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Original article

Reasons for and Challenges of Recent Increases in Teen Birth Rates: A Study of Family Planning Service Policies and Demographic Changes at the State Level

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See Editorial p. 515

Abstract

Purpose: After declining for over a decade, the birth rate in the United States for adolescents aged 15–19 years increased by 3% in 2006 and 1% again in 2007. We examined demographic and policy reasons for this trend at state level.

Methods: With data merged from multiple sources, descriptive analysis was used to detect state-level trends in birth rate and policy changes from 2000 to 2006, and variations in the distribution of teen birth rates, sex education, and family planning service policies, and demographic features across each state in 2006. Regression analysis was then conducted to estimate the effect of several reproductive health policies and demographic features on teen birth rates at the state level. Instrument variable was used to correct possible bias in the regression analysis.

Results: Medicaid family planning waivers were found to reduce teen birth rates across all ages and races. Abstinence-only education programs were found to cause an increase in teen birth rates among white and black teens. The increasing Hispanic population is another driving force for high teen birth rates.

Discussion: Both demographic factors and policy changes contributed to the increase in teen birth rates between 2000 and 2006. Future policy and behavioral interventions should focus on promoting and increasing access to contraceptive use. Family planning policies should be crafted to address the special needs of teens from different cultural backgrounds, especially Hispanics.

Keywords: Teen pregnancy; Teen births; Abstinence only education; Contraceptive use; Health policy

The United States has the highest teenage pregnancy rate among developed countries [1], with over 800,000 adolescents becoming pregnant and more than 400,000 live births each year [2]. However, after declining for over a decade, the birth rate in the United States for adolescents aged 15–19 years increased by 3%, from 40.5 live births per 1,000 female teens in 2005 to 41.9 per 1,000 female teens in 2006, and increased 1% again in 2007 [3]. Public health leaders and policy makers are troubled by this reversing trend; they are eager to understand the reasons and to find effective policy solutions [4].

Federal or state sex education and family planning policies have great influence on teen birth rates as they are designed to achieve these goals: (1) to reduce sexual activity among teens, (2) to provide education and tools for safe sex, and (3) to prevent unintended pregnancy and sexually transmitted diseases. Additionally, abortion laws significantly influence teen birth rates because of their impact on the rate of termination of unintended pregnancy. Changes in any of the policies related to sexual activity, contraceptive use, or abortion rates could lead to changes in teen birth rates. A recent study by Santelli et al. concluded that the primary cause of the recent increase in teen birth rates was decreasing contraceptive use between 2003 and 2007; no significant change in sexual activity or abortion occurred among teen women after 2003. They also predicted a continuation of the increasing trend in the future without the implementation

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of effective policy or behavioral intervention to reduce teens' sexual activity or to promote contraceptive use [5].

Between 2000 and 2008, there have been policy and legislative changes at both the state and federal levels that could either lead to an increase or decrease in teen birth rates. At the state level, between 2000 and 2006, the number of states that adopted the Medicaid Family Planning Waiver program to provide insurance coverage for family planning services for low-income teens increased from 13 to 25. The proponents of the Medicaid Waiver program have argued that the waiver program is effective in reducing teen birth rates, [6] but such argument is not fully convincing because the national teen birth rate is still increasing. In contrast, some states implemented more restrictions on access to contraceptives and abortion services through state legislation in varying degrees [7]; such changes could cause increased teen birth rates. At the federal level, a major policy change that took place was the expansion of abstinence-only education programs through three legislative paths: the Adolescent Family Life Act, the Title V—Welfare Reform Act, and the Community-Based Abstinence Education program. The total funding of such programs nearly tripled, from $60 million in 1998 to $168 million in 2006 [8]. The abstinence-only education program has been criticized as one of the reasons for increasing teen birth rates because of not only its ineffectiveness in reducing sexual activity, but also the exclusion of effective sex education including contraceptive use that has been proven to reduce teen birth rates [9, 10]. However, except for a few small-scale evaluations, there is no evidence indicating that abstinence-only programs cause increased teen birth rates at the population level [11, 12].

