EDUCATIONAL ASSORTATIVE MATING IN TEN EAST AND SOUTH-EAST ASIAN COUNTRIES: TRENDS 1950S-1990S

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INTRODUCTION

Recently a variety of studies have documented regional and temporal variation in the patterns of association between spouses' educational attainment (Jones 1987, Mare 1991, Ultee and Luijkx 1990, Smits, Ultee, and Lammers 1998, 2000; Park & Smits, 2002; Smits, forthcoming). In a large-scale comparative analysis involving 65 countries, Smits et al. (1998) supported the conclusion of Ultee and Luijkx (1990) that industrial countries differ in their levels of educational homogamy, and showed that these differences are related to differences in the countries' level of economic development, to their dominant religion, and - for the least developed countries - their technological background. With regard to the effect of dominant religion, the most striking finding was that after control for some other country characteristics, the East-Asian countries with a Confucian tradition tended to show the highest levels of educational homogamy. Later research focusing on educational homogamy among people with a high educational level in 55 countries (Smits, forthcoming) and several studies focusing on one or a few East-Asian countries (Park 2001) largely confirmed this finding.

However, in spite of this suggestive evidence, it still remains to be seen whether the phenomenon of high levels of educational homogamy in these East-Asian countries is really the result of their Confucian tradition or whether other factors also or even foremost play a role. For instance, if we look at the available evidence for other countries in the region which have experienced less Confucian influence in the past, like the Philippines, Indonesia, Malaysia and Thailand, we

see that these countries also had relatively high levels of educational homogamy compared to countries in other parts of the world. A first interesting question which we will address in this paper, therefore, is whether the high levels of educational homogamy in the Confucian countries is the result of their Confucian background as such, or of one or several more general factors which play or have played a role in the whole East and South-East Asian region.

The fact that the (South)-East Asian countries show relatively high levels of educational homogamy compared to other regions of the world does not mean that the region is completely homogeneous in this respect. The available studies show clear differences among the countries in both the level of educational homogamy and in the strength and direction of the trends in educational homogamy within the countries. Especially the trend results are interesting. In some of the countries (e.g. China, Indonesia) educational homogamy has decreased over time, whereas in others (Thailand, South Korea, Taiwan) it seems to have remained rather stable (Smits et al., 2000). This raises the second question which will be addressed in this paper: which factors are responsible for the differences in levels and trends in educational homogamy among the (South)-East Asian countries.

This study looking at cross-national and temporal variations in educational homogamy in ten (South)-East Asian countries tries to extend prior comparative analyses in some important ways: most importantly, we track trends in educational homogamy over relatively long periods across four marriage cohorts (1950-64, 1965-74, 1975-84, and 1985 or later) in each of eight countries, though

data limitations allow us to examine only two earlier or later cohorts for Japan and Singapore, respectively. Given that many of (South)-East Asian countries included in our analysis attained independence after World War II and achieved rapid economic and social changes since then, we cover the important periods of the modern history of each nation. Note that the finding of stronger educational homogamy in the East-Asian region was basically based on mostly the 1970s data (Smits et al., 1998; Smits forthcoming). In this regard, our research covering the long periods from the 1950s to recent decades is an important update.

Furthermore, this period is particularly relevant for testing some of major hypotheses on trends in educational homogamy, which emphasizes the role of economic development or industrialization to affect educational homogamy. Because most of the countries included in our study experienced important industrialization processes during the period we cover, we are better able to understand the relationship between economic development and educational homogamy.

In addition, we use marriage tables by (real or estimated) marriage cohorts instead of age cohorts, which would be more adequate for detecting real trends in educational homogamy (Mare 1991, Qian 1997). Finally, we use the combined data of several nationally representative surveys for the countries, which reduces the risks that the results are distorted by the peculiarities of specific data sets. This also provides a very large sample of married couples with which we are better able to capture detailed changes in homogamy.

HYPOTHESES

Temporal Changes within Countries

We describe some of relevant hypotheses with regard to temporal and cross-national variations in educational homogamy, basically derived from earlier studies (Smits et al. 1998, 2000, Ultee and Luijkx 1990). The first hypothesis tested in our analysis is the general openness hypothesis, which predicts educational homogamy to decrease as societies become industrialized or modernized. We can expect various processes to lead to a trend toward less homogamy along with industrialization or modernization: for example, on the one hand decrease in the extent to which parent control the marriage choices of their children, while on the other hand increase in the opportunities to meet people from diverse status groups due to expansion of mass communication.

In contrast, the status-attainment hypothesis predicts increase over time in educational homogamy emphasizing the increasing role of education as economy develops. Education becomes a more important criterion for social achievement and thus for marriage choices as well.

Combining the two contrasting expectations of the general openness hypothesis and the status-attainment hypothesis, another perspective expects educational homogamy to change with inverted-U shape: the association between husbands' and wives' education increases at the beginning stage of economic development, because of increasing importance of education wile status considerations are still very important, and decreases at the later stage,

because then the effects emphasized by the general openness hypothesis get the overhand.

