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Reducing Abortion in Kansas: Expanding Jobs and Health Insurance for Families and Opportunities for Children

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Executive Summary

- An analysis of county-level data in Kansas from 2000-2004 indicates that counties with low unemployment rates, a large number of Head Start centers, and higher health insurance coverage rates have lower abortion ratios. These findings suggest that increasing employment opportunities for families, access to education for children, and health insurance for working families can and will decrease the number of abortions.
- The declining number of abortion clinics in Kansas from 1978 to 2000 has not coincided with a declining number of abortions. After controlling for other factors that impact the abortion ratio, this study finds that residents in counties with an abortion clinic are actually *less* likely to obtain an abortion. This suggests that restricting access to abortion clinics does not reduce the incidence of abortion.
- This study also finds that Kansas counties that have a larger share of residents with pro-life beliefs have fewer abortions.

Introduction

Many Americans would like to reduce the number of abortions conducted each year, regardless of their political persuasion. This extremely important point often gets overlooked in the polarized political debate that surrounds the legal status of abortion procedures. Most “pro-life” groups need to know what politicians can do to reduce the number of abortions, looking to the government to create laws and mandates that protect the unborn. To generate support for their position, many of these groups that claim to be “pro-life” concentrate on counting the number of abortions in the U.S. every year.¹ Yet very little effort is made to understand how elected officials can effectively - and practically - reduce the incidence of abortion. This study is a first attempt to answer that question.

Similarly, many voters who value a woman’s right to choose recognize that abortion often represents a difficult choice for women. Many women ultimately elect to have an abortion due to the lack of viable alternatives available to them, namely in the form of access to quality education for children and essential health care services for families. In order to be able to make a fully informed decision, women and their families should not only have access to essential rights such as health care and child-care, but should also have the possibility to further their own education and find meaningful employment. Understanding how our communities can support women and their families can, in turn, give them the possibility and the freedom to carry their fetus’ to term. Again, this study is an effort towards this end.

To understand how we can reduce the number of abortions, this study looks at the key factors that explain the incidence of abortion in the state of Kansas. I am using data from Kansas for this study for a number of reasons. First, Kansas is a typical state with regard to abortion. The average abortion rate in Kansas from 1980 to 2000 (21.9 per 1,000 women) is very close to the (unweighted) average abortion rate across all 50 states (20.9).² Public opinion on abortion in Kansas is also fairly evenly split. According to polls conducted by surveyusa.com, between 45% and 47% of adults surveyed in Kansas in 2005 identified themselves as “pro-life,” while between 48% and 50% considered themselves “pro-choice.” Kansas is one of only eight states where opinion on abortion is roughly equally divided.³ Abortion politics is also salient in Kansas, and campaigns for statewide political offices often concentrate on candidates’ differences on abortion.⁴ Finally, the politics of cultural issues in Kansas has been the focus of scholarly and journalistic interest recently, with the state of Kansas representing a narrative that has traction across the country.⁵

¹See <http://www.nrlc.org/abortion/facts/abortionstats.html>, at the website for the National Right to Life Coalition.

²The range in the abortion rate across states during this time period was from 5.4 (Wyoming) to 43.6 (New York). Source: Guttmacher Institute.

³“Roughly equally divided” means that the difference between the percentage of “pro-life” and “pro-choice” adults is less than five. Other states with roughly equally divided opinion on abortion include: Indiana, Missouri, Nebraska, North Carolina, North Dakota, South Dakota, and Oklahoma. Of these states, only North Carolina has close to the average state level abortion rate from 1980-2000. Source: surveyusa.com.

⁴See “Kline, Biggs battling to be state’s top cop.” *Lawrence Journal-World*. Sunday, October 27, 2002.

⁵See Thomas Frank. *What’s the Matter with Kansas?* 2004. Metropolitan Books. Alan Abramowitz and Kyle

This study explores alternative explanations for the incidence of abortion in Kansas, looking specifically at how employment, opportunities for children, and pro-life sentiment impact the number of abortions. Using data from all Kansas counties from 2000-2004, I look at how the unemployment rate, the number of Head Start centers, health insurance coverage, and the religious composition of each county impacts its abortion ratio. I find that (1) low unemployment, (2) a high number of Head Start centers, and (3) low health uninsured rates lead to fewer abortions. The results also indicate that (4) Kansas counties with a larger share of pro-life residents have lower abortion rates.

