Demographic Contours of Divorce: What We Know and What We Need to Know

Jay Teachman
Western Washington University

Bowling Green State University
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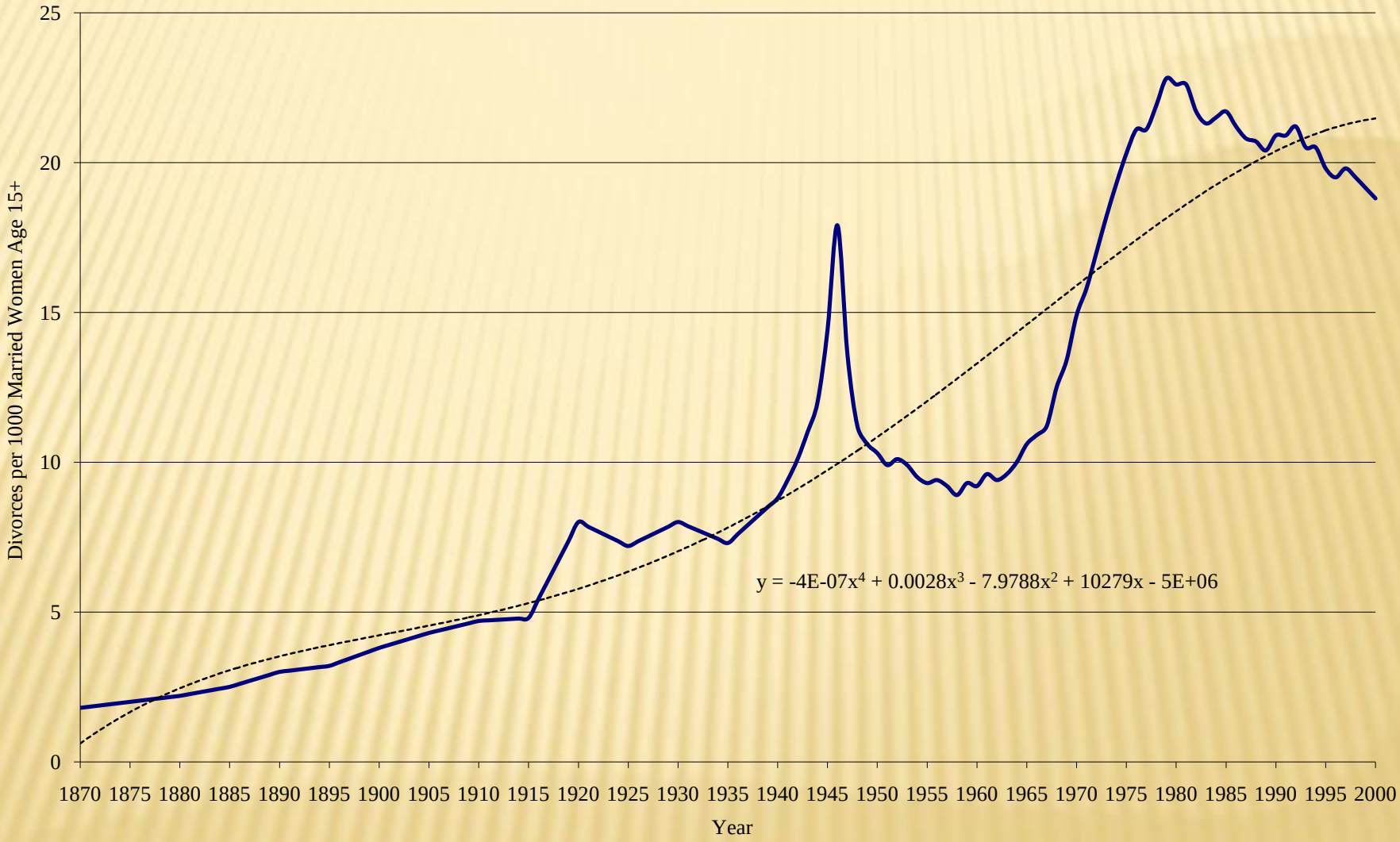
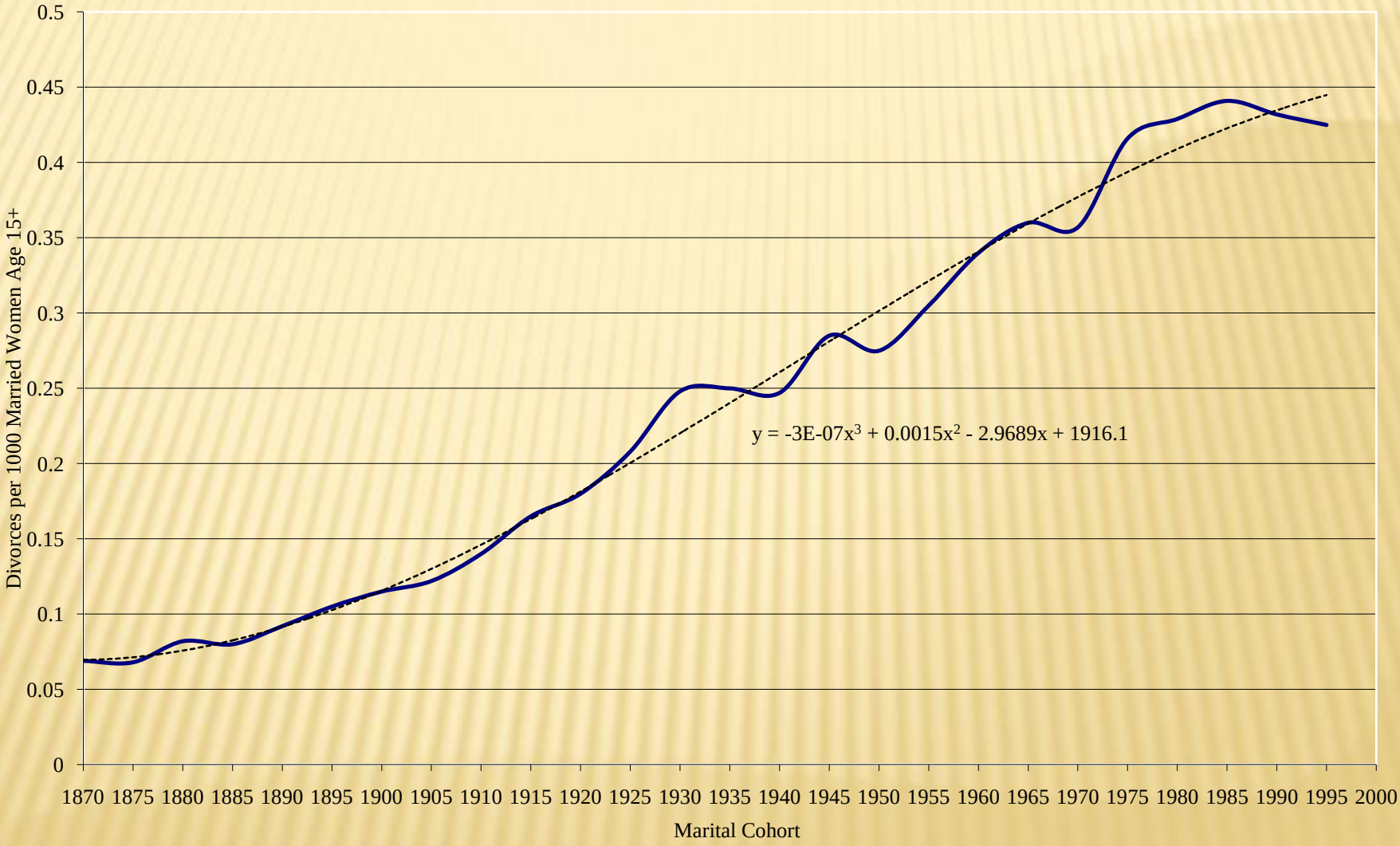
Figure 1. Divorces per 1000 Married Women Age 15+ by Year with Fitted 4th Degree Polynomial: 1870-2000