Inferred from the assumption that social mobility and educational outmarriage are both indicators of a general openness of society (Ultee and Luijkx 1989), there can be another prediction regarding temporal trends in educational homogamy. The classic thesis of intergenerational social mobility proposed by Featherman, Jones, and Hauser (1975: the FJH hypothesis) found not only a similar pattern of relative mobility across societies but also a relatively stable mobility regime over time. Applied to relative chances of educational heterogamy, the hypothesis leads us to expecting fair stability over time in educational homogamy.

Cross-national Differences in Educational Homogamy

Earlier studies of cross-national differences in educational homogamy based on the 1970s data showed that the four East-Asian countries (Hong Kong, Japan, South Korea, and Taiwan) often referred as Confucian societies had relatively higher homogamy than any other regions. This finding leads us to expect higher homogamy in the East-Asian countries than South-East Asian countries that are relatively less influenced by Confucian tradition, though the current levels of homogamy depend on the trends since the 1970s.

However, in the same studies South-East Asian countries like Indonesia, Malaysia, or Thailand also showed relatively higher degree of educational homogamy compared to other regions. Thus, the difference in the extent to which

persons with the same levels of education marry each other may not be apparent between East and South-East Asian countries.

Although it is not quite clear which characteristics of Confucian tradition are associated with the higher levels of educational homogamy, the combination of traditional family orientation with a strong emphasis on formal education as a channel of social mobility (Tai 1989) has been considered as an important cause (Smits et al 1998).

It is also suggested that in these East-Asian countries education has played a relatively important role for social achievement, as a bulk of economic literature has emphasized the region's development in human capital as a main force leading to Economic Miracle (Tilak 2002, World Bank 1993). In Taiwan and Korea, various factors like Japanese colonial rule, land reform after independence, and the inter-war eroded the traditional class system and enabled these societies to start its industrialization process with a fairly open and fluid stratification system (Koo 1985). The erosion of the traditional agrarian class structure probably has weakened the significance of ascribed status characteristics -- like class of origin or parental socioeconomic and cultural capital -- for individual achievement. It is also well documented that since Meiji Recuperation in the late of 19 century, education was an important factor for rapid economic growth in Japan. Thus, education as an important factor affecting future socioeconomic status in the East Asian countries may have had a major influence on marital selection as well.

Related with the importance of education for social achievement, some studies have emphasized the role of education for marriage markets rather than for direct economic or occupational returns among women especially in Korea and Japan (Park and Smits forthcoming, Brinton and Lee 2001). Despite remarkable educational expansion among women as well as men in these two countries during the last few decades, the M-shaped curve of women's work patterns with age has persisted (Brinton 2001). A large amount of women's withdraw from the labor force upon marriage, childbearing, and childrearing and return to work after that with probably less prestigious conditions. That is, there is a substantial "loose coupling" between education and labor market outcomes among women (more apparently in Korea).

To understand the dramatic expansion of education among women despite considerably lower rates of economic return to education in Korea, Brinton and Lee (2001) emphasize a "cultural" than an "economic" demand for education among women: the role for marriage market returns. That is, the high demand for education among Korean women is directed more towards marrying a man with a high socioeconomic potential than towards attaining a high position in the labor market, which may be associated with higher tendency toward educational homogamy particularly at the highest levels of education.

Another relevant factor affecting educational homogamy is the role of mother (Hirao 2001, Lee 2001). Mother's intensive involvement on children's education in Japan and Korea has been widely documented (Ellington 1992, Choi 1994). Thus, one of the reasons why males in these countries may prefer a

highly educated partner, even if that partner is not gainfully employed, is because a highly educated mother can help their children to achieve better in the competition for the best education and, via the educational channel, for the best positions in society (Park and Smits forthcoming). High demand on private educational institutions outside of regular school and parents' expectation and pressure on their kids' educational achievement are well known anecdotes.

It is important to note that in respect to women' economic participation and the role of the mother, Taiwan is clearly distinct from the other two East-Asian countries, Japan and Korea. Relatively stronger relationship between women's education and labor market outcomes and the pattern of women's labor force participation across the life course close to that of western countries make Taiwan exceptional (Brinton 2001). Thus, it would be interesting to see how such differences might be associated with variations in the degree of educational homogamy among the three countries.

Finally, many studies on intermarriage showed that race/ethnicity, langauge and religion are also important characteristics on which social selection takes place and thus the tendency of intermarriage among racial/ethnic, linguistic or religious groups can interact with the tendency of educational homogamy (Johnson 1980, Kalmijn 1991, 1998, Qian 1997, Wong and Lu 1999; Gunduz-Hosgor and Smits 2002). In particular, among the ten countries included in our analysis, there are clear differences in the degree of ethnic heterogeneity. One the one hand, we have countries like Japan or Korea which are relatively homogenous with regard to race and ethnicity, while on the other hand there are

countries like Malaysia or Singapore which display relatively high level of heterogeneity in this respect. Given the multidimensional nature of intermarriage we expect to find lower levels of educational homogamy in countries with greater racial, ethnic or religious heterogeneity.

