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Abortion before & after *Roe*

Ted Joyce [a,*], Ruoding Tan [b], Yuxiu Zhang [c]

[a] Baruch College & NBER, 55 Lexington Ave, Box 10-225, New York, NY 10010, United States
[b] Department of Economics, Graduate Center, CUNY, 365 Fifth Ave, 5th Floor, New York, NY 10016, United States
[c] Health Policy and Management, Yale School of Public Health, 60 College Street, New Haven, CT 06510, United States

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ABSTRACT

We use unique data on abortions performed in New York State from 1971 to 1975 to demonstrate that women traveled hundreds of miles for a legal abortion before *Roe*. A 100-mile increase in distance for women who live approximately 183 miles from New York was associated with a decline in abortion rates of 12.2 percent whereas the same change for women who lived 830 miles from New York lowered abortion rates by 3.3 percent. The abortion rates of nonwhites were more sensitive to distance than those of whites. We found a positive and robust association between distance to the nearest abortion provider and teen birth rates but less consistent estimates for other ages. Our results suggest that even if some states lost all abortion providers due to legislative policies, the impact on population measures of birth and abortion rates would be small as most women would travel to states with abortion services.

1. Introduction

Abortion on demand was legal in a few states in 1970. Not until the 1973 Supreme Court decision in *Roe v. Wade* was legalized abortion available nationally. In the years since, economists have estimated the association between abortion rates and the availability of abortion services. In each analysis abortion rates are regressed on the number or presence of the abortion providers in a county or state (Matthews et al., 1997; Blank et al., 1996; Haas-Wilson, 1996). The maintained assumption is that the availability of abortion services is exogenous to use. In the one exception, researchers instrumented the natural log of abortion providers with the log of hospitals and non-OBGYNs in a state (Blank et al., 1996). However, the exclusion restrictions were questionable by current standards and use of log physicians and hospitals instead of per capita measures was vulnerable to spurious scale effects.

The best evidence as to the effect of dramatically increasing the supply of abortion services comes from changes in birth rates before and after legalization in the early 1970s (Levine et al., 1999; Levine, 2004; Angrist and Evans, 1999). Results from these influential studies have proven to be robust and the difference-in-difference research design has been the basis for much subsequent work. And yet, without data on abortions in the pre-*Roe* era, it has not been possible to know the impact of early legalization on abortion rates, the relationship between abortion and birth rates, or even the total effect of legalization on fertility. The latter holds because the effect of legalized abortion on birth rates in the pre-*Roe* years extended to states in which abortion remained illegal. Literally tens of thousands of women from these states traveled to New York for an abortion in the years before *Roe*. This movement is dramatically illustrated by the map in Fig. 1. The number in each state is the abortion rate for residents of the state that were *performed in New York* in 1971–1972, two years before the Supreme Court decision in *Roe*. For instance, there were 7.6 abortions to residents of Michigan performed in New York per 1000 women 15–44 residing in Michigan. In absolute numbers, 29,227 women traveled from Michigan to New York for an abortion in 1971–72.[1]

In this study we return to the period just before and after *Roe* to analyze changes in the availability of abortion services on use. The legalization of abortion in New York in July of 1970 provides a plausibly exogenous change in the availability of abortion services to non-residents of the State moderated in part by distance.

* Corresponding author. Tel.: +1 646 312 3541.
E-mail addresses: Theodore.joyce@baruch.cuny.edu (T. Joyce), rtan@gc.cuny.com (R. Tan), yuxiu909@gmail.com (Y. Zhang).

[1] Authors' tabulations of data from the New York State Department of Health. See Table 1.

