The Robin Hood Foundation
111 Broadway, New York, New York 10006
(212) 227-6601 Fax: (212) 227-6698

FOR IMMEDIATE RELEASE
Thursday, June 13, 1996

Contact: Julie Harkavy
202/739-0215
Stephanie Bartolomeo
212/484-7236

GROUNDBREAKING STUDY ON TEENAGE CHILDBEARING QUANTIFIES DEVASTATING CONSEQUENCES TO PARENTS, CHILDREN AND SOCIETY

Delaying Childbearing Until Age 20 or 21 Significantly Reduces Serious Health Risks, Likelihood of Poverty for Parents and Children; Lessens Financial Burden on Society

Washington, DC -- Adolescent parenthood has devastating effects on families, increasing poverty and significantly increasing the likelihood that the children of these young parents will face a life of poor health, physical abuse, neglect, prison and early childbearing, according to a groundbreaking study released today by the Robin Hood Foundation.

"Kids Having Kids" is the most comprehensive report done on the costs and consequences of teenage childbearing to parents, children and society. According to the study, adolescent childbearing costs U.S. taxpayers $6.9 billion per year, and the cost to the nation in lost productivity rises to as much as $29 billion annually.

Working in teams on eight coordinated studies, a collection of some of the nation's leading scholars focused their research on the roughly 175,000 American girls who bear their first baby at the age of 17 or younger and compared the associated economic and social costs to those mothers who delay childbirth until the age of 20 or 21, which is still two to three years younger than the national average.

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"Adolescent childbearing is not only a significant personal tragedy, it should be regarded as a national calamity in that it commits young parents to a life of hardship, increases the likelihood that their children will suffer the same fate and has staggering economic and social costs for our nation as a whole," said David Saltzman, executive director of Robin Hood Foundation, a philanthropic organization dedicated to fighting poverty in New York City and primary source of funding for the "Kids Having Kids" report.

"Early parenting wreaks havoc socially -- from the completion of education of the mother and father to their higher poverty rates," said Rebecca Maynard, "Kids Having Kids" editor and professor of education and social policy, Graduate School of Education, University of Pennsylvania. "But the devastation to the lives of their children is prevalent and wide-ranging."

A few of the hundreds of findings about children born to teenage mothers:

- Reproducing the Cycle of Poverty -- The girls born to adolescent moms are up to 83 percent more likely to become teenage moms themselves, thus reproducing the cycle of poverty and disadvantage for yet another generation.

- Trouble in School -- They are 50 percent more likely to repeat a grade and perform significantly worse on cognitive development tests. They are also far more likely to drop out of high school than are the children born to women from the same socio-economic background who wait until the age of 20 or 21 to have children.

- More Childhood Health Problems -- They are more likely to be born prematurely and 50 percent more likely to be born low birthweight than if their mothers had waited four years to bear them.

- Increased Child Abuse and Neglect -- They are twice as likely to be abused or neglected.

- Behind Bars -- The teen sons of adolescent mothers are up to 2.7 times more likely to land in prison than their counterparts in the comparison group. By extension, adolescent childbearing in and of itself costs taxpayers roughly $1 billion each year to build and maintain prisons for the sons of young mothers.

- Foster Children -- Of the estimated 472,000 foster children in the United States, over 23,000 are the children of adolescent mothers, which in turn results in a taxpayer burden of approximately $900 million.

The study also examines the consequences of early parenting on teen mothers and the fathers:

- 70 percent of the mothers drop out of school.
- They are twice as likely to be dependent on welfare.

A unique component of the study is its examination of the costs and consequences of teen pregnancy on society:

- Teen childbearing costs U.S. taxpayers almost $7 billion every year.
- The cost to society in lost national productivity and avoidable expenditure of social service resources is as much as $29 billion each year.

"We hope the disturbing findings of this report will send a wake-up call to America about the need to find workable solutions to the devastating issue of teenage parenthood," said Paul Tudor Jones II, founder and chairman of the Robin Hood Foundation. "Without our help, the children of teenage mothers will themselves become teenage mothers, thus perpetuating the cycle of abuse, neglect, hardship and poverty."

The Robin Hood Foundation was created as a public charity in 1988 to find, fund and provide management help to the best and most innovative programs serving poor people in New York City. Since then, the foundation has provided more than $35 million in money, volunteer resources and materials goods to these programs.

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The New York Times

NEW YORK, THURSDAY, MAY 9, 1991

Nowadays, Robin Hood Gets the Rich to Give to the Poor

By KATHLEEN TELTSCH

In the financial world, big payoffs often come to those who can spot the unknown, untested investment opportunity — and are willing to take the risk.

Now three successful young Wall Street traders are applying that principle to philanthropy. Their four-year-old Robin Hood Foundation scours New York City looking for neighborhood organizations that rescue the homeless, care for children with AIDS, fight drug abuse or rebuild families. It gave $2 million last year to 50 local groups, many too unconventional or untested to attract money from older, established foundations.

"Robin Hood is using a venture-capital approach that is not only giving these community groups money, but also needed visibility and recognition," said Hildy Simmons, a vice president of J. P. Morgan & Company who is president of the New York Regional Association of Grant-Makers.

Paul Tudor Jones 2d, a 36-year-old multimillionaire commodities trader, put up $3 million to begin Robin Hood in 1987. "I couldn't sleep if I did not have a part in this sort of thing," he said. He invited two close friends, Peter F. Borish, 31, and Glenn R. Dubin, 33, to join him. Each contributed "in the six-figure range."

We chose the name because we are a little off-beat," Mr. Borish said. "I joined in because I love this city with a passion. I'm a walking poster for New York. I don't want to see the city go under."

Mr. Dubin, who co-founded Dubin and Sweica, investment managers, grew up in Washington Heights and went to local public schools. He maintains that the yuppie stereotype of selfish success is largely a myth. "It's true the 80's were a period of great excesses, financially and otherwise," he said. "But there are lots of caring people who would give their money and time to help others if only they were introduced to the proper situation."

Robin Hood shows how to make these introductions, say its founders, who have tapped their friends and business associates for money, advice and technical help for the neighborhood organizations, which are often weak in managerial skills.

"They were the first group to say 'This is going to fly' when we asked for help to begin a day center in Harlem for homeless people who are HIV-positive," said Larry Pagnoni, executive director of the Upper Room AIDS Ministry.

Among the other small organizations that have received money from Robin Hood are

Continued on Page B7

Nowadays, Robin Hood Can Get the Rich to Give to the Poor

Continued From Page B1

the Brooklyn Women's Anti-Rape Exchange and Project Life, an anti-drug program for young people operated by two New York City police officers from the back of a van.

"We had 385 financial contributors this year; we'll have a thousand next year and 3,000 the year after," Mr. Jones predicted.

The confidence is understandable: He came to New York from Memphis in 1978 with $1,700 in capital, Mr. Jones said, began speculating in the cotton market and other commodities futures, and built his winnings into the Tudor Investment Corporation, which now handles assets of $600 million. Mr. Borish is his director of research and right-hand man.

The corporation has offices in London and Tokyo and occupies skyscraper quarters at One Liberty Plaza in lower Manhattan. Still, Mr. Jones hangs on to a cramped and dingy cubicle of an office across the street. He doesn't use it, but he's superstitious — this is where he began operations and he does not want to forget where he came from.

The foundation occupies the adjacent modest premises at 160 Broadway in a building sandwiched between McDonald's and Burger Heaven. Mr. Jones pays the $300,000-a-year budget for the philanthropy's administration and the salaries of its six staff members, all in their 20's. Consequently, Robin Hood assures donors that all contributions go to the poor.

David Saltzman and Norman Atkins, co-directors and both 29, have a sweeping mandate from the foundation's eight-member board to find local organizations that can make an enduring impact in the fight against poverty in New York.

Mr. Jones, in turn, said the staff supplies Robin Hood's "creative edge."

"They don't know what they can't do," he said.

Relations between board and staff members are informal. "Our job is coming up with the money," Mr. Jones said. "Their job is get out on the pavement and find heroes." The group's slogan: "We believe in heroes."

One of Robin Hood's grants went to Harlem's Ark of Freedom, known as Harkhomes — a five year-old shelter in a church basement financed and run by Joseph H. Holland, a former All America football player at Cornell, Harvard Law School graduate, playwright and an ordained minister, who was an unsuccessful Republican candidate for the State Senate in 1985. With his help, many of the shelter's homeless men have pulled their lives together and some now work in his many enterprises — he also runs a restaurant, travel agency and law office, which had provided meager funds for Harkhomes.

"We also saw the possibilities of leveraging money from other sources," Mr. Dubin said, adding, "This strategy worked for us in the business world and should succeed in philanthropy as well." His firm looks after Robin Hood's financial investments; it has an endowment of $11 million, providing a cushion if contributions lag.

Despite his record of support for social causes, Mr. Jones was involved in a legal battle last year that caused concern among foundation staff members. Federal officials charged that he had illegally filled in Government-protected wetlands on Maryland's Eastern Shore, where he has a 3,000-acre duck-hunting retreat. He blamed a contractor for the incident but paid a $2 million fine and agreed to restore the marshes.

The episode caused painful soul-searching among foundation workers committed to environmental causes, but they say it has been put behind them.

'Prince of Thieves'

Besides the three original contributors, the board of the Robin Hood Foundation includes Mary McCormick, president of the Fund for the City of New York, and Marian Wright Edelman, president of the Children's Defense Fund. John F. Kennedy Jr. is the newest board member.

Jann Wenner, the publisher of Rolling Stone and a board member, has a wide network in the entertainment world, and has given Robin Hood access to fund-raising prospects. Morgan Creek Studios and Warner Brothers, which, respectively, produced and distributed the film "Robin Hood: Prince of Thieves," starring Kevin Costner, have offered the foundation the proceeds of a New York showing, which could amount to $500,000 to $750,000.

Another board member, Maurice Chessa, who opened doors for Robin Hood to meet fledgling neighborhood groups, runs a technical school in the Bedford-Stuyvesant section of Brooklyn.

Mr. Jones met Mr. Chessa while volunteering to teach a class of Brooklyn sixth graders whom he has promised to send to college if they complete high school. He volunteered as a mentor-sponsor after learning about the "I Have a Dream" program initiated by the millionaire industrialist Eugene Lang.

Mr. Lang said of Mr. Jones: "He's everything he seems to be. I just wish his tribe would increase."

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ROBIN HOOD FOUNDATION

"Kids Having Kids" Report

What is the Robin Hood Foundation?

- The Robin Hood Foundation, created in 1988 by Paul Tudor Jones, is a public charity dedicated to funding and providing management help to the best and most innovative programs serving poor people in New York City. The foundation has provided more than $35 million in money, volunteer services and material goods to these programs.

- Examples of the types of poverty-fighting projects supported by Robin Hood include extended day and extended year schools, which permit parents to work and provide children with three extra years of education by the time they graduate; comprehensive after school programs; housing and job training for the homeless; medical help for the sick; hospice care for people with AIDS; and soup kitchens for the hungry.

Why did Robin Hood sponsor this study?

- Throughout its very direct, community-level work, Robin Hood has increasingly explored the larger dimensions of adolescent childbearing in New York City and the nation. Each year, nearly one million teenagers in the United States become pregnant. More than 175,000 of these new mothers are 17 years old or younger. More than 80 percent of these young mothers end up in poverty and reliant on welfare.

Why is this study significant?

- "Kids Having Kids" is significant in that it provides the most comprehensive look to date at the devastating costs and consequences of teen pregnancy to the offspring of teen moms -- the "kids of kids" -- as well as to adolescent mothers age 17 and younger, to the fathers, and to society.

Highlights of "Kids Having Kids."

- Early parenting wreaks havoc socially -- from the completion of education of the mother and father to their job prospects. But the devastation to the lives of their children is prevalent and wide-ranging. A few examples:

  - Trouble in School -- They are 50 percent more likely to repeat a grade and perform significantly worse on cognitive development tests. They are also far more likely to drop out of high school than are the children born to women from the same socio-economic background who wait until the age of 20 or 21 to have children.

  - More Likely to Run Away From Home -- They are two to three times more likely to run away from home.

  - More Childhood Health Problems -- They are more likely to be born prematurely and 50 percent more likely to be born low birthweight than if their mothers had waited four years to bear them. They suffer more serious health problems, but see the doctor half as often. The health services dimension of adolescent childbearing costs taxpayers about $1.5 billion more each year than if girls age 17 and younger had delayed parenthood.

  - Increased Child Abuse and Neglect -- They are twice as likely to be abused or neglected.

  - Behind Bars -- The teen sons of adolescent mothers are up to 2.7 times more likely to land in prison than their counterparts in the comparison group. By extension, adolescent childbearing in and of itself costs taxpayers roughly $1 billion each year to build and maintain prisons for the sons of young mothers.

  - Foster Children -- Of the estimated 472,000 foster children in the United States, over 23,000 are the children of adolescent mothers, which in turn results in a taxpayer burden of approximately $900 million.

- The study also examines the consequences of early parenting on teen mothers and the fathers.

  - 70 percent of the mothers drop out of school.

  - They are twice as likely to be dependent on welfare.

  - Adolescent dads are unlikely to marry the mothers they impregnated and are unprepared to contribute financially to the well-being of their young families.

- A unique component of the study is its examination of the costs and consequences of teen pregnancy on society.

  - Teenage girls are having babies at a 20 percent higher rate than just ten years ago.

  - Teen pregnancy is uniquely American: No other industrialized nation knows of such a phenomenon.

  - Teen pregnancy and childbearing costs U.S. taxpayers almost $7 billion every year.

  - The cost to society in lost national productivity and avoidable expenditure of social service resources is as much as $29 billion each year.

<u>Who conducted the study and how did they come to these conclusions?</u>

- "Kids Having Kids" is the work of some of the nation's leading social scientists. Rebecca Maynard, a professor at the University of Pennsylvania, edited the study. Other scholars include:

  - Michael J. Brien, University of Virginia
  - Robert M. Goerge, University of Chicago
  - Angela Dungee Greene, Child Trends, Inc.
  - Jeff Grogger, University of California, Santa Barbara
  - Robert Haveman, University of Wisconsin
  - V. Joseph Hotz, University of Chicago
  - Bong Joo Lee, Boston University
  - Susan Williams McElroy, Carnegie Mellon University
  - Kristin A. Moore, Child Trends, Inc.
  - Donna Ruane Morrison, Georgetown University
  - Maria Perozek, University of Wisconsin
  - Elaine Peterson, University of Wisconsin
  - Seth G. Sanders, Carnegie Mellon University
  - Robert J. Willis, University of Michigan
  - Barbara Wolfe, University of Wisconsin

- Working in teams on seven coordinated studies, scholars focused their research on the roughly 175,000 American girls who bear their first baby at 17 or younger. Scholars examined early parenting and its consequences on the lives of the mothers, fathers and their children.

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The Robin Hood Foundation

Founded in 1988, the Robin Hood Foundation is a unique philanthropic organization dedicated to fighting poverty in New York City. Robin Hood's primary focus is to develop the best schools and after school programs for poor children and teenagers -- the group hit hardest by the effects of poverty.

In addition, the foundation supports programs providing housing and job training for the homeless, medical help for the sick, hospice care for people with AIDS, drug treatment for the addicted, and soup kitchens for the hungry. By providing the programs and resources necessary to escape poverty, Robin Hood is directly investing in the futures of tens of thousands of New Yorkers.

How Robin Hood Works

Robin Hood functions like a socially-responsible venture capital fund. It studies creative approaches to fighting poverty, takes calculated risks on promising projects and steers resources towards programs that work. Robin Hood's staff works to identify New York's most promising street-level organizations and the people and programs that have the power to transform lives. After making a financial investment, the foundation sends out a team of experienced management consultants, lawyers and accountants to help each program succeed and maximize resources.

Programs Supported By Robin Hood

Seventy-five percent of Robin Hood's grant portfolio supports programs designed to help children escape the poverty they inherited and grow into healthy, educated and prosperous individuals. To achieve this goal, the foundation has focused on teen pregnancy prevention. The foundation also supports programs providing prenatal care and childbearing clinics, nurseries which care for orphans born with AIDS or an addiction to crack, family counseling projects, and year-round elementary schools -- enterprises vital for helping future generations beat the odds of poverty. As New York's largest private funder of Head Start, Robin Hood is working to change the odds faced by our city's poorest children.

The remaining 25 percent of Robin Hood's grant portfolio is allocated to support programs for adults, including programs that provide food, medicine, treatment, counseling, homes, job training and assists providers of shelter and services to people with AIDS.

Robin Hood's Achievements To Date

Robin Hood has distributed more than $35 million in money, goods and services from more than two thousand individuals, businesses and organizations. Because the foundation's board of directors underwrites all its administrative and fundraising costs, every penny donated goes directly to fighting poverty. But Robin Hood is about more than writing a check. It provides general advice and strategic planning, as well as expertise in accounting, finance, computers and arranges for free legal counsel. Robin Hood works with community leaders at the grassroots level of the struggle against poverty.

Currently, the foundation supports 85 of the most innovative poverty-fighting enterprises in New York, including the Rheedlen Centers for Children and Family, La Peninsula Head Start, the Clearpool School and the Bedford-Stuyvesant Volunteer Ambulance Corps.

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Paul Tudor Jones II

Paul Tudor Jones, II is Founder and Chairman of the Tudor Group of Companies, a money management organization based in New York City. Mr. Jones is responsible for the investment of proprietary and customer funds in global financial markets, primarily debt, equity and currency markets. Mr. Jones' organization has trading offices in London, Chicago and Boston and an economic research office in Washington, D.C.

After graduating from the University of Virginia in 1976, Mr. Jones established a career as a commodities broker in New York, concentrating on the cotton futures market. He developed a significant customer base from 1976 to 1982 and also traded actively on his own account in various commodity futures markets.

Mr. Jones was instrumental in the creation of FINEX, the financial futures division of the New York Cotton Exchange (NYCE), and in the development of the U.S. Dollar Index futures contract which trades there. He served as Chairman of the NYCE from 1992 to 1995 and presently serves on the Board of Directors. In 1989, Mr. Jones designed and implemented the first ethics training course that set the standard for exchange membership on all futures exchanges in the United States.

Mr. Jones regularly commits his personal time and energy to charitable, philanthropic, and natural resources conservation efforts. He presently serves on the Board of Directors of the National Fish and Wildlife Foundation.

Since 1986, Mr. Jones has been a sponsor of an "I have a Dream" class of school children from the Bedford-Stuyvesant neighborhood of Brooklyn, New York and has pledged to further their educations with financial and other support. A number of the members of the first class he sponsored in 1986 enrolled in colleges and universities in the fall of 1992.

In 1987, Mr. Jones established the Robin Hood Foundation, which he currently chairs, to provide direct assistance to individuals living below the poverty line in New York City, and he is active in raising and contributing funds on an annual basis. Since its inception, the Robin Hood Foundation has contributed almost $35 million toward the fight against poverty.

Since 1990, Mr. Jones has worked actively with numerous environmental organizations to save the Everglades and Florida Bay.

Mr. Jones and his wife Sonia currently reside in Connecticut with their three young daughters.

Rebecca A. Maynard

Rebecca Maynard is Trustee Professor of Education, Social Policy and Communication at the University of Pennsylvania and Senior Fellow at Mathematica Policy Research, Inc.

Previously, she served Mathematica Policy Research, Inc. as senior vice president and director of Princeton research. She also has served as consultant to the General Accounting Office, the Rockefeller Foundation, and the U.S. Department of Health and Human Services.

She has served on numerous committees and advisory boards including the following: The National Academy of Sciences Panel on Child Care Policy; the National Academy of Sciences Panel on Quality in Student Financial Aid; the Job Opportunities and Basic Skills Training (JOBS) Program Implementation Study, Rockefeller Institute of Government, State University of New York; the National Household Education Survey, Adult Education Component; the Committee on Economic Development Research Advisory Group; Business Tomorrow; the Intergenerational Literacy Research Action Project Advisory Team; the National Job Corps Evaluation Advisory Panel; and the National Dropout Demonstration Assistance Program Research Advisory Panel.

She has published on a variety of topics and in a wide range of journals and books, including: "The Causes and Consequences of Repeat Pregnancy Among Welfare Dependent Teenage Parents," *Family Planning Perspectives*; "Methods of Evaluating Employment and Training Programs: Lessons from the U.S. Experience," presented at the International Conference on the Economics of Training; "How Precise are Evaluations of Employment and Training Programs: Evidence from a Field Experiment," *Evaluation Review*; "The Economics of Transitional and Supported Employment," *Disability and the Labor Market*; "Short-Term Indicators of Employment Program Performance: Evidence from the Supported Work Demonstration," *Journal of Human Resources*; and *The National Supported Work Demonstration*, University of Wisconsin Press.

David Saltzman

David Saltzman has been the Executive Director of the Robin Hood Foundation since 1989. Prior to that, he served as one of the foundation's four founding board members.

After graduating from Brown University in 1984, Mr. Saltzman earned a masters degree in public policy and administration from Columbia University's School of International and Public Affairs. While at Columbia, he worked in Chase Manhattan Bank's neighborhood grants program.

Upon graduating from Columbia, Mr. Saltzman began working with homeless families, the hungry and people with AIDS for New York City's Human Resources Administration. From there, he went to the New York City Department of Health where he directed AIDS education and prevention programs.

Prior to joining the Robin Hood Foundation, Mr. Saltzman was the Special Assistant to the President of the Board of Education of the City of New York where he focused on policy, pedagogical and budget matters.

A lifelong New Yorker, Mr. Saltzman is married and has a son who turns one in August.

ABOUT THE AUTHORS

CONSEQUENCES FOR CHILDREN OF ADOLESCENT MOTHERS

Social and Developmental Outcomes

Kristin Moore, *Child Trends, Inc.*

Kristin Moore is Executive Director and Director of Research of Child Trends. A social psychologist, Dr. Moore has been with Child Trends, Inc. since 1982, studying the determinants of early sexual activity and parenthood, the consequences of adolescent parenthood, trends in child and family well-being, and the effects of family structure and social change on children. Dr. Moore is a member of the Family and Child Well-Being Research Network established by the National Institute of Child Health and Human Development to examine over a five-year period the factors that enhance the development and well-being of children. As a Network member, Dr. Moore is working on several projects to enhance child indicators data and to develop new analytic data resources to inform both scientific research and policy making. Dr. Moore was recently appointed by the President to a newly-established bipartisan Advisory Board on Welfare Indicators. In 1991, she was given the Presidential Award from the National Organization on Adolescent Pregnancy and Parenting. She is also a member of the Board of the National Campaign to Prevent Teenage Pregnancy, where she chairs the Task Force on Effective Programs and Research.

Donna Ruane Morrison, *Graduate Program in Public Policy , Department of Demography, Georgetown University*

Donna Ruane Morrison (Ph.D., Sociology, Johns Hopkins University) joined the faculty at Georgetown University in Fall, 1995 with a joint appointment in the Graduate Program in Public Policy and the Department of Demography. Prior to Georgetown, University, she was a Senior Research Associate at Child Trends, Inc. Morrison has published articles examining the short- and long-term effects of marital conflict and divorce on children. Her research has also focused on both the antecedents and consequences of teen childbearing for young mothers, fathers, and children. She serves as the faculty coordinator of the DC Family Policy Seminar, a collaborative project of the Georgetown University Graduate Policy Program and its affiliate, the National Center for Education in Maternal and Child Health.

Angela Greene, *Child Trends, Inc.*

Angela Dungee Greene, M.A. is a Senior Research Analyst at Child Trends, Inc. and a Ph.D. candidate in Sociology at Howard University. She is currently involved in research on factors associated with nonresident father involvement and father involvement as a predictor of child and adolescent outcomes; factors that promote positive outcomes among youth born to teen mothers; and sociodemographic predictors of low birth weight, infant mortality, and other adverse outcomes. She has collaborated on several publications and professional presentations pertaining to various social, economic, and health-related issues for African American families.

CHILD WELFARE

Robert M. Goerge, *Chapin Hall Center for Children, The University of Chicago*

Robert M. Goerge, Ph.D., is Associate Director and Research Fellow at the Chapin Hall Center for Children at the University of Chicago and holds a Ph.D. in Social Policy from the University of Chicago. He has led the construction and analysis of the Integrated Database on Children's Services in Illinois, which is a longitudinal database on children's service receipt. He has developed multi-variate models describing child service transitions in foster care, mental health, and special education. His recent work includes using event-history methods to analyze foster care drift, and describing and explaining foster care caseload growth in Illinois, New York, and Michigan, California and Texas.

Dr. Goerge co-directs the National Foster Care Data Archive funded by HHS Children's Bureau, and leads a project funded by NIMH on the disabilities of foster children. Dr. Goerge directs the Administrative Data Institute of Chapin Hall's HHS Child Welfare Research Center, and recently coordinated an instructional workshop for a national group of child welfare agency researchers and analysts on the use of administrative data for research and policy analysis. Goerge also has served as a consultant to numerous states on the development of improved information systems.

Bong Joo Lee, *School of Social Work, Boston University*

Bong Joo Lee, Ph.D., is an Assistant Professor of Social Welfare Policy and Research at the Boston University School of Social Work. Since 1988, Dr. Lee has been actively involved in research that applies administrative data to the analysis of social problems and social policy. Before joining the faculty at the Boston University, Dr. Lee was a Research Associate at the Chapin Hall Center for Children at the University of Chicago. With Robert Goerge, he was a coauthor of several research reports that examined the patterns of human service use of children and families in Illinois. Dr. Lee has particular interests in the experiences of children and families in the social service system, demography of children and families, human service provision and poverty. Currently, Dr. Lee co-directs the Massachusetts Longitudinal Database for Research on Social Services project funded by Office of the Assistant Secretary for Planning and Evaluation of the U.S. Department of Health and Human Services and Massachusetts Department of Revenue

HEALTH STATUS AND HEALTH CARE

Barbara Wolfe, *Institute for Research on Poverty, University of Wisconsin*

Barbara Wolfe is Professor of Economics and Preventive Medicine and Director of the Institute for Research on Poverty at the University of Wisconsin-Madison. She is a graduate of Cornell University (B.A., Economics) and the University of Pennsylvania (Ph.D., Economics). Her research career has been devoted to issues of poverty, health and disability, and the well-being of children; her teaching career has been devoted to health economics. She is the author, with Robert Haveman, of "Succeeding Generations: On the Effects of Investments in Children" (Russell Sage Foundation, 1994), and has edited several volumes on public finance. Other scholarly publications include articles in the *American Economic Review, Review of Economics* and *Statistics, Research in Population Economics, Journal of the American Statistical Association, Economics of Education Review, Journal of Public Economics*, and *Journal of Human Resources*. A Research Associate of the National Bureau of Economic Research, Professor Wolfe served on the National Commission on Childhood Disability in 1995-96.