DATA AND METHOD

The data we use to answer our research questions are individual level data sets with information on the educational levels of spouses in ten (South)-East Asian countries at several points in time. These countries are China, Hong Kong, Indonesia, Japan, (South) Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand. For each of these countries we construct educational homogamy tables for four marriage cohorts on the basis of the actual or estimated data of marriage: 1950-64, 1965-74, 1975-84, and 1985 or later. Since we have only recent data for Singapore, we could not construct all of these four cohorts but only two recent cohorts. As we will explain in detail, the educational classification we use for all cohorts and countries is not applicable to recent cohorts in Japan. Thus, for Japan only two older cohorts are included in the analysis.

In most of the data sets, the actual date of marriage was available, so that we could assign the couples in these surveys without problems to the marriage cohorts. However, for the other surveys, the year of marriage of the couples had to be estimated. This was done on the basis of the spouse's year of birth and the

available information on average marriage age of persons born in a given year in the countries (compare Park & Smits, forthcoming).

We tried to find a standard educational classification that applies to all cohorts and countries keeping important distinctions in the levels of educational attainment in each national educational system. We classify educational attainment for both husbands and wives into five categories: (1) less than primary, (2) completed primary, (3) completed junior high school (middle school or lower secondary), (4) completed senior high school (high school or upper secondary), and (5) tertiary (regardless of graduation). Because there are substantial numbers of people with less than primary education particularly in older cohorts of most of the countries, we considered it important to distinguish between completing and not completing primary education.

However, this classification of educational attainment is not applicable to recent cohorts in Japan. Given the high educational level in this country, there were hardly any cases with less primary education in the older cohorts and even no cases with completed primary as highest educational level in the recent cohorts. This characteristic of Japanese educational system led us to include only two older cohorts with the modified five categories: (1) completed primary or less (2) completed middle school (3) completed high school (4) some college and (5) completed four-year university or more. Another deviation from the standard educational classification is for Hong Kong, for which attended instead of completed levels of education had to be used.

The regional and temporal variations in the association between the educational levels of spouses are studied with log-linear models. The log-linear models we use allow us to measure relative chances of marriage controlling for the differences in the educational distributions of husbands and wives across countries and time periods. To prevent the model selection process from being disproportionately influenced by certain countries/cohorts with very large number of cases, we followed Smits et al (1998) and adjusted the sample sizes for each country/cohort table to have the same number of 1,000 cases. However, for the estimation of the parameters of the selected models, all available information (cases) was used.

RESULTS

Models

Table 1 presents the results of the log-linear analysis of the association between the educational levels of spouses. For model selection, we mainly rely on the BIC (Bayesian Information Criterion) statistics that are particularly useful for large samples like ours (Raftery 1995). In general, the model with the more negative BIC statistic is preferred.

Model 1 in this table assumes that there is no association between the educational levels of spouses, after controlling for the marginal distributions of husbands' and wives' education by country/cohort. The very poor fit of Model 1 indicates that this model must be rejected, suggesting significant association between spouses' education. To represent the tendency of overrepresentation of

couples in which husbands and wives have the same level of education, Model 2 fits the main diagonal with a single parameter which distinguishes this diagonal from the rest of the table. The much lower BIC value of Model 2 compared to Model 1 means that people have a strong tendency to marry someone with the same levels of education. Model 3 allows the strength of this educational similarity to be different among the educational groups, by postulating a separate diagonal parameter for each educational level. Because Model 3 fits better than Model 2, we conclude that the strength of the tendency toward educational similarity varies among the educational groups.

In addition to the specification of the main diagonal cells, Model 4 describes the association in the off-diagonal cells with a uniform association parameter (UA). Whereas the educational similarity parameters indicate the tendency of spouses to have the same educational levels, the uniform association parameter indicates the extent to which spouses with different educations tend to have educational levels which are near to each other. The addition of this uniform association parameter improves the model fit considerably in comparison with Model 3. Hence we keep this parameter in the model.

In Model 5, a gender asymmetry parameter is added, which indicates the degree to which women tend to be married with men with higher educational levels. Model 5 fits the data better than Model 4, which leads us to conclude that there is a notable gender effect in educational assortative mating among our samples of ten (South)-East Asian countries.

Models 6 and 7 test whether the value of the uniform association parameter differs between different pairs of educational categories. Both models are versions of the Row and Column Effects Model (I) of Goodman (1979). Model 6, the standard version of this model, allows the uniform association parameter to vary over the rows and columns of the table. In Model 7, the "equal" version of the model, this variation of the uniform association parameter among the educational categories is restricted to be the same for the row and column categories. Table 1 shows that both models fit the data slightly better than Model 5, which means that the strength of the uniform association is different for different combinations of rows and columns combinations. Because the BIC value of Model 7 (--4631) is lower than that of Model 6 (-4621), we are led to the conclusion that there are no important differences between the row and column parameters. We, therefore, select model 7 as the starting point for our further analyses for differences among countries and trends.

