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BULLETIN ON AGING AND HEALTH

The Effect of Medicare on Medical Expenditures, Mortality, and Spending Risk

The introduction of Medicare in 1965, providing nearly universal health insurance coverage for the elderly, was the largest change in health insurance coverage in U.S. history. Medicare currently covers nearly 42 million beneficiaries, or one in seven U.S. citizens. Medicare expenditures were $295 Million in 2004, or nearly one-fifth of total health expenditures in the U.S.

The introduction of such a large government health insurance program is likely to have had important consequences for both beneficiaries and the health care system at large. These consequences are the focus of two new working papers.

In **The Aggregate Effects of Health Insurance: Evidence from the Introduction of Medicare** (NBER Working Paper 11619) **Amy Finklestein** examines the impact of the introduction of Medicare on health spending and technology adoption.

A central challenge in such analysis is distinguishing the impact of the introduction of Medicare from the effect of other changes that may have occurred at the same time or from the underlying growth pattern of health spending. To do so, the author makes use of the substantial geographic variation in private health insurance coverage among the elderly prior to 1965, which meant that Medicare had a much larger effect on insurance coverage in some regions of the country than in others. For example, half of New England residents over age 65 had meaningful health insurance prior to Medicare, compared to only 12 percent of older residents in the East South Central United States.

The author compiles an annual hospital-level data set from 1948–1975 for six hospital outcomes: total expenditures, payroll expenditures, employment, beds, admissions, and patient-days. If the introduction of Medicare affected these hospital outcomes, there should be a break in any pre-existing trend in these variables at the time of its introduction, and the break should be larger in areas with a lower rate of insurance coverage prior to its introduction.

The author finds compelling evidence to support this hypothesis. For example, prior to 1965, hospital admissions were growing more slowly in the low-insurance areas than in the high-insurance areas, but after 1965 this pattern reversed, with admissions growing much more quickly in those areas most affected by Medicare's introduction. Similar patterns are evident in the other hospital outcome variables, including expenditures. The results from this analysis suggest that, in its first five years, the introduction of Medicare was associated with a 23 percent rise in total hospital spending (for all ages). Extrapolating from these results suggests that the overall spread of health insurance may be able to explain at least 40 percent of the dramatic increase in health spending in the U.S. between 1950 and 1990.

The author's estimated impact of Medicare on hospital spending is over four times larger than what would have been predicted from small scale changes in health insurance such as those analyzed by the Rand Health Insurance Experiment of the 1970s. The author conjectures that the reason for this discrepancy is that market-wide changes in health insurance — such as the introduction of Medicare — may have fundamentally different effects on health spending than experiments affecting only isolated individuals. For example, market wide changes in health insurance may increase market demand for health care enough to make it worthwhile for hospitals to incur the fixed cost of adopting a new technology. Consistent with this, the author presents suggestive evidence of faster adoption of new cardiac technologies following Medicare's introduction.

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The NBER Bulletin on Aging and Health summarizes selected Working Papers recently produced as part of the Bureau's program of research in aging and health economics. The Bulletin is intended to make preliminary research results available to economists and others for informational purposes and to stimulate discussion of Working Papers before their final publication. The Bulletin is produced by David Wise, Area Director of Health and Aging Programs, and Courtney Coile, Bulletin Editor. To subscribe to the Bulletin, please send a message to: ahb@nber.org.

This evidence of a considerable impact of Medicare on the health care sector raises the natural question of what benefits Medicare produced for health care consumers. In a related paper, **What Did Medicare Do (And Was It Worth It)?** (NBER Working Paper 11609), **Amy Finklestein** and **Robin McKnight** examine this question. When Medicare was signed in to law, President Lyndon Johnson proclaimed, "No longer will older Americans be denied the healing miracle of modern medicine. No longer will illness crush and destroy the savings

that they have so carefully put away over a lifetime." Thus, from the start it was envisioned that Medicare would provide both health benefits and risk-reduction benefits.

However, using several different empirical strategies, the authors find that in its first ten years, the establishment of universal health insurance for the elderly had no discernible impact on their mortality. They present evidence suggesting that the explanation for this finding is that, prior to Medicare, elderly individuals with life-threatening, treatable health conditions (such as pneumonia) sought care even if they lacked insurance, as long as they had legal access to hospitals.

