

*Extended abstract submitted for presentation at the European Population Conference,
3-6 June 2026, Bologna.*

**Partners' resources and partner choice: gender inequalities in education, income,
and socio-economic status**

Pau Baizan

ICREA and Universitat Pompeu Fabra. 25 Ramon Trias Fargas street, 08005 Barcelona,
Spain.

E-mail: pau.baizan@upf.edu

Short abstract

This paper investigates how partners' education, socioeconomic status, and income influence partner choice. I compare two different approaches to conceiving and measuring partners' socioeconomic resources. The traditional approach implicitly looks at the absolute value of socioeconomic resources, while the second approach refers to them as a 'positional good'.

Data from the Household, Income and Labour Dynamics in Australia (HILDA) survey and conditional logit models are used. Preliminary results using an absolute approach show a pattern in which both educational homogamy and women partnering down predominates. By contrast, when a positional perspective is adopted, the highest odds of marriage formation are found for the matches that minimize the educational difference between partners' ranking positions in their respective marriage queues, consistently with a choice mechanism in which competition for partners' resources prevails.

Background

In this paper, I investigate the role of socioeconomic resources of both partners on assortative mating. I adopt a multidimensional perspective of resources in which the role of education, socioeconomic status, and income is analyzed. The simultaneous consideration of these dimensions should reveal their complementarities and differentials, thus allowing a more encompassing assessment of the marriage market position of each partner. These dimensions are seldom studied together, often because the data or the techniques used impose limitations. Moreover, here I adopt a longitudinal perspective,

measuring the income and occupational status of both partners before forming a union. This is key to allowing an assessment of the role of partner selection from subsequent changes in each partner's resources (particularly at the birth of the first child, which is a crucial stage in amplifying gender inequalities). However, most prior research has examined cross-sectional samples of marriages existing at a particular point in time and has not directly considered the contribution of each partner's resources to their position in the partnership market (for exceptions, see e.g. Gonalons-Pons & Schwartz, 2017; Sweeney & Cancian, 2004). Distinguishing the specific role of men's and women's socioeconomic resources in partner selection from their changes after the start of the union is crucial for measuring its influence on several outcomes, such as gender relations, income inequality, fertility, children's resources, and union stability (Bingley et al., 2022; Cooke, 2006; Esping-Andersen et al., 2023).

A third contribution of the paper is the systematic comparison of two different approaches to conceiving and measuring partners' socioeconomic resources. On the one hand, I consider years of education, socioeconomic status, and income levels, looking at their absolute value in the partnership market. On the other hand, I conceive these resources as 'positional goods' (Hirsch, 1977). Positional Good theory argues that educational qualifications should be interpreted as relative positions that depend on the distribution of educational attainment for a given population (Hirsch 1976; di Stasio et al., 2016). This perspective contrasts with the prevailing approach that (implicitly) views education as having an absolute value in the partnership market. Building on several contributions to the labor market and partnership market analysis, I use the Positional Good theory to explain the patterns of assortative mating regarding education, socioeconomic status and income (Kalmijn, 1994; Tam, 2016; Thurow, 1975; Triventi et al., 2016; Bol and van der Wershorst 2011). Viewing socioeconomic resources as partners as positional goods should provide novel results and a better understanding of the mechanisms that drive assortative mating and the resulting patterns of resource inequality in couples. Note, however, that even if positionality drives the matching process, the resulting balance of resources between men and women should be evaluated in absolute terms. Furthermore, even if women mate with equals in absolute educational terms, if they are unable to transform their educational credentials into labor market outcomes to the same extent as men, an imbalance in economic resources within couples favoring men may occur.

