy, education, and gross national income. In this specification, both power distance and uncertainty avoidance are significant in explaining female labor force participation. Although power distance is significant at a 1 percent level, a one percent increase in power distance only increases female labor force participation by 0.11 percent. Uncertainty avoidance explaining power is 0.06 percent.

When the restricted sample is considered (Column 4, Table 3.2), uncertainty avoidance and power distance lose their explanatory power and only masculinity is significant. A percentage increase in masculinity will reduce the likelihood of a female joining the labor force by 0.09 percent.

Column 5 in Table 3.1 presents the results for equation (4) where regional dummies are added. North America (United States) is left out of the regression to obtain results to in relation to the United States. The countries for each of the regional dummy variables can be found in Table 1.1. I find that only the Middle East and Oceania is significant in explaining female labor force participation. A female in the Middle East (Oceania) is 14.7 (13.3) percent more likely to be in the labor market than a female in the United States. The culture variables that are significant are power distance, individuality and uncertainty avoidance. However, despite significance at the 1 percent level, each of their explanatory power is still a fraction of a percentage point.

When the restricted sample is considered (see Column 5, Table 3.2), the results are again different. None of the regional dummies explain variation in the labor force participation variable. In this instance, the Hofstede culture variables are all significant except for masculinity. However, despite the fact that power distance, individualism and uncertainty avoidance are all significant at the 1 percent level, their explanatory power adds up to less than one percentage point.

I now will make inferences on Hofstede results. Power distance and uncertainty avoidance are consistently significant in explaining the labor force participation variable in the origin sample, however, this is not true for the restricted sample. This observation indicates that the significance of power distance and uncertainty avoidance are contingent on the countries that were dropped, Bulgaria, Czech Republic, Norway, and Solvak Republic. Moreover, the sum of these culture variables still explains less than 1percent of the labor force participation variable. Hence generalizations about these explanatory variables cannot be made.

In the original sample, I find that females in the Middle East (Oceania) are 14.7(13.3) percent more likely to be in the labor market than a female in the United States. In the restricted

sample, none of the regions are significant in explaining the labor force participation variables. Even considering that the only country in the Middle East is Israel, it is unlikely that women in Israel are more likely to work than women in the US. Moreover, the inconsistency in the regional dummy predictive power shows that these results are not to be trusted. A likely explanation for this would be the simple lack of countries in each representative regional dummy. For example, Middle East only has Israel, and Asia only has 3 countries. The small sample size is likely to produce skewed and unreliable results.

4.2 Globe Results

Column 1 in Table 3.3 presents the results for equation (2), where Globe cultural variables replace Hofstede cultural variables. I find that future orientation, gender egalitarianism, assertiveness, and uncertainty avoidance are all significant in explaining the labor force participation variable.

Future orientation has a negative relationship with labor force participation, and explains 9.1 percent of the labor force participation variable. As defined above, future orientation is the extent to which society rewards far-sighted behavior such as planning for the future and immediate gratification. Research has shown that individuals with high future orientation are more likely to be married and to have children (Alvos et.al. 1993, 193-197; Brandt and Johnson 1955, 343-345; Murrell and Mingrone 1994, 1331-1334). Considering the negative relationship that both marriage and household size have with female labor, the negative relationship between future orientation and female labor force participation is expected.

Gender egalitarianism relates positively to the labor force participation variable and explains 8.2 percent. Uncertainty avoidance has a positive relationship with the labor force participation variable and explains 13.3 percent. Assertiveness explains 6.7 percent of the model.

For each percentage increase in assertiveness, a female is 6.7 percent less likely to be part of the labor force. I will discuss the implications of these results in the conclusion.

Column 2 in Table 3.3 presents the results for equation (3), where country specific variables are included. I find that future orientation, gender egalitarianism, assertiveness, and uncertainty avoidance are again all significant in explaining the labor force participation variable. However, in this specification, collectivism is also significant in explaining the labor force participation variable. Future orientation and gender egalitarianism have retained a relatively consistent explanatory value. Assertive (uncertainty avoidance) has strengthened 2 (13.3) percent to 9 (17) percent.

