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RESTRICTIONS ON MEDICAID FUNDING OF ABORTION:
EFFECTS ON PREGNANCY RESOLUTIONS AND BIRTH WEIGHT

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ABSTRACT

Previous research suggests that restricting the availability of abortion reduces average birth weight by increasing the number of unhealthy fetuses that are carried to term. In this paper we use data from the National Longitudinal Survey of Youth to ask whether restrictions on Medicaid funding of abortion have this effect. We attempt to account for the potential endogeneity of abortion laws by comparing the effects of liberal statutes to those of court injunctions ordering states to fund abortion.

Our results suggest that restrictions do increase the probability that African-American and low-income women carry a pregnancy to term, but that they have no direct effect on birth weight. In contrast, community-level measures of the availability of abortion, contraception, and prenatal care do affect birth weight among African-Americans but not among whites.

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Medicaid is a joint state/federal program of medical insurance for the poor, and the costs of most services are shared between the two levels of government. But the Hyde Amendment of 1978 restricted federal funding of abortion under the Medicaid program to cases in which the mother's life is in danger (Gold, 1982). This restriction has had the effect of eliminating federal funding of abortions. More than 99% of public funding for abortions currently comes from states (Gold and Guardado, 1988). Hence, poor women in states that do not pay for abortions under Medicaid may be unable to afford them.¹

There is a large body of literature documenting the relationship between the distribution of birth outcomes and the availability of abortion services (Glass et al., 1974; Lanman, Kohl and Bedell, 1974; Quick, 1978; Grossman and Jacobowitz, 1981; Corman and Grossman, 1985; Joyce, 1987; Grossman and Joyce, 1990; and Joyce and Grossman, 1990). These studies all suggest that the women who are most likely to have unhealthy babies if abortion is not available, are also most likely to choose abortion. Hence, laws that restrict access to abortion services may increase the number of unhealthy infants carried to term.

In this paper we use data from the National Longitudinal Survey of Youth to examine whether restrictions on the Medicaid funding of abortion have an effect on the probability that a pregnancy is carried to term, and whether they have any effect on

¹ In 1978, 31 states restricted the Medicaid funding of abortion; this number increased to 38 state by 1989.

average neonatal health, as measured by birth weight.² Birth weight is the single most important predictor of infant mortality (Institute of Medicine, 1985), and low birth weight infants account for a very high share of expenditures on neonatal care. Schwartz (1989) reports that infants weighing less than 2500 grams make up 9% of hospital neonatal caseloads but account for 57% of hospital neonatal costs.

We find that the probability that a pregnancy is carried to term is significantly affected by restrictions on the Medicaid funding of abortion, even after the availability of abortion services at the state and county-level have been controlled for. Since a state's decision to fund abortion may reflect unmeasured characteristics of state residents, we distinguish between states that freely choose to fund abortion and those that are forced to do so by court injunction. We argue that if the two legal regimes have similar effects, then these effects are unlikely to merely reflect omitted characteristics of state residents.

Secondly, we show that restrictions on the Medicaid funding of abortion per se have little impact on birth weight. In contrast, the percentage of counties in the state with abortion providers and the number of large hospitals in the county with prenatal care services have a significant positive effect on the birth weights of African-American children.

The rest of the paper proceeds as follows: In section 1 we

² Lundburg and Plotnick use the NLSY to examine the effects of Medicaid funding of abortion on the probability that white teenagers carry a pregnancy to term.

discuss our analytical framework. The data is described in section 2, and the results are presented in section 3. Section 4 concludes.

1. Analytical Framework

The economic model of the family (Becker and Lewis, 1973; Becker, 1981; Grossman, 1972; Willis, 1973) assumes that household utility depends upon the quantity and quality of children as well as on the consumption of goods and services. Each household faces a production function that determines the quantity and quality of children that can be produced, as well as a set of constraints and prices. The solution of a dynamic version of this model implies that at any point in time, there will be an optimal number of children C_t^* . If C_t is the actual number of children that a pregnant woman would have in the absence of an abortion, then a pregnant woman will choose to give birth if $b \equiv (C_t^* - C_t) \geq 0$.

Following Grossman and Joyce (1990) equations for the birth probability function and a birth weight production function can be specified as follows:

$$[1] \quad b = \alpha_1 z + \vartheta, \quad \vartheta = \alpha_2 c + \alpha_3 a + \alpha_4 e + \varphi, \quad \text{and}$$

$$[2] \quad w = \beta_1 x + v, \quad v = \beta_4 e + \omega,$$

where b is the probability that a pregnancy is carried to term, w is the birth weight, and ω and φ are unspecified random disturbances.

The vector z contains determinants of the optimal number of children such as family income, maternal education, and number of

mother's siblings. The vector c contains measures of the cost of contraception, a measures the cost of an abortion, and e measures the health endowment of the fetus. Rosenzweig and Schultz (1982, 1983, 1988), Joyce (1987), and Corman et al. (1987) emphasize that women with favorable fetal health endowments are more likely to give birth, other things being equal. We include the number of prior pregnancy losses as a measure of e .

The vector x includes exogenous determinants of the birth weight of the child such as the sex and race of the infant. Since the health of the fetus also enters [2], the model makes it clear that birth weight also depends indirectly on z , a , and c . Determinants of birth weight such as measures of the quality of prenatal care, smoking, and alcohol consumption, are potentially endogenous so reduced form versions of [2] that exclude these variables are estimated. We have also excluded birthorder on the grounds that the number of children is chosen by the mother. Including this variable in our models did not alter any of our conclusions.

Restrictions on the Medicaid funding of abortion will have a direct effect on the probability that a pregnancy is carried to term because they will increase a . Grossman and Joyce (1990) argue that increasing the cost of abortion will decrease the proportion of births that are "wanted". In turn, more babies will be born to mothers who receive inadequate prenatal care, smoke, drink, or engage in other behaviors detrimental to their fetuses. Hence, the average infant will be less healthy, and a should also have an

adverse effect on average birth weight.

Increases in the cost of contraception, c , will also lower the proportion of pregnancies that are "wanted", with adverse effects on fetal health. However, if abortion is available, increases in the cost of contraception relative to the cost of abortion may raise the proportion of pregnancies that end in abortion. If all unintended pregnancies are aborted then the increase in c will have no effect.

2. Data and Estimation

We combine information from the National Longitudinal Survey of Youth (NLSY) with state and county-level information from the Alan Guttmacher Institute (AGI) about the Medicaid funding of abortion, access to abortion services, and availability of prenatal care. The NLSY began in 1979 with 6,283 young women between the ages of 14 and 21. The survey contains information about the socio-economic backgrounds of the women, reproductive histories, and pregnancy outcomes. The NLSY is not a representative sample of the population of pregnant women because it focuses on young women, and because the survey oversampled African-Americans, hispanics, and the poor. However, it does focus on the young, minority women who are likely to be most affected by restrictions on the Medicaid funding of abortion, and who are most likely to bear children of low birth weight.