In the final paper, I will briefly review the main theoretical approaches to the study of partner choice and selected previous empirical findings (Blossfeld et al., 2024; Esteve et al., 2016; Schwartz, 2013; Van Bavel, 2013). Specifically, the theoretical framework of the paper will include the contributions of the exchange theory (Edwards, 1969; Rosenfeld, 2005), economics (Becker, 1965; Nielsen & Svarer, 2009; Qian & Lichter, 2018), and the gender perspective (Oppenheimer, 1997; Risman, 2004). From these perspectives and the Positional theory, several hypotheses can be proposed. First, women and men are evaluated as desirable partners based on their own achieved socio-economic resources rather than their productivity at home or their social background. This implies competition between members of each gender for the partner's resources. The results should show a high (and increasing over time) level of homogamy *in positional terms* (ranking) between partners' wages, SES, and education. In particular, the results from the positional perspective should provide evidence of competition for partners' resources

rather than a preference for differences in resources and the related gender role specialization. By contrast, when an absolute perspective is adopted, it can be expected that some degree of women's advantage (hypogamy) is found regarding education and occupational status (Hypothesis 2), while men's advantage in income is expected (Hypothesis 3). Note that homophily is expected to prevail as a mating mechanism for traits other than socioeconomic resources, including age, and ethnic/migration origin, resulting in high levels of homogamy.

Data

The Household, Income and Labour Dynamics in Australia (HILDA) is a national household panel survey that examines labor force status, family relationships, financial and economic circumstances, and a variety of other measures (Summerfield et al., 2024; Watson, 2021). It provides yearly data from 2001 to 2023. I study the event of entering a union for never-married men and women, including both first marriages and the first recorded "de facto" unions. I include women's unions formed between the ages of 17 and 39, irrespective of men's age, taking place during the panel years 2001-2023. I restrict the analyses to heterosexual unions. This resulted in an analytical sample of 1391 *actual unions*.

Assortative mating patterns are subject to partnership market opportunities and constraints. I therefore drew a random set of *potential partners* for each couple member, i.e., partners that he or she could have selected, representing the existing structure of partners in the partnership market and their attributes. These potential partners of the opposite sex and between the ages of 17 and 50 were randomly selected from the HILDA data. I included potential partnerships in which the man is up to 12 years older than the woman and the woman is up to 5 years older than the man (97 percent of unions in the actual sample had ages comprised within these limits). The sample of potential partners comprised individuals who were not in a union both the year of union formation of the actual partnership and in the year preceding union formation. This sample of potential partners was used to assign five randomly chosen potential spouses to each actual couple member, as required by the conditional logit technique used in the analyses (see below). In addition, this allowed a two-sided perspective on marital choice, as each actual couple member chooses a partner among a set of six partners (comprising five potential and one actual partner).

The dependent variable in the analyses is the choice of a partner versus a set of non-chosen random partners, each of them characterized by a set of attributes. The respondents' variables included age and educational level (7 categories), both measured at the year of union formation. I also plan to include the respondents' occupation and wage rate, measured in the year preceding union formation. This is crucial to avoid reverse causation between these variables and the union formation event. The individual's background may influence both educational and occupational choices and partnership formation. Therefore, it is important to consider the respondents' migration origin, ethnicity, and mother's education (these and other socioeconomic variables are planned to be included in the final models).

The models include several derived variables measuring the distance between the reference person and the actual or potential partner, including the age difference, education, socio-economic status (ISEI), hourly wage rate, migration status, and mother's education. I first calculated the absolute educational difference between each individual and their actual or potential partners. To do so, I transformed the variable indicating the highest educational attainment of the respondent into years of education by attributing the minimum number of years formally required to complete the educational level achieved by the respondent.

I used a measure that enabled me to rank individuals according to their position in the educational distribution by gender and birth cohort, i.e. the positional status index (PSI) (Tam, 2016). The PSI score for educational level k is computed as follows:

$$PSI = \frac{P_k}{1 - P_k}$$

where P_k denotes the proportion of individuals reaching less than level k (individuals below the reference person) and $1 - P_k$ denotes the proportion of individuals reaching level k or above. The index represents “the average number of competitors a person has to beat or exclude in order to reach level k ” (Tam 2016, p. 7). When the underlying variable exhibits a discrete distribution, as in the case of educational levels, a riddit scoring rule is utilized to translate the rank-order categories into cumulative percentile scores. Specifically, the proportion p_k (as opposed to the cumulative proportion P_k) is defined by first splitting in half the proportion of individuals in category k but not higher so that $p_k/2$ is counted as below level k and $p_k/2$ above it. I computed the log of the scores before introducing them into the regression models to facilitate the interpretation of results in terms of elasticities (Tam 2016). This positional status measure enables the comparison of groups with different educational structures, facilitating the comparison across genders.

