

Does ‘Sex and the City’ predict our future?

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Abstract

The HBO series “Sex and the City” depicts the situation of four well educated single women in their search for marriageable men. This article argues from a few simple socioeconomic facts that the difficulties encountered by the women in this show will become common ones for well educated women in the United States. Educated women used to marry men with higher human capital. But over the past decade, two million more women than men earned college degrees, and the female advantage is increasing. This historic change will affect the structure of marriage and the division of household labor. (JEL I20, J12)

I. SOME SOCIOECONOMIC OBSERVATIONS ABOUT EDUCATION AND MARRIAGE

The difficulty of finding a husband depicted in the HBO show can not come from the scarcity of males, since the male-to-female ratio in the population is close to unity.

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Instead it must come from the difficulty in finding a male that these women would be *willing* to marry. What matters then are qualities in men that women are looking for in terms of husbands and the supply of men with those qualities. It is a gap between these qualities and the supply of men with those qualities that will cause problems.

We could determine desirable qualities in males by looking at men that women married in the past. Historically it has been true that in marriage women did the majority of the housework and the raising of children.¹ One explanation for this division of labor could be that the earning power of males outside the home exceeded females, so that a family would choose to put male hours into paid work and female hours into unpaid household labor. This explanation by earning power would explain the discrepancy in the division of household labor as long as women married men with greater earning power than themselves.

Observation 1: Women marry men who are their equal or higher in economic earning power.²

Earning power is determined by both an observable factor, education, and several unobservable factors, including ambition, determination, and innate skill. There is a positive relationship between the level of education and average earnings, as has been developed in hundreds of studies. This relationship could be due to the innate value of education in future work or it may simply be a matter of education as a signal of

¹Juster, Ono and Stafford (forthcoming) found males performed 12 hours and females 40 hours of housework per week in 1965. By 1985 men had picked up a larger share of home labor (16 hours versus the female share of 31 hours) but still only 50 percent of female hours.

²This statement is empirically indistinguishable from the one “Men marry women who are their equal or lower in economic earning power.” Choosing to phrase the statement in terms of women’s choices is an arbitrary one.

higher productivity. All that matters in the context of this paper is that education is a good predictor of earning power and that women use education as a signal in choosing a marriageable man.

We should then expect to find that women tend to “marry up,” that is, that women marry men who are at least as well educated as themselves. However we see that the reality is more complicated than this simple statement.

Table 1 is reproduced from Pencavel (1998). This table shows a break-down of a sampling of marriages with white wives aged 25-34 by education of the female and education of the male for the years 1940, 1960, and 1990.³ The diagonal of the table for each year shows the percentage of marriages for which the spouses had the same level of education. Cells to the upper-right of this table show marriages in which males were better educated than females. Cells to the lower left show marriages in which females were better educated than males.

Of all marriages in 1940, 52 percent involved spouses with equal education levels, 21 percent were marriages where the male had a higher level of education and 27 percent involved marriages where the female had a higher level of education. So females in fact were most likely to marry a male of the same level of education, but were more likely to marry a male of lesser education than a male of greater education.

A similar pattern existed in 1960. While 44 percent of marriages involved spouses of equal education, 27 percent of marriages involved a woman marrying down and only 24 percent of marriages involved a woman marrying up. In 1990 these numbers were reversed but only in a slight way, with 51 percent of marriages being one between

³Mare (1991) has a table for 1940-1987 which produces results similar to the ones the author derives in this paper.

spouses of equal education, 24 percent being a marriage where the woman marries down and 26 percent where the woman marries up.

So what explains the disparity between Observation 1 and this table? Partly it must be due to the expectation of a woman's and a man's role in marriage in the 1940s and 1960s. Even a better educated woman was expected to forgo a career to raise children in a marriage. Additionally it is also due to the nature of men's work in the 1940s and 1960s. In the 1940s, we see from Table 1 that 48 percent of men had less than 9 years of education, while the percentage was only 39 percent for women. A similar comparison is true for the 1960s. Young men had higher wages than young women, so poor families tended to take their boys out of school to work leaving the young women in school.

If however we look at only marriages between well educated spouses, a reversal of this pattern occurs. Considering only the subset of marriages where both spouses had at least a high-school education, in the 1940s, 56 percent of these marriages were between spouses of equal education, 14 percent of these marriages involved a woman marrying down and 31 percent involved a woman marrying up. Expressing these numbers as ratios of the probability of a women marrying up over a woman marrying down, in marriages in the 1940s where both spouses had at least a high school diploma, a man was 2.3 times more likely to be the better educated spouse than was the woman. In the 1960s the man was 3.3 times more likely to be the better educated spouse, but by the 1990s this figure had dropped dramatically to 1.2.