Column 3 in Table 3.3 presents the results for equation (4) where regional dummy variables are included. I find that culture variables gender egalitarianism, assertiveness, collectivism, and uncertainty avoidance are significant in explaining the labor force participation variable. Future Orientation loses significance in this specification. The most significant change is in gender egalitarianism, collectivism and assertiveness. Gender egalitarianism, collectivism, and assertiveness all about double their explanatory value. Gender egalitarianism's explanatory value rises from 8.5 percent to 13.2 percent, collectivism explanatory value rises from 2.9 percent to 5 percent and assertiveness' explanatory value from 8.1 percent to 16.4 percent.

I also find that all the country dummy variables except the Middle East are significant in explaining the labor force participation variable. According to the results, females in Asia, Europe, Eastern Europe, Latin America, and Oceania are all less likely to join the labor market compared to North America (See table 3.3). This result seems counterintuitive, especially considering the results in specification 2, where females in countries such as Sweden were 15 percent more likely to join the labor force than females in the US. The unreliability of regional dummies to produce meaningful results is again seen here. As explained in the Hofstede result

section, small sample regions are the likely culprits for skewing results. A second reason might be linked to the decisions in assigning countries to regions. Determining which region a country is assigned will significant alter results. Globe researchers were likely to have faced this problem. Their decision to put Israel in Latin Europe and not the Middle East seemed counterintuitive. It is possible that the Globe researchers too had difficulty in assigning countries to regions based on the Globe cultural data.

5. Conclusion

I find that the Globe culture variables: gender egalitarianism, uncertainty avoidance, and assertiveness to be consistently significant predictors of female labor force participation. Gender egalitarianism and uncertainty avoidance have a positive relationship with female labor force. Assertiveness has a negative relationship with female labor force. I also find that the Hofstede culture variables do not have the same predictive power, and are not consistently significant in predicting female labor force participation.

The positive relationship between gender egalitarianism is not surprising in light of research done by Antecol (2003), Contreras and Plaza (2010, 27-46), Fortin (2005, 416-438), and Vella (1994, 191-211) who have all found that countries with egalitarian gender attitudes are more likely to have higher rates of female labor force participation.

The negative relationship between assertiveness and female labor force participation seems counterintuitive. Assertive societies are associated with success and progress and individual reward performance, and an emphasis of results over relationships. Therefore one would expect an assertive society to have women who are driven to succeed and less likely to give up their careers. According to Hartog (2004, 395-437), despite description of assertive societies as competitive and results driven, assertiveness was not found to be a strong predictor

of economic health or global competitiveness. These results suggest that relationship between assertiveness and economic outcomes are not as straightforward as expected. Since no studies that have tested relationship between assertiveness and female labor force participation, the results here cannot be considered conclusive. More research needs to be done to determine the true effect of the assertive dimension on labor force participation.

Uncertainty avoidance has a positive relationship with female labor force participation. There have also not been any studies that have considered the relationship between uncertainty avoidance and female labor force participation. There is, however, research indicates that uncertainty avoidance and high civil liberties are positively correlated (Javidan 2004, 239-276). This seems to suggest that uncertainty avoidant countries would perhaps have better government legislation against gender discrimination. This might explain some of the positive correlation between female labor force participation and uncertainty avoidance. Moreover, high uncertainty avoidant societies positively correlate with societal support for competitiveness. According to Javidan (2004, 239-276), societies that show high support for competiveness also tend to have more flexible labor regulations. Therefore, this might also explain the positive relationship between uncertainty avoidance and female labor force participation. However, still more research needs to be done to confirm the relationship between assertiveness and labor force participation.

The results in this paper suggest that the Globe culture study rather than the Hofstede study is a better proxy for culture. It also confirms the effect of gender egalitarian attitudes on female labor force participation, and suggests that the Globe dimensions: assertiveness and uncertainty avoidance should be considered as proxies for further research on female labor market outcomes.

Works Cited

Alvos,L.,Gregson, R.A.M.,Ross M.W.1993. “Future time perspective in current and previous injecting drug users.“ Drug and Alcohol Dependence, 31(2), 193-197

Antecol, H. 2000. "An Examination of Cross-Country Differences in the Gender Gap in Labor Force Participation Rates." Labour Economics 7: 409-426

Antecol. H. 2001. “Why is there inter-ethnic variation in the gender wage gap? The role of Cultural factors.” Journal of Human Resource 36(1), 119-143.

Antecol, Heather. 2003. ‘‘Why is there Cross-Country Variation in Female Labor Force Participation Rates? The Role of Male Attitudes toward Family and Sex Roles.’’ Claremont Colleges Working Papers, Department of Economics, Claremont McKenna College.

