

An economic analysis of marital instability

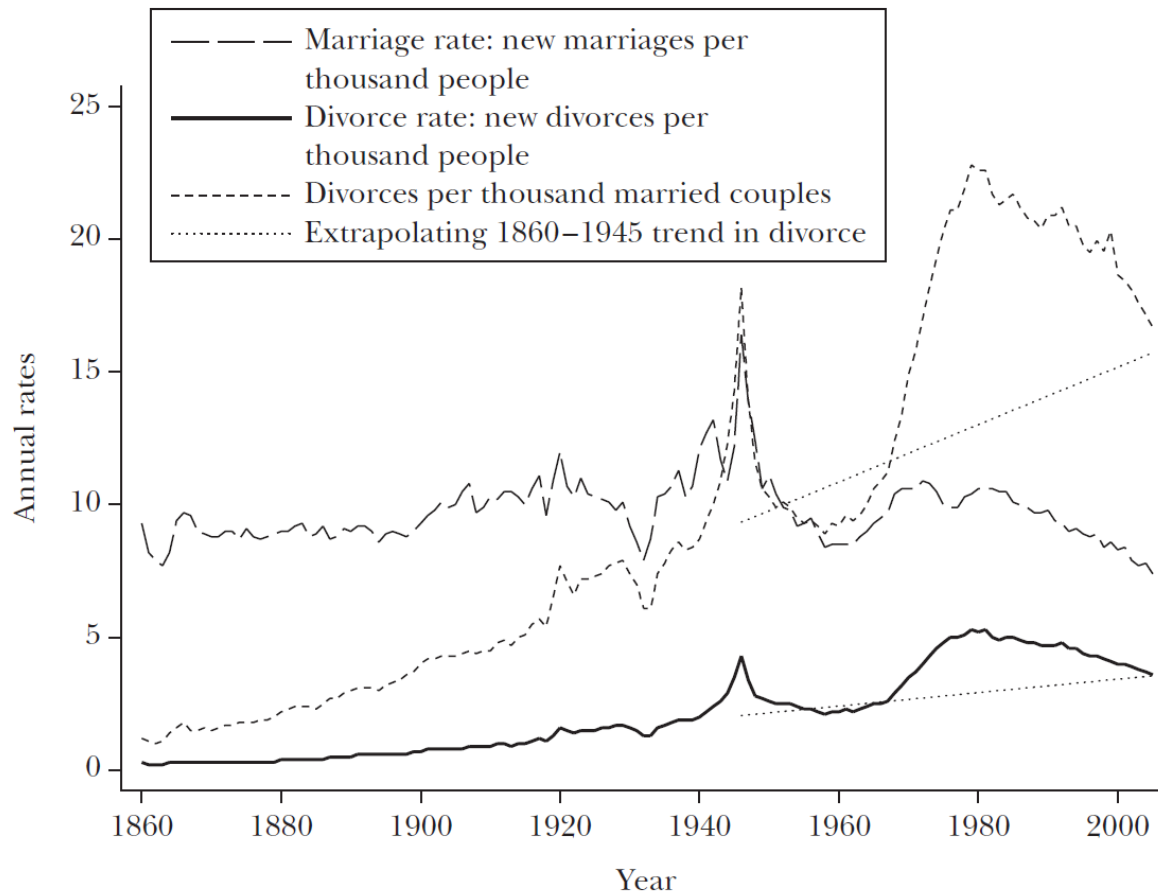
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Demography