Analogous PSI measures for socio-economic status (ISEI) and hourly wage rate will be included in the final models.

Techniques

Empirical analysis of the mechanisms driving partner choice is conducted using conditional logit models (Hoffman & Duncan, 1988; McFadden, 1974; Train, 2009). This technique has been applied in just a few instances to analyze assortative mating (Jepsen & Jepsen, 2002; Nielsen & Svarer, 2009; Qian & Lichter, 2018). However, conditional logit models offer several advantages that make them particularly suitable for modeling spouse choice, especially in comparison to log-linear models (Gullickson, 2021). This technique compares actual with randomly created partnerships to determine whether the members of actual couples are more similar to each other than random pairings. This enables a clear distinction between an individual's propensity to form a union with another individual with particular attributes and the structural constraints derived from different gender-specific distributions. Randomly created couples approximate the availability of potential mates with their attributes. Conditional logit models also enable

the simultaneous inclusion of several attributes of both couple members in the models, thereby controlling for potential confounders and accounting for the multidimensionality of partners' attributes.

I estimated the effect of a particular attribute of the alternative (e.g., the ranking in education in terms of PSI scores) relative to the attributes of the individual choosing by measuring the difference in the values of each spouse. In that way, it can be determined whether the results of the analyses are consistent with the mechanisms hypothesized above.

Individuals are assumed to choose their most highly valued alternative (partner), conditional on their own attributes and the available alternative attributes. Preferences are therefore inferred from actual choices. The statistical specification is as follows (Rabe-Hesketh & Skrondal, 2012):

$$Pr(y_i = j | \mathbf{z}_{ij}) = \frac{\exp(\mathbf{z}_{ij} \boldsymbol{\gamma})}{\sum_{j=0}^J \exp(\mathbf{z}_{ij} \boldsymbol{\gamma})}$$

where \mathbf{z}_{ij} denotes a vector of variables that varies across both observation i and choice alternative j and $\boldsymbol{\gamma}$ denotes a vector of coefficients to be estimated. To estimate the model, a couple's record is transformed into a set of J distinct records, with each representing an alternative. In addition to the actual chosen alternative, five randomly created alternatives are assigned to each member of the couple from the pool of potential partners of the opposite sex, providing a two-sided perspective (Qian and Lichter 2018). The dependent variable takes the value of 1 for an actual couple and 0 for a nonchosen random alternative. Thus, the model predicts the probability that an actual partnership is formed relative to a set of random potential pairings, given the attributes of each of the couples.

Preliminary results

Table 1 shows the results of a conditional logit model predicting actual versus random partnership formation when an absolute perspective is adopted. The absolute difference in years of education between partners indicates a clear pattern in which both educational homogamy and women partnering down predominates, consistently with Hypothesis 2. When the man has an educational advantage of 1 year, the odds decrease by 29% ($1 - 0.71 = 29$) compared with a 0-year difference between partners. By comparison, when the woman is 1 year more educated than the man, the odds of union formation are 1.09, with no statistical difference with 0 years of education.

When a positional perspective is adopted (Table 2), the highest odds of marriage formation are found for the matches that minimize the educational difference between partners' ranking positions in their respective marriage queues. Moreover, there is some degree of symmetry around 0 difference between partners in terms of PSI scores, with no educational advantage for men or women. Yet, unexpectedly, some men's advantage in education is found. These results provide empirical evidence of competition for partner's resources, as in a marriage market in which both sides seek to maximize the ranking position of the partner and simultaneously avoid downward mobility, the resulting aggregate pattern will be assortative mating according to ranking position, i.e., homogamy in terms of ranking.

