Unions that Divide: Intergenerational Marriages among Mexicans[1]

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Introduction

The post-1965 wave of immigration to the United States distinguishes itself from prior waves for its large-scale and continuity. The annual admission of legal permanent residents doubled from five hundred thousand in the 1980s (ten-year average) to one million in the 2000s (OIS 2009). In contrast, a prior wave of mainly European immigrants discontinued in the 1920s to mid-40s, which pressured the new arrivals to acculturate and assimilate into the host society. It is arguable whether this assimilation experience in earlier waves will be repeated for the contemporary wave of immigrants and their children under current large and continuous supply of new minorities (Portes and Rumbaut 1996; Alba and Nee 2003).

Recent immigrant influx seems to have important consequences on racial/ethnic intermarriage, the final stage of the assimilation process (Gordon 1964). Though intermarriage had been increasing until 1980s, some studies discovered that the new supply of coethnic marriage partners in the 1990s reversed the trend (Qian and Lichter 2007; Lichter et al. 2007). Particularly native-born Hispanics, and to a less extent Asian Americans, experienced "unprecedented decline in intermarriage with whites" (Qian and Lichter 2007: 90). If intermarriage can be an indicator of social integration (Song 2009), the declining minority-white intermarriage implies the beginning of cultural pluralism (Gordon 1964), or even downward mobility of vulnerable minorities (Portes, Fernández-Kelly and Haller 2009).

As to Hispanic population, Qian and Lichter (2007) suggested that the "growing availability of marriageable mates of the same race/ethnicity during the 1990s may have reinforced distinctive cultural traditions of native-born minorities and promoted endogamous marriages" (90). According to their conclusion, "social distance" has widened between Hispanic minorities and whites, while it has narrowed between native- and foreign-born Hispanics in the 1990s' (ibid: 86). These results imply "a new kind of segmented or downward assimilation" (91).

We need to be careful before accepting these findings for empirical and conceptual reasons. First, in terms of temporal change, Qian and Lichter used only two time points (1990 and 2000). Although an earlier study (Qian 1997) suggests that Hispanic intermarriage had increased by 1990, the period between censuses have no been checked in order to assess the validity of the upward or downward trends. The 2010 census will provide us with a new insight, but its results may not be readily available for a few more years. Secondly, they did not clearly define the concept "social distance", which obscured the interpretation of its changes over time. There seems to be confusion between a change caused by marginal distributions of husband and wives and another change caused

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by group affinity (we will come back to this point later).

The first purpose of this research is to investigate into the period before and after 2000 (1994 to 2008) to see the change in Mexican intergenerational marriages and their intermarriages with whites. This does not necessarily validate or disprove the conclusions of Qian and Lichter (2007), but it provides us with additional information to consider contemporary intermarriages. The second purpose ~~of this research~~ is to analyze the relationship between generation and education in Mexican marriages. The concept of hypergamy and hypogamy – or status exchange - (Merton 1941) had been applied mainly to black-white marriages. The theory suggests that in marrying white females, well-educated black males are exchanging their education (or earning power) with high social (racial) status of less educated females. By applying this concept to Mexican intergenerational marriage, this research attempts to see if social distances between generations are large enough to enable such status exchange. In other words, status exchange would not be possible if generational groups do not have substantial boundary or rank order.

Mexican Intergenerational Marriages from CPS data

This research pooled sixteen files of March supplement data from Current Population Survey between 1994 and 2009[2]. The data set consists of all married Mexican and white persons who are older than fifteen years old and living with spouses at the time of the survey. Five types of generations are defined as follows. First generation is those who are foreign born and whose parents are also foreign born; 1.5th generation is those whose parents and themselves are foreign born and who entered the United States between age 6 and 17; second generation is those who are native born (meaning born in the United States) and whose parents are both foreign born; this category includes those who are born in a foreign country and entered the U.S. before 6 years of age; 2.5th generation is those who are native born and either one of their parents is foreign born, that is, the other parent is native born; third generation is those who are native born and whose parents are also both native born.