Source: Jacobson (1959); Preston and McDonald (1979)

Figure 2. Divorces per 1000 Married Women Age 15 and Over by Marital Cohort with Fitted 3rd Degree Polynomial: 1870-2000



Source: Preston and McDonald (1979); Schoen and Standish (2001)

THE WAY MY MIND WORKS :

- $Y_{it} = a + b_1X_{it} + b_2P_t + b_3U_{it} + b_4V_t + b_5(X_{it} \times P_t) + b_6(U_{it} \times P_t) + b_7(X_{it} \times V_t) + e_{it}$
- Where Y_{it} is the risk of divorce at time t for person i
- X_{it} is a measured characteristic of person (or couple) i at time t
- P_t is a measured period or contextual factor acting on all persons at time t
- U_{it} is an unmeasured characteristic of person (or couple) i at time t
- V_{it} is an unmeasured period or contextual factor acting on all persons at time t
- The b terms are coefficients and e_{it} is the always present error

WHAT MOST RESEARCH ESTIMATES:

- $Y_{it} = a + b_1X_{it} + e^*_{it}$
- Thus, only the characteristics of person i are estimated
- For demographers, the biggies are things like age at marriage, duration of marriage, education, employment, income, premarital fertility, premarital cohabitation, parental divorce, children, race/ethnicity, and various measures of partner homogamy
- Usually justified by using some formulation of a utility maximization or exchange perspective
- Sometimes measures of attitudes and marital satisfaction are included (to include more non-demographic measures)
- e^*_{it} includes everything that isn't measured in X_{it}

A SLIGHT EXPANSION:

- $Y_{it} = a + b_1X_{it} + b_2P_t + e^{\wedge}_{it}$
- Most often P_t is included to capture the rapid change in divorce rates across historical time
- Usually just a set of dummy variables (marriage cohort or historical period) yielding a simple fixed-effects model
- Again, $e^{\wedge}_{it}$ represents all that is not in the model

EXPANDING ON CONTEXT:

- Again, for the most part P_t has included only measures of historical time or marriage cohort
- Yet, very little attention has been paid to the components of historical time or cohort that generate changes across time
- In addition, context can be much more inclusive than measures of time
- Thus, what is the correct context? Which characteristics of which context should we be measuring?
- Scott South's work on contextual effects (marriage alternatives/neighborhood distress) on divorce or the old SIME-DIME research
- Recent work on military service and the marriages of black men point to the importance of context other than time

EXPANDING THE MODEL FURTHER

- $Y_{it} = a + b_1X_{it} + b_2P_t + b_3U_{it} + e\sim_{it}$
- What are some of the unmeasured individual-level covariates of divorce?
- I suggest four possibilities (among many):
- Indicators of 'proper' marital match (given the growing importance of companiate marriages), perhaps via measures of courtship process
- Biosocial factors (including personality characteristics), particularly as they interact with context
- Migration histories, again as they interact with context (the M factor)
- Health indicators (and other exogenous 'surprises')

HOT OFF THE PRESS FINDINGS RE HEALTH:

- Using data from the NLSY-79
- Health limitations of husbands affect the risk of divorce but not health limitations of wives
- Limitations in kind of work affect health, but not limitations in amount of work
- For black men, higher education attenuates the effect of health limitations
- For white men, higher education exacerbates the effect of health limitations

Table 2 Multivariate Results for Discrete-time Event History Models of the Log Odds of Marital Dissolution: NLSY-79 Samples of Men and Women by Race

	Men				Women			
	Whites N = 2469		Blacks N = 1508		Whites N = 2437		Blacks N = 1505	
Variable	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Limitation in Amount of Work	0.137	0.190	-0.308	-0.539	-0.157	-1.200	-0.031	-0.878
Limitation in Kind of Work	0.491*	-3.141**	-0.549	2.989**	-0.030	1.352	-0.085	1.083
Education*Limitation in Amount of Work		-0.005		0.020		0.084		0.007
Education*Limitation in Kind of Work		0.285**		-0.324**		-0.111		-0.094
Active Duty Army	-0.058	-0.046	-0.660**	-0.657**	--	--	--	--
Active Duty Other Military Service	-0.123	-0.121	0.336*	0.338*	--	--	--	--
Veteran of Active Duty	0.100	0.098	0.373**	0.376**	--	--	--	--
Reserve Duty	0.217	0.223	-0.318	-0.315	--	--	--	--
Veteran of Reserve Duty	0.307*	0.307*	-0.060	-0.059	--	--	--	--
Log of Average Income	-0.056**	-0.055**	-0.090**	-0.089**	0.035	0.035	-0.015	-0.015
Log of Average Income of Spouse	-0.021	-0.021	-0.006	-0.006	-0.068**	-0.068**	-0.025	-0.025
Earn 40% or Less of Family Income	-0.133	-0.134	-0.443**	-0.435**	-0.032	-0.026	-0.244	-0.244
Earn 60% or More of Family Income	0.251*	0.249*	0.218	0.215	-0.063	-0.061	0.125	0.125
Age at Marriage	-0.045**	-0.044**	-0.025**	-0.247**	-0.069**	-0.069**	-0.016	-0.016
AFQT Score	-0.003	-0.003	-0.006**	-0.006**	-0.007**	-0.007**	-0.004*	-0.004*
Years Married	0.021	0.020	0.001	0.001	-0.052*	-0.052**	-0.045	-0.046
Years Married Squared	-0.003*	-0.003*	-0.003	-0.003	0.001	0.001	-0.001	-0.001
Catholic	-0.065	-0.069	-0.284**	-0.281**	-0.146*	-0.145*	-0.205**	-0.207**
No Religion	0.167	0.162	-0.235	-0.230	0.281*	0.286*	0.087	0.084
Other Religion	0.146	0.138	-0.025	-0.024	-0.042	-0.042	-0.035	-0.036
Mother's Education	0.028	0.030	0.006	0.006	0.033*	0.033*	0.027**	0.027**
Lived With Both Biological Parents	-0.203**	-0.203**	-0.109	-0.107	-0.169**	-0.170**	-0.084**	-0.084
Birth After 1959	0.123	0.125	0.049	0.050	0.116	0.116	0.033	0.034
Cohabited Before Marriage	0.247**	0.242**	0.037	0.039	0.308**	0.307**	0.011	0.011