Ashkansy,N., Gupta,V.,Mayfield, M., Trevor-Roberts, E. 2004. Future Orientation. *Culture, Leadership and Organizations: A Study of 62 Societies*. 282-331. California: Sage Publications.

Baughn, C.C., Chua, B.L., & Neupert, K.E. 2006. “The normative context for women’s participation in entrepreneurship: A multicountry study.” Entrepreneurship Theory and Practice, *30*(5), 687–708.

Barndt,R.J., Johnson,D.M. 1955. “Time orientation in delinquents.” Journal of Abnormal Social Psychology, 51, 343-345

Carl, D.,Gupta,V.,Javidan,M. 2004. Power Distance. *Culture, Leadership and Organizations: A Study of 62 Societies*. 513-559. California: Sage Publications.

Caroll, C.D., Rhee, B., Rhee, C., 1994. “Are there cultural effects on saving? Some cross-sectional evidence.” Quarterly Journal of Economics 109, 685–699

Connelly, B.S. *and* Ones, D.S. 2008. *“*The personality of corruption*:* A national-level analysis*.”* Cross-cultural Research. 42*,* 353–385.

Clark, Roger, Thomas W. Ramsbey, and Emily S. Adler. 1991. "Culture, Gender, and Labor Force Participation: A Cross-National Study." Gender and Society 5:47-66.

Contreras, Dante and Plaza, Gonzalo. 2010. “Cultural Factors in Women's Labor Force Participation in Chile.” Feminist Economics, 16: 2, 27 — 46

"Culture - Definition and More from the Free Merriam-Webster Dictionary." Dictionary and Thesaurus - Merriam-Webster Online. http://www.merriam-webster.com/dictionary/culture (accessed February 2, 2011).

Emrich, C., Denmark, F., & Hartog, D. 2004. Cross-Cultural Differences in Gender Egalitarianism: Implications for Societies, Organizations and Leaders. *Culture, Leadership and Organizations: A Study of 62 Societies* 343-386. California: Sage Publications.

Fernandez, R. and A. Fogli. 2009. “Culture: An Empirical Investigation of Beliefs, Work and Fertility.’’American Economic Journal: Macroeconomics 1, 146–177.

Fortin, Nicole. 2005. “Gender Role Attitudes and the Labour Market Outcomes of Women Across OECD Countries.” Oxford Review of Economic Policy. 21, 416–438.

Gelfand,MJ., Bhawuk, D., Nishii, L. 2004. Individualism and Collectivism. *Culture, Leadership and Organizations:*

A Study of 62 Societies (pp. 438-502). California: Sage Publications.

"GESIS - Leibniz-Institut für Sozialwissenschaften: 2002." *GESIS - Leibniz-Institut für Sozialwissenschaften: Dienstleistungen*. N.p., n.d. Web. 27 Jan. 2011. <http://www.gesis.org/en/services/data/survey-data/issp/modules-study-overview/family-changing-gender-roles/2002/>.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales, 2006 "Does Culture Affect Economic Outcomes?" Journal of Economic Perspectives. 20, 23-48.

Hartog, D. 2004. Assertiveness. *Culture, Leadership and Organizations: A Study of 62 Societies*. 395-437. California: Sage Publications.

Hofstede, Geert. 2001. *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations*. 2nd ed. London: Sage Publications, Inc.

Hofstede, Geert H., and Gert Jan Hofstede .2005. *Cultures and organizations: software of the mind.* Rev. and expanded 2nd ed. New York: McGraw-Hill. Print.

Hofstede GJ, Jonker CM, Verwaart T. 2009. A Multi-agent Model of Deceit and Trust in Intercultural Trade. In: Nguyen NT et al. (eds) *ICCCI 2009, Lecture Notes in Computer Science* 5796. 205–16. Springer, Heidelberg

House, R. J., Wright, N. S., & Aditya, R. N. 1997. Cross-cultural research on organizational leadership: A critical analysis and a proposed theory. In P. C. Earley & M. Erez (Eds.). *New Perspectives in International Industrial Organizational Psychology.* 535-625. San Francisco

House, R., Hanges, P., Javidan, M., Dorfman, P., Gupta, V. 2004. *Culture, Leadership and Organizations: A Study of 62 Societies*. 343-386. California: Sage Publications.