Following 2000 census, CPS started to use new multiracial categories since its 2003 survey. This research categorized multiracial whites as whites and multiracial blacks as blacks (black-white is in black category). This method, according to Qian and Lichter (2007), more or less matches the new multiracial identification with old single-race classifications.

The six generational/ethnic classifications, five Mexican generational groups and whites make up 36 (6 x 6) types of marriages. The following descriptive statistics regroup the 36 groups into four. Generational endogamy includes those Mexican couples who marry coethnics in the same generation, which therefore are ethnic endogamy as well. Generational exogamy includes those Mexican couples who marry coethnics in other generations. Ethnic exogamy includes all generation Mexicans who marry native whites. (White endogamy is a part of the six-by-six table but excluded from the

[2] All data were downloaded from National Bureau of Economic Research web site (http://www.nber.org/data/current-population-survey-data.html).

following figures). Other Mexican out-marriages, such as those with Asians or blacks, are excluded because their frequencies are very small.

Figure 1 shows population growth of each Mexican generation from 1994 to 2009 in relation to the total U.S. population (total of all ages, married or unmarried).[3] It is estimated that total Mexican population nearly doubled from 17 million to 31.5 million, and their share in the total population increased from 6.6 percent to 10.5 percent during this period. It should be noted that not only immigrant Mexicans, but also the second and third generation Mexican Americans have been growing quite rapidly. These almost parallel growths indicate that their relative size within ethnicity did not change much, except that 1.5th and 2.5th generations seem to be falling somewhat behind.

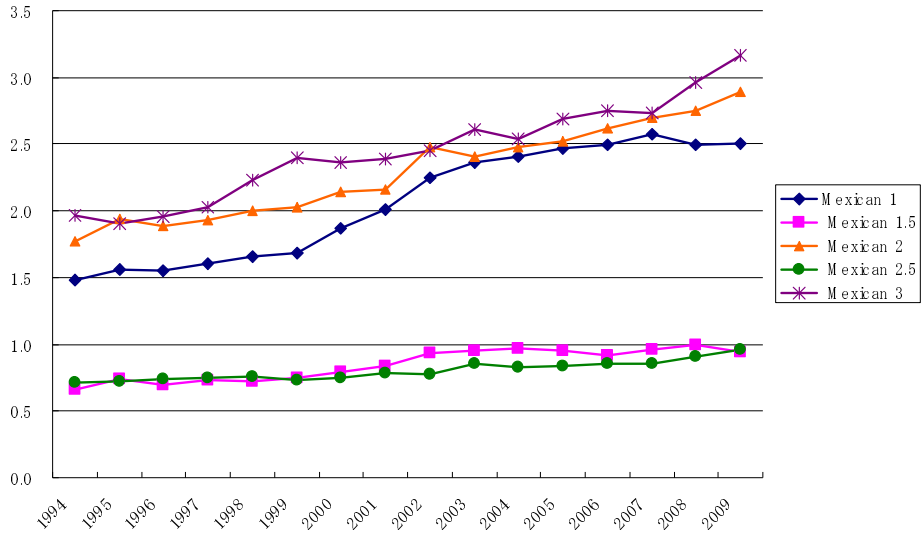

Figure 1. Growths of Mexican Generational Groups in total U.S. Population, 1994-2009 (%) Weighted

