

**Describing Interracial Marriages and What They Convey Regarding
Race Relations in America**

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Abstract

By analyzing Census 2000 data, this paper describes the characteristics of which people are most likely to marry outside their race and what this suggests about race relations today. Using a standard probit model and looking at white-Hispanic, white-black, and white-Asian marriages, this study finds that military service, higher education, and the scarcity of one's race in a state increase the probability of one entering an interracial marriage no matter to which race one belongs. Altogether, I have determined that exposure to outside groups (races, cultures, etc.) is key to whether one marries interracially or not.

1. Introduction

At one time taboo, interracial marriage is now a visible element of American society. In 1970, less than 1% of marriages in the U.S. were interracial, but by the year 2000 almost 6% of all marriages involved members of different races (Harris and Ono, 2005). This means that, more and more, people are willing to break racial barriers and tear down the social wall that only 50 years ago made interracial marriage a social faux pas. In fact, it appears, through views on interracial marriages, that race relations today are quite good. Recent Gallup Polls from 2003 show that 73% of Americans of all races approve of marriages between blacks and whites, a racial line that has long been considered the most powerful racial division (Ludwig, 2004). But what does the actual data tell us about race relations? Is America truly as tolerant as some polls and statistics would lead us to believe? By looking at marriages with the white majority in America, this study attempts to determine many characteristics of which people are most likely to marry outside of their race and what this suggests about race relations today.

This paper will first look at marriage market theory—specifically as it relates to interracial unions—as well as existing literature in order to create a knowledge base upon which my research will update and expand. This research will allow policy makers to better understand interracial marriage and therefore will increase the knowledge base for determining policy that affects race relations. Through the analysis of Integrated Public Use Microdata Series (IPUMS) from Census 2000 data (using 5% of the Census population), I determine that military service, higher education, and the scarcity of one's race in a state increase the probability of one entering an interracial marriage regardless

of race. Based on this, I conclude that exposure to outside groups drives the likelihood of intermarriage.

The paper will be organized as follows: Section 2 describes the theory behind assortative mating to explain general marriage markets. It also discusses theory of interracial marriage and its role in the marriage market. Section 3 surveys previous research in order to explain some of the historical trends of intermarriage as well as some common characteristics of those who intermarry. Section 4 explains the data set variables and explores some basic statistical descriptions of the data set to discover who marries whom in interracial marriages. Section 5 then explains the data estimation procedure for analysis of Census 2000 data. Section 6 analyzes the results and determines under what circumstances certain people will marry outside of their race. Finally, section 7 concludes the paper with the limitations of this research and what the data tell us about race relations today.

2. Theory

Vincent Kang Fu (2001) explains that “Current individual-level theories of marital selection view marriage as a partnership that produces commodities such as children, status, insurance, economic support, and social support” (p. 148). In order to find this partnership, people enter the “marriage market” to attract a mate, given what they have to offer (education, status, income, etc.). The tendency then is toward “positive assortative mating,” where those with similar resources and characteristics will marry (high-quality males mate with high-quality females, low-quality males mate with low-quality females, etc.). Negative assortative mating (high-quality males mate with low-

quality females, etc.) is also possible, but not as likely in American society. Altogether, this sorting of mates creates marriages where the utility for each partner is at least as great when together than apart or married to someone else. However, if the union does not create a greater utility for both partners, a resulting divorce is likely (Becker, 1991).

Most people enter the marriage market with a common set of resources and characteristics for which it is only a matter of a small search to find a similar mate. However, this is not always the case. Some people have rare traits and/or resources which creates difficulty in the search for a similar mate. Such rarities include, but are in no way limited to, an incredibly high IQ, excessive height, excessive wealth, and infrequently met religions (Becker, Landes, and Michael, 1977). For this paper, an important rarity might be a member of a race who is not around many people of their own race. It is difficult (costly) for those with rarities in a marriage market to find a similar mate. Usually, they have to spend more time and resources searching for mates with similar traits as most people around them have only common traits. Because of these difficulties, one with rare traits might compromise and hence settle for a mate who is dissimilar. Thus, there is a tradeoff between time and resources spent searching for the optimal mate and a less optimal mate without the expenditure (Becker et al., 1977).

It is also important to note that these marriages may be more fragile at first due to a shorter search for the right mate. If a couple, or a member of a couple, is afraid that their marriage might dissolve from the start (due to rare traits, high search costs, or just settling on a mate), then he/she/they will be slow to accumulate specific capital that cannot be easily split (namely, children). Becker et al. (1977) believe that “a major reason why couples search intensively during the first few years after marriage is to

improve their information before they invest substantially in specific capital” (p. 1152). If one then finds a better mate, the marriage may dissolve; but if that is not the case, then the marriage may continue in a much stronger manner.

These marriage market theories apply to the general populace; however interracial marriages do not always follow the same patterns in the marriage market. When marrying outside of one’s race, there should be a reason why he or she would appear to sort negatively on that race characteristic. It should still be true that a higher-quality individual would be able to marry a higher-quality spouse. This dilemma could be solved by the substitutability of traits, that is, that people are willing to trade one type of trait for another. When searching for a mate, a person enters the marriage market with preferences that will give them a specific payoff; however if one of those preferred traits is not available, that person may substitute a better trait for that missing trait (Becker et al., 1977). For example, it may be that a white male prefers to marry a white female with a high school diploma; however they would receive the same utility from marrying a black female with a college degree (substituting the white race trait for a few extra years of education).

Together, substitutability of traits and trait rarity affect the marriage market and can lead to interracial marriages. Substitutability of the race trait allows for people to receive equal utility from different mates of different races, while trait rarity affects how costly it is to search for their ideal mate. If the costs are too great for the search, then one may be willing to marry outside of his or her race and substitute the loss in payoff from the race trait for both other better traits as well as savings on the cost of the search. This

seems most likely to occur when one is around many people of other races than their own, which will be tested for in this study.