Table 1. Conditional logit predicting actual versus random partnership formation

Spouses characteristics:	
<i>Age difference</i>	
Same age (Ref.)	1 <i>0.38</i>
Husband 1-3 years older	0.88 <i>0.35</i>
Husband >=4 years older	0.39*** <i>0.20</i>
Wife 1-3 years older	0.32*** <i>1.17</i>
Wife >=4 years older	0.12*** <i>0.07</i>
<i>Absolute education difference</i>	
Man >=2 years more educated	0.38*** <i>0.16</i>
Man 1 years more educated	0.71*** <i>0.26</i>
Within 0 year (Ref.)	1 <i>0.32</i>
Woman 1 years more educated	1.09 <i>0.34</i>
Woman >=2 years more educated	0.41*** <i>0.17</i>

Notes: For each variable, I present the estimated odds ratio in bold and the predicted probability (average marginal effect) in italics.

Number of actual couples: 1,391. Significance: '*'=10%; '**'=5%; '***'=1%

Table 2. Conditional logit predicting actual versus random partnership formation. Difference between partners in positional education scores (PSI).

Difference between partners	
Man >=1.5 more	0.36*** <i>0.15</i>
Man 0.5-1.5 more	0.58*** <i>0.22</i>
Within +/- 0.5 (Ref.)	1 <i>0.32</i>
Woman 0.5-1.5 more	0.44*** <i>0.18</i>
Woman >=1.5 more	0.38*** <i>0.16</i>

Notes: For each category, I present the estimated odds ratios in bold and the predicted probability (average marginal effects) in italics. Controls: age difference between partners. Number of actual couples: 1,391. Significance: '*'=10%; '**'=5%; '***'=1%

References

- Becker, G. S. (1965). A Theory of the Allocation of Time. *The Economic Journal*, 75(299), 493. <https://doi.org/10.2307/2228949>
- Bingley, P., Cappellari, L., & Tatsiramos, K. (2022). Parental assortative mating and the intergenerational transmission of human capital. *Labour Economics*, 77. <https://doi.org/10.1016/j.labeco.2021.102047>
- Blossfeld, P., Scherer, S., & Uunk, W. (2024). Editorial on the Special Issue “Changes in Educational Homogamy and Its Consequences” *. *Comparative Population Studies*, 49, 437–466. www.comparativepopulationstudies.de
- Cooke, L. P. (2006). “Doing” gender in context: Household bargaining and risk of divorce in Germany and the United States. *American Journal of Sociology*, 112(2), 442–472. <https://doi.org/10.1086/506417>
- Di Stasio, V., Bol, T., & Van de Werfhorst, H. G. (2016). What makes education positional? Institutions, overeducation and the competition for jobs. *Research in Social Stratification and Mobility*, 43, 53–63. <https://doi.org/10.1016/j.rssm.2015.09.005>
- Edwards, J. N. (1969). Familial Behavior as Social Exchange. *Journal of Marriage and Family*, 31(3), 518–526.
- Esping-Andersen, G., Boertien, D., & Giorgi, J. (2023). Social mobility and partnering. The salience of mobility homogamy. *Social Science Research*, 113, 102812. <https://doi.org/10.1016/J.SSRESEARCH.2022.102812>
- Esteve, A., Schwartz, C. R., Bavel, J. Van, Permanyer, I., Klesment, M., & Garcia, J. (2016). The End of Hypergamy: Global Trends and Implications 1. *Population and Development Review*, 42(4).
- Gonalons-Pons, P., & Schwartz, C. R. (2017). Trends in Economic Homogamy: Changes in Assortative Mating or the Division of Labor in Marriage? *Demography*, 54(3), 985–1005. <https://doi.org/10.1007/s13524-017-0576-0>
- Gullickson, A. (2021). A counterfactual choice approach to the study of partner selection. *Demographic Research*, 44, 513–536. <https://doi.org/10.4054/DemRes.2021.44.22>
- Hoffman, S. D., & Duncan, G. J. (1988). Multinomial and Conditional Logit Discrete-Choice Models in Demography. *Demography*, 25(3), 415–427.
- Jepsen, L. K., & Jepsen, C. A. (2002). An Empirical Analysis of the Matching Patterns of Same-Sex and Opposite-Sex Couples. *Demography*, 39(3), 435–453. <https://doi.org/10.2307/3088325>
- Kalmijn, M. (1994). Assortative Mating by Cultural and Economic Occupational-Status. *American Journal of Sociology*, 100(2394), 422–452.
- McFadden, D. (1974). Conditional logit analysis of qualitative choice behavior. In P. Zarembka (Ed.), *Frontiers in Econometrics* (pp. 105–142). Academic Press.