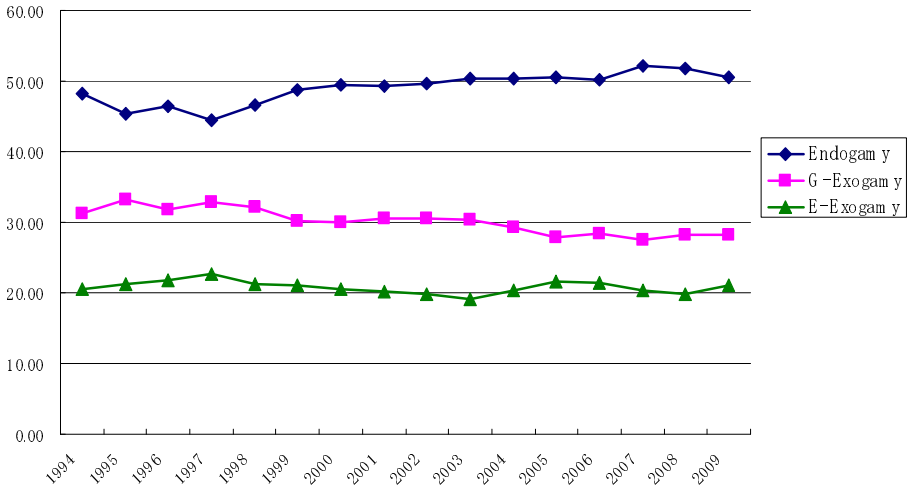

Figure 2. Mexican Marriages by Generational Groups, 1994-2009 (weighted)

[3] Since there is no jump or drop between 2002 and 2003 in Figure 1 and 2, bias caused by race classification may be minimal.

Given the changes in total population, the marriage trends in Figure 2 are not very surprising. The share of generational endogamy in all Mexican marriages increased 7.6 percentage points from 44.5 percent in 1997 to 52.1 percent in 2007, but mostly stable during the period (48.3 to 50.5 between 1994 and 2009). Mexican generational exogamy had declined 5.8 percentage points from 33.3 to 27.5 percent between 1995 and 2007. Mexican-white mix marriages are more or less 20 percent in all the period, with its lowest 19.2 percent in 2003 and highest 22.7 percent in 1997. According to Qian and Lichter (2007: Figure 1), Hispanic intermarriage of males and females declined from 27 percent in 1990 to 20 percent in 2000. Although their estimates are based on Hispanics in general between ages 20 and 34,[4] and their intermarriage partners include nonwhites, Figure 2 suggests that the "27 percent" in 1990 census might have been rather unusual. At least it can be said that the 7 percent decline in the 1990s is not impossible, but the Mexican-white intermarriage rate seems to have been fluctuating within a narrow range rather than unilaterally declining.

Qian and Lichter (2007) reasoned that increasing immigrants slowed Hispanic marriage with whites, and increased marriage between immigrants and native-born coethnics. As far as Mexicans between 1994 and 2009 are concerned, Figures 1 and 2 suggests different dynamics. Probably due to the change in within-Mexican generational composition, generational endogamy slightly increased and intergenerational marriages slightly declined; although Mexican population had increased relative to the total population, Mexican-white marriages have been more or less stable. Of course these findings do not directly contradict with Qian-Lichter's findings. The decline in intermarriage could be mainly due to non-Mexican Hispanics, or the decline could have slowed down from the mid-1990s.

Analyses of Marriage Tables – Loglinear Models

Corresponding to the two research purposes, the analytical strategies are two folds: over-time comparison of two-way loglinear models for assessing the change in social distance among Mexican generations as well as between Mexicans and whites; and a pooled four-way loglinear model for analyzing the association between generation/ethnicity and education of husbands and wives. As discussed earlier, we now have 6-by-6 marriage tables for every year from 1994 to 2009. Due to the survey design of CPS, the data sets have about 50% overlapping cases from year to year. To avoid counting same couples twice, either odd years or even years shall come into the analyses (following results are based on even years, but I performed same tests for odd years and found no significant differences). In order to secure large enough sample size, I lumped eight time points into four. In the next step, I introduce 2-by-2 educational categories and, consequently, have to reduce time category into one in order to secure cell size. It should be noted that time variances are ignored in the second half of the analyses.

[4] Figure 2 is reproduced for age 20-34 group. The intermarriage rate is somewhat lower but always around 20 percent. See appendix.

There are several serious limitations in these strategies. Because data on the time of marriage is not available, marriage here are those that sustained over time as well as new marriages (prevalence, not incidence data). Divorce, deaths, marriages before immigration are all unaccounted for, and can be a cause of bias. In terms of the marriage market, dealing only with married population and excluding unmarried ones also may cause a selection bias because one's probability of having one type of marriage is conditional on the likelihood of getting married. However, because someone being unmarried does not necessarily mean he/she is in the marriage market, controlling for marriage rates may not be practical at this time.