Number of Siblings	**-0.044****	**-0.042****	**-0.049****	**-0.049****	**-0.027**	**-0.028**	**-0.028***	**-0.028****
Number of Own Children in the Household	-0.195**	-0.195**	-0.092**	-0.092**	-0.095**	-0.952**	0.047	0.047
Enrolled in School	-0.335*	-0.342*	0.005	0.009	0.281**	0.280**	0.112	0.113
Highest Grade of Schooling Obtained	-0.115**	-0.121**	-0.034	-0.030	-0.076**	-0.076**	-0.069**	-0.071
Intercept	0.117	0.164	-0.358	-0.413	0.130	0.132	-0.903**	-0.787**
Log Likelihood	-3170.3	-3166.7	-2447.9	-2446.2	-3421.1	-3420.2	-2595.9	-2595.5

Figure 1 Probability of Marital Dissolution by Marital Duration, Health Limitation and Level of Education: White Men

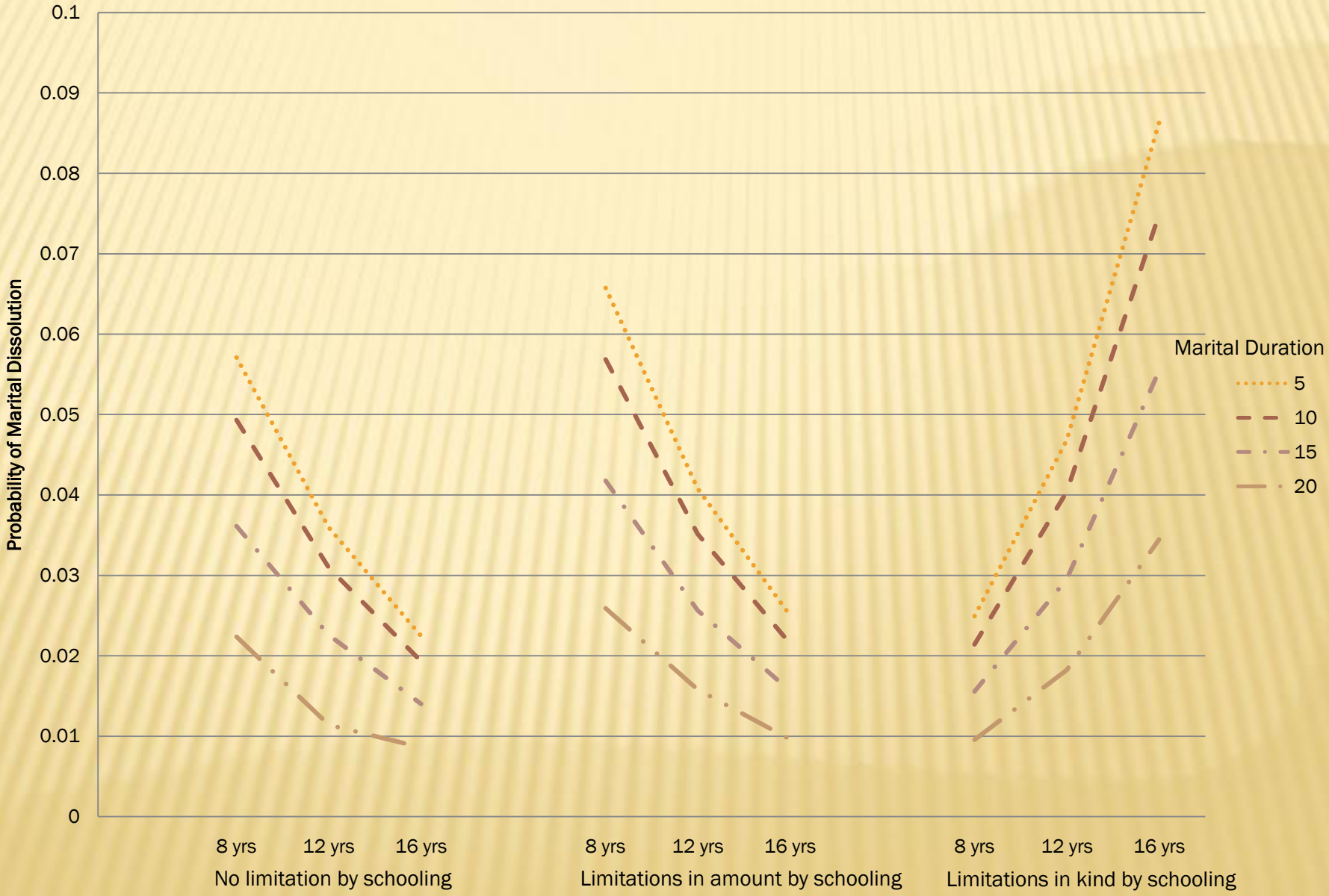
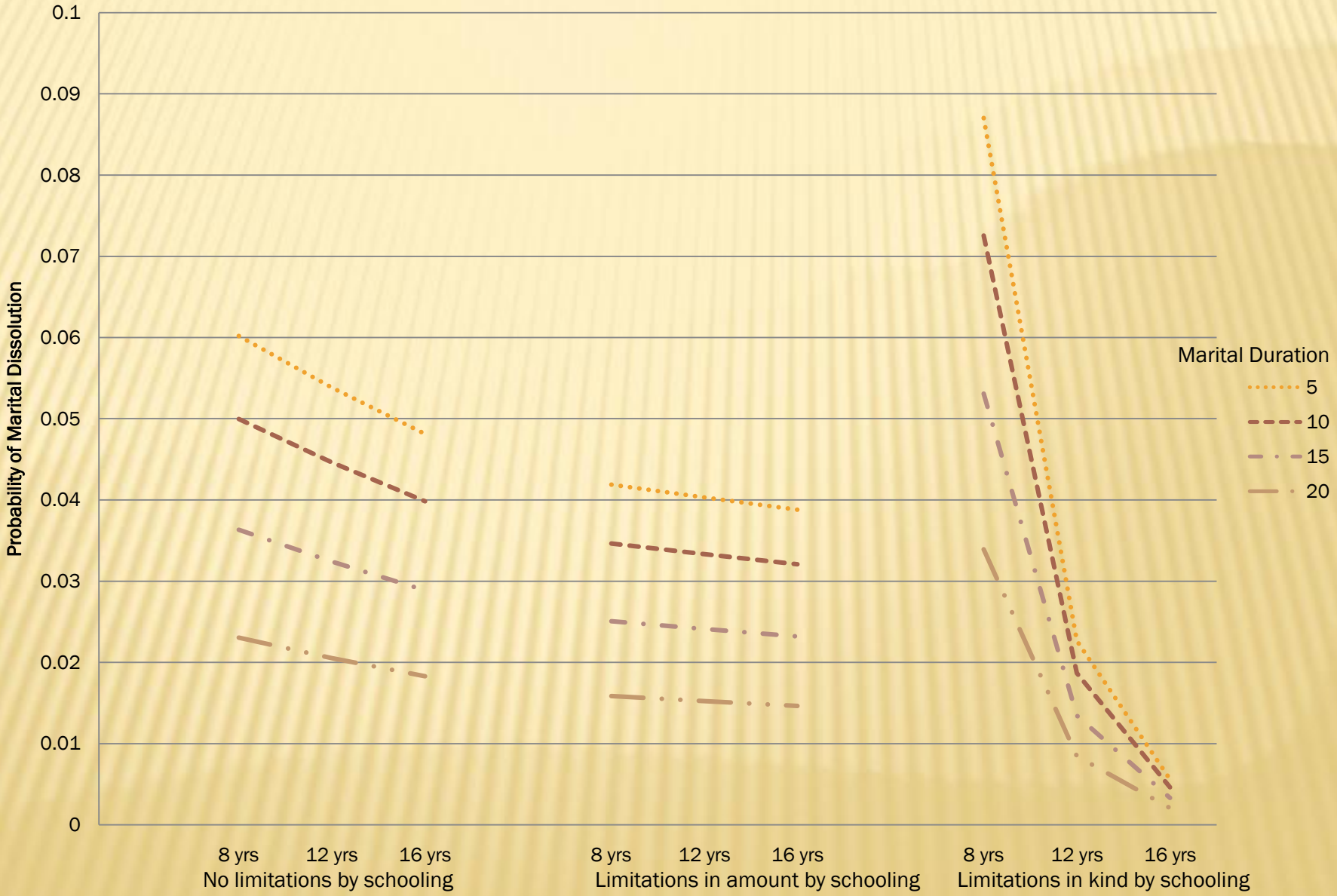