Abortion providers and the number of abortions

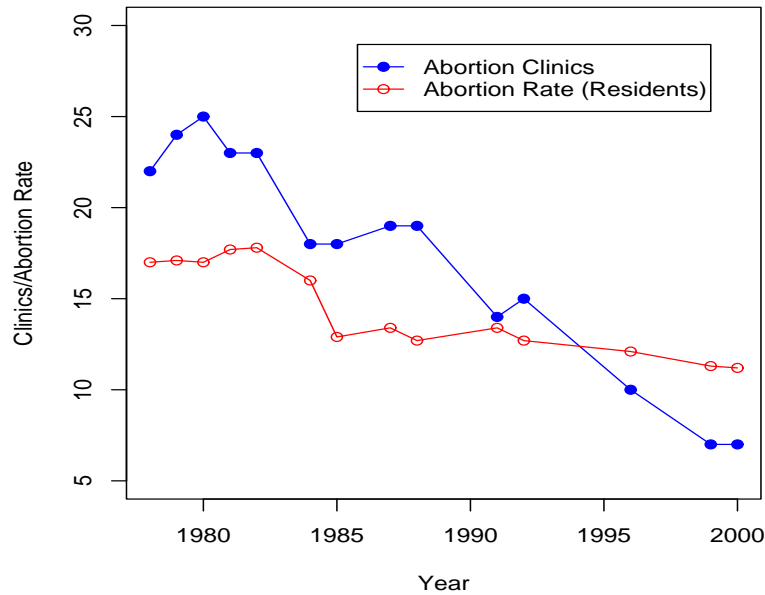
One of the key strategies that pro-life groups have pursued to reduce the number of abortions is by restricting access to abortion services. Examples include regulating abortion procedures, restricting late-term abortions, or requiring parental consent for teenage girls to obtain an abortion. Because there has been a dramatic decrease in the number of abortion clinics from the late 1970s to 2000, Kansas provides a good test case of whether reducing the number of abortion clinics has any impact on the abortion rate.

Figure 1 plots the number of operating abortion clinics in Kansas from 1978 to 2000 alongside the abortion rate for individuals who live in Kansas, or the resident abortion rate (the number of reported abortions among residents of Kansas per 1,000 women ages 15-44). In the late 1970s and early 1980s, there were over 20 abortion clinics in Kansas, dropping to around 17-18 in the mid-to late-1980s. By the early 1990s, the number fell to 15, and then fell to seven by 2000. The number of abortions fell from the early 1980s to 1985, but after 1985, the abortion rate has hovered to about 12 per 1,000 women ages 15-44.

If reducing the number of abortion clinics leads to fewer abortions, we would expect that reducing the number of clinics would lead to fewer abortions. The correlation between the change in the number of abortion clinics and the change in the resident abortion rate, from 1978 to 2000 is very small. This should be of no surprise, because the decreasing trend for abortion clinics clearly does not show up in the trend for the abortion rate.⁶ While there are no doubt many factors that contribute to variations in the abortion rate in Kansas over the last two decades, the trends reported here indicate that reducing the number of abortion clinics has had little to no impact on the incidence of abortion in Kansas. One interpretation of this finding is that women seeking abortions simply travel across state borders or elsewhere within the state to

Saunders. "Why Cant We All Just Get Along? The Reality of a Polarized America." 2005. *The Forum*. Manuscript 1076. Stephen Ansolabehere, Jonathan Rodden, James Snyder. "Purple America." 2005. MIT Manuscript.

⁶This is not to say that other types of restrictions on abortion may lead to decrease in the demand for abortion. For example, there is now considerable evidence that parental notification laws reduce the demand for abortion amongst teenagers (Ohsfeldt and Gohmann 1994, Haas-Wilson 1994, New 2006) and that restrictions on Medicaid funding for abortion reduces the incidence of abortion (New 2004, 2006). This state-by-state analysis, though, does not account for the possibility that state-wide restrictions simply cause pregnant women to travel across state borders to obtain an abortion when access is restricted in their home state.



Source: Guttmacher Institute

Figure 1: *Kansas Abortion Clinics and Rate, 1978-2000.*

obtain an abortion, and that those abortion providers still in business have increased the number of abortions performed.

Why do women choose to obtain an abortion?

Researchers have explored a number of explanations for why women choose to have abortions. Survey data from women who have obtained an abortion suggest that women seek abortions because they do not want the birth of a child to interfere with education or career, or because they cannot afford another child.⁷ The difficulty with using these surveys to pin down the root causes of abortion is that they focus only on women who have had abortions, and tell us nothing about women who are pregnant but choose to carry their fetus' to term. To understand the causes of abortion, we need to look at both pregnant women who choose abortions and pregnant women who choose not to have an abortion, and compare the differences. Only looking at women who have had abortions can lead to biased conclusions.⁸ These surveys are useful because they can suggest the potential root causes of abortion - in this case being able to afford another child and disrupting an education or a career - but should not be considered conclusive until the causal mechanisms they suggest can be tested systematically.