We will follow the previous literature and concentrate on birth weight rather than on the probability of low birth weight.

The reason for this is that only 8% of the infants are of low birth weight (less than or equal to 2500 grams) which makes it difficult to identify an effect in a sample of this size. We also group hispanics with whites. Preliminary work showed that the sample of hispanic births was not large enough to yield meaningful results and that it was more appropriate to group hispanics with whites than with African-Americans. In what follows, "white" refers to the white/hispanic group.

A comparison of the NLSY data with AGI data shows that while the number of births and pregnancy losses seems to be accurately reported, there is substantial under-reporting of abortions especially in the early years of the survey and among minorities (Cooksey, 1990; Lundberg and Plotnick, 1990; Jones and Forrest, 1992). The introduction of confidential reporting in 1984, and reconciliation of the new data with earlier data (i.e. by determining if a previously reported "loss" was really an abortion) improved the quality of the data but did not eliminate the problem.

AGI data on abortion ratios (abortions as a percent of live births and abortions) are obtained from providers rather than from surveys of individuals. The AGI data indicate that throughout the 1980s the abortion ratio for all women was approximately 30%. For whites only this ratio was 25-27% during the period and for all nonwhites it was approximately 39%. In contrast, in our NLSY sample the abortion ratio is 12% for all women, 12% for whites and

11% for African-Americans.³

In order to deal with the problem of under-reporting of abortions, we adopt several strategies. First, we report results separately for whites and African-Americans since those for whites should be less affected by under-reporting. We also present results separately for low-income and high-income women since restrictions on Medicaid funding of abortion should affect the former but not the latter group.⁴ Partitioning the data in these ways allows us to judge the plausibility of our results regarding the effect of restrictions on the probability that a pregnancy is carried to term. It is important to note that our estimates of the determinants of birth weight are not affected by the under-reporting of abortions since the number of births is accurately reported.

If under-reporting of abortion is a serious disadvantage of using survey data such as the NLSY, there are also significant advantages. First, the NLSY is a national sample that spans a long time period, so there are variations in the restrictions governing abortions both over time and across states.

Second, it is more reasonable to assume that laws restricting

³ We recalculated these numbers excluding all women who reported pregnancies before 1978 on the grounds that if women are more likely to abort a first pregnancy, then excluding women with first pregnancies before the beginning of the sample could result in artificially low abortion rates. However, the numbers were almost identical to those reported above.

⁴ Low-income is defined as \$18,000 and below while high income is above \$18,000 (1990 dollars). The \$18,000 cutoff was chosen because it is the median income in the sample.

abortion are exogenous when using individual-level data than it is to assume that they are exogenous when using county or state-level data -- individuals cannot change the laws they face except by moving to another jurisdiction whereas states make laws and counties enforce them. Even so, it is possible that there are omitted characteristics of individuals that affect birth probabilities, birth weights, and the probability of living in a state with restrictions on the Medicaid funding of abortion.

We explore this issue below by distinguishing between states that voluntarily fund abortions and those that are forced to fund abortions by court injunction. We assume that the actions of state legislatures reflect the wishes of the majority of voters in the state, whereas injunctions are imposed against the wishes of legislatures and therefore presumably against the wishes of most voters. If the endogeneity of the restrictions is a serious issue, then we expect that the effects of injunctions will differ from the effects of laws that are voluntarily adopted by state legislatures.

Finally, the individual-level data allow us to control for maternal characteristics in a more detailed way than would be possible using vital statistics records, for example. In the models estimated below, we control for the following determinants of the optimal quantity of children: maternal education, the number of maternal siblings, urban residence, region, race, hispanic ethnicity, and permanent income. The latter is defined as

the average real household income over the 1978 to 1990 period.⁵ We also include the woman's score on the Armed Forces Qualifications Test (AFQT) which can be viewed either as a measure of ability, or as a summary measure of family background. Since the test was administered to all of the women in 1980 and the women were of different ages, we normalize each score using the mean score for each year of age.

We also control for maternal age, the presence of a spouse or domestic partner, and previous pregnancy losses. All of these variables have been shown to be strongly related to the probability of abortion. Since these variables may reflect omitted characteristics of the mother that are correlated with the decision to have an abortion, we also present estimates from models that exclude these variables in an appendix. We do not include previous abortions and previous births in the model. While it is true that women who have previously had an abortion are more likely to have another, past choices shed little light on the factors underlying these decisions.

State-level data about Medicaid funding of abortions and the percentage of counties in a state that have abortion providers are taken from AGI surveys. Data on Medicaid funding is available for the years: 1980-1983, 1985, 1987, and 1990. Data on abortion

⁵ We use permanent income rather than point in time income because it is less subject to measurement error, and it is less likely than income at a point in time to be determined jointly with the decision to abort. If a woman is living with her parents then the measure of household income is taken to be the parents' income. Otherwise, it is the sum of her own income and any spouse or partner's income.

providers from AGI's periodic surveys of all known abortion providers is available for the years: 1978-82, 1984, 1985, 1987, and 1988. Information about the percentage of counties with abortion providers is included in the models estimated below as a proxy for the cost of an abortion, a , in [1] above.

State policies towards abortion are defined as nonrestrictive if the state provides Medicaid funding of abortion in all cases or in all "medically necessary" circumstances.⁶ Restrictive states are those that only pay for abortions under more stringent conditions, the most stringent being the federal requirement that the woman's life is endangered. In 1982, 99% of the state funding of abortion took place in non-restrictive states, while the 28 states that followed the federal standard reported no spending (Nestor and Gold, 1984).

Table 1 summarizes the information about state funding of abortions under Medicaid during the period under study. Nine states changed their policies over the sample period. These changes are highlighted in the table. In two instances, we were unable to determine the exact year of the change, so we have deleted pregnancies in the affected states and years from the sample.

Point-in-time county-level information is available from AGI for the number of hospitals with over 400 beds with outpatient

⁶ In states that fund abortion under all "medically necessary" circumstances, a woman is usually required to find a doctor willing to certify that the pregnancy endangers her health. However, doctors may consider the woman's mental or emotional health when making this determination.

services and one or more obstetrician-gynecologists (henceforth, hospitals with prenatal care), the number of clinics providing prenatal care, the number of obstetricians-gynecologists (OB-GYNs), the number of general and family practice (GP-FPs) physicians, and the fraction of births to unmarried women.⁷ If providers of prenatal care, OB-GYNs and GP-FPs provide contraceptive services (which seems likely), and if births to unmarried women could be reduced by increasing access to contraception, then all these variables can be thought of as proxies for the cost of contraception, c , in equation [1] above.

