# Theory Appendix

We adapt an economic framework from Acemoglu, Autor, and Lyle (2004) to explore the general equilibrium effects of ELA on the gender gap in wages. Assume that aggregate output, Y, is produced using capital, K, and the labor of women, W, and men, M, using the following constant-returns to scale  $(\alpha < 1)$  production function,

$$Y = AK^{\alpha} \{ \phi(\theta_w W)^{\rho} + (1 - \phi)(\theta_m M)^{\rho} \}^{(1-\alpha)/\rho},$$

where A is a total factor productivity parameter,  $\phi$  is a share (0 to 1) parameter, and  $\theta_i$ , with i = m, w denoting men and women respectively, is a labor-augmenting productivity parameter that varies by gender of the worker. The aggregate elasticity of substitution between women and men in production is  $\sigma$  $\equiv 1/(1-\rho)$ . In competitive labor markets, women's and men's wages,  $y_i$ , are equal to their marginal products,

(1) 
$$y_w = A(1-\alpha)\phi K^{\alpha} \{\phi(\theta_w W)^{\rho} + (1-\phi)(\theta_m M)^{\rho}\}^{\frac{1-\alpha-\rho}{\rho}} \theta_w^{\rho} W^{\rho-1} \text{ and }$$

$$(1) \quad y_w = A(1-\alpha)\phi K^\alpha \{\phi(\theta_w W)^\rho + (1-\phi)(\theta_m M)^\rho\}^{\frac{1-\alpha-\rho}{\rho}}\theta_w^{\phantom{m}\rho}W^{\rho-1} \text{ and}$$

$$(2) \quad y_m = A(1-\alpha)(1-\phi)K^\alpha \{\phi(\theta_w W)^\rho + (1-\phi)(\theta_m M)^\rho\}^{\frac{1-\alpha-\rho}{\rho}}\theta_m^{\phantom{m}\rho}M^{\rho-1},$$
so a measure of the gender gap in wages can be expressed as the ratio of these expressions,

(3) 
$$\frac{y_m}{y_w} \equiv \frac{(1-\phi)}{\phi} \left(\frac{\theta_m}{\theta_w}\right)^{\rho} \left(\frac{W}{M}\right)^{1-\rho}.$$

Our empirical exercise explores how a Pill-induced change in the labor supply of women, W, and their productive skills (driven by pre-market investments, investments while in the labor market, and ability),  $\theta_w$ , affects women's wages across the lifecycle. As a starting point, we motivate this exploration by considering the isolated effects of shifts in either parameter.

First, consider the impact of a Pill-induced increase in women's labor supply on women's wages in this framework represented in the following elasticity,

(4) 
$$\frac{\partial ln y_w}{\partial ln W}|_{M,K} = -s\alpha - \frac{(1-s)}{\sigma},$$

<sup>1</sup> Note that Blau and Kahn (2004) use this expression as the basis for deriving their empirical analysis of the gender gap in wages.

where the share of wages paid to women,  $s \equiv \frac{y_w W}{y_w W + y_m M}$ , is assumed to be less than 1.2 Notice that the sign and the magnitude of the Pill's effects on women's wages through changes in their labor supply depend upon women's share of labor costs, s, the elasticity of substitution between women and men in production,  $\sigma$ , and the elasticity of production with respect to changes in capital,  $\alpha$ . In this framework, a Pill-induced increase in women's labor supply will tend to reduce their wages. Moreover, the reduction in women's wages, both in absolute terms and relative to men's wages, will be larger if their labor is less of a substitute for men's labor.

Next consider the impact of a Pill-induced change in women's productivity,  $\theta_w$ , which could reflect changes in women's career investments (schooling, occupational training, etc.), their innate, market productivity (often called ability), or a combination of both:

(5) 
$$\frac{\partial lny_w}{\partial ln\theta_w}|_{M,K} = 1 + \frac{\partial lny_w}{\partial lnW}|_{M,K} = 1 - s\alpha - \frac{(1-s)}{\sigma}.$$

The response of women's wages depends upon the combination of a positive impact on productivity offset by the increase in effective labor supply. If women and men are sufficiently substitutable, then the labor supply effect is less than 1, and an increase in productivity will increase women's wages.<sup>3</sup> Moreover, the positive effect of a Pill-induced increase in women's wages will be greater the greater their substitutability with men.

Finally, consider the impact of a Pill-induced increase in women's productivity,  $\theta_w$ , and labor supply, W, on the gender gap in wages:

(6) 
$$\frac{\partial ln(y_m/y_w)}{\partial lnW}|_{M,K} = 1 - \rho = \frac{1}{\sigma}$$
 and

(7) 
$$\frac{\partial ln(y_m/y_w)}{\partial ln\theta_w}\big|_{M,K} = -\rho = \frac{1-\sigma}{\sigma}.$$

As long as women and men are not perfect substitutes, Pill-induced increases in women's labor supply increase the gender wage gap; however, if the elasticity of substitution between men and women is

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<sup>&</sup>lt;sup>2</sup> As noted in Acemoglu, Autor, and Lyle (2004), this elasticity is best thought of as a "short-run" elasticity where capital and men's labor supply are held fixed.

 $<sup>^{3}1 -</sup> s\alpha - \frac{(1-s)}{\sigma} > 0$  iff  $\rho > \frac{s}{1-s}(-1+\alpha)$ .

greater than 1,4 a Pill-induced increase in women's market productivity will decrease the gender gap in wages. The magnitudes of these effects depend upon the substitutability of women and men in production.

Importantly, Pill-induced changes in the gender gap potentially reflect changes in both women's wages (as shown in equations 4 and 5) and men's wages (equations omitted for brevity)—a fact implying that men provide a poor falsification test for the empirical exercise pursued in this paper. This is also true if, in addition to the labor market interactions modeled here, men interact with women through the marriage market. We investigate the relationship of *ELA* on men using the restricted March *CPS* data containing the full set of state identifiers to assign *ELA* by state of current residence. Our analysis shows no systematic relationship of *ELA* on men's annual earnings or wage rates. These results are reported in Appendix C.

This simple, static framework illustrates the Pill's complex and potentially countervailing effects on women's aggregate wages. Even abstracting from longer-term adjustment and household bargaining, the Pill's effects on wages depend upon unobserved changes in selection (part of  $\theta_w$  in our framework) as well as upon the sign and magnitudes of unobserved theoretical parameters. These effects become considerably more complicated over the longer-term if men's labor supply or human capital changes or firms adjust physical capital, K, in response. Although we omit the dynamic extension of this model for brevity, the Pill's overall effect may evolve over the lifecycle as its productivity effects accumulate (e.g., with greater experience or schooling) and affect dynamic sorting or selection into employment or occupations.

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<sup>&</sup>lt;sup>4</sup> Blau and Kahn (2004) review the estimates of  $\sigma$  in the literature and report a range from 2 to 2.4. Accomoglu, Autor and Lyle (2004) put this parameter around 3 for their investigation of the 1940s.

### NOT FOR PUBLICATION

## Appendix A. Data and Specifications

This appendix summarizes the creation of the variables used in the analysis as well as the construction of the alternative specifications used for figures 3 and 4. The independent variables, including the key *ELA* measure, are described first, followed by the sequence of dependent or outcome variables. (The dependent variables are available in every wave of the survey unless otherwise stated.) Finally, each alternative specification is discussed.

# Age and year of birth

Determining the age of the respondents at each survey is crucial, both in identifying early legal access, which is age dependent, and because the effects of early legal access are likely to vary over the lifecycle. Both age at time of interview and date of birth (month and year) are asked in various waves of the survey; however, they are not always consistent. Date of birth was asked in 1968, 1977, 1978, 1982, 1988 and 1991 and confirmed or corrected in 1995, 1997, 1999, 2001, and 2003. Of the 5,159 women in the sample, 94 (1.8 percent) had conflicting birth date reports, and another 818 (15.9 percent) had only a single report. For the conflicting cases, all available data were used to check birth reports, but, in most cases, the modal reported year and month of birth was used. From the date of birth information, age at the end of each survey year (not at the time of interview) was constructed for consistency between early and later waves.

### State of residence

The geocoded version of the *NLS-YW*, available at Census Research Data Centers, contains the state of residence of each respondent for each wave of the survey. Using respondents' age information and variables pertaining to mover status in the public-use data, one can construct variables for the state of residence at key ages (such as 18, 19, 20, and 21) for most but not all respondents. In some cases, women exit the sample before they reach the key ages; in others, women in the older cohorts who move

<sup>&</sup>lt;sup>1</sup> The exact code is available from the authors upon request.

<sup>&</sup>lt;sup>2</sup> The early waves sampled respondents in the early months of the year but later waves sampled respondents in later months.

frequently during the key ages are not observed until they are older. Nonetheless, for each of the key ages (18 through 21), between 80 and 90 percent of the respondents were successfully matched to a state of residence.

### Early Legal Access to the Pill (ELA)

By researching state laws, the authors compiled a list of the years in which each state legally allowed unmarried women (of age 20 or younger) to have access to the birth control pill (see Appendix B: Legal Variables). Using the restricted version of the *NLS-YW*, state of residence at each survey is observed and the respondents' state of residence at age 21 is used to generate the *ELA* variable. A respondent's *ELA* status was coded 1 if her year of birth plus 20 was greater than or equal to the year in which her residence state at age 21 first allowed legal access. State of residence at age 21 rather than age 20 was used because it was identifiable for more women (4,419 versus 4,398) and the correlation between the two was high (r = 0.94).

### Early Abortion Access (EAA)

Five states (Alaska, California, Hawaii, Washington, and New York) and the District of Columbia legalized abortion in 1970, three years before *Roe v. Wade*. We code a respondent as having EAA if she lived in one of the above areas at age 21 *and* was born in 1950 or later; these are the cohorts of women who had legal abortion access in their states of residence before the age of 21. To address the possibility that women crossed state lines to obtain an abortion, we also constructed a measure of the distance in miles between each state's population centroid in 1970 and the closest major location providing abortions in the pre-*Roe* period (District of Columbia, Los Angeles, San Francisco, Buffalo, and New York City. This distance was then transformed into its natural logarithm.

# Age at first marriage

Although age at first marriage is directly asked in 1968, this is useful only for women who had been married prior to the first interview. To determine marital ages for the rest of the sample, three additional sources are used: (a) marital histories, (b) changes in current marital status, and (c) timing of changes in marital status. Marital history questions are asked in 1978, 1983, 1997, 1999, 2001, and 2003.

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In 1978 and 1983, the questions ask about up to the three most recent marriages (including the current one); in the latter years, only the date of the most recent marriage is asked. Current marital status is asked in every survey year. Changes in marital status are reported in 1969 and 1970 and every survey year from 1985 onwards. We observe no first marriage date for 809 women. This outcome is used only in Appendix C: Additional Estimates and Sensitivity Checks.

# Wages and salary earnings

Hourly rates of pay for the current or most recent job (measured in cents) and annual wage and salary earnings from the previous calendar year are available for years 1968 through 1993. For 1995 through 2003, the hourly rate of pay variable is for the first (main) job, and annual wage and salary earnings are for the previous 12 months rather than the previous calendar year. Information on wages and salary earnings excludes farm, business, or self-employment income. Each of the wage, earnings, and income variables is converted from nominal to 2000 dollars using the PCE deflator and then converted to natural logarithms. Although there is no effective top code to hourly wages, annual earnings are subject to censoring from above, with the top code varying across years. (Generally, fewer than 2 percent of women have top-coded earnings in any year.) In the analysis, hourly wage outliers (less than 2 or more than 100 real dollars) are excluded.