Hampden-Turner, C., Trompenaars, F.1993. *The Seven Cultures of Capitalism.* New York: Judy Piatkus (Publishers) Ltd.

Javidan, M. 2004. Performance Orientation. *Culture, Leadership and Organizations: A Study of 62 Societies*. 239-276. California: Sage Publications.

Kabasakal, H., Bodur, M. 2004. Human Orientation in Societies, Organizations, and Leader Attributes. *Culture, Leadership and Organizations: A Study of 62 Societies*.565-595. California: Sage Publications.

Keough, K. A., Zimbarodo, P.G., Boyd,J.N. 1999. “Who’s smoking, drinking, and using drugs? Time perspective as a predicator of substance use.” Basic and Applied Social Psychology. 21(2).149-164.

McSweeney, B. “Hofstede's model of national cultural differences and their consequences: A triumph of faith – a failure of analysis.” Human Relations, 2002, 89-118.

Mill, John Stuart, A System of Logic, Longmans, Green and Co., London 1956

Murrel,A.J. Mingrone, M. 1994. Correlates of temporal perspective. Perceptual and Motor Skills, 78, 1331-1334.

Reimers, Cordelia W. 1985. "Cultural Differences in Labor Force Participation Among Married Women." American Economic Association Papers and Proceedings 75(2): 251- 55.

Schwartz, S. H., Bilsky, W. 1987. “Toward a universal psychological structure of human values.” Journal of Personality and Social Psychology, 53, 550-562.

Simon, Herbert A. “A Behavioral Model of Rational Choice” Quarterly Journal of Economics 69, no. 1 (February 1955): 99-118

Søndergaard, M. 1994. "Hofstede's consequences: A study of reviews, citations and replications." Organization Studies 15(3): 447.

Tayeb, M. H., 2001. “Conducting Research Across Cultures - Overcoming Drawbacks and Obstacles.” International Journal of Cross-Cultural Management. 1(1) 113-129.

Trompenaars, F. 1993. *Riding the Waves of Culture*. London: Nicholas Brealey Publishing Ltd.

Vella, Francis. 1994, “Gender Roles and Human Capital Investment: The Relationship between Traditional Attitudes and Female Labour Market Performance.” Economica, 61(242): 191–211.

Weber, Max. 1905, The Protestant Ethic and the Spirit of Capitalism. Routledge Classic. London, 2001

Table 1.1 Female Labor Force Participation Across Countries

Countries by Region	Female Labor Force Participation	Regional Averages

Europe		70.3%
United Kingdom	72.8%	
Ireland	60.8%	
Sweden	83.0%	
Denmark	77.1%	
Finland	74.3%	
Spain	62.1%	
Portugal	71.3%	
Norway	70.2%	
Austria	63.3%	
France	76.5%	
Netherlands	65.7%	
Switzerland	79.5%	
West Germany	57.1%	
East Europe		65.3%
Hungary*	48.9%	
Poland*	67.7%	
Czech Republic*	68.4%	
Russia*	64.8%	
Bulgaria	66.7%	
Slovak Republic/Slovakia*	72.1%	
East Germany	68.7%	
Mideast		67.7%
Israel	67.7%	
Latin America		55.4%
Mexico	64.6%	
Brasil	46.1%	
North America		73.1%
USA	73.1%	
Asia		59.8%
Taiwan	64.8%	
Philippines	60.6%	
Japan	53.9%	
	Total Average	67.2%

Note: These Labor force Participation figures are from the ISSP 2002 " Family and Gender Roles III."

Table 1.2 Personal Characteristics and Country Specific Variables

Variables	Mean	Std. Dev.	Min	Max
Personal Characteristics Variables				

Age	40.42	12.72	18	64
Less than High School	0.43	0.49	0	1
High School	0.26	0.44	0	1
Some College	0.16	0.36	0	1
College	0.16	0.36	0	1
Married	0.60	0.49	0	1
Household Size	3.34	1.74	1	23
Family Income	8397	249	0	1000000
Country Specific Variables				
Gross Domestic Product	7.96E+11	1.74E+12	1.30E+10	9.42E+12
Trade Union Density	30.41	17.45	8.2	78
Human Development Index	0.83	0.08	0.619311	0.9320621
Unemployment Rate	7.05	3.61	2.3	18.2

Note: These Personal Specification figures are from the ISSP 2002 " Family and Gender Roles III." GDP data is from the World Bank. HDI data is from United Nations development program dataset, TUD data and Unemployment data are from the International Labor Organization bureau of statistics.