Trends in Mexican Intermarriages and Intergenerational Marriages

First, the over-time comparison of two-way loglinear models is based on the equation 1:

$$\log \mu_{ij} = \lambda + \lambda_i^X + \lambda_j^Y + \delta_{ij}(i=j) + \beta x_{ij} \quad \text{.....1)}$$

where X is a husband's generation and ethnicity i, (i =1 … 6); Y is a wife's generation and ethnicity j, (j =1 … 6); δ is a diagonal matrix; and x is a uniform linear association as a numeric variable. The specifications of δ and x used in the statistical software (SAS) are following:

δ =
1 0 0 0 0 0
0 2 0 0 0 0
0 0 3 0 0 0
0 0 0 4 0 0
0 0 0 0 5 0
0 0 0 0 0 6, and
x =
0 1 2 3 4 5
1 0 1 2 3 4
2 1 0 1 2 3
3 2 1 0 1 2
4 3 2 1 0 1
5 4 3 2 1 0.

While δ is a set of (five in this case) dummy variable, x is just one variable using the numbers as a hypothetical measurement of distance between cells. Uniform association (x) assumes that group distances grow greater as marriage pairings get away from main diagonals, and such patterns are uniform and symmetric for husbands and wives. Primary reason for choosing the uniform association model is to have a simple null hypothesis to analyze temporal changes. Model fit would be better if a log-multiplicative model is applied (Goodman 1979), but it is sufficient to use uniform association in order to compare fits over multiple time points. The null hypothesis represented by the above model is that there is no association between married couple's generations / ethnicities considering endogamous tendency and uniform group distance. No association means perfect assimilation because generational

or ethnic classification does not matter (beyond what is predicted by the model – endogamous tendency and uniform distance between groups) in determining distributions of marital patterns.

In addition to the three fit statistics, χ^2, G^2, and BIC,[5] we observe the change in β coefficients for the uniform association which indicates the effects of crossing one category to the next in the 6-by-6 cells. The size of β is assumed to approximate group distance between one generation to another as well as between Mexican and white spouses, provided that all distances are additive and uniform.[6] Tables 1-a and 1-b show the fit statistics of Model 1) and the β coefficients (one estimation at every time point), and the former used all 6-by-6 table but the latter used only Mexican sample.

Table 1-a Fit Statistics of Model 1) and β, all Mexican Generations and Whites

Time	n	χ^2	G^2	BIC	β
1994-96	47631	82.5	85.4	-108.5	-0.55
1998-00	43613	56.0	56.0	-136.3	-0.63
2002-04	66647	56.3	57.8	-142.1	-0.62
2006-08	62669	59.9	62.0	-136.8	-0.67

Table 1-b Fit Statistics of Model 1) and β, all Mexican Generations Only

Time	n	χ^2	G^2	BIC	β
1994-96	3427	75.5	77.5	-69.0	-0.74
1998-00	4035	53.4	54.1	-95.3	-0.75
2002-04	5456	41.3	40.9	-113.9	-0.72
2006-08	6258	60.5	62.3	-95.1	-0.76

The measurements of fit, which indicates the aggregate sizes of deviations which are not predicted by the model, seem to indicate a slight improvement of fit, or decline of deviation over time. It means that marriage patterns are getting closer to the null hypothesis (no association).[7] In other words, beyond what was accounted by β coefficients (we consider this next) and marginal distributions, unaccounted associations between variables (generation and ethnicity) have slightly declined, which implies more marital assimilation.

The β coefficients are all negative because the frequencies reduce as one moves away from endogamy (diagonal cells). The β-s in Mexicans-and-whites data (Table 1-a) are smaller than those in

$$X^2 = \sum_i \sum_j \left(n_{ij} - \hat{\mu}_{ij}\right)^2 / \hat{\mu}_{ij}$$

[5] $$G^2 = 2\sum_i \sum_j n_{ij} \log\left(n_{ij} / \hat{\mu}_{ij}\right)$$

$$BIC = G^2 - df \log n$$

[6] This "uniform" association may seem too restrictive, but as far as this marriage data is concerned the variable matches very well. It was obvious when the model 1) was compared to the model without the association term – supported by large improvement of model fit, and very small and even residual in each cell.