## **Cumulative experience**

We measure cumulative work hours at the start of each calendar year as the sum of hours of work reported since 1967. We approximate hours of work with the product of usual weekly hours and our best estimate for the number of weeks worked each year.

We rely on three sets of questions to compute number of weeks worked. In 1968, 1969, 1975, 1977, 1980, 1982, 1985 and 1987, respondents were asked to report the number of weeks they worked in the previous calendar year. In 1970, 1971, 1972, 1973, 1978, 1983, 1988, 1991 and 1993, the survey asked the number of weeks worked since the last eligible interview, regardless of whether or not that interview took place. In 1970, 1971, 1972, 1973, 1995, 1997, 1999, 2001 and 2003, they survey asked weeks worked since the last actual interview. We combine these measures as available, being careful to

avoid double-counting. (This procedure is complicated and idiosyncratic to each survey wave; the code used is available upon request.)

Despite our best efforts, we note that it is not possible to create a truly comprehensive measure of weeks worked for several reasons. First, there are some gaps in coverage for which no weeks worked questions were asked: The initial shift from calendar year to survey period leads to a small time period (generally under 6 weeks) for which we have no measure of weeks worked. The size of this coverage gap increases over time. For example, we miss nine to eleven months between the 1973 interview and January 1, 1974, and the entire calendar year of 1975. Second, item non-response for a question regarding weeks worked poses a significant problem because cumulative experience is dependent on all past responses. It is only possible to recover cumulative experience for women who miss an interview and are subsequently re-interviewed *if* the later interview asks about weeks worked since the last actual interview.

Our main measures address these concerns with additional sample restrictions or assumptions. We address the coverage issue by rescaling the experience measure to a base of full coverage. We effectively assume that the fraction of weeks *observed* working is the same as the fraction of weeks *elapsed* spent working; that is, we scale the cumulative weeks worked measure by the ratio of total weeks elapsed to total weeks for which there is coverage. For the second problem, we exclude women once they have an episode of an item non-response for the weeks worked question. For the third problem, we restrict estimation to women who have a valid weeks report in every survey wave (no missed interviews and no item non-response). None of these alternate measures, whether used individually or all together, changes the qualitative pattern of results we find of *ELA* on cumulative experience. The numbers and estimates reported in table 4 apply the first and second measures but exclude the third in the interest of maintaining a larger sample size.

# College enrollment

Using questions that asked about current enrollment in an academic program of study, as well as the highest grade completed, a respondent was coded as enrolled in college (a binary variable) if she was enrolled and the highest grade completed was at least 12. As a result, "college enrollment" includes all forms of academic post-secondary education but excludes vocational/occupational training. Note that women who did not graduate from high school are excluded (coded as missing).

## **Highest grade completed**

The basis of these variables is the set of revised highest grade completed questions. Although the "revised" set has supposedly been cleaned and corrected of errors found in the original highest grade completed questions, an inspection revealed that several problems remained, and these were often some form of non-monotonic progression. Five hundred thirteen women (10.0 percent) had at least one discrepancy, but in most cases these were minor, such as a jump up or down of one grade in a single survey wave before returning to trend. The "revised" variables were cleaned further of likely misreports using responses from previous and later years. Specifically, "jump" deviations that last only a single wave (in some cases, two waves) are smoothed by replacing these values with those that occur both before and after the deviation. For example, a woman whose highest reported grade is 12 in 1975 and 1977, 10 in 1978, and 12 in 1980 and 1982, would have the 1978 value recoded to 12. This procedure leaves 205 women (4.0 percent) with a non-correctable discrepancy, such as multiple, non-monotonic jumps; these respondents are flagged and excluded from the analysis. Including these women alters the results very little.

# **Labor-force participation**

Labor-force participation (LFP) is based on the employment status recode (1968 through 1993) or monthly labor recode (1995 through 2003) variables. The LFP dummy variable takes the value of 1 if the respondent is employed at the time of the survey (whether at work or not) or unemployed, and 0 otherwise. Note that choice of specific activities in the survey for non-labor-force participants changed between 1993 and 1995, when the *NLS-YW* adopted the new *CPS* definitions. Results using this measure are reported in footnote 27.

# Usual weekly hours

These variables are based on a question asking about the usual hours worked per week at the respondent's job. For most years, the job is defined to be either the one currently held or the job most

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recently held since the last interview; however, in 1970, 1971, 1972, 1973, 1978, and 1983, the question pertains to the current job only. In these cases, another question specifically referring to the usual hours worked at the most recent job is used to supplement the current job question to maintain comparability: Respondents with missing values for the current job only question are replaced with the usual hours worked from the most recent job question. Finally, because responses in some years are top-coded at 99 hours while some are not, values above 99 are recoded to exactly 99. This affects no more than 1 to 3 women in any year and has a negligible impact on the estimates.

### **Occupational training**

Although the *NLS-YW* asks several questions throughout the survey waves about occupational training, the questions are not completely consistent across waves. In 1968 and again from 1980 through 2003, the survey asked whether respondents had undergone (a) any on-the-job training since the last interview, and (b) any other occupational or vocational training. From 1969 to 1978, however, these two different types of training were co-mingled in a single training question. For consistency, both training types are combined into a single (binary) indicator that captures whether the respondent underwent any form of vocational or occupational training, on-the-job or otherwise, since the last interview. The estimation sample for training includes only respondents who were not currently attending an academic program, because training questions were asked only of respondents not enrolled in an academic program until 1975.

# Occupation

For each wave of the survey, there is a variable containing the 3-digit Census code of the respondent's current or most recent job. Through 1993 the variable is for current or most recent job; for 1995 through 2003, when the new (circa 1994) *CPS* definitions were used, the variable for job 1 (the main job) is used. Unfortunately, a consistent coding is not available in the data. The coding at the beginning of the survey is based on the 1960 scheme, and it is available through 1993. Coding based on the 1980 scheme begins in 1980 and runs through 1999; the 1990 scheme runs from 1993 through 2001; and the 2000 scheme runs from 1995 through 2003. Thus, there is significant overlap for several years. In the

interest of creating a longer series, we aggregate the different coding schemes by collapsing the 3-digit job codes into four groups that can be made consistent over the entire time period. We use a coding scheme as soon as it becomes available, so we use the 1960 scheme for data years 1968 through 1978, the 1980 scheme for years 1980 through 1991, the 1990 scheme in 1993, and the 2000 scheme for years 1995 through 2003. The four groups are: all professional and managerial jobs, non-traditionally female professional and managerial jobs, clerical and sales jobs, and all other jobs. "All professional and managerial jobs" generally includes any 3-digit code that falls under the "professional, technical and kindred workers" or "managers, officials, and proprietors except farm" categories (or their equivalent) from any of the coding schemes. "Non-traditionally female professional and managerial jobs" is a subset of the first category that excludes the traditionally female occupations of nurses and elementary, secondary, and not elsewhere classified (n.e.c.), teachers. "Clerical and sales jobs" includes 3-digit codes listed under the clerical or sales categories, and "all other jobs" includes all 3-digit codes not in one the previous groups, including craftspeople, operatives, agricultural workers, and service jobs. The complete list of 3-digit Census job codes to our four groups by coding scheme is available by request. For the analysis in table 4, a woman must be currently employed to be counted in one of the four job groups; if she reported a 3-digit code in the survey but also reports not being currently employed, we code her as a zero in all four job categories.

# **IQ and Childhood Family Socioeconomic Status**

The 1968 wave of the *NLS-YW* included a questionnaire for the high schools of the respondents, which in addition to asking about school characteristics also asked for the most recent intelligence or aptitude test of the respondent. Scores were reported for 3,530 of the respondents (though almost none for respondents born in 1953). See Griliches, Hall and Hausman (1978) for an assessment of whether scores are missing at random in the *National Longitudinal Survey of Young Men*. The agency that processed the *NLS-YW*, the Center for Human Resource Research (CHRR), converted these scores from various tests composites to a unified "IQ score" based on a normally-distributed national population with mean 100 and standard deviation 15. (More information on this procedure can be found at

http://jenni.uchicago.edu/evo-earn/IQ.pdf.) Based on this distribution and the unified score, a respondent was also classified into an IQ quantile and stanine. Using information from the initial survey wave on father's occupation and education, mother's education, eldest sibling's education, and availability of reading material at home, CHRR also constructed a summary family socioeconomic status variable to follow a normal distribution with mean 100 and standard deviation 30. Our analysis breaks these measures into tertiles.

#### Attrition

In most cases, the empirical analysis has made no attempt to restrict the sample to non-attriters. The decision to exploit every person-year observation was made in order to maximize sample size. One of our sensitivity checks, reported in figures 3 and 4 and in tables in appendix C, shows that findings based upon a balanced panel of individuals are very similar to those reported in the paper. In addition, regressions, available upon request, show no correlation between each year's interview status and *ELA*.

### **Variables Used in Table 1 Balancing Tests**

- (1) **Father worked for pay:** binary variable equal to one if a respondent's father worked for pay when respondent was 14. About 93 percent of the sample had a father working for pay at age 14. (Note: This is *not* conditional on having a father in the HH).
- (2) Father held professional job: binary variable equal to one if a respondent's father had a "professional" job when respondent was 14. "Professional" has the same coding as in the main results, based on 1960 occupational definitions. About 20 percent of the sample had a father working in a professional job. (Note: This is conditional on having had a father working at age 14).
- (3) **Mother worked for pay:** binary variable equal to one if a respondent's mother worked for pay when respondent was 14. This was *not* asked of respondents who lived with their mother as the sole parent. About 39 percent of the effective sample had a mother working for pay at age 14. (Note: This *is conditional* on having a father (or other male adult) in the HH).

- (4) Mother held professional job: binary variable equal to one if a respondent's mother had a "professional" job when respondent was 14. "Professional" has the same coding as in the main results, based on 1960 occupational definitions. About 13 percent of the sample had a mother working in a professional job. (Note: This is conditional on having had a mother working at age 14).
- (5) **Duncan index of household head**: Duncan index socioeconomic job score of head of household when respondent was age 14, as created by CHRR in the data. Values are conditional on the head (not necessarily father) working when respondent was 14. (The scale runs from 3 to 97).
- (6) Socio-economic status: socioeconomic index of respondent's parents in 1968, as provided in the data. Based on father's occupation and education, mother's education, eldest sibling's education, and availability of reading material at home. By construction, SES ~ N(100,900).
- (7) Magazines in home: binary variable equal to one if a respondent had magazines available at home when she was age 14. About 64 percent of the sample did.
- (8) Newspapers in home: binary variable equal to one if a respondent had newspapers available at home when she was age 14. About 83 percent of the sample did.
- (9) **Respondent held library card:** binary variable equal to one if a respondent had a library card when she was age 14. About 70 percent of the sample did.
- (10) Two-parent household: binary variable equal to one if a respondent lived in a household with two parents (including step-parents) at age 14. About 80 percent of the sample lived with two parents at age 14.
- (11) Number of siblings: number of siblings of respondent in 1968 (not necessarily in the household); we can't reliably determine whether this includes step- and half-siblings.
- (12) Father born in U.S.: binary variable equal to one if a respondent's father was born in U.S./Canada.