If increasing the availability of contraception decreases the number of unwanted pregnancies, the number of hospitals, clinics, OB-GYNs, and general or family practitioners will be associated with increases in the probability that a pregnancy is carried to term. Similarly, the percent of births to unmarried women should be associated with a decrease in the probability of a birth. We also include dummy variables for the year of the pregnancy in an effort to capture changes due to the aging of our sample and changes in attitudes towards abortion over time.

Since we are focusing on the choice between birth and

⁷ We also included the percentage of women in the county with incomes below 185% of the poverty level, the number of WIC (Special Supplemental Feeding Program for Women, Infants and Children) centers in the county, the number of births in the county, and the amount of AFDC (Aid to Families with Dependent Children) and Food Stamp income available to a woman with one child but found that these were not significant predictors of birth probabilities or birth weights when the other variables were also included in the model.

abortion, we exclude pregnancies that ended in a fetal loss.⁸ Births with missing birth weight and explanatory variables are also excluded. The resulting data set has information about 6543 pregnancies, 88% of which ended in a birth. Detailed variable definitions are given in Table 2 and means and standard errors of the variables are shown in Table 3 for each of the 5 groups we consider. The unit of observation is the pregnancy rather than the woman.

Table 3 shows that about half of all sample pregnancies occurred in states with restrictions on Medicaid funding of abortion, while slightly over a quarter occurred in states forced by injunction to fund abortion services nonrestrictively. African-American and low-income women were more likely to live in a state with a restrictive funding law, and African-American women were less likely to live in a state with nonrestrictive funding by injunction.

The typical pregnancy occurred in a state where only a third of the counties had an abortion provider and in a county where there was one clinic providing prenatal care for every 1000 births and one large hospital providing prenatal care for every 2000 births. There were .6 OB-GYNs and 1.4 family or general practitioners per 100 births in the county.

The average pregnant woman had slightly less than a high school education and lived in an urban area. Only slightly more

⁸ Pooling fetal losses and births had little effect on our estimates.

than half of the women had a spouse or partner present in the pregnancy year. African-American women in this sample tended to have lower AFQT scores and lower permanent income than white women. They also report fewer prior pregnancy losses, though their surviving infants tend to be of lower birth weight.

3. Results

a) Probability of a Birth

Probit estimates of the probability that a pregnancy is carried to term are shown in Table 4. The first column indicates that restrictions on Medicaid funding of abortion increase the probability of a birth. The results are disaggregated by race and income in columns (2) through (5). These estimates show that the effect of restrictions is statistically significant only for African-Americans and for low-income women. Given that the average African-American mother in our sample is also low-income, these are the two groups that one would expect to be most affected by restrictions.

The next line of the table shows that injunctions ordering states to fund abortion under their Medicaid program do not have a statistically significant effect on the probability of a birth. Since the left out legal regime is voluntary state funding of abortion, these estimates indicate that involuntary (i.e. court ordered) non-restrictive funding policies have the same effect as voluntary non-restrictive funding policies. As discussed above, we interpret this as evidence that the estimated effects of the legal

regimes are not biased by the omission of characteristics of state residents, and can be treated as exogenous variables from the individual's point of view.

Turning to our proxies for the costs of abortion and contraception, we see that the percentage of counties in the state with an abortion provider has a negative effect on the probability of birth. This variable is statistically significant for white women and for low-income women. The number of clinics providing prenatal care has a positive effect on the same two groups, while the number of OB-GYNs has a significant negative effect on the probability of a birth in every group. One explanation for this latter finding is that the number of OB-GYNs is a better proxy for the availability of abortion than for the cost of contraception. It may be true for example, that an OB-GYN is a high-cost provider of contraception beyond the reach of many women in our sample.

Several of the individual characteristics of mothers appear to be important. AFQT scores have a negative effect on the probability of a birth, while the number of siblings has a positive effect for all groups except African-Americans. Previous pregnancy losses have a positive effect on the probability of a birth among low-income women. Maternal age has a negative effect on the probability of a birth outcome among African-American women.

Finally, the presence of a spouse or domestic partner greatly increases the probability of a birth in every group, although the effects are more than twice as big for white and for high-income women as they are for African-American or low-income women. Given

the importance of prior losses, maternal age, and especially the presence of a spouse or partner in Table 4, it is important to note that the coefficients on the law and community-level variables are virtually unchanged if these variables are omitted.

In summary, although these estimates may be biased by under-reporting of abortion, we believe that they provide convincing evidence that restrictions on Medicaid funding of abortion do affect the probability that African-American and low-income women carry a pregnancy to term. Showing that these restrictions have an effect on the probability of abortion, among at least some groups of women, is a necessary first step in any attempt to link changes in the distribution of birth weight to abortion policy. We turn to this larger question in the next section.

b) Effects on Birth Weight

The effects of restrictions on the Medicaid funding of abortion on birth weight are shown in Table 5 and Table 6. The estimates in Table 5 are from a reduced form model in which the law variables are entered as regressors. Table 6 is based on a slightly more structural approach in which the law variables are assumed to affect birth weight only through their affect on the probability of a birth. Estimates from the birth probability equations were used to construct a "selection correction" term that was then included in the birth weight equation (see Heckman, 1979).

Both the reduced forms and the selection correction models indicate that restrictions have no direct effect on birth weight.

The injunction variable is also statistically insignificant which indicates that voluntary and court-ordered nonrestrictive Medicaid funding of abortion have the same effect.

Among the community-level variables, the percentage of counties with an abortion provider has a positive effect on birth weight among African-Americans, which is consistent with previous research. It is possible that abortion providers also provide prenatal care, but the number of prenatal care providers has been separately controlled for in the model. It appears then, that the availability of abortion reduces the number of low birth weight infants among African-Americans.

The number of large hospitals in the county offering prenatal care also has a positive effect on birth weights among African-Americans. The percentage of births to unmarried women, a variable that may reflect costs of contraception to some extent, has a negative effect on birth weight among low-income women. This result presumably reflects unmeasured factors in the communities where unmarried, poor women live that have adverse effects on birth weight. The fact that some community-level variables have statistically significant effects on birth weight suggests that the insignificant coefficients on the law variables are not due only to small sample sizes.

Several of the individual-level variables have an important effect on birth weight. Among whites and high-income women, birth weight increases with AFQT score, whereas among African-Americans, it increases with the highest grade completed. Permanent income

has a positive effect on birth weight except among high-income women. This result probably reflects a non-linear effect of income on birth weight. Consistent with previous research, we find that African-American children have lower birth weights and hispanic children have higher birth weights than white children of similar income (Cramer, 1987; Forbes and Frisbie, 1991). The fact that males weigh more at birth is also well-known. Finally, the presence of a spouse or domestic partner has a positive effect on birth weight except among low-income women. Once again, the results regarding legal regime and community-level variables are essentially unchanged if maternal age, previous pregnancy losses or marital status are omitted from the model.