[7] The negative values of BIC indicate the model is more parsimonious than saturated model, but the χ^2 tests are all significant (not shown), which means there still exist significant associations unaccounted by the model.

Mexicans-only data (Table 1-b), probably because distance between each Mexican generation and whites are not as much as it was defined by the model. On the other hand, lager β-s in Table 1-b indicates that the distance between Mexican generations is wider than between Mexican and whites, given the hypothesized uniform distance. The changes in β for mixed sample seem increasingly negative, while it is almost flat in Mexican-only data. By deduction, Mexican-white group distance had been slightly widening, but distance between Mexican generations had not. Does it mean Mexican marital assimilation with whites had slowed? Since Mexican-white distance is narrower than the distance between Mexicans, overall model fit had improved when Mexican-white distance widened. Considering Figure 1 and 2, Mexican-white marriage did not increase as much as it was expected by the relative population growth, and instead Mexican generational endogamy had increased. This is different from the scenario proposed by Qian and Lichter (2007) regarding Hispanics in the 1990s, where they asserted that Hispanic intermarriage was replaced by Hispanic intergenerational marriages. We found here that, as far as Mexicans in the past fifteen years are concerned, widened Mexican-white distance did not affect Mexican intergenerational marriages.

Within-Mexican distances are stable, but Figure 2 shows widening gap between increasing generational endogamy and declining intergenerational marriages. Presumably the bifurcation is in large part due to the changes in marginal distributions because the uniform association term shows stability in intergenerational marriages. Particularly, the slow growths of 1.5th and 2.5th generations and rather fast growth of the first, second and third generations are the cause of changing marginal distributions. 1.5th generation grows slowly because not all adult immigrants accompany their children; relative decline of intermarriage slows the growth of 2.5th generation and it decreases intermarriage – cyclical causality. The fast growths of the first, second and third generations are responsible for the growing endogamy and declining intergenerational marriages.

Status Exchange in Mexican Marriages

Educational assortative mating or educational homogamy intertwines with racial/ethnic intermarriages. Because marriages tend to be educationally homogamous (Schwartz and Mare 2005), racial/ethnic intermarriages also tend to occur within the same level of educational attainments. Educational heterogamy is as uncommon as racial exogamy, but Merton (1941) found an interesting pattern in the exceptional cases. When blacks and whites intermarry, husbands are predominantly black males and they tend to be mode educated than their white spouses (hypogamy[8]), which is surprising because white females are on average more educated than black males. The status exchange theory explains that such reversal happens because black husbands and white wives exchange education with racial status. In other words, socioeconomic status and racial status are treated as if exchangeable goods.

Kalmijn (1993) confirmed the status exchange in black-white marriages using quasi-symmetry

8 When black females marry up with white males, it is called hypergamy.

loglinear models. Though there is an ongoing debate over whether a simple approach or a complex approach is appropriate in assessing the status exchange (Rosenfeld 2005), all would agree upon the importance of this concept because it indicates the hierarchical function of race in the marriage market (Kalmijn 2010). In his study, Kalmijn calculated observed and predicted "hypergamy ratios" using a quasi-symmetry model. The following analytical strategy (comparing hypergamy or hypogamy ratios) was an application of Kalmijn's method, though it is quite simplified. The core question here is whether such mechanism of race hierarchy is applicable to generations of Mexicans. If it is the case, it supports the finding in the previous section about the stable but quite wide group distance between Mexican generations.

