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Lower Tax Rates Increase Married Women's Work

How does the labor supply of married women respond to changes in aftertax wages? A recent NBER study by **Nada Eissa** shows that a 1 percent increase in aftertax wages leads to a 0.8 percent increase in labor supply for married women in upper-income families.

In **Taxation and Labor Supply of Married Women: The Tax Reform Act of 1986 As a Natural Experiment** (*NBER Working Paper No. 5023*), Eissa analyzes the effect of the 1986 Tax Reform Act (TRA86) on the labor supply of married working women. The act reduced marginal tax rates substantially for households at the top of the income distribution, but reduced rates very little for households further down the income distribution. By assuming that other factors will affect the labor supply of all married women in the same way, Eissa is able to isolate the effect of tax rates on these women.

Women whose average total family income was $47,100 in 1985 dollars experienced little reduction in tax rates after TRA86. Eissa compares them to working women whose average family income was $131,651. As expected, she finds that the labor force participation rate of the highest-income women increased by 19.5 percent in the years following TRA86, compared

to a 7.2 percent increase for the other group. Since other factors are the same for both groups of women, Eissa estimates that the changes in TRA86 increased the labor force participation of the highest-income women by 12.3 percent.

Eissa also finds that hours of work, for women already employed, increased by 12.7 percent for the highest-income group and 3.6 percent for the other group. If hours worked otherwise would have grown at the same rate for both groups, then TRA86 increased the hours worked of the highest-income women by 9.4 percent.

To check her results, Eissa also compares the highest-income

percent, respectively. Based on this comparison, the implied increase in labor force participation induced by TRA86 for the highest-income women is 13 percent, and a 6.2 percent increase in their hours worked.

Eissa also considers the possibility that the economic return to education may have changed after 1986, and that the upper-income women on average have more education than women in other groups. Adjusting for this and other possible differences, Eissa finds that a 1 percent increase in aftertax income leads to a 0.8 percent increase in total hours worked and a 0.4 percent increase in labor force

> "[A] 1 percent increase in aftertax wages leads to a 0.8 percent increase in labor supply for married women in upper-income families."

group to women whose average family income was $67,211. These women also had a substantial cut in marginal tax rates after TRA86. Eissa finds that their labor force participation and hours worked (conditional on being employed) increased by 6.5 percent and 6.8

participation.

Based on these results, what is the implied effect of the 1993 tax law that raised marginal tax rates on upper-income people? Eissa estimates that the induced 16 percent decrease in the aftertax wage of high-income, married women will

reduce their labor supply by roughly 13 percent, about half of this because of reduced labor force participation.

Eissa's data on income and other characteristics are taken from the March Current Population Survey for 1984 to 1986 and 1990 to 1992.

Her data on marginal tax rates are from the National Bureau of Economic Research's Tax Simulation Model.   DRH

Increasing the Police Force Reduces Crime

Research by criminologists has found little evidence that hiring more police in a city reduces crime. In most cases, the number of crimes goes up simultaneously with the number of police per capita. However, this could reflect the tendency of a city with a high crime rate to hire more police.

Now a new NBER study by economist **Steven Levitt** finds that in the nation's largest cities, each additional police officer hired would eliminate eight to ten seri-

The key to this study is that for political reasons, governors and mayors across the nation hire more police in advance of elections. For 59 large cities between 1970 and 1992, the mean percentage increase in sworn police officers was 2.6 percent for gubernatorial election years, 2.2 percent in mayoral election years, and only 0.4 percent in nonelection years. This political cycle in police hiring provides a source of variation in police staffing that probably is not

age of female-headed households; public welfare spending; percentage of the population aged 15 to 24; and education spending per capita, for example—as well as the fact that some cities have become more dangerous over time and others have not. As unemployment goes up, so do crimes motivated by monetary gain, including robbery, burglary, larceny, and motor vehicle theft, he finds. Unemployment has little effect on "crimes of passion," though. All crime, except for rape and murder, tends to rise with a younger population.

"[E]ach additional police officer hired would eliminate eight to ten serious crimes a year."

ous crimes a year. In **Using Electoral Cycles in Police Hiring to Estimate the Effect of Police on Crime** (*NBER Working Paper No. 4991*), Levitt calculates that the value of eliminating those crimes is approximately $100,000 per police officer. Given that an additional police officer will receive a salary of about $40,000 and impose overhead costs of roughly the same amount, more police may result in savings for society, Levitt concludes.

His estimates of the cost of crime —measured in terms of lost productivity, property loss, medical bills, and reduction in the quality of life—do not include the costs of preventive measures taken to avoid being a crime victim (including home security systems and car alarms), life-style changes (for example, avoiding Central Park after dark), costs to employers, or legal costs. Thus they may underestimate the true costs of crime.

driven by changes in crime rates. Consequently, an analysis based only on variation that is induced by elections gets at the *causal* effect of police on crime, unlike previous studies that focused on correlations between the two.

Levitt focuses on seven categories of crime: murder and non-negligible manslaughter, forcible rape, assault, robbery, burglary, larceny, and motor vehicle theft. All categories (except larceny, which rose by a statistically insignificant amount) declined with additional sworn police officers. Civilian employees of police forces, in contrast, appear to have a negligible effect on reported crime, Levitt finds. (Sworn officers carry a gun and have the power of arrest; civilian employees do not.)

