Risky Male Reproduction

For the large majority of women who are heterosexual, first intercourse necessarily involves interaction with a male and therefore partially depends on the behavior of young men. To explore the male side of the sexual interaction, table S.1 examines the determinants of first intercourse for male respondents to the Adolescent Health Survey. Looking at the baseline model in the left-hand columns, it is immediately apparent that males display considerably less variation by race and class when it comes to initiating sex. By the time of Wave 3, the large majority of males were having sex and differences in the odds of doing so by race and class were relatively few. We do not really observe any systematic race-class patterns aside from a few statistically marginal effects. The only strong effects are for lower-class Asians, who display a markedly lower likelihood of experiencing first intercourse than other race-class groups ($p < .01$), and lower-middle-class Hispanics, whose odds of experiencing a sexual debut are considerably higher ($p < .05$).

Table S.1 Effect of Selected Variables on the Likelihood of Male Intercourse by Wave 3

	Group Effects		Full Model	
Independent Variables	B	SE	B	SE
Race-class group				
White lower	0.341	0.215	-0.062	0.660
White lower middle	0.350+	0.204	-0.179	0.454
White upper middle	0.049	0.201	-0.043	0.324
White upper	----	----	----	----
Asian lower	-1.587**	0.599	-2.303*	0.958
Asian lower middle	-0.326	0.435	-0.560	0.721
Asian upper middle	-0.854+	0.464	-0.417	0.622
Asian upper	-0.332	0.330	-0.188	0.400
Hispanic lower	0.322	0.346	-0.054	0.743
Hispanic lower middle	0.901*	0.391	1.016	0.639
Hispanic upper middle	0.187	0.433	0.572	0.495
Hispanic upper	0.474	0.442	0.584	0.546

Black lower	0.371	0.239	0.207	0.711
Black lower middle	0.691+	0.390	0.429	0.671
Black upper middle	0.356	0.412	0.027	0.538
Black upper	0.308	0.403	0.059	0.500
Ascribed characteristics				
Age at wave 3	----	----	0.118**	0.045
Parent foreign born	----	----	-0.314	0.234
Ecological background				
Composition of origin family				
Two biological parents	----	----	----	----
Biological and stepparent	----	----	0.759+	0.392
One biological parent	----	----	0.233	0.187
No biological parent	----	----	-0.427	0.581
Family material resources				
Household income	----	----	-0.007	0.011
Access to health insurance				
No coverage	----	----	----	----
Coverage less than a year	----	----	-0.008	0.281
Coverage full year	----	----	-0.275	0.185
Family symbolic resources				
Parental prestige	----	----	0.001	0.004
Parent went to college	----	----	-0.266	0.246
Family emotional resources				
Experienced a death	----	----	0.201	0.348
Family sternness	----	----	-0.012*	0.006
Father incarcerated	----	----	-0.184	0.206
Had family mentor	----	----	0.240	0.216
Neighborhood setting				
Disadvantage index	----	----	0.190	0.168
Inefficacy index	----	----	-0.037	0.031
Scarcity of males	----	----	-0.451	0.297
Had neighborhood mentor	----	----	0.123	0.300
School setting				
Disadvantage index	----	----	-0.004	0.012
Inefficacy index	----	----	0.014	0.014
Disorder index	----	----	-0.040	0.029
Had school mentor	----	----	0.017	0.221
Religious setting				
Religiosity scale	----	----	0.023	0.020
Involvement index	----	----	-0.051*	0.023
Had religious mentor	----	----	-0.793*	0.342
Peer setting				
Violence index	----	----	0.247***	0.053
Friend attempted suicide	----	----	0.119	0.277
Had peer mentor	----	----	0.023	0.225
Multiple disadvantages				
Log of interactive index	----	----	-0.056	0.041
Intercept	1.611***	0.147	3.383	2.130
N	4,192		3,390	

F-test	2.13*	4.02***

Source: Massey and Brodmann (2014).
+$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

As with young women, the sexual debut of young men is influenced by the composition and sternness of the family of origin. Coming from a step-parent household more than doubles the odds of sexual debut, whereas each unit on the sternness scale reduces the odds by 1.2 percent; as among young women, exposure to peer violence raises the odds of first intercourse among young men, only the effect is considerably more powerful than among women ($p <$ 0.001), each unit on the violence scale raising the odds of first intercourse among males by 28 percent, for a total potential increase of 560 percent over the range of the peer violence scale. Male sexual debut is also related to circumstances in the religious sphere; the likelihood of first intercourse, however, is determined not by religiosity but by the degree of religious involvement and having a religious mentor. The more involved a young man is with his congregation, the less likely he is to have experienced a sexual debut, with each unit of involvement reducing the odds by around 5 percent. Having a mentor who is a religious figure lowers the odds of first intercourse by 55 percent.

Turning to age at first intercourse, analyzed in table S.2, we encounter considerably more variation by race and class. The class gradient among white men is clear though less pronounced than among white women. According to the model shown in the left-hand columns, the average upper-class white male experienced first intercourse at 16.7 years, whereas upper-middle-class men did so at 16.5 years, lower-middle-class men at 16.4 years, and lower-class men at 16.2 years. Moreover, as for black females, the age of sexual debut is significantly lower for black than white males, but the effects are much more pronounced and the class gradient is less. In

general, black males of all classes begin sexual activity around a year earlier than white males. Whereas white males began having sex in the range of 16.2 to 16.7 years depending on class, the age of debut for black males was 15.6 for those in the upper class, 15.5 for those in the upper middle class and lower middle class, and 15.4 for those in the lower class.