3. Background Research

Throughout U.S. history, many minorities have been racially discriminated against by the majority white culture, but no group has been discriminated more than blacks. In the early twentieth century, 30 U.S. states had laws prohibiting black-white marriages. In a specific instance, “California outlawed the intermarriage of white persons with Chinese, Negroes, mulattos, or persons of mixed blood descended from a Chinaman or Negro from the third generation inclusive” (“The Effect of...,” 1997, p. 55). At that time, all of this was to keep the majority pure and white, as per the social construct of the time, and to continue the segregation of minorities. Of course, as time went on, many states—particularly in the North—began to drop these miscegenation laws. All remaining laws against racial mixing were finally ruled unconstitutional by the Supreme Court in 1976 (“The Effect of...,” 1997).

Since then, race relations in America have steadily gotten better, as measured by interracial marriage views and trends. In Gallup Polls asking “Do you generally approve or disapprove of marriage between blacks and whites,” there has been a steady increase in acceptance over time. In 1968, 20% of those Americans asked, including all races, said they accepted these interracial marriages. In 1991, this figure rose to 48% and when last asked at the end of 2003, 73% of the sampled population asked approved of these marriages (Ludwig, 2004). Taken alone, these figures are suspect as Gallup polls could contain reporting bias due to over-the-phone surveys and societal pressure to respond

positively. However, this approval follows suit with the increase in overall interracial marriages in the United States as stated in the introduction of this paper. A survey conducted by the University of Michigan found that almost 8% of black men ages 25-34 married in 1990 were married to non-blacks, which is a large increase from 2% in the 1940s and 1950s. Also among similarly aged white men, 4% married a non-white woman, which is up from 1% in the 40s and 50s (“The Effect of...,” 1997).

Past research has found many factors affecting those who marry interracially, including education, location, marriage timing, divorce, and military experience. *The Journal of Blacks in Higher Education* states that as black men and women climb the educational ladder, their tendency to marry non-blacks increases, probably due to the lower numbers of blacks in higher education. Table 1 shows this trend with the percentages of black men and women marrying outside his or her race at different levels of education. If there are fewer members of one’s own race to choose from, one might

Table 1: Percentage of black men/women marrying outside his/her race in comparison to other blacks with the same educational attainment

	High School	College	Some Grad School
Black Men	6%	10%	13%
Black Women	3%	5%	6%

look elsewhere (“The Effect of...,” 1997). Also, education is a resource in the marriage market used in attracting a mate. Matthijs Kalmijn (1993) explains that “white women who marry black men tend to marry up in status more than when they marry white men” (p. 121). This phenomenon has been termed “status hypergamy.” In the early- and mid-twentieth century white women would cross the racial boundary, being a social taboo and

thereby taking away their racial caste prestige, in exchange for socioeconomic prestige. Although Kalmijn believes that the status hypergamy trend has decreased now between the various races, his study revealed that from 1970 through the mid 1980s, white women were still “marrying up” when marrying black men. Vincent Fu (2001) also found that black-white marriages as well as Mexican American-white marriages tend to follow this status exchange idea and suggested that Mexican Americans and blacks are still considered inferior marriage partners to whites in contemporary society.

Location also seems to affect whether one might marry a member of a different race or not and regional differences exist. The trend in the rise of black-white intermarriage is about two decades behind in the South in comparison to the rest of the country. There are two reasons offered for this. Firstly, it is possible that there is less intermarriage due to the legacy of slavery miscegenation laws in the South, whereas the racial attitudes are generally more favorable elsewhere. Secondly, there are many more blacks in the south, so there are more opportunities to marry within their group; whereas in the north, there are fewer blacks. It seems to hold that the smaller the proportion of blacks, the higher the percentage of interracial marriage within them (Kalmijn, 1993).

Other factors and behaviors have been found to affect interracial marriage as well. Kalmijn (1993) found that those who marry later are more likely to intermarry, so it is possible that the rise in interracial marriage is due to the increasing trend in the postponement of marriage. On the other hand, the causality in this argument may run the other way as well, as those who marry later may search longer because they have rare traits (more likely to marry later *because* they intermarry). Kalmijn also found that “divorced blacks are more likely to intermarry than blacks who never married” (p. 127).

Finally, a study on blacks and whites serving in the military has found that those serving/who have served tend to have a higher likelihood for interracial marriage. For blacks (men and women), interracial marriage rates of those who served in the military were more than double that of other blacks. Also, whites who served in the military had intermarriage rates three times higher than that of other whites (“The Effect of...,” 1997).

Though past research focuses primarily on blacks and whites, they are in no way the only peoples studied. Morrison Wong (1998) did a study using a 5% 1980 U.S. Census Public Use Microdata Series sample to look at the growing trend of Chinese intermarriage and what is possibly causing it. He found that in 1980 about 24% of Chinese marriages were either interracial (17.8%) or interethnic¹ (5.7%). Chinese-white and Chinese-Japanese were the most common of these two types with 16% and 4% of all Chinese marriages respectively. Also, there was a greater proportion of Chinese females intermarried than males, but a greater proportion of males married interethnically. Looking at Chinese-white marriages, over one-third of marriages involved Chinese born in the U.S., whereas only 13% involved Chinese born abroad. Hence, intermarriage is more common for second and subsequent generation Chinese. Also, intermarriage rates were higher in areas with smaller concentrations of Chinese (which follows what was stated earlier, that the lower the concentration of the group, the higher the prevalence to intermarry). Finally, Wong found that those involved in intermarriage tended to have higher educational attainment, though incomes and occupations were quite similar.

¹ marriages with Japanese, Filipino, Korean, etc.