  About 96 percent of sample had father born in U.S./Canada.

- (13) **Highest grade completed by father**: highest grade completed by father, in 1968. Conditional on having a father in household. Item non-response is relatively high; *ELA*, however, is uncorrelated with whether father's HGC is observed.
- (14) Highest grade completed by mother: highest grade completed by mother, in 1968. Conditional on having a mother in household. Item non-response is relatively high; *ELA*, however, is uncorrelated with whether mother's HGC is observed.
- (15) Parents' education goals for respondent: number of years of schooling respondent's parents want respondent to obtain, when respondent was 14.
- (16) Atypicality index of mother's job: atypicality index of respondent's mother's job when respondent was 14, conditional on respondent's mother working then. Atypicality index is the female percentage of an occupation minus the percent of the experienced civilian labor force that was female in 1970; negative numbers indicate more atypical occupations.
- (17) **Respondent's IQ score**: continuous IQ score of respondent. Reference distribution is independent national norm, not empirical sample. Only two-thirds of the entire sample had an IQ or achievement test administered; while these two-thirds were slightly above national norms, the presence of an IQ score is uncorrelated with *ELA*.
- (18) Rural residence: binary variable equal to one if a respondent resided on a farm/ranch or in another rural area at age 14. About 26 percent of the sample lived in a rural area at age 14.

## **Alternative Specifications**

Figures 3 and 4 include six specifications: one following equation (1) called our baseline specification, one following equation (1') that augments our baseline specification with abortion controls, and four alternative specifications of (1') described below. Estimates from equation (1') are presented as the main tables of the paper. Tabular presentations from all other specifications can be found in Appendix C.

**Linear state-specific time trends:** The specification in equation (1') is augmented with the interactions of each state of residence dummy with the year of observation.

Vietnam casualties: Using data from the National Archives on the Vietnam Conflict (<a href="http://www.archives.gov/research/military/vietnam-war/electronic-records.html">http://www.archives.gov/research/military/vietnam-war/electronic-records.html</a>), the specification in equation (1') is augmented with controls for state-level casualties. These controls include state-specific annual death rates lagged one, two, and three years; and cohort-specific, state-level death rates within two years of a woman's date of birth.

**Balanced panel:** The specification in equation (1') is estimated on a sample that is restricted to women who are interviewed in every survey wave from 1968 through 2003 and successfully answer all relevant questions (no item non-response).

**High school state:** This specification uses state of residence during high school (rather than at age 21) for all state-based variables. Like state of residence at age 21, this variable is created using each wave's state of residence, move histories, and tenure at current residence. Because older cohorts are father removed from high school age, they are less likely to be successfully matched, particularly if they moved frequently. (While this problem exists for state of residence at age 21, it is more pronounced for high school state.)

## NOT FOR PUBLICATION

# **Appendix B. Legal Coding**

The coding used in this paper relies upon the updated coding of Bailey and Guldi (2009) and differs from the coding used in Bailey (2006) for 15 states. These differences in coding reflect two main changes: (1) Non-specific female age of majority statutes are not treated as emancipation for the purpose of consenting for medical care unless this is specifically noted in the statute. As a result, the coding changes in 4 states. (2) Statutes were interpreted incorrectly, enforcement was ambiguous, or earlier statutes, policy changes or attorney general decisions were found. These changes affected coding in 11 states; in six of these cases, the date of legal change shifts by only one or two years. These legal changes are summarized in Table 1, and then the explanation of each of the changes is discussed in detail, including legal citations by state.

Table 1
Dates of Legal Change Granting Early Access to the Pill

		Bailey and		Reason for
State	Bailey (2006)	Guldi (2009)	Different?	recoding?
Alabama	1971	1971		
Alaska	1960	1960		
Arizona	1972	1972		
Arkansas	1960	1973	X	FAOM->AOM
California	1972	1972		
Colorado	1971	1971		
Connecticut	1972	1972		
Delaware	1972	1972		
District of Columbia	1971	1971		
Florida	1974	1974		
Georgia	1968	1968		
Hawaii	1970	1972	X	TFP->AOM
Idaho	1963	1972	X	FAOM->AOM
Illinois	1973*	1969		
Indiana	1973	1973		
Iowa	1973	1972	X	Earlier AOM
Kansas	1970	1970		
				Ambiguous
Kentucky	1968	1965/1968?	X	interpretation
Louisiana	1972	1972		
Maine	1971	1969	X	Earlier AOM
Maryland	1967	1971	X	TFP->MM
Massachusetts	1974	1974		
Michigan	1972	1972		
Minnesota	1973	1972	X	Earlier AGD
Mississippi	1966	1966		

Missouri	1976	1973	X	Earlier AGD
Montana	1971	1971		
Nebraska	1972	1972		
Nevada	1969	1973	X	FAOM->AOM
New Hampshire	1971	1971		
New Jersey	1973	1973		
New Mexico	1971	1971		
New York	1971	1971		
North Carolina	1971	1971		
North Dakota	1972	1972		
Ohio	1965	1960		MM
Oklahoma	1966	1972	X	FP->AOM
Oregon	1971	1971		
Pennsylvania	1971	1970	X	Earlier MM
Rhode island	1972	1972		
South Carolina	1972	1972		
South Dakota	1972	1972		
Tennessee	1971	1971		
Texas	1974	1974		
Utah	1962	1975	X	FAOM->AOM
Vermont	1972	1972		
Virginia	1971	1971		
Washington	1971	1968	X	AOM->FP
West Virginia	1972	1972		
Wisconsin	1973	1972	X	Earlier AOM
Wyoming	1969	1969		
Differences in coding		· · · · · · · · · · · · · · · · · · ·	15	

Legal change is coded as the earliest date, at which an unmarried, childless women under age 21 could legally consent for medical treatment without parental or spousal consent. A full legal appendix and scans of statutes are available from Bailey and Guldi (2009). FAOM->AOM: lower female age of majority changed to the legal majority for men and women for all purposes. FP->AOM: family planning law changed to age of majority law; AOM->FP indicates the reverse. TFP->AOM/MM: erroneously coded treatment for pregnancy statute changed to be the date for the change in legal age of majority/mature minor doctrine. Earlier AGD/AOM/MM indicates that an earlier attorney general decision/age of majority/mature minor doctrine was located. \*Illinois is a typo in the published version of Bailey (2006) that the author did not catch before publication. The correct coding and the coding used in her analysis is 1969. See notes below for more details.

#### Arkansas

Bailey (2006) coded the 1948 Arkansas statute that stipulated that females over 18 were of the age of majority [AR Code §9-25-101 (1987), AR Stat. Ann. §57-103 (1947)], but it is unclear that this law treated women as legal adults except for marriage. Effective July, 1973, Arkansas passed a law allowing pregnant minors of any age to consent to medical care other than abortion (Merz et al. 1995: footnote 150; Acts 1973, No. 32, §1, p.1028). The law provided that *any* female could consent to medical treatment or procedures "for herself when in given [sic.] connection with pregnancy or childbirth, except the unnatural interruption of a pregnancy" [AR R.S. §82-363 (1976)]. The statute goes on to grant the power of consent to "any unemancipated minor of sufficient intelligence to understand and appreciate the consequences of the proposed surgical or medical

treatment or procedures" [ibid.]. Bailey and Guldi (2009), therefore, code a mature minor doctrine as of 1973.

### Hawaii

Bailey (2006) erroneously codes a "treatment for pregnancy" statute as a mature minor doctrine: "The consent to the provision of medical care and services by public and private hospitals or public and private clinics, or the performance of medical care and services by a physician licensed to practice medicine, when executed by a female minor who is or professes to be pregnant" [HI Rev. Stat. §577A-2 (1999), L. 1968, c. 58]. Under this law, *only* minors professing to be pregnant or having a venereal disease could consent to "medical care," defined as "the diagnosis, examination and administration of medication in the treatment of venereal diseases and pregnancy" [L. 1968, c. 58, §4]. This law did not permit non-pregnant teens to be treated or prescribed contraception legally. Bailey and Guldi (2009) code the legal change in the age of majority, effective March 28, 1972, which lowered the age of majority to 18.

#### Idaho

Bailey (2006) codes a female age of majority statute [ID Code Ann. §31-101 (1932)], but it is unclear whether consent to contraception would have been covered under this statute. Bailey and Guldi (2009) found a 1972 amendment that equalized the ages of majority for males and females at 18 and extended this majority for *all* purposes [ID Code §32-101 (1983); am. 1972, ch. 117, §1, p. 233].

### Iowa

Bailey (2006) codes the change in the legal age of majority to 18 in 1973. Bailey and Guldi (2009) located and code an earlier change in the legal age of majority from 21 to 19 in 1972 [IA Code Ann. §599.1 (1954), Acts 1972 (64 G.A.) ch. 1027, §49; Acts 1973 (65 G.A.) ch. 140, §49].

#### Kentucky

Bailey and Guldi (2009) codes a law, effective January 1, 1965, that lowered the legal age of majority "for all purposes" in Kentucky to 18 [KY R.S. §2.015 (1967), enacted Acts 1964, ch. 21, § 1]. Because this Council of State Governments publication in 1973 noted that this 1965 had law prompted "a good deal of confusion [about the exact privileges granted to those 18 and older] and four years later [a] clarifying statute was passed"

<sup>&</sup>lt;sup>1</sup> Merz et al. cites 1972 KY Acts ch. 98, effective July 26, 1972, as lowering the age of majority from 21 to 18. This citation, however, is in error. The referenced statute is a law "relating to the powers and duties of fiscal courts to control wild animals that carry diseases transmissible to man and domestic animals." We believe this citation to be incorrect; we have verification that the age of majority did, in fact, change in 1964, effective January 1, 1965, with the clarification added in 1968 (see text).

[1972: pp.12-3], Bailey (2006) codes the 1968 amendment to the age of majority statute that included the clause "all other statutes to the contrary notwithstanding" [KY Acts ch. 100, §1, approved March 25, 1968] that clarified the interpretation of the statute.

### Maine

Bailey (2006) codes a change in the legal age of majority passed in 1971 which lowered the legal age of majority to 18 [1 M.R.S.A. §73 (1979); 1969, c. 433 §8; 1971 c. 598, §8]. Bailey and Guldi (2009) located an earlier statutory change in the age of majority, effective October 1, 1969, which lowered the legal age of majority in Maine from 21 to 20.<sup>2</sup>

### Maryland

Bailey (2006) erroneously codes a "treatment for pregnancy" statute based upon Merz et al. (1995: footnote 388), which notes that minors could consent to medical treatment for "alcohol and drug abuse, venereal diseases, pregnancy, contraception other than sterilization, and in cases of rape or sexual abuse" since June 1, 1967. However, the specific language relating to contraception was not added until 1971. The original statute, effective June 1, 1967, restricted the law to "apply ... to minors who profess to be in need of hospital or clinical care or services or medical or surgical care or services to be provided by a physician licensed to practice medicine, whether because of suspected pregnancy or venereal disease, regardless of whether such professed suspicions of pregnancy or venereal disease are, or are not subsequently substantiated on a medical basis" [MD Laws 1967 ch. 468]. Therefore, Bailey and Guldi (2009) code the 1971 revision to the 1967 statute that eliminated the restriction to pregnant minors or minors suspected to be pregnant.