If we look at an even more elite subset of marriages, those where both spouses had at least a few years of college, we find that these ratios are higher. In the 1940s, in marriages where both spouses had at least some college, males were 3 times as likely

to be the better educated spouse. In the 1960s males were 5.1 times as likely to be the better educated spouse. In the 1990s males were 1.5 times as likely to be the better educated spouse.

Another way to look at Observation 1 would be to ask: how likely was a female with at least some college to marry a man with at least some college? The proportion of women with at least some college who married a man with at least some college was 57 percent in 1940, 72 percent in 1960, and 76 percent in 1990. College educated women tend to marry college educated men.

So Observation 1 is true, but only for the educational elite. Poorly educated women marry down, while well educated women marry up. And even more so, the better educated the woman the more likely it is that she will marry a husband who is more educated than she is. It should not be surprising that the traditional story told about women for the 1940s and 1960s was really the story of rich women, not the experiences of the poor.

Corrected Observation 1: Well educated women marry men who are their equal or higher in economic earning power. The better educated the woman the more likely it is that she will marry up.

But we are interested in expectations women have today about what constitutes a “marriageable” man. Do the marriage patterns of the previous generations (or at least the marriage habits of the elite in the previous generations) shape the marriage expectations of women today? If so, the typical well educated woman is then looking for a spouse who is at least as well educated as she is.

So what social attitudes exist about marriage and education? There is still something jarring about the phrase “the lawyer and her husband the store clerk” that does

not exist with “the doctor and his wife the librarian”. The inequalities in spouse status that are evoked with these phrases are only disconcerting in the first phrase. To draw on a TV reference from an earlier era, the house painter Eldin Bernecky in the 1990s sitcom “Murphy Brown” stayed in the house of TV reporter, Murphy Brown, and even helped raise her child. Yet Eldin always remained in the role of a “supporting friend” and never of “love interest” with Murphy. Would this have been the case had the sexes of the characters been reversed?

The women on “Sex and the City” are a lawyer, a newspaper columnist, a public relations executive and an art dealer. These women, and the millions of women just like them, would be looking to marry a man who is at least as successful as themselves. So what has happened to the ratio of successful men to successful women to drive a show like “Sex and the City”? The answer is that the flow of well educated women produced each year by our education system now exceeds that of well educated men, and the gap is likely to keep increasing.

Observation 2: Women are doing better in the education system than are men. In the future this will lead to there being millions more highly educated females than males in the US.

In terms of achievement at the high school level in this century, women have always done better than men. The opposite is true after high school, as shown in Table 1. Between the 1940s and 1990s, we see a closing of the gap between male and female educational achievement at both the low end and the high end of the education scale.

But this aggregate figure hides a very large change in recent graduates. Figure 1 shows the change in the proportion of all tertiary degrees going to each sex. The percentage of college degrees going to women has risen from 34 percent in 1960 to 57

percent in 1998.⁴ Males are still more likely to get professional and doctoral degrees than women, but women now receive the majority of associate's, of bachelor's and also of master's degrees.

Assume that for 10 years after finishing their education, men and women are on the "marriage market." Over the ten years between 1988 and 1998, 10 million women received associate's and bachelor's degrees while only 8 million men received similar degrees. This suggests that in the current marriage market, there are two million more women with college degrees seeking to marry similarly educated men.

Current enrollment at the college level also gives a clear picture of what the future distribution of educational achievement will look like. Enrollment in 1999 at the college level was 6,956,000 for males and 8,247,000 for females- a ratio of .85 males for every female and a drop from a ratio of 1.09 in 1970. The ratio of enrollments matches the current ratio for college degrees going to men and women and suggests that males and females are just as likely to receive a degree after they enter college. If this trend were to continue, then eventually there would be only .85 college-educated males per college-educated female in the US population. But there are good reasons for thinking that this number is not stable and will in fact drop further.

Female performance at the secondary level has much less variance than male. In national evaluations of reading, math, and science, women had lower variance than men in all subjects. The National Assessment of Educational Performance by the US Department of Education tracks performance on nationwide exams. Table 2 shows national performance by sex on exams in 1977/8 and 1999. Scores on any exams within that period would show the same trends as we note here. Average performance on all

⁴All the following numbers are from the 2000 US Census unless reported otherwise.

exams has improved over this period, but female averages have risen faster than male, closing the gaps in math and science, while increasing the advantage of female over male performance in reading. So females are catching up with or even extending their lead over males.