Table S.2 Effect of Selected Variables on Age of First Male Intercourse by Wave 3

	Group Effects		Full Model	
Independent Variables	B	SE	B	SE
Race-class group				
White lower	-0.480**	0.168	-0.003	0.535
White lower middle	-0.320+	0.171	-0.005	0.370
White upper middle	0.163	0.151	0.200	0.232
White upper	----	----	----	----
Asian lower	0.792	0.644	1.259*	0.610
Asian lower middle	0.875*	0.404	1.083+	0.616
Asian upper middle	0.484	0.441	0.308	0.547
Asian upper	1.011*	0.465	0.443	0.408
Hispanic lower	-0.604*	0.283	0.035	0.588
Hispanic lower middle	-0.869**	0.294	-0.494	0.448
Hispanic upper middle	-0.528	0.483	-0.336	0.454
Hispanic upper	-0.476	0.304	-0.374	0.393
Black lower	-1.324***	0.276	-0.918	0.570
Black lower middle	-1.240***	0.263	-0.729	0.476
Black upper middle	-1.223***	0.296	-0.329	0.359
Black upper	-1.105**	0.344	-0.619*	0.318
Ascribed characteristics				
Age at wave 3	----	----	0.212***	0.036
Parent foreign born	----	----	-0.142	0.168
Ecological background				
Composition of origin family				
Two biological parents	----	----	----	----
Biological and stepparent	----	----	0.082	0.187
One biological parent	----	----	-0.148	0.156
No biological parent	----	----	0.218	0.485
Family material resources				
Household income	----	----	-0.007	0.010
Access to health insurance				
No coverage	----	----	----	----
Coverage less than a year	----	----	0.033	0.179
Coverage full year	----	----	0.131	0.147

Family symbolic resources				
Parental prestige	----	----	0.003	0.003
Parent went to college	----	----	-0.237	0.152
Family emotional resources				
Experienced a death	----	----	0.334	0.217
Family sternness	----	----	0.003	0.005
Father incarcerated	----	----	-0.098	0.158
Had family mentor	----	----	-0.024	0.127
Neighborhood setting				
Disadvantage index	----	----	-0.178	0.115
Inefficacy index	----	----	0.052**	0.021
Scarcity of males	----	----	0.394	0.263
Had neighborhood mentor	----	----	0.177	0.231
School setting				
Disadvantage index	----	----	0.003	0.008
Inefficacy index	----	----	-0.016	0.012
Disorder index	----	----	0.039+	0.021
Had school mentor	----	----	0.274+	0.163
Religious setting				
Religiosity scale	----	----	0.003	0.014
Involvement index	----	----	0.052**	0.018
Had religious mentor	----	----	0.614+	0.363
Peer setting				
Violence index	----	----	-0.154***	0.017
Friend attempted suicide	----	----	-0.173	0.182
Had peer mentor	----	----	-0.018	0.160
Multiple disadvantages				
Log of interactive index	----	----	-0.063**	0.024
Intercept	16.682***	0.123	13.468***	1.336
N	3,542		2,846	
F-test	10.57***		14.08***	
R^2	0.050		0.174	

Source: Massey and Brodmann (2014).
+$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Whereas Hispanic females generally begin having sex at the same age as upper-class white women, Hispanic males appear to initiate sex at an earlier age than upper-class white males, about half a year earlier for upper- and upper-middle-class males (though these effects are not statistically significant) and 0.9 years earlier in the lower middle class ($p < 0.01$) and 0.6 years earlier in the lower class ($p < 0.05$). Like Asian women, males from Asia generally experience first intercourse at older ages than other race-sex groups, the age of sexual debut

being 17.7 for upper-class-Asian men and 17.6 for lower-middle-class men. For lower-class Asian men the average age is 17.5, though the effect is not significant owing to the rather large standard error (probably reflecting the small cell size).

The addition of ecological controls and ascribed characteristics effectively eliminates the modest class gradient observed among white men. It also reduces the point estimates, eliminates statistical significance among Hispanic men, and wipes out the effect for upper-class Asian men. However, the greater age of sexual debut among lower- and lower-middle-class Asians persists, although the increase in the size of the point estimates is an artifact of sample attrition (see appendix C at https://www.russellsage.org/publications/spheres-influence). Even though class-specific coefficients for black males are all reduced in value and become insignificant in the full model, the point estimates remain rather large in absolute terms and might well be significant with a larger sample size. In any event, the standout results for males are twofold: the unusually late age of sexual debut of lower- and lower-middle-class Asian males, which cannot be attributed to their social ecology, and the lower age of sexual debut among black males, which is at least partly attributable to ecological circumstances.

As for young women, current age is positively associated with age at first intercourse, again implying that the age of sexual debut is declining over time. Unlike women, however, nothing in the family ecology of young men significantly predicts age of first intercourse. In terms of other ecological settings, exposure to greater neighborhood inefficacy raises the age of first intercourse by 0.052 years for each unit on the inefficacy scale; school disorder increases the age of first intercourse by 0.039 years for each unit on the disorder scale; religious involvement increases the age of first intercourse by 0.052 years for each unit on the involvement scale. Having a school mentor increases the age of sexual debut by 0.27 years, whereas having a

religious mentor raises it by 0.61 years. In contrast, the age of entry into sexual activity falls sharply with rising exposure to violence and with the accumulation of disadvantages across ecological settings, falling by 0.15 of a year with each unit on the violence scale and by 0.06 years for each unit on the logarithmic scale of cumulative violence.

