

Lecture Note

Gender Economics (EE364)

Chapter 3: Theories of Family Formation



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Chapter 3

Theories of Family Formation

3.1 Household as Economic Unit

When economists consider a country as a unit of the economy, that country's decision is a collective decision of its people. However, a country's decisions are usually made by one government, namely the decision-makers who collectively decide. Finally, one decision becomes one policy, and then later national policy. In the case of households, one economic unit is a one-decision outcome. Gary Becker applied basic principle of economics to explain household decisions. The decision to get married and form a family (or household) is not an individual one. This is a joint decision made by a household as a single decision-making unit.

Household Analysis - A household composed of many people is considered the second-smallest economic unit after an individual. A household refers to two or more people living together in a non-institutional environment (e.g., student dormitory or military barracks). Therefore, when we use the word "household," we mean an economic unit made up of several people in a household (more than two people). If there is only one person in a household, it is called an individual.

Why are economists interested in studying household behavior? - The household is the labor supply unit and provides demand for goods in the economy. Thus, economists and policymakers are interested in how households interact with the economy. The household is a small economic unit. However, the allocation of households is associated with a large economic system. Households are responsible for allocating labor and making decisions on the purchase of goods/services. The results of household allocation affect how households interact with the economy. For example, encouraging boys to study while girls stay at home to do housework results in most workers in the future labor market being men.

3.2 Family Formation

This section focuses on family formation including (a) marriage formation and dissolution, (b) marriage and the reason for marriage, (c) assortative mating, (d) why don't you

want to get married?, (e) why do you want to have children?, (f) working parents in labor market (i.e., motherhood wage penalty).

3.2.1 Search and matching theory

Search and Matching Theory was first invented by Peter Diamond, Dale Mortensen and Christopher Pissarides, who were awarded the 2010 Nobel Prize in Economics for “fundamental contributions to search and matching theory”. They found the difficulty in managing and matching supply to demand in the labor market. How do employers and employees meet? and if they meet and match, will there be equilibrium in the market? If not, unemployment occurs in labor market.

We applied this concept to assortative mating within the marriage market as search and matching has difficulties. Imperfect information makes it impossible to find a match. Each person has asymmetric information and each person is different (heterogeneity). It is difficult to find compatible person. In the marriage market, those who find each other get married. However, if no-one is found, one remains single. If they can stay together after marriage (reach an equilibrium), but they may not be able to live together (being disequilibrium, or divorce).

3.2.2 Rationality of Marriage

Marriage based on Gary Becker (1981), presence of people in a situation that causes the division of labor according to the comparative advantage of coexistence between men and women. This will give rise to the specialization of each person, which will increase economic productivity. After Becker (1981), Marriage matters are further analyzed in many dimensions including cost-benefit analysis of marriage, game theory of husband and wife’s decisions, or even macro-economic impact.

Why do people get married? - For most decisions, we generally weigh costs and benefits (benefit) and choose the way that provides the highest net benefit. Marriage decisions are made based on getting married state (state X) and getting married to this person (person Y). There will be two steps as follows:

- (1) If $B(X) > C(X)$, a person will decide to get married or enter state X
- (2) If $B(Y) > C(Y)$, a person will decide to get married to this person (Y)

Where B and C are benefits and costs (monetary (money) and non-monetary (Psychic – love, desire, trust). Note that divorce decisions are also made based on staying married (X) and staying married to this person (Y).

In fact, benefits and costs do not stem from a single moment, but from the marriage period (length of time spent in a marriage), which can have more than one period. The decision to marry and whom to marry is the sum of the expectation of entering the marriage (X) and deciding to marry this person (Y).

The rules of the marriage decision will occur when –

$$\sum_{t=1}^T E \left[\frac{B_t(X)}{(1+r)^t} \right] > \sum_{t=1}^T E \left[\frac{C_t(X)}{(1+r)^t} \right]$$

Likewise, the law of marrying someone will only happen when –

$$\sum_{t=1}^T E \left[\frac{B_t(Y)}{(1+r)^t} \right] > \sum_{t=1}^T E \left[\frac{C_t(Y)}{(1+r)^t} \right]$$

When r is the subjective discount rate and T is the last period of marriage. Note that r characterizes the impatience of each agent in relation to marriage over time and takes the values between zero and one.