Even absent any measurable health benefits, the introduction of Medicare may still have benefited older individuals by reducing the risk of large out-of-pocket medical expenditures. The authors document that prior to the introduction of Medicare, a small portion of the elderly faced extremely large out of pocket medical expenditures. They then compare the change in the distribution of out of pocked medical expenditures for those aged 65 to 74 between 1963 and 1970, using the change for those aged 55 to 64 to proxy for non-Medicare related trends in spending. They conclude that the introduction of Medicare was associated with a substantial reduction in out-of-pocket spending for those with the largest out of pocket medical expenditures. Specifically, they find that the introduction of Medicare had no significant effect on out-of-pocket spending for those in the bottom three-quarters of the out of pocket expenditure distribution, but led to a 40 percent decline in spending for those in the top quartile. For those in the top decile, the average decline in out of pocket medical spending was $1,200 (in year 2000 dollars) per person.

The authors conduct a cost benefit analysis comparing the insurance value of the risk reduction provided by Medicare with the efficiency costs of the program (namely, the cost of raising government revenue and of increased health spending resulting from insurance coverage). They estimate the insurance value to be $519 per beneficiary, or $9.9 Billion per year (again, in year 2000 dollars), a sum that would cover 45 to 75 percent of the costs of Medicare.

The authors conclude "our empirical findings underscore the importance of considering the direct consumption smoothing benefits of health insurance, in addition to any indirect benefits from the effect of insurance on health." However, they caution that their analysis is conducted in a static environment in which medical technology is taken as given. Given the evidence that the introduction of Medicare was associated with a more rapid adoption of new cardiac technologies, its effects on mortality in the long-run may be much larger than the ten-year impact that the authors examine.

The authors gratefully acknowledge financial support from the National Institute on Aging (grant P30-AG12810) and the Harvard Milton Fund.

Savings Incentives for Low- and Middle-Income Families

Since the introduction of Social Security in 1935, policy makers have agreed on the principle of a "three-legged stool" to ensure financial security in retirement — Social Security, employer-provided pensions, and personal retirement savings. Yet many older households have little support from the latter two legs of the stool. According to a recent report by the Congressional Research Service, four in ten persons over age 65 receive 90 percent or more of their income from Social Security. Only one-third of older individuals receive any pension income and only one-half receive any asset income; even among those with asset income, the typical person receives less than $1,000 per year.

The primary current policy to encourage retirement savings is the tax deduction for contributions to Individual Retirement Accounts (IRAs) and 401(k) plans and the deferral of taxes on account earnings. However, this approach has not enticed low- and middle-income families to contribute much to such accounts, in part because the value of the tax incentives is fairly low for these families in light of the low marginal tax rates they face.

An alternative policy to encourage retirement savings by low- and middle-income families would be for the government to match their IRA contributions. Many 401(k) plans offer an employer match of employee contributions, and studies suggest that the existence of such a match increases 401(k) saving. Yet this evidence may be of limited use in predicting how a match of IRA contributions would affect savings by lower-income families, since many 401(k) contributors are relatively affluent and firms may be more likely to offer a match when their employees like to save, making it difficult to distinguish the actual effect of the match from the underlying saving propensity of these workers.

In **Savings Incentives for Low- and Middle-Income Families: Evidence from a Field Experiment with H&R Block** (NBER Working Paper 11680), researchers **Esther Duflo, William Gale, Jeffrey Liebman, Peter Orszag,** and **Emmanuel Saez** provide new evidence of the effect of matching IRA contributions on saving from a large-scale, randomized field experiment.

The authors worked closely with H&R Block to design and execute the experiment, which was run in 60 H&R Block tax preparation offices in the St. Louis Metropolitan area between March 5 and April 5, 2005. The experiment was built around H&R Block's Express IRA (X-IRA) product, which allows clients to make IRA contributions at the time of tax preparation and to use part or all of their federal income tax refund to fund the contributions. Each client preparing a tax return was randomly assigned one of three match rates for X-IRA contributions: no match (the control group), a 20% match, or a 50% match. Contributions up to $1,000 were eligible for matching (up to $1,000 for each spouse in the case of married filers). H&R Block paid the direct costs associated with the experiment, including the matching contributions and the cost of training their tax professionals.