⁷See *Finer, Frohworth, Dauphinee, Singh and Moore "Reasons U.S. Women Have Abortions: Quantitative and Qualitative Perspectives"* Guttmacher Institute

⁸See *King, Keohane, and Verba (1994)* on the inference problems with selecting on the dependent variable.

In this paper, I assess the impact of four variables on the abortion ratio: employment, opportunities for young children, health insurance coverage, and religious composition. First, we should expect women who have a “pro-life” ideology to be less likely to obtain an abortion. Conversely, women with a “pro-choice” ideology should be deemed as more likely to obtain an abortion. Previously, researchers have attempted to measure this type of information by looking at data that describes the size of different religious groups at the state-level, or by seeing whether or not the state has enacted (but not necessarily enforced) Medicaid and parental consent restrictions on access to abortion.⁹ In our analysis of abortion rates in Kansas, we cannot use a statewide parental notification law as a proxy for “pro-life sentiment” because this type of law obviously does not vary across counties within the state. Instead, I use the religious composition of each county in 2000, including variables that measure the Mainline Protestant, Evangelical Christian, and Roman Catholic shares of the population.¹⁰

Second, it is possible that economic opportunities available to mothers and fathers impact their decision on whether to seek an abortion. If a pregnant woman (or the father of her child) is employed, she may be more likely to carry the fetus to term. If this is true, we should expect counties with higher rates of unemployment to have a higher abortion rate, all else equal.

Third, the expected opportunities for children may impact whether the pregnant e carry the fetus to term. If pregnant women considering an abortion perceive near-term opportunities for their children, they may be more likely to *choose not to have an abortion*. The main measure of near-term opportunities for children in this analysis is the number of Head Start centers per 1,000 population in each Kansas county. Women in counties with more Head Start centers (per capita), I argue, perceive more opportunities for their children. If this is true, then we should expect a negative relationship between the number of Head Start centers (per capita) and the abortion rate.

Finally, pregnant women who have health insurance may be more likely to believe that they and their children will have adequate health insurance throughout both the pregnancy and the early years of that child’s life. If pregnant women believe both they and their children will have access to health insurance, they may less likely to obtain an abortion. If this is true, we should expect that counties with higher rates of uninsured residents will also have a higher abortion rate.

⁹See Ohsfeldt and Gohmann 1994 and Haas-Wilson 1994.

¹⁰I also tested the ratio of the county vote ratio in the 2002 Attorney General’s race between Phill Kline and Chris Biggs. (See “Kline, Biggs battling to be state’s top cop.” *Lawrence Journal-World*. Sunday, October 27, 2002.) The vote ratio in this election, while certainly highly correlated with party identification, measures more than simply party identification because of the large role of abortion in the campaign. The assumption here is that a pro-life Democrat would have been more likely to vote for Kline than for other Republicans in other races during this period; and vice versa, that pro-choice Republicans would have been more likely to vote against the Republican candidate than in other elections. Once I control for the religious composition of the county, this variable is not statistically significant.

Data

In this section, I discuss the data used to test alternative explanations for what causes women to choose abortion. The data covers all counties in Kansas (105) for the five years from 2000-2004. The dependent variable is the abortion ratio: the number of abortions divided by the number of births, in each county during each year.¹¹ The number of abortions is measured by the reported county of residence, not the county where the abortion was performed. Further, this measure of abortion captures fertility rates in the denominator, so we do not need to control for fertility rates.¹² To control for demographic, economic, and social climate in each county, I use the following variables: the share of women with children under the age of 6 who are in the workforce; the shares of the population ages 15-19, 20-24, and 25-44; population density; the share of African Americans in the population; the share of children (under age 18) who live in poverty; per capita income; dummy variables for potential outlier counties; and dummy variables for each year.

Including the demographic data controls for the type of population in each county. Counties with more young women (aged 20-24), women of child-bearing age (aged 25-44), and possibly teenage women (aged 15-19) will have more abortions per capita, all else equal. Counties with a large number of retirees, on the other hand, will have fewer abortions. I include a control for the share of the population that is African-American because national data suggest that African-American women are disproportionately represented amongst those who obtain abortions.¹³ I include population density to control for the possibility that it is easier to find support for obtaining an abortion in areas where there is a more dense population. The child poverty rate measures the share of children under age 18 who live below the poverty line. Residents of counties where more women in the work force have young children may also be more likely to obtain an abortion because these women are trying to balance a career with the young children already in their care, as the survey evidence cited above suggests. Finally, I include per capita income to control for the possibility that income is associated with the likelihood of obtaining and using birth control.