Besides policy changes, demographic changes in the teen population in recent years have been ignored in the public health discussion regarding teen birth rates. Historically, black and Hispanic teens consistently have higher birth rates than white teens on average. More than 50% of black and Hispanic female teens were pregnant at least once before age 20, [13] and the percentage of the U.S. Hispanic population has increased significantly in recent decades, and could subsequently tilt teen birth rate up. However, no policy research has incorporated demographic changes when investigating teen birth rate.

Therefore, this study considers geographic variations in teen birth rates, family planning policies, abortion law, and state demographic features in a state level analysis to investigate the effect of policy and demographic changes on teen birth rates between 2000 and 2006.

Method

Data and measurements

Our study sample incorporated data from multiple sources. Teen birth rate by age, race, ethnicity, state, and year was calculated using data from two sources. The number of births by teen mothers by age, race, ethnicity, state, and year was obtained from Vital Statistics published by the National Center for Health Statistics. The total number of teen women aged 15–19 years by age, race, ethnicity, state, and year was obtained from population estimates published by the U. S. Census Bureau in 2009. Teen birth rates by age, race, ethnicity, state, and year were then calculated as the total number of births by teen mothers divided by the total number of female teens.

State-level policy information was obtained from several sources: the total amount of federal funding for abstinence-only sex education programs, presence or absence of parental consent of teen abortion, and state conscience laws by year were obtained from the Sexuality Information and Education Council of the United States (SIECUS) [8]. Because teen population size varied widely by state, instead of using the total state-level funding, we measured the funding of abstinence-only education programs as the amount per capita of female teens in each state. The availability of Medicaid Family Planning Waivers was obtained from the Kaiser Family Foundation [14]. Socioeconomic indicators for each state and year—the average income per capita, unemployment rate, and high school graduation rate—were obtained from the Bureau of Labor Statistics [15]. Because religion is often tied to beliefs regarding sexual behaviors and family planning, we included an index of state religiosity calculated from a published Gallup poll that reported the percentage of the population that reported religion being important in their decisions in life as an independent variable [16]. We gathered the data for years 2000–2006 for all 50 states.

Analytical method

We first conducted a descriptive analysis to investigate the trends of teen birth rates, demographic features, socioeconomic features, family planning policies, and abortion laws by year and state. We then conducted regression analysis to investigate the effect of family planning policies on teen birth rates. For state "i'" in year "t," the regression analysis is depicted as:

$$\begin{aligned}(\text{Teen Birth Rates})_{it} &= \beta_0 + \beta_1(\text{Medicaid Waiver})_{it} \\ &+ \beta_2(\text{Abstinence Funding/Female Teen Capita})_{it} \\ &+ \beta_3(\text{Parent Consent})_{it} + \beta_4\,(\text{Conscience Law})_{it} \\ &+ \beta_5(\textit{Religiosity})_{it} + \beta_6(\text{Demographic Features})_{it} \\ &+ \beta_7(\text{Socioeconomic Status})_{it} + \epsilon\end{aligned}$$

The dependent variable was teen birth rate. To detect if the relevant policies and laws could have different influences on teens based on age and race, we estimated this model on total teen birth rates (aged 15–19 years), younger teen birth rates (aged 15–17 years), and older teen birth rates (aged 18 and 19 years) by race and ethnicity (non-Hispanic white, non-Hispanic black, and Hispanic).

The primary independent variables comprised a series of sex education and family planning health service polices, as introduced earlier in the text, including the existence or absence of the Medicaid Family Planning Waiver program, total funding from abstinence-only education programs per 1,000 capita of female teens, parental consent and notification laws for minors' abortion, contraceptive conscience clause policies and religiosity.