In general, then, results suggest that the sexual behavior of young women is more connected to social ecology than the sexual behavior of young men, consistent with Richard Udry's (1988) findings. Irrespective of race and class, most young men had made their sexual debut by the survey's third wave, with the notable exception of lower- and upper-middle-class Asians, who were substantially less likely to have done so. Most of the variation among men was in the age of sexual debut rather than the odds of sexual debut itself. Young women displayed far more variation than men in both the likelihood of a sexual debut and the age at which it happened, and these differences were strongly connected to social ecology.

Table S.3 analyzes the likelihood among young men of having unprotected sex. As with the likelihood and age of first intercourse, race-class variation among men is considerably less than among women. The only strong and significant effect is that lower-class young Asian men are highly unlikely to have sex without contraception. Compared with other groups, their odds of doing so are 92 percent lower, which is not really changed by the addition of controls. As with women, a key factor is the age at which first intercourse occurs: the older a young male at the time of his sexual debut, the more likely he is to use contraception. Once again, all of the factors that push young men toward early intercourse indirectly increase the odds that their first sexual encounter will not involve contraception.

Table S.3 Effect of Selected Variables on the Likelihood of Not Using Contraception During First Male Intercourse

Independent Variables	Group Effects B	Group Effects SE	Full Model B	Full Model SE
Race-class group				
White lower	0.234	0.163	-0.672	0.535
White lower middle	-0.174	0.174	-0.915*	0.422
White upper middle	0.090	0.135	-0.215	0.270
White upper	----	----	----	----
Asian lower	-2.517***	0.657	-2.476**	0.846
Asian lower middle	-0.253	0.585	-0.768	0.697
Asian upper middle	-0.094	0.447	-0.237	0.513
Asian upper	-0.028	0.332	0.281	0.465
Hispanic lower	0.323	0.262	-0.461	0.592
Hispanic lower middle	0.109	0.253	-0.798	0.487
Hispanic upper middle	-0.078	0.318	-0.528	0.422
Hispanic upper	0.239	0.377	0.222	0.380
Black lower	-0.271	0.205	-1.015+	0.616
Black lower middle	-0.144	0.254	-0.459	0.503
Black upper middle	-0.144	0.297	-0.239	0.422
Black upper	0.250	0.382	0.292	0.407
Ascribed characteristics				
Age at wave 3	----	----	0.028	0.039
Parent foreign born	----	----	-0.075	0.204
Mediating conditions				
Age at first intercourse	----	----	-0.177***	0.023
Ecological background				
Family configuration				
Two biological parents	----	----	----	----
Biological and stepparent	----	----	0.073	0.207
One biological parent	----	----	-0.121	0.153
No biological parent	----	----	0.154	0.554
Family material resources				
Household income	----	----	-0.012	0.009
Access to health insurance				
No coverage	----	----	----	----
Coverage less than a year	----	----	-0.226	0.152
Coverage full year	----	----	-0.299*	0.149
Family symbolic resources				
Parental prestige	----	----	0.007*	0.003
Parent went to college	----	----	-0.066	0.167
Family emotional resources				
Experienced a death	----	----	-0.048	0.268
Family sternness	----	----	-0.008+	0.005
Father incarcerated	----	----	0.107	0.143

Had family mentor	----	----	0.259+	0.157
Neighborhood setting				
Disadvantage index	----	----	-0.334**	0.128
Inefficacy index	----	----	0.014	0.018
Scarcity of males	----	----	-0.175	0.299
Had neighborhood mentor	----	----	0.312	0.237
School setting				
Disadvantage index	----	----	-0.001	0.007
Inefficacy index	----	----	-0.015	0.011
Disorder index	----	----	0.014	0.020
Had school mentor	----	----	0.079	0.189
Religious setting				
Religiosity scale	----	----	0.005	0.012
Involvement index	----	----	0.005	0.020
Had religious mentor	----	----	0.670	0.481
Peer setting				
Violence index	----	----	0.036+	0.021
Friend attempted suicide	----	----	0.042	0.213
Had peer mentor	----	----	-0.025	0.196
Multiple disadvantages				
Log of interactive index	----	----	0.022	0.025
Intercept	-0.576***	0.123	2.848+	1.615
N	3,479		2,793	
F-test	1.70+		3.88***	

Source: Massey and Brodmann (2014).
+$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

In terms of direct ecological effects, the family setting seems to be most important in governing the terms of the first sexual encounter. Originating in a family with full health insurance coverage strongly reduces the odds of unprotected sex (by 26 percent compared with those having no insurance). Likewise, the sternness of the family emotional environment tends to increase the odds of using contraception, with each point on the sternness scale lowering the odds of unprotected sex by around 0.8 percent. Although the effect was only significant at the 10 percent level, the point estimate was the same as for females, which was significant at the 5 percent level. Somewhat surprisingly, greater parental occupational status was associated with a lower likelihood of using contraception, with each unit of parental occupational prestige raising the odds of unprotected sex by 0.7 percent. Those reporting access to a family mentor displayed

30 percent greater odds of engaging in unprotected sex, though the effect was only significant at the 10 percent level.