4. Data and Method Description

The data used in this study are taken from the 5% Integrated Public Use Microdata Series (IPUMS) from Census 2000 data. This is a random sample of 5% of the households in the U.S. I specifically selected the heads of households and their spouses who currently reside at that house (linked together by serial number). I deleted all other family members and married couples without their partner's information present. I also only selected those couples in which both partners were born in the U.S. in order to filter out effects from immigration. This left 2,823,110 married couples of varying ages². This study then focuses on describing U.S. marriages between whites and Hispanics, blacks, and Asians³. All of the individuals consider themselves as members of only one race (not biracial or otherwise mixed) as recorded by the census. The variables in this data set are descriptive for each individual. These variables describe age, race, hourly wage, regional location in the U.S. (birth and current residence), gender, military service, and education. I have also created variables to describe spouse's race, spouse's education, whether or not one's spouse has had more education than he or she, and to turn location, gender, military service, and education into various dummy variables.

Statistics of the observed population show some interesting details on interracial marriage of specific races by gender. For each gender, Table 2 shows the numbers of people, those married interracially, and the percent married interracially. White people tend to marry interracially the least, which can be explained,

² I kept all ages present because census data does not give any information on when people married. Also, although there may be unexpected changes later in marriage with respect to education, income, etc., it is likely that many of these changes are known ahead of time during the process of dating in the marriage market. For instance, one might marry a man who only has a college degree but plans to get a PhD and hence that higher education may be considered during the marriage market process even though he has not had the education yet.

³ The category of Asians contains Japanese, Chinese, and Vietnamese.

Table 2: Total numbers of people, those married interracially, and percents of those married interracially broken up by gender and race

	MALES			FEMALES			TOTAL
	Total	Interracially Married	%Interracially Married	Total	Interracially Married	%Interracially Married	%Interracially Married
White	2,081,433	52,439	2.52%	2,080,280	51,286	2.47%	2.49%
Hispanic	40,673	15,535	38.19%	43,638	18,500	42.39%	40.37%
Black	154,884	11,745	7.58%	147,619	4,480	3.03%	5.36%
Asian	7,549	2,833	37.53%	8,679	3,963	45.65%	41.87%

at least in part, by the fact that their race is very common throughout the U.S. and thus is not often considered a rare trait. Also, white males and white females seem to marry interracially in a similar percentage to one another, which is not true for the other races involved in this study. For blacks, a higher percentage of males are married interracially than females. In fact, black males are more than two times likelier to be married interracially than black females. This could mean that either the males of those races are more accepting of interracial marriage than the females, or that the females of other races are more interested in these races than the males are. In contrast, Hispanic and Asian females marry interracially more than the males of their race. Within the Asian sample, females marry outside of their race nearly 18% more often than their male counterparts. This could possibly be explained by the reasoning discussed previously.

Besides looking at general statistics on percents of people who marry outside of their race, it is also important to understand which races intermarry most frequently. Table 3 shows the breakdown of who marries which race, in percentage of those members who marry interracially, by gender and race. For instance, of Hispanic males who marry interracially (row 3), 1.23% marry black females. Obviously, a majority of the minority populations who marry interracially marry white people, due to the fact that

Table 3: WHO MARRIES WHO? Percentages (of those who marry interracially) of specific races by gender who marry members of another race of opposite sex.

	White	Hispanic	Black	Asian	Other/Mixed
White M		31.05%	5.60%	5.63%	57.47%
White F		26.96%	16.27%	3.80%	52.76%
Hispanic M	89.01%		1.23%	.71%	9.02%
Hispanic F	88.01%		2.64%	.57%	8.76%
Black M	71.06%	4.15%		1.10%	23.44%
Black F	65.56%	4.26%		.63%	29.26%
Asian M	68.76%	3.71%	.99%		26.44%
Asian F	74.54%	2.78%	3.26%		19.33%

the white race is the majority throughout America (88.42% of sample is white); when searching in the general marriage market, whites are most readily available. Other races/mixed races are by far the second most popular to marry, in comparison to the races used in this study. This is due in part to the races labeled black, Hispanic, etc. being only those who consider themselves members of one race, so this “other/mixed” category includes all mixed peoples (such as a person with a white mother and an Asian father). It is also due to the “other/mixed” category containing many smaller racial groups not included in this study, including Native Americans, Pacific Islanders, and more.

Since the majority of my sample is white, this study will focus on intermarriage involving whites. Both men and women marry similar percentages of Hispanics, but the other blacks and Asians seem to differ in percentage for each gender. As table 3 shows, white women marry almost three times as many blacks as white men do. White men marry nearly 50% more Asians than white women do. By looking at the percentages of the non-white races who marry whites, additional patterns emerge. A similar percent of Hispanic men and women are married to whites and Asian females are more frequently

married to white males than their counterparts. Finally, only 8% more black males are married to white females than black females to white males (in comparison to white marriage patterns). This reflects the fact that there are more than twice as many black males married interracially than black females, so even though the numbers of black males marrying white females is much greater, the percentages are similar.