4. Discussion and Conclusions

Our results suggest that laws restricting the Medicaid funding of abortion have no direct effect on birth weight, although they do increase the probability that African-American and low-income women will carry a pregnancy to term. In contrast, community-level measures of the availability of abortion, contraception, and prenatal care do affect birth weight among African-Americans. In particular, if every county in the state had an abortion provider, we estimate that African-American birth weights would increase by 8 ounces relative to having no abortion providers. An additional large hospital per 1000 births providing prenatal care increases African-American birth weights by 4 ounces. The estimates also indicate that if all births in the county were to unmarried women,

the mean birth weight among low-income women would be 12 ounces lower than if all births were to married women.

We concentrate on the law's effect on the resolution of existing pregnancies rather than on the decision to conceive. This focus raises the issue of whether state policy towards the funding of abortion affects pregnancy rates. Moore and Caldwell (1977), and Lundberg and Plotnick (1990) find that government policy towards abortion has little impact on pregnancy rates. In addition, studies of the liberalization of abortion laws in the early 1970's (Glass et al. 1974; Lanman et al., 1974) suggest that the increase in the number of legal abortions reflected a decrease in the number of illegal abortions, rather than an increase in the pregnancy rate.

Finally, the natural question raised by these results is the extent to which restrictions on the Medicaid funding of abortion reduce the number of providers of abortion, contraception, and prenatal care services. It might be true, for example, that Medicaid funding of abortions is necessary to the financial viability of clinics providing health services to low-income women. This is a difficult question to resolve because any relationship between laws regarding Medicaid funding of abortion and the availability of abortion services at the state or county level is likely to be confounded by the presence of omitted state or county characteristics. County-level time-series data on availability would enable researchers to identify the effects of legal regime on availability by controlling for fixed characteristics of counties.

References

- Becker, Gary S. and Lewis, H. Gregg. "On the Interaction between the Quantity and Quality of Children", Journal of Political Economy, 81 # 2, 1973, s279-s288.
- Becker, Gary S. A Treatise on the Family, Cambridge MA: Harvard University Press, 1981.
- Cooksey, Elizabeth C. "Factors in the Resolution of Adolescent Premarital Pregnancies", Demography, 27 #2, May 1990, 207-218.
- Corman, Hope; and Grossman, Michael. "Determinants of Neonatal Mortality Rates in the U.S.: A Reduced Form Model", Journal of Health Economics, 4, 1985, 213-236.
- Corman, Hope; Joyce, Theodore J; and Grossman, Michael. "Birth Outcome Production Functions in the United States", The Journal of Human Resources, 22, 1987, 339-360.
- Cramer, James. Explaining Demographic Differences in Low Birth Weight and Infant Mortality, final research report, Center for Population Research, National Institute of Child Health and Human Development, 1987.
- Forbes, Douglas and Parker Frisbie. "Spanish Surname and Anglo Infant Mortality: Differences Over a Half-Century," Demography, 28 # 4, 1991, 639-660.
- Glass, L.H.; Swartz, D.P.; Rajegowda, B.K; and Leblanc, W. "Effects of Legalized Abortion on Neonatal Morality and Obstetrical Morbidity at Harlem Hospital Center", American Journal of Public Health, 64, 1974, 717-718.
- Gold, Rachel B. "Publicly Funded Abortions in FY1980 and FY1981", Family Planning Perspectives, 14 #4, July/August 1982, 204-207.
- Gold, Rachel B. and Guardado, Sandra. "Public Funding of Family Planning, Sterilization, and Abortion Services, 1987", Family Planning Perspectives, 20 #5, Sept./Oct. 1988, 228-233.
- Grossman, Michael. "On the Concept of Health Capital and the Demand for Health", Journal of Political Economy, 80, 1972, 223-255.
- Grossman, Michael, and Joyce, Theodore J. "Unobservables, Pregnancy Resolutions, and Birth Weight Production Functions in New York City", Journal of Political Economy, 98 #5, 1990, 983-1007.
- Grossman, Michael and Jacobowitz, Steven. "Variations in Infant Mortality Rates Among Counties of the United States: The Roles of Public Policies and Programs", Demography, 18 #4, 1981, 695-713.

Heckman, James J. "Sample Selection Bias as a Specification Error", Econometrica, 47 #1, January 1979, 153-161.

Henshaw, Stanley K. "Abortion Trends in 1987 and 1988: Age and Race", Family Planning Perspectives, 24 #2, March/April 1992, 85-87.

Institute of Medicine. Preventing Low Birth Weight, Washington D.C.: National Academy Press, 1985.

Jones, Elise F. and Forrest, Jacqueline Darroch. "Underreporting of Abortion in Surveys of U.S. Women: 1976 to 1988", Demography, 29 #1, February 1992, 113-126.

Joyce, Theodore. "The Impact of Induced Abortion on Black and White Birth Outcomes in the United States", Demography, 24 #2, May 1987, 229-244.

Joyce, Theodore J., and Grossman, Michael. "Pregnancy Wantedness and the Early Initiation of Prenatal Care", Demography, 27 #1, February 1990, 1-17.

Lanman, J.I; Kohl, K.G.;and Bedell, J.H. "Changes in Pregnancy Outcomes After Liberalization of New York State Abortion Laws", American Journal of Obstetrics and Gynecology, 18, 1974, 485-492.

Lundberg, Shelly and Plotnick, Robert. "Effects of State Welfare, Abortion, and Family Planning Policies on Premarital Childbearing Among White Adolescents", Family Planning Perspectives, 22 #6, Nov./Dec. 1990.

Moore Kristin A., and Caldwell, Steven B. "The Effect of Government Policies on Out-of-Wedlock Sex and Pregnancy", Family Planning Perspectives, 16 #3, July/August 1977, 164-169.

Nestor, Barry and Gold, Rachel. "Public Funding of Contraceptive, Sterilization, and Abortion Services, 1982", Family Planning Perspectives, 16 #3, May/June 1984, 128-133.

Quick, J.D. "Liberalized Abortion in Oregon: Effects on Fertility, Prematurity, Fetal Death and Infant Death", American Journal of Public Health, 68, 1978, 1003-1008.

Rosenzweig, Mark and Schultz, T. Paul. "The Behavior of Mothers as Inputs to Child Health: The Determinants of Birth Weight, Gestation, and Rate of Fetal Growth", in Economic Aspects of Health, edited by Victor R. Fuchs, Chicago: University of Chicago Press, 1982.

Rosenzweig, Mark and Schultz, T. Paul. "Estimating a Household Production function: Heterogeneity, the Demand for Health Inputs and Their Effects on Birthweight", Journal of Political Economy,

91, 1983, 723-746.

Rosenzweig, Mark and Schultz, T. Paul. "The Stability of Household Production Technology: A Replication", Journal of Human Resources, 23, Fall 1988, 535-49.