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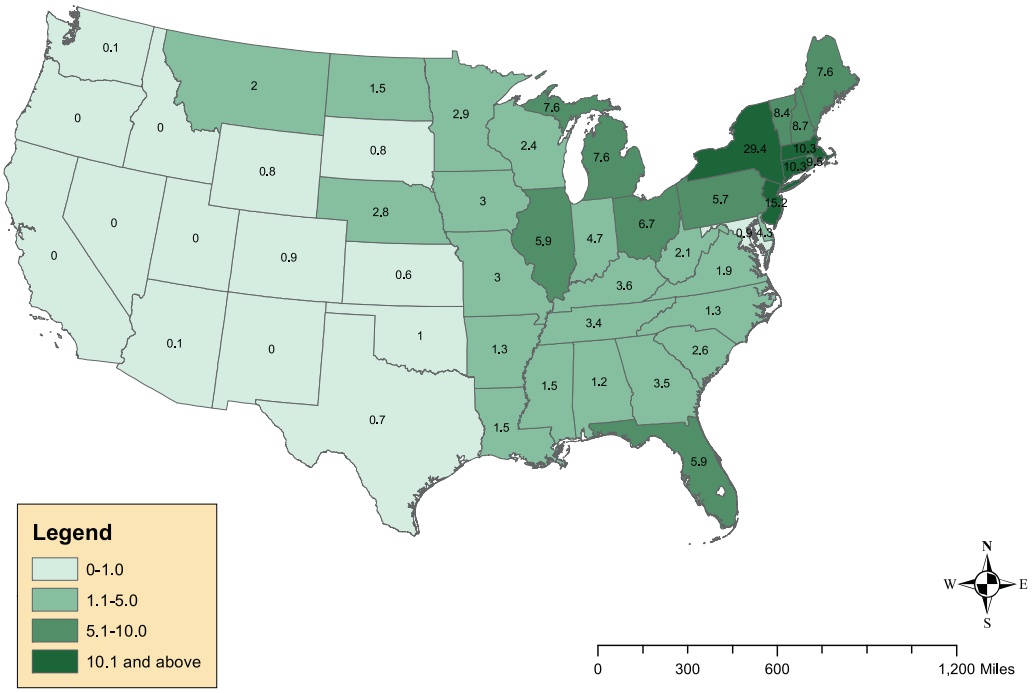

Fig. 1. Average resident abortion rates for abortions performed in NY, 1971–1972. Abortion per 1000 women ages 15–44.
Source: Author's tabulation of data from NY State Department of Health.

A second supply shock occurred with *Roe* in January of 1973 as abortion providers became available in every state obviating most travel to New York. We exploit both these changes to identify the effect of access to abortion in New York on use. The analysis is made possible by re-discovered data on abortions performed in New York State by age, race, year and state of residence in the years before *Roe*. Although the analysis is limited geographically, the data are matchless and provide new insights as to the impact of legalized abortion on the abortion and birth rates of women from states where abortion remained illegal. Because similar abortion data are not available nationally, we take a less direct but broader approach to the question of abortion availability and use by examining the association between age- and race-specific birth rates with distance to nearest legal abortion provider in any state from 1968 to 1975. We use the results to provide a more detailed assessment than has been previously possible of the effect of legalized abortion on abortion and birth rates in the U.S. in the years just before and after *Roe*.

We find a robust association between distance to New York and resident abortion rates in the years before *Roe*. Abortion rates as measured by abortions performed in New York among residents of northern and Midwest states fell 12.2 percent in 1971–72 for every hundred miles a woman lived from the state. The decline was greater for nonwhites than for whites. Travel to New York for an abortion fell dramatically in years immediately after *Roe* as abortion services became available locally. The story that emerges from the national birth data is less robust. Distance to the nearest legal abortion provider was associated with an increase in teen birth rates in the years before *Roe*, but changes in distance evaluated at the mean had only modest effects on birth rates in the years right after *Roe*. We conclude that recent efforts by states to limit the supply of abortion providers will have only minor effects on population measures of birth and abortion rates, but will have a greater impact on young women and those without resources to adjust.

2. Background

2.1. Impact of legalized abortion

Early studies on the impact of legalized abortion were largely descriptive, limited to one or a few states, or they did not account for ongoing trends in fertility (Melton et al., 1972; Smith et al., 1973; Paktar et al., 1973; Sklar and Berkov, 1974; Quick, 1978; Joyce and Mocan, 1990). Levine et al. (1999) and Angrist and Evans (1999) were the first to provide a more comprehensive analysis of legalized abortion on fertility rates across all 50 states and over a longer period. Both studies used a difference-in-difference (DD) framework by comparing variation in fertility rates in the states that legalized abortion or reformed their abortion laws in the years before *Roe* relative to states in which abortion remained illegal. Levine et al. (1999) analyzed changes among all women and then separately by age whereas Angrist and Evans (1999) focused on changes in teen fertility. Both studies found that birth rates declined by approximately 4 percent more in the early legalizing or reform states relative to the states in which abortion did not become legal until *Roe*. Both studies also found that birth rates of nonwhites fell more than those of whites. Neither study analyzed changes in abortion rates directly due to a lack of data. However, Levine et al. (1999) reported that birth rates fell less among women who lived more than 750 miles relative to women who lived within 750 miles of an early legalizing state. The association suggested that large differences in travel distance were inversely related to abortion rates.

The difference-in-difference estimator employed by Levine et al. (1999) and Angrist and Evans (1999) provides unbiased estimates of the *relative* changes in birth rates in states that legalized or reformed abortion laws relative to states in which abortion remained illegal. But the DD cannot estimate the absolute decline in birth rates in the non-legalizing states induced by legislation in New York or California. The limitation of the