Figure 2 Probability of Marital Dissolution by Marital Duration, Health Limitation and Level of Education: Black Men



INCLUDING MORE TERMS IN THE MODEL:

- $Y_{it} = a + b_1X_{it} + b_2P_t + b_3U_{it} + b_4(X_{it} \times P_t) + e`_{it}$
- The idea here is that the effects of individual-level predictors may change across historical time
- My 2002 paper found that this was not the case for most of the usual suspects
- However, we know that the effect of income has changed over time (over a longer period of time)
- More recent evidence suggests that the effect of premarital cohabitation has changed, as well as the effect of wives' education
- I also suspect that there should be growing importance of making a 'proper' match
- We need to identify the element of each historical period or context that leads to a change in the effect of a covariate

EVEN MORE OF THE MODEL:

- $Y_{it} = a + b_1X_{it} + b_2P_t + b_3U_{it} + b_4(X_{it} \times P_t) + b_5(U_{it} \times P_t) + e^{+}_{it}$
- It may seem unusual to suggest an interaction between an unmeasured individual-level characteristic and context
- Yet the growing evidence for the heritability of divorce is an example of this phenomenon (context sets the stage to allow certain characteristics to express themselves)

ARE WE THERE YET?

- $Y_{it} = a + b_1X_{it} + b_2P_t + b_3U_{it} + b_4(X_{it} \times P_t) + b_5(U_{it} \times P_t) + b_6V_t + e'_{it}$
- Here we add unmeasured components of periods or other contexts
- Should include set of indicators of the environment within which marriages are lived, including neighborhoods, occupations, workplaces, schools, marriage markets, churches, and kin/friend networks
- I include gender as a context. Are there his and hers divorces? See Kalmijn and Poortman.
- Cultural groupings may also be important (Hispanics, recent immigrants, regional/national/policy groupings)

FINALLY!

- $Y_{it} = a + b_1X_{it} + b_2P_t + b_3U_{it} + b_4(X_{it} \times P_t) + b_5(U_{it} \times P_t) + b_6V_t + b_7(V_t \times X_{it}) + e_{it}$
- The interaction between unmeasured contexts and individual-level covariates
- For example does the effect of the known covariates of divorce operate similarly for native and immigrant groups?
- The importance of marriage markets for divorce (spouse alternatives may allow a covariate to 'express' itself)

SO WHAT DO WE KNOW:

- We know a fair amount concerning the micro-demographic covariates of divorce
- This knowledge is highly focused in time and place
- We know that there has been substantial historical changes in the risk of divorce that we cannot explain and that there are unexplained variations in divorce by race, culture, etc.

WHAT WE NEED TO KNOW:

- Why do historical changes in divorce occur?
- What leads to changes in the effect of covariates of divorce over time and what are these changes?
- What are the effects of context on divorce and what can explain these contextual effects?
- What are the undiscovered, evolving covariates of divorce (at multiple levels of measurement)?

Thank You !