Schwartz, Rachel. "What 'Price Prematurity?", Family Planning Perspectives, 21 #4, July/August 1989, 170-174.

Willis, Robert J. "A New Approach to the Economic Theory of Fertility Behavior", Journal of Political Economy, 81 #2, 1973, s14-s64.

TABLE 1 - MEDICAID FUNDING OF ABORTIONS 1978-1989

	78	79	80	81	82	83	84	85	86	87	88	89
ALABAMA	X	X	X	X	X	X	X	X	X	X	X	X
ALASKA	O	O	O	O	O	O	O	O	O	O	O	O
ARIZONA	X	X	X	X	X	X	X	X	X	X	X	X
ARKANSAS	X	X	X	X	X	X	X	X	X	X	X	X
CALIFORNIA	I	I	I	I	I	I	I	I	I	I	I	I
COLORADO	O	O	O	O	O	O	O	O	X	X	X	X
CONNECTICUT	I	I	I	I	I	I	I	I	I	I	I	I
DELAWARE	X	X	X	X	X	X	X	X	X	X	X	X
D. C.	O	O	O	O	O	O	O	O	O	O	O	X
FLORIDA	X	X	X	X	X	X	X	X	X	X	X	X
GEORGIA	I	I	I	I	X	X	X	X	X	X	X	X
HAWAII	O	O	O	O	O	O	O	O	O	O	O	O
IDAHO	X	X	X	X	X	X	X	X	X	X	X	X
ILLINOIS	I	I	I	I	X	X	X	X	X	X	X	X
INDIANA	X	X	X	X	X	X	X	X	X	X	X	X
IOWA	X	X	X	X	X	X	X	X	X	X	X	X
KANSAS	X	X	X	X	X	X	X	X	X	X	X	X
KENTUCKY	X	X	X	X	X	X	X	X	X	X	X	X
LOUISIANA	X	X	X	X	X	X	X	X	X	X	X	X
MAINE	X	X	X	X	X	X	X	X	X	X	X	X
MARYLAND	O	O	O	O	O	O	O	O	O	O	O	O
MASSACHUSETTS	I	I	I	I	I	I	I	I	I	I	I	I
MICHIGAN	O	O	O	O	O	O	O	O	O	I	I	X
MINNESOTA	I	I	I	I	X	X	X	X	X	X	X	X
MISSISSIPPI	X	X	X	X	X	X	X	X	X	X	X	X
MISSOURI	X	X	X	X	X	X	X	X	X	X	X	X
MONTANA	X	X	X	X	X	X	X	X	X	X	X	X
NEBRASKA	X	X	X	X	X	X	X	X	X	X	X	X
NEVADA	X	X	X	X	X	X	X	X	X	X	X	X
NEW HAMPSHIRE	X	X	X	X	X	X	X	X	X	X	X	X
NEW JERSEY	I	I	I	I	I	I	I	I	I	I	I	I
NEW MEXICO	X	X	X	X	X	X	X	X	X	X	X	X
NEW YORK	O	O	O	O	O	O	O	O	O	O	O	O
NORTH CAROLINA	O	O	O	O	O	O	O	O	O	O	O	O
NORTH DAKOTA	X	X	X	X	X	X	X	X	X	X	X	X
OHIO	I	I	I	I	X	X	X	X	X	X	X	X
OKLAHOMA	X	X	X	X	X	X	X	X	X	X	X	X
OREGON	O	O	O	O	O	O	O	O	O	O	O	O
PENNSYLVANIA	I	I	I	I	I	I	*	X	X	X	X	X
RHODE ISLAND	X	X	X	X	X	X	X	X	X	X	X	X
SOUTH CAROLINA	X	X	X	X	X	X	X	X	X	X	X	X
SOUTH DAKOTA	X	X	X	X	X	X	X	X	X	X	X	X
TENNESSEE	X	X	X	X	X	X	X	X	X	X	X	X
TEXAS	X	X	X	X	X	X	X	X	X	X	X	X
UTAH	X	X	X	X	X	X	X	X	X	X	X	X
VERMONT	X	X	X	X	X	X	*	I	I	I	I	I
VIRGINIA	X	X	X	X	X	X	X	X	X	X	X	X
WASHINGTON	O	O	O	O	O	O	O	O	O	O	O	O
WEST VIRGINIA	O	O	O	O	O	O	O	O	O	O	O	O
WISCONSIN	X	X	X	X	X	X	X	X	X	X	X	X
WYOMING	X	X	X	X	X	X	X	X	X	X	X	X

Notes: X=Restrictive; O=Nonrestrictive-Voluntary; I=Nonrestrictive-Court Injunction; Information on sources and procedure for filling in missing data is available in Data Appendix. An asterisk indicates that we were unable to obtain information.

TABLE 2 - VARIABLE DEFINITIONS

LAWS:

Restrictive 1 if state funding of abortions is subject to restrictions, 0 if nonrestrictive voluntarily or nonrestrictive by court order.

Injunction 1 if state funding of abortions is nonrestrictive by court order, 0 if nonrestrictive voluntarily or restrictive.

COMMUNITY:

Abortion providers Percent of counties with abortion providers in state of residence, year of pregnancy.

Hospitals Number of large hospitals (400+ births) with outpatient services and 1+ ob-gyns in county, per 1000 births, 1987-88.

Other Clinics Number of community health centers with primary health care services and local health departments with direct prenatal care in county, per 1000 births, 1988.

OB-GYNs Number of obstetrician-gynecologists in county, per 100 births, 1988.

GP-FPs Number of general and family practice physicians in county, per 100 births, 1988.

Births-Unmarried Fraction of total births in county that are to unmarried women, 1984-1986.

INDIVIDUAL:

Birth 1 if pregnancy ended in birth, 0 if ended in abortion.

Top Grade Highest grade completed as of year pregnancy began.

AFQT Score Score on Armed Forces Qualifications Test (AFQT) normalized by mean score for age.

Permanent Income Mean real income over all years (in 10 thousands).

Siblings Number of siblings, 1979.

Urban 1 if urban residence at age 14, 0 if rural.

African-American 1 if African-American, 0 if White or Hispanic.

Hispanic 1 if Hispanic, 0 if White or African-American.

Prior Losses Number of pregnancy losses prior to this pregnancy.

Age Age (yrs) in year of pregnancy.

Spouse/Partner 1 if spouse/partner present in household in year of pregnancy.

Birth Weight Weight of infant in ounces.

Male 1 if infant is male, 0 if female.

Region 10 dummy variables for Census region.