The states with higher teen birth rates may be likely to pursue either abstinence-only education program funding, Medicaid Waiver, or both methods to control teen birth, resulting in a reversed causal relationship that will bias our estimates. Not correcting for the reversed causal relationship will lead to biased estimates of the policy effects. We therefore use instrumental variables to correct for this possible bias in the regression analysis. Specifically, we used the American Conservative Union rankings of elected officials to estimate state ''conservatism'' in every Congress session; these rankings were on the basis of average voting records from all elected members of Congress by state, and have been widely used in political science literature. We selected this instrument because the ideology of the elected official directly relates to their voting record in the Congress, and therefore to the federal policy and appropriation in sex education and family planning programs, but does not directly relate to current teen birth rates. For example, in the midterm election of 2006, the Democratic Party reclaimed the majority in the Congress by defeating conservative representatives from more than 20 battleground districts. Such a change could influence federal funding and legislation directly in the year following the election, but would not directly influence teen birth rates. In addition, within each state, especially large states, there is a mix of liberal and conservative districts (e.g., Florida), and the political views of the house representatives are evened out by the average score. Therefore, state ''conservatism'' does not necessarily directly relate to teen birth rate at state level.

We constructed two additional equations to predict abstinence-only program funding per capita female teens and the availability of Medicaid Family Planning Waivers; with "j" representing the type of policy, the equations were as follows:

$$\begin{aligned}(\text{State Policy})_{jit} &= \delta_{j0} + \delta_{j2}(\text{Conservatism of Congress Members})_{it} \\ &+ \delta_{j3}\,(\text{Percentage of Teen Population})_{it} \\ &+ \delta_{j3}(\text{Other Demographics})_{it} \\ &+ \delta_{j4}\,(\text{Socioeconomic Status})_{it} + \epsilon\end{aligned}$$

The dependent variables were amount of abstinence-only program funding per capita of female teens and existence of Medicaid waivers. The independent variables included the average conservatism score of each state's elected Congress member by year, percentage of teens over entire population, socioeconomic status, and other demographics. We used linear regression to predict abstinence funding and Logit regression to predict the existence of Medicaid waivers.

Because we have two endogenous variables, one continuous and one dichotomous, the standard two stage least square method is not the best choice as it is restricted to use in the situation of a single continuous endogenous variable. Therefore, we jointly estimated the main equation that predicted teen birth rates and the two equations that predicted policy choices using the Maximum Likelihood Estimation. The maximum likelihood ratio test confirmed that the instrumental variable only relates to the policy variables, but does not relate to the teen births in the main equation. ($p < .05$, $df = 2$).

Results

The summary statistics of the sample data between 2000 and 2006 for each of the 50 states are presented in Table 1. The average birth rate per state across years was 41 per 1,000 female teens, with a lower rate of 28‰ among whites, and higher rates among blacks and Hispanics of 61‰ and 90‰, respectively. The birth rate for younger teens (aged 15–17 years) was lower at 22‰, whereas the older teens' (aged 18 and 19 tears) birth rate was higher at 70‰. Blacks and Hispanics had higher birth rates than whites among both younger and older teens.

Between 2004 and 2006, each state that chose to receive federal money through the abstinence-only program received $14.86 per capita of female teens. About 33% of the states offered the Medicaid Family Planning Waiver for at least a year, 25% had a conscience law, and 69% required parental consent for a minors' abortion in a given year. The average proportion of the black and Hispanic female teen populations was 11% and 9%, respectively. About 64% of the population reported that religion is important in the decision making; the average unemployment rate over time was comparatively low at 4.8%; and the average high school graduation rate was 71%.

In Table 2, we present the trends in teen birth rate, population characteristics, and family planning policies. The total teen birth rate dropped between 2000 and 2005 from 45.44 to 39.10 births per 1,000 female teens, but increased in 2006 to 40.83. Similar patterns were observed among white and black teens. Hispanic teens' birth rates followed a different pattern, with higher birth rates than other races in each year and a consistent increase from 2000 to 2006, excepting a minor decrease in 2003, which could be due to errors in census estimates [17]. When examining the data by age (younger teens and older teens), the exceedingly high birth rates among Hispanics still hold, especially among older teens, for whom there was an increase from 122.81 in 2000 to 163.92 in 2006.