Table 2.1 Hofstede Culture Variable Across Countries

Country	Power Distance	Individualism	Masculinity	Uncertainty Avoidance

Australia	36	90	61	51
Germany	35	67	66	65
Germany	35	67	66	65
United Kingdom	35	89	66	35
United States	40	91	62	46
Austria	11	55	79	70
Hungary	46	80	88	82
Ireland	28	70	68	35
Netherlands	38	80	14	53
Norway	31	69	8	50
Sweden	31	71	5	29
Czech Republic	57	58	57	74
Poland	68	60	64	93
Bulgaria	70	30	40	85
Russian Federation	93	39	36	95
New Zealand	22	79	58	49
Philippines	94	32	64	44
Israel	13	54	47	81
Japan	54	46	95	92
Spain	57	51	42	86
Slovak Republic	104	52	110	51
France	68	71	43	86
Portugal	63	27	31	104
Denmark	18	74	16	23
Switzerland	34	68	70	58
Brazil	69	38	49	76
Finland	33	63	26	59
Mexico	81	30	69	82
Taiwan	58	17	45	69

Note: These figures are taken from: Hofstede, Geert. 2001. *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations*. 2nd ed. London: Sage Publications, Inc.

Table 2.2 Globe Culture Variables Across Countries

	Power	Future	Gender	Assertiveness	Power	Future	Humane

Country	Orentation SP	Orientation SP	Egalitarianism SP	SP	Individualism Collectivism SP	Distance SP	Orientation SP	Orientation SP
Australia	4.36	4.09	3.4	4.28	4.17	4.74	4.09	4.28
Austria	4.44	4.46	3.09	4.62	4.85	4.95	4.46	3.72
Brazil	4.04	3.81	3.31	4.2	5.18	5.33	3.81	3.66
Denmark	4.22	4.44	3.93	3.8	3.53	3.89	4.44	4.44
Finland	3.81	4.24	3.35	3.81	4.07	4.89	4.24	3.96
France	4.11	3.48	3.64	4.13	4.37	5.28	3.48	3.4
West Germany	4.25	4.27	3.1	4.55	4.02	5.25	4.27	3.18
East Germany	4.09	3.95	3.06	4.73	4.52	5.54	3.95	3.4
Hungary*	3.43	3.21	4.08	4.79	5.25	5.56	3.21	3.35
Ireland	4.36	3.98	3.21	3.92	5.14	5.15	3.98	4.96
Israel	4.08	3.85	3.19	4.23	4.7	4.73	3.85	4.1
Japan	4.22	4.29	3.19	3.59	4.63	5.11	4.29	4.3
Mexico	4.1	3.87	3.64	4.45	5.71	5.22	3.87	3.98
Netherlands	4.32	4.61	3.5	4.32	3.7	4.11	4.61	3.86
New Zealand	4.72	3.47	3.22	3.42	3.67	4.89	3.47	4.32
Philippines	4.47	4.15	3.64	4.01	6.36	5.44	4.15	5.12
Poland*	3.89	3.11	4.02	4.06	5.52	5.1	3.11	3.61
Portugal	3.6	3.71	3.66	3.65	5.51	5.44	3.71	3.91
Russia*	3.39	2.88	4.07	3.68	5.63	5.52	2.88	3.94
Spain	4.01	3.51	3.01	4.42	5.45	5.52	3.51	3.32
Sweden	3.72	4.39	3.84	3.38	3.66	4.85	4.39	4.1
Switzerland	4.94	4.73	2.97	4.51	3.97	4.9	4.73	3.6
Taiwan	4.56	3.96	3.18	3.92	5.59	5.18	3.96	4.11
UK	4.08	4.28	3.67	4.15	4.08	5.15	4.28	3.72
USA	4.49	4.15	3.34	4.55	4.25	4.88	4.15	4.17

Note: These cultural variables figures were taken from: House, R., Hanges, P., Javidan, M., Dorfman, P., Gupta, V.2004. *Culture, Leadership and Organizations: A Studyof 62 Societies*. 343-386. California: Sage Publications.