The authors' principal finding is that matching can have large effects on IRA participation. Only 3% of individuals in the control group (no match) choose to contribute to an X-IRA, versus 8% and 14% of those in the 20% and 50% match groups, respectively. Matching also has a significant effect on contributions, conditional on participation: average contribution levels (excluding the match) were $765 in the control group, vs. $1,100 and $1,110 in the 20% and 50% match groups. Including the value of matching contributions and incorporating both those who did and did not contribute to an X-IRA, the average value of IRA

deposits are 4.5 and 10 times larger in the 20% and 50% match groups than in the control group.

Next, the authors examine which individuals are most likely to take advantage of the match. They find that the effect of the match on participation is larger for individuals with an income tax refund over $500, persons who have other savings, married people, and people with larger incomes. However, they note that the effect of the match is significant even for individuals in the lowest income quartile, who were three times as likely to contribute to an X-IRA (7.5% vs. 2.5%) if assigned to the 50% match group rather than the control group.

Another finding of note is strong "tax preparer effects" — the effect of the match on participation is much larger when the tax preparer had more experience with X-IRAs prior to the experiment. This may indicate that the tax preparer plays an important role in providing clarifying information about the product or giving financial advice to clients.

The authors also check for "gaming" of the system, since individuals could make easy money by contributing to an X-IRA in order to earn the matching contribution then withdrawing the money soon after. They find no evidence of this, however, as people in the matching groups are no more likely to withdraw funds from their IRAs than people in the control group.

Finally, the authors conduct an analysis of the Saver's Credit program, a small existing program that provides a match of contributions to retirement savings accounts through the tax code. They estimate the effects of the Saver's Credit program on savings to be far smaller than those observed in the H&R Block experiment. The authors suggest that people's lack of knowledge about the Saver's Credit program may account for the difference, highlighting the important role of information and simplicity in programs designed to promote saving.

In the end, the results of this experiment are both encouraging and discouraging for those who might seek to use matching to encourage saving by low- and middle-income households. On the one hand, the match of IRA contributions led to very substantial increases in both participation and contributions to IRAs, yet even with the 50% match, only one in seven participants chose to contribute to an IRA. The authors conclude that "the combination of a significant and readily understandable match for saving, easily accessible savings vehicles, the opportunity to use part of an income tax refund to save, and professional assistance could generate a significant increase in retirement saving participation and contributions, even among middle- and low-income households."

The authors thank H&R Block for the collaboration and resources it has devoted to this experiment. They also gratefully acknowledge financial support from the Pew Charitable Trusts, the Sloan Foundation, and the National Science Foundation.

Options for Price Indexing Social Security

With the U.S. Social Security system facing a long-run deficit, policy makers and researchers have suggested a wide variety of policy changes to improve the system's finances. One of the most frequently-mentioned proposals is to switch from "wage indexing" of Social Security benefits to "price indexing."

This reform would affect how Social Security benefits evolve over time. Under the current wage indexed benefit formula, initial benefits to successive cohorts of retirees grow along with wages, so that replacement rates (the fraction of lifetime earnings replaced by Social Security) remain roughly constant. Under price indexing, initial benefits would instead grow with prices so that real benefits, rather than replacement rates, would be held constant. Because wages generally grow more quickly than prices, a shift to price indexing would result in a slower rate of benefit growth.

In **Alternative Methods of Price Indexing Social Security: Implications for Benefits and System Financing** (NBER Working Paper 11406), **Andrew Biggs, Jeffrey Brown,** and **Glenn Springstead** examine the effect of price indexing on replacement rates, progressivity, and fiscal sustainability. In their analysis, the authors distinguish between four alternative approaches to price indexing benefits.

To understand the alternatives, a brief review of how Social Security benefits are calculated is useful. In the first step, the worker's annual earnings in all past years are multiplied by a wage index to bring them up to current dollars; the best thirty-five years of real earnings are then used to calculate the worker's average lifetime earnings, which is known as the Average Indexed Monthly Earnings (AIME). Second, a non-linear, progressive formula is applied to the AIME to get the Primary Insurance Amount (PIA). In 2005, the PIA is equal to 90% of the first $627 of AIME, plus 32% of the next $3,152, plus 15% of the remaining AIME. Finally, the monthly benefit amount is equal to the PIA for those workers who retire at the Full Retirement Age, and is lower (higher) for those who retire before (after) it.