But just as importantly for this discussion the standard deviations of female performance are uniformly lower than the standard deviations of male for all exams. The standard deviations of performance fell for nearly all the exams for both sexes, but female standard deviations were lower and fell faster. If these exams are good predictors of performance in education, they suggest that female educational performance is much more closely clustered around the female average than male educational performance, that female performance is rising faster than male, and that the female average is catching up to or exceeding the male average.

As a society, we are interested in increasing the proportion of our population that goes to college. Current enrollment in college has increased from 11.4 million in 1980 to 15.2 million in 1999, while the relevant population for college has decreased from 40 million to 36 million.⁵ This trend towards more college places should continue in the future. As entry into college becomes less difficult in the future, educational performance of new college entrants will fall. But since female performance is more tightly clustered around the average than is male performance, relatively more females will be able to enter college than males. So as we push the percentage of the population going to college up, we will see relatively more women than men brought in.

Secondly as a society we are focussing on reducing and removing barriers for women in higher education. It is still socially easier for a male to envisage going to college

⁵The U.S. population between 20 and 30 years of age is used as a proxy for the target college population.

than it is for a female. But yet there are only .85 males for every female on college campuses. If this is how women perform with barriers, what will female educational performance relative to male be like without barriers?

The bottom line is this: the decade between 1988 and 1998 produced 8 million males with university degrees and higher and 10 million females with university degrees. These numbers are likely to grow even more disproportionate in the future. Who will all these women marry- if they even do? And what changes will occur in a society where educated women greatly outnumber educated men?

II. A PRESENT DAY CASE STUDY

What will happen in a society in which there are many more well educated women than men? This demographic shift will have profound implications on marriage, family structure, division of household labor and career decisions in the US. In terms of marriages, either more women have to marry men with lower levels of education or fewer women will choose to marry. We can see this choice being made in a current group in the US: African-American women.

Black female marriage rates have fallen significantly since the 1960s. For 1977 the percentage of all black women aged 35-54 who had never married was 8 percent and was 6 percent for black women with some college. By 2000 the percentage of all black women aged 35-54 who had never married was 26 percent and was 24 percent for black women with some college. Welfare may explain part of this fall, but it is surely not an explanatory factor for college-educated black women, who have experienced as large a drop in marriage rates as less educated women did.⁶

⁶The respective numbers for white women with similar ages and education was 4 and 6 percent in 1977

Wilson and Neckerman (1986) first suggested that the falling black female marriage rates might be due to a lack of marriageable men, but they only tested for the percentage of employed black males. While employment is an indicator of a certain amount of economic success, for college-educated women simply having a job would not be a sufficient indicator of marriageability in a male. The level of education of black males would then be a better indicator of the marriage opportunities of well educated black females.

In 1970 the number of black males enrolled in college was equal to the number of black females enrolled. However, since the 1980s, black male to black female college enrollments have varied around a ratio of 0.7. Currently in the age bracket of 25-34 black females with at least some college outnumber black males with at least some college by 1.5 million to 1 million. In the age bracket of 35-44 black females with some college again outnumber their male counterparts by 1.5 million to 1 million.

Figure 2 shows the relationship between the percentage of unmarried females in a race and age group and the ratio of college-educated males to females. Females are separated into two age groups (ages 25-34 denoted “Y” and with a star and ages 35-54 denoted “O” and with a block) and into two racial groups (white denoted “W” and black denoted “B”). The horizontal axis is the ratio of males with at least some college education to females with at least some college education for the same age group and race. The ratio of educated males to females has fallen between 1977 and 1999 and is far lower for blacks than for whites. Between 1977 and 1999 the percent of women who never married has risen for both races and age groups, and this rise is larger for blacks than for whites.

and 8 and 9 percent in 2000.

Given that college-educated black females outnumber college-educated black males by a ratio of three-to-two many college-educated black females are then left with the choice of marrying a black man with less education, marrying a man of another race or not marrying at all. The change in relative scarcity of college-educated black men from 1977 to 2000 may explain why the marriage rate for successful black females has fallen. This scarcity may also explain why black women are marrying white men at a higher rate than in past decades.⁷

One puzzling feature about this explanation noted by Ellwood and Crane (1990) is the failure to explain why the marriage rates have also fallen for well educated black males. If the proportion of well educated black males falls relative to well educated black females, it would be expected that the marriage rates of well educated black males would rise. But the proportion of black males aged 35-54 with at least some college education who have never married has risen from 11 percent in 1977 to 21 percent in 1999.