#### Minnesota

Bailey (2006) codes the change in the age of majority to 18 effective June 1, 1973 [Minn. Stat. § 518.54(2) (1990)]. One year prior to the change in the age of majority, on May 27, 1971, a series of statutes concerning the consent to medical care of minors became effective. One section provides for an extension of the rights of emancipated minors [MN Stat. Ann. §144.341 (1989); see also CA Civil Code §34.6 (1982)]. Although

<sup>&</sup>lt;sup>2</sup> Merz et al. only states that the general age of majority has been 18 since 1971[ME RSA tit. 1, §72.1]; the text does not mention what the age changed from to become 18. The statutory change, lowering the age of majority from 20 to 18, is cited as 1971, c. 598, §8;

however, this was during a special session of the 1971 legislature, and the Acts were not effective until June 9, 1972. Even though the law was passed in 1971, it did not become effective until 1972. Therefore, we do not see any conflict with Merz; we simply provide more precise detail of the changes.

ambiguous in their applicability to consent for birth control, a 1972 Attorney General decision interpreted these statutes as "not making it a crime for physicians to furnish birth control devices to minors" [From LexisNexis Academic: Minn. Stat. §§144.341-144.347, 617.251 (1971), No. 494-b-39, 1972 Minn. AG LEXIS 35]. The interpretation of these statutes remained in dispute for some time; they were again challenged in *Maley v. Planned Parenthood of Minnesota, Inc.* Cir. Case No. 37769 (Minn. Dist. Ct., Third Jud. Dist., Jan. 5, 1976). In this case, six couples filed a class action lawsuit, seeking to prevent Planned Parenthood from providing contraceptive services to unemancipated minors without parental consent (Paul, Pilpel and Wechsler, 1974; http://www.popline.org/docs/730457). However, the Minnesota District Court upheld the constitutionality of sections 144.343 and 144.344, writing that "under these sections Planned Parenthood could provide minors with contraceptive information and services without parental consent, unless a parent specifically notifies Planned Parenthood that he/she does not wish his/her child to receive such services" (DHEW 1978, p.244). This decision, therefore, reinforced the attorney general's broad interpretation of the statute. Legally, Planned Parenthood could provide contraceptives to unmarried minors as long as they had not been explicitly informed by parents. Bailey and Guldi (2009), therefore, revise the coding to reflect the 1972 attorney general decision.

### Missouri

Bailey (2006) coded the *Planned Parenthood of Central Missouri v. Danforth* decision [428 U.S. 52 (1976)], in which the Supreme Court ruled that the state could not prohibit minors from obtaining abortions and, by extension, contraception. Bailey and Guldi (2009) located an earlier Attorney General decision issued in March of 1973 stating that "no law prohibits physicians from prescribing contraceptives to minors who do not have parental consent or who have not been emancipated by marriage or other means" [DHEW 1978, p. 253, citing Op. Atty. Gen. 3/9/1973].

### Nevada

Bailey (2006) codes a 1969 lower female age of majority statute, but this statute was in effect since at least 1930 and applied only to women's ability to enter into contracts [NV C.L. §300 (1930); NV R.S. §129.010 (1963); see also DHEW 1974, p. 236]. Bailey and Guldi (2009) code a 1973 amendment to the age of majority

<sup>&</sup>lt;sup>3</sup> Though the final *Maley* ruling was not issued until 1976, according to Paul, Pilpel and Wechsler (1974), the district court came to the same conclusion during a preliminary stage of the case in 1973.

statute which equalized the ages of majority for males and females at 18 [N.R.S. §129.010 (2003); 1973, p. 1578].

#### Ohio

Ohio courts adopted a mature minor doctrine as early as 1956. The *Lacey v. Laird* [166 Ohio St. 12, 139 N.E. 2d 25 (1956)] opinion states,

A charge that this 18-year-old plaintiff [who had nose surgery when she was 18 without her parents' consent] could not consent to what the jury could have found was only a simple operation, would seem inconsistent with the conclusion of our General Assembly, that any female child of 16 can prevent the taking of liberties with her person from being raped merely by consenting thereto at the time such liberties are taken....My conclusion is that performance of a surgical operation upon an 18-year-old girl with her consent will ordinarily not amount to an assault and battery for which damages may be recoverable even though the consent of such girl's parents or guardian has not been secured [139 N.E. 2d at 34].

Legal interpretations held that minors could consent to minor surgery and general medical care under this decision (DHEW 1974: 265), but Ohio also had an anti-obscenity statute. Ohio's statute originally passed in 1885 and banned the dissemination of information and supplies relating to contraception. The words "for the prevention of conception" were removed from Ohio's statute in 1965, so Bailey (2006) coded 1965 as the earliest date that an unmarried minor could obtain the Pill legally. However, Ohio's statute went on to note that "nothing in this section [about contraception and obscenity] or the next two sections shall be construed to affect teaching in regularly chartered medical colleges, or the publication of standard medical books, or the practice of regular practitioners of medicine, or druggists in their legitimate business" [OH R.S. §7027 (1896)] [April 30, 1885: 82 v. 184]. It is not clear how to interpret this physician and pharmacist exceptions, which makes it unclear whether to code Ohio as 1960, when the Pill was introduced (this assumes that the obscenity statute was not binding for physicians), or 1965, when the law was amended to omit language about contraception (this assumes the obscenity statute was binding for physicians).

## Oklahoma

Bailey (2006) coded a family planning statute [OK Stat. Ann. Tit. 63 Ch. 32, §§2071-5 (1984)]. Although no explicit eligibility requirements are stated in the statutes, the Department of Health Education and Welfare (DHEW) contacted the state about their policy and reported that, "[a]ll categories of adults apparently are eligible for family planning services; no exclusions were noted in the CFPPD survey and none appear in the written policies. According to the Division of Maternal and Child Health's *Guidelines for Family Planning* 

*Programs*, 'minors may be accepted for services if: 1) ever married or ever pregnant; 2) bearing acceptable proof of impending marriage; 3) accompanied by parent or guardian requesting services; 4) referred by a recognized agency, a doctor, a nurse, or a clergyman...[However,] contraceptive advice may be given in *all* cases where the 'health needs of the patient make it advisable...'" (1974, p.271). Because these policies only allow legal minors who are pregnant to obtain contraceptive *advice*, Bailey and Guldi (2009) code the change in the legal age of majority which was amended and effective in August 1, 1972, which equalized the ages of majority for men and women at 18 [OK Stat. Ann. Tit. 15 §13 (1972); L. 1972, c. 221, §1].

### Pennsylvania

Bailey (2006) coded a mature minor doctrine effective in 1971, but Bailey and Guldi (2009) located an earlier mature minor statute, enacted on February 13, 1970 and effective in April 1970, that allowed any minor 18 or over to consent to medical care: "Any minor who is eighteen years of age or older... may give effective consent to medical, dental and health services for himself or herself, and the consent of no other person shall be necessary" [PA Stat. tit. 35, §10101 (1977)].

#### Utah

Bailey (2006) coded the lower age of female majority, but this statute's application was unclear with respect to medical care. Policy documents indicate there was considerable ambiguity regarding whether physicians could prescribe birth control to unmarried women under age 21. On July 21, 1971, the Attorney General advised "not to provide family planning information or services to minors without parental consent 'until such time as the state legislature may adopt appropriate legislation.'...In support of this view the Attorney General cites the common law requirement of parental consent in the absence of an emergency, plus the expression of legislative intent inferred from the statute dealing with prophylactics..." (DHEW 1974: 300 citing Op. Atty. Gen. No. 71-017, July 21 1971). Bailey and Guldi (2009), therefore, code the amendment to this statute in 1975 to make both men and women legal adults at the age of 18 for all purposes [L. 1975, ch. 39, §1, approved March 24, 1975].

### Washington

Bailey (2006) codes the legal age of majority "for all purposes" which changed from 21 to 18 in 1971.

Bailey and Guldi (2009) located an earlier policy change and code 1968, because a Washington Board of Health

Policy directed that all persons were eligible for family planning without parental consent, including never-

pregnant, never-married minors [WAC248-128-001 for Board of Health policy adopted August 3, 1967, codified July 1, 1968].

## Wisconsin

Bailey (2006) erroneously coded the date of 1973 as the year the legal change in age of majority to 18 became effective [WI Laws 1971, ch. 213; see also DHEW (1978: 363)]. In fact, this statute became effective in March 23, 1972. Bailey and Guldi (2009), therefore, code 1972.

# NOT FOR PUBLICATION

# Appendix C. Additional Estimates and Sensitivity Checks

Table C1. The Impact of ELA on Pill Use among Ever Married Women, with State Linear Time Trends

	(1)	(2)	(3)	(4)	(5)
	1=Used Pill	1= Used Pill	1= Used Pill	1= Used Pill	1= Used Pi
	before age 18	before age 19	before age 20	before age 21	before age 2
Mean of DV	0.034	0.119	0.226	0.369	0.506
Panel A: Pill Use					
ELA	-0.072	0.381	0.204	0.210	0.133
	(0.030)	(0.167)	(0.209)	(0.106)	(0.046)
R-squared	0.070	0.138	0.141	0.156	0.142
Panel B. Pill Use Heterogene	<u>eity</u>				
ELA	-0.067	0.443	0.246	0.292	0.169
	(0.030)	(0.142)	(0.185)	(0.114)	(0.065)
ELA x Non-metro area	-0.006	-0.102	-0.072	-0.141	-0.070
	(0.014)	(0.055)	(0.067)	(0.071)	(0.059)
R-squared	0.070	0.139	0.142	0.157	0.143
			1005	1005	1985
Observations	1985	1985	1985	1985	1963
Observations Fixed effects	1985 S, Y	1985 S, Y	1985 S, Y	1983 S, Y	S, Y

See notes to table 2.

Table C2. The Impact of ELA on Pill Use among Ever Married Women, with Region by Year of Birth Fixed Effects

	(1)	(2)	(3)	(4)	(5)
	1=Used Pill	1= Used Pill	1= Used Pill	1= Used Pill	1= Used P
	before age 18	before age 19	before age 20	before age 21	before age
Mean of DV	0.034	0.119	0.226	0.369	0.506
Panel A: Pill Use					
ELA	-0.067	0.141	0.140	0.132	0.049
	(0.017)	(0.208)	(0.140)	(0.107)	(0.045)
R-squared	0.053	0.115	0.134	0.142	0.136
Panel B. Pill Use Heterogene	eity .				
ELA	-0.055	0.284	0.211	0.255	0.123
ELA	-0.055 (0.021)	(0.171)	(0.117)	(0.096)	(0.056)
	-0.055 (0.021) -0.013	(0.171) -0.180	(0.117) -0.091	(0.096) -0.158	(0.056) -0.096
ELA x Non-metro area	-0.055 (0.021) -0.013 (0.014)	(0.171) -0.180 (0.057)	(0.117) -0.091 (0.056)	(0.096) -0.158 (0.068)	(0.056) -0.096 (0.055)
ELA	-0.055 (0.021) -0.013	(0.171) -0.180	(0.117) -0.091	(0.096) -0.158	(0.056)
ELA x Non-metro area	-0.055 (0.021) -0.013 (0.014)	(0.171) -0.180 (0.057)	(0.117) -0.091 (0.056)	(0.096) -0.158 (0.068)	(0.056) -0.096 (0.055)

See notes to table 2.