While price indexing has been a common feature of many reform proposals, exactly what constitutes price indexing has been the subject of some disagreement. The authors examine four possible price indexing schemes. Under the first option, AIME indexing, the index used to bring past earnings forward to current dollars would be a price index rather than a wage index. Under the second option, bend point indexing, the dollar amounts in the PIA formula would be adjusted annually by a price index rather than a wage index. The third option combines AIME and bend point indexing. Under the fourth option, PIA factor indexing, the PIA formula's percentage factors (the 90%, 32% and 15% figures) would be reduced gradually by being multiplied each year by the ratio of price growth to wage growth.

The authors first examine the effect of the various reforms on replacement rates. Compared to the current system, which provides a 45% replacement rate for the average worker, all of the reform proposals have lower benefits. AIME indexing would lower the replacement rate to 40% by 2050, but the replacement rate would not fall further after this. By contrast, the other three reforms would lower the replacement rate continuously over time, to 32% in 2075 for bend point indexing, 29% for AIME and bend point indexing, and 21% for PIA factor indexing. However, these rates are not dramatically different from the 30% replacement rate the authors calculate is actually payable with no changes to current Social Security law.

The authors also discuss how these

reforms would affect the progressivity of Social Security. AIME indexing is expected to result in larger declines for low-income workers than for high-income workers for two reasons. First, using a price index to convert past earnings to today's dollars reduces the value of earnings early in one's career and these earnings are more important for low-income workers, who have flatter age-earnings profiles. Second, a given reduction in AIME leads to a larger decrease in benefits for low-income workers, whose average lifetime earnings are replaced at a rate of 90%, than for workers with a 32% or 15% replacement rate.

The authors' second option, indexing the bend points, leads to an uneven distribution of benefit cuts in the short run, with the lowest-income workers spared any cuts. In the very long run, the 90% and 32% phases of the PIA formula would essentially disappear, so that all workers would receive a benefit equal to 15% of lifetime earnings. Thus this proposal would eventually eliminate the progressivity in the current benefit formula. The fourth option, indexing the PIA factors, would reduce the PIA by the same percentage for all workers and thus would preserve the system's current degree of progressivity.

Finally, the authors examine the effect of the various proposals on Social Security's long-term solvency. The 1999 Social Security Trustee's report predicted that over the next 75 years, the Social Security system would run a deficit equal to 2.07 percent of taxable payroll. The AIME indexing method would reduce this projected deficit by one-third, while the bend point indexing method would reduce the deficit by two-thirds. Only the PIA factor indexing method would fully eliminate the deficit, with projected savings of 2.36 percent of taxable payroll. As the authors note, this change would leave the system with annual surpluses at the end of 75 years, so taxes could be reduced or benefits could be increased somewhat.

The authors conclude that PIA indexing would reduce benefits by approximately the same rate for all wage earners and would restore long-term solvency to the Social Security system. But this method would also greatly reduce Social Security replacement rates and would potentially increase the sensitivity of system finances to unexpected earnings changes. They suggest that any reform proposal should be examined not only for its effect on benefit levels, progressivity, and system solvency, but also for its degree of political risk and likely effects on savings and labor supply.

NBER Profile: *Brigitte Madrian*

Brigitte Madrian is a Research Associate in the NBER's programs on Labor Studies, Public Economics, Children, Health Care and Aging.

Madrian is the Boettner Associate Professor in Financial Gerontology and an Associate Professor of Business and Public Policy at the Wharton School at the University of Pennsylvania. She previously held faculty positions at the University of Chicago and Harvard University.

Madrian is also a co-editor of the Journal of Human Resources and a TIAA-CREF Institute Fellow. She has been awarded the TIAA-CREF Paul A. Samuelson Award for Outstanding Scholarly Writing on Lifelong Financial Security and the National Academy of Social Insurance Heinz Dissertation Award.

She received a B.A. and M.A. from Brigham Young University and a Ph.D. in Economics from the Massachusetts Institute of Technology.

Madrian's current research focuses on the determinants of employee savings behavior in 401(k) and other employer-sponsored savings plans, including the impact of market returns, matching, financial education, defaults, and other aspects of plan design on savings outcomes. Some of her earlier work examined how access to employer-provided health insurance affects job mobility and retirement.

