

The Impact of Welfare Reform on Rates of Abortion

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Abstract

Many studies have shown that some rather personal decisions have been influenced by the generosity of a state's welfare program. Ozawa (1989), Caudill and Mixon (1993), and Clark and Strauss (1998) have all established a positive relationship between the level of financial support to unwed mothers and rates of fertility. Of course, having children is the result of having unprotected sexual relations. Such relations can lead to other outcomes besides the birth of a child. Ressler *et al.* (2005) and Ressler *et al.* (2006) found a positive link between the generosity of a state's welfare payments and contraction rates of HIV and other STDs, respectively. Most important to the current research, Leibowitz *et al.* (1986) as well as Gohmann and Ohsfeldt (1993) found an inverse relationship between welfare support and rates of abortion.

In 1996, President Clinton signed into law the "Personal Responsibility and Work Opportunity Reconciliation Act" – commonly referred to as Welfare Reform. Prior to this law, welfare was administered under Aid to Families with Dependent Children or AFDC. The welfare reform law introduced a new program known as Temporary Assistance for Needy Families (TANF). The most significant difference between the two programs is that under TANF a family can receive assistance for a maximum of five years. No such time limit existed under AFDC.

The calculus of optimization for welfare recipients changed in the wake of welfare reform. For example, Ressler *et al.* (2011) demonstrated that the effect of TANF payments on HIV contraction rates is significantly less than that of AFDC payments. The current research attempts to ascertain whether welfare reform also changed abortion behavior. Using statewide data, we attempt to explain differences in rates of abortion as a function of a myriad of explanatory variables including a dichotomous variable indicating the welfare program (AFDC or TANF) in effect.

I. Introduction

Many studies have demonstrated that welfare payments influence recipients' behavior in myriad ways. Ozawa (1989), Caudill and Mixon (1993), and Clarke and Strauss (1998) have all linked the generosity of a state's welfare payments to poor women with higher rates of fertility and illegitimacy. The logic is standard, applied microeconomics. Welfare payments lower the cost of bearing and raising children. Thus, the degree to which such costs are offset will impact decisions regarding fertility, abortion, and even whether to participate in risky sexual behavior. Ressler *et al.* (2005, 2006), for example, demonstrated a positive impact between welfare payments and rates of HIV and other STDs. More relevant to this study, Leibowitz *et al.* (1986) and Gohmann and Ohsfeldt (1993) found an inverse relationship between welfare support and rates of abortion. Once pregnant, an unwed mother is less likely to have an abortion if given financial assistance for bearing and raising the child.

In wake of the 1996 welfare reform law, one would expect the behavior of welfare recipients (and potential welfare recipients) to change due to the limited time a person may receive welfare. Under the Aid to Families with Dependent Children (AFDC) program, there was no maximum length of time for which someone could receive welfare. The 1996 law ended AFDC and ushered in the Temporary Assistance to Needy Families (TANF) program. One of the most significant differences between the two programs is that under TANF guidelines, recipients can receive welfare for a maximum of five years (continuous or otherwise). Since children generally impose costs on parents well beyond five years of age, such a change in public policy should be expected to change the calculus of optimization for pregnant poor women. How behavior might be changed is discussed and tested herein.

Section II contains a review of the literature, Section III contains our model specification followed by a discussion of our empirical results in Section IV. Policy implications and concluding comments are in Section V.

II. Literature Review

Marshall H. Medoff's seminal paper, "An Economic Analysis of the Demand for Abortions," (1988) provides the basis for estimating abortion demand within the standard microeconomic utility optimizing choice-theoretic framework. This model is based on Michael's (1973) economic model of fertility control. A household's fertility decisions are based on the benefits and costs of an additional child, and abortion is an *ex post* method of birth control.

Among the research involving welfare reform and child-bearing decisions, Kearney (2004) and Joyce *et al.* (2005) examine the effect of family cap provisions on fertility behavior across states. The family cap is intended to reduce or eliminate additional cash benefits to a family on welfare resulting from the birth of an additional child. Kearney concludes that family cap policies do not lead to a decline in births. Joyce *et al.* looked at women at high risk for public assistance, dividing them into those with previous live births and those without children. They conclude that births fell more for the group who had at least one previous live birth, compared with the group who had not. Since this result was consistent in states both with and without the family cap provision, however, they conclude that the family cap exerts no independent influence on the birth rate.