Outside the family setting, few ecological conditions seemed to matter. Although the religious sphere may play an important role in determining the likelihood and age of first intercourse, it has no effect on the use of contraception during the initial encounter. Various facets of the school setting also did not matter. The strongest nonfamily effect was for neighborhood material disadvantage, but the effect was opposite what one might expect from the neighborhood effects literature. The greater the disadvantage of the neighborhood, the less likely a young man was to engage in sex without contraception, with each unit on the disadvantage scale reducing the odds of unprotected by around 28 percent, for a total effect of 112 percent over the range of the index. The only other nonfamily factor to make a difference was peer violence, and its effect was positive though less significant statistically ($p < .10$). Nonetheless, in terms of point estimates, each unit increase in the peer violence scale raises the odds of unprotected sex by nearly 4 percent, 80 percent over the range of the scale.

Table S.4 continues the analysis by showing a baseline bivariate probit model predicting marriage and cohabitation for young men. In this case, the rho coefficient is 0.236, indicating that the decisions to marry and cohabit are correlated to a greater extent than among young women. Among white men, we again observe a class gradient in the propensity to marry and cohabit, one similar to that observed among white women, except that the differential is more modest in the case of marriage. The only coefficient that is statistically significant in predicting marriage is that for lower-class white men, and whereas lower-class white women were 65 percent more likely to marry than their upper-class counterparts, lower-class men were only 32 percent more likely to do so. The effect of class on the likelihood of cohabitation was about the

same, however. Lower-class men were 70 percent more likely to cohabit than those in the upper class, lower-middle-class men were 34 percent more likely, and upper-middle-class men were 15 percent more likely (though the latter effect was not significant).

Table S.4 Bivariate Probit Model Showing Group Effects on the Likelihood of Male Cohabitation and Marriage by Wave 3

	Marriage		Cohabitation	
Independent Variables	B	SE	B	SE
Race-class group				
White lower	0.280*	0.128	0.532***	0.102
White lower middle	0.209	0.149	0.290***	0.092
White upper middle	0.191	0.109	0.139	0.094
White upper	----	----	----	----
Asian lower	-0.064	0.487	-0.441	0.412
Asian lower middle	-0.773*	0.359	-0.417	0.372
Asian upper middle	-0.133	0.306	-0.129	0.268
Asian upper	0.137	0.323	-0.350+	0.182
Hispanic lower	0.571***	0.166	0.280+	0.156
Hispanic lower middle	0.432**	0.172	0.257+	0.151
Hispanic upper middle	0.349+	0.185	0.052	0.179
Hispanic upper	0.042	0.254	-0.259	0.173
Black lower	0.103	0.152	0.376*	0.155
Black lower middle	0.045	0.177	0.002	0.160
Black upper middle	0.080	0.206	0.305	0.222
Black upper	-0.461	0.313	-0.570***	0.079
Intercept	-1.322***	0.097	-0.570***	0.079
Rho	0.236***	0.048		
N	4,219			
F-test	3.98***			

Source: Massey and Brodmann (2014).
+$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Hispanic men display a stronger class gradient with respect to marriage. Although the odds of marriage for upper-class Hispanics were the same as for upper-class whites, they were 77

percent greater in the lower class, 54 percent in the lower middle class, and 42 percent greater in the upper middle class. This pattern is much the same as observed among Hispanic women, but whereas the latter displayed no class gradient with respect to cohabitation, males display a higher likelihood of cohabiting in the lower and lower middle classes, the odds of cohabitation being around one third-greater than for upper-class whites. As with Asian women, Asian men in all classes are unlikely to marry or cohabit, essentially displaying the low odds of upper-class white men, with two exceptions. Lower-middle-class Asian men are 54 percent less likely to marry and upper-class Asian men are 30 percent less likely to cohabit. Black men are again unlikely to marry in all classes and unlikely to cohabit except in the lower class, where the odds of doing so are 46 percent greater; but upper-class black men are 43 percent less likely to cohabit.

As with black women, the unique situation of black men is underscored when controls are applied, as shown in table S.5, which turned all of the black marriage coefficients significantly negative and showed no consistent class gradient. Lower-class black men are 73 percent less likely to marry than upper-class white men, lower-middle-class black men 63 percent less likely, upper-middle-class black men 47 percent less likely, and upper-class black men 55 percent less likely. Other things equal, black men, like black women, are very unlikely to marry compared with other race-class groups. They are also generally less likely to cohabit, though only the coefficient for upper-middle-class males attains significance, and then only at the 10 percent level.

Table S.5 Bivariate Probit Model Showing Full Effects on the Likelihood of Male Cohabitation and Marriage by Wave 3

	Marriage		Cohabitation	
Independent Variables	B	SE	B	SE
Race-class group				
White lower	-0.568	0.374	-0.076	0.333
White lower middle	-0.374	0.327	-0.122	0.216
White upper middle	-0.162	0.199	-0.048	0.161
White upper	----	----	----	----
Asian lower	-1.832***	0.450	-0.102	0.539
Asian lower middle	-2.150***	0.376	-1.173*	0.561
Asian upper middle	-0.808**	0.321	-0.212	0.301
Asian upper	0.107	0.330	-0.220	0.262
Hispanic lower	-0.454	0.375	-0.519	0.405
Hispanic lower middle	-0.495	0.309	-0.332	0.270
Hispanic upper middle	-0.217	0.250	-0.381*	0.187
Hispanic upper	-0.041	0.280	-0.662***	0.202
Black lower	-1.291***	0.407	-0.509	0.332
Black lower middle	-0.898**	0.336	-0.199	0.284
Black upper middle	-0.643*	0.322	-0.434+	0.232
Black upper	-0.809**	0.301	0.111	0.220
Ascribed characteristics				
Age at wave 3	0.250***	0.032	0.135***	0.021
Parent foreign born	0.153	0.181	-0.098	0.132
Mediating conditions				
Had first intercourse	1.100***	0.191	1.030***	0.121
Ecological background				
Family configuration				
Two biological parents	----	----	----	----
Biological and stepparent	0.110	0.135	0.250*	0.109
One biological parent	-0.031	0.118	0.101	0.083
No biological parent	0.119	0.309	-0.137	0.349
Family material resources				
Household income	-0.010+	0.006	-0.005	0.005
Access to health insurance				
No coverage	----	----	----	----
Coverage less than a year	-0.066	0.133	-0.112	0.097
Coverage full year	-0.022	0.108	-0.352***	0.077
Family symbolic resources				
Parental prestige	-0.003	0.003	0.000	0.002
Parent went to college	-0.101	0.116	-0.244*	0.111
Ecological background				
Family emotional resources				
Experienced a death	-0.251	0.184	0.161	0.164
Family sternness	0.003	0.003	-0.005*	0.002