Madrian lives in suburban Philadelphia with her husband David and her two daughters, Erika age 8 and Liesel age 5. In at attempt to prove that old dogs *can* learn new tricks, she decided last year to learn to play the violin. You can hear her practicing late at night after the kids have gone to bed.

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Abstracts of Selected Recent NBER Working Papers

WP 11290
Jonathan Gruber and David Wise
Social Security Programs and Retirement Around the World: Fiscal Implications, Introduction and Summary

This is the introduction to and summary of Phase III of an international research project to study the relationship between social security provisions and retirement. The project relies on the work of a large group of economists in 12 countries who conduct the analysis for each of their countries. The first phase described the retirement incentives inherent in plan provisions and documented the strong relationship across countries between social security incentives to retire and the proportion of older persons out of the labor force. The second phase illustrated the large effects that changing plan provisions would have on the labor force participation of older workers. This third phase shows the consequent fiscal implications that extending labor force participation would have on net program costs -- reduced government social security benefit payments less increased government tax revenues. The findings are conveyed by simulating the implications of illustrative reforms. One reform increases benefit eligibility ages by three years. Another illustrative reform reduces actuarially benefits received before the normal retirement age. A common reform prescribes the same provisions in each country. The financial implications of the illustrative reforms are very large in many instances, often as much as 20 to 40 percent of current program costs. The savings amount to as much a 1 percent or more of country GDP. The results make clear that reforms like those considered in this volume can have very large fiscal implications for the cost of social security benefits as well as for government revenues engendered by changes in the labor force participation of older workers.

WP 11300
Robert J. Shiller
The Life-Cycle Personal Accounts Proposal for Social Security: A Review

The life-cycle accounts proposal for Social Security reform has been justified by its proponents using a number of different arguments, but these arguments generally involve the assumption of a high likelihood of good returns on the accounts. A simulation is undertaken to estimate the probability distribution of returns in the accounts based on long-term historical experience. U.S. stock market, bond market and money market data 1871-2004 are used for the analysis. Assuming that future returns behave like historical data, it is found that a baseline personal account portfolio after offset will be negative 32% of the time on the retirement date. The median internal rate of return in this case is 3.4 percent, just above the amount necessary for holders of the accounts to break even. However, the U.S. stock market has been unusually successful historically by world standards. It would be better if we adjust the historical data to reduce the assumed average stock market return for the simulation. When this is done so that the return matches the median stock market return of 15 countries 1900-2000 as reported by Dimson et al. [2002], the baseline personal account is found to be negative 71% of the time on the date of retirement and the median internal rate of return is 2.6 percent.

WP 11395
Thomas C. Buchmueller
Price and the Health Plan Choices of Retirees

This study analyzes health plan choices of retirees in an employer-sponsored health benefits program that resembles "premium support" models proposed for Medicare. In this program, out-of-pocket premiums depend on when an individual retired and his or her years of service as of that date. Since this price variation is exogenous to unobserved plan attributes and retiree characteristics, it possible to obtain unbiased premium elasticity estimates. The results indicate a significantly negative effect of premiums. The implied elasticities are at the low end of the range found in previous studies on active employees.

WP11425
Ernst R. Berndt, Adrian H. B. Gottschalk, and Matthew W. Strobeck
Opportunities for Improving the Drug Development Process: Results from a Survey of the Industry and the FDA

In the United States, the Food and Drug Administration (FDA) agency is responsible for regulating the safety and efficacy of biopharmaceutical drug products. Furthermore, the FDA is tasked with speeding new medical innovations to market. These two missions create an inherent tension within the agency and between the agency and key stakeholders. Oftentimes, communications and interactions between regulated companies and the FDA suffer. The focus of this research is on the interactions between the FDA and the biopharmaceutical companies that perform drug R&D. To assess the current issues and state of communication and interaction between the FDA and industry, we carried out a survey of industry leadership in R&D and regulatory positions as well as senior leadership at the FDA who have responsibility for drug evaluation and oversight. Based on forty-nine industry and eight FDA interviews we conducted, we found that industry seeks additional structured and informal interactions with the FDA, especially during Phase II of development. Overall, industry placed greater value on additional communication than did the FDA. Furthermore, industry interviewees indicated that they were willing to pay PDUFA-like fees during clinical development to ensure that the FDA could hire additional, well-qualified staff to assist with protocol reviews and decision-making. Based on our survey and discussions, we uncovered several thematic opportunities to improve interactions between the FDA and industry and to reduce clinical development times: 1) develop metrics and goals at the FDA for clinical development times in exchange for PDUFA like fees; 2) establish an oversight board consisting of industry, agency officials, and premier external scientists (possibly at NIH or CDC) to evaluate and audit retrospectively completed and terminated drug projects; and 3) construct a knowledge database that can simultaneously protect proprietary data while allowing sponsor companies to understand safety issues and problems of previously developed/failed drug programs. While profound scientific and medical challenges face the FDA and industry, the first step to reducing development times and associated costs and facilitating innovation is to provide an efficient regulatory process that reduces unnecessary uncertainty and delays due to lack of communication and interaction.