Between 2004 and 2006, after correcting for inflation, the abstinence-only education funding per capita female teens increased between 2004 and 2005, but dropped slightly in 2006. State implementation of Medicaid Family Planning

Table 1
Summary statistics of study sample

Variable name	Mean among 50 states
Teen birth rates	
Total birth rate	41‰
Birth rates among white teens	28‰
Birth rates among black teens	61‰
Birth rates among Hispanic teens	90‰
Younger teen birth rates (ages 15–17)	
Total birth rate	22‰
Birth rates among white teens	13‰
Birth rates among black teens	37‰
Birth rates among Hispanic teens	55‰
Older teen birth rates (ages 18–19)	
Total birth rate	70‰
Birth rates among white teens	52‰
Birth rates among black teens	100‰
Birth rates among Hispanic teens	145‰
Family planning policies	
Total funding from abstinence program ($ Millions, 2004–2006)	2.91
Abstinence funding per capita of teen girls (2004–2006)	$14.86
Availability of Medicaid family planning waiver	33%
Conscience law	25%
Parental consent requirement for minors' abortion	69%
Population characteristics	
Percentage of black	11%
Percentage of Hispanic	9%
Percentage of population affiliated with a religion	64%
Average income per working adult ($ in thousands)	31.2
Unemployment rate	4.8%
High school graduation rate	71%
Conservatism	54.45
Percentage of teen population	14%

Note: The unit of analysis is per state per year, all the statistics are at the state level.

Waivers increased from 24% to 50% between 2000 and 2006. At the same time, there was a minor increase in the number of states adopting conscience law, and a minor decrease in the number of states requiring parental consent for minors' abortion. The proportion of black teens in the population was constant throughout these years, but there was a nearly 1.5% increase in the amount of Hispanic teens. From the descriptive data, we can observe that population growth and birth rates are high among Hispanics.

Next, we plotted the teen birth rates of different races, demographic features, family planning policies, religiosity levels, and conservatism by state in 2006. Figure 1A shows birth rate distribution. The southwestern states (TX, NM, and AZ) and two southern states (AR and MS) had the highest teen birth rates at 60 per 1,000 female teens or higher; the lowest teen birth rate was found in New England states.

Racial breakdown of the data provided additional insights. The Appalachian/deep south states and Oklahoma had the highest white teen birth rates at between 40 and 60; in all other states, white teen birth rates were below the national average of 40 (Figure 1B). Black teen birth rates were higher than the national average across the nation, except in a few mountain and New England states (Figure 1C). Consistent with the exceedingly high national Hispanic teen birth rate, the Hispanic teen birth rate was far above the national average at 60 or higher in most states (Figure 1D).

Next, we plotted the minority population percentages, which demonstrated that Hispanics are concentrated in Southwest states, CA, FL, NY, and NJ, and the black population is concentrated in southern states. These demographics explain some of the total teen birth rate trends, as the higher percentage of minorities in the southwest and southeast may contribute to the observed higher teen birth rates in these areas. However, there were some exceptions; California had a similar proportion of Hispanics as Texas, but had lower teen birth rates than the national average (between 20 and 40). In contrast, Oklahoma had the lowest percentage of minorities, but its birth rate was still higher than the national average, indicating that factors beyond population proportions affect teen birth rates.

In Figure 2, we investigated policy and cultural characteristics by state. High abstinence funding per capita was observed among states with high teen birth rates (e.g., TX) and states with low teen birth rates (e.g., WI) (Figure 2A); simultaneously, the Medicaid Family Planning Waiver was available in both states with high teen birth rates (e.g., TX) and states with low teen birth rates (e.g., CA) (Figure 2B). Parental consent of minors' abortion was required in most states. Conscience law was common in southern states, but rare in other areas (Figure 2D). The only factor that showed a distinctive geographic pattern was religiosity, with southern states, except FL and TX, having the highest religiosity score (Figure 2E). The most conservative Congress votes were from the mountain west states, and some southern states (Figure 2F). These figures indicate that demographics, policy, and cultural issues could jointly influence teen birth rates, and that no single reason explains the outcomes.