The model selection proces, so far, suggested that uniform association, gender asymmetry and educational similarity are the three major dimensions of educational assortative mating in (South)-East Asian regions. To examine the differences among the countries in the extent of the association between spouses' education, we test whether each of the three elements of educational assortative mating differs across ten countries. Note that here we assume that the association has not changed over time within each country.

Model 8 tests whether the uniform association parameter differs among the countries. The lower BIC statistic (-5153) of Model 8 than that of Model 7 (-

4631) suggests significant cross-national differences in the uniform association parameter. In the next model, furthermore, the extent to which the general similarity parameters distinguishing between the main diagonal and the rest of the table vary across countries. It turns out that Model 9 shows a model fit as good as Model 8 (both models have the BIC values of -5153). Thus, we cannot simply disregard cross-national differences in the strength of the general similarity as well as the uniform association. Once we allow variations across countries in the uniform association and the general similarity parameters, however, the degree to which women marry up with respect to educational levels does not substantially differ across countries, as Model 10 does not improve upon Model 9.

Next, we move to examine the trends in educational homogamy based on Model 8. Since Model 9 also fits the data as good as Model 8, we provide additional information based on Model 9. To keep the model simple, at this moment we postulated only uniform association parameters to change over time. We first fit the model that had both the linear and non-linear (quadratic) trends of the uniform association parameter in each country. The model can be described as

Model 8 (or Model 9) + UA*C*T + UA*C*T2

After fitting the model to the data, we refitted the model with only significant trend parameters. Table 2 presents the parameter estimates of the final model

obtained in this way. Panel A indicates the estimates based on Model 8, which allows only the uniform association parameter to differ across countries, while Panel B shows the results derived from Model 9 assuming cross-national differences in both the uniform association and the general similarity parameters.

Comparisons between Panel A and Panel B indicate that the uniform association parameter for each country (UC) and its linear and non-linear trend parameters (UT and UT2) are overall consistent regardless of allowing for cross-national variations in the general similarity parameters (DC). Only apparent is that the uniform association parameter for Japan decreases substantially when the general similarity parameter is included in the model. This is because compared to other countries Japan has a significantly stronger tendency toward intermarriage between persons with the same levels of education (see DC parameter of Japan in Panel B). We can find the opposite case for Malaysia where the uniform association parameter becomes larger once the general similarity parameter, which is relatively lower in comparison to other countries, is included in the model.

Trends and cross-national differences

The second set of columns in Table 2 presents the trends in the uniform association parameters across the four marriage cohorts, based on the model parameters in the first set of columns. To obtain a better sense of change over time, the trends in Panel A are depicted in the figure. For clarity of presentation,

in Figure 1 we separated ten countries into two groups of which each has five countries.

There are some noticeable findings to be drawn from the figures and table. First with respect to the trends in the uniform association parameter, six out of the ten countries show a clear decrease, while education homogamy in Japan and Malaysia remains constant. Showing non-linear trends, Hong Kong and Korea show no decrease overall, though there is some evidence that the uniform association parameter starts to decline since the second cohort in Korea. Interestingly, we can find hardly any monotonic increase in educational homogamy in any countries. Thus, in regard to the trends over time, the dominant tendency is toward less educational homogamy, though the extent of decline varies across countries and even there are some countries with no change.

When we examine the cross-national differences in the trends over time, countries with a low level of homogamy already for the first cohort like Philippines or Thailand seem to have stronger decline than countries with a high level of homogamy for the first cohort. Only Indonesia is exceptional in that it had a relatively high level of educational homogamy for the first marriage cohort of 1950-64 and since then it experienced a substantial decline.

Now turning our focus to the cross-national differences, we see three broad groups of countries in terms of the strength of educational homogamy. In one extreme Korea and Japan are distinctive in their highest levels of homogamy, while in the other extreme Philippines and Thailand show distinctively low levels

of homogamy. Between the two extremes, the other countries are located. Particularly the differences among these other countries in the middle level have decreased over time and thus for the youngest cohort of the differences are not substantial. It is interesting to see that the other two East Asian countries – Hong Kong and Taiwan, which were found to show higher levels of educational homogamy in earlier studies, in general do not show distinctively stronger homogamy, though the oldest cohort of 1950-64 in Taiwan did show relatively higher level of educational homogamy.

Differences among countries explained

Model selection processes and the figure derived from the parameter estimates indicated substantial differences among the ten countries in the strength of educational homogamy. Now, we examine some of the factors which may be associated with these differences. In the hypotheses section, we highlighted the role of race/ethnicity or religion as another characteristics affecting marital selection and expected that the more ethnically or religiously homogenous population a society has, the stronger educational homogamy it shows. Since we have only ten countries, a sensitive multivariate analysis for examining the effect of the variable on educational homogamy is not feasible. Instead, we calculated the Pearson correlation between the uniform association parameter and the index of ethnic fractionalization among countries and cohorts.