Kelly and Grant (2007) look at individual state policies which were enacted after the passage of welfare reform. Provisions of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), which replaced AFDC with TANF, also encouraged states to enact policies which would decrease non-marital birthrates, particularly among teenagers, and to reduce abortion rates. Using state-level data, they conclude that for the year 2000, abortion rates for both teenagers and adult women are only "minimally responsive" (p. 894) to welfare reform resulting from both TANF and any additional individual state restrictions placed on abortion availability in the aftermath of PRWORA.

Hussey (2010) investigates the effects of welfare generosity on abortion rates using data on states from 1987-2000. She used several measures of welfare generosity: cash assistance (TANF), family caps, Medicaid, child care provision, and family leave provision. She finds that more generous family leave provisions are statistically associated with lower rates of abortion, but that the level of a state's TANF benefit does not statistically influence abortion rates.

Hussey (2011) investigates the possible interaction between the effects of TANF benefits and a state's abortion rights climate (pro or con) on abortion rates among low income women. She used micro data from a panel study of families which (deliberately) contains a disproportionate number of low income, urban, unmarried women of color. The panel was begun

in the late 1990s and reflects results for approximately the year 2000. She finds that TANF benefits are linked to lower abortion rates, but only in states with a relatively restrictive abortion rights climate (i.e., public opinion toward abortion more negative, abortion policies more restrictive, and abortion providers more scarce). In addition, states which are categorized as having a more favorable abortion rights climate show a positive link between recipients of TANF benefits and corresponding abortion rates.

Medoff (2010) studies the effects of restrictive state abortion laws on teenage pregnancy rates. Using state-wide data for 1982, 1992, and 2000, he concludes that states with more restrictive abortion laws reduce teenage pregnancy rates, implying that teenagers react to policies which increase the cost of abortion. He uses TANF benefits as an explanatory variable, but treats it as a control variable for his model, rather than as an individual variable of interest.

III. Model Specification

With the above studies in mind, we offer the following model:

$$\text{ABORT} = f(\text{AFDC or TANF, COLLEGE, RELIGION, IMMIGRANT, CLINICS, BTEEN, BUNMAR, AAMERICAN, DOCTORS, NOINSURE, HEALTHPC, PERSINC, AGE18-34})$$

Variables are defined in Table 1. RELIGION is measured by two more-specific variables; one for catholic and another for Jewish.

Welfare payments increase with the number of dependents a recipient has, thus lowering the marginal cost of bearing children. Thus, some previous studies conducted (when welfare was administered under AFDC) found an inverse relationship between the magnitude of welfare support and rates of abortion. Our studies on the link between welfare and contraction rates of STDs inform us that the level of welfare support can impact the incidence of unprotected sex. Both pregnancy and the risk of contracting an STD are possible outcomes of such sex. We found that higher levels of welfare support resulted in lower cost of unprotected sex, and therefore higher rates of STDs. Additionally, as the cost of unprotected sex falls, we should expect to see more pregnancies. More pregnancies will likely mean more abortions. Thus, we have two plausible and counteracting expectations regarding the impact of welfare on abortions.

On the one hand, a greater level of welfare support will result in more pregnancies –and therefore more abortions – among poor women. On the other hand, more welfare support per recipient will encourage poor, pregnant women to bear and raise the child instead of terminating the pregnancy. Hussey (2011) reviews the various hypotheses and empirical results in the literature on the effects of welfare on abortion. As our literature review indicates, no clear consensus emerges from these empirical results. The impact of welfare on the abortion rate, then, is an empirical question. Whatever the impact, we reason that these relationships will be much weaker under TANF due to the five year limit on welfare support.

In order for poor women to behave differently under the two programs, they first must be aware of the policy change. Our results dealing with welfare reform and rates of HIV contraction (Ressler, *et al.* 2011) make us confident that those whom welfare reform may impact are knowledgeable of the relevant differences between AFDC and TANF.