5. Estimation Procedure

This analysis shows the effect of individuals' characteristics on the probability that they marry interracially. I use a standard probit model, which is as follows:

$$\Pr(I = 1) = \Phi(\beta X_i)$$

where I is the dependant variable equal to 1 if a person is married interracially to a specific other race or equal to zero if the person is married to a member of his/her own race; X_i is a vector of demographic characteristics that influence whether or not an individual marries interracially, including age, race, education, geographic location, gender, etc.; β is a vector of estimated coefficients on those variables; and Φ is the cumulative normal distribution. Expanding this expression to include all of characteristics used in this study yields:

$$\begin{aligned} \Pr(\text{MarriedInterracially} = 1) = & \beta_0 + \beta_1 \text{age} + \beta_2 \text{agesquared} + \beta_3 \text{HourlyWage} + \\ & \beta_4 \text{HourlyWageMissing} + \beta_5 \text{HSdiploma} + \\ & \beta_6 \text{Somecollege} + \beta_7 \text{Bachelor} + \\ & \beta_8 \text{Advancedegree} + \beta_9 \text{SpouseHigherEduc} + \\ & \beta_{10} \text{SpouseLowerEduc} + \beta_{11} \text{Livenorth} + \\ & \beta_{12} \text{Livesouth} + \beta_{13} \text{Livewest} + \beta_{14} \text{Bornnorth} + \end{aligned}$$

$$\begin{aligned}
& _15 * \text{Bornsouth} + _16 * \text{Bornwest} + \\
& _17 * \text{Bornandlivenorth} + _18 * \text{Bornandlivesouth} + \\
& _19 * \text{Bornandlivemidwest} + _20 * \text{Bornandlivewest} + \\
& _21 * \text{StateWhiteRatio} + _22 * \text{StateHispanicRatio} + \\
& _23 * \text{StateBlackRatio} + _24 * \text{StateAsianRatio} + \\
& _25 * \text{SexRaceRatio} + _26 * \text{Military}
\end{aligned}$$

where age, agesquared, and HourlyWage⁴ are continuous variables; HSdiploma, Somecollege, Bachelor, Advancedegree, SpouseHigherEduc, SpouseLowerEduc⁵, Livenorth, Livesouth, Livewest, Bornnorth, Bornsouth, Bornwest, Bornandlivenorth, Bornandlivesouth, Bornandlivemidwest, Bornandlivewest, and Military are all self-explanatory dummy variables; StateWhiteRatio, StateHispanicRatio, StateBlackRatio, and StateAsianRatio are each equal to the percent of the population in a given state who belong to the specified race; and SexRaceRatio is equal to the percent of each person's own race by sex in each state. The dependent variable, MarriedInterracially, is a dummy variable equal to 1 if the person (of a specific sex) is interracially married (to a specific race) and 0 if in a same-race marriage. Also, only persons between the ages of 18 and 59 were used throughout this model, as that filters out rare young marriages as well as most of those who are retired. We can then run this probit model with the data, holding certain

⁴ Because not all hourly wages were reported, I included the HourlyWageMissing variable equal to 1 if person had no wage. This allows for those with no wage to have an average wage. Also, HourlyWage is only used to describe males as there were too many females without wage variables.

⁵ SpouseHigherEduc and SpouseLowerEduc were included as an experiment; however they are probably endogenous variables. In future research they should be dropped from the equation.

racess, sexes, and ages constant, and gather the partial effects that each of these variables have on marrying interracially⁶.

6. What Determines Who Marries Interracially?

After running this probit model, I have determined and listed the partial effects by type of interracial marriage, in Table 4 (white-Hispanic), Table 5 (white-black), and Table 6 (white-Asian). I am now going to explain the patterns that result from these partial effects in white-Hispanic, white-black, and white-Asian marriages and what they describe in terms of scarcity, the military, education, and location.

Scarcity

The scarcity of a race in a state is determined by the percentage of that race in that specific state. The State(race)Ratios describe the scarcity of a race by state and the partial effects on them show a pattern of negative probabilities for the StateHispanicRatio, StateBlackRatio, and StateAsianRatio when viewed by the minorities, but a pattern of positive probabilities when viewed by the white majority. In more useful terms, it appears that the scarcer the minority race is in a state, the higher the incidence of intermarriage for the minority race and the lower the incidence of intermarriage for the white race. In the same fashion, the scarcer the white race is, the more likely they are to be intermarried and the less likely the minority race is to be intermarried (except in the case of Hispanics, which I cannot justify).

⁶ The partial effects are the individual effects that each variable (measured at the sample mean of that variable) has on the probability of MarriedInterracially = 1. For instance, a partial effect of .0045 for the male gender would mean that being male increases the probability of marrying interracially by .45%.