Table 3.1

Female Labor Force Participation

VARIABLES	Specifications 1	2	3	4	5

Age	0.0785***	0.0789***	0.0786***	0.0787***	0.0789***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Age2	-0.00102***	-0.00102***	-0.00102***	-0.00102***	-0.00102***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
High School	0.0883***	0.0856***	0.0837***	0.0755***	0.0775***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Some College	0.106***	0.0954***	0.101***	0.0990***	0.0935***
	(0.010)	(0.011)	(0.010)	(0.010)	(0.011)
College	0.184***	0.175***	0.178***	0.174***	0.171***
	(0.009)	(0.010)	(0.009)	(0.009)	(0.010)
Married	-0.0577***	-0.0689***	-0.0572***	-0.0616***	-0.0645***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Household Size	-0.0260***	-0.0194***	-0.0248***	-0.0235***	-0.0203***
	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)
Family Income	-4.76e-08***	-3.31e-08**	-2.87e-08*	-3.17e-08**	-4.29e-08***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Australia		-0.0878***			
		(0.032)			
West Germany		-0.0791**			
		(0.035)			
East Germany		0.0788**			
		(0.040)			
Great Britain		0.0662***			
		(0.025)			
Austria		-0.038			
		(0.028)			
Hungary		-0.119***			
		(0.035)			
Ireland		-0.0699**			
		(0.031)			
Netherlands		-0.036			
		(0.031)			
Norway		0.003			
		(0.029)			
Sweden		0.147***			
		(0.025)			
Czech Republic		0.026			
		(0.028)			
Poland		0.022			
		(0.029)			
Bulgaria		0.0639**			
		(0.030)			
Russia		-0.025			
		(0.028)			
New Zealand		0.147***			
		(0.024)			
Philippines		-0.013			
		(0.030)			
Israel		0.013			
		(0.029)			
Japan		-0.102***			
		(0.034)			
Spain		(0.030)			
		(0.028)			
Slovak Republic		0.104***			
		(0.026)			
France		0.042			
		(0.026)			
Portugal		0.0947***			
		(0.027)			
Denmark		0.0789***			
		(0.027)			
Switzerland		0.0773**			
		(0.030)			
Brazil		-0.173***			
		(0.030)			
Finland		0.0693**			
		(0.028)			
Mexico		0.006			
		(0.028)			
Taiwan		-0.006			
		(0.027)			
Power Distance			0.000334*	0.00109***	0.00141***
			(0.000)	(0.000)	(0.000)
Individualism			0.000	0.000	-0.00226***
			0.000	(0.000)	(0.001)
Masculinity			-0.000651***	0.000	0.000
			(0.000)	(0.000)	(0.000)
Uncertainty Avoidance			-0.000957***	-0.000605**	-0.00182***
			(0.000)	(0.000)	(0.000)
Unemployment				0.00236*	-0.001
				(0.001)	(0.001)
GDP				-0**	0*
				0.000	0.000
TUD				0.00118***	0.001
				(0.000)	(0.000)
HDI				0.331***	0.189**
				(0.068)	(0.083)
Asia					-0.051
					(0.061)
Eastern Europe					0.093
					(0.067)
Europe					0.109*
					(0.066)
Middle East					0.147***
					(0.054)
Latin America					-0.050
					(0.066)
Oceania					0.133**
					(0.059)
Observations	17813	17813	17813	17813	17813

Table 3.2	Female Labor Force Participation				
	Specifications				
VARIABLES	1	2	3	4	5
Age	0.0724***	0.0723***	0.0724***	0.0723***	0.0723***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)