To measure public opinion on abortion, I include a measure of the religious composition of each county (Mainline Protestant, Evangelical Christian, and Roman Catholic).¹⁴ Both denominational belief and church attendance are good proxies for public opinion on abortion in Kansas. Polling data from 2005 suggest that regular churchgoers in Kansas are twice as likely to consider themselves “pro-life” than “pro-choice” (62%-33%).¹⁵ Of those who attend church

¹¹Sources and descriptive statistics are listed in Table 3, on the final page.

¹²I also tested a related dependent variable, the abortion rate, which measures the number of abortions per 1,000 population. In the models with the abortion rate as the dependent variable, in addition to the variables discussed below, I added the number of births in each county in each year as a control for fertility. These models yield the same statistical and substantive results for the main variables of interest (unemployment, head start centers, uninsured, pro-life beliefs) as the models reported below using the abortion ratio as the dependent variable.

¹³See “Abortion Surveillance -2000” from the Centers for Disease Control.

¹⁴I also tested a variable measuring the rate of total religious adherence for each county, but this variable was not statistically significant.

¹⁵Kansas public opinion data on abortion can be found at <http://www.surveyusa.com/>.

occasionally, a large majority (59% to 36%) consider themselves “pro-choice.” And among those who never attend church, the “pro-choice” majority is even larger: 69% to 29%. Data from the Pew public opinion polls suggest that Mainline Protestants (28%) are much less likely to be “pro-life” on abortion than white Catholics (43%) or Evangelical Christians (68%).¹⁶ If religious denomination is a good proxy for opinion on abortion, then we should expect counties with more Mainline Protestants to have a higher abortion rate and counties with more Evangelical Christians (and/or Roman Catholics) to have fewer abortions.

The other explanatory variables of interest are the unemployment rate, the number of Head Start centers, and the share of the population without health insurance. The unemployment rate measures the number of unemployed workers as a share of the work force and does not account for the fact that some potential workers have dropped out of the work force entirely (and are no longer looking for work). The Head Start variable measures the number of Head Start centers per 1,000 population in each county. The uninsured rate measures the share of residents in each county that do not have health insurance.¹⁷ The data for uninsurance rates is available only for the year 2000, and thus only measures cross-sectional variation.

I also include county dummies for particular counties that might be outliers: Douglass, Geary, Johnson, Sedgwick, Riley, and Wyandotte. Geary County is home to Fort Riley, a U.S. military base that trains more than 30,000 Reserve Component soldiers each year and is home to more than 10,000 troops. From 1990 to 2000, the U.S. Census estimates that Geary County’s resident population declined by over 8%, while the population in the rest of Kansas increased by 8%. The Geary County population declined another 10% from 2000 to 2004, to 25,111. Geary county is also disproportionately African-American: 22% versus under 6% for the rest of the state.¹⁸ Because of the large military presence, declining population (faltering economy) and disproportionately large African-American population, we would expect Geary County to have more abortions, all else equal. Douglas and Riley Counties are home to the University of Kansas and Kansas State University. Although we already control for the disproportionate number of young women (aged 20-24) in these counties, it is possible that university campuses present a unique opportunity for pregnant women to seek resources to obtain an abortion. There also may be better access to information about abortion services in the university counties. The largest counties in the state - Johnson County (suburban Kansas City), Sedgwick County (Wichita), and Wyandotte County (urban Kansas City) - are the only counties in the state that had abortion clinics from 2000 to 2004. If proximity to an abortion clinic makes women more likely to obtain an abortion, we should expect the dummy variables for these counties to be positive and statistically significant.

¹⁶See “Strong Support for Stem Cell Research ABORTION AND RIGHTS OF TERROR SUSPECTS TOP COURT ISSUES” August 3, 2005. Pew Forum on Religion and Public Life.

¹⁷I also tested a the share of children in each county that do not have health insurance. This variable has the correct sign but is not statistically significant. One explanation for this is that pregnant women who are considering an abortion may base their perceptions of insurance options for their children on their own insurance status or the status of the father, rather than the status of all children in the county.

¹⁸Geary County data from FedStats: <http://www.fedstats.gov/qf/states/20/20061.html>.