The results of our regression analysis are presented in Table 3. Among the entire female teen population (aged 15–19 years), offering the Medicaid Family Planning Waiver had a substantial significant influence on teen birth rates. On average, the waiver helped reduce teen birth rates by 2.1 per 1,000 female teens per state on average; this result was significant ($p < .05$). However, the abstinence-only education funding does not influence total teen birth rates; although the sign is positive, it is not significant. (See top panel of Table 3). As we expected, religiosity had a significant influence on teen birth rates; however, instead of reducing the teen birth rate, a 1% increase in population among whom religion is important in decision making is associated with .45 births per 1,000 female teens. Such results are consistent with most recent publication that found conservative religious beliefs strongly predict teen birth rates [18]. The percentage of Hispanics in the total population had a positive significant influence on the total teen birth rate—a 1% increase in the Hispanic population was associated with a .87 increase in teen births per 1,000 female teens.

Table 2
Trends in Average Teen Birth Rates, Demographic Features and Family Planning Policy

	2000	2001	2002	2003	2004	2005	2006
Teen birth rates							
Total birth rate	45.44	43.36	41.71	40.17	39.87	39.10	40.83
Birth rates among white teens	32.23	30.21	28.89	27.87	27.26	26.48	27.46
Birth rates among black teens	72.11	67.73	62.63	60.12	55.98	54.95	57.58
Birth rates among Hispanic teens	83.87	90.92	90.26	87.76	91.45	91.48	96.01
Younger teen birth rates (ages 15–17)							
Total birth rate	26.17	24.02	22.69	21.78	21.49	20.86	21.52
Birth rates among white teens	15.83	14.22	13.44	12.64	12.24	11.84	12.16
Birth rates among black teens	47.01	41.21	38.28	35.24	32.82	32.00	33.12
Birth rates among Hispanic teens	54.99	56.62	53.97	53.03	54.56	54.25	55.04
Older teen birth rates (ages 18–19)							
Total birth rate	73.89	72.66	71.13	68.42	67.96	67.66	71.28
Birth rates among white teens	56.69	54.77	52.98	51.21	50.07	49.25	51.40
Birth rates among black teens	108.69	107.62	101.26	99.78	92.94	92.96	98.19
Birth rates among Hispanic teens	122.81	138.72	145.54	142.63	150.26	153.41	163.92
Family planning policies							
Total funding from abstinence program ($ Million)	–	–	–	–	2.53	3.05	3.14
Abstinence funding per capita of female teens	–	–	–	–	13.23	15.81	15.54
Availability of Medicaid family planning waiver	24%	26%	28%	30%	32%	40%	50%
Conscience law	24%	24%	24%	24%	24%	26%	26%
Parental consent of minor's abortion	70%	70%	70%	68%	68%	68%	66%
Population characteristics							
Percentage of black	11%	11%	11%	11%	11%	11%	11%
Percentage of Hispanic	7.8%	8.1%	8.4%	8.6%	8.8%	9.1%	9.3%
Average income per working adult (in $ thousands)							
Unemployment rate	3.84	4.47	5.32	5.56	5.14	4.87	4.40
High school graduation rate	69.76	69.75	70.44	71.83	71.71	72.08	71.50
Conservatism	54.75	55.23	55.60	54.41	53.66	53.77	53.73
Percentage of teen population	14%	14%	14%	14%	14%	14%	14%

Note: The unit of analysis is per state per year, all the statistics are at the state level.

By breaking down the policy effects by race and ethnicity, we found that Medicaid waiver presence significantly reduced teen birth rates among all races, but the magnitude of reduction was lower for whites (−1.05) than for blacks (−3.03) and Hispanics (−4.25). We also found abstinence funding associated with higher white and black teen birth rates, but had no influence on Hispanic teen birth rates. A higher percent of Hispanics in the total population was associated with higher black and Hispanic teen birth rates.