Military

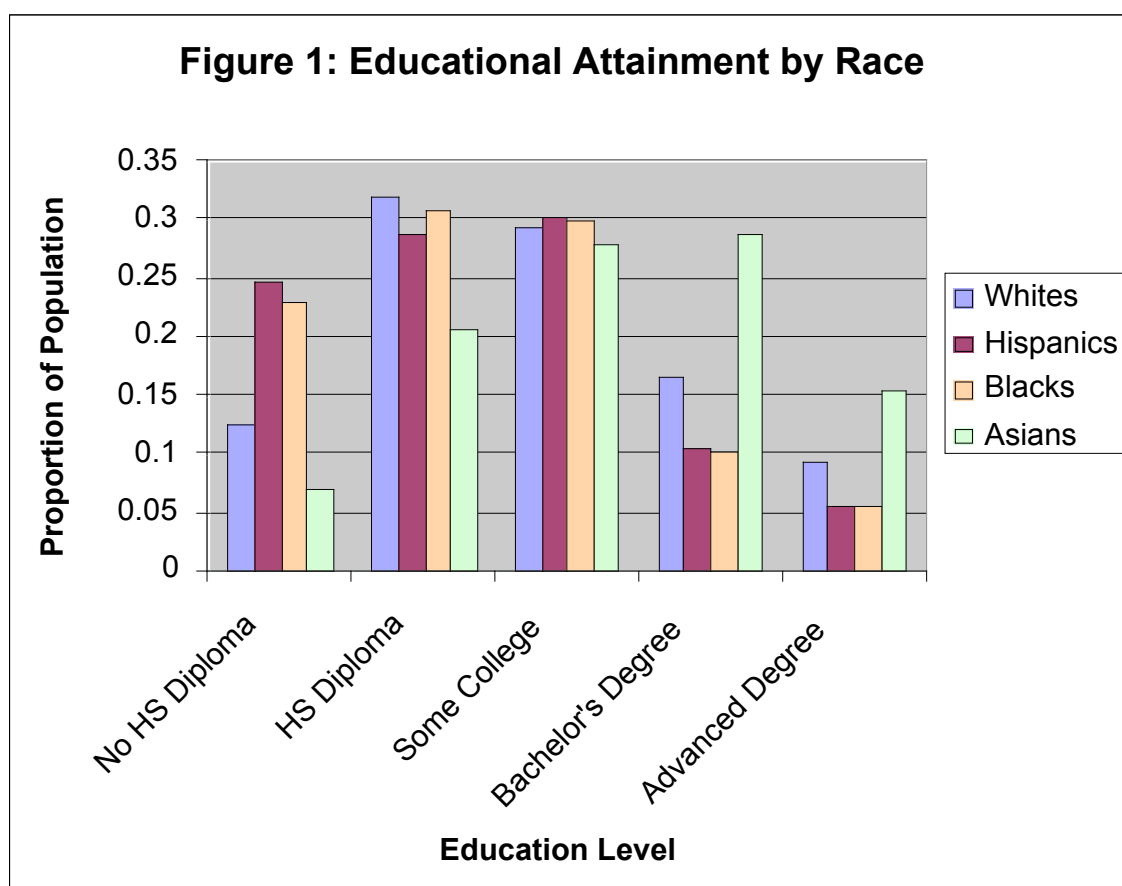
All of the partial effects on Military show that serving or having served in the military increases the probability that one is intermarried. The only inconsistency in this finding was with regard to Asians in white-Asian marriages. I believe that Asians were inconsistent as there were few Asians in my sample who served in the military. Of the 16,228 total Asians, only 3,225 served in the military (whereas my sample contains 63,163 blacks and 14,569 Hispanics who are/were in the military). In general, the military teaches people to rely on each other. However, the military is not merely made up of one social group (cultures, races, etc.), but of many different ones, and as such gives people more exposure to groups outside of their social norm and forces them to rely on these groups. Hence, it may be that people are more likely to intermarry when they have had military experience because they have had more exposure to outside groups.

Education

This study found that highly educated blacks, Hispanics, and Asians tend to intermarry more than their lower educated counterparts (partial effect probabilities increase as you look at higher educational dummy variables). The following two reasons could explain the cause for this: First, in order to substitute preferences, one trait must be considered better and another worse. In this case, perhaps higher education is being substituted for a white marrying a minority race. Additionally, the more education one has, the more they are exposed to different social groups and the more they may learn tolerance of peoples' differences.

The story is a bit more complicated for whites, as highly educated whites tend not to marry blacks and Hispanics, and are more likely to marry Asians. In order to

understand this complication, Figure 1 looks at the proportions of each race at each educational level for those observed in my sample. As can be observed in this graph, Asians appear to have more education overall than whites, while both blacks and Hispanics tend to be less educated than whites. Because of the lower education overall of



the black and Hispanic samples, we might conclude that whites tend to marry (on average) less educated blacks and Hispanics than the white educational average.

Location

The location and movement of people could have many effects on their likelihood to intermarry. In almost all cases, I have found that partial effects are negative on all of the Bornandlive(region) variables. This means that a person is less likely to intermarry if they were born and are still living in the same geographical region of the U.S. This may

reflect the fact that because those that do not move around are more likely to be in a localized job market and less likely to be in a national job market. Also, those who do not move around a lot and stay close to their family (where they were born) remain deeply rooted to their family and family values. Both of these reasons suggest that a person is less exposed to outside groups.

7. Conclusion

Using basic statistics and my probit model and data analysis, I have documented characteristics of interracial marriages in the United States. Gender differences within racial groups exist. Although the reasons for this were not determined in this study, perhaps a study with other characteristics, such as cultural biases or appeals of other races, and other quantitative and qualitative measurements, could shed more light on this matter. Military service seems to increase the probability of marrying interracially no matter to which race one belongs. Also, it appears those minorities who intermarry tend to be better educated than those who do not.

But what does all of this tell us regarding race relations in America? If race relations were perfect, if people didn't notice the color of one's skin, all cultures were seen as equals, and there were no preferences among different peoples, then we would see perfect substitutability for all races (same payoff for marrying any race) and the rates of intermarriage would be very high for all minority races. This does not seem to be the case. General demographics detail that, although rates of interracial marriage are increasing, they are still quite low.

This study has been able to show potential reasons why people marry interracially. From all of my findings, I believe that it is the exposure to other races and social groups that make people more likely to intermarry. More exposure can come from more education, military service, or living in a state where one's race is more scarce. This implies that lack of exposure is a big issue for race relations. Whether this lack of exposure to outside groups is from segregation or just the preference to be around people who seem most like oneself, intermarriage rates will remain low until individual races are no longer clumped together and everyone becomes integrated into a common American culture.

However, it is also important to point out the potential limitations of this research. I have assumed all of my explanatory variables to be exogenous, that they are uncorrelated with any variables I have not considered and are not caused by any other variables, however this may not be the case⁷. There are also other potential variables involved that I could not include due to imperfect information (such as age when married, whether one had a divorce, etc.). This lack of exogeneity would bias findings, but should not negate the general patterns found. Also, I have simplified the variables involved by assuming linearity. Although variables included in this study may not strictly follow a linear relationship, the general findings should still remain intact.

Altogether, it appears that race relations in America have improved been but are far from exemplary. The United States still has a long way to go to shed the discrimination and intolerance that has been a part of America's cultural history, such as issues with Native American suppression, slavery, black segregation, etc. As more and

⁷ Education levels and HourlyWage are probably correlated and the Born(region) and Live(region) variables may be correlated with the Bornandlive(region) variables.

more people become exposed to other social groups, rates of intermarriage will increase. Perhaps further research could look at the trend of this exposure over time, thereby creating an estimate for when there will be high integration of races in a common American culture.