WP11435
Joanna Lahey
Age, Women, and Hiring: An Experimental Study

As the baby boom cohort reaches retirement age, demographic pressures on public programs such as social security may cause policy makers to cut benefits and encourage employment at later ages. This

paper reports on a labor market experiment to determine the hiring conditions for older women in entry-level jobs in Boston, MA and St. Petersburg, FL. Differential interviewing by age is found for these jobs. A younger worker is more than 40% more likely to be offered an interview than an older worker. No evidence is found to support taste-based discrimination as a reason for this differential and some suggestive evidence is found to support statistical discrimination.

WP11436
Judith Shinogle and David Salkever
Firms' Demand for Employment-Based Mental Health Benefits

Employment-based health insurance is the main source of health coverage for the non-elderly. Few previous studies have examined the factors that impact employer decision-making in selecting the coverage to offer to their employees and none have examined generosity of mental health coverage. This paper uses cross-sectional data from a survey of medium to large firms, including information on employee characteristics, to examine the empirical determinants of mental health coverage choices. We find that the firm's demand for mental health coverage is strongly influenced by employee characteristics. We also find that certain state and local policy interventions directed at enhancing access to mental health care have impacts on coverage decisions. Specifically, public provision of mental health lowers mental health coverage generosity and parity legislation increases mental health generosity. Future research with panel data is warranted to examine the causal effects of these policies.

WP 11455
David N. Weil
Accounting for the Effect of Health on Economic Growth

I use microeconomic estimates of the effect of health on individual outcomes to construct macroeconomic estimates of the proximate effect of health on GDP per capita. I use a variety of methods to construct estimates of the return to health, which I combine with cross-country and historical data on several health indicators including height, adult survival, and age at menarche. My preferred estimate of the share of cross-country variance in log income per worker explained by variation in health is 22.6%, roughly the same as the share accounted for by human capital from education, and larger than the share accounted for by physical capital. I present alternative estimates ranging between 9.5% and 29.5%. My preferred estimate of the reduction in world income variance that would result from eliminating health variations among countries is 36.6%.

WP 11514
Ginger Zhe Jin, Alan T. Sorensen
Information and Consumer Choice: The Value of Publicized Health Plan Ratings

We use data on the enrollment decisions of federal annuitants to estimate the influence of publicized ratings on health plan choice. We focus on the impact of ratings disseminated by the National Committee for Quality Assurance (NCQA), and use our estimates to calculate the value of the information. Our approach exploits a novel feature of the data—the availability of nonpublic plan ratings—to correct for a source of bias that is inherent in studies of consumer responsiveness to information on product quality: since publicized ratings are correlated with other quality signals known to consumers (but unobserved by researchers), the estimated influence of ratings is likely to be overstated. We control for this bias by comparing the estimated impact of publicized ratings to the estimated impact of ratings that were never disclosed. The results indicate that NCQA's plan ratings had a meaningful influence on individuals' choices, particularly for individuals choosing a plan for the first time. Although we estimate that a very small fraction of individual decisions were materially affected by the information, for those that were affected the implied utility gains are substantial.

WP 11522
Anna Aizer, Sara McLanahan
The Impact of Child Support Enforcement on Fertility, Parental Investment and Child Well-Being

Increasing the probability of paying child support, in addition to increasing resources available for investment in children, may also alter the incentives faced by men to have children out of wedlock. We find that strengthening child support enforcement leads men to have fewer out-of-wedlock births and among those who do become fathers, to do so with more educated women and those with a higher propensity to invest in children. Thus, policies that compel men to pay child support may affect child outcomes through two pathways: an increase in financial resources and a birth selection process.

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