Father incarcerated	-0.136	0.130	0.166	0.106
Had family mentor	-0.094	0.091	-0.090	0.100
Neighborhood setting				
Disadvantage index	0.227**	0.089	0.081	0.083
Inefficacy index	-0.009	0.016	-0.005	0.012
Scarcity of males	-0.236	0.209	-0.216	0.142
Had neighborhood mentor	-0.023	0.154	-0.151	0.123
School setting				
Disadvantage index	0.000	0.009	0.006	0.005
Inefficacy index	-0.007	0.008	0.003	0.006
Disorder index	-0.017	0.018	-0.016	0.011
Had school mentor	-0.111	0.125	-0.298**	0.107
Religious setting				
Religiosity scale	-0.003	0.011	0.026**	0.008
Involvement index	0.032*	0.015	-0.002	0.012
Had religious mentor	0.491*	0.239	-0.739***	0.231
Peer setting				
Violence index	0.018	0.014	0.060***	0.013
Friend attempted suicide	-0.138	0.146	0.076	0.107
Peer mentor	0.034	0.107	-0.019	0.106
Multiple disadvantages				
Log of interactive index	0.023	0.022	0.000	0.018
Intercept	-7.533***	0.996	-2.958***	0.933
Rho	0.117*	0.059		
N	3,384			
F-test	11.21***			

Source: Massey and Brodmann (2014).
+$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

The insertion of controls also highlights the aversion of Asian men to marriage, especially in the lower classes, and to a lesser extent cohabitation. Of the four coefficients for Asians in the equation predicting the likelihood of marriage, three are negative and significant. Compared with upper-class white men, lower-class Asian men are 84 percent less likely to marry, those in the lower middle class are 88 percent less likely and those in the upper middle class are 55 percent less likely. With respect to cohabitation, all of the coefficients are negative, though only one is significant given the small cell sizes: lower-middle-class Asian men are 69 percent less likely to cohabit than upper-class white men.

As with the women, the application of background controls eliminates all the class differentials observed for whites and Asians with respect to marriage and for whites, at least, cohabitation. Among Hispanics, however, equalizing ecological and other circumstances reveals a strong aversion to cohabitation among Hispanic men. Whereas in the baseline model, the lower and lower middle class exhibited a modest proclivity toward cohabitation, in the full model the signs are reversed. Although these negative coefficients are not statistically significant, the coefficients for upper-middle-class and upper-class Hispanic men are, the former exhibiting 32 percent lower odds of cohabiting and the latter 48 percent lower.

Age has roughly the same effect on the likelihood of marriage and cohabitation for men as for women, steadily raising it in both cases. Although prior sexual experience is significant in predicting both marriage and cohabitation among both men and women, the effect is generally weaker for men. Whereas women were 4.1 times more likely both to marry and cohabit if they had begun having sex, the corresponding figures for men were only 3.0 and 2.8. Although sexual activity increases the likelihood of pairing up in both genders, sexual intercourse appears to be more strongly connected to formation of a romantic union among women than among men.

As with young women, originating in a step-parent family increases the relative likelihood of cohabitation by men, raising the odds by 28 percent, but the effect of growing up in a single-parent family is not significant, which it is for young women. As before, the odds of marriage decrease with household income (falling by about 1 percent per $1,000 of income); the odds of cohabitation are decreased by full access to health insurance (by around 30 percent); and family sternness reduces the odds of cohabitation (by around 5 percent per unit). Likewise, having a college-educated parent lowered the odds of cohabitation (by 30 percent). Having an incarcerated father had no effect on the partnering behavior among young men, though it did

among young women.

Outside the family, the religious sphere was most important in shaping union formation among young men, though the pattern of effects was somewhat different from what we observed for women. Instead of reducing the odds of cohabitation, for example, religiosity significantly increased them, by 2.6 percent per unit, for a large total potential effect of 47 percent. The effect of having a religious mentor was negative for men as well as women, though the effect was much stronger, reducing the odds of cohabitation by 52 percent compared with just 33 percent among women. Moreover, although religiosity per se had no influence on the likelihood of marriage, the odds were significantly increased by religious involvement (by 3.3 percent per unit on the involvement scale) and by having a religious mentor (by 63 percent).

Outside the family sphere, the likelihood of marriage and cohabitation were influenced by three indicators. As among women, the odds of cohabitation by men were increased by exposure to peer violence (by a sizeable 6.2 percent per unit for a total potential effect of 124 percent) and the odds of marriage were increased by neighborhood disadvantage (25 percent per unit or 100 percent in total). These effects are not likely to represent cases of reverse causality, as neighborhood and peer violence were measured before wave 3. Having a school-based mentor decreased the odds of cohabitation by around 26 percent; and though the effect of having an educational mentor was negative for men as well as women, it was not statistically significant in the male equation.