Theoretically, more educated individuals should be less likely to face an unwanted pregnancy. The same habits that allow one to successfully complete four years of college – being “responsible” – are not those typically associated with unwanted pregnancy. Additionally, income - and therefore the opportunity cost of dropping out of the workforce (even temporarily) - is greater for the more educated. So it is likely the case that greater amounts of education are linked to a lower likelihood of unwanted pregnancy. However, once a woman finds herself facing an unwanted pregnancy she may be more likely to terminate due to the afore-mentioned opportunity cost.

To our knowledge no religion encourages its followers to have abortions; but some are more aggressive than others in discouraging it. The Roman Catholic Church has consistently and vocally opposed abortion. We therefore expect *Cathpct* to have a negative impact on rates of abortion. With respect to the Jewish faith, we have no *a priori* expectation of its impact on abortion rates.

Immigrants tend to be more prevalent in large port cities. California has several such cities as does the eastern sea board – New York City is an example. States that have more immigrants per capita have probably adopted public policies that are regarded as progressive. The same progressive atmosphere that may serve to attract immigrants may also be one in which abortions are not difficult to obtain. Additionally, our Puritan history makes the United States more conservative on social issues than most other industrialized western nations. In areas with a higher concentration of immigrants, this conservative orientation is somewhat diluted. For these rather tenuous reasons, we cautiously expect *Immigrant* to be positively related to Abortion.

Women's access to abortion varies considerably across states as some states have over 100 abortion providers (California, Florida and New York) while other states have less than 5 (Arkansas, Kentucky, Mississippi, North Dakota, Rhode Island, South Dakota, West Virginia, and Wyoming). Clearly the state's population is partly responsible for this variation. However, it is likely the case that this variation is also somewhat reflective of social attitudes towards abortion. The result is that in some states, women seeking an abortion may be forced to drive well over 100 miles to find a provider. This constitutes an added cost of abortion and – other things the same – will discourage some women from terminating their pregnancy. We therefore expect *Clinics* to be positively related to rates of abortion. As the number of clinics increases, women have greater access to this procedure and the number of terminated pregnancies will reflect as much.

Though we understand that women of any age or marital status may have an unwanted pregnancy, we believe that unmarried or teenaged women are more likely to have pregnancies that are not wanted. If true, the coefficients of both *Bteen* and *Bunmar* will be positive as women of these demographics are more likely to seek abortions.

IV. Econometric Methodology & Empirical Results

The estimation results in Table 2 are obtained using least squares regression. Both the usual least squares standard errors and more appropriate cluster robust standard errors¹ are reported for each model. ²For each equation we first use a simple indicator variable *TANF* to detect the policy effect. Secondly we use year dummies which are less restrictive. The model using year dummies is preferred on the basis of fit and the AIC. The coefficients of the year dummies for years 1999 and 2000 are negative and significant and increasing in magnitude, indicating additional reductions relative to the base year 1995. Using a one-tail test, the differences between the effects if 2000 and either 1999 or 1996 are significant at the 10% level.

1. Estimation was carried out in Stata 12.1 using the regress command with option vce(cluster stateid)

2. The cluster robust standard errors are justified in these models because of the persistent correlation among the residuals for each state. The cluster correlations are present in each equation as a result of unobserved heterogeneity associated with each state. To test for the correlation we follow Wooldridge (2010, 198-199) by adding the lagged residuals to the estimation equation and testing their significance. Using standard or cluster robust standard errors for this regression we conclude that the serial correlation is significant at the 1% level.

The negative coefficient and significance of *TANF* indicates that welfare reform resulted in changes in abortion behavior. Specifically, the change in welfare policies appear to reduce rates of abortion. What is striking about this result is that this impact is present even after adjusting for births to teens and unmarried women. This result seems consistent with women being more proactive in preventing pregnancy in the wake of welfare reform. Fewer pregnancies would result in fewer abortions.

