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Getting it Wrong: How *The New York Times* Misinterprets Abortion Statistics and Arrives at Incorrect Conclusions

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GETTING IT WRONG: HOW *THE NEW YORK TIMES* MISINTERPRETS ABORTION STATISTICS AND ARRIVES AT INCORRECT CONCLUSIONS

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On March 6, 2006, *The New York Times* ran a front-page article arguing that parental involvement laws have been ineffective at reducing the incidence of abortion among teens.[1] The authors collected data from six states that recently passed parental involvement legislation. They found that, both before and after the enactment of parental involvement laws, the ratio of abortions to births for minors closely tracks the ratio of abortions to births for 18- to 19-year-olds, who would not be directly affected by the law. Hence, the *Times* reporters argue that parental involvement laws have had little impact on the childbearing decisions of teens.

The effect of parental involvement laws is a topic that has long been neglected by the mainstream media. In fact, this article marks the first time in recent years that a mainstream media organization has reported on this issue. Regrettably, however, some real shortcomings are evident in the methods that the *Times* reporters used to collect and analyze their data.

Furthermore, these shortcomings led them to arrive at incorrect conclusions about the effect of parental involvement laws. Contrary to their claims, properly analyzed data provide solid evidence that parental involvement laws have been effective at reducing the incidence of abortion among minors.

SIX PROBLEMS

In particular, there exist six primary problems with the *Times*'s data collection and data analysis.

Problem #1: Using Questionable Data from Arizona

Arizona's Department of Health Services changed its abortion reporting requirements in 2004, the year after the state's parental consent law was enacted.[2] This renders any analysis of Arizona's parental consent law highly suspect. The *Times* reporters should have noted this change in reporting requirements or else excluded the Arizona data from their analysis.

Problem #2: Relying on Data from State Health Departments, Which Most Academic Researchers Do Not Use

State health departments are generally not considered reliable sources of abortion data. Academic researchers conducting research on the incidence of abortion almost always obtain their data from either the Alan Guttmacher Institute or the Centers for Disease Control and Prevention (CDC). The Alan Guttmacher Institute obtains data from a comprehensive survey of abortion providers. The CDC does obtain their data from the states but clearly notes any changes in state collection mechanisms.

1. Andrew Lehren and John Leland, "Scant Drop in Abortions Seen If Parents Are Told," *The New York Times*, March 6, 2006, p. A1.
2. Arizona Department of Health Services, *Arizona Health Status and Vital Statistics 2004*, Part 1D, "Induced Terminations of Pregnancy," at *www.azdhs.gov/plan/report/ahs/ahs2004/pdf/text1d.pdf* (July 11, 2006).

Problem #3: Using the Ratio of Abortions to Births as the Only Metric for Comparison

Some researchers measure the incidence of abortion by comparing the ratio of abortions to births. However, many other researchers use the abortion rate, which is the number of abortions performed per thousand women of childbearing age. Furthermore, the abortion rate can also be calculated for specific groups of women, such as women ages 15–17 or Hispanic women. The abortion rate is often a better metric for two reasons.

First, birthrates often fluctuate for a variety of reasons. As a result, the ratio of abortions to births may fluctuate for reasons that have little to do with the actual incidence of abortion.

Second, parental involvement laws could possibly affect the sexual behavior of teens. After passage of such a law, teens may be more likely to use birth control or less likely to engage in sexual activity. Using the ratio of abortions to births would not fully capture the impact that these laws have on teen sexual behavior.

It should be noted that a recent *New England Journal of Medicine* study that examines the impact of the Texas parental involvement law makes extensive use of abortion rate statistics from that state.[3]

Problem #4: Comparing Only the First Full Year After a State Began Enforcing a Parental Law to the Last Full Year Before the Law

One of the problems that researchers of state legislation frequently encounter is obtaining information about the enforcement date of many of these laws. As a result, it is typically safest to compare data from multiple years before the law was passed to data from multiple years after the law was passed. This allows researchers to be more certain that they are comparing data from before and after the enforcement of legislation.

Furthermore, considering data from a range of years provides researchers with more data points and allows them to present their results with a higher degree of statistical confidence. The fact that the *Times* reporters consider only two data points from every state, instead of a range of years, therefore limits their analysis.