Results

Table 1 reports the results of weighted least squares (WLS) and generalized least squares (GLS) regressions, where the county-year abortion ratio is the dependent variable.¹⁹ In the model reported in the first column, the coefficients for the 20-24 age group, population density, the share of women in the work force with children under six, and income level are all statistically significant and in the expected direction. The coefficient for African-Americans, while positive, is not statistically significant. The coefficient for the child poverty rate is statistically significant but not in the expected direction. The demographic control variables indicate, as expected, that counties with more young people, more women with young children in the work force, lower incomes, and higher population density have higher abortion rates. Race and the shares of the population that are teenagers or adults ages 25-44 do not appear to matter significantly. The year variables indicate that there were fewer abortions in 2003 and 2004 (the reference year) than the previous three years.

The coefficients for the county variables tell an interesting story. The coefficient for Geary is positive and but not statistically significant in all the models. The coefficient for Douglas County, home of the University of Kansas, is positive and statistically significant in most of the models, suggesting that the presence of KU increases the abortion rate. Alternatively, the coefficient for Riley County, home to Kansas State University, is negative and statistically significant in some of the models, indicating that the presence of KSU actually decreases the abortion rate.

Finally, the coefficients for counties that had abortion clinics (Johnson, Sedgwick, and Wyandotte) are all negative and statistically significant in most of the models, suggesting that having an abortion clinic in those counties actually decreases the number of abortions among the residents of those counties. One possibility that could explain this finding is that the presence of an abortion clinic attracts anti-abortion protestors who influence public sentiment in that county towards a more pro-life abortion stance. This finding clearly indicates, though, that *the absence of an abortion clinic in a particular county does not decrease the number of abortions*. This interpretation fits well with the evidence presented in the first section showing that the statewide incidence of abortion did not decrease substantially from 1985 to 2000 when the number of abortion clinics decreased dramatically. What this evidence suggests, then, is that restricting access to abortion has little effect on the incidence of abortion.

The religion variables also paint an interesting picture. The coefficients for Mainline Protestant are all positive and statistically significant at the 0.05 level in the GLS models. This suggests, as expected, that counties with more residents with pro-choice beliefs have higher abortion rates. The coefficient for Evangelical Christian is positive, but small and statistically

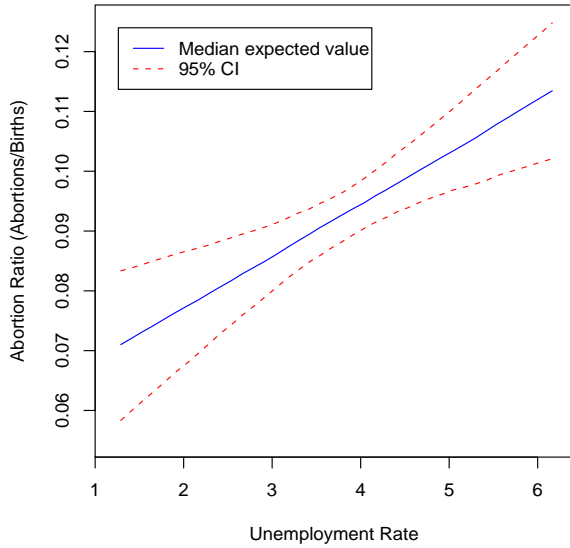
¹⁹These data require WLS estimation because of heteroskedasticity in the data. I use WLS regression with estimates proportional to the log residual squared. I also estimate the generalized least squares models with errors that allow for panel heteroskedasticity as well. I also test for autocorrelation (AR(1)) in the panel data using a test developed by Woolridge 2002 (pp. 282-283). This test indicates there is no autocorrelation in the data. I also tested random effects models (not reported) which yield the same results as those reported below.

Table 1: Unemployment and Abortion Rates (2000-2004)