Maria Perozek, *University of Wisconsin*

Maria Perozek is currently a graduate student in Economics at the University of Wisconsin-Madison. Her research interests are in the economics of aging, with a particular focus on intergenerational transfers of wealth. As a National Institute of Mental Health Trainee, her research focused on the health effects of teen childbearing and related health policy issues.

EDUCATIONAL ATTAINMENT, EMPLOYMENT AND TEEN CHILDBEARING

Robert H. Haveman, *Department of Economics, Chair, LaFollette Institute of Public Affairs, Institute for Research on Poverty, University of Wisconsin*

Robert H. Haveman is John Bascom Professor of Economics and Public Affairs at the University of Wisconsin-Madison, where he also serves as Chair of the Department of Economics and faculty member in the LaFollette Institute of Public Affairs and the Institute for Research on Poverty. He serves as Executive Vice President of the International Institute of Public Finance, and from 1988-1993 was Co-editor of the *American Economic Review*. His research focuses on the economics of social policy, as exemplified in his 1988 book, "Starting Even: New Policy for the Nation's New Poverty" (Simon and Schuster), and on the determinants of children's attainments, published jointly with Barbara Wolfe in "Succeeding Generations: On the Effects of Investments in Children" (Russell Sage Foundation, 1994).

Barbara Wolfe, *Institute for Research on Poverty, University of Wisconsin*

Barbara Wolfe is Professor of Economics and Preventive Medicine and Director of the Institute for Research on Poverty at the University of Wisconsin-Madison. She is a graduate of Cornell University (B.A., Economics) and the University of Pennsylvania (Ph.D., Economics). Her research career has been devoted to issues of poverty, health and disability, and the well-being of children; her teaching career has been devoted to health economics. She is the author, with Robert Haveman, of "Succeeding Generations: On the Effects of Investments in Children" (Russell Sage Foundation, 1994), and has edited several volumes on public finance. Other scholarly publications include articles in the *American Economic Review, Review of Economics* and *Statistics, Research in Population Economics, Journal of the American Statistical Association, Economics of Education Review, Journal of Public Economics*, and *Journal of Human Resources*. A Research Associate of the National Bureau of Economic Research, Professor Wolfe served on the National Commission on Childhood Disability in 1995-96.

Elaine Peterson, *University of Wisconsin*

Elaine Peterson is an assistant professor at California State University, Stanislaus. She is also a Ph.D. candidate at the University of Wisconsin, Madison completing her Ph.D. dissertation entitled "Neighborhood Quality and Children's Propensity to Succeed." She attended Colby College in Waterville, Maine, where she graduate Cum Laude in 1982, with distinction in Economics. She has been a research assistant in the Financial Structure Section of the Federal Reserve Board and the Institute for Research on Poverty. Her research includes work on neighborhood quality and children's success, and on policy-related determinants of teen nonmarital childbearing.

CRIMINAL ACTIVITIES

Jeffery Grogger, *University of California, Santa Barbara*

Jeffery Grogger is Associate Professor of Economics at the University of California, Santa Barbara. Prior to joining the faculty at the University of California, he served as Senior Research Fellow in the Office of the Attorney General in California. Dr. Grogger is a specialist in econometrics and applied microeconomics. He has conducted extensive research and published widely on a variety of social policy issues, including the deterrent effects of capital punishments; community policing and perceptions of neighborhood safety; the socioeconomic consequences of teenage childbearing; and the implications of schooling for employment options. He is co-editor of the *Journal of Human Resources* and Associate editor of the *Journal of Population Economics.*

ABOUT THE AUTHORS

CONSEQUENCES FOR ADOLESCENT FATHERS AND FOR THE FATHERS OF ADOLESCENT MOTHERS' CHILDREN

Michael J. Brien, *Department of Economics, University of Virginia*

Michael J. Brien is an Assistant Professor of Economics at the University of Virginia. He received a M.A. and Ph.D. in Economics from the University of Chicago and a B.A. in Economics and Political Science from the University of Wisconsin. Prior to his appointment at Virginia, he was a National Institute on Aging Post-Doctoral Fellow at RAND in Santa Monica, California, and served as an Economist at the U.S. Commission on Civil Rights. His research interests include the consequences of early family formation and the implications for child support, economic models of marriage and divorce, racial differences in marriage patterns, and the economics of aging.

Robert J. Willis, *University of Michigan*

Robert J. Willis is Professor of Economics at the University of Michigan where he also Research Scientist at the Institute for Social Research and Research Associate of the Population Studies Center. Before coming to Michigan in 1995, he had served on the faculties of the University of Chicago, SUNY at Stony Brook and Stanford University. Willis is currently the Principal Investigator on two large longitudinal surveys, the Heath and Retirement Survey and the Assets and Heath of the Oldest Old Survey, which are collecting data on Americans over age 50. He is an authority in the economics of the family, marriage, and fertility, labor economics, human capital and population and economic development. Recently he has written papers on theories of divorce, child support and out-of-wedlock childbearing; intergenerational transfers and investment in children's education in developing countries and, with collaborators, has surveyed research on the economics of fertility in developed countries.

He has been elected to the Board of Directors of the Population Association of America, has served on advisory boards for a number of surveys including the Panel Study of Income Dynamics, the High School and Beyond Survey and the Health and Retiremnent Survey and was recently appointed as representative to theCensus Advisory Board by the American Economic Association.

ABOUT THE AUTHORS

CONSEQUENCES FOR ADOLESCENT MOTHERS

V. Joseph Hotz, *Harris School of Public Policy, University of Chicago*

V. Joseph Hotz is a professor in the Irving B. Harris Graduate School of Public Policy Studies. He directs the Population Research Center of the National Opinion Research Center (NORC), and is a research associate of the Economics Research Center of NORC and the Institute for Research on Poverty at the University of Wisconsin-Madison. Prior to the University of Chicago, Hotz taught at Carnegie Mellon University.

Hotz researches economic demography and evaluates how various social programs affect the behavior of the poor. His past research interests include an examination of the relationship between the labor force participation and childbearing patterns of married women in the United States and Sweden. Hotz currently is studying the effects of alternative state regulations on child care utilization, the labor force participation of low-income mothers, and indicators of children's cognitive and social development. He also is investigating the factors that cause low-income women in the United States to depend on welfare.

Susan Williams McElroy, *H. John Heinz III School of Public Policy and Management, Carnegie Mellon University*

Susan Williams McElroy is Assistant Professor of Economics and Education Policy at the H. John Heinz III School of Public Policy and Management at Carnegie Mellon University and holds the Dean's Career Development Chair in Economics and Education. She received her Ph.D. in Economics of Education from Stanford University. In addition to the consequences of early childbearing, her research interests include the economic status of women and people of color in the United States and education policy. Dr. McElroy has worked as a researcher at the RAND Corporation and the Center for Policy Research in Education (CPRE) at Stanford University.

Seth Gary Sanders, *Carnegie Mellon University*

Seth Gary Sanders is Assistant Professor of Economics and Public Policy at the H. John Heinz III School of Public Policy and Management. He received his Ph.D. in Economics from the University of Chicago. His research focuses on the analysis of labor markets particularly with respect to poverty issues. He has done extensive research on the effects of teenage childbearing on adult maternal outcomes and on the use and effects on human capital development of public and private poverty programs. In addition he has conducted research on the effect of economic growth on poverty and underclass behavior and on the relative success of immigrants in the U.S. economy. He is published widely in academic journals and results from his work have been reported in *Business Week* and the *Wall Street Journal.*

THE NATIONAL CAMPAIGN TO PREVENT
TEEN PREGNANCY

2100 M STREET, N.W., SUITE 500, WASHINGTON, D.C. 20037

Message from the Chairman

On behalf of the National Campaign to Prevent Teen Pregnancy, I want to congratulate the Robin Hood Foundation and all of the scholars who were involved in the study, **Kids Having Kids**. It provides us with some of the most definitive evidence to date of the enormous costs associated with teenage childbearing. We commend this study to the press and the public as one that should be read and acted on.

The National Campaign will be working through its staff and newly formed task forces to prevent teen pregnancy by catalyzing action at the state and local level, engaging the media, fostering a more civilized debate on the issues, and learning more about effective programs. We hope that everyone will join with us in the effort to provide a better start in life for all of our children.

Thomas H. Kean
Chairman
The National Campaign to PreventTeen Pregnancy

THE NATIONAL CAMPAIGN TO PREVENT TEEN PREGNANCY

2100 M STREET, N.W., SUITE 500, WASHINGTON, D.C. 20037

SUMMARY

Mission: To prevent teen pregnancy by supporting values and stimulating actions that are consistent with a pregnancy-free adolescence.

Goal: To reduce the teenage pregnancy rate by one-third by the year 2005.

What the Campaign will do:

- take a clear stand against teenage pregnancy and attract the interest of more national leaders and organizations in this issue;
- enlist the help of the media to reduce teen pregnancy;
- support and stimulate state and local action to reduce teen pregnancy;
- foster a national discussion about how religion, culture, and public values influence both teen pregnancy and responses to it; and
- strengthen the knowledge base for effective programming

Organization and leadership: This is a totally private (nongovernmental) and nonpartisan effort being led by a distinguished Board; work is conducted through four task forces and a small staff. A new 501(c)(3) organization has been established and funding is being sought to accomplish its objectives. The Board has elected The Hon. Thomas Kean, former governor of New Jersey, as its Founding Chairman. Dr. Isabel Sawhill serves as the Campaign's President and Sarah Brown as its Director.

Origins and history: The initiative was stimulated by President Clinton's challenge issued in his 1995 State of the Union address that "parents and leaders all across the country ... join together in a national campaign against teen pregnancy to make a difference." A follow-up meeting was held at the White House with a group of private citizens in October to discuss what might be done. Following that meeting, a serious private-sector planning effort was initiated around the ideas generated at the meeting. In his 1996 State of the Union address, the President once more talked about the seriousness of the issue and mentioned the current private-sector initiative as one very positive response.

Current status: A detailed prospectus for the overall Campaign was reviewed by the Board at its first meeting in February. The Campaign is now in the process of raising funds, hiring a staff, and working with others to achieve its objectives.

For further information: To get on the mailing list of the new organization, or if you have other questions, please write to Sarah Brown, The National Campaign to Prevent Teen Pregnancy, 2100 M Street, N.W., Suite 500, Washington, D.C. 20037. FAX: 202-331-7735.

NOAPPP

National Organization on Adolescent Pregnancy, Parenting and Prevention
1319 F Street NW, Suite 401, Washington DC 20004 Tel 1-888-766-2777

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NOAPPP SENDING 10,000 COPIES OF ROBIN HOOD FOUNDATION'S KIDS HAVING KIDS TO TEEN PREGNANCY PREVENTION PRACTITIONERS ACROSS AMERICA

"Kids Having Kids is the most important study of teen pregnancy costs ever done. It is an absolute milestone in our understanding of the devastating consequences to the children of teen mothers, to the teen moms themselves, the fathers, and our country," said Patricia Jo Angelini, NOAPPP's president and Community Relations Director of the Arizona Family Planning Council.

"Kids Having Kids documents a national problem. NOAPPP applauds the Robin Hood Foundation and President Clinton's leadership in solving it. Everyone working to prevent teen pregnancy needs to read this study", urges Ms. Angelini.

Practitioners can obtain copies of Kids Having Kids at no cost by simply calling NOAPPP's 24-hour toll-free number, 1-888-766-2777, (1-888-7-NOAPPP) and asking for a copy.

Established in 1979, NOAPPP is a practitioner membership, 501(c)(3) non-profit organization that provides leadership, education, training, information and advocacy resources and support to adolescent pregnancy, parenting and prevention practitioners. NOAPPP's membership consists of health care, education and social service professionals, volunteers, and other individuals at the local, state and national levels.

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The Need for Family Planning Services Among Welfare Recipients

Nicholas Zill
Westat, Inc.
1650 Research Blvd.
Rockville, MD 20850

Presented at the seminar on

**Family Planning Services for Special Populations:
Teenagers, Welfare Recipients, Substance Abusers, and Others
at Especially High Risk of Unintended Pregnancy**

April 23, 1996

Wohlstetter Conference Center
American Enterprise Institute

Washington, DC

Women in the U.S. are five times more likely to be welfare dependent if they had a first child outside marriage than if they had that child while married (U.S. Bureau of the Census, 1989, 1995). Women are likely to stay on welfare for extended periods if they have additional children while they are on welfare (Pavetti, 1995a & b). Thus, two of the goals of many welfare reform efforts at both state and federal levels are to reduce unmarried childbearing among all women and repeat pregnancies among welfare recipients. A number of states have instituted "family caps" or other measures intended to discourage welfare recipients from having additional children. There are, however, several obstacles to achieving these goals that have little to do with financial incentives or disincentives. Rather, they have to do with prevention of unplanned pregnancies and attitudes about how many children it is desirable for a woman to have.

The purpose of this paper is to summarize data from several national surveys that provide information on the reproductive behaviors and attitudes of welfare recipients and how these compare with those of women who are not welfare dependent. I argue that these findings indicate a need for family planning services among welfare recipients. Without such services, welfare policies aimed at reducing repeat pregnancies among welfare recipients are not likely to succeed.

Welfare families are smaller than they used to be

A little-appreciated development concerning welfare mothers is that they are having fewer children than their predecessors did. Administrative data collected by the U.S. Office of Family Assistance show that the proportion of welfare families with four or more children declined from 32 percent in 1969 to 14 percent in 1979, down to 10 percent in 1993. (Figure 1). Over the same time span, the proportion of welfare families with only one or two children increased, from 50 percent in 1969 to 74 percent in 1993. During this period, the mean number of children per AFDC family dropped by a full child, from 2.9 to 1.9 per family (U.S. House of Representatives, Select Committee on Children, 1989, pp. 266-267; Committee on Ways and Means, 1994).

A less encouraging fact that may be gleaned from Figure 1 is that the number of children per AFDC family has been on a plateau for more than ten years, changing little since the early 1980s. Indeed, there may be some upward pressure on welfare family sizes in the years to come, as Hispanic-Americans become a larger part of the U.S. population and the welfare caseload. The average number of children born per woman is larger among Hispanic welfare recipients than among non-Hispanic recipients (3.11 versus 2.45 children per women in 1993) (U.S. Bureau of the Census, 1995). Nonetheless, the average welfare family is likely to remain relatively modest in size, smaller than it was a quarter-century ago, and certainly smaller than depicted in popular conceptions about such families.

The smaller size of today's welfare families should be beneficial for both the employability of welfare mothers and the development of welfare children. Having fewer children means a shorter period during which the mother needs to make child care provisions for children who are not yet in school in order for her to go to work. It also means that each child can get a larger share of family resources and more personal attention from the mother and other adult family members. Numerous studies have shown that, other things equal, academic achievement and other indicators of child development and well-being tend to be more positive when children grow up in smaller rather than larger families (Blake, 1981; 1989).

Welfare recipients have more children than nonrecipients

Although the smaller average size of welfare families is good news, it is still the case that welfare recipients have more children than nonwelfare mothers, as well as more unplanned and unwanted pregnancies. It is also the case that the minority of welfare recipients who have larger families tend to have more than their share of physical and mental health problems. Let me first document the larger size of welfare families, and then present survey findings on the other two points.

Although the administrative data from the Office of Family Assistance just presented are useful in showing the change in family size over time, these data understate the total number of children born to welfare mothers. This is because they do not count children who have aged into adults, those who live outside the mother's household, and those who live in the household but are not covered by AFDC. In 1993, data from the Census Bureau's Survey of Income and Program Participation (SIPP) showed that the mean number of children ever born to women under 45 was 2.59 for women who were currently receiving welfare versus 2.12 for those not receiving welfare. (Figure 2). Among older women, average family size and the gap between welfare and nonwelfare families were both larger. Among those aged 40-44, for example, welfare mothers had a mean of 3.41 children, whereas nonwelfare mothers had 2.38 children, more than one child less per family.

It should also be noted that, because welfare mothers begin having children earlier, their intergenerational interval is shorter than that of middle-class women (of whatever racial, ethnic, or religious group) who postpone the initiation of childbearing to their late twenties or thirties. A disadvantaged group with a relatively short intergenerational interval will tend to contribute more to the child population than an advantaged group with a longer intergenerational interval, even if women in the two groups produce the same average number of children. In other words, it is not just *how many* children welfare mothers produce that is of concern, it is also *when* they produce them.

How welfare mothers control their reproduction

Most welfare mothers began having children as teenagers (55 percent of the welfare mothers in the 1993 SIPP reported that they had had their first child before age 20, and this probably understates the true proportion). That welfare mothers should have more children than their counterparts who began childbearing later is hardly astonishing. The question that is intriguing is, how do women on AFDC manage to stop having children? Do they discover effective contraception or abstinence after having several children? In a surprisingly high proportion of cases, the answer is, by having themselves voluntarily sterilized.

Data on the reproductive status of welfare mothers were obtained in the 1988 National Survey of Family Growth.[1] (Table 1.) They show that 64 percent of women receiving welfare at the time of the survey were using some form of contraception, with voluntary sterilization (obtained by 33 percent of the welfare mothers) and the pill (used by 20 percent) being the leading methods used. Nearly 7 percent were abstinent: they were not using contraception but, whether by choice or otherwise, they had not had sex in the last three months. Another 12 percent were not using contraception, but were infertile: 7 percent were currently pregnant, 2 percent were in the postpartum period after a recent delivery, and almost 4 percent were non-voluntarily sterile. Nearly 17 percent of the welfare mothers were at risk of pregnancy because they had had sex within the past three months and were not using any contraception. Only 3 percent of the women said they wanted to get pregnant, however.

Compared to mothers who were not receiving welfare and were not in poverty, welfare mothers were less likely to be using some form of contraception (64 percent versus 75 percent), and more than twice as likely to be clearly at risk of pregnancy (17 percent versus 7 percent). Nonpoor mothers were slightly less likely to have had themselves sterilized voluntarily (28 percent versus 33 percent), but were much more likely to have a male partner who had had a vasectomy (13 percent versus 1 percent for partners of welfare mothers). Nonpoor mothers were also more than twice as likely to be sterile on a non-voluntary basis (9 percent versus under 4 percent), mainly because they were older, on average, than welfare mothers.

Welfare mothers were more likely than nonpoor mothers to be using the pill (20 percent versus 12 percent), but less likely to be using condoms (3 percent versus 10 percent) and other contraception methods, including diaphragms (5.5 percent versus 11 percent). The minority of women who had not had sex in the last three months was nearly twice as large

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[1] Unpublished tabulations from the 1988 NSFG were kindly provided by Jane Mauldon of the University of California at Berkeley.

among welfare mothers as among nonpoor mothers (7 percent versus 4 percent), but so was the proportion who were currently pregnant or postpartum (9 percent versus 5.5 percent).

Mothers who were below or near[2] the poverty line but who were not receiving welfare were similar to welfare mothers in their reproductive profile. (Table 1.) Differences were that nonwelfare poor mothers were slightly more likely to have a male partner who was voluntarily sterile (3.5 percent versus 1 percent) and to use condoms (8 percent versus 3 percent). Nonwelfare poor mothers were less likely to be currently pregnant or postpartum (5 percent versus 9 percent) and more likely to be nonvoluntarily sterile (6 percent versus under 4 percent). Again, age variations were probably the main factor behind the latter difference. The poor nonwelfare mothers were slightly less likely than welfare mothers to be sexually active with no contraception (13 percent versus 17 percent), but still twice as likely as nonpoor mothers to be at risk of pregnancy.

Voluntary sterilization

Using data from the NSFG, Jane Mauldon and Susan Miller (1994) looked at AFDC mother with three children or more. They found that 52 percent of these women had had tubal ligations to prevent themselves from having more children. Another one percent had partners who had had vasectomies. By contrast, among nonpoor, nonwelfare mothers with three children or more, 36 percent had had tubal ligations and 26 percent had vasectomized partners. In addition, more of the nonpoor women were infertile involuntarily -- 14 percent versus 4 percent.

Mauldon and Miller found that 67 percent of all welfare mothers said they wanted no more children, and nearly half of those had had themselves sterilized. (Figure 3.) As noted above, the overall prevalence of tubal ligation among welfare mothers was only slightly higher than that among nonwelfare mothers -- 33 percent versus 28 percent. However,

[2] Family income below 133 percent of poverty level.

welfare recipients tend to be younger and more often unmarried than non-AFDC mothers, and both of these factors generally work to lower the probability that a woman will have herself sterilized. Thus, Mauldon and Miller argue that, other things equal, the tendency to use tubal ligation to prevent further childbearing is actually stronger among women on welfare (and other poor women) than among nonpoor women.

What is perhaps more striking, though, is how little the partners of welfare mothers share the burden of preventing unplanned conceptions. Welfare couples are only one-third as likely as nonpoor couples to use condoms, and the male partners of welfare mothers are much less likely than the partners of nonpoor women to have had vasectomies. Part of the explanation for these differences may lie in the fact that, in most cases the male partner of a welfare mother is not married to the woman. Also, he may not be the father of her children, although the survey data are lacking on this point.

Unintended pregnancies

Why do so many welfare mothers turn to sterilization rather than reversible methods of contraception? The answer may lie partly in the lack of success they have had in using reversible methods. This lack of success may be seen in reports about mistimed and unwanted conceptions that were collected in the NSFG. (Table 2.) Two-thirds of welfare mothers reported that they had at least one live birth whose conception was mistimed, i.e., came earlier than the mother wanted. By comparison, 44 percent of nonpoor mothers had such a mistimed conception.

Twenty-nine percent of welfare mothers had had at least one live birth that was unwanted at conception, i.e., the mother did not want to become pregnant again. Less than half as many nonpoor women -- 13 percent -- had such an unwanted conception that resulted in a live birth. When these two types of conceptions were combined, the result was that 79 percent of welfare mothers had had at least one birth that was the result of a mistimed or unwanted conception, whereas the same was true of 51 percent of nonpoor mothers. Poor

mothers not on welfare fell in between the welfare and nonpoor mothers: 65 percent of them had had a live birth that was the result of a mistimed or unwanted conception.

Welfare mothers in the NSFG reported that about 20 percent of the children that they had borne were unwanted at the time of conception. This works out to an average of 0.5 children from unwanted conceptions per woman, more than twice as large as the average number of children from unwanted conceptions per woman (0.21) among non-AFDC mothers. Of course, because welfare mothers begin childbearing at earlier ages, they have a longer period during which they are at risk of exceeding their desired number of children.

Ideal and intended numbers of children

The higher fertility of welfare mothers is not simply the result of unwanted pregnancy. Despite being mostly unmarried, welfare mothers in the NSFG reported that they wanted to have as many children as nonwelfare mothers. In fact, the ideal number of children was slightly higher among welfare mothers (3.0) than among nonwelfare mothers (2.7), especially those from the nonpoor group (2.5). (These averages are all higher than 2, even though two children is the modal ideal, because relatively few women (or men) desire to have no children or only one child).

The average number of children that women currently intended to have (including those already born) was also higher among welfare mothers -- 2.9 versus 2.4. The ideal and intended numbers of children reported by poor mothers who were not receiving AFDC were practically identical to those of welfare mothers.

Welfare mothers: image versus reality

The image of welfare mothers and their childbearing that one gets from the data summarized above is very different from the stereotype of women irresponsibly producing child after child in order to squeeze more money out of the welfare system (Placek and

Hendershot, 1974). Instead, as with other contemporary women, the modal group of welfare mothers seems to subscribe to the two-child norm that is strong among U.S. families of virtually all racial, ethnic, national, and religious backgrounds. Most of the rest believe that a three-child family is ideal. When their own childbearing threatens to rise above this two- or three-child norm, many take strong, even irreversible steps, to prevent having further children.

At the same time, it is clear from the data presented above that many women on welfare might benefit from a stronger impetus to regulate their reproduction more scrupulously, and thus lower the now substantial proportion of children born from conceptions that were mistimed or unwanted. This is even more true of the male partners of welfare mothers, who seem to be exercising very little reproductive responsibility at present. Of course, incentives to encourage reproductive responsibility can be positive as well as negative. More importantly, it is not only motivation that welfare recipients seem to need, but instruction as to how they might regulate their fertility more effectively and why this is desirable. Also, although welfare mothers may share the ideal of the two-child family with other Americans, in the case of the welfare mothers, that ideal has been "decoupled" from another important ideal, namely, marriage.

The high-risk minority

Although the description offered above applies to the majority of welfare recipients, there is another segment of the welfare population that presents a different sort of picture. This is the subgroup of recipients who have more severe problems, such as drug or alcohol involvement or chronic personality disorders. National survey data and local intervention studies show that this subgroup is not composed primarily of teenagers but of unmarried older women who are on what Besharov and Gardiner (1996) have called "downward spirals of dysfunctional behavior." These recipients are over-represented among welfare mothers with larger than average families because they tend to have repeated pregnancies and births that are typically unplanned and often unwanted. These are also the women who are most

likely to fail to get timely prenatal care, gain inadequate amounts of weight during their pregnancies, and deliver low birth weight babies with elevated risks of dying in infancy (Goldstein, 1996). The children of these mothers who do survive are more likely than children from other welfare or nonwelfare families to exhibit neurological disorders and learning disabilities, and be victims of unintentional injury and abuse or neglect.

The size of this high-risk segment of the welfare population is uncertain, although data from a recent national survey of delivering women indicate that about one-quarter of welfare mothers fail to gain adequate weight during their pregnancies, one in eight reports using an illicit drug of some sort, and one in twenty reports using cocaine during the pregnancy (Zill & Loomis, 1996). The progress that has been made in reducing the average size of welfare families should not cause us to lose sight of the pressing need to prevent further unintended pregnancies and births in these high-risk welfare families.