Problem #5: Failure to Weight the Data

When analyzing data from a number of states, it is appropriate to give states with greater population more weight than states with less population. In the *Times* study, the authors should have weighted data from Texas, Tennessee, and Virginia more heavily than data from Idaho and South Dakota. Since there are relatively few abortions and teen pregnancies in Idaho and South Dakota, chance variation in the data could easily skew the results. Since Texas, Tennessee, and Virginia have more pregnancies, births, and abortions, we can be more confident in data collected from these states.

Problem #6: Using 18–19-Year-Olds as the Only Reference Point for Minors

The authors of the *Times* article assume that the abortion ratio for minors should be correlated with the abortion ratio for teens ages 18–19. However, this is not necessarily the case. Since a higher percentage of 18–19-year-olds are married, a higher percentage of pregnancies among 18–19-year-olds are likely intentional. Furthermore, since many teens go away to school, the 18- and 19-year-olds residing in a particular state might be much different demographically from the 13–17-year-olds who reside in the same state. At any rate, a better reference point for minors in a state that passed a parental involvement law might be minors in other states.

REPLICATING THE *TIMES* ANALYSIS

To further analyze the *Times* findings, I decided to replicate their findings while avoiding these shortcomings.

First, abortion data from Arizona were not analyzed.

Second, all data on the incidence of abortion were obtained from publicly available CDC publications.

Third, in addition to examining abortion ratios, I considered the abortion rates for both 13–17-year-olds and 18–19-year-olds.

Fourth, I compared the average abortion rate in the three years before each law was passed to the average abortion rate for all of the years after the legislation was passed.

Fifth, I weighted each state's data by the population of females aged 13–17 residing in that state.

3. Theodore Joyce, Robert Kaestner, and Silvie Coleman, "Changes in Abortions and Births and the Texas Parental Involvement Law," *New England Journal of Medicine*, Vol. 354, No. 10 (March 9, 2006), pp. 1031–1038.

This ensures that the trends in larger states will have more weight. Furthermore, it guarantees that chance variation in states with small populations will not bias the findings.

Sixth, overall, I ran two comparisons. I compared the abortion rate for minors to the abortion rate for 18–19-year-olds both before and after enactment of the parental involvement legislation. (See Table 1.) I then did another comparison using the abortion ratio rather than the abortion rate. (See Table 2.) More detailed results are given in the Appendix.

Table 1 CDA 06-05

Teen Abortion Rate for States Passing Parental Involvement Laws

Abortion Rate*	Before Law (Average of previous three years)	After Law (Average of all subsequent Years)	Decline
Ages 13–17	7.54	5.24	30.5%
Ages 18–19	29.49	24.12	18.2%
Difference			**12.3%**

* For Idaho, South Dakota, Tennessee, Texas, and Virginia.

Source: Center for Data Analysis calculations based on data from Centers for Disease Control and Prevention, "Morbidity and Mortality Weekly Report," 1995–2002.

Table 2 CDA 06-05

Teen Abortion Ratio for States Passing Parental Involvement Laws

Abortion Ratio*	Before Law (Average of previous three years)	After Law (Average of all subsequent Years)	Decline
Ages 15–17	294.19	245.05	16.7%
Ages 18–19	301.78	265.19	12.1%
Difference			**4.6%**

* For Idaho, South Dakota, Tennessee, Texas, and Virginia.

Source: Center for Data Analysis calculations based on data from Centers for Disease Control and Prevention, "Morbidity and Mortality Weekly Report," 1995–2002.

In both comparisons, the decline in the incidence of abortion was larger for 13–17-year-olds than for 18–19-year-olds. Contrary to the claims of the *Times* reporters, properly analyzed data provide solid evidence that parental involvement laws have been effective at reducing the incidence of abortion among minors.

EXAMINING NATIONAL ABORTION TRENDS

It is true that when we analyze the abortion ratio, the decline in the incidence of abortion among 13–17-year-olds is only slightly larger than the decline in the incidence of abortion for 18–19-year-olds. However, this begs an important question: Are these comparisons the best way to measure the efficacy of parental involvement laws? Some evidence suggests that they are not.