Table C3. The Impact of ELA on the Timing of First Marriage

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Age at first marriage	1=Married before 19	1=Married before 20	1=Married before 21	1=Married before 22	1=Married before 23	1=Married before 24
Mean of DV	21.2	0.270	0.396	0.505	0.597	0.671	0.721
ELA	0.427 (0.270)	-0.064 (0.022)	-0.059 (0.023)	-0.020 (0.024)	-0.018 (0.029)	-0.004 (0.031)	-0.007 (0.033)
Observations	3786	4210	4204	4200	4200	4200	4200
(Pseudo) R-squared	0.04	0.04	0.03	0.03	0.03	0.03	0.02
Fixed effects	S, Y	S, Y	S, Y	S, Y	S, Y	S, Y	S, Y

This table presents estimates of ELA on age of first marriage among those ever married (column 1) and binary indicators for whether the respondent was married before age a, for a=19,..., 24. The table uses the 1943 to 1953 birth cohorts from the NLS-YW. The sample in columns 2 through 7 includes women who never get married and the estimates represent average partial effects from a probit. Changes in sample size across columns 2 through 7 are due to dropping of observations that do not contribute to the likelihood. The R-squareds for columns (2) through (7) are pseudo (McFadden's) R<sup>2</sup>. All regressions include state fixed effects (S) and cohort fixed effects (Y). Heteroskedasticity-robust standard errors are corrected for clustering at the state level and are presented in parentheses below each estimate.

Table C4. Heterogeneity in the Impact of Early Access to the Pill on Marriage and Divorce Propensities

	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)
		A. Never Been Married				B. Ever Been Divorced				
	Lower third of IQ dist.	Middle third of I( dist.	Upper third of IÇ dist.	No College	Some College	Lower third of IO dist.	Middle third of I( dist.	Upper third of I( dist.	No College	Some College
ELA * Age 20-24	-0.120 (0.079)	0.020 (0.066)	0.060 (0.079)	-0.020 (0.029)	0.010 (0.052)	0.010 (0.027)	0.010 (0.015)	ND	0.000 (0.008)	-0.010 (0.005)
ELA * Age 25-29	-0.030 (0.060)	0.020 (0.045)	0.030 (0.059)	-0.010 (0.021)	0.030 (0.0501	0.097* (0.057)	0.085** (0.035)	0.020 (0.031)	0.044* (0.024)	0.020 (0.018)
ELA * Age 30-34	-0.040 (0.050)	0.030 (0.033)	0.030 (0.047)	-0.010 (0.020)	0.030 (0.035)	0.070 (0.066)	0.070 (0.047)	0.020 (0.039)	0.020 (0.030)	0.020 (0.025)
ELA * Age 35-39	-0.030 (0.044)	0.030 (0.029)	0.020 (0.044)	-0.020 (0.017)	0.020 (0.031)	0.030 (0.074)	0.070 (0.051)	0.020 (0.019)	0.000 (0.030)	0.010 (0.032)
ELA * Age 40-44	-0.050 (0.044)	0.020 (0.026)	0.040 (0.045)	-0.023* (0.015)	0.010 (0.028)	0.010 (0.078)	0.020 (0.055)	0.020 (0.047)	-0.030 (0.032)	0.010 (0.034)
ELA * Age 45-49	-0.050 (0.039)	0.010 (0.025)	0.030 (0.047)	-0.030 (0.017)	0.010 (0.031)	0.010 (0.079)	0.030 (0.032)	0.000 (0.047)	-0.040 (0.033)	0.010 (0.037)
Observations	12605	16698	20330	48548	26371	13540	18284	21575	54006	26439
Unique women Pseudo R2	788 0.23	972 0.33	1112 0.32	2898 0.24	1456 0.35	776 0.22	966 0.21	1109 0.19	2895 0.19	1450 0.18
Mean of DV for 20-24	0.459	0.415	0.510	0.347	0.665	0.029	0.030	0.027	0.039	0.013
Mean of DV for 25-29	0.223	0.145	0.187	0.159	0.276	0.106	0.121	0.092	0.127	0.065
Mean of DV for 30-34	0.156	0.080	0.114	0.119	0.165	0.205	0.209	0.180	0.224	0.148
Mean of DV for 35-39	0.131	0.064	0.087	0.104	0.116	0.303	0.287	0.256	0.301	0.226
Mean of DV for 40-44	0.129	0.062	0.083	0.098	0.110	0.381	0.358	0.319	0.373	0.288
Mean of DV for 45-49	0.120	0.057	0.086	0.091	0.107	0.466	0.422	0.368	0.441	0.345

This tables presents mean marginal effects of equation (1') from a probit. Each column presents estimates from a separate regression on the indicated groups. "ND" indicates that disclosure requirements were not met for this estimate. All other notes are as in table 4.

Table C3A. Wages Rates and Annual Income: No Abortion Controls

		(1)	(2)		(3)	(4)		(5)
	Mean real hourly wages	Real hourly	Log real hourly wage	Mean real wages/salary	Wage or salary last	Log real annual wage	Mean real wages/salary	Wage or salary last year
	excl. zeros	wage (excl. zeros)		last year excl. zeros	year (excl. zeros)		last year incl. zeros	(incl. zeros)
ELA * Ages 20-24	7.88	-0.254	-0.033	9943	-954	-0.104**	7660	-1,300**
-		(0.283)	(0.023)		(638)	(0.048)		(572)
ELA * Ages 25-29	9.60	-0.242	-0.015	15610	168	0.078*	10911	-151
· ·		(0.319)	(0.026)		(724)	(0.047)		(663)
ELA * Ages 30-34	10.62	0.408	0.030	18116	1,004	0.117**	12452	722
C		(0.313)	(0.025)		(679)	(0.051)		(639)
ELA * Ages 35-39	11.74	0.560	0.037	21174	1,963***	0.114**	15442	1,472**
C		(0.334)	(0.024)		(749)	(0.046)		(722)
ELA * Ages 40-44	12.84	0.787*	0.055**	24493	2,315***	0.102**	19184	2,845***
Ü		(0.306)	(0.022)		(878)	(0.045)		(838)
ELA * Ages 45-49	14.29	1.128**	0.081**	28148	2,148***	0.085*	25238	3,986***
C		(0.461)	(0.031)		(862)	(0.048)		(1,000)
Observations		46388	46388		51277	51277		68169
Unique women		4210	4210		4245	4245		4351
R-squared		0.21	0.26		0.01	0.10		0.01

See table 3. The estimates here do NOT include controls for abortion.

Table C4A. Human Capital Accumulation and Occupational Upgrading: No Abortion Controls

	(1)	(2)	(3)	(4)	(5)	(6)
	Cumulative	1=	Highest	1=Occupational	1= in	1=in Non-
	Experience	Enrolled	Grade	training since	Professional	traditional
	in Hours	in College	Completed	last interview	Job	Job
ELA * Age 20-24	-774**	0.047**	0.087	-0.005	0.008	0.007
	(359)	(0.021)	(0.133)	(0.012)	(0.014)	(0.007)
ELA * Age 25-29	-1,010**	0.006	0.314**	0.031***	0.047**	0.020*
	(431)	(0.008)	(0.129)	(0.011)	(0.020)	(0.011)
ELA * Age 30-34	293	0.003	0.265**	0.027*	0.060***	0.063***
-	(408)	(0.012)	(0.130)	(0.016)	(0.022)	(0.016)
ELA * Age 35-39	902	0.002	0.289**	0.009	0.042*	0.044**
	(560)	(0.010)	(0.128)	(0.016)	(0.025)	(0.020)
ELA * Age 40-44	2,407***	-0.009	0.281**	0.020	0.035	0.030
C	(767)	(0.009)	(0.133)	(0.020)	(0.029)	(0.020)
ELA * Age 45-49	1,366	-0.010	0.232	-0.020	0.000	-0.010
C	(987)	(0.007)	(0.143)	(0.019)	(0.023)	(0.017)
Observations	61736	57373	78809	63013	73737	73737
Unique women	4329	3702	4354	4323	4354	4354
(Pseudo) R-squared	0.62	0.14	0.14	0.03	0.07	0.09
Mean of DV for 20-24	2723	0.241	12.09	0.203	0.086	0.044
Mean of DV for 25-29	5929	0.077	12.52	0.188	0.163	0.080
Mean of DV for 30-34	10758	0.072	12.85	0.245	0.199	0.137
Mean of DV for 35-39	16098	0.065	12.99	0.285	0.242	0.202
Mean of DV for 40-44	22609	0.049	13.13	0.310	0.249	0.225
Mean of DV for 45-49	30010	0.029	13.28	0.324	0.242	0.218

See table 4. The estimates here do NOT include controls for abortion.

Table C5A. Heterogeneity in the Growth of Real Hourly Wages: No Abortion Controls

	(1)	(2)	(3)	(4)	(5)
C1 -	Lower third	Middle third	Upper third	No College	Some
Sample	of IQ distribution	of IQ distribution	of IQ distribution		College
ELA * A ~ 20 24	-0.616	0.428	-0.500	-0.223	-0.850*
ELA * Age 20-24	(0.560)	(0.576)	(0.447)	(0.265)	(0.489)
ELA * Age 25-29	-0.305	0.710	-0.039	-0.235	-0.200
	(0.553)	(0.696)	(0.504)	(0.271)	(0.457)
ELA * Age 30-34	-1.010*	1.505*	0.645	-0.029	0.821
	(0.533)	(0.794)	(0.654)	(0.269)	(0.639)
ELA * Age 35-39	-0.338	1.743**	0.757	-0.178	1.484**
	(0.647)	(0.750)	(0.672)	(0.377)	(0.699)
ELA * Age 40-44	-0.555	2.267**	0.753	0.625	1.433**
	(0.885)	(0.916)	(0.641)	(0.460)	(0.569)
ELA * Age 45-49	0.730	2.433**	2.371***	0.929*	2.645***
-	(1.031)	(0.928)	(0.902)	(0.485)	(0.797)
Observations	10468	14165	16788	40229	21785
Unique women	793	975	1112	2895	1456
R-squared	0.17	0.20	0.23	0.17	0.26
Mean of DV for 20-24	5.59	6.49	7.18	5.49	7.21
Mean of DV for 25-29	5.89	6.79	8.69	5.52	9.51
Mean of DV for 30-34	6.59	7.19	8.94	6.18	9.74
Mean of DV for 35-39	7.44	8.40	10.79	7.16	11.42
Mean of DV for 40-44	8.34	9.89	12.79	8.34	13.63
Mean of DV for 45-49	10.02	12.59	16.04	10.33	16.76

See table 5. The estimates here do NOT include controls for abortion.