One possible answer to the needs of this subgroup might be intensive interventions that address their substance abuse and personality problems as well as their fertility-related behavior. Unfortunately, the available evidence indicates that even such intensive interventions are not likely to be effective in the majority of these high-risk cases. Another possible answer is to remove children already born from the care of these women and to institute direct physiological interventions to limit their further childbearing. Many would find these stronger measures unacceptable, however.

Implications for behavior-related rules in welfare reform

Findings presented in this report on the childbearing patterns of AFDC mothers have implications for efforts to reduce repeat pregnancies among welfare recipients. The data show that many welfare mothers are already limiting their own fertility, often by having themselves sterilized voluntarily, but only after they have had two or three children. What seems to be the case is that welfare mothers, like most other women in the U.S., have two children as a childbearing ideal. They do not see the lack of marriage as a condition that

should bar them from having children. Once they have had two children, they are prepared to take steps to prevent further conception. Interventions at this point to assist them in regulating their fertility are likely to be successful with most recipients. But efforts to get welfare mothers to stop at only one child seem less likely to succeed, unless they can change women's attitudes about the acceptability of a one-child family, or convince them that childbearing outside of marriage is detrimental to children.

There are likely to be more serious problems with the minority of welfare mothers, many of them involved with drugs or emotionally disturbed, who continue to have child after child with little consideration of their ability to nurture or care for them. Far stronger disincentives than limitations on additional welfare payment or even direct physiological intervention will be needed to limit the fertility of these women. Whether the American public is prepared to see such stronger measures taken is doubtful.

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Figure 1. Number of child recipients in AFDC families, 1969-1993

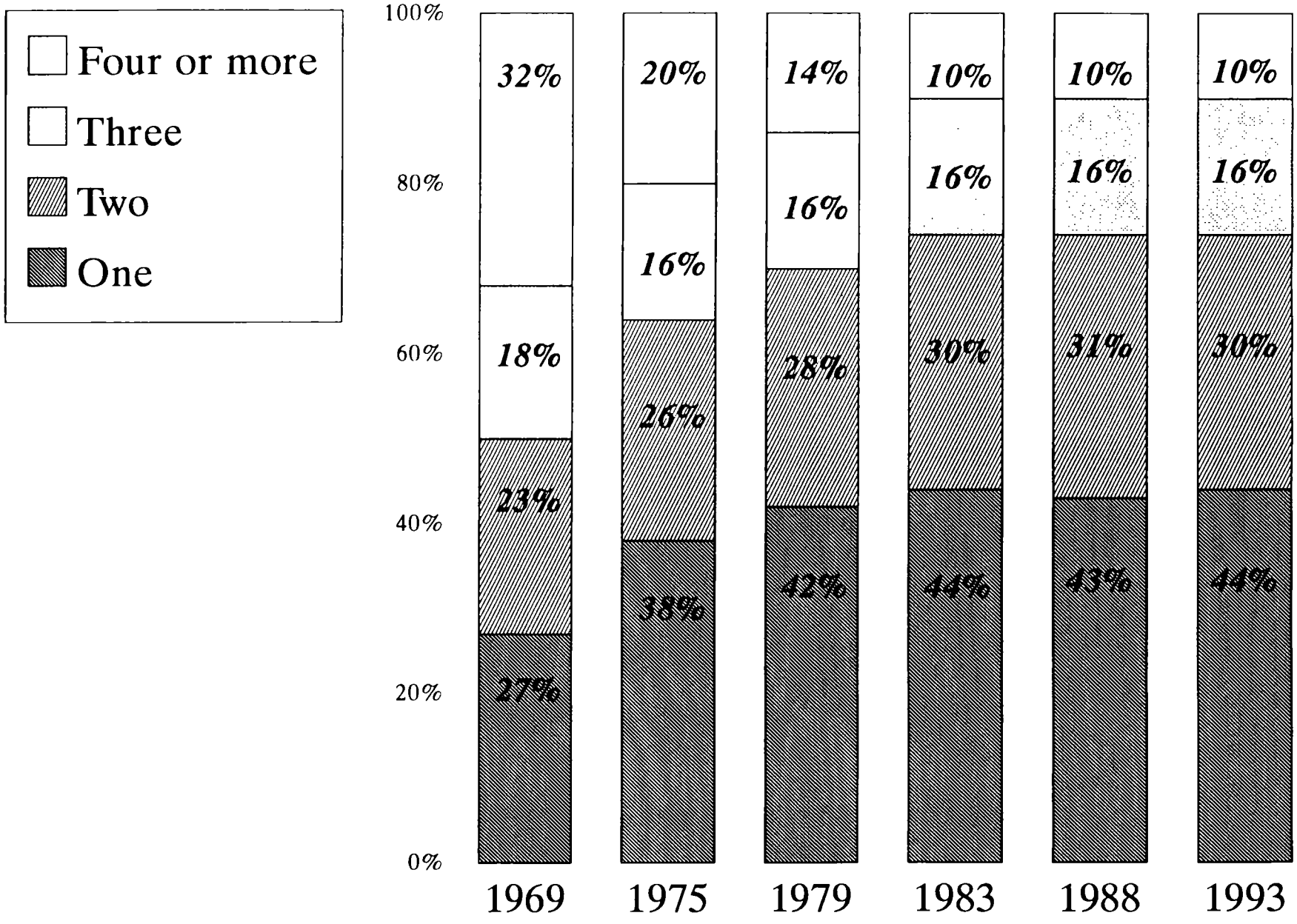


Figure 2: Mean number of children ever born to U.S. women under 45 years of age, by welfare status and age group, 1993

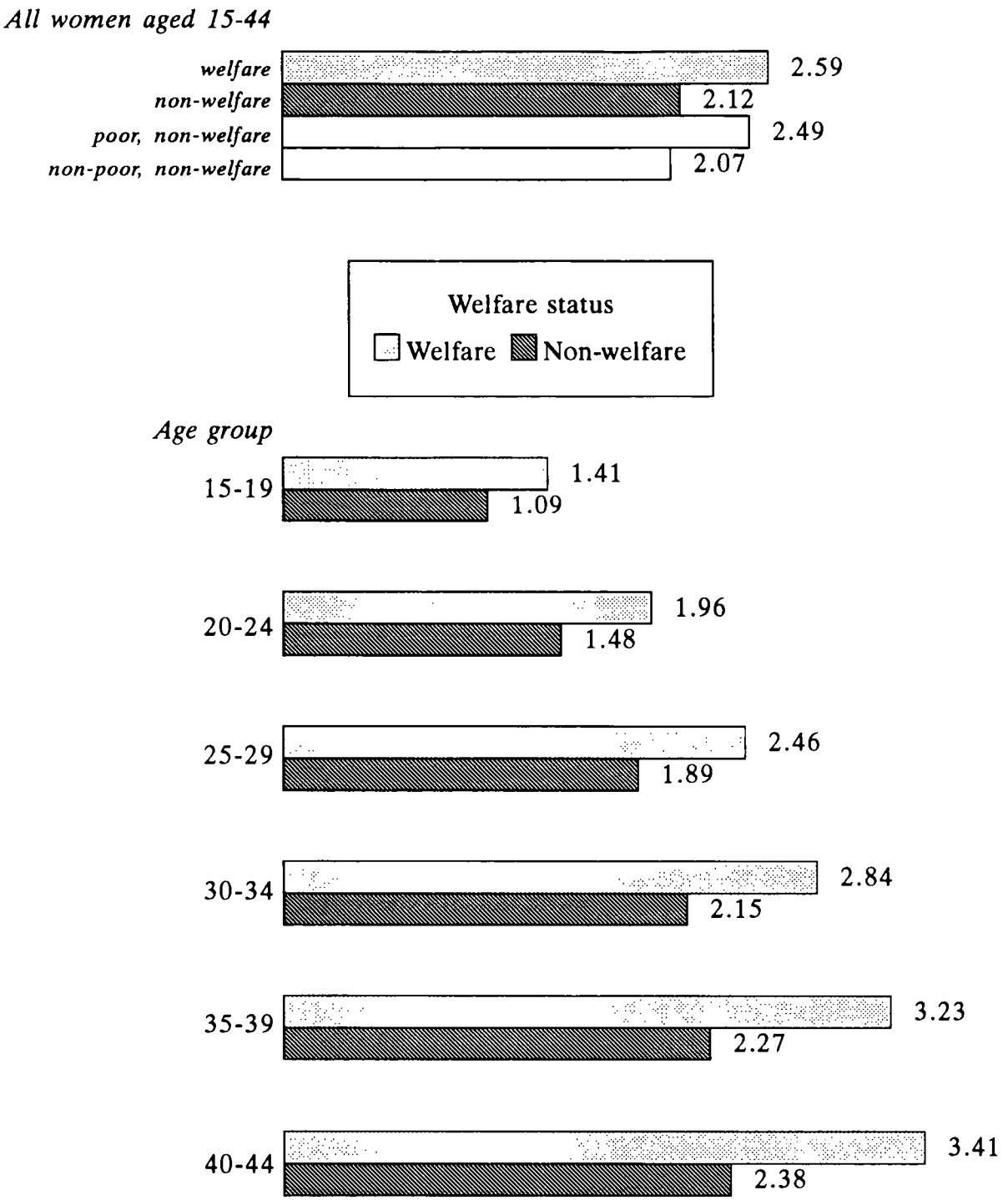
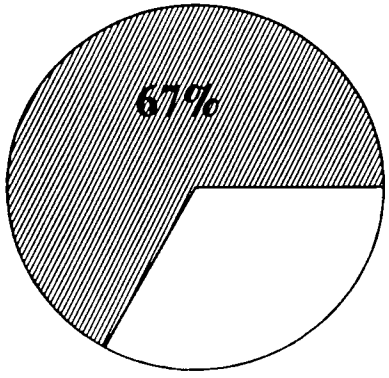
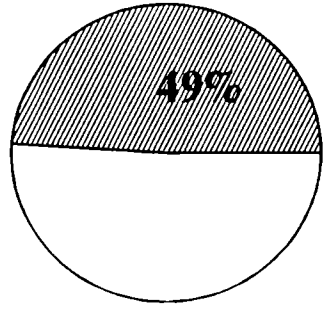


Figure 3. Use of Voluntary Sterilization to Control Unwanted Childbearing Among Welfare and Non-welfare Mothers

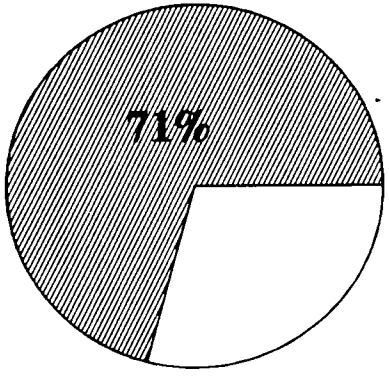


Welfare Mothers



Percent who want no more children

Of those who want no more children, percent who have had tubal ligation



Non-welfare Mothers

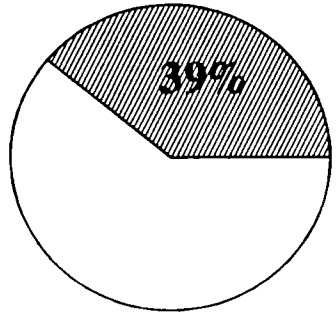


Table 1. Contraceptive Status of Welfare Mothers, Nonwelfare Poor Mothers, and Nonpoor Mothers, United States, 1988

	Mothers receiving welfare	*Nonwelfare poor mothers**	*Nonpoor mothers*
Using contraception, method			
Voluntarily sterile	33.0%	30.7%	27.7%
Male partner voluntarily sterile	1.1%	3.5%	13.3%
Pill	19.7%	17.6%	11.9%
Condom	3.1%	8.4%	9.5%
IUD	1.8%	2.9%	1.7%
Other method	5.5%	4.5%	11.2%
Total using contraception	64.2%	67.6%	75.2%
Abstinent (nonuse and no sex last 3 months)	6.6%	7.5%	3.6%
Total contracepting and abstinent	70.8%	75.1%	78.8%
Not using contraception, infertile			
Pregnant	6.8%	4.3%	4.2%
Postpartum	1.9%	1.0%	1.3%
Non-voluntarily sterile	3.7%	6.2%	9.1%
Total infertile	12.3%	11.5%	14.6%
Sexually active, no contraception			
Wants to get pregnant	2.7%	2.8%	2.9%
Had has sex in last three months, does not want to get pregnant	14.1%	10.6%	3.7%
Total at risk of pregnancy	16.9%	13.4%	6.6%
All statuses	100.0%	100.0%	100.0%

*Below 133% of poverty level.

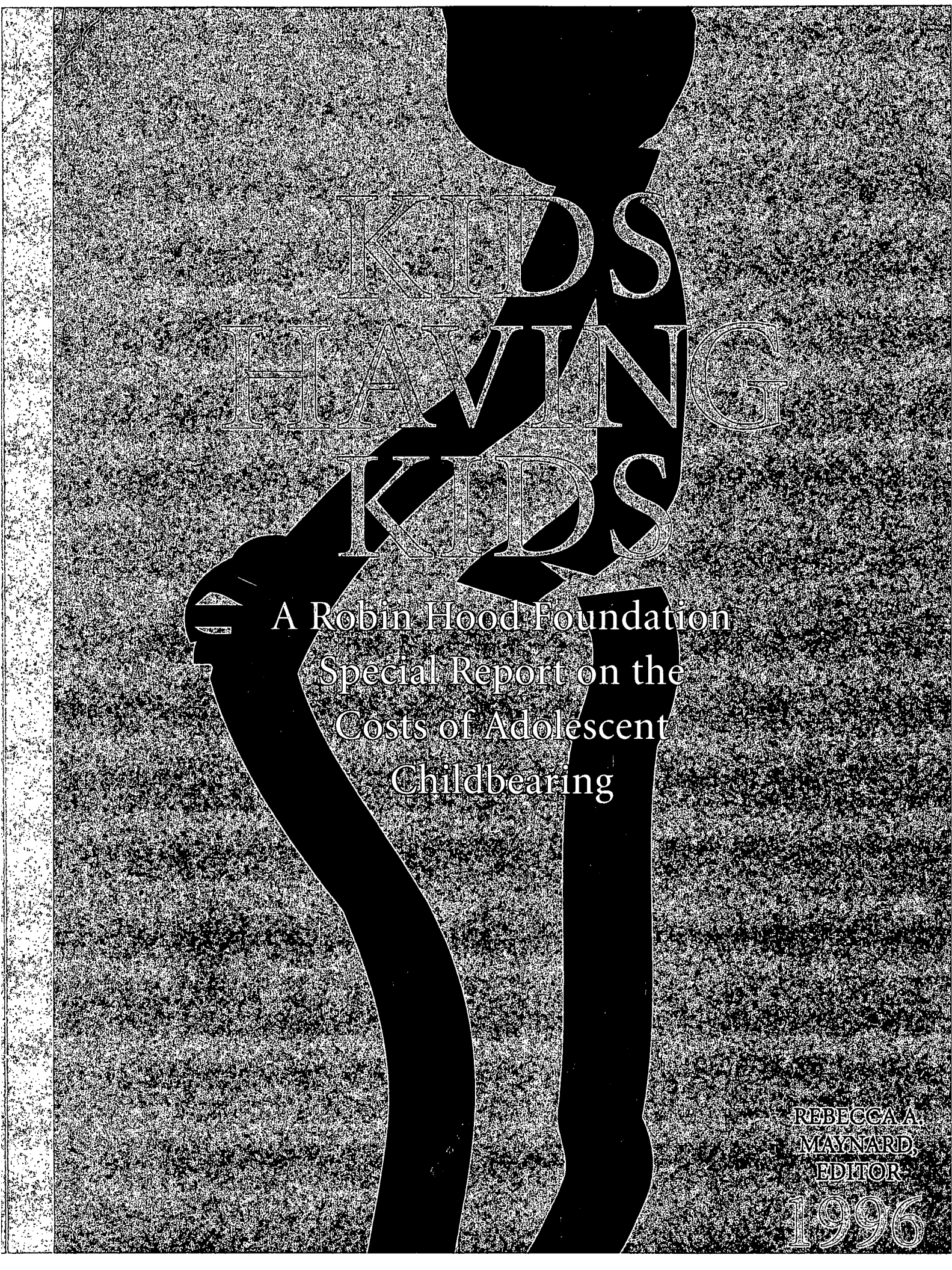
Source: Author's retabulation of unpublished data from the 1988 National Survey of Family Growth. Tabulations provided by Jane Mauldon, Graduate School of Public Policy, University of California at Berkeley, February 1996.

Table 2. Prevalence of Mistimed and Unwanted Births Among Welfare Mothers, Nonwelfare Poor Mothers, and Nonpoor Mothers, United States, 1988

	Mothers receiving welfare	*Nonwelfare poor mothers**	*Nonpoor mothers*	*All mothers*
Has had at least one live birth that was the result of a "mistimed" conception	66.0%	53.3%	43.8%	47.1%
Has had at least one live birth that was the result of an "unwanted" conception	29.4%	24.7%	13.3%	16.3%
Has had a live birth that was the result of either an "unwanted" or "mistimed" conception	79.4%	64.7%	51.3%	55.6%

*Below 133% of poverty level.

Source: Author's retabulation of unpublished data from the 1988 National Survey of Family Growth. Tabulations provided by Jane Mauldon, Graduate School of Public Policy, University of California at Berkeley, February 1996.



KIDS HAVING KIDS

A Robin Hood Foundation Special Report on the Costs of Adolescent Childbearing

REBECCA A. MAYNARD, EDITOR

1996

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LIST OF TABLES

APPENDIX: SUPPLEMENTARY TABLES

LIST OF FIGURES

Kids Having Kids

A Special Report on the Costs of Adolescent Childbearing

This report was prepared for the Robin Hood Foundation under its grant to the Catalyst Institute to organize and oversee a unique research project to further our understanding of the consequences of adolescent childbearing for adolescent mothers, for their children, for the fathers of their children, and for the nation. The Catalyst Institute commissioned outstanding scholars to undertake independent research on various aspects of this issue. So, too, they commissioned me to prepare this synthesis of the scholars' research. All of us working on this project have been encouraged to express our own judgments freely, which we have done. Therefore, neither this report nor the supporting research by the project scholars necessarily represents the official opinion or policy of the Robin Hood Foundation or of the Catalyst Institute.

Rebecca A. Maynard, Editor

Acknowledgments

This report evolved from the vision of Paul Tudor Jones, chairman of the Robin Hood Foundation Board of Directors, and David Saltzman, executive director of the Robin Hood Foundation; the research of 15 of the nation's leading scholars of economic and social welfare policy; and the management talents of the Catalyst Institute. Paul Tudor Jones, David Saltzman, and the Robin Hood Foundation board conceived of and provided financial support for the project. Lisa Smith, the foundations deputy director, worked on various aspects of the study from start to finish. Charlotte Koelling and Suzanne Hammond of the Catalyst Institute provided ongoing managerial and editorial support. Norman Atkins provided expert consultation on the report structure and dissemination package, and Margot Frankel was responsible for the final report design. The substantive content of the report is largely the product of intellectually challenging and tedious work by the *Kids Having Kids* scholars: Michael Brien, Robert Goerge, Angela Greene, Jeff Grogger, Robert Haveman, V. Joseph Hotz, Bong Joo Lee, Susan McElroy, Kristin Sanders, Robert Willis, and Barbara Wolfe. They conducted their excellent

independent research projects and also patiently worked with me to find creative solutions to a number of analytic issues that were key to estimating the overall costs of adolescent childbearing. The entire *Kids Having Kids* project benefited greatly from the input of an outstanding project advisory group. The advisory group met with the scholars on several occasions to review the project plans and progress. They also offered their time generously to individual members of the project staff as needed. Frank Furstenberg, Robert Moffitt, and David Myers provided especially valuable guidance to the scholars and me through their thoughtful comments on drafts of each of the project reports and this synthesis report. Leslie Barber proofread the entire report. I also must acknowledge the expert research assistance and production support provided by Louise Alexander, Meredith Kelsey, Dan McGrath, and Steve Hocker of the University of Pennsylvania. They read and summarized the thousand-plus pages of text in the scholars' reports, worked diligently on the cost analysis, and produced the many graphs and charts for the report.

Rebecca A. Maynard, University of Pennsylvania

Kids Having Kids

A Special Report on the Costs of Adolescent Childbearing

Scholars

Michael J. Brien, *University of Virginia*

Robert M. Goerge, *University of Chicago*

Angela Dungee Greene, *Child Trends, Inc.*

Jeff Grogger, *University of California, Santa Barbara*

Robert Haveman, *University of Wisconsin*

V. Joseph Hotz, *University of Chicago*

Bong Joo Lee, *Boston University*

Susan Williams McElroy, *Carnegie Mellon University*

Kristin A. Moore, *Child Trends, Inc.*

Donna Ruane Morrison, *Georgetown University*

Maria Perozek, *University of Wisconsin*

Elaine Peterson, *University of Wisconsin*

Seth G. Sanders, *Carnegie Mellon University*

Robert J. Willis, *University of Michigan*

Barbara Wolfe, *University of Wisconsin*

Advisory Group

Kids Having Kids

A Synthesis of Project Findings

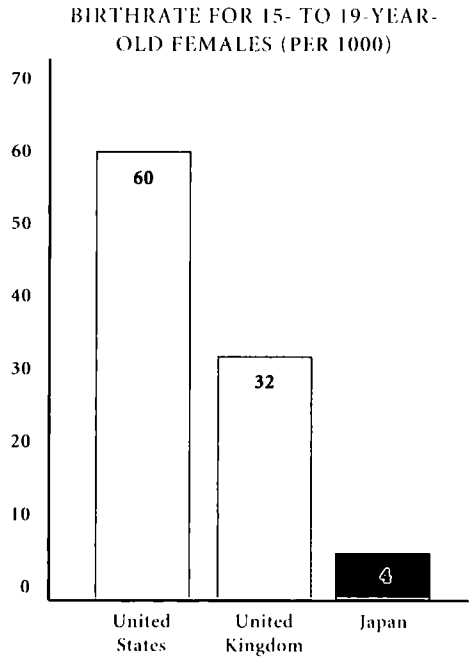
Each year, nearly one million teenagers in the United States—approximately 10 percent of all 15- to 19-year-old females—become pregnant. About one third of these teens abort their pregnancies, 14 percent miscarry, and 52 percent (or more than half a million teens) bear children, 72 percent of them out of wedlock. Of the half a million teens who give birth each year, roughly three-fourths are giving birth for the first time. Even more striking, more than 175,000 of these new mothers are 17 years old or younger. These young mothers and their offspring are especially vulnerable to severe adverse social and economic consequences. More than 80 percent of these young mothers end up in poverty and reliant on welfare, many for the majority of their children's critically important developmental years.

Due to their weak educational and skill levels, low rates of marriage, and inadequate support from nonresident fathers of their children, young mothers face significant challenges in trying to provide for their children. Partly because of their young age, very few of these mothers complete high school before their first child is born. More than 80 percent of those who are 17 or younger when they have their first child are

unmarried. Fewer than half of them will get married within 10 years. Only a small minority of the unwed fathers of the children born to adolescent mothers provide any ongoing economic support for their children.

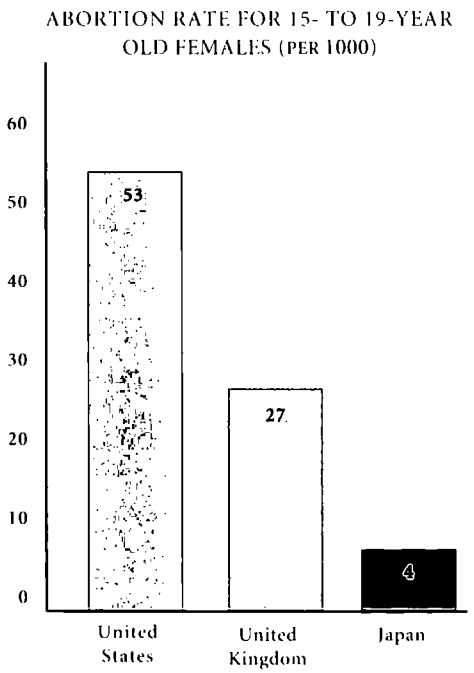
Much of all this seems to be a uniquely American phenomenon. The teen birthrate in the United States is the highest of any industrialized nation, nearly twice as great as the next highest, the United Kingdom, and more than 15 times that of Japan. In addition, in 1988, the last year for which comparative data are available, a teenager in the United States was twice as likely to have an abortion as a teenager in the United Kingdom, the industrialized country with the next highest abortion rate. American teens were more than 13 times as likely to have an abortion as Japanese teens.

The public focus on adolescent childbearing as a major social issue has been fueled by three social forces. First, child poverty rates are high and rising. Second, the number of welfare recipients and the concomitant costs of public assistance have risen dramatically. And third, among those on welfare we see a much higher proportion of never-married women, younger recipients, and recipients who have long average durations of dependency. Adolescent childbearing has both contributed to and been affected by these trends.



To better understand the full costs and consequences of adolescent childbearing, the Robin Hood Foundation commissioned some of the nation's leading scholars to research the issue. Working in teams on seven coordinated stud-

ies, the scholars explored the costs and social consequences of teen childbearing for the young mothers, their children, the fathers of their children, and the entire nation. An additional study of previously researched childbearing trends informed and helped round out this set of reports.



The scholars focused their research on the roughly 175,000 adolescents a year who have their first baby at the age of 17 or younger. Still school age, unlikely to be married, and even less likely to be prepared for parenthood, these young mothers highlight the dimensions of the teen-pregnancy and -parenthood problems in this country. The researchers compared these young mothers with women who delay their first births until the age of 20 or 21, which is still two to three years younger than the national average age of women having their first child. The researchers chose this comparison group in the belief that a delay in childbearing until the early twenties is a long enough delay to make a meaningful difference in the life options of the young mothers and their children, and is potentially attainable through aggressive teenage pregnancy-prevention options. The teenage mothers are referred to as "adolescent mothers" throughout this report, distinguishing them from older teen mothers. Those who are 20 or 21 when they have their first child are referred to as "later childbearers."