The mid panel of Table 3 shows that the regression results for younger teens were similar to the results for the entire teen sample. The bottom panel of Table 3 shows that the regression results for older teens were similar to the entire teen and younger teen sample's results, except the magnitude of the policy effect was bigger. One unique finding among the older teen sample was that conscience law led to higher birth rates, with a marginally significant coefficient of 3.88 ($p < .1$). Analyzing the sample by race showed that such policy only influenced older white teens (coefficient = 3.66, $p < .1$).

Discussion

Our findings show direct effects of sex education and family planning services policies on teen birth rates. Medicaid Family Planning Waivers were shown to be effective in reducing teen birth rates across all races, especially among black and Hispanic teens. Higher abstinence-only education funding per capita increased birth rates of white and black teens, but did not affect Hispanic teen birth rates. Another finding that deserves further attention is the significant positive influence of religiosity on birth rates across age and race, and this effect could be independent of policy.

This study faces limitations. First and most importantly, the information for abstinence-only education funding was only available from 2004 to 2006, which limited the sample size and length of panel, and subsequently the choice of econometric models. For example, we used the state fixed effect to estimate the model but didn't find significant results due to several issues related to the limitation of sample. First, we have a short panel for a small sample of 50 states over 3 years; this hurts both the consistency and efficiency of the fixed effect model. Second, one key policy variable, Medicaid waiver, is a highly time consistent variable. Among the 50 states, 25 states never, while 16 states continuously had Medicaid waiver throughout the study period, which accounts for 80% of the states. Hence the fixed effect estimates are majorly based on 20% of the states which started to adopt Medicaid waiver between 2004 and 2006, thus making the results unstable. Third, the unobserved heterogeneity that caused the endogeneity between teen birth rate and