Table C6A. Heterogeneity in Highest Grade Completed: No Abortion Controls

	(1)	(2)	(3)	(4)	(5)	(6)
	Lower	Middle	Upper	Lower	Middle	Upper
Sample	third of IQ	third of IQ	third of IQ	third SES	third SES	third SES
	distribution	distribution	distribution	distribution	distribution	distribution
ELA * Age 20-24	-0.507**	0.230	0.096	0.321**	-0.174	0.148
	(0.216)	(0.198)	(0.185)	(0.142)	(0.190)	(0.295)
ELA * Age 25-29	-0.412*	0.360*	0.343*	0.585***	-0.006	0.297
	(0.224)	(0.211)	(0.190)	(0.152)	(0.225)	(0.255)
ELA * Age 30-34	-0.436*	0.387*	0.369*	0.514***	-0.017	0.258
· ·	(0.225)	(0.205)	(0.191)	(0.162)	(0.234)	(0.267)
ELA * Age 35-39	-0.410*	0.447**	0.446**	0.532***	0.043	0.277
	(0.221)	(0.203)	(0.192)	(0.164)	(0.241)	(0.276)
ELA * Age 40-44	-0.515**	0.472**	0.401**	0.560**	0.022	0.257
	(0.236)	(0.223)	(0.198)	(0.186)	(0.236)	(0.258)
ELA * Age 45-49	-0.401	0.359	0.531**	0.529***	-0.060	0.259
	(0.258)	(0.225)	(0.205)	(0.193)	(0.246)	(0.263)
Observations	13538	17550	20982	25101	24538	24798
Unique women	793	975	1112	1392	1366	1342
R-squared	0.18	0.19	0.23	0.11	0.19	0.26
Mean of DV for 20-24	11.87	12.40	13.30	10.98	12.26	13.22
Mean of DV for 25-29	12.05	12.74	14.08	11.21	12.66	14.01
Mean of DV for 30-34	12.28	13.02	14.39	11.53	12.94	14.35
Mean of DV for 35-39	12.35	13.16	14.58	11.63	13.07	14.52
Mean of DV for 40-44	12.45	13.27	14.72	11.72	13.26	14.64
Mean of DV for 45-49	12.55	13.45	14.87	11.86	13.39	14.77
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See table 6. The estimates here do NOT include controls for abortion.

Table C7A. Heterogeneity in Cumulative Experience: No Abortion Controls

	(1)	(2)	(3)	(4)	(5)
Sample	Lower third of IQ distribution	Middle third of IQ distribution	Upper third of IQ distribution	No College	Some College
ELA * Age 20-24	-1,125 (1,279)	486 (997)	-628 (684)	-713 (512)	-1,211** (598)
ELA * Age 25-29	-1,366 (1,270)	275 (1,069)	-688 (667)	-822 (548)	-1,129* (628)
ELA * Age 30-34	-739 (1,138)	2,247* (1,184)	430 (768)	185 (501)	754 (737)
ELA * Age 35-39	-218 (1,336)	3,118** (1,352)	1,226 (851)	509 (729)	2,005** (892)
ELA * Age 40-44	-203 (1,630)	5,216*** (1,767)	1,767* (983)	2,289*** (879)	3,088*** (1,048)
ELA * Age 45-49	-881 (2,109)	4,147* (2,327)	1,180 (1,267)	1,637 (1,076)	2,446* (1,330)
Observations	10778	14061	16995	40836	21942
Unique women	804	987	1133	2960	1487
R-Squared	0.61	0.63	0.68	0.58	0.70
Mean of DV for 20-24	2533	3152	2793	2833	2432
Mean of DV for 25-29	5160	6103	6340	5382	6516
Mean of DV for 30-34	9558	10755	11432	9755	12104
Mean of DV for 35-39	14822	15936	17151	14662	18106
Mean of DV for 40-44	20975	21570	23838	20752	25111
Mean of DV for 45-49	27775	29652	31933	27954	33133

See table 7. The estimates here do NOT include controls for abortion.

# Appendix Table C3B. Wages Rates and Annual Income: State Linear Time Trends

		(1)	(2)		(3)	(4)		(5)
	Mean real hourly wages excl. zeros	Real hourly wage (excl. zeros)	Log real hourly wage	Mean real wages/salary last year excl. zeros	Wage or salary last year (excl. zeros)	Log real annual wage	Mean real wages/salary last year incl. zeros	Wage or salary last year (incl. zeros)
ELA * Ages 20-24	7.88	-0.437* (0.253)	-0.046** (0.021)	9943	-1,458*** (462)	-0.115*** (0.043)	7660	-1,919*** (426)
ELA * Ages 25-29	9.60	-0.350 (0.324)	-0.020 (0.027)	15610	-195 (647)	0.050 (0.047)	10911	-415 (624)
ELA * Ages 30-34	10.62	0.320 (0.334)	0.030 (0.028)	18116	868 (728)	0.117** (0.059)	12452	797 (704)
ELA * Ages 35-39	11.74	0.647* (0.366)	0.056** (0.028)	21174	2,326*** (803)	0.146*** (0.048)	15442	2,046*** (792)
ELA * Ages 40-44	12.84	0.949*** (0.351)	0.076*** (0.025)	24493	2,766*** (954)	0.120*** (0.044)	19184	3,568*** (867)
ELA * Ages 45-49	14.29	1.506*** (0.487)	0.118*** (0.034)	28148	2,527*** (916)	0.106*** (0.041)	25238	4,720*** (865)
Observations		46388	46388		51277	51277		68169
Unique women		4210	4210		4245	4245		4351
R-squared		0.23	0.28		NA	NA		NA

See table 3. The estimates here include state linear time trends.

Table C4B. Human Capital Accumulation and Occupational Upgrading: State Linear Time Trends

	(1)	(2)	(3)	(4)	(5)	(6)
	Cumulative	1= Enrolled	Highest	1=Occup.	1= in	1=in Non-
	Experience	in College	Grade	training since	Professional	traditional
	in Hours		Completed	last interview	Job	Job
ELA * Age 20-24	-1,120***	0.054**	0.040	0.002	0.006	0.009
	(298)	(0.024)	(0.130)	(0.014)	(0.012)	(0.008)
ELA * Age 25-29	-1,639***	0.010	0.223*	0.033***	0.041**	0.019*
	(359)	(0.009)	(0.131)	(0.011)	(0.019)	(0.011)
ELA * Age 30-34	70	0.003	0.210	0.026	0.054***	0.059***
	(407)	(0.013)	(0.132)	(0.016)	(0.021)	(0.016)
ELA * Age 35-39	1,048*	-0.002	0.264*	0.011	0.036*	0.039**
· ·	(545)	(0.010)	(0.135)	(0.019)	(0.023)	(0.019)
ELA * Age 40-44	2,370***	-0.010	0.245*	0.017	0.032	0.026
· ·	(763)	(0.009)	(0.138)	(0.022)	(0.027)	(0.021)
ELA * Age 45-49	1,592*	-0.010	0.220	-0.021	0.004	-0.011
Č	(928)	(0.007)	(0.150)	(0.021)	(0.022)	(0.019)
Observations	61736	57373	78809	63013	73737	73737
Unique women	4329	3702	4354	4323	4354	4354
(Pseudo) R-squared	0.63	0.16	0.15	0.03	0.07	0.09
Mean of DV for 20-24	2723	0.241	12.09	0.203	0.086	0.044
Mean of DV for 25-29	5929	0.077	12.52	0.188	0.163	0.080
Mean of DV for 30-34	10758	0.072	12.85	0.245	0.199	0.137
Mean of DV for 35-39	16098	0.065	12.99	0.285	0.242	0.202
Mean of DV for 40-44	22609	0.049	13.13	0.310	0.249	0.225
Mean of DV for 45-49	30010	0.029	13.28	0.324	0.242	0.218

See table 4. The estimates here include state linear time trends.

Table C5B. Heterogeneity in the Growth of Real Hourly Wages: State Linear Time Trends

	(1)	(2)	(3)	(4)	(5)
Sample	Lower third of IQ distribution	Middle third of IQ distribution	Upper third of IQ distribution	No College	Some College
ELA * Age 20-24	-1.283** (0.631)	0.380 (0.590)	-0.610 (0.491)	-0.621** (0.266)	-0.907* (0.493)
ELA * Age 25-29	-0.530 (0.558)	0.780 (0.716)	0.240 (0.491)	-0.350 (0.257)	-0.190 (0.510)
ELA * Age 30-34	-0.800 (0.558)	1.868** (0.761)	0.700 (0.687)	0.100 (0.303)	0.760 (0.625)
ELA * Age 35-39	0.450 (0.745)	2.040** (0.810)	0.740 (0.623)	0.120 (0.409)	1.610** (0.735)
ELA * Age 40-44	0.520 (1.108)	2.477** (0.935)	1.080 (0.704)	1.042** (0.470)	1.691** (0.710)
ELA * Age 45-49	2.121* (1.204)	2.625** (0.980)	3.507*** (1.067)	1.524*** (0.445)	3.184*** (0.891)
Observations	10468	14165	16788	40229	21785
Unique women	793	975	1112	2895	1456
R-squared	0.20	0.22	0.25	0.19	0.28
Mean of DV for 20-24	5.59	6.49	7.18	5.49	7.21
Mean of DV for 25-29	5.89	6.79	8.69	5.52	9.51
Mean of DV for 30-34	6.59	7.19	8.94	6.18	9.74
Mean of DV for 35-39	7.44	8.40	10.79	7.16	11.42
Mean of DV for 40-44	8.34	9.89	12.79	8.34	13.63
Mean of DV for 45-49	10.02	12.59	16.04	10.33	16.76

See table 5. The estimates here include state linear time trends.

Table C6B. Heterogeneity in Highest Grade Completed: State Linear Time Trends

	(1)	(2)	(3)	(4)	(5)	(6)
	Lower	Middle	Upper	Lower	Middle	Upper
Sample	third of IQ	third of IQ	third of IQ	third SES	third SES	third SES
	distribution	distribution	distribution	distribution	distribution	distribution
ELA * Age 20-24	-0.562***	0.170	0.140	0.240	-0.190	0.190
	(0.195)	(0.197)	(0.179)	(0.167)	(0.203)	(0.273)
ELA * Age 25-29	-0.483**	0.300	0.365*	0.456***	-0.040	0.270
-	(0.208)	(0.214)	(0.191)	(0.161)	(0.235)	(0.267)
ELA * Age 30-34	-0.442**	0.370	0.416**	0.396**	-0.020	0.250
-	(0.208)	(0.220)	(0.197)	(0.159)	(0.245)	(0.288)
ELA * Age 35-39	-0.370*	0.461**	0.525**	0.431***	0.100	0.270
	(0.195)	(0.224)	(0.207)	(0.152)	(0.258)	(0.320)
ELA * Age 40-44	-0.435*	0.508**	0.464**	0.394**	0.080	0.250
	(0.221)	(0.250)	(0.203)	(0.164)	(0.265)	(0.302)
ELA * Age 45-49	-0.280	0.420	0.627***	0.405**	0.070	0.200
	(0.239)	(0.257)	(0.223)	(0.170)	(0.286)	(0.335)
Observations	13538	17550	20982	25101	24538	24798
Unique women	793	975	1112	1392	1366	1342
R-squared	0.20	0.21	0.24	0.13	0.20	0.27
Mean of DV for 20-24	11.87	12.40	13.30	10.98	12.26	13.22
Mean of DV for 25-29	12.05	12.74	14.08	11.21	12.66	14.01
Mean of DV for 30-34	12.28	13.02	14.39	11.53	12.94	14.35
Mean of DV for 35-39	12.35	13.16	14.58	11.63	13.07	14.52
Mean of DV for 40-44	12.45	13.27	14.72	11.72	13.26	14.64
Mean of DV for 45-49	12.55	13.45	14.87	11.86	13.39	14.77

See table 6. The estimates here include state linear time trends.