In their article, the *Times* reporters assume that there is a natural correlation between the abortion ratio for minors and the abortion ratio for women aged 18–19. However, there is good reason to believe that the childbearing decisions of 18- and 19-year-olds may differ from the decisions of minors. Since a higher percentage of 18–19-year-olds are married, a higher percentage of pregnancies among 18–19-year-olds are likely intentional. Furthermore, since many teens leave their state to attend college, the 18- and 19-year-olds residing in a particular state might be much different demographically from minors 13–17 years of age who reside in the same state. It is thus entirely possible that abortion trends of 18–19-year-olds may differ from the abortion trends for minors.

In short, we cannot be entirely sure of any correlation between the incidence of abortion for minors and the incidence of abortion for 18- and 19-year-olds. Therefore, a better comparison might be to compare the incidence of abortion among minors in states that recently passed parental involvement laws to the incidence of abortion among minors in other states. This comparison can even be taken a step further. We can see how the incidence of abortion among minors changes relative to the incidence of abortion among 18- and 19-year-olds both in states that did pass parental involvement legislation and in states that did not do so.

Overall, I ran two comparisons. I compared changes in the abortion rate for minors and for teens aged 18–19 in the five states that enacted parental involvement laws and in 35 other states

that did not enact parental involvement legislation.[4] (See Table 3). I then ran a similar set of comparisons using the abortion ratio rather than the abortion rate. (See Table 4). More detailed results are given in the Appendix.

Table 3 CDA 06-05

Teen Abortion Rate for States Passing Parental Involvement Laws

Abortion Rate	Before Law (previous three years)	After Law (all subsequent years)	Decline
Idaho, South Dakota, Tennessee, Texas, and Virginia			
Ages 13–17	7.54	5.24	30.5%
Ages 18–19	29.49	24.12	18.2%
Difference			**12.3%**
35 Other States			
Ages 13–17	8.78	7.15	18.6%
Ages 18–19	31.60	27.09	14.3%
Difference			**4.3%**
Difference between Five States with Parental Involvement Laws and the 35 Other States			**8.0%**

Source: Center for Data Analysis calculations based on data from Centers for Disease Control and Prevention, "Morbidity and Mortality Weekly Report," 1995–2002.

This set of comparisons clearly demonstrates the efficacy of parental involvement legislation. In both comparisons, the largest decline in the incidence of abortion was always among minors who lived in states where a parental involvement law was passed. This is consistent with our expectations.

More important, the decline in the minor abortion ratio, relative to the abortion ratio for women aged 18–19, is considerably *larger* in states that have passed parental involvement laws than in states that have not done so. This statistic holds true for abortion rates as well. This provides very solid evidence of the efficacy of parental involvement legislation.

Indeed, the *New York Times* attempted to show that, in states that passed parental involvement laws, the decline in the abortion ratio for minors was similar to the decline in the abortion ratio for women aged 18–19. What the *Times* reporters failed to realize is that the abortion ratio for minors was *increasing* relative to the abortion ratio for women aged 18–19 in other states. Therefore, states that passed parental involvement laws were more successful at preventing teen abortions relative to other states. Regrettably, the *Times'* use of a faulty baseline gives the incorrect impression that parental involvement laws are ineffective.

Table 4 CDA 06-05

Teen Abortion Ratio for States Passing Parental Involvement Laws

Abortion Ratio	Before Law (previous three years)	After Law (all subsequent years)	Decline
Idaho, South Dakota, Tennessee, Texas, and Virginia			
Ages 15–17	294.19	245.05	16.7%
Ages 18–19	301.78	265.19	12.1%
Difference			**4.6%**
35 Other States			
Ages 15–17	515.64	528.34	-2.5%
Ages 18–19	445.05	432.08	2.9%
Difference			**-5.4%**
Difference between Five States with Parental Involvement Laws and the 35 Other States			**10.0%**

Source: Center for Data Analysis calculations based on data from Centers for Disease Control and Prevention, "Morbidity and Mortality Weekly Report," 1995–2002.