Facts

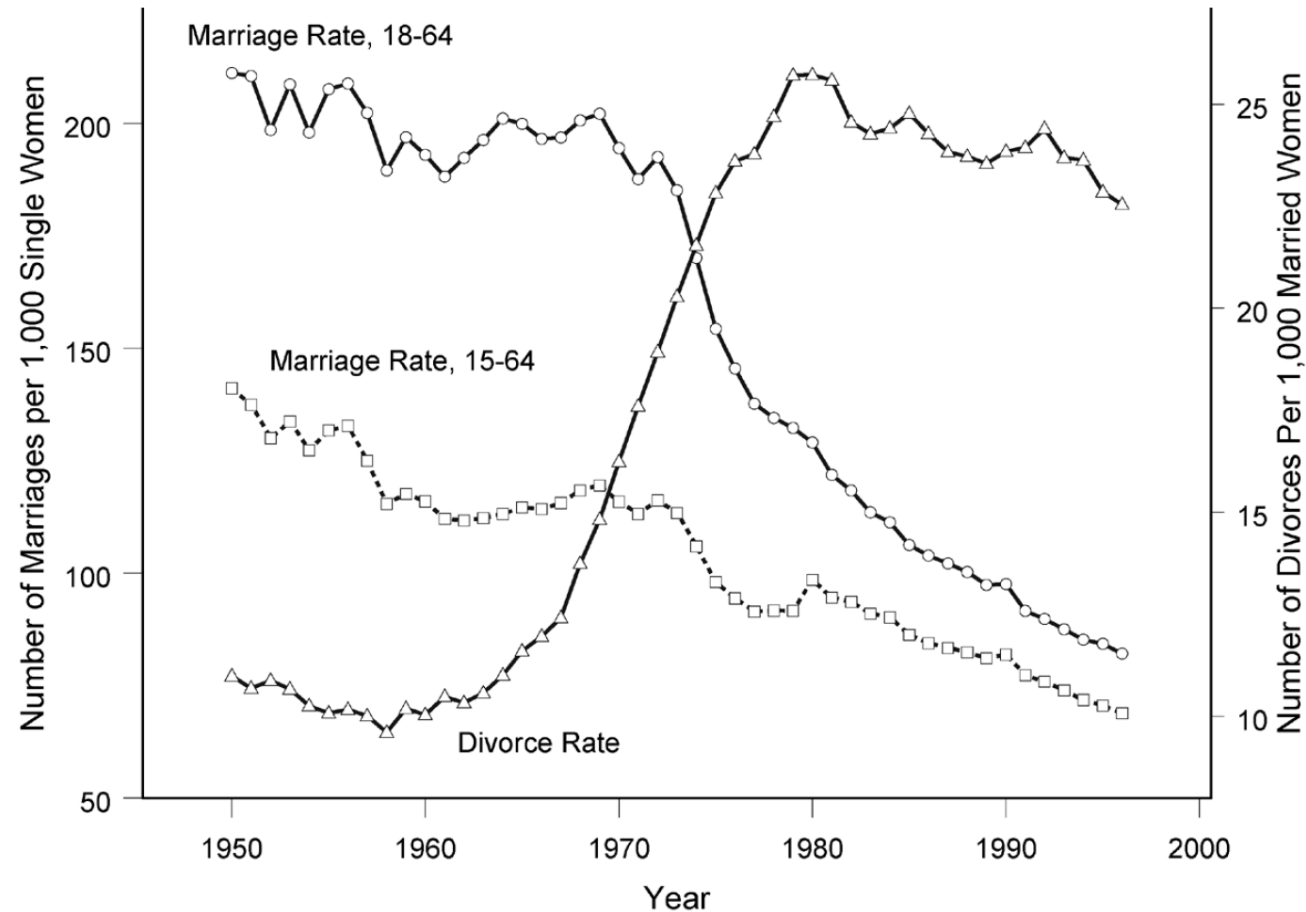
Stevenson, B. and Wolfers, J. (2007) „Marriage and divorce: Changes and their driving forces,” *Journal of Economic Perspectives* 21(2): 27–52