Estimator Model	WLS			GLS
	(1)	(2)	(3)	(4)
Head Start centers (per 1,000 population)		-0.125** (0.04)		-0.113** (0.02)
% Uninsured	0.590** (0.16)	0.525* (0.21)	0.395** (0.10)	0.397** (0.14)
Unemployment rate	0.773** (0.23)	0.900** (0.31)	0.675** (0.13)	0.922** (0.18)
Mainline Protestants (share of population)	0.012 (0.03)	0.012 (0.04)	0.049* (0.02)	0.055* (0.03)
Evangelicals (share of population)	0.032 (0.03)	0.032 (0.04)	0.013 (0.02)	0.019 (0.02)
Catholics (share of population)	-0.076** (0.03)	-0.091** (0.03)	-0.073** (0.02)	-0.076** (0.02)
African-American (share of population)	0.226 (0.17)	0.240 (0.22)	0.269** (0.09)	0.197 (0.11)
Population Density	0.000** (0.00)	0.000** (0.00)	0.000** (0.00)	0.000** (0.00)
% Poor under 18 (2000)	-0.795** (0.15)	-0.797** (0.20)	-0.457** (0.11)	-0.502** (0.14)
Income (2000)	-0.000** (0.00)	-0.000* (0.00)	-0.000* (0.00)	-0.000 (0.00)
% Female workforce with children under 6	0.084** (0.03)	0.098* (0.04)	0.122** (0.02)	0.150** (0.02)
Age 15-19	0.437 (0.33)	0.250 (0.43)	0.220 (0.20)	0.094 (0.23)
Age 20-24	0.398** (0.13)	0.505** (0.18)	0.532** (0.08)	0.604** (0.10)
Age 25-44	0.134 (0.13)	0.093 (0.23)	0.359** (0.09)	0.336* (0.14)
Geary County	0.039 (0.04)	0.027 (0.05)	0.034 (0.02)	0.038 (0.02)
Douglas County	0.082** (0.02)	0.057 (0.03)	0.085** (0.01)	0.063** (0.01)
Riley County	-0.056* (0.02)	-0.080* (0.03)	-0.055** (0.01)	-0.069** (0.02)
Sedgwick County	-0.074* (0.03)	-0.059 (0.04)	-0.054** (0.01)	-0.047* (0.02)
Johnson County	-0.159* (0.07)	-0.132 (0.09)	-0.125** (0.04)	-0.127* (0.05)
Wyandotte County	-0.218** (0.06)	-0.152* (0.08)	-0.162** (0.03)	-0.115** (0.04)
2000	0.022** (0.01)	-0.001 (0.01)	0.020** (0.00)	0.009* (0.00)
2001	0.023** (0.01)	(dropped)	0.020** (0.00)	0.008** (0.00)
2002	0.018** (0.01)	-0.007 (0.01)	0.013** (0.00)	
2003	0.005 (0.01)	(dropped)	0.002 (0.00)	
Constant	0.030 (0.07)	0.061 (0.10)	-0.124* (0.05)	-0.128 (0.07)
R ²	0.596	0.627		
Log Likelihood	925.8	559.9	1089.2	671.7
Observations	525	315	525	315

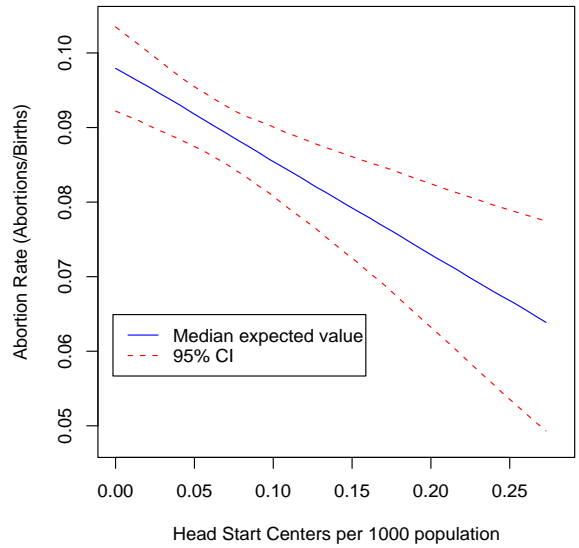
Dependent variable is the abortion ratio (abortions/births). Reference year dummy in models 1 and 3 is 2004, in models 2 and 4, 2002. Weighted least squares (WLS) regression with estimates proportional to the log residual squared. Generalized least squared (GLS) estimates with panel heteroskedasticity in the errors. Standard errors in parentheses. ** $p < .01$, * $p < .05$.

Unemployment Rate



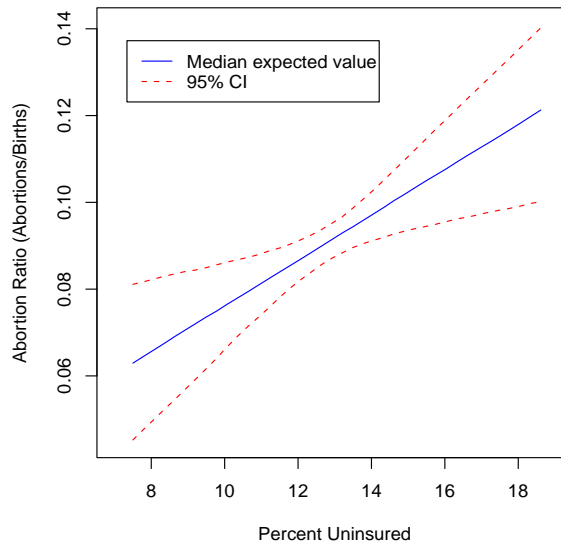
Source: Model 2

Head Start Centers



Source: Model 2

Health Insurance



Source: Model 2

Figure 2: How Unemployment, Head Start Centers, and the Number of Uninsured Impact the Abortion Ratio

insignificant in all the models. The coefficient for Catholic, though, is negative and statistically significant at the 0.01 level in all the models. If Catholics in Kansas are more pro-life in their opinion on abortion than Mainline Protestants, then these results indicate that counties with more pro-life residents have lower abortion rates.²⁰