To develop an understanding of adolescent childbearing itself, researchers attempted to untangle the pathway of early

parenting from an intricate web of social forces that influence the life course of the mothers, including the behaviors and choices leading to their adolescent parenting. The researchers began by examining the gross differences in outcomes between adolescent mothers and women who delay childbearing until the age of 20 or 21. They then applied statistical controls to apportion this overall difference into as many as three categories. First, they looked for the portion of the difference attributable to background factors such as race, ethnicity, socioeconomic class, and parents' education. Second, they accounted for the portion of the difference due to factors *closely linked* to adolescent childbearing but often difficult or impossible to measure directly—factors such as motivation, self-esteem, peer-group influence, and the impact of community.

All of the studies were able to break out these two sets of components. Two of the studies went further and isolated the effects of adolescent childbearing itself on outcomes. One accomplished this by using the randomness of miscarriages, which force a delay in the timing of the first birth. The other study utilized the fact that a woman who has more than one child is necessarily older when she gives birth to her second child. Scholars, therefore, were able to separate the effects of early childbearing from the effects of other factors that are correlated with early childbearing.

The full study is to be published in October of this year by the Urban Institute Press under the title *Kids Having Kids: Economic Costs and Social Consequences of Teen Pregnancy.* The following summarizes the scholars' major findings.

Highlights of the Study Findings

CONSEQUENCES FOR THE CHILDREN OF ADOLESCENT MOTHERS

The odds are stacked against the offspring of adolescent mothers from the moment they enter the world. As they grow, they are more likely than children of later childbearers to have health and cognitive disadvantages and to be neglected or abused. The daughters of adolescent mothers are more likely to become adolescent moms themselves, and the sons are more likely to wind up in prison.

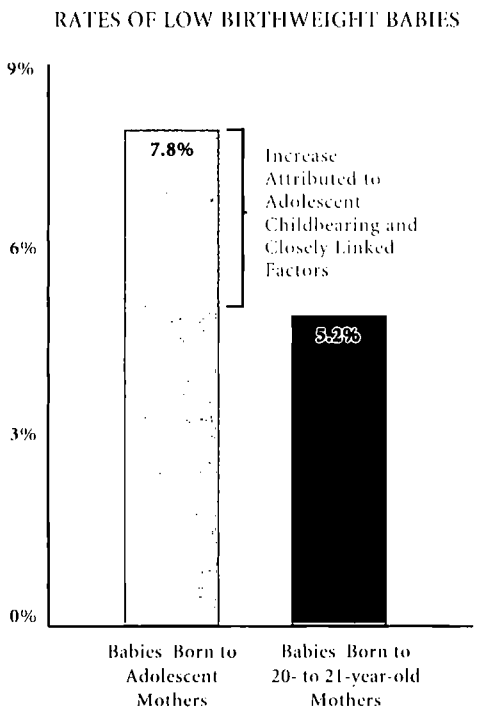
Low-Birthweight Babies When compared to children of mothers age 20 or 21 when they had their first child, the children of adolescents are more likely to be born prematurely and 50 percent more likely to be low-birthweight babies—of less than five and a half pounds (Moore, Morrison, and Greene forthcoming). Low birthweight raises the probabilities of a variety of adverse conditions such as infant death, blindness, deafness, chronic respiratory problems, mental retardation, mental illness, and cerebral palsy. In addition, low birthweight doubles the chance a child will later be diagnosed as having dyslexia, hyperactivity, or another disability. Even after factoring out a variety of related background characteristics, the research indicates that adolescent childbearing and closely linked factors heighten the risk of low birthweight and later problems the children, their parents, and their schools must confront.

Childhood Health Problems As they grow, the children of adolescent moms tend to suffer poorer health than do the

children of women who were age 20 or 21 when their first child was born (Wolfe and Perozek forthcoming). Therefore, one would also expect them to see the doctor more often than do children of later childbearers. But, perversely, they receive only half the level of medical care and treatment their counterparts receive.

Based on parents' reports of their children's health status, children of later childbearers are much more likely to be in "excellent" health than are the children of adolescent moms: 60 percent of the children of the later childbearers are so rated, versus 38 percent of the children of adolescent mothers. Meanwhile, in his or her first 14 years, the average child of an adolescent mom visits a physician and other medical providers an average of 2.3 times per year, compared with 4.8 times for a child of later childbearers. Early childbearing and closely linked factors—such as motivation, peer group influence, and community context—account for about one third of this large difference.

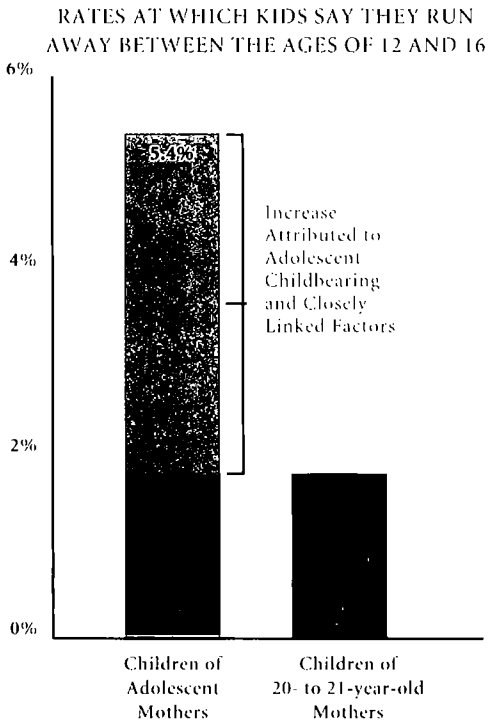
On average, an adolescent mother consumes $3,700 per year in healthcare for her children. Even though each of her children individually receives substantially less care than children of later childbearers, the typical adolescent mom annually consumes nearly 20 percent more medical care for her children than she would if she delayed childbearing until age 20 or 21 for the very simple reason that she has, on average, more children than her older childbearing counterparts do.



Almost half of her children's medical bills—$1,794—is paid for by the taxpayers in the form of publicly supported health subsidies. After

other variables are controlled for, including the poorer health of children of adolescent mothers, the typical adolescent mother actually consumes an average of $562 more a year on healthcare for her children than does her counterpart who delays childbearing until age 20 or 21. At the same time, she spends $144 a year less out-of-pocket, while the public pays $776 more through Medicaid and other publicly funded health insurance for her children than they pay for children of otherwise similar childbearers. Based on this estimate, the health-services dimension of adolescent childbearing costs taxpayers about $1.5 billion more each year than if girls age 17 and younger had delayed parenthood.

The Homes Where They Live Children of adolescent moms are much less likely than their peers to grow up in homes with fathers (Moore et al. forthcoming). In addition, the quality of the homes where they live is rated substantially lower than those of the comparison group, even after controlling for various background factors. This conclusion is based upon results of the widely accepted Home Observation for Measurement of the Environment (HOME) survey, which rates homes based on the emotional support and cognitive stimulation provided to children. For example, the survey analyzes the amount and quality of attention children receive from their parents and the degree to which their residences contain books, educational toys, and games.



Runaway Children Children of adolescent moms are two to three times more likely than the children of their

older childbearing counterparts to report having run away from home during those years. Five percent of adolescent mothers' children are sufficiently miserable in their homes that they report running away from it sometime between the ages of 12 and 16, compared with only about 2 percent of children born to later childbearers (Moore et al. forthcoming).

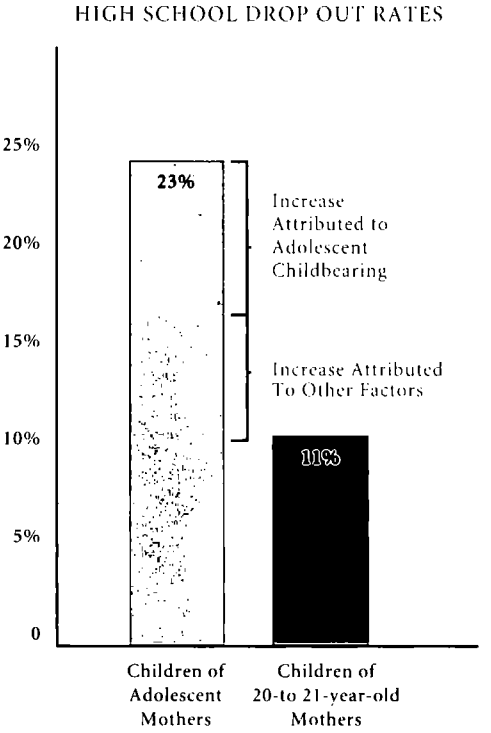
Child Abuse and Neglect Children of adolescent moms are also far more likely to be physically abused, abandoned, or neglected (Goerge and Lee forthcoming). In a study of Illinois Child Protective Service statistics, which are among the best and most comprehensive in the nation, the scholars found that children of adolescent mothers are more than twice as likely to be the victims of abuse and neglect than are the offspring of 20- to 21-year-old moms.

Illinois logged 109 reports of child abuse per 1,000 children born to adolescent moms and only 50 per 1,000 children in the comparison group of children born to mothers who were 20 or 21. To the extent that researchers were able to factor out the influence of background characteristics, their work shows that adolescent childbearing is a major cause of this huge margin of difference in child-abuse rates. In addition, one of every four times Illinois receives a report that a child of an adolescent mother has been abused, it finds abuse so great it places the child in foster care.

Foster Children An estimated 472,000 children are in foster care in the United States at any one time (Goerge and Lee forthcoming). Extrapolating from the Illinois study to the nation, early childbearing and closely linked factors lead to 23,600 children—an estimated five percent of all those born to adolescent mothers each year—ending up in foster care. The effect of adolescent childbearing on foster-care placement results in a taxpayer burden as high as $900 million a year.

Trouble in School In school, the children of adolescent moms do much worse than those in the comparison group of later

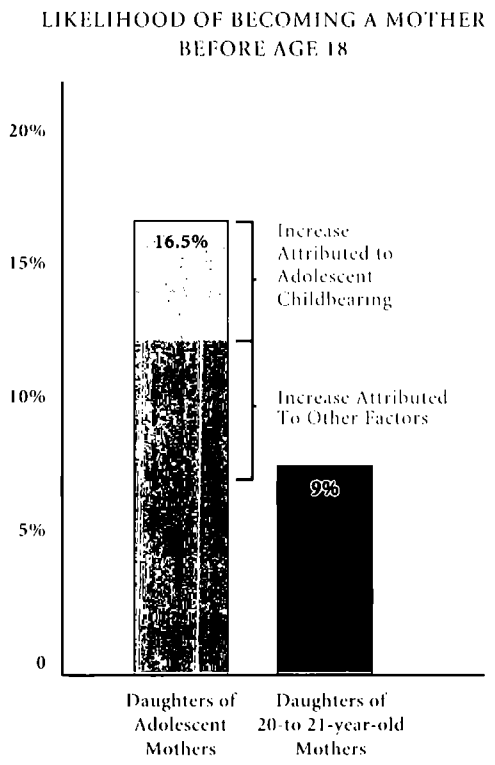
childbearers (Moore et al. forthcoming). They are two to three times less likely to be rated "excellent" by their teachers and 50 percent more likely to repeat a grade. And they perform significantly worse on tests of their cognitive development, even after differences in measurable background factors have been screened out.



High School Dropouts The research suggests that performance in school does not improve as children of adolescent mothers age. They are far more likely to drop out than are children born to later childbearers (Haveman, Wolfe, and Peterson forthcoming). Only 77 percent of the children of adolescent moms earn their high school diplomas by early adulthood, compared with 89 percent of the comparison group. Although a part of this sizable difference in high school graduation-rates can be explained by background differences, 57 percent of the graduation rate gap is due to adolescent childbearing and closely linked factors.

Adolescent Mothers From One Generation to the Next

When compared with their counterparts born to older childbearers, the daughters of adolescent moms are 83 percent more likely themselves to become mothers before age 18 (Haveman et al. forthcoming). After controlling for various background factors, adolescent childbearing and closely linked factors account for about 40 percent of this difference in adolescent pregnancy rates. Teen mothers beget teen mothers at a far greater rate than older mothers do, and they are far more likely



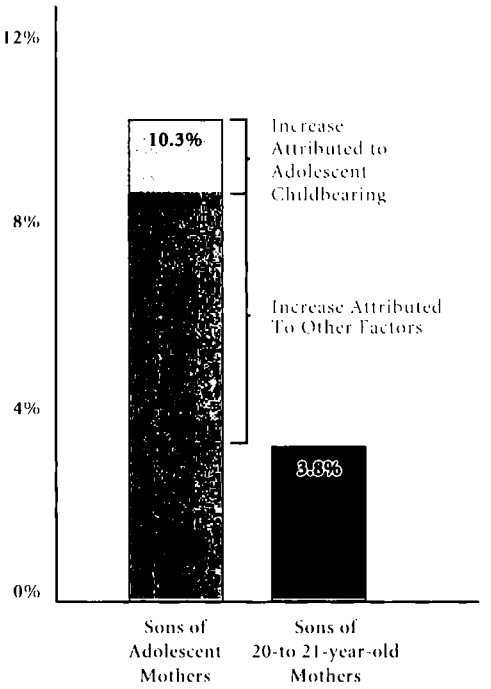
to pass on their poor life prospects as a birthright. Furthermore, the daughters of teen moms, whether or not they become teen moms themselves, are 50 percent more likely to bear children out of wedlock than the comparison group.

Unproductive Lives A snapshot of adolescent mothers' children at the age of 24 reveals that roughly 30 percent of them are neither in school nor working nor actively looking for a job (Haveman et al. forthcoming). At that point in life, they are 71 percent more likely to be unengaged productively than are peers whose mothers delayed childbearing until their early twenties. Less than half of this "economic activity" gap is attributable to observable background factors. Most of the difference is due to adolescent childbearing and closely linked factors. The research suggests though it does not spell out directly that the children of adolescent moms are less likely to attend college and more likely to work in low-skill jobs. For these and other reasons, their long-term earnings potential appears to be significantly lower than that of the comparison group born to later childbearers.

Behind Bars The teen sons of adolescent mothers are 2.7 times more likely to land in prison than the sons of mothers who delayed childbearing until their early twenties (Grogger forthcoming). Adolescent childbearing by itself accounts for 19 percent of this difference. By extension, adolescent childbearing in and of itself costs U.S. taxpayers roughly $1 billion each year to build

and maintain prisons for the sons of adolescent mothers. In addition to the measurable criminal-justice costs, other, less tangible costs, such as damage to people and property, are associated with criminal activity.

INCARCERATION RATES OF SONS DURING THEIR YOUNG ADULT YEARS



CONSEQUENCES FOR ADOLESCENT MOTHERS

In absolute terms, adolescent mothers face poor life prospects. Seven of 10 will drop out of high school. During their first 13 years of parenthood, adolescent moms earn an average of about $5,600 annually, less than half the poverty level. And adolescent mothers spend much of their young adult years (ages 19 to 30) as single parents. Surprisingly, after accounting for differences in background and closely linked factors such as motivation, adolescent mothers earn only slightly less during the first 12 years of parenthood than they would be expected to earn if they delayed childbearing until age 20 or 21 (Hotz, Sanders, and McElroy forthcoming). In contrast, over their young adult lives (ages 19 to 30), they work and earn somewhat more than do their later childbearing counterparts.

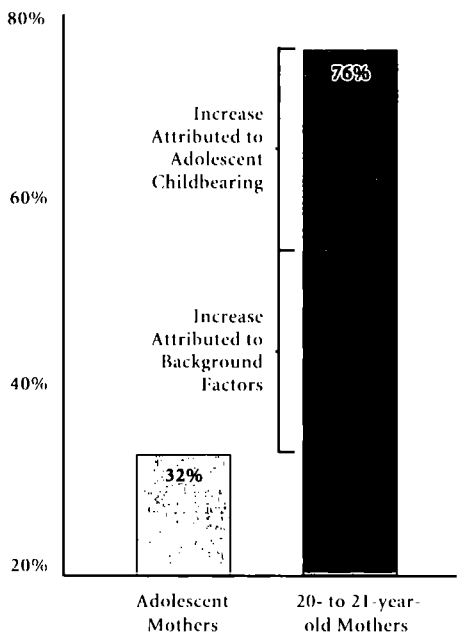
Moreover, although their sources of income differ, adolescent mothers have combined incomes from their own earnings, earnings of spouses, child support, and public assistance comparable to those of the older childbearers, after background and closely linked factors are controlled for. During their first 13 years of parenthood, they have income and medical-care assistance valued at just nearly $19,000 annually, compared with just over $20,000

annually for their later childbearing counterparts. After netting out the effects of background and other factors closely linked to early childbearing, adolescent childbearers fare slightly better than their later childbearing counterparts in terms of their overall economic welfare having total incomes of nearly $20,000 annually as compared with just over $16,000 for the comparison group.

Although total economic support is not greatly affected by adolescent childbearing itself, this relatively modest level of economic support must feed more mouths than does the income of their counterparts who delay childbearing until age 20 or 21, resulting in greater poverty. Larger family sizes, together with weakened chances of stable marriage, lead to about 50 percent higher rates of welfare dependence among adolescent parents.

The really significant consequences of adolescent childbearing for the mothers are lower levels of educational attainment, higher rates of single parenthood, larger family sizes, and greater reliance on public assistance. Even after parsing out the effects of background and closely linked factors that can explain some of the observed differences in outcomes between adolescent mothers and their later childbearing counterparts, the research shows that adolescent childbearing itself accounts for a 50 percent lower likelihood of completing high school, 24 percent more children, and 57 percent more time as a single parent during the first 13 years of parenthood.

RATES AT WHICH MOTHERS EARN A HIGH SCHOOL DIPLOMA

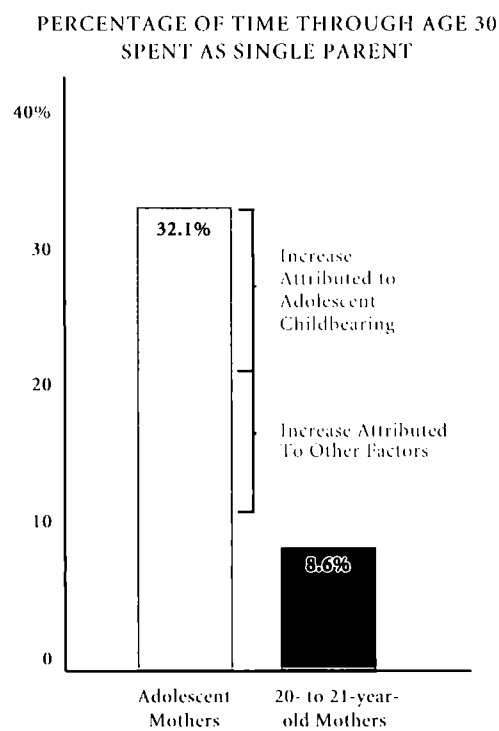


Dropping Out of High School Pregnancy and parenting pose major challenges to full-time school attendance. As a result, adolescent mothers drop out at a staggering rate, and

those who have already dropped out are less likely to return to school (Hotz et al. forthcoming). Only about three of 10 adolescent mothers earn a high school diploma by age 30, compared with nearly 76 percent in the comparison group of women who delay childbearing until age 20 or 21. Controlling for a wide range of background variables, scholars found that adolescent childbearing alone accounts for more than 40 percent of this difference in graduation rates. Looked at another way, adolescent childbearing, at its current rate, is directly responsible for over 30,000 adolescent girls in the U.S, annually not completing high school.

All of the school completion gap will be made up by adolescent mothers earning General Education Development (GED) certificates at higher rates than do their older childbearing counterparts. However, an emerging body of research suggests that, although a GED may enhance the earnings potential of school dropouts, it does not close the entire earnings gap.

Single Parenthood Adolescent moms spend nearly five times more of their young adult years as single parents than do women who have their first child at age 20 or 21—four years versus ten months (Hotz et al. forthcoming). The research indicates that adolescent childbearing itself is responsible for half of this difference. These same mothers would have spent an average of only 2.7 years as single parents if they had delayed childbearing until age 20 or 21. Also, children who grow up in the homes



of single moms are one and a half to two times more likely to become teen parents themselves than are children who live in two-parent families.

Employment and Earnings Although the employment levels and earnings of adolescent mothers are low, early childbearing is *not* the cause (Hotz et al., forthcoming). The research shows that virtually all of the large observed differences in hours of employment and earnings between adolescent mothers and older childbearers result from factors other than their decisions regarding when to begin their families. For example, during young adulthood, adolescent mothers exert more work effort than do their peers, perhaps out of necessity. After background and other compounding factors are controlled for, adolescent mothers work an average of 831 hours per year during their early adulthood (ages 19 to 30), which is 34 percent more than their later childbearing counterparts.

Significant numbers of adolescent mothers join the work force as their children begin preschool and kindergarten, a time when many counterpart moms are beginning to spend time at home with their babies. However, during the first 13 years of parenthood, adolescent mothers and their comparison group work similar hours: 691 and 762 hours per year, respectively—roughly 14 hours a week on average.

Most striking is the finding that both groups of women have desperately low earnings despite moderate levels of work effort. Controlling for background and closely linked factors, adolescent moms and their comparison group earn only about $5,700 and $6,200 annually, respectively, during their first 13 years of parenthood.

The average $6,323 annual earnings of the adolescent mothers during young adulthood (ages 19 to 30), though extremely low, is more than 32 percent above the $4,801 average annual earnings of their later childbearing counterparts. This difference is due entirely to their greater work effort during their mid- to late twenties.

Total Income and Welfare Adolescent mothers have slightly lower total family income during their early years as parents than they would have had if they had delayed childbearing until their early twenties (Hotz et al. forthcoming). However, the typical adolescent mother enters the work force and marries at a younger age than does her later childbearing counterpart, resulting in 22 percent higher total income during her young adult years (ages 19 to 30).

From either time perspective—the early years of parenting or young adulthood—adolescent parents have a different profile of income sources than do the comparison mothers. Both groups get roughly 30 percent of their total support from their own labor. However, adolescent mothers get a lower share of their total support from the fathers of their children and their spouses and higher shares from public assistance.

During their first 13 years of parenthood, adolescent mothers get less income from their own earnings, substantially less from earnings of their spouses, and more from public assistance. During their young adult years, when most of the children of adolescent mothers are school age and while comparison mothers have infants and toddlers, the adolescent mothers receive a slightly higher share of their income from their own labor and less from public assistance.

The adolescent mothers' earnings represent just under one third of their average $17,216 annual income (including the value of food stamps) during the first 13 years of parenthood. In addition, they receive for their children publicly supported medical care valued at roughly $1,517 annually. Despite high rates of single parenthood, adolescent mothers with a resident father receive substantial help from their spouses. Adolescent moms receive nearly half of their family's income—$9,000 to $10,000 per year—from resident fathers and spouses. Nonresident fathers, on the other hand, contribute less than five percent of the total income; 11 percent comes from welfare and food stamps; and 8 percent is medical assistance for their children.

These findings are consistent with previous research showing that the majority of adolescent mothers live in poverty during the years their children are growing up. More than 70 percent of them end up on welfare, and 40 percent will be on welfare for five years or more during the decade after their first birth.

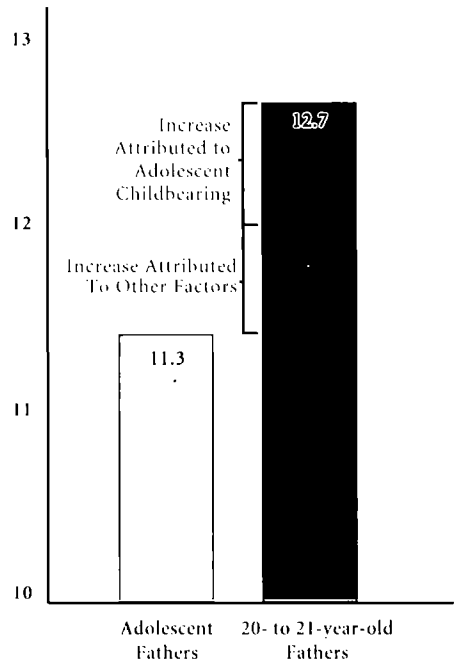
Adolescent mothers receive 50 percent more welfare assistance than do the comparison group of women who have their first child at age 20 or 21, partly because women who are 20 or 21 when they have their first child marry at higher rates and can count on greater support from their spouses. Still, while their children are in the preteen years, adolescent mothers have to make do with only 92 percent of the average level of income support of their comparison group counterparts. Moreover, adolescent moms have, on average, 2.6 rather than 2.0 child to raise. Therefore, when measured against the poverty index, which accounts for family size, the typical adolescent mom and her children are significantly poorer than their counterparts, despite their slightly higher earnings and the much higher public-assistance they receive.

CONSEQUENCES FOR THE FATHERS

Boys are one third as likely as girls to become adolescent parents, according to recent studies of teen sexuality and childbearing (Alan Guttmacher Institute 1994). Each year fewer than 60,000 boys age 17 and younger father children for the first time. The fathers of children born to adolescent mothers are, on average, two and a half years older than the mom; in one fifth of the cases, they are at least six years older (Alan Guttmacher Institute 1994). Recent research also suggests that the incidence of pregnancy among adolescent girls often is the result of sexually predatory behavior of older men. Although the *Kids Having Kids* scholars found that the consequences of adolescent childbearing on both young and older fathers are not as sharp as the effects on mothers and their children, they did discover some impacts, especially on younger dads.

Adolescent Dads Adolescent dads will finish an average of only 11.3 years of school by the age of 27, compared with nearly 13 years by their counterparts who delay fathering until age 21 (Brien and Willis forthcoming). After the effects of various background variables are screened out, adolescent childbearing and closely linked factors account for adolescent dads finishing one semester less school than the comparison group of older fathers. In many cases, the semester may be the pivotal one that determines whether a high school senior will graduate or drop out.