**Table C7B. Heterogeneity in Cumulative Experience: State Linear Time Trends** 

	(1)	(2)	(3)	(4)	(5)
	Lower third	Middle third	Upper third	No College	Some
Sample	of IQ	of IQ	of IQ		College
	distribution	distribution	distribution		
ELA * Age 20-24	-1,319	-128	310	-1,141***	-575
	(870)	(662)	(557)	(390)	(558)
ELA * Age 25-29	-1,943	-399	-525	-1,589***	-1,185*
	(1,199)	(913)	(625)	(495)	(663)
ELA * Age 30-34	-819	2,140*	518	175	487
C .	(1,400)	(1,212)	(795)	(508)	(747)
ELA * Age 35-39	171	3,392**	1,161	532	1,604*
	(1,901)	(1,449)	(974)	(741)	(873)
ELA * Age 40-44	461	5,449***	1,382	2,205**	2,006*
	(2,464)	(1,852)	(1,216)	(871)	(1,041)
ELA * Age 45-49	224	4,728*	841	1,976*	1,344
	(2,953)	(2,566)	(1,498)	(1,092)	(1,349)
Observations	10778	14061	16995	40836	21942
Unique women	804	987	1133	2960	1487
R-squared	0.65	0.66	0.70	0.60	0.72
Mean of DV for 20-24	2533	3152	2793	2833	2432
Mean of DV for 25-29	5160	6103	6340	5382	6516
Mean of DV for 30-34	9558	10755	11432	9755	12104
Mean of DV for 35-39	14822	15936	17151	14662	18106
Mean of DV for 40-44	20975	21570	23838	20752	25111
Mean of DV for 45-49	27775	29652	31933	27954	33133

See table 7. The estimates here include state linear time trends.

**Table C3C. Wages Rates and Annual Income: Vietnam Controls** 

		(1)	(2)		(3)	(4)		(5)
	Mean real hourly wages excl. zeros	Real hourly wage (excl. zeros)	Log real hourly wage	Mean real wages/salary last year excl. zeros	Wage or salary last year (excl. zeros)	Log real annual wage	Mean real wages/salary last year incl. zeros	Wage or salary last year (incl. zeros)
ELA * Ages 20-24	7.88	-0.200 (0.321)	-0.040 (0.026)	9943	-1,008 (724)	-0.161** (0.065)	7660	-1,046 (638)
ELA * Ages 25-29	9.60	-0.020 (0.340)	0.010 (0.027)	15610	473 (747)	0.114** (0.045)	10911	331 (719)
ELA * Ages 30-34	10.62	0.320 (0.340)	0.040 (0.029)	18116	1065 (717)	0.173*** (0.058)	12452	696 (669)
ELA * Ages 35-39	11.74	0.400 (0.342)	0.040 (0.028)	21174	1,957** (767)	0.164*** (0.053)	15442	1,333* (742)
ELA * Ages 40-44	12.84	0.615* (0.348)	0.055** (0.026)	24493	2,294** (952)	0.155*** (0.048)	19184	2,543*** (914)
ELA * Ages 45-49	14.29	0.969** (0.458)	0.081** (0.033)	28148	1,628** (804)	0.117** (0.048)	25238	3,260*** (943)
Observations		46388	46388		51277	51277		68169
Unique women		4210	4210		4245	4245		4351
R-squared		0.22	0.27		NA	NA		NA

See table 3. The estimates here include controls for Vietnam: state-specific annual death rates lagged one, two, and three years; and cohort-specific, state-level death rates within two years of a woman's date of birth.

Table C4C. Human Capital Accumulation and Occupational Upgrading: Vietnam Controls

	(1)	(2)	(3)	(4)	(5)	(6)
	Cumulative	1=	Highest	1=Occupational	1= in	1=in Non-
	Experience	Enrolled	Grade	training since	Professional	traditional
	in Hours	in College	Completed	last interview	Job	Job
ELA * Age 20-24	-524*	0.066***	-0.010	-0.001	0.002	0.005
	(278)	(0.021)	(0.148)	(0.012)	(0.014)	(0.008)
ELA * Age 25-29	-1,025**	0.005	0.285**	0.021**	0.044**	0.016
	(406)	(0.008)	(0.136)	(0.010)	(0.019)	(0.011)
ELA * Age 30-34	-1,030**	-0.005	0.273**	0.026	0.063***	0.062***
	(463)	(0.013)	(0.135)	(0.016)	(0.020)	(0.015)
ELA * Age 35-39	216	-0.004	0.294**	0.014	0.042**	0.042**
	(398)	(0.011)	(0.134)	(0.017)	(0.021)	(0.018)
ELA * Age 40-44	781	-0.012	0.297**	0.022	0.042	0.033
	(561)	(0.010)	(0.131)	(0.020)	(0.025)	(0.020)
ELA * Age 45-49	2,222***	-0.010	0.230	-0.013	0.005	-0.006
	(792)	(0.006)	(0.147)	(0.019)	(0.019)	(0.017)
Observations	61736	57373	78809	63013	73737	73737
Unique women	4329	3702	4354	4323	4354	4354
(Pseudo) R-squared	0.62	0.15	0.15	0.03	0.07	0.09
Mean of DV for 20-24	2723	0.241	12.09	0.203	0.086	0.044
Mean of DV for 25-29	5929	0.077	12.52	0.188	0.163	0.080
Mean of DV for 30-34	10758	0.072	12.85	0.245	0.199	0.137
Mean of DV for 35-39	16098	0.065	12.99	0.285	0.242	0.202
Mean of DV for 40-44	22609	0.049	13.13	0.310	0.249	0.225
Mean of DV for 45-49	30010	0.029	13.28	0.324	0.242	0.218

See table 4. The estimates here include controls for Vietnam: state-specific annual death rates lagged one, two, and three years; and cohort-specific, state-level death rates within two years of a woman's date of birth.

Table C5C. Heterogeneity in the Growth of Real Hourly Wages: Vietnam Controls

	(1)	(2)	(3)	(4)	(5)
Sample	Lower third of IQ distribution	Middle third of IQ distribution	Upper third of IQ distribution	No College	Some College
ELA * Age 20-24	-0.560 (0.652)	0.550 (0.585)	-0.460 (0.443)	-0.120 (0.305)	-0.850 (0.535)
ELA * Age 25-29	-0.050 (0.583)	0.980 (0.689)	0.560 (0.493)	0.020 (0.299)	0.160 (0.520)
ELA * Age 30-34	-0.985* (0.531)	1.634** (0.768)	0.760 (0.695)	0.010 (0.313)	0.760 (0.592)
ELA * Age 35-39	-0.170 (0.648)	1.628** (0.803)	0.580 (0.615)	-0.240 (0.410)	1.337* (0.672)
ELA * Age 40-44	-0.49 (0.971)	1.995** (0.935)	0.830 (0.672)	0.490 (0.487)	1.345** (0.629)
ELA * Age 45-49	0.680 (1.047)	2.072** (0.927)	3.101*** (1.058)	0.740 (0.475)	2.685*** (0.903)
Observations	10468	14165	16788	40229	21785
Unique women	793	975	1112	2895	1456
R-squared	0.18	0.21	0.23	0.17	0.26
Mean of DV for 20-24	5.59	6.49	7.18	5.49	7.21
Mean of DV for 25-29	5.89	6.79	8.69	5.52	9.51
Mean of DV for 30-34	6.59	7.19	8.94	6.18	9.74
Mean of DV for 35-39	7.44	8.40	10.79	7.16	11.42
Mean of DV for 40-44	8.34	9.89	12.79	8.34	13.63
Mean of DV for 45-49	10.02	12.59	16.04	10.33	16.76

See table 5. The estimates here include controls for Vietnam: state-specific annual death rates lagged one, two, and three years; and cohort-specific, state-level death rates within two years of a woman's date of birth.

Table C6C. Heterogeneity in Highest Grade Completed: Vietnam Controls

	(1)	(2)	(3)	(4)	(5)	(6)
	Lower	Middle	Upper	Lower	Middle	Upper
Sample	third of IQ	third of IQ	third of IQ	third SES	third SES	third SES
	distribution	distribution	distribution	distribution	distribution	distribution
ELA * Age 20-24	-0.487**	0.140	0.040	0.210	-0.290	0.080
	(0.213)	(0.221)	(0.205)	(0.147)	(0.216)	(0.340)
ELA * Age 25-29	-0.378*	0.290	0.369*	0.512***	-0.020	0.350
	(0.211)	(0.229)	(0.206)	(0.134)	(0.232)	(0.281)
ELA * Age 30-34	-0.396*	0.350	0.445**	0.470***	0.010	0.370
· ·	(0.203)	(0.228)	(0.206)	(0.157)	(0.239)	(0.284)
ELA * Age 35-39	-0.364*	0.408*	0.524**	0.497***	0.080	0.350
-	(0.197)	(0.221)	(0.206)	(0.158)	(0.247)	(0.300)
ELA * Age 40-44	-0.459**	0.425*	0.482**	0.495***	0.100	0.370
-	(0.216)	(0.244)	(0.194)	(0.174)	(0.248)	(0.267)
ELA * Age 45-49	-0.330	0.300	0.611***	0.489***	0.030	0.290
	(0.242)	(0.244)	(0.207)	(0.180)	(0.261)	(0.291)
Observations	13538	17550	20982	25101	24538	24798
Unique women	793	975	1112	1392	1366	1342
R-squared	0.19	0.19	0.23	0.12	0.19	0.26
Mean of DV for 20-24	11.87	12.40	13.30	10.98	12.26	13.22
Mean of DV for 25-29	12.05	12.74	14.08	11.21	12.66	14.01
Mean of DV for 30-34	12.28	13.02	14.39	11.53	12.94	14.35
Mean of DV for 35-39	12.35	13.16	14.58	11.63	13.07	14.52
Mean of DV for 40-44	12.45	13.27	14.72	11.72	13.26	14.64
Mean of DV for 45-49	12.55	13.45	14.87	11.86	13.39	14.77

See table 6. The estimates here include controls for Vietnam: state-specific annual death rates lagged one, two, and three years; and cohort-specific, state-level death rates within two years of a woman's date of birth.