As mentioned earlier, I introduce 2-by-2 education dimensions to replace the time variable. The following four-way loglinear model with symmetry matrix is called a quasi-symmetry model (because it allows marginal distributions to vary):

$$\log \mu_{ij} = \lambda + \lambda_i^X + \lambda_j^Y + \lambda_k^U + \lambda_l^V + \lambda_{ik}^{XU} + \lambda_{jl}^{YV} + \lambda_{kl}^{UV} + \delta_{ij}^{XY} + \delta_{ij}^{XY}\lambda_k^U + \delta_{ij}^{XY}\lambda_l^V + \delta_{ij}^{XY}\lambda_{kl}^{UV} \quad \text{.....2)}$$

where, in addition to those terms in Model 1), U is husband's education (k=1, 2. and 2 means High School or more education); V is wife's education (l=1, 2. and 2 means High School or more); λ_{ik}^{XU}, λ_{jl}^{YV}, λ_{kl}^{UV}, are interaction terms for husband's generation and education, wife's generation and education, and husband's and wife's education; δ_{ij}^{XY} is a symmetry matrix as a set of dummy variables defined as following:

δ_{ij}^{XY} =

1	2	3	4	5	6
2	7	8	9	10	11
3	8	12	13	14	15
4	9	13	16	17	18
5	10	14	17	19	20
6	11	15	18	20	21

The last three terms are interaction between the symmetry matrix and education variables. The symmetry matrix hypothesizes that corresponding generational/ethnic pairs (e.g., ij=[1,3] and [3,1]) have same net effects controlling for all other marginal effects. In other words, in the null hypothesis, tendencies of husband's hypogamy and wife's hypergamy are same once other marginal effects are controlled. We can use either hypogamy or hypergamy ratio because the former is just an inverse of the latter. From here on we use hypogamy ratios.

Hypogamy ratios are the ratios between frequencies of husband's hypogamy and frequencies of wife's hypergamy in corresponding cells across main diagonals. In the 6-by-6 table with husband's generation in a row and wife's generation in a column, cell frequencies (observed and predicted)

above the main diagonal divided by corresponding cell frequencies below the main diagonal produces husband's hypogamy ratios. For example, when a husband's education is less than high school and a wife's education is high school or more, the observed frequency of marriage between immigrant husbands and third generation wives is 91; and the observed frequency of marriage between immigrant wife and third generation husband is 15. Thus observed hypogamy ratio is 91/15 = 6.1, meaning that immigrant husbands marry third generation wives six times more often than immigrant wives marry third generation husbands. Predicted hypogamy ratio based on the symmetry model for these same cells is 88/18 = 4.9. If hypergamy and hypogamy effects for husbands and wives are equal, the rate should have been 4.9 (it is not one because of marginal distributions), but the observed hypogamy ratio is 6.1. It indicates that husband's tendency of hypogamy is about 1.2 times greater than it was predicted by the symmetry model. Consequently, in this educational setting (husband=low; wife=high) and Mexican immigrant-third generation marriage, husbands have a tendency to marry higher generations beyond hypothetical prediction. Because husbands have lower education and marrying up, this is not a status exchange.

Table 2-a Hypogamy Ratios (Husband's) -- Aggregated by Generation

			Wife's Education					
			Low			High		
Husband's Education		Pairing type	Obs.	Pred.	O/P	Obs.	Pred.	O/P
	Low	Mexican 1st. Gen	1.07	1.09	.98	2.12	1.91	1.11
		Mexican 1.5th. Gen	2.06	1.83	1.13	4.09	3.55	1.15
		Mexican 2nd. Gen	1.14	1.43	.80	1.55	1.46	1.06
		Mexican 2.5th. Gen	1.14	1.34	.85	1.17	1.27	.92
	High	Mexican 1st. Gen	.81	.72	1.13	1.22	1.13	1.08
		Mexican 1.5th. Gen	.77	.64	1.20	1.58	1.26	1.25
		Mexican 2nd. Gen	1.18	.93	1.27	1.01	.94	1.07
		Mexican 2.5th. Gen	1.24	1.17	1.06	1.21	1.11	1.10

Table 2-b Hypogamy Ratios (Husband's) -- Aggregated by Ethnicity

		Wife's Education					
		Low			Low		
Husband's Education	Pairing type	Obs.	Pred.	O/P	Obs.	Pred.	O/P
	Mex. Intergenerational	1.15	1.19	.97	2.19	2.01	1.09
	Mexican – White	1.41	1.45	.97	.59	.57	1.02
	Mex. Intergenerational	.86	.75	1.15	1.22	1.10	1.11
	Mexican – White	2.07	2.04	1.02	.93	.93	1.00