YEARS OF SCHOOL COMPLETED BY FATHERS THROUGH THE AGE OF 27



By age 27, adolescent fathers earn, on average, $4,732 less annually than the comparison group of men who delay fathering until age 20 or 21 (Brien and Willis forthcoming). Although just over half of this difference is explained by background factors, the research suggests that an average of $2,181 in lower earings per year is due to adolescent parenting and closely linked factors. As a consequence, adolescent dads are not as prepared as their comparison-group counterparts to contribute financially to the well-being of their young families or—when they do not live with the mothers—to pay child support.

Dads of Children Born to Adolescent Moms Over the 18 years following the birth of their first children, the dads of children born to adolescent mothers earn, on average, $10,712 per year (in 1996 dollars), compared with $13,796 for the male partners of delayed childbearers (Brien and Willis forthcoming). This means they have about $3,000 less per year at their disposal

to help support their children and families. Roughly half of these lower earnings are explained by various background factors.

Little of the increased earnings that would result from delayed childbearing is likely to benefit the adolescent mothers and their children. Benefit can be felt only when the parents live together or the father pays child support, but currently only 19 percent of adolescent mothers wed the fathers of their first child before or shortly after the birth of the child. And earlier research demonstrates that a small fraction of nonresident fathers of children born to adolescent mothers pay child support on any regular basis. Currently, only 15 percent of never-married teen moms are ever awarded child support, and those with orders receive, on average, only one third of the amount originally awarded (Congressional Budget Office 1990).

Meanwhile, the *Kids Having Kids* researchers found that fathers who do not marry the adolescent mothers of their children have incomes sufficient for society to expect them to contribute support at a level that would offset as much as 40 to 50 percent of the welfare costs to the adolescent mothers and their families. More rigorous paternity establishment and child-support enforcement could provide gains for children and the rest of society.

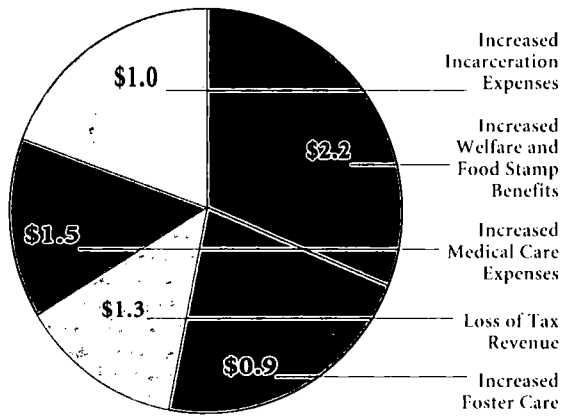
COSTS OF ADOLESCENT CHILDBEARING FOR THE NATION

How much does adolescent childbearing cost the United States? Even the very best data, which were culled, arranged, and analyzed for the purpose of this study, cannot possibly give a complete or precise figure. Still, this study gives the clearest estimates to date. It controls for background factors and, where possible, closely linked factors to isolate the economic costs to the nation and to society caused by adolescent childbearing.

Costs to the U.S. Taxpayers In looking at five important dimensions of the problem, researchers estimate that

adolescent childbearing itself costs the taxpayers $6.9 billion each year. The higher public-assistance benefits—welfare and food stamps combined—caused by adolescent childbearing cost the taxpayers $2.2 billion. The increased medical-care expenses cost $1.5 billion. Constructing and maintaining prisons to house the increased number of criminals caused by adolescent childbearing costs about $1 billion each year, and the increased costs of foster care are only slightly less at $.9 billion. Due to the sizable effect of adolescent childbearing on the work patterns of fathers, the United States incurs a nontrivial loss of tax revenue—$1.3 billion annually.

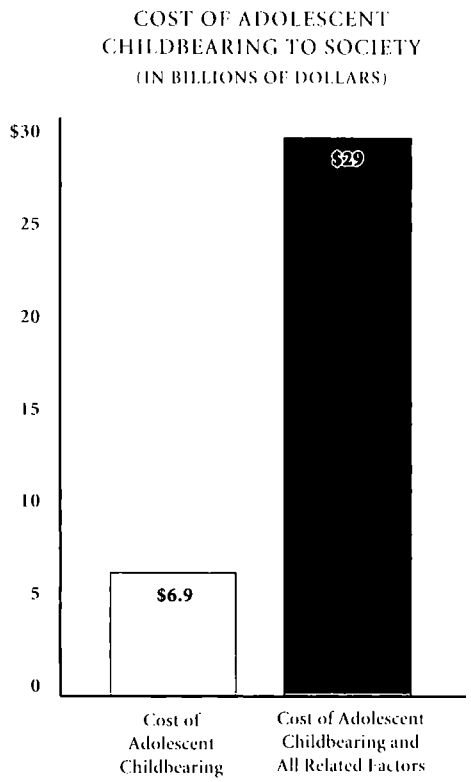
COST OF ADOLESCENT CHILDBEARING ITSELF TO TAXPAYERS
(IN BILLIONS OF DOLLARS)



TOTAL: $6.9 Billion

The cost to taxpayers of adolescent childbearing *together with* the other disadvantages faced by adolescent mothers is between $13 billion and nearly $19 billion per year—this is the amount the taxpayers would save if a policy successfully delayed adolescent childbearing *and* successfully addressed these other disadvantages.

Social Costs Beyond the taxpayer expenses described above, another important consequence of adolescent childbearing is a loss in national productivity. A society using its energy and resources to mitigate the problems caused by teen childbearing is unable to expend those resources for more productive purposes. Based largely on the diversion of its resources toward the increased health care, foster care, and incarceration rates apparently caused by adolescent childbearing, researchers calculated a social cost to the nation of just under $9 billion per year. That figure utilizes the tightest controls for various background factors. When researchers control for a



moderate range of background factors, they calculate the social cost of adolescent childbearing at $21 billion per year.

The gross annual cost to society of adolescent childbearing and the entire web of social problems that confront adolescent moms and ultimately lead to the poorer and sometimes devastating outcomes for their kids is calculated to be $29 billion.

Unmeasured Costs These are probably lower-bound estimates of the cost of adolescent childbearing. They do not take into account—because the research data are unavailable—all potentially relevant costs to society in terms of lost productivity and wasted resources. For example, adolescent childbearing is associated with higher levels of learning disabilities and social problems among children, which impact the costs of education and social services and lead to lost productivity. More important, this framework does not include the compounding intergenerational effects of adolescent childbearing that are strongly suggested by the research. Finally, the report examines only the costs of adolescent childbearing when the mother is 17 years of age or younger, which represents only about 45 percent of first-time teen mothers. A similar pattern of adverse consequences, albeit more modest, was observed for older teens.

Context for The Study

THE NEW FACE OF ADOLESCENT CHILDBEARING

In 1993, 513,647 children were born to U.S. teens. This represents a rate of 60 births for every 1,000 15- to 19-year-old females. In no other industrialized nation in the world do teens bear children in such high numbers. Great Britain has the next highest rate, with 33 births for every 1,000 female teens. Only three other industrialized nations—Canada, Austria, and Australia—have birthrates as high as 20. And while the teen-childbearing rate has recently declined in other industrialized nations, the U.S. rate has risen 21 percent in the past decade.

A high—and growing—portion of U.S. births to teen mothers (39 percent) involve girls 17 years old or younger. Not surprisingly, the vast majority of births to these young teens (86 percent, or 175,259) were first births. Mothers in this group—called adolescent mothers in this report, to distinguish them from teen moms who have their first children at age 18 or 19—present a special worry to policymakers in that they have low rates of school completion, high rates of poverty, high rates of public assistance, and high rates of single parenthood.

The incidence of teenage childbearing has changed over the past 30 years, declining to an all-time low of 50.2 teenage births per 1,000 in 1986 and thereafter rising an average of 3.5 percent per year (FIGURE 1). By 1991, the teenage birthrate had risen 24 percent from its lowest, to 62.1 births per 1,000 15-to 19-year-old females. Only in the next two years did the rate flatten and decline slightly to 60 births per 1,000 in 1993—the most recent year for which data are available.

Even more striking is the steady trend since 1950 away from marital to out-of-wedlock births. Currently, 72 percent of births to teens and 31 percent of all births in the United States are out of wedlock.

Underscoring the changing attitudes and patterns of out-of-wedlock childbearing and single-parent childrearing has been a precipitous decline in the proportion of out-of-wedlock babies given up for adoption. Whereas more than 15 percent of babies born out of wedlock in the late 1960s and early 1970s were placed for adoption, by the mid-80s that number was down to less than 3 percent (Bachrach, Stolley, and London 1992).

As the logical consequence of these trends, increasing numbers of teenage mothers are raising children in single-parent households, a phenomenon that parallels trends for the U.S. population as a whole.

Circumstances of Teenage Parenthood Youth are sexually active at younger ages than they were three decades ago, and a growing portion of teens are having premarital intercourse (see TABLE 1). In 1960, for example, just over 30 percent of adolescents (17 and under) engaged in sexual intercourse, compared to 56 percent in 1988. This has led to increased teen-childbearing rates, even at a time when contraceptive methods have improved and become far more accessible.

Still there is a great need to continue to improve contraceptive use among teens insofar as 71 percent of all teen births occurred among the 29 percent of sexually active teens not using contraceptives. Poor, never-married women are twice as likely to experience contraceptive failure as nonpoor, never-married women, regardless of the chosen contraceptive method (Brown and Eisenberg 1995; McElroy and Moore forthcoming). Not only are teens from higher-income families less likely to get pregnant but, if they do, they are 80 percent more likely than lower-income teens to have an abortion. These trends explain, in part, why poor teens are bearing children at a much higher rate than are their more affluent peers.

By the early 1990s, 14 percent of teenage pregnancies ended in miscarriage, one third ended in abortion, and just over half ended in a birth (FIGURE 1). Only 22 percent of all births to teens ages 15 to 17 and 32 percent of those to older teens are intended; indeed, 11 percent of the births to adolescent teens and six percent of those for older teens are *unwanted* (Kost and Forrest 1995).

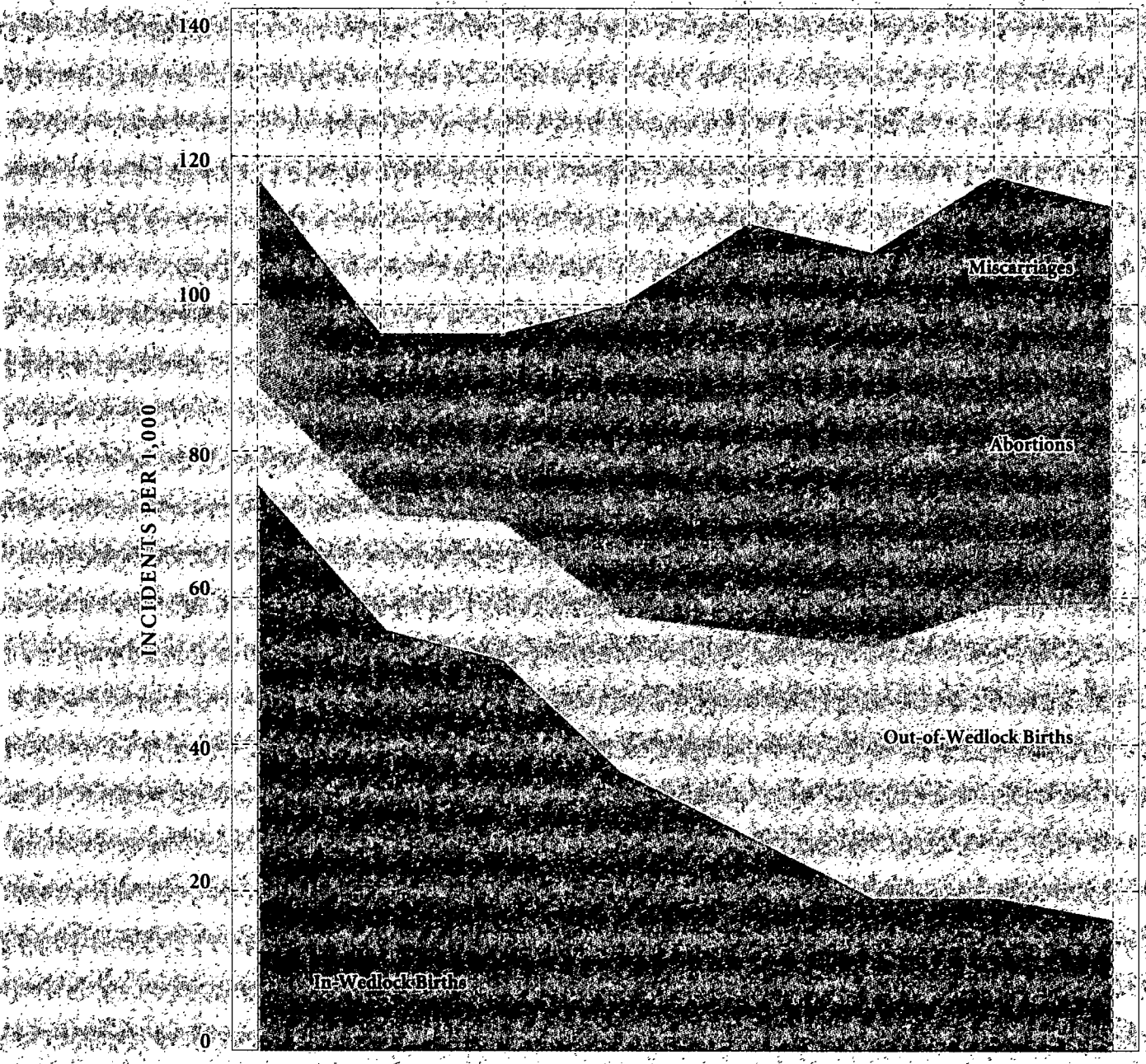
Marital Versus Nonmarital Births Among Teenagers One of the most notable changes in the face of early childbearing over the past 40 years is the break of the link between early childbearing and marriage. Today, the connection is loose at best; only 15 percent of all pregnancies to teens end with an in-wedlock birth.

From 1950 through the early 1970s, young people commonly married and started families during their late teens, shortly after graduating from high school. The vast majority of these young families followed the then-traditional family model; the young women raised their children full-time, and young men worked to support their families.

In the past two decades, this picture has changed dramatically. Although a substantially smaller proportion of teens bear children today than they did four decades ago, what is most striking is that the great majority of these teen childbearers today do not marry the fathers of their

Figure 1

Pregnancy Rates Among 15- to 19-year-olds and Their Resolutions



Source: Adapted from McElroy and Moore (forthcoming).

Table 1

Trends Related to Teenage Childbearing

OUTCOME	YEAR				
	1960	1970	1980	1990	% CHANGE
Premarital sex among 15- to 19-year-old females	—	29%	42%	52%[a]	79.3%[b]
Sex before age 18 among women	31%	35%	51%	56%	80.6%[c]
Pregnancies per 1,000 15- to 19-year-olds	—	95	111	117	23.2%[b]
Pregnancies per 1,000 sexually experienced women	—	254	247	207	-18.5%[b]
Percentage of pregnant teens giving birth	—	72%	55%	60%	-16.7%[b]
Births per 1,000 15- to 19-year-olds	89	68	53	60	-32.8%[c]
Whites	79	57	45	51	-35.4%[c]
Nonwhites	156	141	98	113	-27.6%[c]
Births per 1,000 sexually experienced 15- to 19-year-olds	—	165	118	107	-35.2%[b]
Nonmarital births per 1,000 sexually active women	15	22	28	43	177.8%[c]
Percentage of teen births out of wedlock	15%	31%	48%	68%	353.3%[c]
Percentage of children in single-parent families	10%	11%	19%	22%	120.0%[c]
Percentage of children involved in divorce annually	0.7%	1.2%	1.8%	1.6%	128.6%[c]
First marriages per 1,000 never-married 18- and 19-year-olds	208	151	85	56	-73.1%[c]

Sources: S. McElroy and K. Moore (forthcoming), "Trends: National and international trends in early pregnancy and childbearing," in *Kids Having Kids: The Cost and Social Consequences of Teen Pregnancy*, ed. R. Maynard,)Washington, D.C.: Urban Institute Press); Alan Guttmacher Institute (1994), *Sex and America's Teenagers* (New York: Alan Guttmacher Institute), 20, 44, and 51; U.S. Department of Education, Office of Educational Research and Improvement (1993), *Youth Indicators* 1993 (Washington, D.C.: National Center for Educational Statistics), conditions 3, 4, 7, and 11; K. Moore, N. Snyder, and D. Glei (1995), *Facts at a Glance.* (Washington, D.C.: Child Trends).

— = Not available.

[a] 1988 data.

[b] Percentage of change from 1970 to 1990.

[c] Percentage of change from 1960 to 1990.

children either before or after the children are born. For example, in 1950, when the median age at first birth was 20, between eight and nine percent of teenage women gave birth each year, approximately 80 percent within marriage. In contrast, by 1990, when the average age at first birth had increased three years to 23, only 6 percent of teens gave birth, and just 32 percent of these births occurred within marriage (TABLE 1).[1] The remaining 68 percent of teen mothers, who were more likely to be poor in the first place, assumed full-time responsibility for the care of their offspring and primary, if not exclusive, responsibility for their family's financial support.

Mothers have increasingly undertaken this responsibility themselves, rather than give their babies up for adoption. In the late 1960s and early 1970s, babies born out of wedlock were five times more likely to be given up for adoption than in the mid-1980s. Fifteen percent of the mothers gave their babies up for adoption then, compared with less than 3 percent today (Bachrach et al. 1992).

Limited Roles of Absent Fathers Today, the noncustodial fathers of children born to teenage mothers contribute relatively little to the support of their children. Only 15 to 20 percent of never-married teenage parents have child-support awards. Of those with awards, only about three fourths receive any payments, and the payments they receive are only about one third of the generally modest award amounts (Congressional Budget Office 1990).

Trend Toward Two-Earner Families This transformation in U.S. culture has changed the profile of early childbearing dramatically for both family members and society. Not only are adolescent mothers more likely to rear their children in single-parent households, but they also are much more likely to raise them in poverty. This results in part from the lower earning power of women relative to men. But declining real earnings in the low-wage market over this same period, particularly among non-college-educated men, have also contributed.

In particular, declining earnings have fueled the rapid increase in labor-force participation of women, including women in two-parent families. Whereas in 1950 only 20 percent of married women with children and 12 percent of those with preschool-age children worked, by 1990 about two thirds of married women with children were employed (including over half of those with preschoolers). This phenomenon has prevented even sharper increases in child poverty than otherwise would have occurred.

Employment Among Single Parents Although single mothers do not have the option of a second breadwinner in the house, their labor-

force participation is roughly the same as women in two-parent families. Moreover, the work patterns of this group have changed relatively little over the past 20 years, even though the nature of single parenthood has changed to include substantially higher proportions of never-married parents. Welfare provides the economic buffer for many of the single parents who do not join the labor market.

Adolescent Fatherhood The incidence of adolescent fatherhood is less than one third the rate of adolescent motherhood; fewer than 60,000 children are born each year to men under age 18. Indeed, two thirds of the fathers of babies born to teenagers are themselves 20 years old or older. The fathers of children born to mothers under age 18 are an average of about two and a half years older than the mothers. In nearly 20 percent of the cases, the age gap is six or more years (Alan Guttmacher Institute 1994; Landry and Forrest 1995). As noted previously, only 30 percent of the men who father children of adolescent mothers marry the mothers of their first child, and most of those who do not marry provide no substantial child support.

PRIOR RESEARCH ON THE CAUSES AND CONSEQUENCES OF ADOLESCENT CHILDBEARING

The *Kids Having Kids* research was undertaken in the context of literature describing trends in adolescent childbearing and factors that lead to or exacerbate these trends and their consequences. Aspects of the literature have helped shape this research. So, too, the results of the *Kids Having Kids* research underscore the emerging consensus that the poor outcomes observed for teenage parents and their children are the product of myriad factors, among which early childbearing is only one.

Factors Related to the Trends in Teen Birthrates The likelihood that teenagers engage in unprotected sex, become pregnant, and give birth is highly correlated with multiple risk factors. These factors include growing up in a single-parent family, living in poverty and/or in a high-poverty neighborhood, having low attachment to and performance in school, and having parents with low educational attainment (Moore, Miller et al. 1995). For example, teenagers living in single-parent households are one and a half to two times more likely to become teenage parents than those in two-parent families (Zill and Nord 1994). Probabilities increase for those with low aspirations and low aptitude test scores. More important, each of these factors increases not only the risk of teenage parenthood but also many other negative outcomes, such as poor school performance, weak social skills, and low earnings potential.

Consequences of Adolescent Childbearing Earlier studies have found that adolescent mothers have high probabilities of raising their children in poverty and relying on welfare for support. More than 40 percent of teenage moms report living in poverty at age 27 (Moore et al. 1993). The rates are especially high among black and Hispanic adolescent mothers, more than half of whom end up in poverty and two thirds of whom find themselves on welfare. Indeed, 80 percent of adolescent mothers will receive welfare during the 10 years following the birth of their first child, 44 percent of them for more than 5 years (Jacobson and Maynard 1995).

This results from a combination of factors, including their greater-than-average income needs to support themselves and their children, lower earning potentials, and more limited means of support from other sources, including male partners. Adolescent mothers have an average of .6 more children than older childbearers, and they have their children over a shorter timespan. This fertility pattern both increases their income needs over the long haul and adversely affects the likelihood that they will complete high school and have decent earnings prospects (Nord et al. 1992; Rangarajan, Kisker, and Maynard 1992; Grogger and Bronars 1993; Geronimous and Korenman 1993; Hoffman, Foster, and Furstenberg 1993; Ahn 1994).

Although the literature is consistent in pointing out these poor outcomes for adolescent parents and their children, it is less clear as to how much of the poor outcomes observed for adolescent parents and their children is directly attributable to early childbearing as opposed to other background and contextual factors common among young mothers. The accumulating evidence suggests that half or more of the poor outcomes likely can be attributed to factors other than early childbearing—factors that in many cases may have contributed to the teen becoming a parent (Wolpin and Rosenzweig 1992; Geronimus, Korenman, and Hillemeier 1994; Haveman and Wolfe 1994; Hoffman, Foster, and Furstenberg 1993).

Single Parenthood Over time, adolescent mothers have become increasingly likely to be single parents and the sole providers for themselves and their children. Five years after giving birth, most teen (at childbirth) parents are unmarried. Moreover, fewer than half of the teens who give birth out of wedlock marry within the next 10 years (Jacobson and Maynard 1995). Not surprisingly, therefore, marital status at the time of the first birth is a powerful predictor of subsequent poverty status and welfare dependence, regardless of the age of the woman when she has her first child. More than two thirds of all out-of-wedlock childbearers end up

on welfare, as do 84 percent of adolescent mothers who are unmarried when their first child is born. Especially notable about the adolescent mothers is that so many of them give birth out of wedlock and that, when they go on welfare, they tend to do so for long periods of time—more than five of the 10 years following the birth of their first child.

Young mothers, in particular, have limited support either from the fathers of their children or from other adults. Among all unwed teenage parents, only about 30 percent of single teen parents live with adult relatives, and less than one third receive any financial support, including informal support, from the nonresident fathers of their children (Congressional Budget Office 1990).

School Completion Adolescent mothers have exceptionally low probabilities of completing their schooling and thus show weak employment prospects. Just over half of teenage mothers complete high school during adolescence and early adulthood; many who complete high school do so with only an alternative credential—the General Educational Development (GED) certificate, which has either limited or no payoff in the labor market (Cameron and Heckman 1993; Murnane, Willett, and Boudett 1994; Cao, Stromsdorfer, and Weeks 1995). Moreover, many of those who complete high school have very low basic skills (Strain and Kisker 1989; Nord et al. 1992). The combination of low education credentials, low basic skills, and parenting responsibilities means that teenage parents have limited employment opportunities, primarily restricted to the low-wage market (Moore et al. 1993; Hoffman et al. 1993; Rangarajan et al. 1992).

Social and Economic Circumstances The logical consequence of these outcomes is high poverty rates, even for those who are employed. Among adolescent mothers, more than 60 percent of blacks, half of Hispanics, and just over one quarter of whites are still in poverty by the time they reach their late 20s (Moore et al. 1993). The poverty rates for the more than 60 percent of adolescent mothers who live on their own and for those who are not employed are particularly high. Poverty rates exceed the national average even among adolescent mothers who are employed (24 percent) and those living with a spouse (28 percent) or relative (34 percent)(Congressional Budget Office 1990).

The high poverty rates are accompanied by numerous other life-complicating factors, some caused by poverty and some contributing to its perpetuation. Teenage parents are disproportionately concentrated in poor, often racially segregated communities characterized by inferior housing, high crime, poor schools, and limited health services. Many of

the teens have been victims of physical and/or sexual abuse. For example, recent studies of Washington State welfare recipients estimate that half of those women who give birth before age 18 have been sexually abused and another 10 percent or more have been physically abused (Roper and Weeks 1993; Boyer and Fine 1992). Data from the National Survey of Children indicate that 20 percent of sexually active teenagers have had involuntary sex and over half of those who are sexually active before age 15 have experienced involuntary sex (Alan Guttmacher Institute 1994).

These statistics have been corroborated by recent experiences of paraprofessional home visitors working with a representative sample of teenage-parent welfare recipients in three cities (Johnson, Kelsey, and Maynard, forthcoming). In one of these sites, home visitors reported that roughly two thirds of these teenagers are victims of physical and/or sexual abuse and as many as 20 percent are currently abused or at risk of being abused.

Roles of the Fathers As noted previously, the male partners of teenage mothers tend not to be teens themselves. Even so, they generally are not a consistent source of support for the teenage mothers or their children. Only 20 to 30 percent marry the mothers of their children, and only about 20 percent of the nonresident fathers are ordered by the court to pay child support. Those with orders pay only a small fraction of the award amount. As a result, *Kids Having Kids* scholars found that less than 5 percent of the income of teen-parent families derives from the fathers.

Recent research indicates that, among those fathers whose children end up on welfare, only about one third have regular contact with the mother by the time of the birth. Another third have intermittent contact, and the remaining fathers have no involvement whatsoever (Maynard, Nicholson, and Rangarajan 1993). Moreover, the fathers' rate of contact and support declines substantially over time.