In order to confirm this outcome, we regressed the birthrate, births to teens and births to unmarried women against the remaining explanatory variables. The results can be found in the Appendix and indicate that welfare reform is positively linked to the birth rate, but negatively related to births to teens. Furthermore, the coefficient of *Bteen* is about twice as large as that of *Brate*. Thus, our explanation remains plausible if teens make up a significant portion of women seeking abortions. Without more in-depth analysis, however, we must admit only tenuous empirical support for the hypotheses mentioned above. Furthermore, the positive impact of welfare reform on the birthrate is unexpected and counter-intuitive.

Bteen and *Bunmar* are both consistently significant with births to teens being inversely related to abortions while births to unmarried women being positively related to abortions. Perhaps it is the case that pregnant teenagers are often able to rely on their parents for support should they decide to bear and raise a child. Whereas, an adult unmarried women is more likely

to be independent and bear more of the costs associated with becoming a parent. Thus teens that become pregnant would be less likely to terminate their pregnancy while adult single women are more likely to abort.

States with higher concentrations of immigrants among the population have higher rates of abortions. We attribute this to immigrants being concentrated in progressive – that is, socially liberal – areas. These same areas are likely to have lenient laws regarding access to abortions. If true, the same explanation that explains the coefficient of *Immigrant* might also explain the positive coefficient on *Jewpct*.

Personal income per capita is positively related to the abortion rate as indicated by the coefficient of *Persinc*. This result likely stems from the increased opportunity cost (of having children) imposed on higher income women as compared to lower income women. As shown in Table 5 in the Appendix, personal income is not statistically significant in determining overall birthrates, or that of teenagers or unmarried women. Income, then, does not explain rates of pregnancy; but once pregnant, a high income woman is more likely to abort.

Interestingly, the number of clinics in a state is not related to the state's abortion rate. We find this result surprising since the number of clinics may proxy the convenience (or lack thereof) of obtaining an abortion. We plan to normalize this variable by square miles in the state and by state population to more accurately proxy the convenience factor.

V. Conclusion

The decision to abort a pregnancy is not a simple one. Many factors beyond what we have been able to include are certainly at play. We characterize this study to be largely exploratory in nature and characterize our empirical results as preliminary. Nonetheless, we find that the welfare reform law of 1996 did change the propensity for pregnant women to terminate their pregnancy. This result is likely tied to the five year limit on welfare assistance that occurs under TANF but was not present under AFDC.

Our results contain some inconsistencies, however. Why would a five year limit on welfare assistance be related to a higher overall birthrate (as found in the Appendix)? Why do states with high populations of immigrants have more abortions as well as more births? Finally – and perhaps most importantly – where do poor mothers go for financial support after they have exhausted the amount of

TANF dollars for which they are eligible? We understand that a comprehensive study on abortion and its link to welfare reform must address these questions.