In his analysis, Levitt takes account of socioeconomic and demographic changes in each city—in unemployment; percentage of the population that is black; percent-

Increased public spending on welfare is associated with less crime, Levitt observes. Surprisingly, though, higher spending per capita on education is correlated with more crime. This may be because the higher spending is necessary to educate a larger number of troubled youths, Levitt conjectures.

All of the cities he studied had populations over 250,000, and mayors elected directly by the residents. During the 22-year period, violent crime in these cities more than doubled, to more than twice the rate for the nation as a whole. Property crimes, although leveling off after the mid-1980s, were almost twice as frequent in these bigger cities as in the nation as a whole. But the number of sworn officers grew less rapidly than crime rates.

Because the cities in this study have relatively high crime rates, these findings may not be relevant for less-populated towns with lower crime rates, Levitt notes. Further, some of the decrease in crime in central cities resulting from the addition of police officers may represent the flight of criminal activities to the suburbs or other areas. DRF

Cutting Medicaid Abortion Funding Reduces Pregnancies

In 1973, the U.S. Supreme Court effectively made abortion legal in its *Roe v. Wade* decision. From 1974 to 1976, federal Medicaid funds were generally available for abortions. But in 1976, Congress enacted the Hyde Amendment, preventing federal Medicaid funds from being used to pay for most abortions, and allowing states to impose similar restrictions. Because of a series of court challenges, however, the law was enforced only intermittently through 1980. By 1981, though, Supreme Court rulings eliminated any ambiguity, and states that wanted to restrict Medicaid funding clearly could do so. Twenty-seven states enacted restrictions immediately; by 1990 there were restrictions on Medicaid funding of abortion in 37 states.

In **The Effect of Medicaid Abortion Funding Restrictions on Abortions, Pregnancies, and Births** (*NBER Working Paper No. 5066*), **Philip Levine, Amy Trainor,** and **David Zimmerman** use these variations in state law to analyze the impact of state funding restrictions on the likelihood of getting pregnant, having an abortion, or bearing a child. They find that the Medicaid funding restrictions reduce pregnancies as well as abortions. The number of births either remains constant or decreases, depending upon the statistical specification they use.

The authors rely on both state-level data from 1977 to 1988 and individual-level data from the National Longitudinal Survey of Youth (NLSY) between 1979 and 1990. In both datasets and virtually all estimations, Medicaid restrictions reduce the number of abortions performed. Overall, the estimates imply that 40,000 to 80,000 fewer abor-

> "Medicaid funding restrictions reduce pregnancies as well as abortions."

tions would be performed if Medicaid funding restrictions were universal. A comparable reduction in pregnancies would result, yielding no significant change in births. An analysis of the NLSY data shows that these effects are concentrated among poor women, as would be expected given the low income eligibility requirements of the Medicaid program.

High Retail Prices in Japan Reflect Barriers to Entry

Retail prices in Japan are higher than in other countries for similar products. According to a survey of 1991 prices in Japan and the United States conducted jointly by the U.S. Department of Commerce and the Japanese Ministry of International Trade and Industry, prices for two-thirds of the 112 products in the sample were higher in Japan; the average differential was 37 percent. Of the 40 products in the sample that were made in Japan, though, prices in Japan were lower by 1.4 percent on average. But for the 20 products made in other countries, 19 were more expensive in Japan; the average differential was 65 percent.

In a recent study, NBER Faculty Research Fellow **Michael Knetter** shows that the higher retail prices in Japan probably reflect a relatively closed market, as opposed to merely higher distribution and retail costs in Japan. He reaches this conclusion by studying the prices of German exports to Japan and several other countries.

For the 37 German export industries he studies, Knetter confirms that prices on shipments to Japan are significantly higher as the goods leave Germany than prices on shipments to the United States, the United Kingdom, or Canada. In **Why Are Retail Prices in Japan So High?** (*NBER Working Paper No. 4894*), he finds that rather large differentials exist between the Japanese market and the comparison countries, even after taking account of the effects of exchange rate and income fluctuations that may influence price differentials across the markets temporarily. This shows that higher distribution and transport costs within Japan are not the only cause of higher retail prices. One possible explanation of the high prices on goods destined for Japan is that Japanese barriers to foreign competition lead German exporters to accept lower market shares but enable them to receive higher prices (in exchange for the lower quantity).

For the chemical industries in his sample, Japanese buyers pay a 26 percent premium (on average) relative to U.S buyers. The premiums relative to the United Kingdom and Canada are over 30 percent. For

autos, the average price differential with the United States is small, although this almost certainly reflects

about 10 percent more for larger cars. British and Canadian auto importers face prices that are more

gins are often larger, with the average difference around 45 percent for the three comparison countries. Differences in export prices of consumer goods are in the range of 10 to 20 percent on average.

The data used in Knetter's study are based on destination-specific exports for 37 seven-digit German industries during 1975–87. For each industry, Knetter collects annual destination-specific export quantities and values for six or seven of the largest export destinations from Statistiches Bundesamt publications.

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quality differences to some extent. U.S. buyers pay more for small cars, while Japanese buyers pay

than 20 percent lower than those in Japan.

For industrial products, the mar-

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