Cost and Benefit of Marriage - In fact, most people will stay married during their lifetimes if there is a benefit compared to being single. This can be summarized into four theoretical economic benefits:

- (1) Economies in production – Many household members in a household can save time and/or money. In the production process, compared to a household with only one person (or being single), the marginal cost of production is reduced due to more people. For example, cooking or washing for two people is done only once, not twice. The average productivity of household members has increased because of the division of labor within households.
- (2) Internalizing externalities – The inclusion of external effects. The happiness of household members can lead to the happiness of other household members. For example, a spouse's salary increase not only affects that person in terms of happiness and money, but also the welfare of other members and it increases household utility.

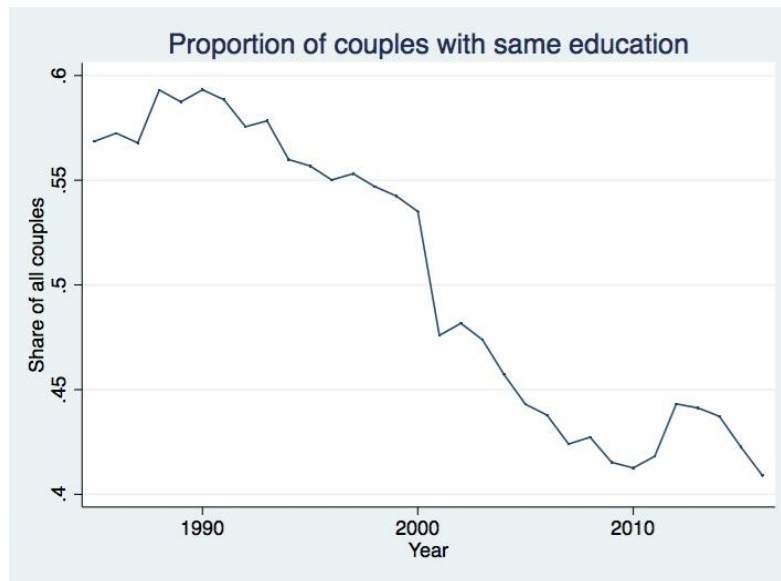
(3) Reduction of transaction costs - Transaction costs incurred in negotiating contracts or agreements. If activities require multiple labor forces, it would be easier for each household member to take on responsibilities in their own right. These are implicit contracts that do not require a written contract or agreement, such as a mother taking care of a child or a father fixing a car.

(4) Reduction of utility fluctuations through resource pooling – Multiple households can achieve consumption smoothing through resource pooling. For example, working income aggregation of husband and wife increases utility by reducing the risk of no income. Alternatively, if one person loses their job, there will still be income from the other person.

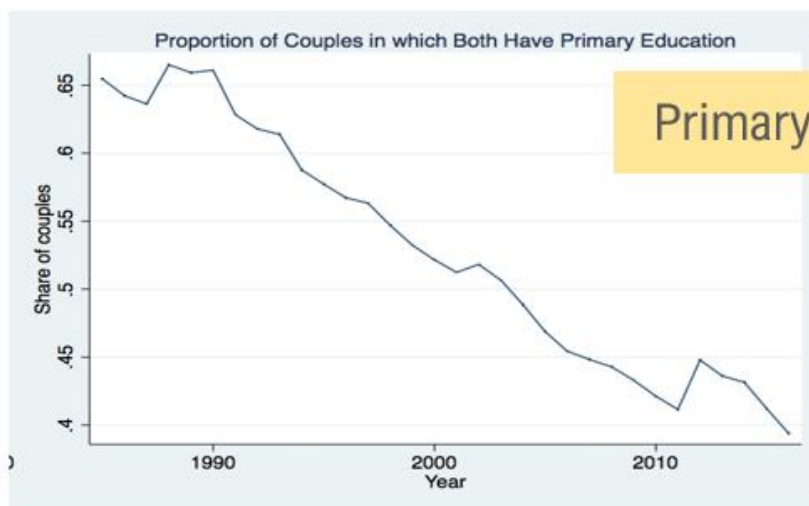
3.2.3 Assortative Mating in Marriage Market