Marriages and divorces per thousand people, US, 1860–2005



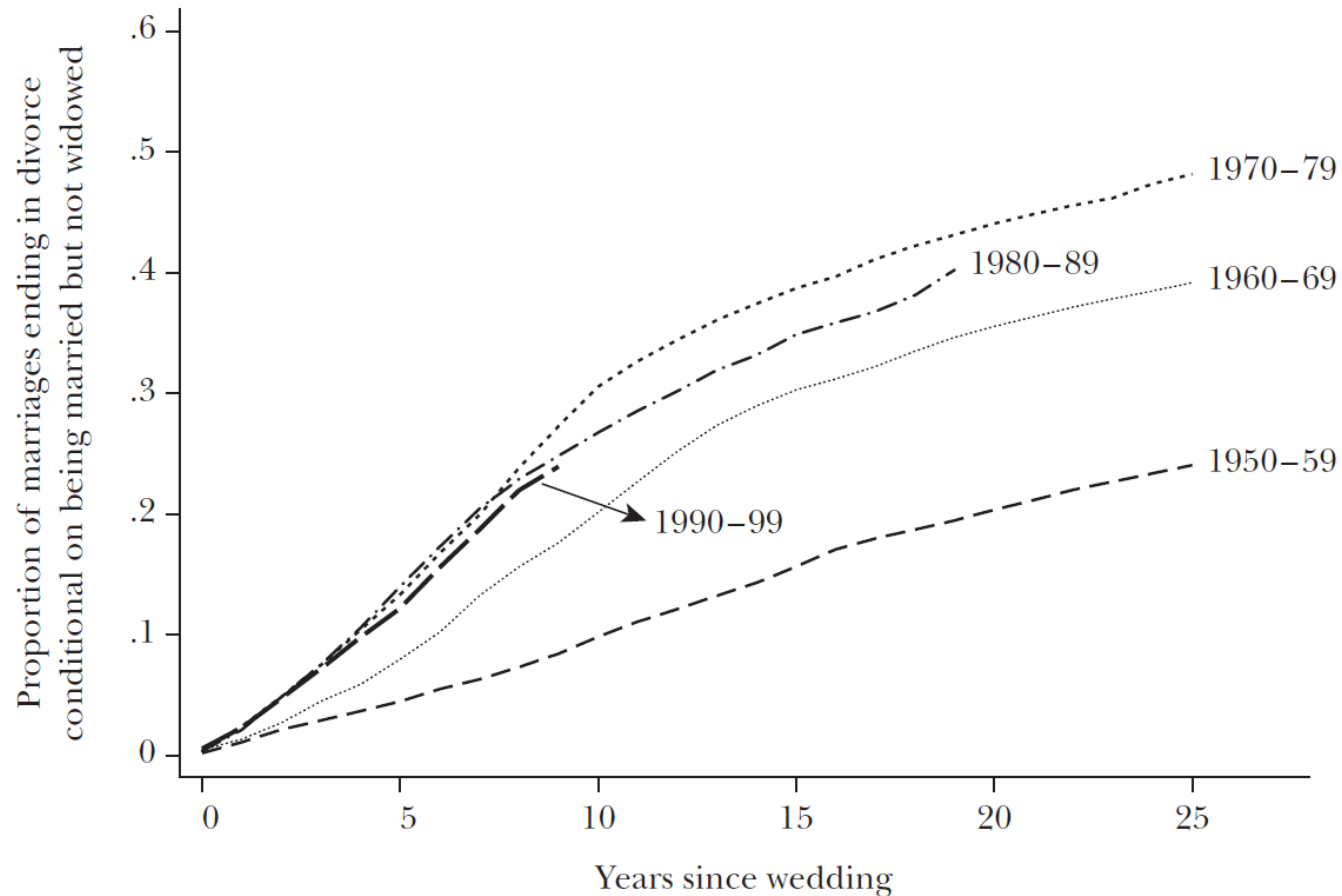
Source: Stevenson and Wolfers (2007)