Table 2-a and 2-b show aggregate summaries of such hypogamy ratios (observed, predicted, and difference between the two – Observed / Predicted ratios). Observed and predicted frequencies are aggregated according to husband's hypogamy patterns. For the first generation husbands, their marriage with 1.5th, second, 2.5th, and 3rd generation wives are aggregated, and so on. The 3rd generation Mexican husbands do not have hypogamy because they are the highest. Table 2-b shows aggregated ratios within Mexicans and between Mexicans and whites. Because status exchange occurs in educational heterogamy, we focus on the upper-right and lower-left cells of the 2-by-2 educational combinations. In the upper-right cells, when wives' education is higher than husbands', husbands have greater-than-predicted hypogamy ratios except for the 2.5th generation. It means that husbands have hypogamy tendency when wives have higher education. These husbands do not have status exchange because they marry up with higher-generation, better-educated wives. Thinking from the other way, wives here tend to marry down with lower-generation, less-educated husbands.

In the lower-left cells, two out of four observed hypogamy ratios are less than one (hypergamy is more frequent than hypogamy), but in all four groups the difference between observed and predicted hypogamy ratios are always greater than one. It means that in this education setting (husband=high; wife=low), husband's hypogamy tendency is greater than the model's expectation. Here, we confirm status exchange: Mexican husbands with high school education or more tend to marry upper generation Mexican wives with less than high school education.

In Table 2-b, status exchange is again observed in the lower-left cells, but status exchange in all Mexican intergenerational marriages is not surprising because this is an aggregation of the lower-left cells in Table 2-a. In case of Mexican-white marriages, the difference between observed and predicted hypogamy ratios is too small to detect status exchange. In other words, controlling for educational differences, hypogamy-hypergamy balance (gender balance) in Mexican-white marriages are symmetric. There are hypogamy and hypergamy but they are more or less perfectly predicted by the loglinear model.

Generally, husband's observed hypogamy ratios are greater than predicted hypogamy ratios, which indicates that, as far as married Mexicans are concerned, husbands are more likely to marry up than wives do. In this sample of married Mexican couples, wives are slightly more educated than husbands (45.3% of wives have high school or above education, while 44.4% of husbands do), but husbands still marry up more often. This might reflect on the fact that husbands tend to be breadwinners as suggested by Kalmijn (1993).

Conclusion

Descriptive observation of 1994-2009 CPS data found no confirmation of "unprecedented decline" (Qian and Lichter 2007) of intermarriages as far as Mexicans and whites during 1994-2009 period are concerned. However, we are not able to tell whether the decline really had happened before 1994 and

stopped at around 20 percent, or the intermarriage rate has been always stable with exceptional jump in 1990 census. Or, Mexicans might possess very different marriage patterns than other Hispanics do, which might have resulted in a big difference between Hispanics in general and Mexicans. Nevertheless, in terms of intergenerational marriage, we observed slight increase in generational endogamy and slight decline in generational exogamy, which did not match Qian-Lichter's expectations – they expected increasing immigrant-native marriages as immigrants increase. Since not only immigrants, but also the second and third generations have been growing, intergenerational marriage did not increase as much as they expected.

The further analysis using loglinear models revealed that Mexican-white social distance is not as wide as within-Mexican (between generation) distances and it is slowly widening. Within-Mexican distances are rather stable over the last fifteen years. It indicates that the slightly-widening gap between Mexican generational endogamy and intergenerational marriage in Figure 2 was due mainly to the change in marginal distributions, that is the relative growths of the first, second, and third generations, and not because the change in within-Mexican social distances. The over-time improvement of fit statistics, though only slightly, means that observed distribution of marriages are getting more similar to what the loglinear model predicts. In other words, the specification of uniform association is getting increasingly more appropriate. Clearly, "true" distances are not uniform (same distance from every one cell to another), but for general, overtime comparison this tool is quite simple and its results are easy to understand. At this time, we do not decipher obvious trends of marital assimilation. Additional studies incorporating longer time period and different racial/ethnic groups are in order.