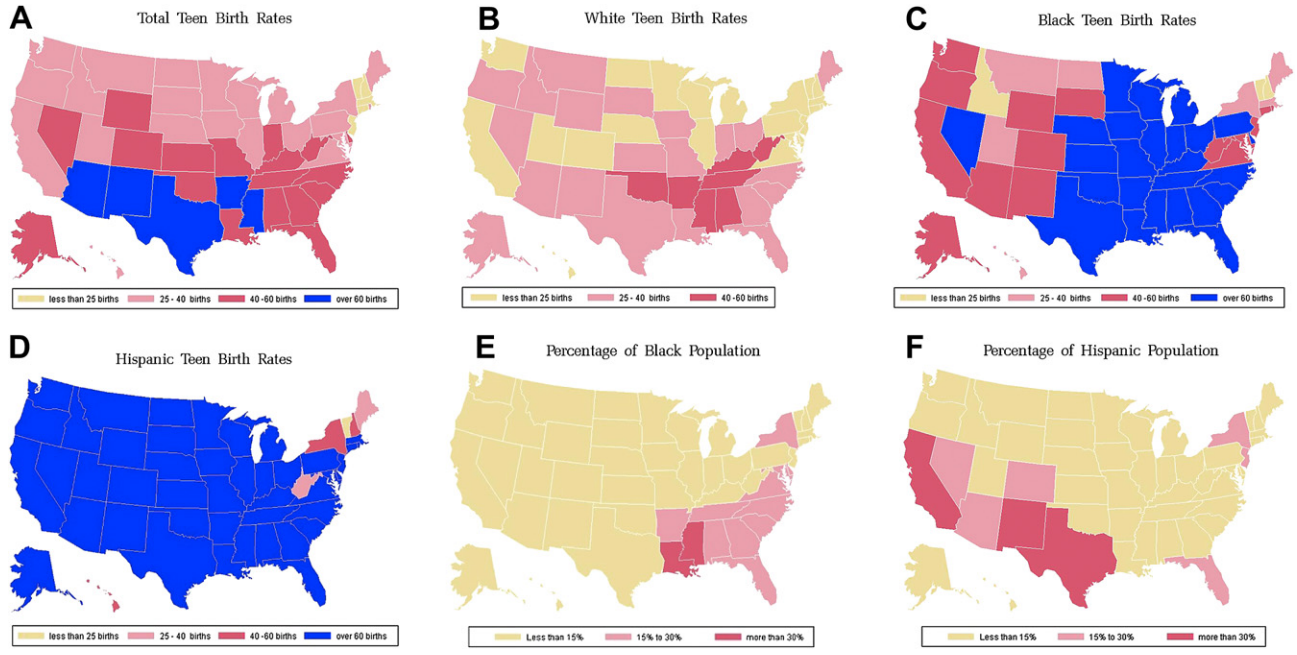

Figure 1. Geographic variation in teen birth rates and minority population in 2006. (A) Total teen birth rates, (B) White teen birth rates, (C) Black teen birth rates, (D) Hispanic teen birth rates, (E) Percentage of Black population, (F) Percentage of Hispanic population.

state level family planning choices is not necessarily time consistent, which could violate the assumption of fixed effect. For example, population migration could highly correlate with birth control and welfare policy at state level.

Second, besides the small sample size, all the independent variables are aggregate measurements at state level; they could be highly collinear to each other and lead counter intuitive results. For example, the coefficient of high school graduation rate on teen births is positive but the coefficient of unemployment is negative among blacks. One reason is that high school graduation rate is highly correlated with unemployment rate and such correlations could be more obvious among blacks than among white, thus making the estimates unstable.

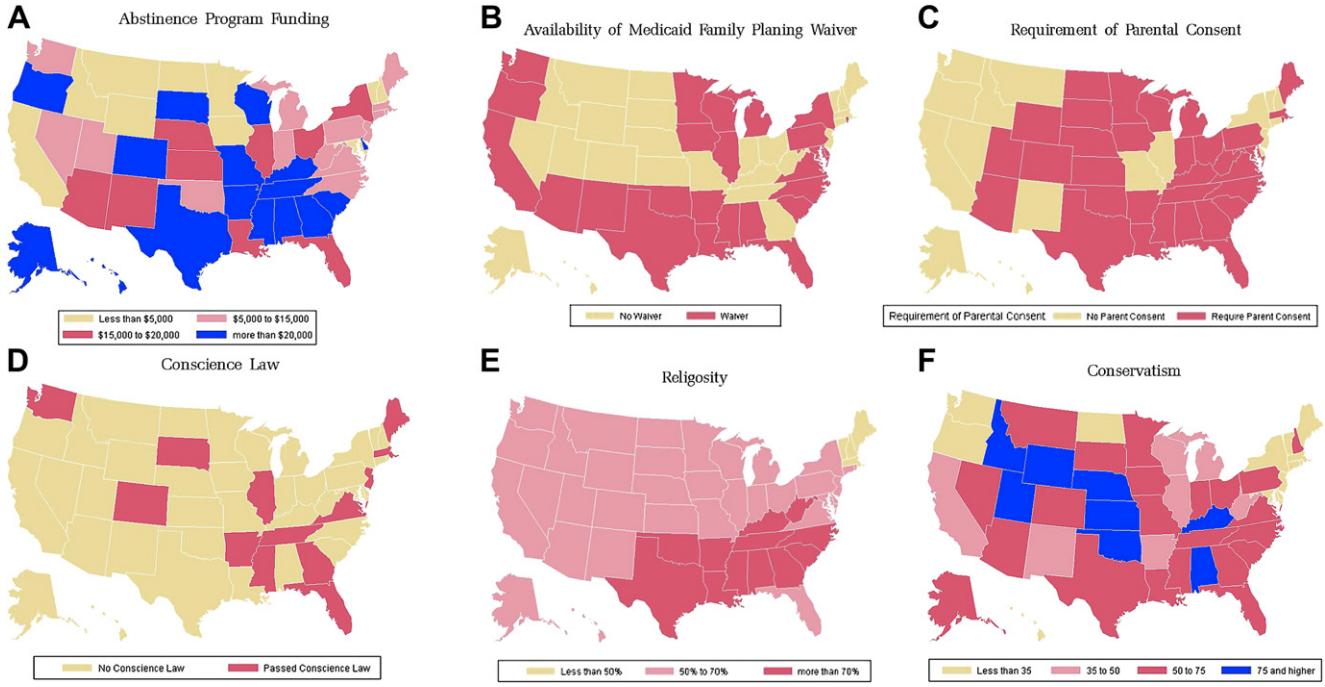

Figure 2. Geographic variation in family planning policy in 2006. (A) Abstinence Program Funding, (B) Availability of Medicaid Family Planning Wavier, (C) Requirement of parental consent, (D) Conscience law, (E) Religosity, (F) Conservatism.