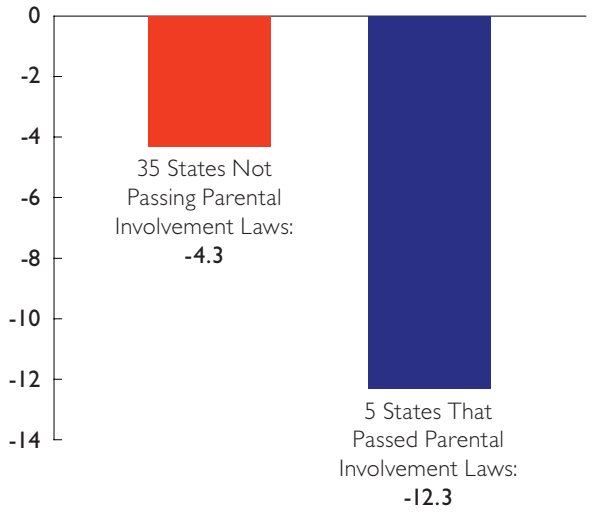
CONCLUSION

This analysis adds to the body of social science evidence suggesting that parental involvement laws are effective at reducing the incidence of abortion. Indeed, comprehensive studies done by public health researchers, political scientists, and economists that have appeared in journals as diverse as the *Journal of Policy Analysis and Management*, *Journal of Health Economics*, and *Contemporary Economic Policy* have found evidence that

4. The 35 other states that released data on minor abortions every year from 1994 to 2002 were Alabama, Arizona, Arkansas, Colorado, Connecticut, Georgia, Hawaii, Indiana, Kansas, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Utah, Vermont, Washington, West Virginia, Wisconsin, and Wyoming.

Chart 1 CDA 06-05

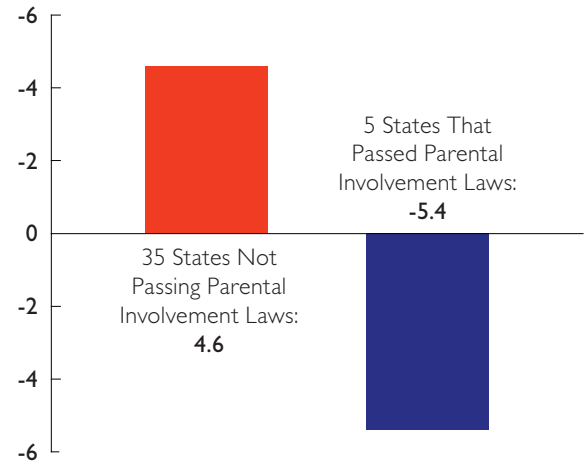
Change in the Minor Abortion Rate Relative to the Abortion Rate for 18–19 Year Olds



Source: Center for Data Analysis calculations based on data from Centers for Disease Control and Prevention, "Morbidity and Mortality Weekly Report," 1995–2002.

Chart 2 CDA 06-05

Change in Minor Abortion Ratio Relative to the Abortion Ratio for 18–19 Year Olds



Source: Center for Data Analysis calculations based on data from Centers for Disease Control and Prevention, "Morbidity and Mortality Weekly Report," 1995–2002.

parental involvement laws are correlated with reductions in teen abortion rates.[5] Separate state-specific studies that examined parental involvement laws in Minnesota and Massachusetts have also provided evidence that parental involvement laws reduce the teen abortion rate.[6]

Even as recently as March 2006, *The New England Journal of Medicine* released a study looking at the impact of the Texas parental notification law that was passed in 2000. Using an approach that was similar to, but more methodologically rigorous than, the approach used by the *Times* reporters, the authors arrived at conclusions that were strikingly different. They found that after passage of this parental notification law, the abortion rate for minors fell more sharply than the abortion rate for 18-year-olds—who would be unaffected by the law.[7]

In summary, through a flawed analysis of the data and selective coverage of the social science research, *The New York Times* attempts to make the case that parental involvement laws are ineffective. However, better data, better analysis, and a more thorough reporting of the academic litera-