References

- Baum, C. F., M. E. Schaffer, and S. Stillman. 2003. Instrumental variables and GMM: Estimation and testing. *Stata Journal* 3: 1-31.
- Baum, C. F., M. E. Schaffer, and S. Stillman. 2007(b). ivreg2: Stata module for extended instrumental variables/2SLS, GMM and AC/HAC, LIML, and k-class regression. Boston College Department of Economics, Statistical Software Components S425401. Downloadable from <http://ideas.repec.org/c/boc/bocode/s425401.html>.
- Baum, C. F., M. E. Schaffer, and S. Stillman. 2007. Enhanced routines for instrumental variables/generalized method of moments estimation and testing. *Stata Journal* 7: 465-506.
- Caudill, Steven S. and Franklin G. Mixon, Jr. 1993. "A Note of the Effects of AFDC Payments on Birthrates." *Rivista Internazionale di Scienze Economiche e Commerciali* 40: 379-384.
- Clarke, George R. G. and Robert P. Strauss. 1998. "Children as Income-Producing Assets: The Case of Teen Illegitimacy and Government Transfers." *Southern Economic Journal* 64: 827-856.
- Gohmann, Stephen F. and Robert L. Ohsfeldt. 1993. "Effects of Price and Availability on Abortion Demand." *Contemporary Policy Issues* 11: 42-55
- Greene, William H. 2008. *Econometric Analysis*, 6th Edition. Upper Saddle River, NJ: Prentice-Hall.
- Hayashi, F. 2000. *Econometrics*. Princeton, NJ: Princeton University Press.
- Hussey, Laura S. 2011. "Is Welfare Pro-life? Assistance Programs, Abortion, and the Moderating Role of States." *Social Service Review* 85(1): 75-107.
- Hussey, Laura S. 2010. "Welfare Generosity, Abortion Access, and Abortion Rates: A Comparison of State Policy Tools." *Social Science Quarterly* 91(1): 266-283.
- Joyce, Ted, Robert Kaestner, Sanders Korenman, and Stanley Henshaw. 2005. "Family Cap Provisions and Changes in Births and Abortions." *Population Research and Policy Review* 23(5-6): 475-511.
- Kearney, Melissa Schettini. 2004. "Is There an Effect of Incremental Welfare Benefits on Fertility Behavior?" *The Journal of Human Resources* XXXIX (2): 295-325.
- Kelly, Kimberly and Linda Grant. 2007. "State Abortion and Nonmarital Birthrates in the Post-Welfare Reform Era: The Impact of Economic Incentives on Reproductive Behaviors of Teenage and Adult Women." *Gender and Society* 21(6): 878-904.
- Kleibergen, F., and R. Paap. 2006. Generalized reduced rank tests using the singular value decomposition. *Journal of Econometrics* 133: 97-126.
- Leibowitz, Arleen, Marvin Eisen, and Winston K. Chow. 1986. "An Economic Model of Teenage Pregnancy Decision-Making." *Demography* 23: 67-77.
- Medoff, Marshall. 2010. "The Impact of State Abortion Policies on Teen Pregnancy Rates." *Soc Indic Res* 97: 177-189.

- Medoff, Marshall H. 1988. "An Economic Analysis of the Demand for Abortions." *Economic Inquiry* 26: 353-359.
- Michael, Robert T. 1973. "Education and the Derived Demand for Children." *Journal of Political Economy* March/April: S128-64.
- Ozawa, Martha. 1989. "Welfare Policies and Illegitimate Birth Rates Among Adolescents: Analysis of State-by-State Data." *Social Work Research and Abstracts* 14: 5-11.
- Ressler, Rand W., Melissa S. Waters, R. Carter Hill, and John Keith Watson. 2005. "Welfare Payments and the Spread of HIV in the United States." *Contemporary Economic Policy* 23(1): 40-49.
- Ressler, Rand W., Melissa S. Waters, and John Keith Watson. 2006. "Contributing Factors to the Spread of Sexually Transmitted Diseases; The Case of Welfare." *The American Journal of Economics and Sociology* 65(4): 943-961.
- Ressler, R.W., Waters, M.S., and Hill, R.C. (2011), "Welfare Reform and the Spread of HIV" *Review of Applied Economics*, 7: 1-15.
- Stock, J. H., and M. Yogo. 2005. Testing for weak instruments in linear IV regression. In *Identification and Inference for Econometric Models: Essays in Honor of Thomas Rothenberg*, ed. D. W. K. Andrews and J. H. Stock, 80-108. Cambridge: Cambridge University Press.
- U.S. Bureau of the Census (various years), *Statistical Abstract of the United States*. U.S. Government Printing Office: Washington, D.C.
- U.S. Department of Health and Human Services. Administration for Children and Families. TANF Data Sources: <http://www.acf.hhs.gov/programs/ofs/data/index.html>;
<http://www.acf.dhhs.gov/programs/ofa/caseload/caseloadindex.htm>.
- Wooldridge, Jeffrey W. 2002. *Econometric Analysis of Cross Section and Panel Data*. Cambridge, MA: The MIT Press.