The coefficients for unemployment are all positive and statistically significant at the 0.01 level in all the models. This finding indicates that counties with higher unemployment have higher abortion rates. The coefficients for percent uninsured are all positive and statistically significant at the .05 level, indicating that higher uninsurance rates are associated with more abortions. The coefficients, in models 2 and 4, for the number of Head Start centers are negative and statistically significant, indicating that counties with more Head Start centers (per 1,000 population) have fewer abortions. The coefficients for the child poverty variable are negative and statistically significant, suggesting that increased child poverty does not increase the abortion ratio.²¹ The coefficient for income is negative and statistically significant in most of the models, suggesting that higher incomes are associated with fewer abortions.²² Substantively,

Table 2: Unemployment, Head Start Centers, Religious Composition and Abortions

Change in the	Abortion Ratio
2.5% Decrease in Unemployment Rate	-0.0224
360 More Head Start Centers	-0.0169
5.6% decrease in the percent Uninsured	-0.0296
Increase share of residents with pro-life beliefs (15% to 33%)	-0.0169

Changes in explanatory variables are each two standard deviations. Share of residents who are Catholic is the proxy for pro-life beliefs.

the estimates in the second column suggest that decreasing the unemployment rate by two standard deviations (about 2.5%) will lead to a decrease in the abortion ratio of about 0.022. Recall that the abortion ratio measures the number of abortions per live births. Therefore, a decrease in the abortion ratio of 0.022 means a reduction of 22 abortions per 1,000 live births. Similarly, increasing the number of Head Start centers by two standard deviations (about 0.132 per 1,000 population or 360 statewide) is associated with a decrease in the abortion ratio of about 0.017.

²⁰At the national level Evangelical Christians are more likely to have pro-life beliefs than Catholics. If this is true in Kansas as well, then the results for the religious composition variables are more ambiguous because the coefficient for Evangelical Christian is never statistically significant – suggesting that pro-life beliefs may not be a strongly correlated with the abortion rate.

²¹This finding does not hold when we use the abortion rate as the dependent variable. See footnote 7. In these models, the child poverty rate is positive, but not statistically significant.

²²It is important to bear in mind that the income and poverty data are only cross-sectional and thus serve as controls for the type of county, but do not help us model the variation over time within particular counties. This data is from the 2000 Census, and available only for that year.

Increasing health insurance coverage about 5.5% would yield a decrease in the abortion ratio of about 0.03. Finally, increasing the share of residents with pro-life beliefs by two standard deviations is associated with a decrease of 0.017 in the abortion rate - about the same as the decrease resulting from 360 more Head Start centers. These estimates suggest that, while the unemployment rate, Head Start centers and pro-life beliefs are all important correlates, the abortion ratio is more sensitive to health insurance coverage than the other four variables of interest. Table 2 and Figure 2 summarize these substantive results. The simulations in Figure 2 are based on the regression results from the second column of Table 1.²³ The top left panel shows the expected abortion ratio across various levels of unemployment. As the unemployment rate increases from 2% to 6%, the abortion ratio increases from about 0.075 to over 0.11. The top right panel displays the relationship between the number of Head Start centers (per 1,000 population) and the abortion ratio. Increasing the number of Head Start center from 0 (the minimum value in the sample) to 0.25 (per 1,000 population) decreases the abortion rate from about 0.11 to under 0.07. Finally, in the bottom panel, we can see that increasing the uninsurance rate from 8 to 18% increases the abortion ratio from about 0.06 to 0.12.

Conclusion

The evidence presented here suggests that jobs, opportunities for children, health insurance coverage and pro-life sentiment are all important factors in a state's abortion rate. From a policy perspective, politicians can offer concrete solutions to foster job creation, increase Head Start programs, and expand health insurance coverage. While increasing pro-life sentiment is no doubt laudable, these findings suggest that it would require a massive shift in public opinion to yield substantial reductions in the number of abortions. That is, counties with relatively low levels of pro-life sentiment (such as Crawford, Douglas, and Shawnee) would have to become increasingly pro-life, mirroring heavily pro-life counties such as Haskell, Morton, and Seward.