The Study Design

The *Kids Having Kids* project is the most comprehensive effort in at least a decade to address systematically the consequences and costs of adolescent childbearing. The project consists of a background study of trends in teenage and adolescent childbearing (McElroy and Moore) and seven coordinated studies, each focusing on a particular dimension of adolescent childbearing:

1. A study of the consequences of adolescent childbearing for the mothers themselves (Hotz, McElroy, and Sanders).

2. An examination of the consequences for men who father children as adolescents and those who father children born to adolescent mothers, as well as indirectly for the mothers and their children through the child support potentially available from the fathers (Brien and Willis).

3. A study of the health implications of adolescent childbearing for the children, as well as an examination of the medical-care costs associated with adolescent childbearing (Wolfe and Perozek).

4. A study of the effects of adolescent childbearing on the physical, social, and cognitive development of children (Moore, Morrison, and Greene).

5. An estimation of the association between adolescent childbearing and the incidence of child abuse and neglect, as well as the related costs of child welfare and protective services (Goerge and Lee).

6. A study of the intergenerational effects of adolescent childbearing in the form of higher engagement in crime by male children and the associated criminal-justice costs of these increased levels of criminal activity (Grogger).

7. An examination of the extent to which adolescent childbearing increases the likelihood that the offspring will become adolescent parents, achieve limited success in school, and have poor economic outcomes as young adults (Haveman, Wolfe, and Peterson).

ANALYTIC STRATEGY

Each study is based on what is currently judged to be the best available data set to address the particular set of questions (TABLE 2). For the most part, the databases offer large samples and multiple years of information for each sample member. To the extent practical, the scholars employed common strategies for their analyses. Generally, for example, they adopted

a core set of control variables for the analysis (see APPENDIX TABLE A.1) and examined a common set of policy questions. They used state-of-the-art statistical techniques to generate the most reliable estimates possible. However, the scholars sometimes took different approaches to analyzing their data, since each set of questions and each sample posed a unique set of challenges and opportunities.

Unlike most previous research, which focused on comparing teenage (under age 20) mothers with those who delay childbearing until age 20 or later, this study focuses quite specifically on mothers who give birth before age 18 (referred to as adolescent mothers) and examines the likely consequences of delaying their childbearing for an average of about three years, or until they reach age 20 or 21 (referred to as older childbearing counterparts or later childbearers).

This particular focus reflects the strong public concern about the high rate of childbearing among young teens, the vast majority of whom are dealing with unplanned pregnancies. The life courses of these adolescent mothers are especially bleak. The scholars chose to orient their research toward the question of the consequences of adolescent childbearing relative to delaying childbearing until age 20 or 21, feeling that this comparison had greater potential relevance than, for example, looking at the consequences relative to delaying childbearing to the national average age at first birth, which is 23.

Each group of scholars also explored differences in the patterns of outcomes for older teenage mothers (18- and 19-year-olds) and other comparison groups—for example, all who delay childbearing until after age 20 or those who delay childbearing until ages 22 to 24. Some scholars also explored the differential patterns and impacts of adolescent childbearing for youths from various race/ethnic groups and for those who give birth within marriage versus out of wedlock. These results are not discussed in this report. Rather, interested readers should consult the original research reports.

Where feasible, the scholars have attached price tags to the consequences of adolescent childbearing. In the process, they have been attentive to the distinctions in terms of who carries the costs: the adolescent parents themselves, the fathers of children born to adolescent mothers, the children of adolescent mothers, and/or the rest of society.

At the most basic level, the scholars measured the differences in outcomes between adolescent mothers (defined as young women under age 18) and those who delayed childbearing until early adulthood (age 20 or 21), irrespective of the explanations for these relatively poor life prospects. They then controlled statistically for a "minimal" set of background factors—factors such as the mothers' race/ethnicity and the demographic char-

Table 2

Data Sources, by Study

FOCUS OF STUDY	AUTHORS	DATA SOURCE
Trends in early childbearing	McElroy and Moore	Vital Statistics, U.S. Bureau of the Census; various published reports
Maternal outcomes of adolescent childbearing	Hotz, McElroy, and Sanders	National Longitudinal Survey of Youth (females ages 18 to 21 in 1979)
Paternal outcomes associated with adolescent childbearing	O'Brien and Willis	National Longitudinal Survey of Youth (males age 27 in one year of the follow-up survey); 1988 National Maternal and Infant Health Survey (NMIHS), linked with Vital Statistics
Health status effects of adolescent childbearing and implications for medical care costs	Wolfe and Perozek	1987 National Medical Care Expenditure Survey (children under age 14 with a mother under age 33)
Child outcomes associated with adolescent childbearing	Moore, Morrison, and Greene	National Longitudinal Survey of Youth, 1990–Child Supplement (children ages 4 to 14); National Survey of Children, 1981 and 1987 (children ages 7 to 11)
Incidence and cost of child abuse and neglect associated with adolescent childbearing	Goerge and Lee	Illinois Integrated Database on Children and Family Services; Illinois birth certificate data
Incarceration costs attributable to adolescent childbearing	Grogger	National Longitudinal Survey of Youth (males ages 27 through 34 in 1991)
Intergenerational effects of adolescent childbearing	Haveman, Wolfe, and Peterson	Panel Study of Income Dynamics (persons 0 to 6 years old in 1968 and surveyed each year through 1988)

acteristics of their parents—*not* expected to be affected by policy actions that would alter fertility timing. These comparisons provide estimates of the consequences of adolescent childbearing, exclusive of that portion of the difference resulting from the measured differences in the backgrounds of the adolescent and comparison-group mothers. In some sense, this could be viewed as the maximum difference in outcomes that potentially could be affected by any type of policy intervention.

Finally, the scholars estimated their *best* possible model to isolate the impacts of adolescent childbearing itself from other factors that may account for the observed adverse outcomes. Generally, this approach entailed controlling statistically for a wide range of background variables and other factors that might be expected to explain the particular outcome under study but that would not themselves likely be affected by the timing of the birth. Such models leave open the possibility that some of the measured effect of adolescent childbearing might be due to unmeasured factors that are linked both to early childbearing and to the outcome of interest.

The only sure way to isolate the independent effect of adolescent childbearing on the outcomes of interest would be to run an experiment that altered only the fertility outcomes of teenagers—that is to say, the experiment would not change anything in the lives of the adolescents except when they would first become pregnant if they engaged in sexual intercourse before age 18. The experiment would not change whether they would have sex or the resolution of a pregnancy if it occurred. The experiment would simply randomly select would-be adolescent childbearers and delay their first pregnancy until they reached age 20 or 21. Although such an experiment is not feasible, two of the *Kids Having Kids* studies employed analytic models that approach this ideal measurement strategy.

One study (Hotz, McElroy, and Sanders) capitalized on a natural experiment that resulted in some adolescents delaying childbearing as a result of a miscarriage, which is a nearly random event. In the other case, the researcher (Grogger) used the natural variation in the mother's age at the births of her various children to estimate the effects of early fertility, while using age at the birth of her first child to control for unobservable differences between early and later childbearers.

APPORTIONING DIFFERENCES IN OUTCOMES, BY SOURCE

The subsequent sections look at the consequences of early childbearing from three perspectives. The first is the observed differences in outcomes between adolescent mothers and those who delay childbearing until their early 20s, regardless of the cause of the differences. These differences are

referred to as "gross differences" or "differences with no (statistical) controls." The second perspective is the estimated differences in outcomes between these two groups that result from a combination of early childbearing and closely linked factors that possibly would change as a result of successful policies for delaying childbearing. Examples of factors that might be closely linked to early childbearing include motivation, self-esteem, and contemporaneous family and community contexts. The results of estimates that control for background factors are referred to as "adjusted differences." The third perspective is one that controls for background factors and other factors that are closely linked to adolescent childbearing but cannot be measured directly. These results are referred to as "differences due to early childbearing itself." As noted above, only two of the studies were able to isolate the effects of all potentially confounding factors to produce an estimate of the difference in outcomes that would be observed for would-be adolescent moms if they somehow delayed their childbearing until they were age 20 or 21 with no other changes in their backgrounds or current circumstances.

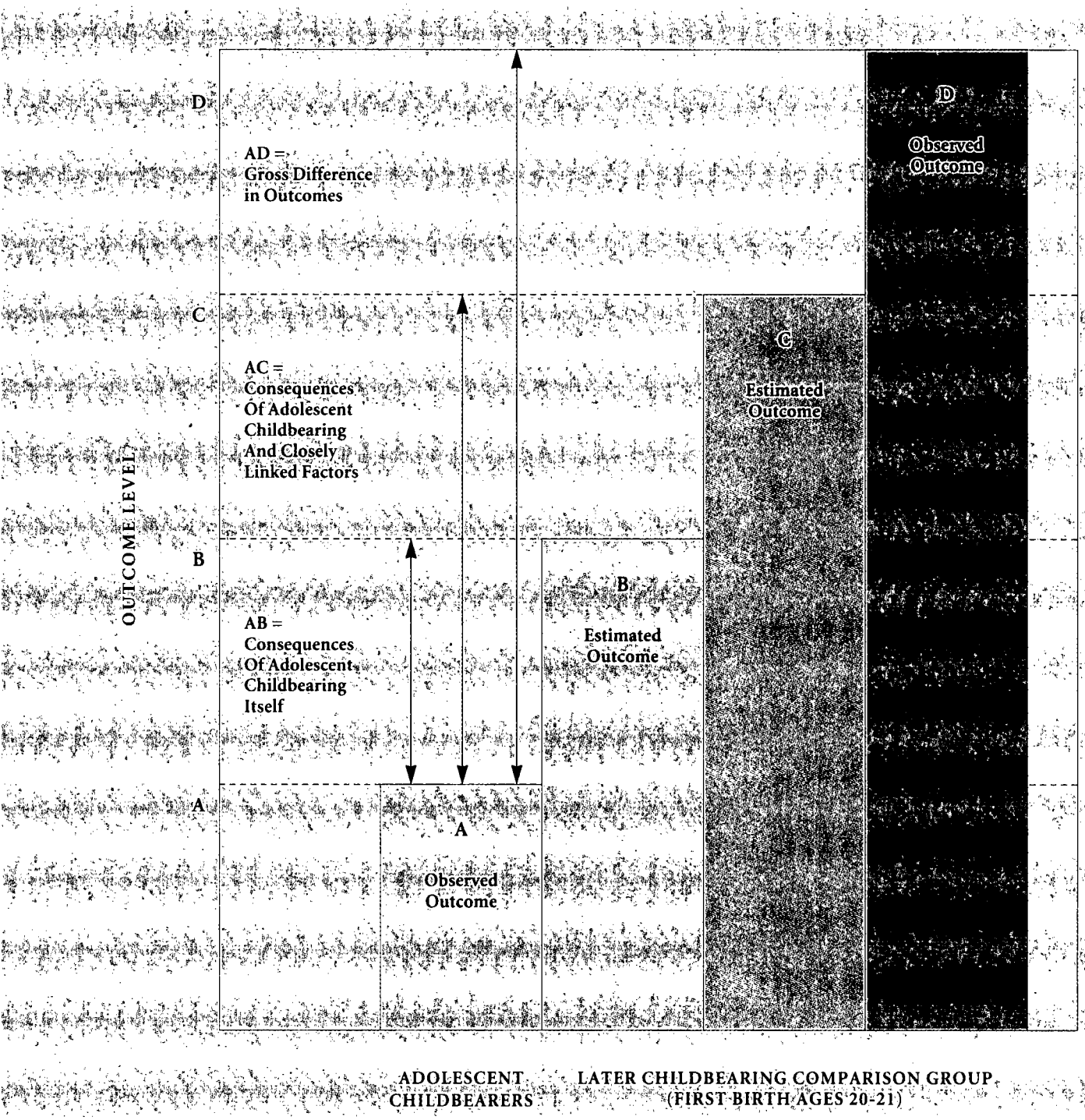
These different comparisons are illustrated in FIGURE 2. The observed difference in the outcomes of interest (for example, school completion rates) between adolescent mothers and the comparison group of later childbearers is denoted by the line AD. In this example (and for many of the outcomes considered by the scholars), roughly one third of this observed difference in the outcomes (denoted by the line CD) is attributable to background factors unlikely to be affected by teen pregnancy-prevention programs or policies—factors such as parents' education, family income, race/ethnicity, and region of the country. This leaves a difference, denoted by the line AC, that is the result of some combination of the early childbearing itself and unobserved differences between the adolescent mothers and their older childbearing counterparts—factors such as motivation to delay childbearing, social skills, and available support to resist peer pressure for early sexual involvement or unprotected sex.

In this example, only about half of this remaining difference in outcomes (depicted by the line AB) is due to the early timing of the first birth itself. The other half, denoted by the line BC, is due to the unobserved, closely linked correlates of adolescent childbearing. That is, only the difference in outcomes reflected by the line AB would disappear if we avoid the first birth by some means that changes nothing else in the young woman's life.

Put another way, consider three different strategies for preventing adolescent births. Under the most radical of these strategies, imagine a world in which we could make would-be adolescent moms both delay their first birth until their early 20s *and* be like their older childbearing

Figure 2

Apportioning Differences in Outcomes, by Source



counterparts in all other respects. For example, they would have parents with similar levels of education; they would attend schools of similar quality; they would live in neighborhoods with similar economic opportunities and crime rates; and they would have similar cultural backgrounds. Under this scenario, the benefits of instituting the policy change are large, equal to the full difference in observed outcomes between early and later childbearers, reflected by the distance AD in FIGURE 2. In the ensuing analysis, the implications of such a hypothetical policy are estimated by comparing outcomes for adolescent moms with those for 20- to 21-year-old mothers directly, using no statistical controls (bar D versus bar A in FIGURE 2).

Next, imagine a world in which we had a policy that would delay the first birth until a woman's early 20s and at the same time compensate for or eliminate some, but not necessarily all, of the differences between adolescent mothers and later childbearers that impact on their life prospects. For example, we might make the adolescent mothers the same as the later childbearers in all respects except for those factors—such as race/ethnicity, parental education, family income, and innate ability—that we do not expect to be able to change in the short run. An example might be a successful pregnancy-prevention program that addressed the full spectrum of closely linked factors—such as motivation, economic opportunities, and school quality issues—that contribute to the poor outcomes of early childbearers and that also may have contributed to the early childbearing. In this scenario, the benefits of the policy are indicated by the line AC in FIGURE 2. In their analyses, scholars have estimated the benefits of such a policy by comparing outcomes for adolescent moms with those for later childbearers, controlling statistically for background factors judged to be not amenable to policy influence, at least in the short run.

Finally, consider a third hypothetical policy option in which we could *magically* delay the first birth until age 20 or 21. For example, imagine that we had a highly effective, widely accepted, long-acting contraceptive that all sexually active teens used with no special coaching or support and no side effects. In this scenario, nothing else would change for the teen or her children except those things caused directly by the early childbearing. Put another way, this comparison measures the full consequence (or cost) of adolescent childbearing itself. The benefits of such a policy are depicted in FIGURE 2 by the line AB. The other portions of the observed differences in outcomes between adolescent mothers and those who delay childbearing until age 20 or 21 (line AD) are attributed to factors other than early parenting, factors that will not go away simply by delaying the childbearing.

Consequences For Adolescent Mothers

Adolescent childbearing is associated with significant adverse outcomes for young mothers, outcomes that spill over to their children and to society at large. Some of these are caused by adolescent childbearing independent of other life circumstances, and some are entangled in a web of disadvantages faced by those prone to adolescent childbearing. Some of the consequences are lasting, and some are time-sensitive.

The following discussion of the consequences of adolescent childbearing in terms of maternal outcomes focuses on two conceptually different reference periods. One is relative to the time of the first birth, generally the first 13 years of parenthood. This reference period is useful in that it relates outcomes to their effects on the environment in which the mothers are raising their young children. The other reference period is the 12 years following the mother's normal age of high school completion—when the mothers are ages 19 to 30. This reference period is more useful in describing the consequences of adolescent childbearing on the adult outcomes of women, particularly outcomes during the young adult years.

By all measures, adolescent mothers as a group have significantly lower levels of educational attainment, higher probabilities of raising their children out of wedlock, higher rates of dependence on public assistance, and higher expected fertility rates (TABLES 3 and 4 below). The impacts of adolescent childbearing on young mothers' own earnings and the earnings of their spouses, however, are equivocal. In the cases of the earnings of adolescent mothers and their spouses, the adverse consequences occur primarily during the first few years after the birth of the first child (TABLE 5 below). By the time the oldest children of adolescent mothers reaches school age, the average earnings of both the mothers themselves and of their spouses surpass the levels we would predict them to be if they had delayed childbearing until age 20 or 21.

EDUCATIONAL ATTAINMENT

Adolescent mothers are significantly less likely than the comparison group of later childbearers to complete high school. They also tend to

substitute the General Educational Development (GED) preparation programs for going back and completing high school—a decision that may not serve them well in their future efforts in the labor market.

Whereas roughly 32 percent of adolescent mothers complete high school by the time they reach their late 20s, more than three-fourths of their older childbearing counterparts do so (lower panel of TABLE 3 and FIGURE 3). This difference is seen by comparing the first bar in FIGURE 3 (outcomes for adolescent childbearers) with the fourth bar (outcomes for later childbearers, with no statistical controls). Moreover, even with controls for background and other factors closely linked to adolescent childbearing and school completion, the research suggests that adolescent parenting itself reduces the probability of completing high school by 36 percent—from 50 to 32 percent. This difference is seen by comparing the first bar in FIGURE 3 with the second bar (miscarriage).

Only a small portion (7 percent) of the observed gap in high school completion rates between the adolescent mothers and the comparison group is caused by factors not expected to change as a result of delaying childbearing: education of the mother's parents, whether she grew up in a one- or two-parent household, her family's income and welfare status, and her performance on the Armed Forces Qualifying Test (AFQT). This is seen by comparing the first bar in FIGURE 3 with the third bar versus the third and fourth bars. In fact, adolescent childbearing itself explains more than 40 percent of the difference in school completion rates, a fact that likely reflects the extreme challenges associated with parenting and attending a comprehensive high school full-time.

Many adolescent mothers substitute the General Educational Development certificate for a high school diploma, leading to a much smaller (27 percentage-point) gap in the proportion of adolescent mothers versus later childbearers who have either a high school diploma or a GED by age 30 (TABLE 3). About 40 percent of all adolescent mothers who drop out of high school attain a GED certificate by age 30. In contrast, the research indicates that only 16 percent of the adolescent girls who would still drop out of high school if they delayed childbearing a few years would attain a GED. The net result is that delaying childbearing by itself will not change the probability that the would-be adolescent mother will either complete high school or attain their GED.

Still, a large gap exists in the proportions receiving a high school diploma or GED by age 30—only 59 percent of the adolescent mothers versus 86 percent of the later childbearers. Roughly half of this difference is due to adolescent childbearing itself, as evidenced by the comparison of completion rates for adolescent mothers and for those who have an early pregnancy but miscarry.

Table 3

Educational Attainment of Adolescent and Later Childbearers

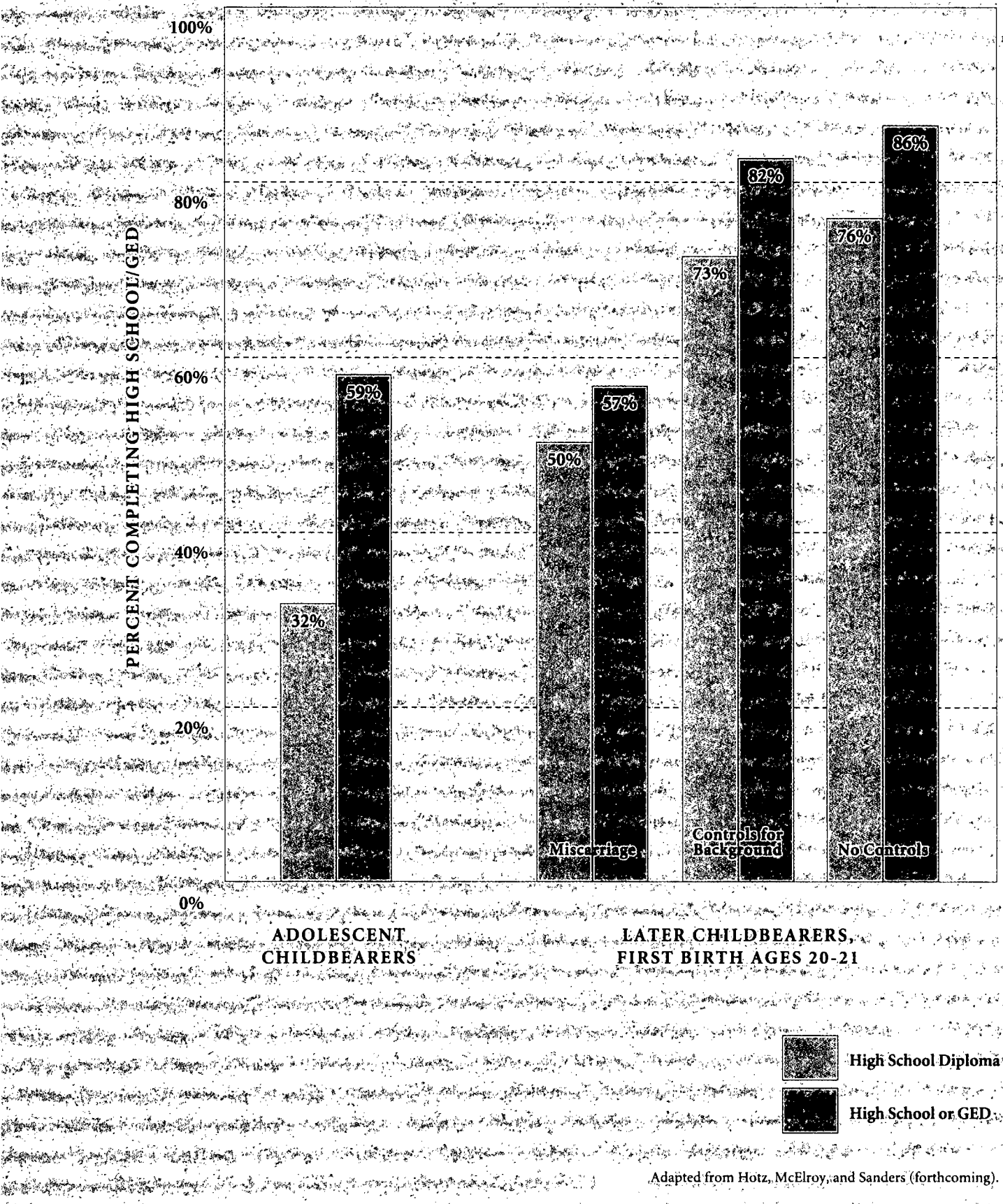
OUTCOME MEASURE	ADOLESCENT CHILDBEARERS	LATER CHILDBEARERS (AGE 20 OR 21) WITH STATISTICAL CONTROLS FOR: BACKGROUND AND COMPOUNDING FACTORS	BACKGROUND FACTORS	NO CONTROLS
Attainment When First Child Is Age 12				
High school diploma	30.5%	46.5%	70.3%	76.4%
High school or GED Completion	57.7%	53.7%	82.2%	85.9%
College Degree	1.2%	0.0%[a]	9.1%	13.0%
Attainment by Age 30				
High school diploma	31.9%	49.8%	72.7%	76.4%
High school or GED Completion	58.9%	57.6%	82.2%	85.9%
College Degree	1.5%	0.0%[a]	9.2%	13.0%

Sources: These data are adapted from J. Hotz, S. McElroy, and S. Sanders (forthcoming), "Mothers: Effects of early childbearing on the lives of the mothers," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard. (Washington, D.C.: Urban Institute Press). Control variables in the models are listed in Appendix Table A.1 of this report.

[a] Estimated outcome was a very small negative number.

Figure 3

High School/GED Completion at Age 30



Adapted from Hotz, McElroy, and Sanders (forthcoming).

The implication of these findings is that simply averting adolescent childbearing and changing nothing else in a young woman's life will have a compound effect on educational attainment: (1) encouraging many more adolescents to complete regular high school rather than dropping out of school altogether and (2) encouraging many others to switch from getting a GED to attaining a regular high school diploma. This latter result could be quite important in promoting increased earnings potential, because the GED has been found to have limited value in improving employment outcomes (Murnane et al. 1994; Cameron and Heckman 1993; Cao et al. 1995; Cohen et al. 1995; Maynard, Kelsey, and McGrath 1996). At best, the GED might bring the employment potential of high school dropouts up to the level attained through completing high school. However, experimental interventions promoting GED attainment by high school dropouts have consistently shown no corresponding employment gains.

LIVING ARRANGEMENTS AND FERTILITY

Single-Parent Households Research on marriage patterns among adolescent mothers and their older childbearing counterparts underscores the role of early parenting in the growth of single-parent households. Adolescent moms spend one third of their first 13 years of childrearing as single mothers (TABLE 4). In contrast, the later childbearers spend only 7 percent of these years as single parents.

Averting early childbearing alone is estimated to close about half of the gap, reducing the time as a single parent from 33 to 21 percent. If society could simultaneously delay the first birth until age 20 or 21 *and* address other unobserved factors closely related to adolescent childbearing, rates of single parenthood would be expected to approach the much lower rate for those youth who, on their own, delay childbearing until their early 20s.

Public and Subsidized Housing Adolescent childbearing is associated with higher rates of residence in public housing (TABLE 4). However, nearly all of the 16 percentage-point gross difference in public-housing residence is due to factors other than early childbearing itself. Controlling for background and other unmeasured differences between adolescent mothers and their older childbearing counterparts, the researchers compute only a 1 percentage-point difference in the likelihood of living in public housing over the first 13 years of parenthood and a 2.4 percentage-point difference during young adulthood.

Fertility Adolescent mothers have an average of 2.6 children, and their older childbearing counterparts have an average of 2 children by the time

they are 30 years old (TABLE 4). Moreover, these differences in observed fertility rates between adolescent mothers and their later childbearing counterparts seem entirely a result of the early childbearing rather than of confounding factors. As noted below, these larger family sizes have significant implications for the overall costs of adolescent childbearing in that they increase by 30 percent the number of children exposed to the risks associated with adolescent childbearing and thus needing additional social and economic support.