Basically derived from information on the shares of each ethnic group to total population in a society, the index of ethnic fractionalization has been widely

used in political science to indicate the extent of ethnic heterogeneity in the society (Krain 1997, Alesina et al. 2002). With the range of 0-1, a higher value of the index indicates more ethnic diversity. We obtained the index for our ten countries from Krain (1997) and Alesina et al. (2002). The ten counties included in our analysis show large variations in the degree of ethnic heterogeneity from the very low levels in Korea (0.01) or Japan (0.01) to the very high levels in Philippines (0.84) or Indonesia (0.75). Taiwan (0.27) and China (0.12) are the countries with the middle levels of ethnic heterogeneity. Note that although the index is available across different time points for each country, it hardly changes over time.

Table 3 presents the Pearson correlation coefficients between the uniform association parameter and the index of ethnic fractionalization as well as two other variables we will discuss below. In addition to the correlation for the whole countries/cohorts, we report the correlation for each of four marriage cohorts as well. The correlation between the uniform association parameter and the index of ethnic fractionalization is statistically significant and substantially high around –0.60. The negative sign means that the less ethnic diversity, the stronger educational homogamy. This finding is consistent with our hypothesis.

When we developed the hypotheses on the cross-national differences in the strength of educational homogamy, we also focused on the role of educational attainment among women for marriage markets and the usefulness of having a highly educated woman to increase their children's chance for educational success. That is, in a society with a highly competitive system for

higher education which strongly determine one's future social position, a highly educated male was expected to prefer a highly educated wife, who can help their children to achieve better in education and, via the educational channel, for the best positions in society.

To test this hypothesis, we examined the correlation between the uniform association parameter and the proportion of men who at least attended tertiary education. Although we are aware of the limitation of the variable, we suppose that the proportion of tertiary education may reflect the level of competition for higher education.

In Table 3 we find that the correlation between the uniform association parameter and the proportion of men with tertiary education is not statistically significant for all couples, though it shows the positive direction. Thus, this result does not provide strong evidence of the association between educational homogamy and the proportion of tertiary education.

However, if we exclude from the analysis the Philippines, which has a very low level of educational homogamy with the relatively high proportion of tertiary education, we find a statistically significant correlation of 0.45. Therefore we hesitate to strongly reject this hypothesis.

Finally, we test the hypotheses on effects of economic development on educational homogamy, by calculating the correlation between the uniform association parameter and GDP per capita for the whole couples and for each of four marriage cohorts. The correlation is reported in Table 3. We also present the figures of GDP by the uniform association parameter across countries for the

second cohort of 1975-84 and the last cohort of 1985 and later. From the table and figures, we find no evidence of the negative relationship between the level of economic development and educational homogamy. If it is, the relationship even seems to be positive. However, since we have only ten countries, it is very premature to assert any strong arguments on the association between the level of economic development and educational homogamy.

SUMMARY AND DISCUSSION

One of our major findings was that the dominant tendency with respect to time trends is toward less educational homogamy, though we did found no decrease in some countries especially in Japan and Malaysia. In general, this result is mostly in line with the general openness hypothesis, which predicts educational homogamy to decrease as societies become industrialized or modernized.

In regard to cross-national differences in the strength of educational homogamy, we found that the ten countries clearly do not show the same degree of educational homogamy. There are large variations, with on the one extreme Korea and Japan with relatively high levels and at the other extreme Philippines and Thailand with relatively low levels.

The hypothesis expecting higher educational homogamy in East Asian countries relies on the notion of their Confucian tradition that emphasizes the role of education for social achievement. The finding, however, that the four East Asian societies influenced by the Confucian tradition show different levels of educational homogamy, suggests that we need to consider more specifically the

various factors affecting educational homogamy. We examined some of those factors such as difference in the extent to which education plays a role for marriage markets among women or the role of mother as an educational investor for children's educational success. Based on previous studies focusing on race/ethnicity or religion as other characteristics that affect partner choices, we also expected that educational homogamy should be stronger in societies which are ethnically or religiously homogeneous.

Our correlation analysis showed that there is a significant negative relationship between the uniform association parameter and the index of ethnic fractionalization, which seems to be consistent with our hypothesis on the role of ethnic diversity on educational homogamy. We also found some evidence that the proportion of those with tertiary education is positively associated with the strength of educational homogamy.

We are aware of the limitation of our indicators. Particularly, the measure of the proportion of tertiary education may not reflect well the level of competitiveness of educational system.

Finally, we found no evidence that with respect to cross-national differences, educational homogamy in these ten countres is related to their level of economic development, though there is the dominant tendency toward less homogamy within the countries. This implies that for the cross-national differences, other factors should be considered as well.