In regard to the association between generation and education, this study proved that such a phenomenon as status exchange does exist between more educated husbands and less-educated, higher-generation wives. Considering the fact that husbands have greater-than-expected hypogamy ratios in most cases regardless of the couple's education, however, we should be careful in determining how significant this finding is. Most marriages are both ethnically and educationally homogenous, and status exchange is one of the exceptional cases (Rosenfeld 2005). In case of black-white intermarriage (Kalmijn 1993: Table 5), observed and predicted hypergamy ratios are in reverse relationship: a wife's hypergamy was more frequent than a husband's hypogamy while the model predicted greater frequency in husband's hypogamy. As a result, the O/P ratio in Kalmijn (1993) was 1.35 for black husbands and white wives. In this study of Mexican marriages we do not see such reversal except just 2 cases, where the largest O/P score was 1.27 for the second generation Mexican husbands and upper generation Mexican wives. Although the reversal is not a prerequisite for judging status exchange, the larger the observed-predicted hypergamy (or hypogamy) gap, the greater the tendency of status exchange should be. In terms of magnitude, therefore, status exchange in Mexican intergenerational marriages may not be as strong as in black-white marriages. This finding may only moderately support the first part of this study about social distance between generations. To make a more meaningful comparison, intermarriages of other racial and generational groups should be

analyzed in the same context.

This research investigated assimilation of immigrants and native-born minorities under incessant immigration of coethnics with special attention to Mexican intermarriages. We cannot say definitively if large immigration widens the distance between Mexicans and whites or between generations. There is an evidence of only slight widening of Mexican-white distance and no evidence of change in between-generation distance. Considering the sizeable increase of Mexican immigrants and other Mexican minorities, the answer would be that the large-scale immigration did not leave so much impact on intermarriages. I speculate that endogamy-exogamy rates are quite stable for long time once we take out the changes caused by shifting marginal distributions.

Certainly not all, but major limitations in this study are following. The over-time comparison of loglinear models did not take into account different sample sizes which might affect evaluations. Endogamy in this study was implied by exogamy, because non-exogamy is endogamy, but we might want to pay more attention to endogamies. Period before 1994 should be investigated. Marriage rates or those who are eligible but unmarried population should be taken into account. And finally, other racial or ethnic groups should be investigated with the same – or better – method. The author is fully aware of these limitations and hoping to improve upon them in his future research.

Appendix

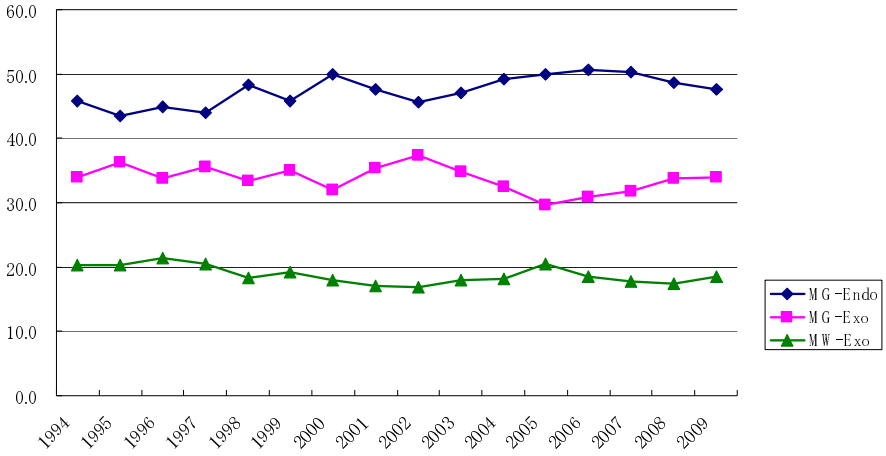

Figure A-1. Mexican Marriages by Generational Groups, 1994-2009 (weighted)

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