EMPLOYMENT AND EARNINGS

Employment Adolescent mothers spend significant amounts of their young adult lives in the labor force. During the first 13 years of parenthood, adolescent mothers work and earn substantially less than do mothers who have their first child at age 20 or 21 (TABLE 5). Moreover, they earn lower wages when they do work.

Adolescent mothers work an average of 691 hours a year, or 13 hours a week, during that period; their older childbearing counterparts work an average of more than 1,000 hours a year, or 19 hours a week (TABLE 5). However, nearly 80 percent of this difference in work effort is attributable to differences in the backgrounds and other circumstances closely linked to early childbearing. Delaying childbearing alone is estimated to increase work effort over this period by only 9 percent, or 71 hours a year. Furthermore, virtually all of the differential in wage rates is due to factors other than early childbearing.

Looked at over the early adult years (ages 19 to 30), adolescent childbearing alone is in fact estimated to *increase* work effort by about one-third—from an average of 620 to 831 hours a year. This higher work effort emerges at about age 23, when the adolescent mothers' children enter school and the later childbearers still have preschool-age children to care for.

Earnings A similar pattern of results is observed for earnings. Average annual discounted earnings of adolescent mothers during their first 13 years of parenthood, are just over half as much as earnings of their older childbearing counterparts—an average of $5,652 as compared with $10,384 for the older mothers (TABLE 5; FIGURE 4A). However, 90 percent of this difference is due to factors other than early childbearing itself. Fully controlling for background and other closely linked factors, the researchers estimated that delaying childbearing until age 20 or 21 would by itself result in an average annual earnings gain of just over $500—increasing average earnings from $5,652 to $6,166. This small difference reflects the

Table 4

Living Arrangements and Fertility of Adolescent and Later Childbearers

OUTCOME MEASURE	ADOLESCENT CHILDBEARERS	LATER CHILDBEARERS (AGE 20 OR 21) WITH STATISTICAL CONTROLS FOR: BACKGROUND AND COMPOUNDING FACTORS	LATER CHILDBEARERS (AGE 20 OR 21) WITH STATISTICAL CONTROLS FOR: BACKGROUND FACTORS	LATER CHILDBEARERS (AGE 20 OR 21) NO CONTROLS
Average Annual Values of Outcomes During the First 13 Years of Parenthood				
Time spent as a single parent	32.7%	20.8%	10.5%	7.3%
Time spent in public housing	31.9%	31.0%	21.3%	16.7%
Number of children	2.5	2.1	2.1	2.1
Average Annual Values of Outcomes During Young Adulthood (Ages 19 to 30)				
Time since giving birth spent as a single parent	32.1%	20.0%	12.1%	8.6%
Time spent in public housing	32.4%	30.0%	21.2%	16.7%
Number of children	2.6	2.0	2.2	2.1

Sources: These data are adapted from J. Hotz, S. McElroy, and S. Sanders (forthcoming), "Mothers: Effects of early childbearing on the lives of the mothers," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard. (Washington, D.C.: Urban Institute Press). Control variables in the models are listed in Appendix Table A.1 of this report.

Table 5

Employment, Earnings and Other Income for Adolescent and Later Childbearers

OUTCOME MEASURE	ADOLESCENT CHILDBEARERS	LATER CHILDBEARERS (AGE 20 OR 21) WITH STATISTICAL CONTROLS FOR: BACKGROUND AND COMPOUNDING FACTORS	LATER CHILDBEARERS (AGE 20 OR 21) WITH STATISTICAL CONTROLS FOR: BACKGROUND FACTORS	LATER CHILDBEARERS (AGE 20 OR 21) NO CONTROLS
Average Annual Outcomes During the First 13 Years of Parenthood				
Hours employed	691	762	930	1,005
Earnings	$5,652	$6,166	$9,159	$10,384
Hourly wage rate	$8.18	$8.09	$9.84	$10.33
Earnings of spouse (zero when not living with mother)	$8,787	$11,321	$20,099	$22,886
Child support payments[a]	$738	$714	$579	$382
Child support payments[a] (recipients)	$961	$931	$993	$961
AFDC benefits	$1,295	$746	$602	$500
Food stamps	$703	$563	$357	$272
Average Annual Values of Outcomes During Young Adulthood (Ages 19 to 30)				
Hours employed	831	620	875	952
Earnings	$6,323	$4,801	$6,066	$7,138
Hourly wage rate	$7.61	$7.74	$6.93	$7.50
Earnings of spouse (zero when not living with mother)	$9,551	$8,516	$14,449	$13,962
Child support payments[a]	$779	$754	$610	$403
Child support payments[a] (recipients)	$961	$931	$993	$961
AFDC benefits	$889	$645	$465	$395
Food stamps	$552	$472	$272	$212

Source: Except as noted, these data are adapted from J. Hotz, S. McElroy, and S. Sanders (forthcoming), "Mothers: Effects of early childbearing on the lives of the mothers," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard (Washington, D.C.: Urban Institute Press) Control variables included in the models are listed in Appendix Table A.1 of this report. All dollar figures are expressed in March 1996 dollars and have been discounted at 5 percent annually form the start of the reference period.

[a] Estimates are derived from M. Brien and R. Willis (forthcoming), Fathers: Costs and consequences of early childbearing for the fathers, the young mothers, and their children," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard (Washington, D.C.: Urban Institute Press). The estimates assume that support awards average 17 percent of the father's income for the first child, that total awards are half that amount for subsequent children, and that awards are issued and paid in only 30 percent of the cases. They also assume that 81 percent of births to early childbearers and 42 percent of those to older childbearers are out of wedlock. The estimates in the column controlling only for background factors assume an out-of-wedlock birthrate midway between these two rates (61.5 percent).

Table 6

Sources of Economic Support for Adolescent and Later Childbearers

(Discounted March 1996 Dollars)

SOURCE OF SUPPORT	ADOLESCENT CHILDBEARERS	LATER CHILDBEARERS (AGE 20 OR 21)	
		WITH CONTROLS	NO CONTROLS
Average Annual Outcomes During the First 13 Years of Parenthood			
Own earnings	$5,652	$6,166	$10,384
Earnings of spouse	$8,787	$11,321	$22,886
Child support[a]	$779	$754	$382
AFDC	$1,295	$746	$500
Food stamps	$703	$563	$272
Subtotal	**$17,216**	**$19,551**	**$34,425**
Medical assistance[b]	$1,517	$771	$825
TOTAL (including medical)	**$18,733**	**$20,322**	**$35,250**
Average Annual outcomes During Young Adulthood (Ages 19 to 30)			
Own earnings	$6,323	$4,801	$7,138
Earnings of spouse	$9,551	$8,516	$13,962
Child support[a]	$779	$754	$403
AFDC	$889	$645	$395
Food stamps	$552	$472	$212
Subtotal	**$18,093**	**$15,189**	**$22,110**
Medical assistance[b]	$1,794	$1,088	$1,294
TOTAL (including medical)	**$19,887**	**$16,277**	**$23,404**

Source: Except as noted, these data are adapted from J. Hotz, S. McElroy, and S. Sanders (forthcoming), "Mothers' Effects of early childbearing on the lives of the mothers," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard (Washington, D.C.: Urban Institute Press) and reported in Table 3. Control variables included in the models are listed in Appendix Table A.1.

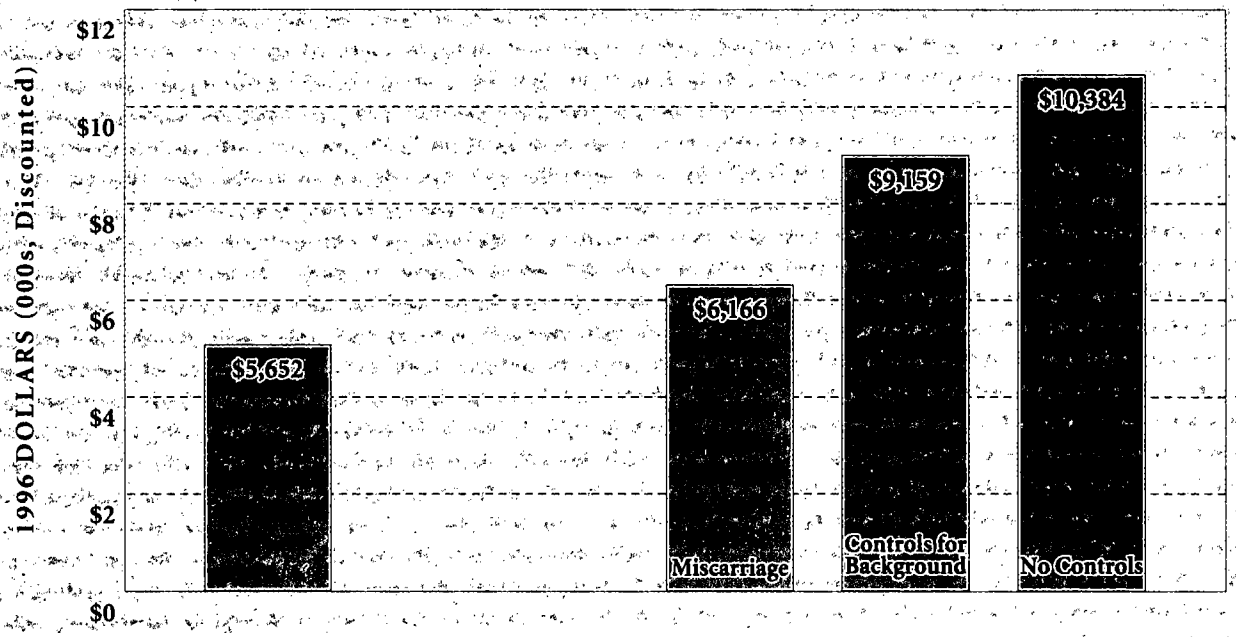
[a] Estimates are derived from M. O'Brien and R. Willis (forthcoming), "Fathers: Costs and consequences of early childbearing for the fathers, the young mothers, and their children," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard (Washington, D.C.: Urban Institute Press). The estimates assume that support awards average 17 percent of the father's income for the first child, that total awards are half that amount for subsequent children, and that awards are issued and paid in only 30 percent of the cases. They also assume that 81 percent of births to early childbearers are out of wedlock. The rate is 42 percent for those observed to delay childbearing until ages 20 or 21, and it would be midway between these two rates (61.5 percent) if we controlled for basic demographic differences between early and later childbearers.

[b] Estimates are derived from B. Wolfe and M. Perozek (forthcoming), "Health: Early childbearing's costs to society for health and medical care of the children," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard (Washington, D.C.: Urban Institute Press). The estimates, which include only publicly supported medical assistance, assume that the average subsidies per child pertain to all children born to mothers under the various scenarios (2.6 children if she has her first child while under age 18; 2.0 children if she delays childbearing and we compensate for or otherwise equalize circumstances other than basic family circumstances; 2.1 children if she delays childbearing and we fully compensate for all differences between her and her counterparts who delay childbearing until their early 20s, including compensating for her family demographics.

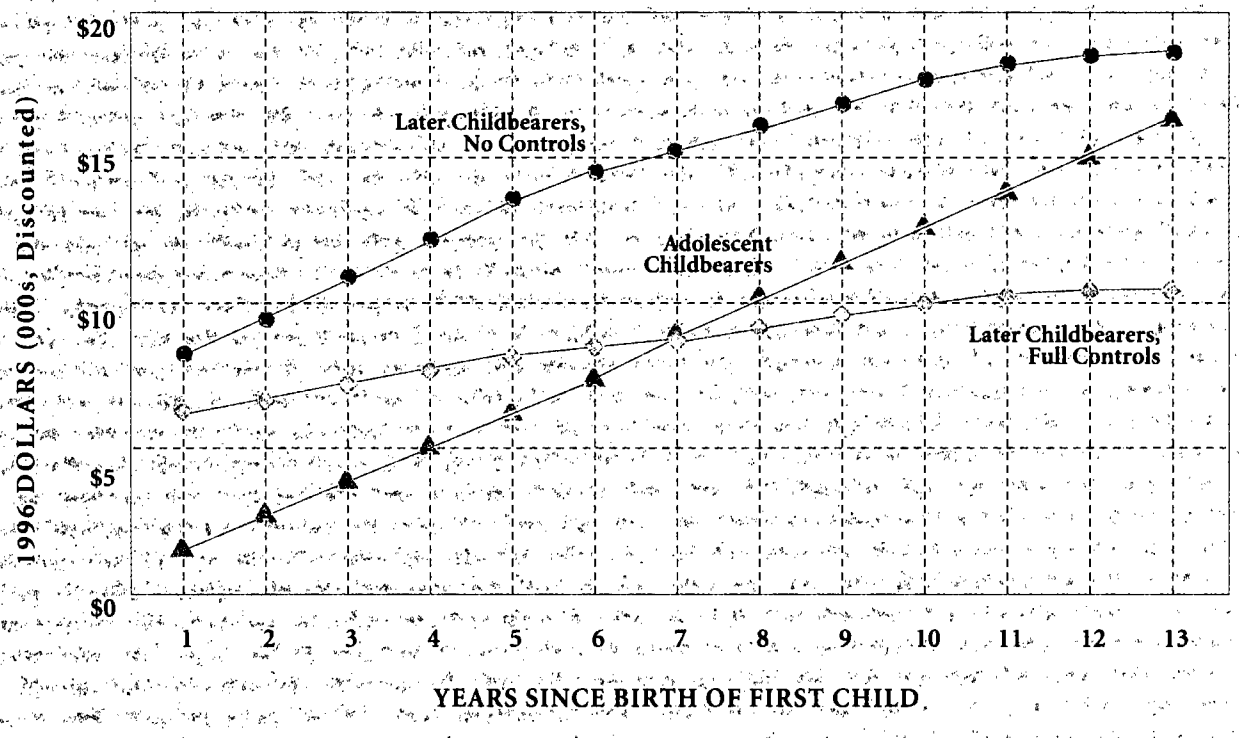
Figure 4

Average Annual Earnings During the First 13 Years of Parenthood

a: Over First 13 Years of Parenthood



b: By Years Since Birth of First Child

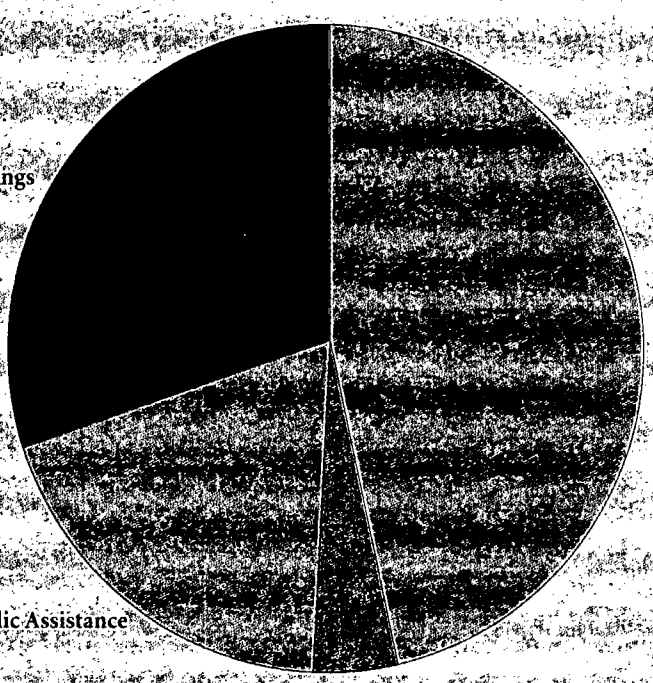


Source: Adapted from Hotz, McElroy, and Sanders (forthcoming).

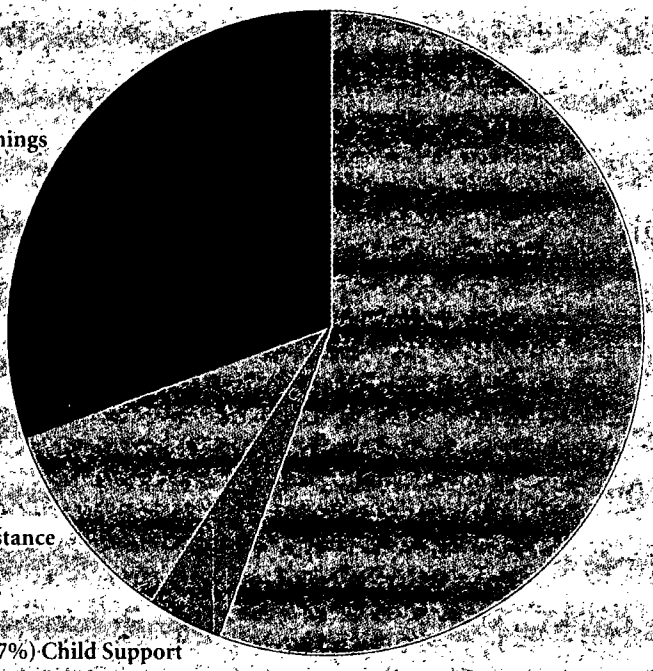
Figure 5

Allocation of Economic Support During the First 13 Years of Parenthood

a: Adolescent Childbearers



b: Later Childbearers (Ages 20-21)



Source: Hotz, McElroy, and Sanders (forthcoming).

combined effect of lower earnings during the first seven years of parenthood and higher earnings thereafter (FIGURE 4B).

As was the case with the employment results, looking at the consequences of adolescent childbearing on earnings of the mother during early adulthood reveals that the adolescent mothers actually fare somewhat better than would be expected if they delayed childbearing a few years. After controlling for background and other factors, earnings of adolescent mothers between ages 19 and 30 average $6,323 annually, compared with only $4,801 for their later childbearing counterparts (TABLE 5). The principal explanation relates to the fact that the adolescent mothers face a much steeper rise in their employment and earnings over their young adult years than would be the case if they delayed childbearing for a few years—a result probably linked to their higher rate of single parenthood and to their children being older.

ECONOMIC SUPPORT

The First 12 Years of Parenthood During her first 12 years of parenthood, the average adolescent mother receives income and food stamps valued at just over $17,000 annually, discounted to the birth of her first child (TABLE 6). In addition, she receives an average of $1,517 annually in publicly supported medical-care services for her children, bringing her average annual disposable income to $18,733.

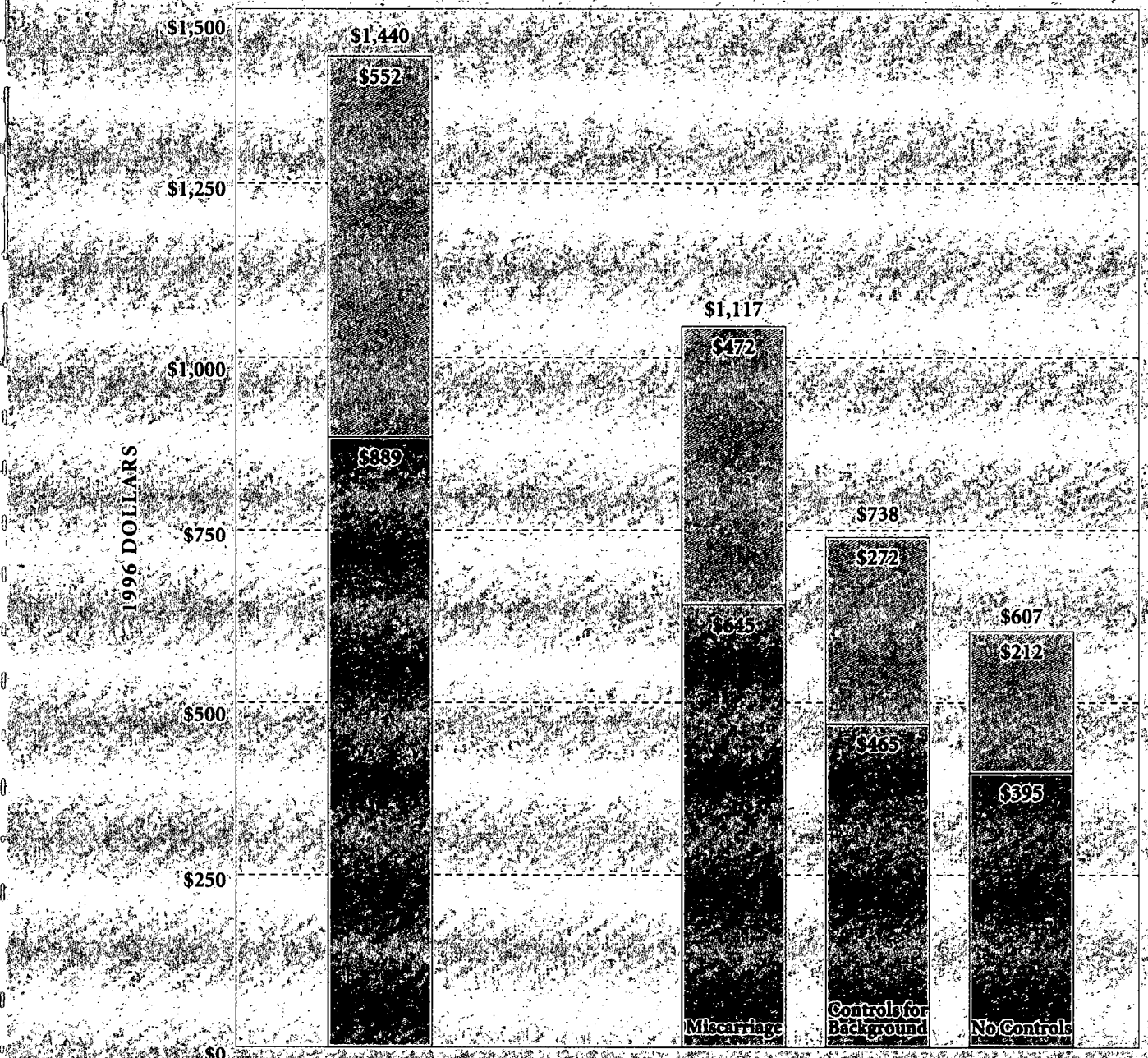
Thirty percent of this income is from the mother's own earnings (see above and TABLE 6); 47 percent derives from earnings of a resident spouse; the remainder comes from child support (4 percent) and various forms of public assistance (19 percent)—7 percent from AFDC, 4 percent from food stamps, and 8 percent in medical care for the children (FIGURE 5).

The total economic support available to the later childbearers is nearly double that available to adolescent mothers—$35,271 annually versus the $18,733 available to adolescent mothers (TABLE 6) because of the higher earnings of the later childbearers ($10,384 versus $5,652) and of their spouses ($22,886 versus $8,787). All other forms of support are roughly half to one third the levels received by adolescent mothers.

However, more than 90 percent of the overall difference in economic resources available to adolescent mothers results from factors other than adolescent childbearing per se. With controls for background and other factors closely linked to early childbearing, adolescent childbearers are estimated to suffer an economic loss averaging only about $1,589 a year during the first 13 years of parenthood. The modest size of this difference reflects the fact that public assistance (AFDC, food stamps, and medical assistance) offsets roughly half the losses from lower earnings of the mothers and their

Figure 6

Average Annual Welfare and Food Stamp Benefits During First 13 Years of Parenthood



:: Hotz, McElroy, Sanders (forthcoming)

lower income from spouses' earnings—a loss due partly to lower marriage rates among adolescent parents and partly to lower earnings of men who father children by adolescent mothers (see further discussion below).

Delaying childbearing from adolescence to age 20 or 21 alone would lead to average reductions in AFDC payments from $889 to $645 annually, and food-stamp benefits would fall from $552 to $472 annually (FIGURE 6). In addition, medical assistance for children would fall from $1,794 to $1,088 (see below) as a result of the decrease both in the number of children and in improvements in the children's health problems associated with being born to an older mother (Wolfe and Perozek forthcoming).

Economic Support During Early Adulthood The income levels and sources for adolescent mothers during their young adult years (ages 19 to 30) parallel those during the 12 years after giving birth (TABLE 6). The levels and sources of income are somewhat different, however, for their later childbearing counterparts over this period. As a result, over the longer haul adolescent mothers actually fare somewhat better economically than they would if they delayed childbearing until their early 20s. Those who delay childbearing until their early 20s have incomes between ages 19 and 30 that average 18 percent higher—$23,404 annually (TABLE 6).

However, simply delaying childbearing and not addressing other differences between the adolescent and 20- to 21-year-old mothers would result in earnings *losses* for the young mothers themselves (see middle column of TABLE 6). They likely would be slightly worse off because of their own lower earnings ($4,801 versus $6,323 on average per year).

Moreover, the lower earnings would be compounded by lower welfare benefits and medical assistance. In total, the combined economic resources would average $3,610 less annually during young adulthood as a result of the decision to delay childbearing a few years.

Consequences For the Fathers

Fathers of children born to adolescent mothers are sometimes young themselves. Typically, however, they are several years older than the mothers of their children. The scholars examined both the implications of adolescent fatherhood (defined as fathering a child before age 18) and fathering a child born to an adolescent mother who is under age 18 when she has her first child.

CONSEQUENCES FOR ADOLESCENT FATHERS

Adolescent males face significant adverse consequences of becoming fathers. After controls for basic demographic and background factors, however, those who father children at ages 20 or 21 have future outcomes that are nearly identical to the outcomes for those fathering their first children at age 25. What does matter for the older fathers is whether the mothers of their children are adolescent mothers (a difference discussed later in this section).

Years of Schooling Adolescent fathers complete only 11.3 years of school, on average, by the time they reach age 27 (FIGURE 7). In contrast, those who delay fatherhood until age 21 complete an average of nearly 13 years of education. Half of this difference in educational attainment is directly due to background factors, including parents' education levels, family income, and a combination of innate ability and cognitive achievement as measured by the Armed Forces Qualifying Test. Thus, on average, the educational deficit caused by adolescent fatherhood or closely linked factors is only about seven tenths of a year. Nonetheless, this is a critical difference in that it moves the average school-completion level from under to over 12th grade—and high school graduation.