TABLE 1

<u>variable name</u>	<u>variable definition</u>
abortion	abortion rate per 1000
abortper	abortion rate normalized by fertility
tanf	=1 if year > 1997-TANF in effect; = 0 if year < 1997-AFDC in effect
welfare	AFDC/TANF monthly spending per recipient
clinics	number of clinics
brate	birth rate per 1000
bteen	births to teen mothers (percent of total births)
bunmar	births to unmarried women (percent of total births)
aamerican	African American percent
immigrant	immigrant percent
college	college percent
doctors	number of doctors per
age18_34	age 18-34 population percent
noinsure	percent uninsured
healthpc	health exp (millions) per capita (thousands)
persinc	personal income per capita in \$1000
jewpct	percent jewish
cathpct	percent catholic
d1996	=1 if year = 1996; =0 otherwise
d1999	=1 if year = 1999; =0 otherwise
d2000	=1 if year = 2000; =0 otherwise

Table 2: Dependent Variable Abortion/Birth Rate

	(1) OLS: TANF	(2) Robust SE	(3) OLS: Years	(4) Robust SE
tanf	-0.5999*** (0.1829)	-0.5999** (0.2420)		
welfare	-0.0002 (0.0002)	-0.0002 (0.0003)	-0.0002 (0.0002)	-0.0002 (0.0002)
clinics	0.0000 (0.0004)	0.0000 (0.0004)	0.0000 (0.0004)	0.0000 (0.0005)
bteen	-0.0296** (0.0135)	-0.0296* (0.0151)	-0.0355*** (0.0135)	-0.0355** (0.0152)
bunmar	0.0219*** (0.0067)	0.0219* (0.0117)	0.0271*** (0.0070)	0.0271** (0.0125)
black	0.0032 (0.0043)	0.0032 (0.0067)	0.0035 (0.0042)	0.0035 (0.0067)
immigrant	0.0155*** (0.0026)	0.0155*** (0.0033)	0.0163*** (0.0026)	0.0163*** (0.0034)
college	-0.0142* (0.0082)	-0.0142 (0.0129)	-0.0062 (0.0091)	-0.0062 (0.0148)
doctors	0.0013* (0.0007)	0.0013 (0.0009)	0.0011 (0.0007)	0.0011 (0.0009)
age18_34	-0.0108 (0.0220)	-0.0108 (0.0406)	-0.0174 (0.0217)	-0.0174 (0.0388)
noinure	0.0014 (0.0088)	0.0014 (0.0112)	-0.0000 (0.0086)	-0.0000 (0.0113)
healthpc	-0.1539 (0.1434)	-0.1539 (0.1277)	-0.2697* (0.1511)	-0.2697* (0.1594)
persinc	0.0449*** (0.0123)	0.0449* (0.0262)	0.0438*** (0.0124)	0.0438 (0.0269)
jewpct	0.0613** (0.0272)	0.0613** (0.0298)	0.0477* (0.0270)	0.0477* (0.0283)
cathpct	-0.0006 (0.0027)	-0.0006 (0.0046)	-0.0017 (0.0027)	-0.0017 (0.0048)
d1996			-0.1519** (0.0642)	-0.1519*** (0.0345)
d1999			-0.5420*** (0.1978)	-0.5420* (0.2756)
d2000			-0.7051*** (0.1835)	-0.7051*** (0.2416)
_cons	0.1298 (0.6387)	0.1298 (1.2863)	0.1892 (0.6315)	0.1892 (1.2505)
N	200	200	200	200
R-sq	0.745	0.745	0.758	0.758
AIC	122.6701	122.6701	116.6360	116.6360

Standard errors in parentheses

* p<0.10, ** p<0.05, *** p<0.01

Appendix

Table 3: Summary Stats for Years 1996 and 1996

Variable	Obs	Mean	Std. Dev.	Min	Max
abortion	100	17.628	8.983724	2.6	44.5
abortper	100	1.232707	.5979639	.1977186	2.773333
tanf	100	0	0	0	0
welfare	100	122.9481	44.89749	43.4	247.37
clinics	100	40.93	78.41733	1	510
brate	100	14.296	1.629985	11.1	20.6
bteen	100	13.015	3.431947	7.3	22.2
bunmar	100	30.898	5.780636	15.7	45.3
black	100	9.958	9.443243	.23	36.04
immigrant	100	20.19546	17.95196	2.807864	84.73742
college	100	22.757	4.381809	12.7	33.3
doctors	100	2.1966	.5389912	1.37	3.93
age18_34	100	24.413	1.23874	21.4	27.6
noinure	100	14.147	4.08044	7.3	25.6
healthpc	100	.2250913	.0833273	.0834964	.4427481
persinc	100	22.83275	3.459772	16.743	34.174
jewpct	100	1.276	1.709458	0	9.1
cathpct	100	18.998	13.12714	3	63.6