Age2	-0.000942***	-0.000942***	-0.000942***	-0.000943***	-0.000943***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
High School	0.0839***	0.0853***	0.0768***	0.0707***	0.0733***
	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Some College	0.111***	0.0954***	0.105***	0.101***	0.0932***
	(0.010)	(0.011)	(0.010)	(0.011)	(0.011)
College	0.191***	0.180***	0.182***	0.178***	0.175***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Married	-0.0691***	-0.0799***	-0.0698***	-0.0724***	-0.0761***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Household Size	-0.0260***	-0.0195***	-0.0223***	-0.0216***	-0.0199***
	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)
Family Income	-4.85e-08***	-4.42e-08***	-3.92e-08**	-3.96e-08**	-5.19e-08***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Australia		-0.0843***			
		(0.032)			
West Germany		-0.0758**			
		(0.035)			
East Germany		0.0803**			
		(0.040)			
Great Britian		0.0671***			
		(0.025)			
Austria		(0.031)			
		(0.028)			
Hungary		-0.120***			
		(0.034)			
Ireland		-0.0697**			
		(0.031)			
Netherlands		(0.037)			
		(0.031)			
Sweden		0.146***			
		(0.025)			
Poland		0.024			
		(0.029)			
Russia		(0.028)			
		(0.028)			
New Zealand		0.149***			
		(0.025)			
Philippines		(0.010)			
		(0.030)			
Israel		0.014			
		(0.029)			
Japan		-0.0963***			
		(0.034)			
Spain		-0.026			
		(0.028)			
France		0.0456*			
		(0.026)			
Portugal		0.0954***			
		(0.027)			
Denmark		0.0791***			
		(0.027)			
Switzerland		0.0825***			
		(0.030)			
Brazil		-0.174***			
		(0.030)			
Finland		0.0725***			
		(0.028)			
Mexico		0.007			
		(0.028)			
Taiwan		(0.005)			
		(0.028)			
Power Distance			-0.000436**	0.000	0.00164***
			(0.000)	(0.000)	(0.000)
Individualism			0.000	0.000	-0.00131**
			(0.000)	(0.000)	(0.001)
Masculinity			-0.00136***	-0.000872***	(0.000)
			(0.000)	(0.000)	(0.000)
Uncertainty Avoidance			-0.000450*	0.000	-0.00115**
			(0.000)	(0.000)	(0.001)
Unemployment				0.000	(0.002)
				(0.001)	(0.002)
GDP				0.000	0.000
				0.000	0.000
TUD				0.000953***	0.00109**
				(0.000)	(0.000)
HDI				0.259***	0.213**
				(0.075)	(0.101)
Asia					-0.080
					(0.064)
Eastern Europe					0.012
					(0.080)
Europe					0.053
					(0.070)
Middle East					0.105
					(0.065)
Latin America					-0.097
					(0.070)
Oceania					0.076
					(0.071)
Observations	15494	15494	15494	15494	15494

Table 3.3

	Female Labor Force Participation		
	Specification		
VARIABLES	1	2	3

Age	0.0717***	0.0717***	0.0720***
	(0.002)	(0.002)	(0.002)
Age2	-0.000935***	-0.000935***	-0.000938***
	(0.000)	(0.000)	(0.000)
High School	0.0868***	0.0854***	0.0893***
	(0.010)	(0.010)	(0.010)
Some College	0.104***	0.102***	0.0975***
	(0.011)	(0.011)	(0.011)
College	0.185***	0.183***	0.179***
	(0.010)	(0.010)	(0.010)
Married	-0.0759***	-0.0774***	-0.0772***
	(0.009)	(0.009)	(0.009)
Household Size	-0.0205***	-0.0203***	-0.0198***
	(0.003)	(0.003)	(0.003)
Family Income	-4.09e-08**	-4.40e-08***	-3.99e-08**
	(0.000)	(0.000)	(0.000)
Humane Orientation	0.003	0.011	-0.0487**
	(0.016)	(0.017)	(0.023)
Power Orientation	0.019	(0.034)	(0.008)
	(0.021)	(0.027)	(0.042)
Future Orientation	-0.0910***	-0.101***	(0.032)
	(0.018)	(0.023)	(0.033)
Gender Egalitarianism	0.0829***	0.0807***	0.111***
	(0.019)	(0.021)	(0.030)
Assertiveness	-0.0678***	-0.0907***	-0.173***
	(0.016)	(0.018)	(0.026)
Individualism Collectivism	0.007	0.0322***	0.0420**
	(0.010)	(0.012)	(0.019)
Power Distance	0.016	(0.018)	0.032
	(0.019)	(0.021)	(0.025)
Uncertainty Avoidance	0.133***	0.173***	0.175***
	(0.014)	(0.019)	(0.023)
Unemployment		0.000	-0.003
		(0.002)	(0.002)
GDP		0**	-0**
		0.000	0.000
TUD		-0.00107**	-0.00169***
		(0.000)	(0.001)
HDI		0.030	-0.080
		(0.082)	(0.118)
Asia			-0.368***
			(0.072)
Eastern Europe			-0.337***
			(0.083)
Europe			-0.328***
			(0.079)
Middle East			-0.215**
			(0.104)
Latin America			-0.402***
			(0.078)
Oceania			-0.341***
			(0.096)
Observations	15494	15494	15494