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Table 1. Log-linear models for educational assortative mating in ten (South)-East Asian countries

	BIC	df	L2
1. W*CT + H*CT	13471	576	19514.14
2. 1 + D	3217	575	9249.98
3. 1 + D1-D5	1133	571	7123.28
4. 3 + U	-4484	570	1496.21
5. 4 + Gender	-4622	569	1347.46
6. 5 + ROW + COL	-4621	563	1285.64
7. 5 + RC (W*CT + H*CT + D1-D5 + U + Gender + RC)	-4631	566	1307.46
8. 7 + U*C (W*C*T + H*C*T + D1-D5 + U + Gender + RC + U*C)	-5153	557	690.88
9. 8 + D*C (W*C*T + H*C*T + D1-D5 + U + Gender + RC + U*C + D*C)	-5153	548	596.35
10. 9 + G*C	-5103	539	551.77

Table 2 Parameter estimates

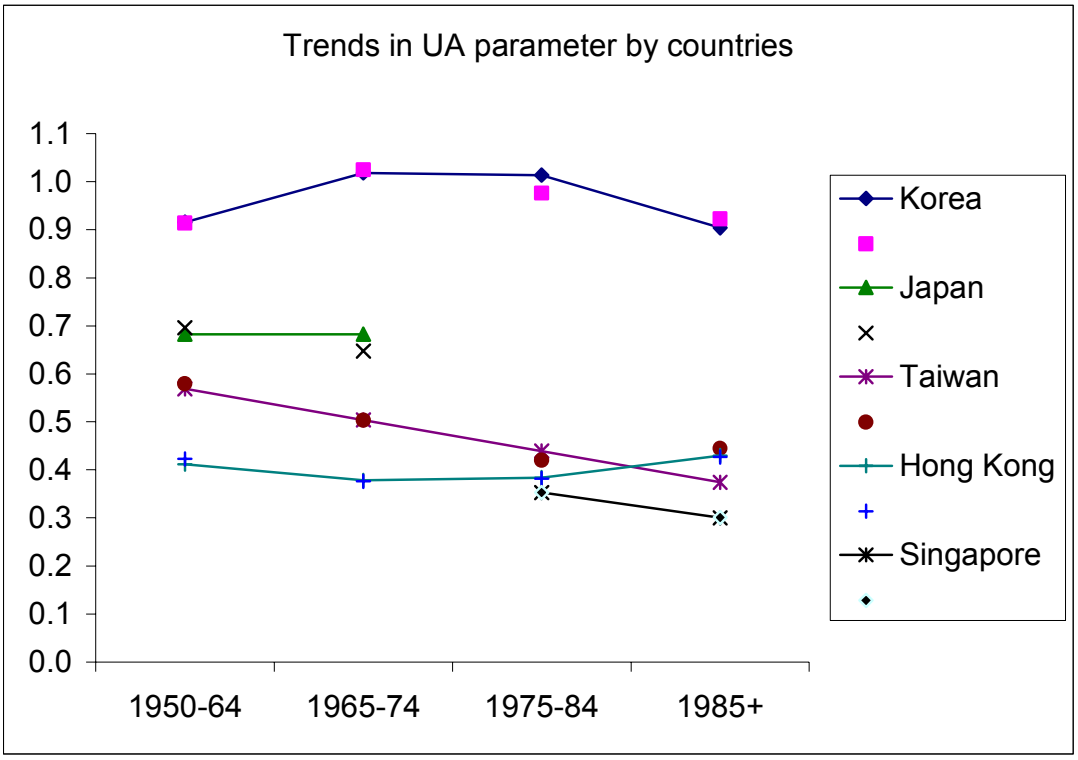
	Model Parameters			Trends derived from the model			
Panel A.							
	UC	UT	UT2	1950-64	1965-74	1975-84	1985+
Korea	0.708	0.261	-0.053	0.916	1.018	1.014	0.904
Japan	0.682			0.682	0.682		
Philippines	0.203	-0.039		0.164	0.125	0.086	0.039
Thailand	0.256	0.149	-0.047	0.358	0.366	0.280	0.100
Malaysia	0.317			0.317	0.317	0.317	0.317
Taiwan	0.634	-0.065		0.569	0.504	0.439	0.374
Hong Kong	0.486	-0.094	0.020	0.412	0.378	0.384	0.430
Indonesia	0.782	-0.180	0.017	0.619	0.490	0.395	0.334
China	0.511	-0.148	0.018	0.381	0.287	0.229	0.207
Singapore	0.353	-0.053				0.353	0.300
Panel B.							
	UC	UT	UT2	1950-64	1965-74	1975-84	1985+
Korea	0.705	0.263	-0.055	0.913	1.011	0.999	0.877
Japan	0.439			0.439	0.439		
Philippines	0.226	-0.040		0.186	0.146	0.106	0.059
Thailand	0.224	0.155	-0.047	0.332	0.346	0.266	0.092
Malaysia	0.404			0.404	0.404	0.404	0.404
Taiwan	0.623	-0.052		0.571	0.519	0.467	0.415
Hong Kong	0.485	-0.094	0.020	0.411	0.377	0.383	0.429
Indonesia	0.768	-0.176	0.016	0.608	0.480	0.384	0.320
China	0.493	-0.150	0.018	0.361	0.265	0.205	0.181
Singapore	0.368	-0.054				0.368	0.314
	DC						
Korea	0.865						
Japan	1.344						
Philippines	0.742						
Thailand	0.905						
Malaysia	0.532						
Taiwan	0.756						
Hong Kong	0.846						
Indonesia	0.880						
China	0.943						
Singapore	0.807						