What stands out in this analysis is the extremely low likelihood of marriage among young black men and women, and the low likelihood even of cohabitation among black females and, to a lesser extent, black males, a fact revealed most clearly when ecological circumstances, mediating conditions, and ascribed characteristics are held constant. Asian males likewise

display a low likelihood of marriage and cohabitation. Not surprisingly, the odds of union formation rise with age and are much greater among those who are sexually active, though sexual intercourse is more strongly predictive for women than for men.

In terms of ecological effects, cohabitation is more likely among both men and women for those originating in step-families and single-parent households, but less likely for young people raised in families characterized by a stern emotional style and those raised by a college-educated parent. The odds of marriage are reduced by rising family income and the likelihood of cohabitation is lowered by access to health insurance. Greater religiosity and religious involvement generally raise the odds of marriage and reduce the likelihood of cohabitation. Exposure to peer violence raises the odds of cohabitation, whereas neighborhood disadvantage increases the odds of marriage.

The other side of risky childbearing is unwed fatherhood, of course, Table S.6 considers this issue by estimating a baseline multinomial logit model to predict whether male respondents to the Add Health survey had fathered a child inside or outside marriage by Wave 3. As in the female model, white males display a declining probability of parenthood with rising socioeconomic status, though overall the odds of parenthood are lower. Compared with those of upper-class white males, the odds of fatherhood are 2.6 times greater in the lower class and two times greater in the lower middle class. In contrast, Asian males display a markedly lower likelihood of unwed fatherhood across all classes, all four coefficients being negative and three of the four statistically significant.

Table S.6 Multinomial Logit Model Showing Group Effects on the Likelihood of Marital and Nonmarital Fatherhood by Wave 3

	Nonmarital Fatherhood		Marital Fatherhood	
Independent Variables	B	SE	B	SE
Race-class group				
White lower	0.971***	0.257	0.734*	0.342
White lower middle	0.680*	0.278	0.456	0.360
White upper middle	-0.028	0.285	0.438	0.357
White upper	----	----	----	----
Asian lower	-2.816**	1.011	-2.140*	1.030
Asian lower middle	-2.427***	0.595	-35.797***	0.407
Asian upper middle	-0.599	0.941	-0.229	0.876
Asian upper	-4.007***	0.957	0.979	0.619
Hispanic lower	1.420***	0.303	1.395***	0.400
Hispanic lower middle	1.219**	0.388	1.157**	0.417
Hispanic upper middle	1.499***	0.438	0.597	0.558
Hispanic upper	-0.194	0.711	0.506	0.675
Black lower	1.458***	0.335	-0.165	0.550
Black lower middle	1.269***	0.361	0.412	0.495
Black upper middle	1.378***	0.351	0.707	0.546
Black upper	1.962***	0.380	-0.147	0.928
Intercept	-2.872***	0.196	-3.114***	0.277
N	4,230			
F-test	720.05***			

Source: Massey and Brodmann (2014).
+$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

At the other extreme, black males display a consistently greater likelihood of having children out of wedlock. Unlike black women, however, who displayed a declining likelihood of unwed parenthood with rising social class, the odds for black men are actually greatest in the upper class. Whereas lower-class black males are 4.3 times more likely than upper-class whites to become unwed fathers, upper-class males are 7.1 times more likely. Hispanic males display the opposite pattern, the odds of unwed fatherhood being highest in the lower class, lower middle

class, and upper middle class, and falling dramatically in the upper class to equal those of upper-class whites.

Asian males also display a relatively low likelihood of childbearing within marriage, especially in the lower middle class. Like Asian females, Asian men are simply unlikely to produce any children during adolescence and early adulthood, inside or outside marriage. Among whites and Hispanics, however, we observe a class gradient with the odds of marital childbearing dropping as social class rises. Compared with those of upper-class white males, the odds of marital fatherhood are 2.1 times greater for lower-class white males, four times greater for lower-class Hispanic males, and 3.2 times greater for lower-middle-class Hispanic males. In contrast, black males are relatively unlikely to have children within marriage no matter what their class, their odds statistically being the same as those for upper-class white men. Among young black men and women, therefore, childbearing and parenthood are overwhelmingly concentrated outside marriage.

Table S.7 shows what happens to the race-class variation when background controls are added. The class gradient among whites disappears for both marital and nonmarital fatherhood, as does the class gradient for Hispanic fatherhood within marriage. The greater propensity of Hispanics toward unwed fatherhood also goes away. These race-class differences can therefore be attributed to the set of ascribed, mediating, and background conditions we introduced into the model. The strong aversion to fatherhood both inside and outside marriage displayed by Asian men persists, however, suggesting that the pattern of low fertility displayed by Asians is something peculiar to that group and not the conditions to which it is exposed, at least those conditions were are able to measure.