Summary Stats for Years 1999 and 2000

Variable	Obs	Mean	Std. Dev.	Min	Max
abortion	100	16.463	8.66615	1	40.3
abortper	100	1.161742	.6091284	.0769231	2.878572
tanf	100	1	0	1	1
welfare	100	179.1562	143.8471	45.01624	1360.686
clinics	100	36.28	65.41508	2	415
brate	100	14.287	1.829205	10.8	21.9
bteen	100	13.022	2.697757	6.6	21.7
bunmar	100	32.298	5.529918	16.7	46
black	100	10.06156	9.546415	.3325942	36.47526
immigrant	100	19.65282	15.24738	2.895464	64
college	100	22.444	4.989835	12.3	37.2
doctors	100	236.76	57.94357	154	422
age18_34	100	23.27405	1.343823	20.54902	28.84013
noinure	100	13.681	4.118196	5.9	25.8
healthpc	100	.3242764	.2173134	.0807453	1.761589
persinc	100	27.74063	4.180725	20.506	40.64
jewpct	100	1.308	1.704283	0	9.1
cathpct	100	19.618	12.33641	3.2	51.7

Table 4: Dependent Variable Abortion

	(1)	(2)	(3)	(4)
	OLS: TANF	Robust SE	OLS: Years	Robust SE
tanf	-6.2525** (2.6341)	-6.2525* (3.6288)		
welfare	-0.0043 (0.0032)	-0.0043 (0.0030)	-0.0043 (0.0032)	-0.0043 (0.0027)
clinics	0.0019 (0.0063)	0.0019 (0.0065)	0.0021 (0.0062)	0.0021 (0.0066)
brate	-0.2457 (0.3095)	-0.2457 (0.3915)	-0.1903 (0.3060)	-0.1903 (0.3915)
bteen	-0.2537 (0.1957)	-0.2537 (0.2307)	-0.3253 (0.1974)	-0.3253 (0.2258)
bunmar	0.3882*** (0.0926)	0.3882** (0.1803)	0.4424*** (0.0972)	0.4424** (0.1872)
black	-0.0206 (0.0610)	-0.0206 (0.0982)	-0.0120 (0.0598)	-0.0120 (0.0975)
immigrant	0.2627*** (0.0385)	0.2627*** (0.0427)	0.2731*** (0.0381)	0.2731*** (0.0451)
college	-0.2309** (0.1151)	-0.2309 (0.2189)	-0.1562 (0.1264)	-0.1562 (0.2369)
doctors	0.0084 (0.0104)	0.0084 (0.0120)	0.0064 (0.0102)	0.0064 (0.0122)
age18_34	0.7151* (0.3982)	0.7151 (0.6679)	0.5616 (0.3936)	0.5616 (0.6595)
noinure	0.1144 (0.1224)	0.1144 (0.1460)	0.1019 (0.1211)	0.1019 (0.1503)
healthpc	-2.4672 (1.9933)	-2.4672 (2.0282)	-3.6744* (2.1076)	-3.6744 (2.5087)
persinc	0.8175*** (0.1709)	0.8175** (0.3871)	0.8297*** (0.1716)	0.8297** (0.4007)
jewpct	0.6526* (0.3771)	0.6526* (0.3551)	0.4540 (0.3752)	0.4540 (0.3524)
cathpct	-0.0317 (0.0375)	-0.0317 (0.0493)	-0.0440 (0.0373)	-0.0440 (0.0520)
d1996			-2.4627*** (0.8905)	-2.4627*** (0.5117)
d1999			-6.3766** (2.7998)	-6.3766 (4.0565)
d2000			-7.9874*** (2.6431)	-7.9874** (3.6516)
_cons	-24.3843*** (9.3506)	-24.3843 (18.4176)	-22.2803** (9.2138)	-22.2803 (17.8773)
N	200	200	200	200
R-sq	0.772	0.772	0.784	0.784
AIC	1175.6180	1175.6180	1169.4041	1169.4041