Perhaps educated black males have chosen not to marry because the value of educated black males outside marriage has risen even faster than their value inside marriage. As marriage rates for black women have fallen across all education levels, there are many more single women for every educated, employed black male. Drewianka (1999) estimated the relationship to be that every 10 percent increase in single persons could lead to a 1.3-2.0 percent fall in marriage rates within that same group. Well educated black men may choose to remain single because of their relative scarcity,

⁷There were 122,000 families with black husbands and white wives and 45,000 families with white husbands and black wives in 1980- a ratio of 3 to 1. By 1999 this ratio had dropped to 2 to 1. Strangely the 2000 census reported that the ratio had risen to close to 3 to 1 again.

lowering even further the number of marriageable men for successful black females.

III. “SEX AND THE CITY” IS OUR FUTURE

The education differentials between men and women mean that there were 25 percent more college-educated women than men graduating in the 1990s. If this trend continues, what are the social implications of having 20-25 percent more college-educated women than men? What happens to the “surplus” of two million college-educated women on the marriage market? Either there will have to be a fall in the marriage rate for well educated women, as has occurred in the black community, or the proportion of well educated women marrying down will have to rise, or perhaps both. The decline in the proportion of women marrying up between 1960 and 1990 in Table 1 is probably some evidence of a rise in the scarcity of educated men. Qian (1998) noticed this change in marriage rates using more complicated empirical techniques.

We can expect that the complaints of the women on “Sex and the City” about the lack of marriageable men will become much more common and that social attitudes about the expected status of men and women within a marriage will have to change.

If marriage rates do not fall then we will have to see a reverse of Observation 1- that many more women marry down than marry up. The marriage between the “doctor and her husband the bartender” will become more common than the marriage between “the lawyer and his wife the postal worker”. Will it become acceptable for the Vasser girl to bring home her boyfriend the plumber to meet the parents? Will it take less than 8 seasons for the ex-baseball player to marry the advertising executive on the next “Who’s the Boss?” (and only after he is sent to college).

What will be the impact of the relative scarcity of well educated white males on white male marriage rates? If the marriage rates of well educated white males drop like the marriage rates of well educated black males have, then marriage prospects will be even more difficult for well educated females.

If marriage rates do not fall and many more well educated women marry less educated males, what impact will this have on the decision of the division of household labor and especially on the burden of child-rearing within a marriage? In households where the female has a higher level of education and thus a higher expected wage than the male, it would make sense for the child-rearing burden to fall primarily on the male. We would expect that more men would leave careers in order to raise children and that females would become the primary wage-earners in a large number of households. The shift of men into household work and child-rearing will require a change in social attitudes about masculinity and these tasks.

In the workplace the number of educated female workers will be greater than the number of educated male workers. Companies that wish to attract and retain these educated workers will have to cater to the career plans of married female workers rather than male workers. Skilled female workers who are the primary wage-earners may still keep a share of the household work and burden of child-rearing, as evidenced by the Juster, Ono and Stafford numbers which showed that males still only did half the housework of females. In order to retain their skilled female workers, workplaces will have to change to more flexible career paths and to more flexible and perhaps shorter working hours.

These demographic changes are already upon us. It remains to be seen how quickly and how smoothly the changes in social attitudes that are required by the rise in the

number of well educated women will come about.

References

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<i>Table 1- Assortive mating on years of schooling</i>						
<i>Wife's schooling (years)</i>	<i>Husband's schooling (years)</i>					
	<9	9-11	12	13-15	≥ 16	All

1940:						
<9	30.7	5.5	2.3	0.5	0.3	39.3
9-11	9.9	8.4	3.6	1.1	0.6	23.6
12	5.7	5.5	8.6	2.7	2.3	24.8
13-15	1.1	1.2	1.8	1.9	2.1	8.1
≥ 16	0.3	0.2	0.6	0.7	2.3	4.1
All	47.7	20.8	16.9	6.9	7.6	100

1960:						
<9	8.7	3.1	2.0	0.4	0.1	14.3
9-11	6.1	8.0	6.2	1.5	0.6	22.4
12	5.4	9.1	19.1	5.8	4.1	43.5
13-15	0.5	0.9	2.7	2.8	4.6	11.5
≥ 16	0.1	0.2	0.8	0.9	5.3	7.3
All	20.8	21.3	30.8	11.4	14.7	100

1990:						
<9	0.9	0.5	0.4	0.2	0.0	2.0
9-11	0.7	3.0	3.2	1.5	0.3	8.7
12	0.7	4.0	17.9	9.0	2.9	34.5
13-15	0.3	1.8	8.6	14.5	7.7	32.9
≥ 16	0.1	0.3	2.3	5.1	14.5	22.3
All	2.7	9.6	32.4	30.3	25.4	100

Source: Pencavel (1998), Table 1.