Table C7C. Heterogeneity in Cumulative Experience: Vietnam Controls

	(1)	(2)	(3)	(4)	(5)
	Lower third	Middle third	Upper third		
Sample	of IQ	of IQ	of IQ		Some
	distribution	distribution	distribution	No College	College
ELA * Age 20-24	-1,041	28	-808	-904	-1,458***
	(1,408)	(1,000)	(694)	(565)	(549)
ELA * Age 25-29	-1,127	174	-493	-766	-1,013*
-	(1,446)	(1,049)	(677)	(580)	(609)
ELA * Age 30-34	-639	2,013*	804	101	1,076
<b>C</b>	(1,187)	(1,152)	(841)	(471)	(772)
ELA * Age 35-39	-89	2,810**	1,542*	395	2,288**
· ·	(1,358)	(1,392)	(920)	(715)	(922)
ELA * Age 40-44	67	4,599**	2,059**	2,143**	3,273***
<b>C</b>	(1,746)	(1,787)	(1,018)	(874)	(1,073)
ELA * Age 45-49	-629	3,547	1,581	1,539	2,594*
	(2,214)	(2,307)	(1,247)	(1,094)	(1,355)
Observations	10778	14061	16995	40836	21942
Unique women	804	987	1133	2960	1487
R-Squared	0.61	0.64	0.68	0.58	0.70
Mean of DV for 20-24	2533	3152	2793	2833	2432
Mean of DV for 25-29	5160	6103	6340	5382	6516
Mean of DV for 30-34	9558	10755	11432	9755	12104
Mean of DV for 35-39	14822	15936	17151	14662	18106
Mean of DV for 40-44	20975	21570	23838	20752	25111
Mean of DV for 45-49	27775	29652	31933	27954	33133

See table 7. The estimates here include controls for Vietnam: state-specific annual death rates lagged one, two, and three years; and cohort-specific, state-level death rates within two years of a woman's date of birth.

Table C3D. Wages Rates and Annual Income: Balanced Panel

		(1)	(2)		(3)	(4)		(5)
	Mean real hourly wages excl. zeros	Real hourly wage (excl. zeros)	Log real hourly wage	Mean real wages/salary last year excl. zeros	Wage or salary last year (excl. zeros)	Log real annual wage	Mean real wages/salary last year incl. zeros	Wage or salary last year (incl. zeros)
ELA * Ages 20-24	8.04	-0.190 (0.531)	-0.030 (0.046)	10135	-784 (1,104)	-0.160** (0.078)	7952	-1,044 (996)
ELA * Ages 25-29	9.94	0.160 (0.562)	0.020 (0.044)	16436	1,483 (1,244)	0.184** (0.075)	11966	881 (1,121)
ELA * Ages 30-34	11.07	0.470 (0.558)	0.040 (0.047)	18840	1,278 (1,223)	0.130 (0.084)	13343	1434 (1,176)
ELA * Ages 35-39	12.22	0.500 (0.570)	0.050 (0.046)	21466	2,221* (1,349)	0.159** (0.075)	16136	1422 (1,199)
ELA * Ages 40-44	13.32	0.700 (0.579)	0.050 (0.043)	24965	2,119* (1,265)	0.090 (0.074)	20249	2,249* (1,207)
ELA * Ages 45-49	14.76	1.515** (0.706)	0.106** (0.050)	28809	2,129 (1,469)	0.070 (0.080)	26277	3,670*** (1,329)
Observations		20863	20863		23914	23914		30399
Unique women		1474	1474		1482	1482		1498
R-squared		0.23	0.28		NA	NA		NA

See table 3. The estimates here are based on a balanced panel (respondent must have relevant information in every survey wave).

Table C4D. Human Capital Accumulation and Occupational Upgrading: Balanced Panel

	(1)	(2)	(3)	(4)	(5)	(6)
	Cumulative	1=	Highest	1=Occupational	1= in	1=in Non-
	Experience	Enrolled	Grade	training since	Professional	traditional
	in Hours	in College	Completed	last interview	Job	Job
ELA * Age 20-24	-515	0.055	0.170	0.025	0.023	0.033***
	(541)	(0.039)	(0.188)	(0.021)	(0.017)	(0.012)
ELA * Age 25-29	-943	0.019	0.453**	0.060**	0.078**	0.055***
	(592)	(0.015)	(0.200)	(0.024)	(0.031)	(0.019)
ELA * Age 30-34	-1034	-0.001	0.414**	0.060**	0.059*	0.074***
	(624)	(0.019)	(0.204)	(0.028)	(0.035)	(0.026)
ELA * Age 35-39	469	0.002	0.457**	0.045*	0.038	0.057**
	(593)	(0.013)	(0.205)	(0.026)	(0.034)	(0.027)
ELA * Age 40-44	1152	-0.007	0.388*	0.033	0.015	0.026
_	(729)	(0.011)	(0.213)	(0.031)	(0.035)	(0.026)
ELA * Age 45-49	1,628*	-0.008	0.425**	0.009	-0.008	-0.009
	(920)	(0.008)	(0.194)	(0.031)	(0.032)	(0.027)
Observations	27209	26678	32955	28470	32770	32770
Unique women	1488	1340	1498	1498	1498	1498
(Pseudo) R-squared	0.62	0.17	0.18	0.03	0.07	0.09
Mean of DV for 14-19	1488	0.55	10.24	0.207	0.011	0.008
Mean of DV for 20-24	518	0.274	12.43	0.210	0.114	0.055
Mean of DV for 25-29	2747	0.087	12.93	0.208	0.203	0.091
Mean of DV for 30-34	6197	0.076	13.24	0.273	0.231	0.151
Mean of DV for 35-39	11300	0.070	13.37	0.313	0.271	0.220
Mean of DV for 40-44	17058	0.049	13.47	0.333	0.284	0.255
Mean of DV for 45-49	24322	0.028	13.60	0.349	0.265	0.238

See table 4. The estimates here are based on a balanced panel (respondent must have relevant information in every survey wave).

Table C3E. Wages Rates and Annual Income: High School State

		(1)	(2)		(3)	(4)		(5)
	Mean real hourly wages excl. zeros	Real hourly wage (excl. zeros)	Log real hourly wage	Mean real wages/salary last year excl. zeros	Wage or salary last year (excl. zeros)	Log real annual wage	Mean real wages/salary last year incl. zeros	Wage or salary last year (incl. zeros)
ELA * Ages 20-24	7.87	-0.430 (0.297)	-0.042* (0.023)	9938	-1,285** (614)	-0.120** (0.056)	7685	-1,489*** (552)
ELA * Ages 25-29	9.62	-0.592** (0.293)	-0.030 (0.024)	15615	-170 (627)	0.095** (0.042)	10899	-138 (557)
ELA * Ages 30-34	10.67	0.000 (0.269)	0.010 (0.023)	18266	333 (599)	0.099* (0.057)	12552	457 (564)
ELA * Ages 35-39	11.83	0.010 (0.280)	0.010 (0.021)	21258	910 (662)	0.091* (0.048)	15548	782 (659)
ELA * Ages 40-44	12.93	0.370 (0.246)	0.030 (0.018)	24558	1,636** (734)	0.098** (0.044)	19451	2,160** (862)
ELA * Ages 45-49	14.40	0.480 (0.398)	0.040 (0.029)	28389	1262 (794)	0.082* (0.044)	25615	3,194*** (867)
Observations		46671	46671		51718	51718		68723
Unique women		4367	4367		4427	4427		4577
R-squared		0.22	0.28		NA	NA		NA

See table 3. The estimates here use state of residence during high school (rather than at age 21) to identify ELA.

Table C4E. Human Capital Accumulation and Occupational Upgrading: High School State

	(1)	(2)	(3)	(4)	(5)	(6)
	Cumulative	1=	Highest	1=Occupational	1= in	1=in Non-
	Experience	Enrolled	Grade	training since	Professional	traditional
	in Hours	in College	Completed	last interview	Job	Job
ELA * Age 20-24	-759**	0.026	-0.060	-0.001	ND	ND
	(299)	(0.019)	(0.110)	(0.013)		
ELA * Age 25-29	-980***	0.003	0.110	0.024*	0.035**	0.018*
	(346)	(0.008)	(0.109)	(0.013)	(0.017)	(0.010)
ELA * Age 30-34	331	ND	0.060	0.023	0.038*	0.052***
	(329)		(0.109)	(0.017)	(0.020)	(0.014)
ELA * Age 35-39	946*	0.002	0.100	ND	0.011	0.020
	(532)	(0.009)	(0.107)		(0.019)	(0.015)
ELA * Age 40-44	2,361***	ND	0.080	ND	0.011	ND
	(752)		(0.110)		(0.023)	
ELA * Age 45-49	1168	ND	0.030	ND	-0.014	-0.018
	(905)		(0.116)		(0.018)	(0.016)
Observations	57844	57881	79446	62932	7475	74275
Unique women	4048	3823	4582	4446	4582	4582
(Pseudo) R-squared	0.62	0.15	0.16	0.03	0.07	0.09
Mean of DV for 14-19	505	0.49	10.14	0.22	0.01	0.01
Mean of DV for 20-24	2751	0.25	12.14	0.21	0.09	0.05
Mean of DV for 25-29	6023	0.08	12.61	0.19	0.17	0.08
Mean of DV for 30-34	10898	0.07	12.92	0.25	0.20	0.14
Mean of DV for 35-39	16270	0.06	13.07	0.29	0.24	0.20
Mean of DV for 40-44	22851	0.05	13.21	0.31	0.26	0.23
Mean of DV for 45-49	30210	0.03	13.35	0.32	0.25	0.22

See table 4. The estimates here use state of residence during high school (rather than at age 21) to identify ELA. "ND" indicates estimate did not meet requirements for disclosure.

Table C3F Wages Rates and Annual Income for Men, CPS

		(1)	(2)		(3)	(4)		(5)
	Mean real hourly wages excl. zeros	Real hourly wage (excl. zeros)	Log real hourly wage	Mean real wages/salary last year excl. zeros	Wage or salary last year (excl. zeros)	Log real annual wage	Mean real wages/salary last year incl. zeros	Wage or salary last year (incl. zeros)
ELA * Ages 20-24	12.73	-0.06 (0.31)	-0.02 (0.019)	16521	-62 (823)	-0.05 (0.033)	15014	-491 (932)
ELA * Ages 25-29	14.94	0.14 (0.24)	-0.00 (0.012)	28651	-46 (730)	-0.03 (0.026)	26252	-447 (836)
ELA * Ages 30-34	16.63	0.12 (0.25)	0.00 (0.023)	34737	92 (654)	-0.02 (0.017)	30817	-408 (750)
ELA * Ages 35-39	18.48	0.05 (0.26)	0.00 (0.021)	40257	-42 (593)	0.00 (0.016)	34762	-271 (591)
ELA * Ages 40-44	19.39	-0.16 (0.22)	0.00 (0.018)	43819	-287 (679)	0.01 (0.017)	37055	-420 (672)
ELA * Ages 45-49	20.31	0.28 (0.19)	0.02** (0.009)	49596	363 (710)	0.024* (0.014)	41106	622 (763)
Observations R-squared		368,358 0.09	368,358 0.10		396,624 0.12	396,624 0.15		471,527 0.06

See table 3. The estimates here are for men of the same birth cohorts as the *NLS-YW*, using the 1968 through 2003 waves of the March CPS with restricted exact state identifiers. (Public use versions of the March CPS contain state groups for some states from 1968 to 1976.) The specification used is a variant of (1') that also includes year of observation fixed effects. Hourly wages are constructed by dividing wage earnings of the previous year by the product of weeks worked last year and hours worked last week.