5. Deborah Haas-Wilson, "The Economic Impact of State Policy Restrictions on Abortion: Parental Consent and Notification Laws and Medicaid Funding Restrictions," *Journal of Policy Analysis and Management*, Vol. 12, No. 3 (Summer 1993), pp. 498–511; Rebecca Blank, Christine George, and Rebecca London, "State Abortion Rates: The Impact of Policies Providers, Politics, Demographics, and Economic Environment," *Journal of Health Economics*, Vol. 15, No. 5 (October 1996), pp. 513–553; and Robert Ohsfeldt and Stephan Gohman, "Do Parental Involvement Laws Reduce Adolescent Abortion Rates?" *Contemporary Economic Policy*, Vol. 12, No. 2 (April 1994), pp. 65–76.
6. Virginia Cartoof and Lorraine Klerman, "Parental Consent for Abortion: Impact of the Massachusetts Law," *American Journal of Public Health*, Vol. 76, No. 4 (April 1986), pp. 397–400, and James Rogers, Robert Boruch, George Storms, and Dorothy DeMoya, "Impact of the Minnesota Parental Notification Law on Abortion and Birth," *American Journal of Public Health*, Vol. 81, No. 3 (March 1991), pp. 294–298.
7. Joyce *et al.*, "Changes in Abortions and Births and the Texas Parental Involvement Law."

ture leads to the exact opposite conclusion: namely, that parental involvement laws *have* been effective at reducing the incidence of abortion among minors.

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APPENDIX
DETAILED COMPARISONS BETWEEN STATES ENACTING PARENTAL INVOLVEMENT LAWS AND OTHER STATES

Table A1 CDA 06-05

Teen Abortion Rate for States Passing Parental Involvement Laws in 2000

Abortion Rate	Before Law (1997–1999)	After Law (2001–2002)	Decline
Idaho, Tennessee, and Texas			
Ages 13–17	6.75	4.92	27.1%
Ages 18–19	28.68	23.33	18.6%
Difference			**8.5%**
35 Other States			
Ages 13–17	8.57	7.03	18.0%
Ages 18–19	30.91	26.79	13.3%
Difference			**4.7%**
Difference Between Three States with Parental Involvement Laws and the 35 Other States			**3.8%**

Source: Center for Data Analysis calculations based on data from Centers for Disease Control and Prevention, "Morbidity and Mortality Weekly Report," 1995–2002.

Table A2 CDA 06-05

Teen Abortion Rate for States Passing Parental Involvement Laws in 1997

Abortion Rate	Before Law (1994–1996)	After Law (1998–2002)	Decline
South Dakota and Virginia			
Ages 13–17	10.62	6.53	38.5%
Ages 18–19	32.66	27.20	16.7%
Difference			**21.8%**
35 Other States			
Ages 13–17	9.58	7.63	20.3%
Ages 18–19	34.27	28.27	17.5%
Difference			**2.8%**
Difference Between Two States with Parental Involvement Laws and the 35 Other States			**19.0%**

Source: Center for Data Analysis calculations based on data from Centers for Disease Control and Prevention, "Morbidity and Mortality Weekly Report," 1995–2002.

Table A3 CDA 06-05

Teen Abortion Ratio for States Passing Parental Involvement Laws in 2000

Abortion Ratio	Before Law (1999–1997)	After Law (2001–2002)	Decline
Idaho, Tennessee, and Texas			
Ages 15–17	238.22	195.61	17.9%
Ages 18–19	267.04	229.69	14.0%
Difference			**3.9%**
35 Other States			
Ages 15–17	518.14	530.96	-2.4%
Ages 18–19	442.32	432.80	2.2%
Difference			**-4.6%**
Difference Between Three States with Parental Involvement Laws and the 35 Other States			**8.5%**

Source: Center for Data Analysis calculations based on data from Centers for Disease Control and Prevention, "Morbidity and Mortality Weekly Report," 1995–2002.

Table A4 CDA 06-05

Teen Abortion Ratio for States Passing Parental Involvement Laws in 1997

Abortion Ratio	Before Law (1994–1996)	After Law (1998–2002)	Decline
South Dakota and Virginia			
Ages 15–17	511.79	437.28	14.6%
Ages 18–19	436.86	403.23	7.7%
Difference			**6.9%**
35 Other States			
Ages 15–17	506.21	519.06	-2.5%
Ages 18–19	454.54	429.56	5.5%
Difference			**-8.0%**
Difference Between Two States with Parental Involvement Laws and the 35 Other States			**14.9%**

Source: Center for Data Analysis calculations based on data from Centers for Disease Control and Prevention, "Morbidity and Mortality Weekly Report," 1995–2002.