Table S.7 Multinomial Logit Model Showing Full Effects on the Likelihood of Marital and Nonmarital Fatherhood by Wave 3

Independent Variables	Nonmarital Fatherhood B	SE	Marital Fatherhood B	SE
Race-class group				
White lower	0.072	0.877	0.356	1.137
White lower middle	0.176	0.577	0.151	0.853
White upper middle	-0.408	0.482	0.043	0.628
White upper	----	----	----	----
Asian lower	-2.731*	1.234	-1.798	1.372
Asian lower middle	-3.312***	0.952	-32.055***	0.975
Asian upper middle	-1.331	1.005	-1.233	0.913
Asian upper	-4.587***	0.994	0.778	0.701
Hispanic lower	-0.090	0.861	0.571	1.069
Hispanic lower middle	0.149	0.681	0.103	0.925
Hispanic upper middle	0.892	0.580	0.169	0.743
Hispanic upper	-0.946	0.844	0.266	0.683
Black lower	0.930	0.922	-1.874	1.409
Black lower middle	0.485	0.787	-0.538	1.021
Black upper middle	1.199*	0.562	-0.597	0.907
Black upper	1.713***	0.437	-0.635	0.967
Ascribed characteristics				
Age at wave 3	0.122+	0.070	0.360***	0.083
Parent foreign born	0.716*	0.286	0.061	0.474
Mediating conditions				
Had first intercourse	1.432**	0.442	1.924**	0.691
Used no contraception	1.326***	0.174	0.874***	0.214
Ecological background				
Composition of origin family				
Two biological parents	----	----	----	----
Biological and stepparent	-0.372	0.343	-0.360	0.413
One biological parent	-0.155	0.270	-0.437	0.251
No biological parent	-1.188	0.852	-0.630	0.841
Family material resources				
Household income	0.012	0.015	0.013	0.017
Access to health insurance				
No coverage	----	----	----	----
Coverage less than a year	0.126	0.277	0.055	0.340
Coverage full year	-0.324	0.244	0.382	0.273
Family symbolic resources				
Parental prestige	-0.010+	0.005	-0.003	0.007
Parent went to college	0.172	0.311	0.723*	0.319
Ecological background				
Family emotional resources				
Experienced a death	-1.217*	0.487	-1.056*	0.479

Family sternness	-0.013+	0.007	-0.003	0.009
Father incarcerated	0.224	0.252	-0.373	0.304
Had family mentor	-0.175	0.284	0.447+	0.271
Neighborhood setting				
Disadvantage index	0.019	0.186	0.293	0.232
Inefficacy index	-0.048	0.036	-0.063	0.040
Scarcity of males	-0.957*	0.406	-1.489**	0.569
Had neighborhood mentor	-0.113	0.350	-0.020	0.398
School setting				
Disadvantage index	0.000	0.012	-0.008	0.020
Inefficacy index	-0.037*	0.015	-0.071**	0.021
Disorder index	-0.016	0.030	0.022	0.049
Had school mentor	-0.658*	0.302	-0.301	0.442
Religious setting				
Religiosity scale	-0.097***	0.027	-0.044	0.029
Involvement index	0.078*	0.039	0.052	0.042
Had religious mentor	0.334	0.624	1.053	0.667
Peer setting				
Violence index	0.011	0.034	-0.049	0.037
Friend attempted suicide	-0.246	0.366	-0.862+	0.478
Had peer mentor	-0.029	0.249	0.004	0.333
Multiple disadvantages				
Log of interactive index	0.142***	0.044	0.222***	0.058
Intercept	-8.403***	2.450	-18.267***	2.707
N	3,298			
F-test	65.53***			

Source: Massey and Brodmann (2014).
+$p < .10$; *$p < .05$; **$p < .01$; ***$p < .001$

Among black males, the low likelihood of childbearing within marriage not only persists, but the coefficients also actually increase after controls are introduced, all of the coefficients being negative and rather large in absolute terms, though none is statistically significant. With respect to unmarried fatherhood, the coefficients for lower-class and lower-middle-class black men drop and are no longer significant, though the point estimate for lower-class men remains rather large; the greater odds of unmarried childbearing by upper-middle-class and upper-class black men remains, however, yielding a reverse class gradient. Whereas the relative odds of unwed fatherhood were 5.5 times greater for upper-class black men and 3.3 times greater for upper-middle-class black men, they were only 2.5 and 62 percent greater for lower-class and

lower-middle-class black men, respectively. Background circumstances appears to some extent to explain the greater propensity of lower- and lower-middle-class black males toward unwed childbearing, but cannot account for the high proclivity of upper-middle-class and upper-class black males to father children out of wedlock.

As in the female models, the likelihood of nonmarital parenthood among men is increased by age, initiation of sexual activity, and not using contraception during the first intercourse, but the effects of age and sexual debut are generally weaker. Whereas the relative odds of unwed motherhood rose by 17 percent per year of age among women, the odds of unwed fatherhood increased by only 13 percent per year. Similarly, whereas the sexual debut of women increased the odds of unwed childbearing 108 times, it raised the odds of unwed fatherhood by a factor of only 4.2. Among both males and females, unprotected first intercourse raised the relative odds of unwed parenthood, by a factor of 2.8 among women and 3.8 among men. A major difference between men and women is that having an immigrant parent increases the odds of unwed parenthood among men by a factor of two but decreases the odds among women by around 63 percent.

Within the family sphere, unwed childbearing bears little or no relationship to composition, material resources, or symbolic resources, though parental occupational status has a weak negative effect. Instead, nonmarital fatherhood is more strongly related to emotional circumstances within the family. As observed among women, the odds for men of unwed childbearing are sharply reduced (70 percent) by the experience of a death in the family and by the sternness of the family emotional environment (around 1.3 percent per unit). The likelihood of unwed fatherhood is also reduced by a scarcity of males in the neighborhood (62 percent per unit in the ratio of young single women to men), by a higher degree of inefficacy at school (3.6

percent per unit), the existence of a school-based mentor (48 percent), and greater personal religiosity (9.2 percent per unit). The only positive ecological effect on unwed childbearing is the accumulation of multiple disadvantages across social spheres, which increases the relative odds by 15 percent per unit on the logarithmic interactive scale.