Table 3
Regression analysis results of the effect of family planning policy on teen birth rates by age and race at state level (year 2004–2006)

Entire teen girls population	Total	White	Black	Hispanic
	Birth Rate	Birth Rate	Birth Rate	Birth Rate
Availability of Medicaid waiver	−2.14*	−2.04*	−4.25*	−5.15*
Abstinence funding per 1,000 teen	1.10	1.79*	6.93*	1.93
Parental consent	−.50	−.09	7.27*	1.95
Conscience law	1.19	1.12	−1.91	−1.09
Religiosity	.45*	.45*	.44*	2.15*
Percent of black population	.13	−.38	−.68	−.53
Percent of Hispanic population	.87*	.20	.86*	1.02*
High school graduation rate	−.38*	−.35*	.32**	−.82*
Unemployment rate	−.9	−1.66	−8.56*	.39
Average income per capita ($1,000)	.30	.71	.20*	.02*
Younger teen girls (ages 15–17)				
Availability of Medicaid waiver	−1.05*	−1.02*	−3.03*	−4.25*
Abstinence funding per 1,000 teen	.88*	1.16*	5.63*	1.83
Parental consent	.46	.39	5.14*	3.37
Conscience law	.12	.13	−3.18	−1.67
Religiosity	.19*	.21*	.13	1.05*
Percent of black population	.14	−.22**	−.39	−.24
Percent of Hispanic population	.60*	.07	.65*	.91*
High school graduation rate	−.18*	−.17*	.32*	−.42*
Unemployment rate	−1.20**	−1.37*	−7.02*	−1.09
Average income per capita ($1,000)	.20	.02	.02*	.03**
Older teen girls (ages 18–19)				
Availability of Medicaid waiver	−4.34*	−4.05*	−7.20*	−8.35*
Abstinence funding per 1,000 teen	1.53	3.06**	9.25*	1.68
Parental consent	−3.30	−1.85	11.27*	−2.94
Conscience law	3.88**	3.62**	.16	.74
Religiosity	.83*	.78*	.90*	4.17*
Percent of black population	.10	−.67	−1.19	−1.10
Percent of Hispanic population	1.43*	.51**	1.40*	1.33**
High school graduation rate	−.80*	−.73*	.27	−1.45*
Unemployment rate	−.01	−1.88	−10.12*	4.78
Average income per capita ($1,000)	−.40	−.04	3.80*	5.00*

* $p < .1$.
** $p < .05$.

Finally, we did not include Title X Family Planning funding in our analysis, as we could not determine the amount of Title X funding invested among teens by state because only about 25% of Title X service users are teens at the national level and this number could vary by state [19].

Policy Implications

The Obama administration and the most recent session of Congress have made progress to address teen pregnancy issues [20]. However, how to invest the federal resources on different birth control programs is still under debate. We suggest more activities through Medicaid waiver programs to reach out to low income and minority teens to increased access to contraceptives. Also, although SCHIP has been providing contraceptive services to adolescents since 1997, it is found that the take-up rate was low due to the lack of confidentiality in their provision [21]. More research and policy discussion should be conducted focusing on using SCHIP as another pathway for birth control among teens. Lastly, many of the Hispanic teen mothers are undocumented workers in border states (e.g., TX) with strong Catholic faith, but have limited or no access to family planning services covered by Medicaid, SCHIP or provided by Title X clinics. It is a great challenge for policy makers to address teen birth in this special group.

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