TABLE 3 - VARIABLE MEANS and STANDARD ERRORS*

<u>LAWS</u>	<u>ALL</u>	<u>WHITE/ HISPANIC</u>	<u>AFRICAN- AMERICAN</u>	<u>LOW** INCOME</u>	<u>HIGH INCOME</u>
Restrictive	.527 (.006)	.502 (.007)	.596 (.012)	.535 (.009)	.519 (.009)
Injunction	.286 (.006)	.311 (.007)	.219 (.010)	.272 (.008)	.300 (.008)
<u>COMMUNITY</u>					
Abortion Providers	.333 (.003)	.352 (.004)	.280 (.006)	.317 (.005)	.349 (.005)
Hospitals	.491 (.006)	.475 (.006)	.534 (.011)	.486 (.008)	.496 (.007)
Other Clinics	1.056 (.026)	.952 (.030)	1.341 (.053)	1.256 (.042)	.858 (.031)
OB-GYNS	.607 (.004)	.580 (.005)	.679 (.009)	.582 (.006)	.631 (.006)
GP-FPS	1.393 (.008)	1.450 (.010)	1.233 (.012)	1.376 (.011)	1.409 (.011)
Births-Unmarried	.233 (.001)	.209 (.001)	.296 (.002)	.247 (.002)	.218 (.002)
<u>INDIVIDUAL</u>					
Birth	.879 (.004)	.877 (.005)	.886 (.008)	.885 (.006)	.873 (.006)
Top Grade	11.810 (.027)	11.815 (.033)	11.798 (.044)	10.967 (.036)	12.647 (.034)
AFQT Score	.860 (.008)	.988 (.009)	.508 (.011)	.588 (.009)	1.130 (.011)
Permanent Income	2.039 (.015)	2.233 (.018)	1.503 (.024)	1.140 (.007)	2.931 (.019)
Siblings	4.227 (.034)	3.953 (.036)	4.982 (.076)	4.818 (.054)	3.642 (.040)
Urban	.792 (.005)	.787 (.006)	.807 (.009)	.795 (.007)	.790 (.007)
African-American	.267 (.005)			.379 (.008)	.155 (.006)
Hispanic	.189 (.005)			.207 (.007)	.171 (.007)
Prior Losses	.165 (.006)	.181 (.007)	.120 (.009)	.175 (.009)	.155 (.008)
Age	22.251 (.045)	22.447 (.052)	21.712 (.085)	21.396 (.061)	23.099 (.062)
Spouse/Partner	.540 (.006)	.632 (.007)	.288 (.011)	.411 (.009)	.669 (.008)
Birth Weight***	116.597 (.281)	118.441 (.320)	111.576 (.558)	113.585 (.408)	119.632 (.378)
Male***	.515 (.007)	.524 (.008)	.491 (.013)	.508 (.009)	.522 (.009)
Observations	6543	4799	1744	3259	3284

Notes:

*Standard Errors in Parentheses

**Low Income refers to \$18,000 and below; High Income is above \$18,000

*** Birth weight and gender are observed only for live births. The number of births in columns 1 to 5 are: 5749, 4205, 1544, 2885, and 2864, respectively.

TABLE 4 - BIRTH PROBABILITY -- PROBIT RESULTS

	<u>ALL</u>	<u>WHITE/ HISPANIC</u>	<u>AFRICAN- AMERICAN</u>	<u>LOW** INCOME</u>	<u>HIGH INCOME</u>
Intercept	1.80 (.29)*	1.26 (.34)	3.35 (.68)	2.90 (.43)	.75 (.44)
<u>LAWS</u>					
Restrictive	.19 (.07)	.13 (.09)	.33 (.15)	.24 (.10)	.07 (.11)
Injunction	.05 (.06)	-.01 (.08)	.16 (.13)	-.07 (.09)	.13 (.10)
<u>COMMUNITY</u>					
Abortion Providers	-.32 (.15)	-.35 (.18)	-.26 (.30)	-.47 (.22)	-.35 (.22)
Hospitals	.08 (.06)	.07 (.07)	.10 (.13)	.06 (.08)	.10 (.09)
Other Clinics	.08 (.02)	.09 (.03)	.07 (.04)	.14 (.04)	.05 (.03)
OB-GYNs	-.35 (.07)	-.33 (.09)	-.36 (.13)	-.38 (.10)	-.29 (.10)
GP-FPs	.01 (.04)	.02 (.04)	-.12 (.10)	.00 (.06)	.01 (.06)
Births-Unmarried	-.39 (.26)	-.51 (.32)	-.20 (.49)	-.27 (.39)	-.48 (.38)
<u>INDIVIDUAL</u>					
Top Grade	.01 (.01)	.01 (.02)	-.01 (.03)	-.00 (.02)	.02 (.02)
AFQT Score	-.28 (.05)	-.32 (.05)	-.16 (.11)	-.38 (.07)	-.24 (.06)
Permanent Income	.02 (.02)	.02 (.02)	-.01 (.05)	-.04 (.09)	.02 (.03)
Siblings	.03 (.01)	.05 (.01)	.01 (.01)	.03 (.01)	.03 (.01)
Urban	-.11 (.06)	-.05 (.07)	-.29 (.14)	-.22 (.09)	-.03 (.08)
African-American	.10 (.07)			.05 (.09)	.07 (.10)
Hispanic	.02 (.07)			-.01 (.10)	.08 (.10)
Prior Losses	.09 (.05)	.09 (.06)	.03 (.12)	.14 (.07)	.06 (.09)
Age	-.02 (.01)	-.01 (.01)	-.06 (.02)	-.03 (.02)	-.01 (.02)
Spouse/Partner	.68 (.05)	.81 (.06)	.20 (.10)	.35 (.07)	.96 (.07)
Regional Dummies	[9]	[9]	[9]	[9]	[9]
Year Dummies	[11]	[11]	[11]	[11]	[11]

Observations	6543	4799	1744	3259	3284
Log-likelihood	-2109.09	-1514.03	-556.58	-1024.56	-1020.80

Notes:

*Standard Errors in Parentheses

**Low Income refers to \$18,000 and below; High Income is above \$18,000

TABLE 5 - BIRTH WEIGHT OLS RESULTS, REDUCED FORM

	<u>ALL</u>	<u>WHITE/ HISPANIC</u>	<u>AFRICAN- AMERICAN</u>	<u>LOW** INCOME</u>	<u>HIGH INCOME</u>
Intercept	108.81 (3.67)*	107.94 (4.14)	103.98 (8.58)	110.58 (5.37)	109.00 (5.25)
<u>LAWS</u>					
Restrictive	-.29 (.97)	-.27 (1.10)	-.60 (2.12)	.41 (1.41)	-1.53 (1.33)
Injunction	-.82 (.93)	-.09 (1.08)	-2.43 (1.99)	-1.31 (1.35)	-.40 (1.30)
<u>COMMUNITY</u>					
Abortion Providers	4.04 (2.07)	2.29 (2.41)	8.20 (4.31)	3.95 (3.03)	2.70 (2.86)
Hospitals	1.29 (.64)	.24 (.76)	3.97 (1.26)	1.32 (.89)	.91 (.93)
Other Clinics	.06 (.14)	.03 (.15)	.36 (.34)	.11 (.18)	.05 (.22)
OB-GYNs	-1.12 (.89)	-1.13 (1.11)	-.68 (1.66)	-.89 (1.26)	-1.31 (1.29)
GP-FPs	-.19 (.47)	-.18 (.52)	-1.20 (1.26)	-.21 (.68)	.16 (.65)
Births-Unmarried	-6.30 (3.33)	-2.55 (4.22)	-8.89 (6.17)	-12.13 (4.79)	.72 (4.80)
<u>INDIVIDUAL</u>					
Top Grade	.20 (.18)	.02 (.20)	.92 (.42)	.24 (.25)	.15 (.26)
AFQT Score	2.62 (.62)	2.98 (.65)	.17 (1.62)	1.03 (1.03)	2.90 (.78)
Permanent Income	.84 (.28)	.63 (.31)	1.58 (.74)	2.52 (1.22)	-.21 (.37)
Siblings	.14 (.11)	.18 (.13)	.05 (.18)	.21 (.14)	-.02 (.17)
Urban	-.61 (.70)	-.34 (.80)	-1.08 (1.48)	-.81 (1.05)	-.06 (.96)
African-American	-2.87 (.86)			-2.09 (1.22)	-2.95 (1.27)
Hispanic	1.22 (.89)			3.16 (1.35)	-.97 (1.18)
Prior Losses	.10 (.59)	-.02 (.64)	.27 (1.53)	.58 (.84)	-.48 (.84)
Age	.02 (.14)	.20 (.16)	-.47 (.29)	.00 (.20)	-.00 (.20)
Spouse/Partner	2.70 (.65)	2.49 (.75)	2.90 (1.33)	.89 (.93)	3.96 (.93)
Male	4.05 (.55)	3.95 (.63)	4.41 (1.11)	4.15 (.81)	3.86 (.75)
Regional Dummies	[9]	[9]	[9]	[9]	[9]
Year Dummies	[11]	[11]	[11]	[11]	[11]

Observations	5749	4205	1544	2885	2864
R-Squared	.058	.041	.054	.048	.052

Notes:

*Standard Errors in Parentheses

**Low Income refers to \$18,000 and below; High Income is above \$18,000

TABLE 6 - BIRTH WEIGHT OLS RESULTS, SELECTION CORRECTION

	<u>ALL</u>	<u>WHITE/ HISPANIC</u>	<u>AFRICAN- AMERICAN</u>	<u>LOW** INCOME</u>	<u>HIGH INCOME</u>
Intercept	108.61 (3.59)*	107.81 (4.29)	102.65 (9.65)	111.29 (5.70)	108.27 (5.97)
Mills Ratio	-.41 (5.89)	-.31 (6.19)	-3.80 (12.95)	.55 (7.98)	-.93 (7.37)
<u>COMMUNITY</u>					
Abortion Providers	3.86 (1.92)	2.63 (2.13)	8.60 (4.26)	2.36 (3.20)	4.64 (2.31)
Hospitals	1.26 (.65)	.23 (.77)	3.84 (1.31)	1.33 (.91)	.86 (.94)
Other Clinics	.05 (.14)	.03 (.16)	.31 (.34)	.09 (.19)	.04 (.22)
OB-GYNs	-1.08 (1.07)	-1.10 (1.26)	-.49 (2.00)	-.97 (1.53)	-1.32 (1.40)
GP-FPs	-.21 (.47)	-.18 (.51)	-1.19 (1.30)	-.29 (.68)	.12 (.65)
Births-Unmarried	-6.43 (3.35)	-2.61 (4.23)	-9.81 (6.19)	-12.47 (4.83)	.38 (4.81)
<u>INDIVIDUAL</u>					
Top Grade	.20 (.18)	.02 (.20)	.92 (.42)	.24 (.25)	.15 (.26)
AFQT Score	2.66 (.76)	3.00 (.83)	.41 (1.74)	1.01 (1.33)	2.96 (.91)
Permanent Income	.83 (.28)	.63 (.31)	1.61 (.75)	2.51 (1.22)	-.22 (.37)
Siblings	.13 (.11)	.18 (.15)	.04 (.19)	.21 (.15)	-.03 (.17)
Urban	-.63 (.72)	-.36 (.80)	-.86 (1.70)	-.90 (1.12)	-.13 (.96)
African-American	-2.89 (.88)			-2.09 (1.23)	-2.92 (1.27)
Hispanic	1.21 (.88)			3.19 (1.35)	-1.05 (1.18)
Prior Losses	.10 (.60)	-.02 (.65)	.29 (1.53)	.63 (.88)	-.48 (.84)
Age	.02 (.15)	.20 (.16)	-.43 (.36)	-.01 (.22)	-.00 (.20)
Spouse/Partner	2.62 (1.29)	2.42 (1.66)	2.78 (1.49)	.97 (1.18)	3.67 (2.42)
Male	4.04 (.55)	3.95 (.63)	4.40 (1.11)	4.15 (.81)	3.86 (.75)
Regional Dummies	[9]	[9]	[9]	[9]	[9]
Year Dummies	[11]	[11]	[11]	[11]	[11]

Observations	5749	4205	1544	2885	2864
R-Squared	.058	.041	.053	.047	.051

Notes:

*Standard Errors in Parentheses

**Low Income refers to \$18,000 and below; High Income is above \$18,000

APPENDIX TABLE A - BIRTH PROBABILITY -- PROBIT RESULTS

	<u>ALL</u>	<u>WHITE/ HISPANIC</u>	<u>AFRICAN- AMERICAN</u>	<u>LOW** INCOME</u>	<u>HIGH INCOME</u>
Intercept	1.85 (.24)*	1.60 (.28)	2.59 (.60)	2.57 (.37)	1.17 (.36)
<u>LAWS</u>					
Restrictive	.19 (.07)	.15 (.08)	.33 (.15)	.24 (.10)	.11 (.10)
Injunction	.04 (.06)	-.01 (.07)	.13 (.13)	-.09 (.09)	.13 (.09)
<u>COMMUNITY</u>					
Abortion Providers	-.34 (.15)	-.33 (.17)	-.31 (.29)	-.50 (.22)	-.35 (.21)
Hospitals	.09 (.06)	.09 (.06)	.12 (.13)	.07 (.08)	.12 (.08)
Other Clinics	.08 (.02)	.09 (.03)	.07 (.04)	.14 (.04)	.04 (.03)
OB-GYNs	-.38 (.07)	-.39 (.08)	-.38 (.13)	-.40 (.10)	-.35 (.10)
GP-FPs	-.02 (.04)	.00 (.04)	-.11 (.10)	-.01 (.06)	.00 (.05)
Births-Unmarried	-.51 (.26)	-.69 (.31)	-.20 (.49)	-.41 (.38)	-.47 (.36)
<u>INDIVIDUAL</u>					
Top Grade	.00 (.01)	.02 (.01)	-.04 (.03)	-.02 (.02)	.03 (.02)
AFQT Score	-.28 (.04)	-.32 (.05)	-.12 (.11)	-.37 (.09)	-.27 (.06)
Permanent Income	.05 (.02)	.06 (.02)	.00 (.05)	.04 (.09)	.04 (.03)
Siblings	.03 (.01)	.04 (.01)	.01 (.01)	.03 (.01)	.03 (.01)
Urban	-.11 (.06)	-.06 (.07)	-.28 (.14)	-.21 (.09)	-.04 (.08)
African-American	-.07 (.06)			-.03 (.09)	-.15 (.09)
Hispanic	-.02 (.07)			-.02 (.10)	-.04 (.09)
Regional Dummies	[9]	[9]	[9]	[9]	[9]
Year Dummies	[11]	[11]	[11]	[11]	[11]