- Nielsen, H. S., & Svarer, M. (2009). Educational Homogamy: How Much is Opportunities? *The Journal of Human Resources*, 44(4), 1066–1086. <https://doi.org/10.1353/jhr.2009.0029>
- Oppenheimer, V. K. (1997). Women's Employment and the Gain to Marriage: The Specialization and Trading Model. *Annual Review of Sociology*, 23(1), 431–453. <https://doi.org/10.1146/annurev.soc.23.1.431>
- Qian, Z., & Lichter, D. T. (2018). Marriage Markets and Inter marriage: Exchange in First Marriages and Remarriages. *Demography*, 55(3), 849–875. <https://doi.org/10.1007/s13524-018-0671-x>
- Rabe-Hesketh, S., & Skrondal, A. (2012). *Multilevel and Longitudinal Modeling Using Stata* (Third Edition). Stata Press. <http://www.stata.com/bookstore/multilevel-longitudinal-modeling-stata/>
- Risman, B. J. (2004). Gender as a social structure. *Gender and Society*, 18(4), 429–450.
- Rosenfeld, M. J. (2005). A Critique of Exchange Theory in Mate Selection. *American Journal of Sociology*, 110(5), 1284–1325. <https://doi.org/10.1086/428441>
- Schwartz, C. R. (2013). Trends and variation in assortative mating: Causes and consequences. *Annual Review of Sociology*, 39, 451–470. <https://doi.org/10.1146/annurev-soc-071312-145544>
- Summerfield, M., Garrard, B., Nesa, M., Kamath, R., Macalalad, N., Watson, N., Wilkins, R., & Wooden, M. (2024). *HILDA User Manual-Release 23*. Melbourne Institute: Applied Economic and Social Research, University of Melbourne.
- Sweeney, M. M., & Cancian, M. (2004). The Changing Importance of White Women's Economic Prospects for Assortative Mating. *Journal of Marriage and Family*, 66, 1015–1028.
- Tam, T. (2016). Academic achievement as status competition: Intergenerational transmission of positional advantage among Taiwanese and American students. *Chinese Journal of Sociology*, 2(2), 171–193. <https://doi.org/10.1177/2057150X16638600>
- Thurow, L. C. (1975). *Generating Inequality*. Palgrave Macmillan UK. <https://doi.org/10.1007/978-1-349-15723-5>
- Train, K. E. (2009). *Discrete choice methods with simulation* (second). Cambridge University Press.
- Triventi, M., Panichella, N., Ballarino, G., Barone, C., & Bernardi, F. (2016). Education as a positional good: Implications for social inequalities in educational attainment in Italy. *Research in Social Stratification and Mobility*, 43, 39–52. <https://doi.org/10.1016/j.rssm.2015.04.002>
- Van Bavel, J. (2013). The reversal of gender inequality in education, union formation and fertility in Europe. *Vienna Yearbook of Population Research*, 10, 127–154. <https://doi.org/10.1553/populationyearbook2012s127>
- Watson, N. (2021). Finding Your Way Around the HILDA Survey Data. *Australian Economic Review*, 54(4), 554–564. <https://doi.org/10.1111/1467-8462.12437>