Table 3. Pearson correlation with the uniform association parameter

	Total	1950-64	1965-74	1975-84	1985+
Ethnic fractionalization	-0.597***	-0.584^	-0.600^	-0.583^	-0.646^
Proportion of tertiary education	0.207	0.292	0.275	0.400	0.568
GDP per capita	0.223	0.348	0.360	0.174	0.360
	N=36	N=9	N=9	N=9	N=9

*** p < .001 ^ p <.10

Figure 1


Trends in UA parameter by countries
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
1950-64
1965-74
1975-84
1985+
Korea
Japan
Taiwan
Hong Kong
Singapore

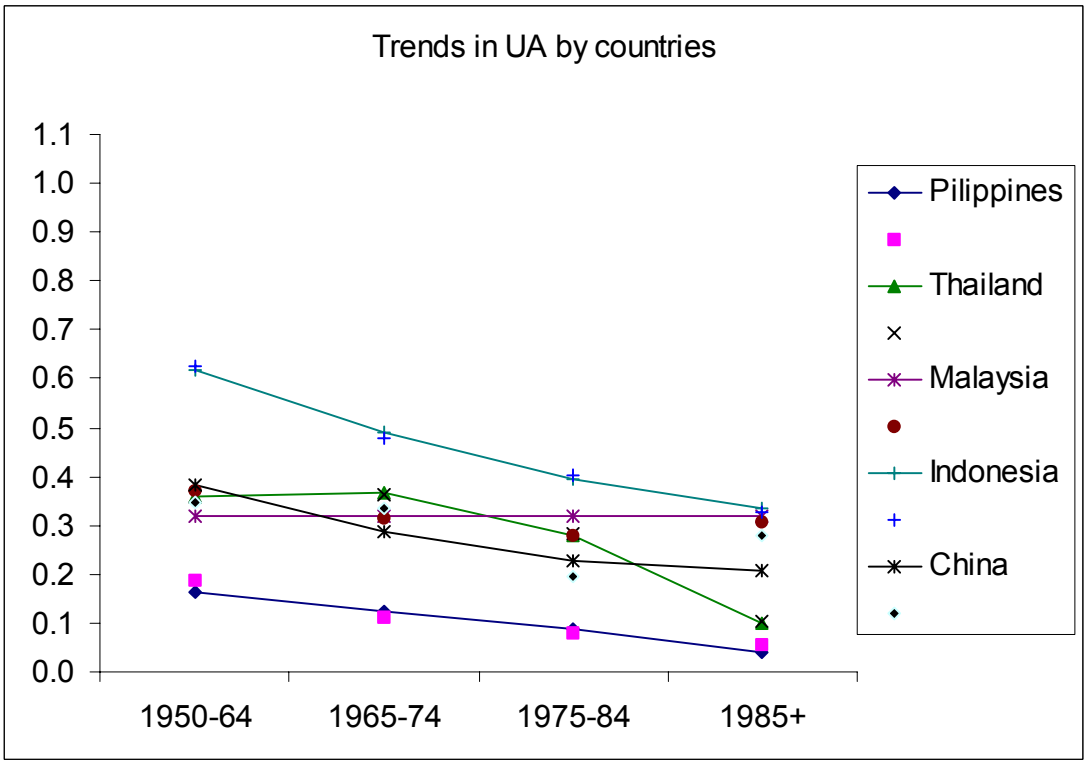
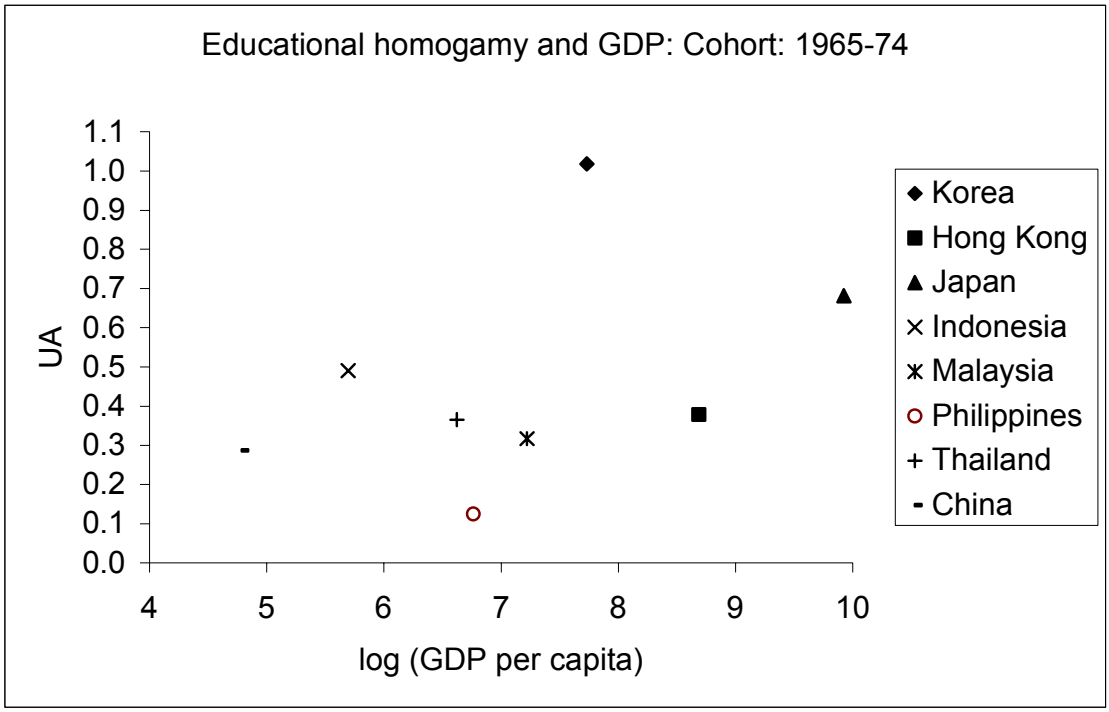
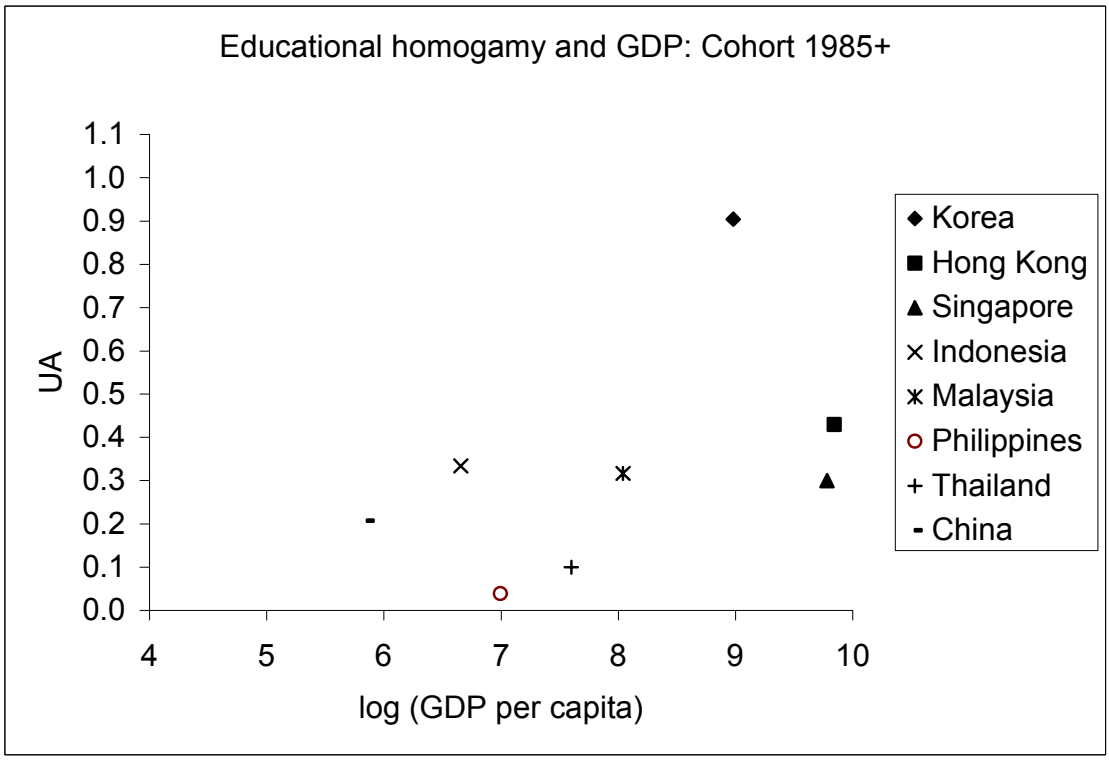

Trends in UA by countries
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
1950-64
1965-74
1975-84
1985+
Pilippines
Thailand
Malaysia
Indonesia
China

Figure 2


Educational homogamy and GDP: Cohort: 1965-74
UA
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
4
5
6
7
8
9
10
log (GDP per capita)
Korea
Hong Kong
Japan
Indonesia
Malaysia
Philippines
Thailand
China


Educational homogamy and GDP: Cohort 1985+
UA
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
4
5
6
7
8
9
10
log (GDP per capita)
Korea
Hong Kong
Singapore
Indonesia
Malaysia
Philippines
Thailand
China