Unemployment rates vary widely by county. Further reducing the unemployment rate in counties with both low unemployment and low abortion rates will yield little change in the abortion rate. But reducing the unemployment rate in counties where both the unemployment and abortion rates are high could alter that county's abortion rate. From 2000 to 2004, the counties that stand out in this regard are: Crawford, Douglas, Finney, Geary, Johnson, Levinworth, Riley, Sedgwick, Seward, Shawnee, and Wyandotte.

Similarly, efforts to increase opportunities for children should be concentrated in counties where pregnant women are most likely to take advantage of Head Start programs, if provided. It is worth noting that regressing the number of Head Start centers (per 1,000 population) on the other explanatory variables in the model reveals that Head Start centers are less likely to be located in counties with a large share of young women aged 20-24 (controlling for the

²³All continuous variables are set at their mean values. Expected median value based on 1,000 simulation of the beta coefficient.

university and military base counties). This suggests that efforts to increase the availability of Head Start centers, or other programs aimed at increasing opportunities for young children, might be concentrated in counties with a higher percentage of young women: Crawford, Douglas, Finney, Ford, Geary, Lyon, Riley, Sedgwick, Seward, Shawnee, and Wyandotte.

Efforts to expand health insurance coverage should focus on counties - and populations - where the coverage is weakest. An empirical model looking at the determinants of health insurance coverage suggests that counties with a larger share of women ages 25-44 - and with higher poverty rates - have lower insurance coverage rates. Interestingly, *higher* rates of unemployment are often associated with higher insurance coverage rates. This suggests that it is not the unemployed who lack insurance, but the working women and men, which points to the fact that the current health insurance system is weakest for those who work.²⁴ Women ages 25-44 are those that are the most likely to be employed and the most likely to have children. Therefore, policy makers should seek to provide health insurance coverage for working mothers and fathers in order to reduce the number of abortions.

The findings in this paper provide strong evidence that improving employment and health coverage for families, as well as expanding opportunities for children, can work to significantly reduce the number of abortions in Kansas. Because the decline in the number of abortion clinics has not deterred the number of abortions in Kansas, and because residents that live in counties with an abortion clinic are actually less likely to obtain abortion, the evidence suggests that restricting access to abortion clinics does not reduce incidence of abortion.

Catholics United for the Common Good (CUCG) is a non-profit, non-partisan organization dedicated to promoting the message of justice and the common good found at the heart of the Catholic Social Tradition. We accomplish this mission through online advocacy and educational activities. www.catholics-united.org

²⁴See “Health Insurance Data Briefs: Improving Access To Health Insurance.” Heather Boushey, Joseph Wright, and Marya Murray Diaz. 2004. Washington DC: Center for Economic and Policy Research.

Table 3: Summary Statistics and Data Sources

Variable	N	Mean	StDev	Min	Max	Source
Abortion Ratio	525	1.111	0.903	0.000	5.542	Kansas Dept. of Health and Environment
Head Start centers per 1,000 population	315	0.042	0.066	0.000	0.339	Kansas Dept. of Health and Environment
Percent uninsured (2000)	525	.131	.028	.065	.198	Census Bureau
Unemployment rate	525	4.086	1.334	1.900	11.200	Kansas Dept. of Labor
Child poverty rate (2000)	525	14.25	3.31	4	24.4	Census Bureau
Mainline Protestant (2000)	525	0.263	0.106	0.083	0.569	American Religion Data Archive
Evangelical Christian (2000)	525	0.170	0.080	0.028	0.382	American Religion Data Archive
Roman Catholic (2000)	525	0.154	0.092	0.009	0.534	American Religion Data Archive
Female workforce with children under 6 (2000)	525	69.9	9.6	43.5	91	Census Bureau
African-American (share of population)	525	0.018	0.038	0.000	0.283	Census Bureau
Population density (2000)	525	46.3	144.9	1.9	1045.6	Census Bureau
Income (2000)	525	10.487	0.136	10.179	11.109	Bureau of Economic Analysis
Births per 1,000 population	525	12.252	3.555	3.543	26.854	Kansas Dept. of Health and Environment
Age 15-19 (share of population)	525	0.080	0.008	0.055	0.120	Kansas Dept. of Health and Environment
Age 20-24 (share of population)	525	0.063	0.028	0.020	0.260	Kansas Dept. of Health and Environment
Age 25-44 (share of population)	525	0.241	0.031	0.168	0.354	Kansas Dept. of Health and Environment