Rates of marriage and divorce, 1950–2000



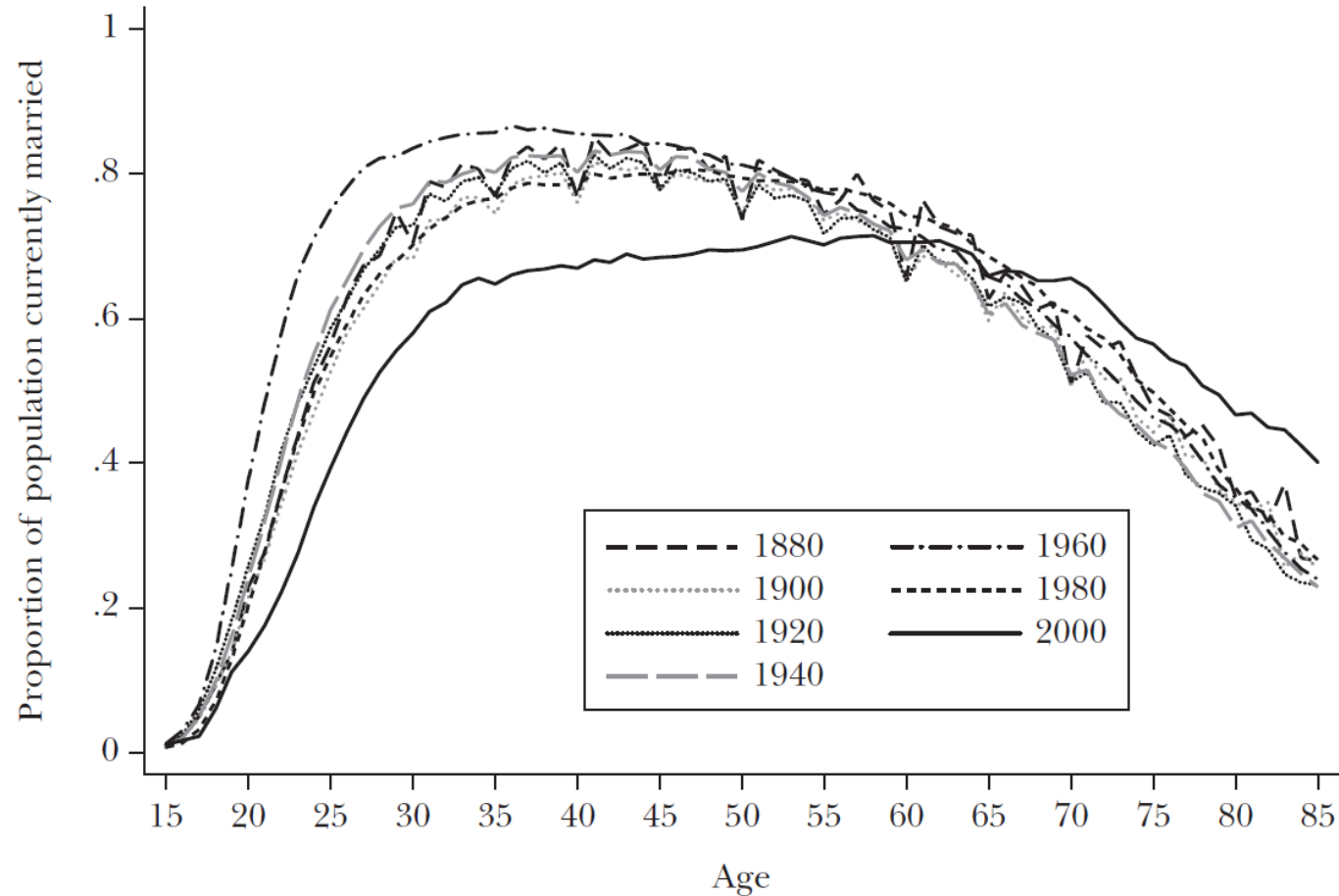
Source: Greenwood and Gunner (2015)

First marriages ending in divorce, by year of marriage



Source: Stevenson and Wolfers (2007)