<i>Table 2- Performance on NAEP national exams by sex</i>						
	<i>Math</i>		<i>Reading</i>		<i>Science</i>	
	1978	1999	1977	1999	1977	1999
Male average	297.0	300.4	278.9	281.5	303.8	309.8
Male std. dev.	45.3	45.8	46.3	42.8	35.4	31.6
Female average	282.2	290.6	291.3	294.6	297.1	306.8
Female std. dev.	43.5	41.2	44.5	39.6	34.0	29.8
Male ave. -						
Female ave.	14.8	9.8	-12.4	-13.1	6.7	3.0

Source: U.S. National Center for Education Statistics, *National Assessment of Educational Performance: 1999 Long-term Trend Summary Data Tables*.

FIGURE 1

Percent of all earned university degrees by sex

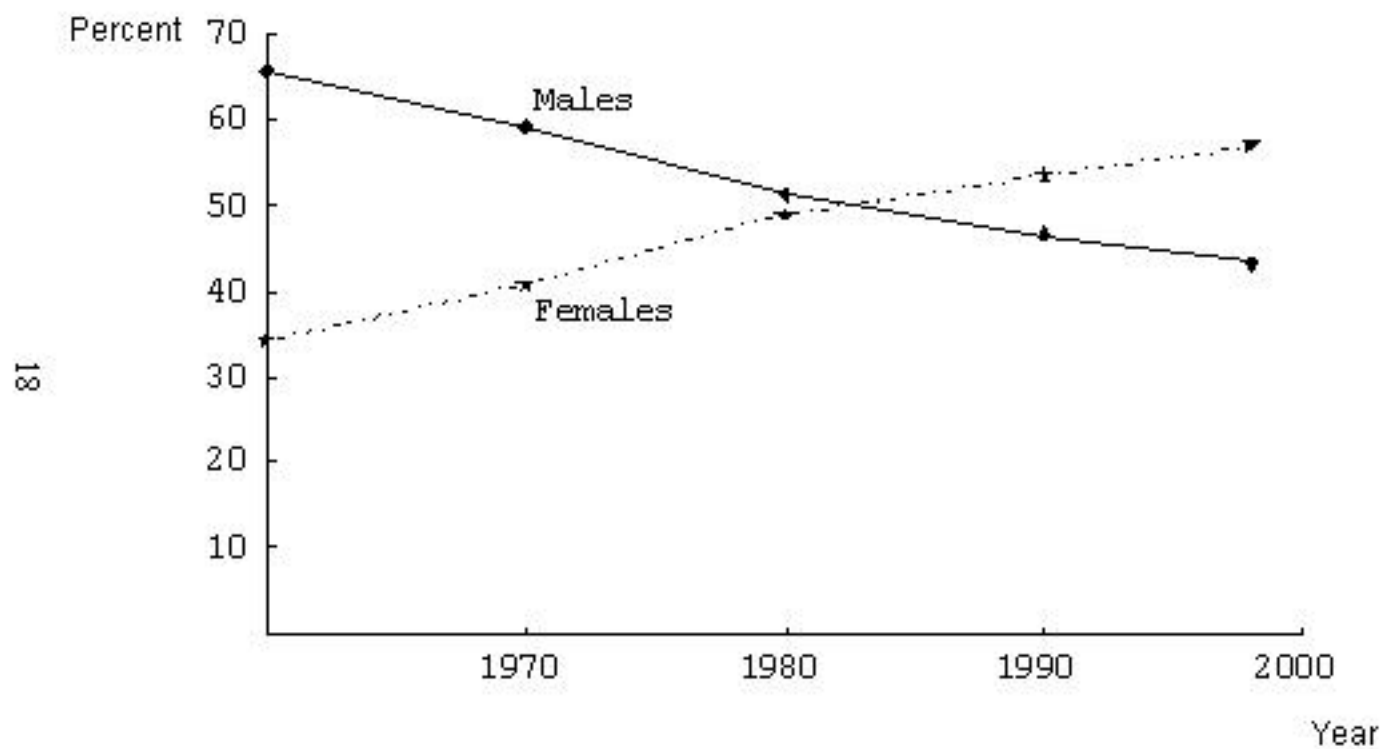


FIGURE 2

Unmarried College-Educated Women by Age Group, Race, and Year

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