The odds of fatherhood within marriage are determined by many of the same variables that determine nonmarital fatherhood, being reduced by a death in the family (65 percent), a scarcity of males (77 percent per point in the sex ratio), and exposure to social inefficacy at school (5.8 percent per unit) and increased by multiple disadvantages (25 percent per logarithmic unit). Religiosity and family sternness do not affect the likelihood of fatherhood within marriage. The relative odds are reduced by the suicide of a friend (58 percent). The odds of marital fatherhood are also increased by coming from a family with a college-educated parent.

Table S.8 summarizes the effect of background factors on different reproductive outcomes for males. The density of effects is much lower among males, indicating that the reproductive behavior of women is generally more tightly connected to social ecology than that of men. Second, males show a particular deficit of effects with respect to family composition, family material resources, and the school environment. Third, although young males do exhibit a pattern of significant effects with respect to family emotional resources, the emotional effects are generally more significant and powerful for females. Fourth, the strongest and most consistent set of effects for both males and females occur in the religious and peer settings, pointing to these social spheres as key in moderating the transition to sexual reproduction in contemporary American society. Finally, the accumulation of disadvantages across social settings acts strongly to reduce the age of sexual debut, increase the odds of cohabitation, and raise the likelihood of nonmarital childbearing for both genders.

Table S.8 Significance of Ecological Conditions in Predicting Male Reproductive Outcomes

	Sexual Debut	Age at Debut	No Contra-ception	Marriage	Cohabi-tation	Nonmarital Fertility	Marital Fertility
Family composition							
Biological and stepparent	+				++		
One biological parent							
No biological parent							
Family material resources							
Household income							
Health insurance less than a year							
Health insurance a year or more			--		----		
Family symbolic resources							
Parental prestige			++			-	
Parent college graduate					--		++
Family emotional resources							
Family mortality						--	--
Family sternness	--		-		--	-	
Father incarcerated							
Family mentor			+				+
Neighborhood setting							
Disadvantage index		+++	---	+++			
Inefficacy index							
Scarcity of males						--	---
Neighborhood mentor							
School setting							
Disadvantage index							
Inefficacy index					--	---	
Disorder index							
School mentor					---	--	
Religious setting							
Religiosity scale					+++	----	
Involvement index	--	+++		++		++	
Had religious mentor	--	+		++	----		
Peer setting							
Violence index	++++	----	+		++++		
Friend attempted suicide						-	
Peer mentor							
Multple disadvantages							
Interactive index		---			++++	++++	

Source: Massey and Brodmann (2014).

Table S.9 shows the significance of race and class in determining the reproductive behavior of males once background characteristics are controlled. As with black women, the latter table clearly shows that the higher odds of sexual debut and lower age of first intercourse

exhibited by black men are largely explained by ecological circumstances. Their low likelihood of marriage is not, however, yielding a high probability of unwed fatherhood that, unlike for all other groups, is actually greatest in the upper middle and upper classes. From both the male and female perspective, marriage in the black community has become a relatively unlikely social arrangement, almost guaranteeing that most black births occur under disadvantaged circumstances.

Table S.9 Significance of Race-Class Effects on Male Reproductive Outcomes After Controlling for Ecological Background

	Sexual Debut	Age at Debut	No Contraception	Marriage	Cohabitation	Nonmarital Fertility	Marital Fertility
WLO							
WLM			--				
WUM							
ALO	--	++	---	----		--	
ALM		+		----	--	----	----
AUM				---			
AUP						----	
HLO							
HLM							
HUM					--		
HUP					----		
BLO			-	----			
BLM				---			
BUM				--	-	++	
BUP		-		----		++++	

Source: Massey and Brodmann (2014).

As noted earlier, Asian males also display a rather unusual profile of reproductive behaviors, showing a low likelihood and high age of initiation into sexual intercourse and a strong tendency to use contraception at first intercourse, especially in the lower classes. They also display a low probability of marriage in all classes except the upper. Despite the low rate of marriage, however, the odds of nonmarital childbearing are quite low. This outcome stems from

the fact that though Asian men are unlikely to marry, they are also less likely to engage in sex, have sex at later ages, and use contraception when they initiate intercourse.

As noted, male reproductive behavior is less tightly connected to social circumstances than that of females. As seen in table S.8, the profile of a young man likely to make an early sexual debut is one who experienced multiple disadvantages while growing up, came of age in a violent peer environment and in a neighborhood with a high degree of social inefficacy, and lived in a step-parent household that lacked stern discipline and failed to impart much religiosity or religious involvement. Having initiated sex, young men were likely to use contraception if they had health insurance, had a higher prestige parent, grew up in a socially efficacious neighborhood, and experienced an emotionally stern upbringing. Men from inefficacious neighborhoods who had religious mentors were likely to marry, whereas those from a step-parent household in which neither adult had attended college, had health insurance, and a exhibited less stern emotional style were more likely to cohabit.

Cohabitation was also more likely if men faced a violent peer network, incurred multiple disadvantages, attended a socially inefficacious school without a school mentor, and were personally religious but lacked a religious mentor. The profile of an unwed father was someone with multiple disadvantages who was religious but not religiously involved and came from a family with no college-educated parent, no experience of mortality, and a low level of sternness. He originated in a neighborhood with a relatively balanced supply of young unmarried males and females and attended a socially efficacious school that did not yield a mentor, and males were not scarce.