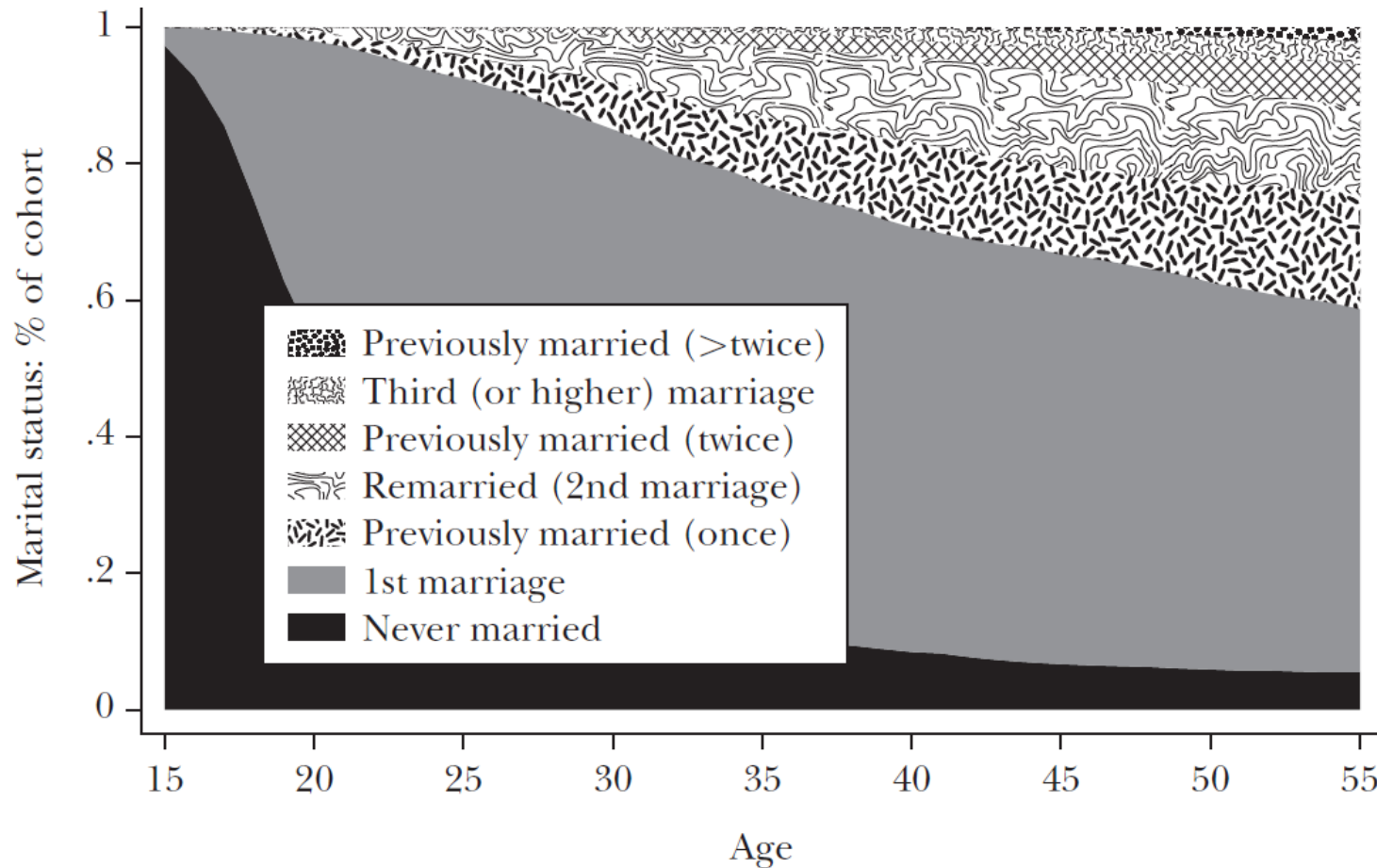
Percent married by age, 1880–2000



Source: Stevenson and Wolfers (2007)

Marital status through the life cycle

(cohort born 1940–1945)



Source: Stevenson and Wolfers (2007)

Marital life cycle: Outcomes by age 45 across cohorts, time, education, and race

	<i>By cohort</i>		<i>Born 1950–55</i>					
	<i>Born 1940–45</i>	<i>Born 1950–55</i>	<i>By gender</i>		<i>By race</i>		<i>By education</i>	
	<i>All</i>	<i>All</i>	<i>Men</i>	<i>Women</i>	<i>Black</i>	<i>White</i>	<i>College grads</i>	<i><College</i>
% Ever married	93.1%	89.5%	88.2%	90.7%	77.6%	91.0%	89.5%	89.5%
Among those ever married:								
Average age at first marriage	22.6	23.6	24.7	22.6	24.7	23.3	24.9	22.8
% still in first marriage	64.5%	56.6%	59.1%	54.3%	52.7%	56.1%	63.3%	52.6%
% of first marriages ending in divorce	32.7%	40.8%	39.4%	42.0%	42.9%	41.5%	34.8%	44.3%
Among those who divorced								
Average duration of marriage (yrs)	10.3	9.0	8.7	9.3	9.7	8.9	9.0	9.1
% remarrying	70.5%	68.9%	71.3%	66.8%	56.8%	70.6%	67.8%	69.4%
Among those remarrying after divorce								
Average time to remarriage (yrs)	3.9	4.2	3.9	4.5	4.7	4.2	4.2	4.2
% still in 2 nd marriage	70.7%	62.5%	64.1%	61.0%	58.6%	63.0%	70.2%	59.0%
% of 2 nd marriages ending in divorce	26.5%	35.7%	35.3%	36.2%	36.1%	35.7%	28.7%	39.0%