Observations	6559	4813	1746	3266	3293
Log Likelihood	-2213.80	-1631.02	-562.57	-1042.45	-1128.03

Notes:

*Standard Errors in Parentheses

**Low Income refers to \$18,000 and below; High Income is above \$18,000

APPENDIX TABLE B - BIRTH WEIGHT OLS RESULTS, REDUCED FORM

	<u>ALL</u>	<u>WHITE/ HISPANIC</u>	<u>AFRICAN- AMERICAN</u>	<u>LOW** INCOME</u>	<u>HIGH INCOME</u>
Intercept	110.63 (3.01) *	112.44 (3.39)	97.22 (7.58)	111.13 (4.27)	111.22 (4.52)
<u>LAWS</u>					
Restrictive	-.20 (.97)	-.12 (1.10)	-.72 (2.12)	.45 (1.41)	-1.39 (1.34)
Injunction	-.79 (.93)	.00 (1.07)	-2.75 (1.99)	-1.33 (1.35)	-.26 (1.31)
<u>COMMUNITY</u>					
Abortion Providers	4.09 (2.07)	2.40 (2.41)	8.01 (4.30)	3.97 (3.03)	2.62 (2.87)
Hospitals	1.35 (.64)	.31 (.76)	4.21 (1.26)	1.33 (.89)	.96 (.93)
Other Clinics	.07 (.14)	.04 (.15)	.40 (.34)	.12 (.18)	.04 (.22)
OB-GYNs	-1.25 (.90)	-1.33 (1.11)	-.71 (1.66)	-.93 (1.26)	-1.50 (1.29)
GP-FPs	-.27 (.47)	-.26 (.51)	-1.21 (1.26)	-.21 (.68)	.05 (.65)
Births-Unmarried	-7.16 (3.33)	-3.67 (4.22)	-9.65 (6.16)	-12.85 (4.77)	.41 (4.81)
<u>INDIVIDUAL</u>					
Top Grade	.26 (.17)	.13 (.19)	.76 (.39)	.23 (.24)	.26 (.24)
AFQT Score	2.58 (.61)	2.93 (.65)	.34 (1.61)	1.02 (1.03)	2.75 (.77)
Permanent Income	1.03 (.28)	.82 (.30)	1.83 (.72)	2.75 (1.19)	-.15 (.37)
Siblings	.14 (.11)	.19 (.13)	.04 (.18)	.21 (.14)	-.02 (.17)
Urban	-.61 (.70)	-.38 (.80)	-.92 (1.48)	-.82 (1.04)	-.05 (.96)
African-American	-3.82 (.84)			-2.37 (1.19)	-4.10 (1.25)
Hispanic	.96 (.88)			3.15 (1.35)	-1.50 (1.17)
Male	4.10 (.55)			4.17 (.81)	3.88 (.75)
Regional Dummies	[9]	[9]	[9]	[9]	[9]
Year Dummies	[11]	[11]	[11]	[11]	[11]

Observations	5764	4219	1545	2891	2873
R-Squared	.055	.038	.050	.047	.045

Notes:

*Standard Errors in Parentheses

**Low Income refers to \$18,000 and below; High Income is above \$18,000

APPENDIX TABLE C - BIRTH WEIGHT OLS RESULTS, SELECTION CORRECTION

	<u>ALL</u>	<u>WHITE/ HISPANIC</u>	<u>AFRICAN- AMERICAN</u>	<u>LOW** INCOME</u>	<u>HIGH INCOME</u>
Intercept	110.45 (2.91)*	112.25 (3.34)	95.19 (7.61)	110.73 (4.45)	110.65 (4.88)
Mills Ratio	-4.11 (7.59)	1.21 (8.30)	-11.00 (13.47)	-4.36 (8.33)	-2.25 (10.25)
<u>COMMUNITY</u>					
Abortion Providers	4.50 (2.17)	2.36 (2.38)	10.09 (4.51)	3.61 (3.34)	4.68 (2.56)
Hospitals	1.21 (.67)	.34 (.79)	3.81 (1.34)	1.22 (.91)	.86 (.99)
Other Clinics	.03 (.15)	.05 (.17)	.30 (.34)	.06 (.19)	.03 (.23)
OB-GYNs	-.79 (1.24)	-1.46 (1.48)	.12 (2.05)	-.44 (1.58)	-1.35 (1.66)
GP-FPs	-.27 (.47)	-.26 (.51)	-1.03 (1.30)	-.29 (.68)	.02 (.65)
Births-Unmarried	-6.85 (3.43)	-3.88 (4.36)	-10.10 (6.20)	-12.65 (4.86)	.26 (4.87)
<u>INDIVIDUAL</u>					
Top Grade	.25 (.17)	.13 (.19)	.85 (.42)	.24 (.25)	.24 (.26)
AFQT Score	2.94 (.89)	2.81 (1.01)	.80 (1.67)	1.53 (1.36)	2.93 (1.13)
Permanent Income	.96 (.30)	.84 (.34)	1.91 (.72)	2.69 (1.20)	-.17 (.38)
Siblings	.11 (.12)	.20 (.16)	.01 (.19)	.18 (.15)	-.04 (.19)
Urban	-.53 (.73)	-.41 (.81)	-.28 (1.68)	-.67 (1.12)	-.09 (.96)
African-American	-3.73 (.85)			-2.37 (1.19)	-3.93 (1.36)
Hispanic	.98 (.88)			3.12 (1.35)	-1.51 (1.18)
Male	4.09 (.55)	3.99 (.63)	4.54 (1.11)	4.18 (.81)	3.88 (.75)
Regional Dummies	[9]	[9]	[9]	[9]	[9]
Year Dummies	[11]	[11]	[11]	[11]	[11]

Observations	5764	4219	1545	2891	2873
R-Squared	.055	.038	.049	.047	.045

Notes:

*Standard Errors in Parentheses

**Low Income refers to \$18,000 and below; High Income is above \$18,000