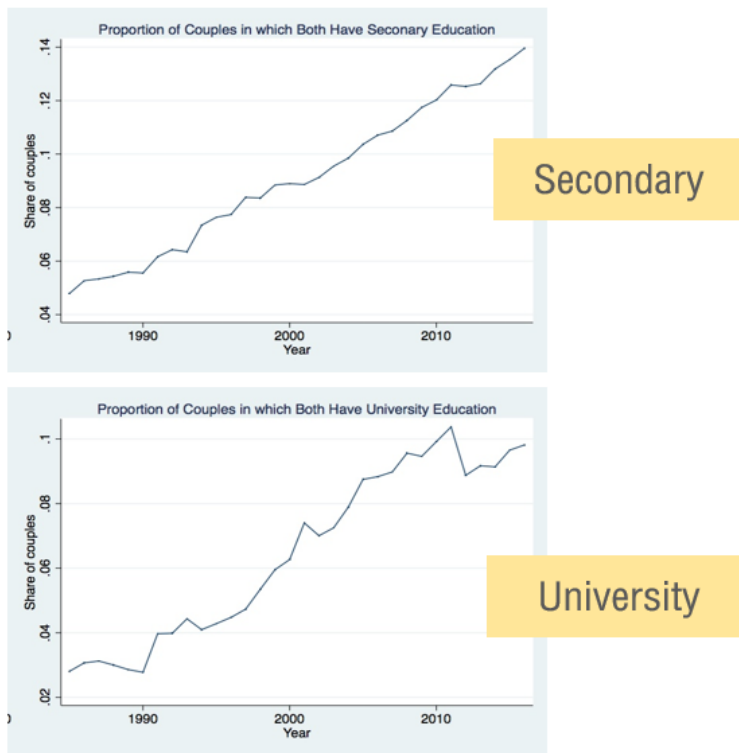
Becker (1973, 1974) stated that the marriage market is like a matching game. Greenwood et al. (2016) then further explained that people would find potential life partners based on the number of singles available on the market. And they will get married if that single person can respond to their needs. If assortative matching is based on the spouse's educational level, we call it "educational assortative mating".

Paweenawat and Liao (Forthcoming 2022) studied educational assortative mating in Thailand from 1985 to 2016. They found a decreasing trend in educational homogamy (couple with the same education level) (Figure 3.1). Their finding is consistent with Smits and Park (2009), that explored educational assortative mating in 10 Asian countries, including Thailand. However, educational homogamy has decreased only in couples, who completed primary education (Figure 3.2). Furthermore, regarding trends in the education of husbands and wives, the proportion of husbands and wives with primary education decreased, but the proportion at the secondary and university level has increased (Figure 3.3). The ratio of wife's income to total income of Thai households has increased (Figure 3.4).

Figure 3.1 – Educational Homogamy has decreased in Thailand

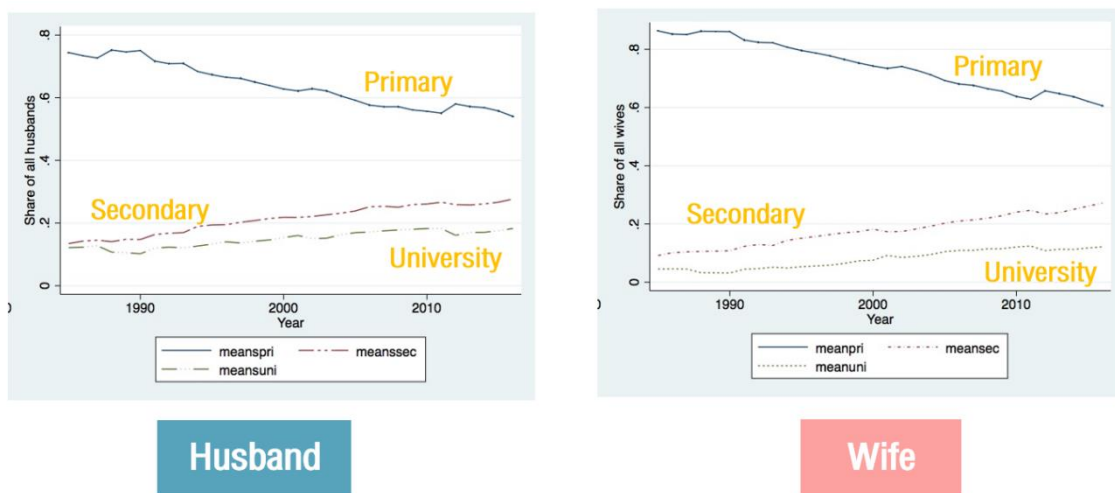
Source: Paweenawat and Liao (Forthcoming 2022)

Figure 3.2 – Educational homogamy has decreased only in couples, who completed primary education.