Source: Stevenson and Wolfers (2007)

International Comparisons (latest statistics, typically around 2003)

	<i>U.S.</i>	<i>Canada</i>	<i>UK</i>	<i>France</i>	<i>Germany</i>	<i>Italy</i>	<i>Sweden</i>
<i>Marriage</i>							
Annual marriages per thousand people	7.4	4.7	5.1	4.3	4.8	4.3	4.8
Annual marriages per thousand unmarried adults	18.1	13.0	11.4	9.4	12.1	10.8	8.8
% of adult population currently married	59.6%	62.9%	55.1%	54.3%	60.4%	60.0%	45.2%
% of adult population ever married	76.9%	75.5%	72.0%	69.5%	75.9%	72.8%	64.3%
Remarriage (% of marriages in which the bride was previously married)	28.4%	—	28.9%	17.6%	28.3%	6.3%	23.7%
% of 2002 marriages in which the bride was 35 years old or over	31%	28%	30%	28%	—	15%	33%
<i>Divorce</i>							
Annual divorces per thousand people	3.6	2.2	2.8	2.1	2.6	0.8	2.2
Annual divorces per thousand married people	8.5	4.6	6.9	5.1	5.7	1.3	6.8
% of adult population currently divorced	10.2%	4.9%	8.3%	6.7%	6.3%	9.6%	11.3%
<i>Cohabitation</i>							
% of adult population in nonmarital cohabitation	4.7%	10.7%	11.6%	10.8%	7.1%	3.9%	11.7%

Source: Stevenson and Wolfers (2007)

Changes that influenced the marriage market in the 20th century

- Contraceptive pill
 - Fewer „bad matches”
 - The rise of out-of-wedlock births puzzle
- Household production technological change
- Changing wage structures
 - Rising wage inequality and longer search for Mr. Right
 - Declining gender wage gap → delayed marriage
- Opportunity to meet a prospective partner
 - Online dating → anonymity and search by married individuals
 - Mixed-sex working environment

The purpose

1. To extend the models of assignment into pairs from the previous classes so that they allow for the possibility of divorce
 - The optimal sorting model (Becker 1973) finds the individually and socially optimal assignment into pairs
 - If the solution is optimal, will anyone wish to divorce? No!
 - But this is in stark contrast with the data → Something is missing in the optimal sorting model...
2. To identify those of the characteristics of individuals / couples which correlate with the risk of divorce and which are available in datasets
 - What are the reasons for divorce? Perhaps domestic violence, alcoholism
 - But is information on these available in datasets? No!
 - To predict the likelihood of divorce, we must make use of information available in datasets
 - What is available is not necessarily the cause of divorce, but it may correlate with the incidence of divorce

Analysis

Becker, G., Landers, E., and Michael, R. (1977) „An economic analysis of marital instability,” *Journal of Political Economy* 85, 1141-87.

A disagreement about whether or not to divorce

- When both partners agree that their wealth will be higher when remaining married or when separated, we have an agreement about whether or not to divorce
- If, however, one partner has a different opinion, and if all compensations between spouses were feasible and costless, **it all depends on the couple's joint wealth**
- We have **a direct extension of the Becker's (1973) conclusion**

Example 1. When the wife wants to divorce, but the husband does not, and when the joint wealth when separated is lower than when remaining married, the husband can transfer some portion of his wealth to compensate her to remain married

Example 2. When the wife wants to divorce, but the husband does not, and when the joint wealth when separated is higher than when remaining married, the wife can transfer some portion of her wealth to the husband to compensate him to separate (if consent is required)