Table 4: WHITES AND HISPANICS- Partial effects of various variables (estimated at the mean) on the probability that a member of the first specified race (bolded) would marry a member of the second specified race (from probit regression).

	White Males—Hispanics	White Females—Hispanics	Hispanic Males—Whites	Hispanic Females—Whites
Age	.0079 ^a (.00535)	-.0069 (.0042)	1.473*** (.2475)	1.986*** (.2265)
Agesquared	-.00039*** (.00007)	-.00019*** (.00005)	-.0206*** (.0031)	-.0259*** (.0028)
HourlyWage	-.00019 (.00022)		.0219* (.0124)	
HWDummy	-.0547*** (.0190)		-1.346 (.9899)	
HSdiploma	-.0173 (.0258)	-.1247*** (.0201)	14.53*** (.9981)	19.47*** (.9676)
Somecollege	.0664** (.0267)	-.0200*** (.0186)	28.51*** (.9781)	35.33*** (.9040)
Bachelor	.0013 (.0280)	-.2010*** (.0186)	39.21*** (1.114)	46.06*** (.8886)
Advancedegree	-.0345 (.0305)	-.1906*** (.0204)	44.64*** (1.202)	47.39*** (.9521)
SpouseHigherEduc	.0068 (.0160)	-.0202 (.0132)	8.292*** (.7838)	12.86*** (.7379)
SpouseLowerEduc	.1678*** (.0167)	.0972*** (.0141)	-7.974*** (.7402)	-10.49*** (.7196)
Livenorth	-.0442 (.0614)	-.1066** (.0498)	12.31*** (3.987)	18.45*** (3.642)
Livesouth	-.0255 (.0449)	-.0278 (.0396)	-2.655 (2.363)	-2.382 (2.396)
Livewest	.1813*** (.0535)	.1700*** (.0481)	9.938*** (2.251)	10.78*** (2.274)
Bornnorth	.0304 (.0271)	-.0095 (.0243)	4.117** (1.981)	6.946*** (1.962)
Bornsouth	-.0490 (.0334)	.0170 (.0304)	-2.560 (1.800)	-4.071** (1.756)
Bornwest	.0845* (.0453)	.0868** (.0403)	11.69*** (2.248)	11.40*** (2.169)
Bornandlivenorth	-.1810*** (.0489)	-.0832* (.0469)	-13.56*** (3.214)	-21.55*** (2.763)
Bornandlivesouth	-.2446*** (.0334)	-.2409*** (.0284)	-4.330** (2.107)	-2.973 (2.097)
Bornandlivemidwest	-.1719*** (.0421)	-.1103*** (.0380)	6.190** (2.684)	5.561** (2.647)
Bornandlivewest	-.0925**	-.0603	-9.128***	-9.677***

^a All coefficients have been multiplied by 100 so that the values in the table represent percentages. Standard errors are reported in parentheses. * Statistically significant, $p \leq .10$; **Statistically significant, $p \leq .05$; ***Statistically significant, $p \leq .01$

	(.0402)	(.0360)	(2.204)	(2.185)
StateWhiteRatio	-.2083 ^b (.0155)	-.0402*** (.0137)	-12.73*** (.9003)	-12.50*** (.8696)
StateHispanicRatio	.7672 ^{b***} (.0138)	.6348*** (.0122)	-31.79*** (1.026)	-32.00*** (1.003)
SexRaceRatio	.5633 ^{b***} (.1541)	.0182 (.1392)	3.624* (1.952)	-2.835 (1.959)
Military	.1442*** (.0163)	.2586*** (.0394)	2.089*** (.7512)	6.426*** (1.782)

Table 5: WHITES AND BLACKS- Partial effects of various variables (estimated at the mean) on the probability that a member of the first specified race (bolded) would marry a member of the second specified race (from probit regression).

^b In contrast to all other coefficients, coefficients on the different State(race)Ratios and SexRaceRatio are scaled to yield the percentage change in the probability of intermarriage due to a 10% change in the individual variable.

	White Males—Blacks	White Females—Blacks	Black Males—Whites	Black Females—Whites
Age	-.0045 ^a * (.0026)	-.0187*** (.0038)	-.2272*** (.0519)	-.1165*** (.0273)
Agesquared	-.00003 (.00003)	-.00005 (.00005)	.00035 (.00064)	.00075** (.00034)
HourlyWage	-.00037** (.00015)		-.0164*** (.0036)	
HWDummy	-.0148 (.0116)		-.7427*** (.1840)	
HSdiploma	-.0086 (.0116)	-.1793*** (.0160)	-.1819 (.1993)	.3556*** (.1375)
Somecollege	-.00099 (.0120)	-.1896*** (.0161)	.6581*** (.2150)	1.075*** (.1471)
Bachelor	-.0187 (.0125)	-.2903*** (.0133)	1.118*** (.2931)	1.721*** (.2391)
Advancedegree	.0280* (.0170)	-.242*** (.0145)	1.590*** (.4072)	3.288*** (.3877)
SpouseHigherEduc	.0179** (.0080)	-.0251** (.0124)	.1713 (.1527)	.7337*** (.1050)
SpouseLowerEduc	.0064 (.008)	.1055*** (.0135)	.9131*** (.1702)	-.3914*** (.0807)
Livenorth	.0606** (.0312)	-.0434 (.0432)	2.098*** (.4755)	1.102*** (.3056)
Livesouth	.0031 (.0203)	.0294 (.0353)	-2.061*** (.4778)	-.8577*** (.2670)
Livewest	.049** (.0260)	.0822** (.0409)	3.250*** (.5339)	1.479*** (.3464)
Bornnorth	.0308** (.0400)	-.0515** (.0219)	.5344 (.3766)	.4150** (.2167)
Bornsouth	-.0168 (.0172)	-.0751** (.0289)	-3.028*** (.4193)	-1.358*** (.2460)
Bornwest	-.0364* (.0172)	-.1064*** (.0286)	1.875*** (.7382)	1.320*** (.4329)
Bornandlivenorth	-.1314*** (.0128)	-.1353*** (.0358)	-2.923*** (.2735)	-1.174*** (.1173)
Bornandlivesouth	-.0841*** (.0152)	-.1884*** (.0276)	.0409 (.3910)	.0168 (.2067)
Bornandlivemidwest	-.0618*** (.0176)	-.1757*** (.0299)	-2.549*** (.2780)	-.8457*** (.1496)
Bornandlivewest	-.0089 (.0223)	-.1064*** (.0320)	-2.745*** (.3454)	-1.042*** (.1366)
StateWhiteRatio	.0778 ^b *** (.0084)	-.2149*** (.0139)	2.691*** (.1806)	.7903*** (.0991)
StateBlackRatio	.0333 ^b *** (.0116)	-.0458** (.0193)	-3.540*** (.2403)	-.5700*** (.1370)
SexRaceRatio	-.0980 ^b (.0731)	.1872 (.1230)	1.184*** (.2357)	-.6908*** (.1310)
Military	.0636*** (.0086)	.6027*** (.0470)	.0559 (.1407)	.8218*** (.1742)