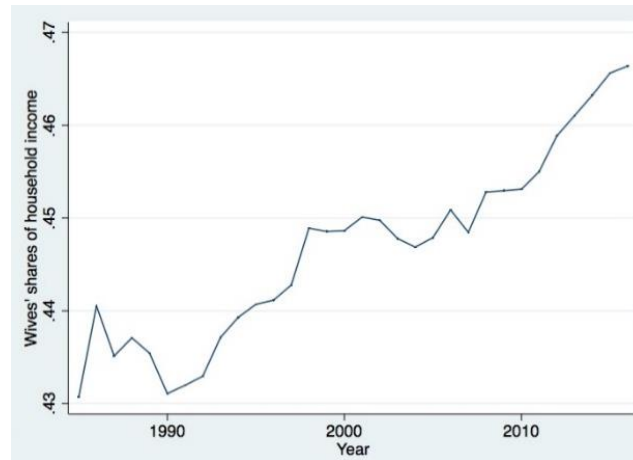


Source: Paweenawat and Liao (Forthcoming 2022)

Figure 3.3 – Trend of education (husband and wife)



Source: Paweenawat and Liao (Forthcoming 2022)

Figure 3.4 – Ratio of wife’s income in total income of Thai households

Source: Paweenawat and Liao (Forthcoming 2022)

Furthermore, several studies found that educational assortative mating explained household income inequality (Burtless, 1999; Schwartz, 2010). An increase in education homogamy contributed to an increase in income inequality in US, Denmark, Germany, UK (Eika et al. 2017); China (Hu & Qian, 2015). However, some studies (Olivo-Villabril, 2017; Kremer, 1997; Cancian & Reed, 1999; Hryshko et al., 2017) found that assortative mating only have small effects on income inequality of the country.

Paweenawat and Liao (2022) studied the changes in household income inequality in Thailand during 1985-2016 by focusing on the changes in educational assortative mating in households. In addition to measuring educational assortative mating, they examined the relationship between educational assortative mating and household income inequality. They applied the semiparametric decomposition method of DiNardo, Fortin and Lemieux (1996) to study the relationship between “Educational assortative mating” and household Income Inequality in Thailand. Main finding shows in addition to a decreasing trend of educational homogamy, but educational hypergamy existed.¹ Educational assortative mating has impacted Thai household income inequality. However, income inequality and educational hypogamy has inverse relationship, which contradicts evidence found in developed countries.

¹ Note - Educational hypergamy (wife is less educated than husband) and educational hypogamy (wife is more educated than husband).

Exercise

- 1) In economic theory, marriage and divorce decisions are based on analysis of the benefits and costs of staying married (X) and staying married to this person (Y). Applying this concept, explain the theoretical costs and benefits of divorce using examples of accompanying events.

- 2) A study in Thailand by Paweenawat and Liao (2018) found an increase in marriages across educational levels (educational hypergamy), especially among wives with less education than their husbands (hypergamy). Examine assortative mating based on education level and the country in which wives are more educated than husbands (hypogamy) and discuss factors affecting such matches. Furthermore, what kind of matches do they have? Does this relationship affect the country's economic condition or society? How?

- 3) A study by Paweenawat and Liao (2019) found that in Thailand, level of education affects women's chances of marriage. While it does not greatly affect a man's chances of marriage, studies from around the world on the issue have not yet reached definitive conclusions. Please give examples of research studies on this issue in other countries that support or contradict the results of the Paweenawat and Liao (2019) study.

- 4) Discuss the interconnection of Gary Becker's concept of having children (1960), Richard Easterlin's concept of household planning (1975), and economic opportunities. How are they connected to affect the decision to have children and family planning? Punctuate your discussion with examples?

- 5) Expenses or the cost of raising children today make married couples more likely to not have children or reduce the number of children they want. This belief also affects Thailand's population structure. Please provide examples of research on the current cost of raising children in Thailand. Does this cost affect the current decision to have children in Thailand? If the student is a policy maker, what solution do you suggest to this problem?

6) The lack of government assistance in raising children and lack of adequate parental welfare make the decision to have children in Thailand more difficult, and thus lowering the birth rate in the country. Please provide an example of a country that provides parents with welfare. Is there a relationship between welfare and the birth rate in the country? Is there any country worldwide where even though the welfare of parents is low, the birth rate is still high? Why? Discuss this issue.

7) Currently, the government in Thailand has many policies to encourage people to marry and have children. Please provide an example of such a policy. In addition, is the policy sufficient to motivate a spouse? What policies do students propose? How can they help solve this problem?

8) Explain the difference between the negative effects of the Fatherhood Wage Penalty and positive effects of the Fatherhood Wage Bonus. Describe the factors contributing to this situation. Give examples of countries and discuss this issue.

9) The issue of teenage pregnancy in Thailand is one of the main problems the State wants to solve. Please provide an example of countries experiencing this problem and study what policies can help solve it. Can these policies be applied in Thailand? If so, how? Why?

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