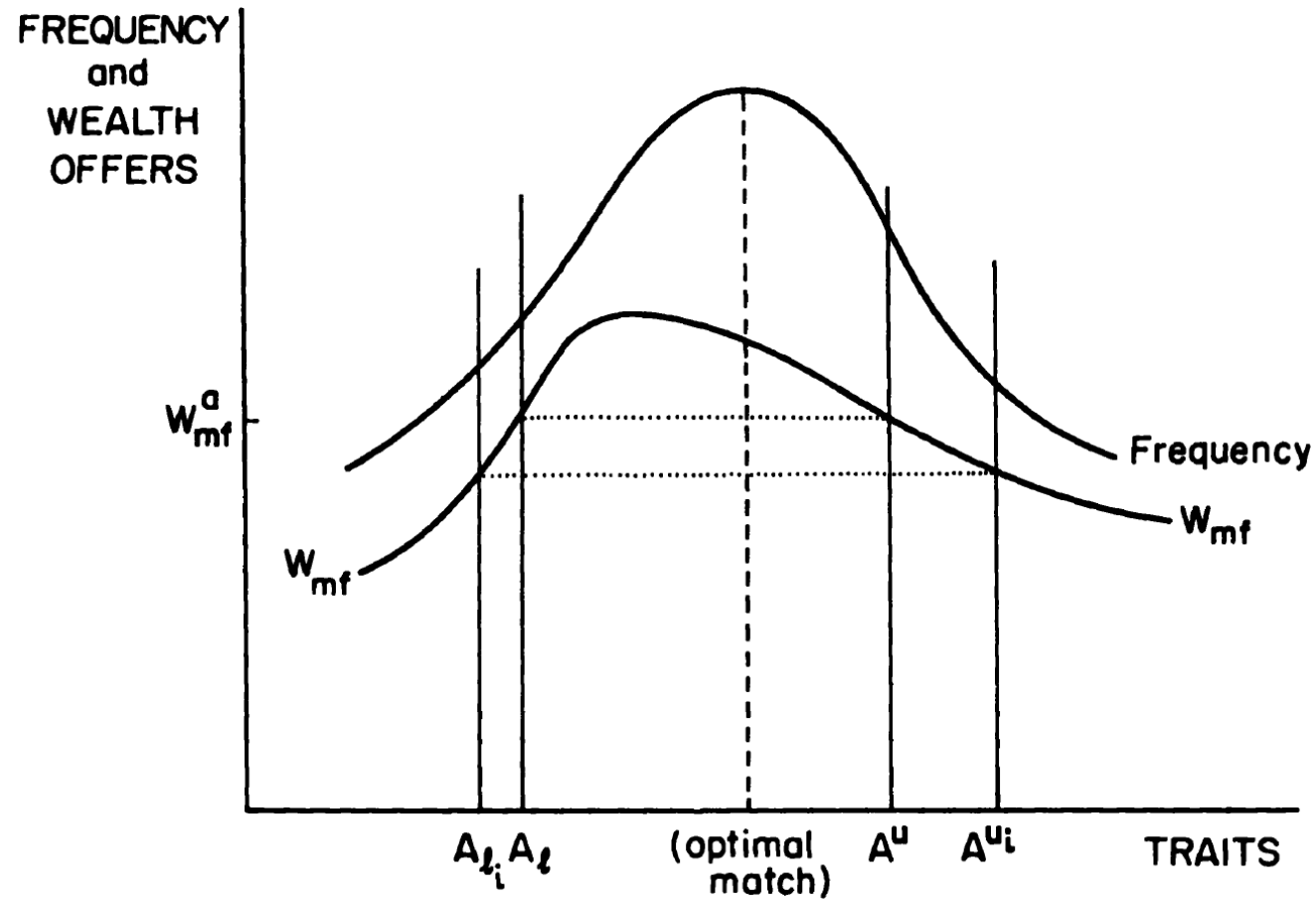
- If the division of wealth between spouses is sufficiently flexible, it would not be meaningful to say that one mate "walked out" on or was abandoned" by the other.