Table 6: WHITES AND ASIANS- Partial effects of various variables (estimated at the mean) on the probability that a member of the first specified race (bolded) would marry a member of the second specified race (from probit regression).

	White Males—Asians	White Females—Asians	Asian Males—Whites	Asian Females—Whites
Age	.0081 ^{a***} (.0017)	.0033*** (.0012)	1.605* (.8532)	1.950*** (.0073)
Agesquared	-.00013*** (.00002)	-.00006*** (.00002)	-.0257** (.0101)	-.0326*** (.0086)
HourlyWage	.00002 (.00002)		-.0257 (.0264)	
HWDummy	-.0047 (.0054)		-3.187 (2.894)	
HSdiploma	.0364*** (.0124)	.0252*** (.0100)	13.91** (5.868)	16.93*** (4.842)
Somecollege	.0904*** (.0151)	.0694*** (.0122)	7.020 (5.353)	14.40*** (4.740)
Bachelor	.2378*** (.0295)	.1382*** (.0217)	-5.252 (5.247)	7.974* (4.842)
Advancedegree	.5060*** (.0584)	.2361*** (.0377)	-7.024 (5.353)	13.26*** (4.908)
SpouseHigherEduc	.0347*** (.0053)	.0290*** (.0040)	-6.406*** (2.202)	-.2212 (1.811)
SpouseLowerEduc	-.0355*** (.0039)	-.0261*** (.0033)	8.423*** (2.018)	5.453*** (1.863)
Livenorth	.0197 (.0171)	-.0182 (.0101)	-2.754 (7.582)	-.8318 (7.037)
Livesouth	-.0077 (.0118)	-.0026 (.0094)	9.030 (7.524)	.8149 (6.576)
Livewest	.0924*** (.0209)	.0504*** (.0149)	-14.70* (7.524)	-18.27*** (6.509)
Bornnorth	.0115* (.0071)	-.0062 (.0053)	-1.413 (5.193)	-4.353 (4.514)
Bornsouth	-.0191** (.0076)	-.0078 (.0063)	-6.6561 (5.193)	-1.871 (5.112)
Bornwest	.0226* (.0142)	.0068 (.0105)	-6.031 (6.362)	-12.32** (5.322)
Bornandlivenorth	-.0745*** (.0065)	-.0290*** (.0078)	-18.41*** (6.131)	-21.91*** (6.160)
Bornandlivesouth	-.0364*** (.0087)	-.0333*** (.0065)	-11.64 (7.070)	-7.859 (7.123)
Bornandlivemidwest	-.0500*** (.0094)	-.0461*** (.0068)	-1.801 (8.674)	-5.147 (7.824)
Bornandlivewest	-.0252** (.0091)	-.0091 (.0087)	-4.161 (6.255)	-3.898 (5.426)
StateWhiteRatio	-.0215 ^{b***} (.0050)	.0032 (.0040)	19.29*** (3.051)	9.626*** (2.736)
StateAsianRatio	.1898 ^{b***} (.0161)	.1475*** (.0129)	2.645 (3.803)	-8.997*** (3.405)
SexRaceRatio	-.1898 ^{b***} (.0162)	.0779** (.0353)	-21.26 (13.63)	31.38*** (11.81)
Military	.0185*** (.0048)	.0053 (.0087)	-.0990 (2.212)	7.652 (4.728)

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Appendix

Table of Means

WHITES

	Age	AgeSquared	HourlyWage	HourlyWageMissing	HSDiploma	Somecollege	Bachelor
Mean	49.30	2663.44	14.04	.3390	.3207	.2934	.1672
Max	93	8649	24692.31	1	1	1	1
Min	15	225	0	0	0	0	0

	Advancedegree	SpouseHigherEduc	SpouseLowerEduc	Livenorth	Livesouth	Livemidwest
Mean	.0935	.3174	.3185	.1932	.3523	.2840
Max	1	1	1	1	1	1
Min	0	0	0	0	0	0

	Livewest	Bornnorth	Bornsouth	Bornmidwest	Bornwest	Bornandlivenorth
Mean	.1705	.2454	.2962	.3466	.1118	.1765
Max	1	1	1	1	1	1
Min	0	0	0	0	0	0