Standard errors in parentheses

* p<0.10, ** p<0.05, *** p<0.01

Table 3: Alternative Dependent Variables

	(1) BRATE	(2) BRATE	(3) BTEEN	(4) BTEEN	(5) BUNMAR	(6) BUNMAR
d1996	-0.0135 (0.1430)		-0.0560 (0.1491)		0.2227 (0.3389)	
d1999	1.4005* (0.7291)		-2.2445** (1.0126)		-1.6785 (2.2955)	
d2000	1.6504** (0.6364)		-3.1337*** (0.7901)		2.1840 (1.9377)	
welfare	-0.0014* (0.0007)	-0.0013* (0.0008)	0.0004 (0.0007)	0.0003 (0.0006)	0.0008 (0.0029)	0.0012 (0.0023)
clinics	-0.0046** (0.0020)	-0.0045** (0.0020)	-0.0027* (0.0014)	-0.0030** (0.0014)	-0.0033 (0.0069)	-0.0019 (0.0072)
black	-0.0336 (0.0254)	-0.0313 (0.0252)	0.0862*** (0.0178)	0.0778*** (0.0185)	0.3796*** (0.0671)	0.4161*** (0.0665)
immigrant	0.0399*** (0.0096)	0.0401*** (0.0096)	-0.0047 (0.0115)	-0.0059 (0.0111)	0.0377 (0.0427)	0.0428 (0.0448)
college	-0.0112 (0.0474)	0.0018 (0.0362)	-0.1982*** (0.0560)	-0.2443*** (0.0462)	-0.4408*** (0.1335)	-0.2406* (0.1292)
doctors	-0.0020 (0.0029)	-0.0025 (0.0030)	0.0124*** (0.0033)	0.0139*** (0.0032)	0.0005 (0.0092)	-0.0059 (0.0086)
age18_34	0.8542*** (0.2172)	0.8473*** (0.2124)	0.0619 (0.1023)	0.0912 (0.1053)	-0.8091* (0.4643)	-0.9355* (0.4796)
noinure	0.1182*** (0.0330)	0.1152*** (0.0313)	0.3505*** (0.0322)	0.3608*** (0.0313)	0.4724** (0.1793)	0.4275** (0.1783)
healthpc	0.5555 (0.5667)	0.3889 (0.5409)	-0.5689 (0.9529)	0.0285 (0.7253)	2.6335* (1.5443)	0.0395 (2.2514)
persinc	0.0004 (0.0880)	-0.0080 (0.0822)	-0.0075 (0.0734)	0.0201 (0.0664)	-0.0264 (0.2346)	-0.1470 (0.2425)
jewpct	-0.0266 (0.1494)	-0.0298 (0.1428)	-0.4252*** (0.0955)	-0.4072*** (0.0889)	-0.1780 (0.4443)	-0.2551 (0.4564)
cathpct	-0.0202 (0.0156)	-0.0203 (0.0155)	-0.0279** (0.0127)	-0.0274** (0.0123)	0.1476*** (0.0427)	0.1454*** (0.0434)
tanf		1.6794*** (0.6094)		-3.1768*** (0.7435)		2.3827 (1.7185)
_cons	-7.7931* (4.2498)	-7.6815* (4.1661)	11.7260*** (2.8171)	11.2142*** (2.8778)	46.8095*** (10.1805)	49.0102*** (10.3432)
N	200	200	200	200	200	200
R-sq	0.630	0.629	0.710	0.703	0.684	0.645
adj. R-sq	0.600	0.603	0.687	0.682	0.658	0.620
AIC	618.3481	615.2908	800.7097	801.4620	1063.6678	1082.6395

Standard errors in parentheses

* p<0.10, ** p<0.05, *** p<0.01