Optimal sorting under uncertainty

- **Search cost** – time and money expenditures on selecting a drawing from a frequency distribution of potential mates
- Expected gain from additional drawing, compared with the search cost, determines the marital choice – when the gain exceeds the cost, two people marry
- Consequently, as compared to the „optimal” sorting
 - The gain will not be greater for any **couple**, and will be reduced for most couples
 - Some **persons** with relatively low search costs may gain more because they can capitalize on the greater search costs of others to make advantageous marriages

Higher search cost → individuals are less „picky” → higher probability of a mismatch → greater risk of divorce

Frequency (probability) of drawing a spouse that returns a given wealth



Source: Becker et al. (1977)

Stability of marriage when there is no remarriage

- Persons with rare traits, such as an IQ over 150, \$1 million, a height in excess of 6 feet 6 inches, usually have to spend considerable resources „searching” for mates with similar traits because most persons encountered have more typical traits – **higher probability of divorce**
- Women who become pregnant accidentally while searching for a mate have an incentive to marry quickly, even if they have not completed their search, because of their desire to „legitimate” their children, and because they become less valuable to other potential mates – **higher probability of divorce**
- Persons marrying much younger than average – **higher probability of divorce**
 - This can result from differences in search costs – persons with higher search costs should marry earlier
 - The degree of bias in expectations
 - Optimists about the distribution of offers (or pessimists about the sampled offers) tend to marry later because additional search appears attractive – **lower probability of divorce**
 - Persons who are excessively pessimistic about their distribution of potential offers relative to the offers sampled – **higher probability of divorce**
- *Remark:* The probability of dissolution may not continue to decline with age at marriage, starting from some age (for example for women aged 40 and more)

The role of marital-specific capital

- **Marital-specific capital** – investments that lose value when marriage is dissolved (such as children, sexual adjustment with one's spouse, etc.)
- The accumulation of specific capital **discourages dissolution**, but the causation goes both ways: the possibility of dissolution also discourages the accumulation of specific capital because such capital is less valuable after dissolution
- *Example:* Persons with rare traits should tend to invest less in children and specific skills
- Possible effects:
 - Snowball effect – higher probability of divorce diminishes investments in marital-specific capital, which further raises the probability of divorce
 - Self-fulfilling prophecy – a rise in the anticipated probability of dissolution may be partly realized only because the induced decline in specific capital increases the actual probability of dissolution

Dissolution and remarriage

- Remarriage has significant effects on the timing and incidence of dissolutions

Example: A husband whose earnings unexpectedly increased, would not divorce his wife, because married wealth typically would be increased by more than single wealth. If remarriage is possible, however, the probability of dissolution might well be increased because the gain from marrying someone else could increase by more than the gain from remaining married to the current mate.

Remark: This example does not hold in the case of women!

- Marriage-specific capital, search costs, and variables that affect the gain from marriage under certainty tend to have the same qualitative effects on the probability of dissolution when remarriage is possible as it was without remarriage

Model of Becker et al. (1977): a summary

- Probability of divorce is **lower** for
 - Higher expected value of variables positively sorted in the optimal sorting of mates, such as the earnings of men and the attractiveness of women
 - Higher age at first marriage
 - Higher marital-specific capital
 - Long-lasting marriage
- Probability of divorce is **higher** for
 - Higher expected value of variables negatively sorted in the optimal sorting of mates, such as the earnings of women relative to those of men
 - A larger deviation between actual and expected values, such as actual and expected earnings or fecundity
 - Higher search costs (rare traits)
 - The second than for the first marriage, is still higher for the third marriage, and so forth
- The effect on the probabilities of dissolution and remarriage is **ambiguous** for
 - Similar education
 - Earnings of men, when remarriage is possible

Empirical research on the probability of divorce

- Weiss and Willis (1996) show that unexpected outcomes in earnings capacity strongly affect the probability of divorce. An increase in earnings capacity of men (women) increased (decreases) the likelihood of divorce
- Becker et al. (1977) show that when earnings of men increase, the likelihood of divorce first decreases and then increases. Unexpectedly low or high earnings increase the probability of divorce
- The search costs (as measured by a persons age) and having children decrease the probability of divorce (Becker et al, 1977; Weiss and Willis, 1993)