	Bornandlivesouth	Bornandlivemidwest	Bornandlivewest	StateWhiteRatio	StateHispanicRatio
Mean	.2547	.2503	.0923	.4488	.0595
Max	1	1	1	.5715	.2322
Min	0	0	0	.1619	.0039

	StateBlackRatio	StateAsianRatio	StateSexRatio	Military	Male
Mean	.0691	.0191	.5000	.2107	.5001
Max	.34	.2384	.554	1	1
Min	.0018	.0033	.446	0	0

HISPANICS

	Age	AgeSquared	HourlyWage	HourlyWageMissing	HSDiploma	Somecollege	Bachelor
Mean	48.31	2274.39	12.78	.3094	.2871	.3030	.1064
Max	93	8649	3401.96	1	1	1	1
Min	15	225	0	0	0	0	0

	Advancedegree	SpouseHigherEduc	SpouseLowerEduc	Livenorth	Livesouth	Livemidwest
Mean	.0551	.3450	.3200	.0695	.4308	.0846
Max	1	1	1	1	1	1
Min	0	0	0	0	0	0

	Livewest	Bornnorth	Bornsouth	Bornmidwest	Bornwest	Bornandlivenorth
Mean	.4152	.0995	.4248	.1259	.3498	.0595
Max	1	1	1	1	1	1
Min	0	0	0	0	0	0

	Bornandlivesouth	Bornandlivemidwest	Bornandlivewest	StateWhiteRatio	StateHispanicRatio
Mean	.3605	.0566	.3153	.4107	.1425
Max	1	1	1	.5715	.2322
Min	0	0	0	.1619	.0039

	StateBlackRatio	StateAsianRatio	StateSexRatio	Military	Male
Mean	.0552	.0290	.4990	.1728	.4824
Max	.34	.2384	.637	1	1
Min	.0018	.0033	.363	0	0

BLACKS

	Age	AgeSquared	HourlyWage	HourlyWageMissing	HSDiploma	Somecollege	Bachelor
Mean	47.34	2449.12	12.97	.2949	.3080	.3011	.1034
Max	93	8649	10307.69	1	1	1	1
Min	15	225	0	0	0	0	0

	Advancedegree	SpouseHigherEduc	SpouseLowerEduc	Livenorth	Livesouth	Livemidwest
Mean	.0560	.3276	.3272	.1073	.6422	.1617
Max	1	1	1	1	1	1
Min	0	0	0	0	0	0

	Livewest	Bornnorth	Bornsouth	Bornmidwest	Bornwest	Bornandlivenorth
Mean	.0888	.1043	.7279	.1301	.0377	.0643
Max	1	1	1	1	1	1
Min	0	0	0	0	0	0

	Bornandlivesouth	Bornandlivemidwest	Bornandlivewest	StateWhiteRatio	StateHispanicRatio
Mean	.5843	.0947	.0295	.4179	.0588
Max	1	1	1	.5715	.2322
Min	0	0	0	.1619	.0039

	StateBlackRatio	StateAsianRatio	StateSexRatio	Military	Male
Mean	.1076	.0186	.4998	.2088	.5120
Max	.34	.2384	.713	1	1
Min	.0018	.0033	.287	0	0

ASIANS

	Age	AgeSquared	HourlyWage	HourlyWageMissing	HSDiploma	Somecollege	Bachelor
Mean	51.44	2898.30	16.98	.3437	.2055	.2798	.2885
Max	93	8649	1238.46	1	1	1	1
Min	15	256	0	0	0	0	0

	Advancedegree	SpouseHigherEduc	SpouseLowerEduc	Livenorth	Livesouth	Livemidwest
Mean	.1558	.2934	.3210	.0556	.0717	.0457
Max	1	1	1	1	1	1
Min	0	0	0	0	0	0

	Livewest	Bornnorth	Bornsouth	Bornmidwest	Bornwest	Bornandlivenorth
Mean	.8270	.0714	.0486	.0685	.8115	.0367
Max	1	1	1	1	1	1
Min	0	0	0	0	0	0

	Bornandlivesouth	Bornandlivemidwest	Bornandlivewest	StateWhiteRatio	StateHispanicRatio
Mean	.0247	.0222	.7582	.3181	.1057
Max	1	1	1	.5715	.2322
Min	0	0	0	.1619	.0039

	StateBlackRatio	StateAsianRatio	StateSexRatio	Military	Male
Mean	.0365	.1097	.5016	.1987	.4652
Max	.34	.2384	.597	1	1
Min	.0018	.0033	.403	0	0

TOTAL SAMPLE

	Age	AgeSquared	HourlyWage	HourlyWageMissing	HSDiploma	Somecollege	Bachelor
Mean	48.92	2624.96	13.92	.3343	.3186	.2950	.1602
Max	93	8649	49230.77	1	1	1	1
Min	15	225	0	0	0	0	0

	Advancedegree	SpouseHigherEduc	SpouseLowerEduc	Livenorth	Livesouth	Livemidwest
Mean	.0892	.3190	.3190	.1814	.3707	.2670
Max	1	1	1	1	1	1
Min	0	0	0	0	0	0

	Livewest	Bornnorth	Bornsouth	Bornmidwest	Bornwest	Bornandlivenorth
Mean	.1809	.2286	.3265	.3224	.1225	.1632
Max	1	1	1	1	1	1
Min	0	0	0	0	0	0

	Bornandlivesouth	Bornandlivemidwest	Bornandlivewest	StateWhiteRatio	StateHispanicRatio
Mean	.2770	.2312	.1026	.4446	.0625
Max	1	1	1	.5715	.2322
Min	0	0	0	.1619	.0039

	StateBlackRatio	StateAsianRatio	StateSexRatio	Military	Male
Mean	.0707	.0200	.5000	.2085	.5
Max	.34	.2384	.713	1	1
Min	.0018	.0033	.287	0	0