The *Kids Having Kids* scholars studied the relationship between educational outcomes and the age of men when they first father children. Their research indicates that, after background factors are controlled for, there is no difference between the outcomes for men who first father children at age 21 (the average age of the male partners of adolescent mothers) and men who delay fatherhood for four years until age 25. Men fathering children for the first time at age 21 completed an average of

12.5 years of school, as contrasted with an average of 13.8 years for those who delayed fatherhood until age 25. However, differences in family background and innate ability fully explain this average attainment gap for those somewhat older fathers.

Earnings and Potential to Pay Child Support Adolescent fathers earn an average of just under $5,000—or 18 percent—less per year than those who delay fatherhood until age 21 (FIGURE 8). About half of this difference is due to background factors. The remaining earnings difference potentially represents, directly or indirectly, a *lost opportunity* to the adolescent parent. Complementary research indicates a very strong relationship nationally between education and earnings, commonly characterized as the wage premium associated with high school and college completion (Maynard and McGrath 1995). Thus, one would expect that a wage loss of this magnitude might accompany the depressed educational outcomes that result from the adolescent parenting decision.

Consistent with the findings on educational consequences associated with delaying fatherhood beyond age 21, no future positive effects on earnings potential were observed for longer delays. In large part, the lack of stronger impacts probably results from the fact that, by age 21, young men have made and executed major educational decisions.

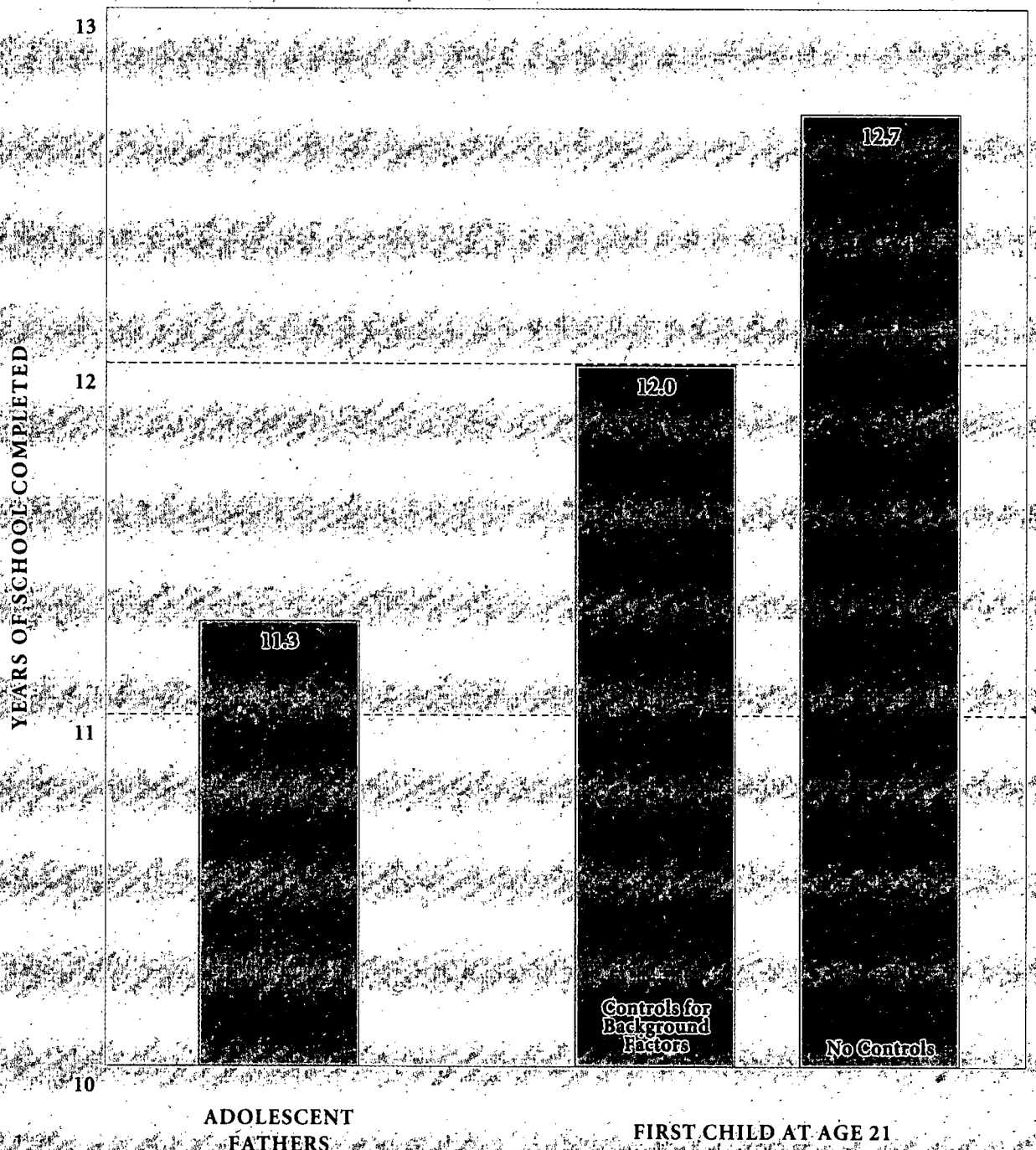
The adverse economic consequences for adolescent fathers add to the adverse economic consequences for adolescent childbearing mothers and their children arising from their lower marriage rates (see above). Some consequences are real in the sense of lowering the earnings contributions by males in two-parent families or the actual child-support payments to the custodial mothers. Others reflect increases in the potential levels of support the fathers *could* provide, either through formal child support or otherwise. The potential level of support is particularly important in the current policy environment of widespread emphasis on parental responsibility and time-limited welfare.

OUTCOMES FOR FATHERS OF CHILDREN BORN TO ADOLESCENT MOTHERS

Over the first 18 years after the birth of their first children, older fathers of children born to adolescent mothers earn an estimated $16,712 (discounted and expressed in 1996 dollars), compared with an average of $13,796 for those with similar education levels who delay fathering children until their partners are age 20 or 21. Thus, over the child's first 18 years, the fathers of children born to mothers who are 20 or 21 when they have their first child

Figure 7

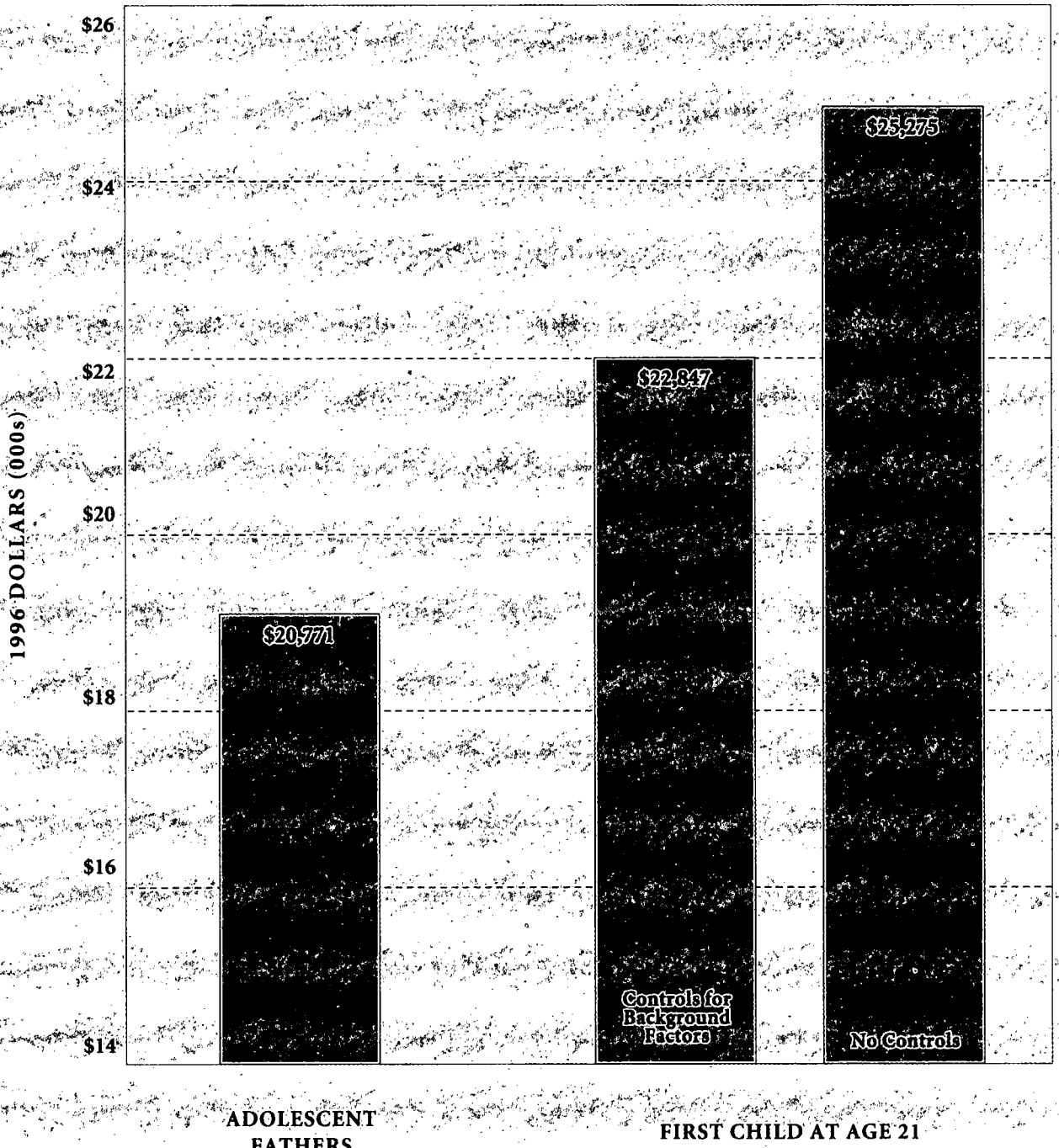
Fathers' Years of Schooling at Age 27, Adolescent and Older Fathers



Source: Adapted from Brien and Willis (forthcoming).

Figure 8

Annual Earnings of Fathers at Age 27, Adolescent and Older Fathers

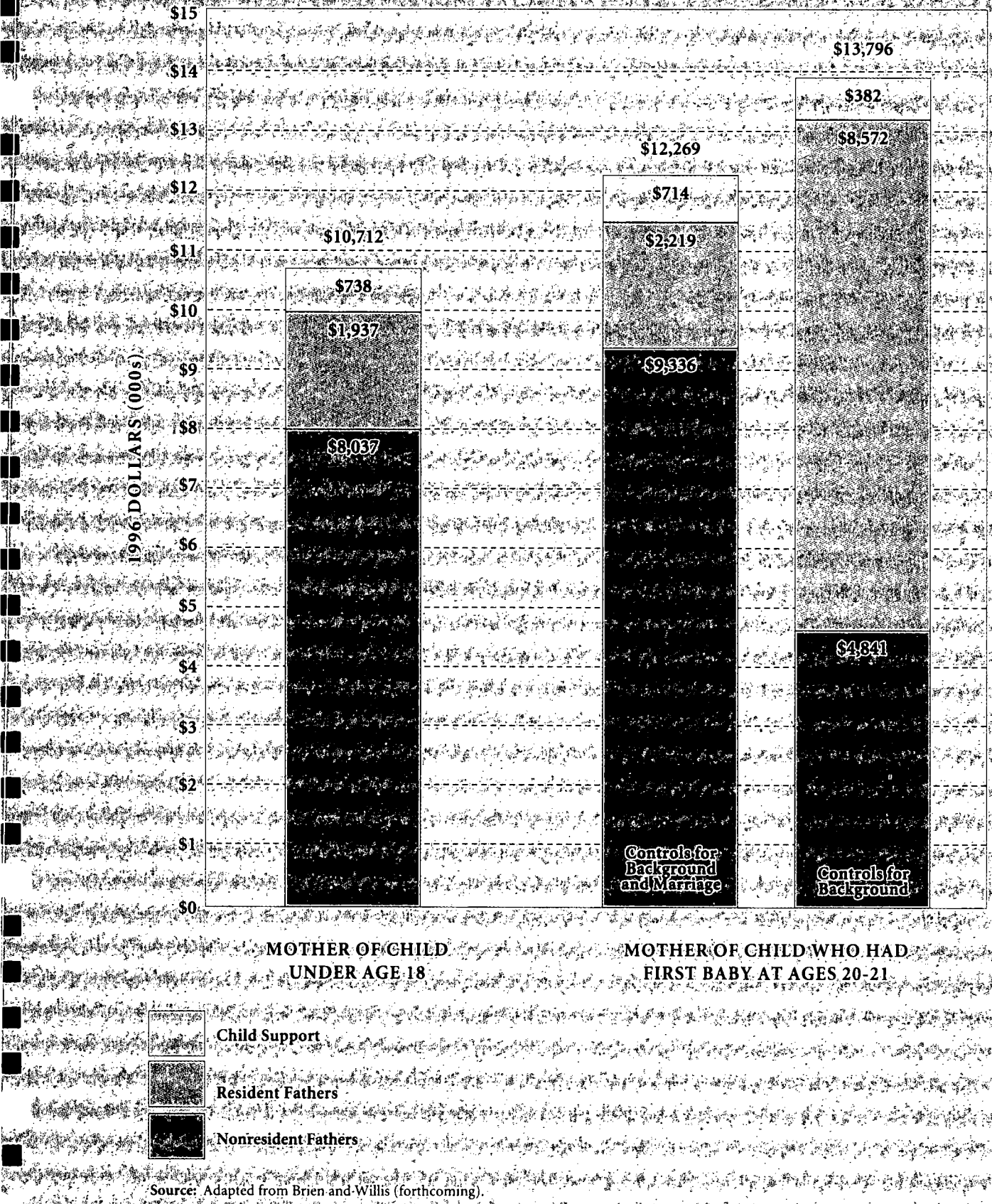


Source: Adapted from Brien and Willis (forthcoming).

Figure 9

Average Annual Earnings of Fathers of Children Born to Adolescent and Later Childbearers

(Child's Birth Through Age 19)



Source: Adapted from Brien and Willis (forthcoming).

earn an average of $3,000 more per year (in real terms) that potentially could be shared (FIGURE 9).

Half of this earnings difference results from background factors not likely to be affected if the mother delayed childbearing. Moreover, the higher earnings are a benefit to the children and their mothers only if the parents live together and/or the fathers pay child support. Indeed, only 19 percent of the adolescent mothers marry the father of their children before or soon after the children's births. We know from other studies that relatively few noncustodial fathers of children born to teenage parents pay child support regularly (see, for example, Maynard et al. 1993).

Under a support-award formula similar to that currently in place in Wisconsin, the higher earnings of noncustodial fathers, if they delayed fatherhood until the mothers of their children were older, would permit an increase of about $350 in annual child support payments. In reality, however, the delay in childbearing would also tend to increase the marriage rate, decreasing the need for child support and increasing the earnings of spouses (see TABLE 3 above).

The relatively small *net cost* of adolescent motherhood to the fathers stems in large part from the fact that few fathers of children born to adolescent mothers actually disrupt their own lives to assume financial responsibility for their children. Since only 19 percent of the births to young teen mothers are within marriage, finding these modest life course results for the fathers of children born to adolescent mothers—after controlling for differences in background factors—is not surprising. Even so, evidence exists of a modest marriage effect on earnings that accrues disproportionately to those who delay fatherhood until the time the mothers of their children reach their early 20s. About 20 percent of the higher earnings associated with postponing fatherhood until the mother is 20 or 21 years old is attributable to the higher marriage rate among later childbearers and the fathers of their children (FIGURE 9).

Consequences For Children Of Adolescent Mothers

Children born to adolescent mothers or to mothers who were adolescents when they had their first children are at a substantial disadvantage relative to their counterparts born to older women. Higher proportions of these children are born prematurely and they are more likely to be low birthweight—a factor that predisposes them to adverse health conditions and increased risk of mental retardation. These children continue to experience poorer health throughout their youth. However, they also receive less medical care than do children born to later childbearers. Then, too, children of adolescent mothers experience worse outcomes in a variety of other dimensions, such as mental health, teacher ratings of students, and school progress and performance.

HEALTH STATUS AND MEDICAL CARE UTILIZATION

The majority of children in this country are rated by their mothers as being in excellent health. However, only 38 percent of the children born to adolescent mothers are so described, compared to 60 percent of those born to mothers in the comparison group (TABLE 7). At the same time, these children of adolescent mothers get only half the medical care received by children of 20- to 21-year-old mothers.

Health Status For some of the children born to adolescent mothers, poorer health likely begins with their premature births and low birthweight. Nearly 8 percent of children born to adolescent mothers are low birthweight (below 5.5 pounds), as compared with only 5.6 percent of children born to older mothers (TABLE 8). A sizable difference in the proportion of low-birthweight babies persists even after demographic differences between the adolescent and comparison-group mothers are factored out. However, no evidence exists that children born to adolescent mothers are significantly more likely to

Table 7

Health Status of and Healthcare Services to Children of Adolescent and Later Childbearers

OUTCOME MEASURE	AGE OF MOTHER AT FIRST BIRTH		
	UNDER AGE 18	AGE 20 OR OLDER	DIFFERENCE
Heath Status of Children (Percents)			
Excellent health	38%	60%	(22%)
Fair or poor health	9	5	4
Acute condition	52	63	(11)
Chronic condition at age 14	5	11	(6)
Annual Medical Provider Visits, by Age of Child			
Age 0-1	5.24	8.06	(2.82)
Age 2-3	3.64	5.74	(2.10)
Age 4-5	2.47	3.93	(1.46)
Age 6-7	1.63	4.00	(2.37)
Age 8-10	1.52	2.51	(0.99)
Age 11-14	1.68	2.71	(1.03)
Annual Medical Provider Visits, by Type of Service			
Medical provider office	1.84	4.15	(2.31)
Hospital outpatient	0.18	0.31	(0.13)
Emergency room	0.27	0.31	(0.04)
Hospital inpatient	0.04	0.05	(0.01)
TOTAL VISITS TO ABOVE TYPES	2.33	4.82	(2.49)
Sample Sizes			
Health Status (N = 2,173)	577	1,596	—
Medical care use (N = 2,619)	700	1,919	—

Sources: Adapted from B. Wolfe and M. Perozek (forthcoming), "Health: Early childbearing's costs to society for health and medical care of the children," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard (Washington, D.C.: Urban Institute Press). All data are weighted means.

Table 8

Child Outcomes, by Mother's Age at Focal Child's Birth

OUTCOME MEASURE	ADOLESCENT CHILDBEARERS	LATER CHILDBEARERS (AGE 20 OR 21)	
		WITH CONTROLS	NO CONTROLS
Child Health Indicators			
Low birthweight (less than 5.5 pounds)	7.8%	5.2%[b]	5.6%[b]
Depression score percentile ranking (ages 18–22)[a]	51.6%	61.2%	57.7%
Ever received psychological help (ages 18–22)	35.7%	29.8%	32.5%
Home Environment			
HOME score percentile ranking (ages 4–14)[b]	39.7%	**50.8%**	**48.8%**
School Performance Indicators			
Teacher rates as one of best students (ages 12–16)	7.8%	**25.3%**	15.2%
Repeated grade (ages 10–14)	32.7%	21.8%	23.4%
PIAT mathematics percentile score (ages 4–14)[c]	39.4%	**48.8%**	**48.6%**
PIAT reading recognition percentile score (ages 4–14)[c]	47.6%	**60.6%**	**58.3%**
PIAT reading comprehension percentile score (ages 4–14)[c]	40.2%	**48.4%**	**55.9%**
Social Adjustment			
Behavior problems index percentile ranking (ages 4–14)	56.3%	**63.5%**	54.6%
Behavior problems index percentile ranking (ages 12–16)	62.2%	54.1%	54.8%
Ever ran away from home (ages 18–22)	5.4%	1.7%	2.3%

Source: Adapted from K. Moore, D. Morrison, and A. Greene (forthcoming), "Children: Effects of early childbearing on the lives of the children," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard (Washington, D.C.: Urban Institute Press). Control variables included in the models are listed in Appendix Table A.1 of this report. Measures of depression, teacher rating, and runaway outcomes are based on analyses of the National Survey of Youth; other outcomes are based on analyses of the National Longitudinal Survey of Youth–Child Supplement.

Note: Numbers in bold are significantly different from the corresponding figures for adolescent childbearers.

[a] Center for Epidemiological Studies Depression Scale (CES-D).

[b] HOME = Home Observation for Measurement of the Environment, Short Form.

[c] PIAT = Peabody Individual Achievement Tests.

have specific physical limitations than are children born to 20- or 21-year-old mothers. In fact, by age 14, children born to adolescent childbearers report fewer chronic health conditions than do those born to older mothers (TABLE 7).

There is modest evidence that, on average, children born to young parents suffer significantly more depressive symptoms (TABLE 8). Yet, while they score on average 10 percentage points lower on a standard assessment, only about 10 percent of all young adults, regardless of the age at which their mothers first gave birth, report symptoms of clinical depression on standard social surveys (not shown).

Medical Care Utilization In all types of healthcare, adolescent mothers' children (ages 0 to 14) receive substantially less medical care, logging an average of only 3.8 visits a year compared with 5.2 visits a year for their counterparts who were born to older mothers (FIGURE 10).

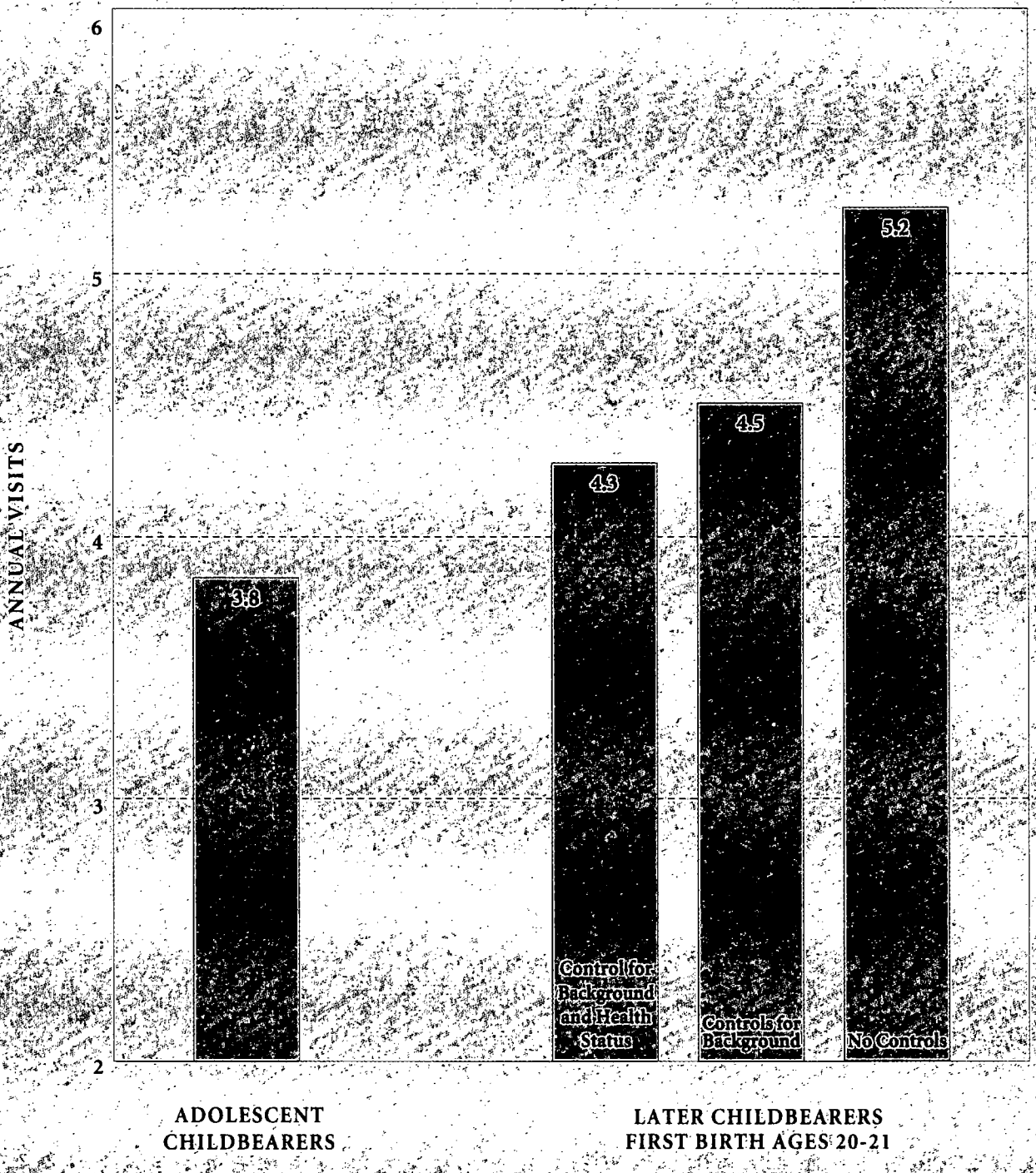
One half of the difference in healthcare utilization is caused by measured background factors that differ between children of adolescent mothers and children of later childbearers (FIGURE 10). The majority of the difference in the number of visits is attributable to background factors and the differences in health status of children born to adolescent mothers as compared with those born to later childbearers. Only about one third of the total 1.4 difference in annual visits is attributable directly to early childbearing and closely linked factors not controlled for in the analysis. (A similar pattern of results pertains both to children born to adolescent mothers and to children born to older mothers who previously gave birth as young teens.)

Medical Care Costs Total medical-care expenditures for children of adolescent mothers are 22 percent lower than for children of later childbearers (an annual average of $1,413 versus $1,803 per child) (FIGURE 11A). Adjusting for the differential in health status between children born to adolescent mothers and their later childbearing counterparts and despite less frequent doctor visits, expenditures average only about 9 percent less per year for children of young mothers than if the mothers had delayed their childbearing ($1,413 versus $1,556).

Differences between adolescent and older mothers in expenditure patterns are larger when adjusted for the different numbers of children born to adolescent mothers and later childbearers. Adolescent mothers incur total medical-care costs that average $3,674 per year for their children (an average of 2.6 children by the time the mother is 30 years old). Delaying childbearing until age 20 or 21 will decrease both healthcare needs and the number of children. These decreases, together with

Figure 10

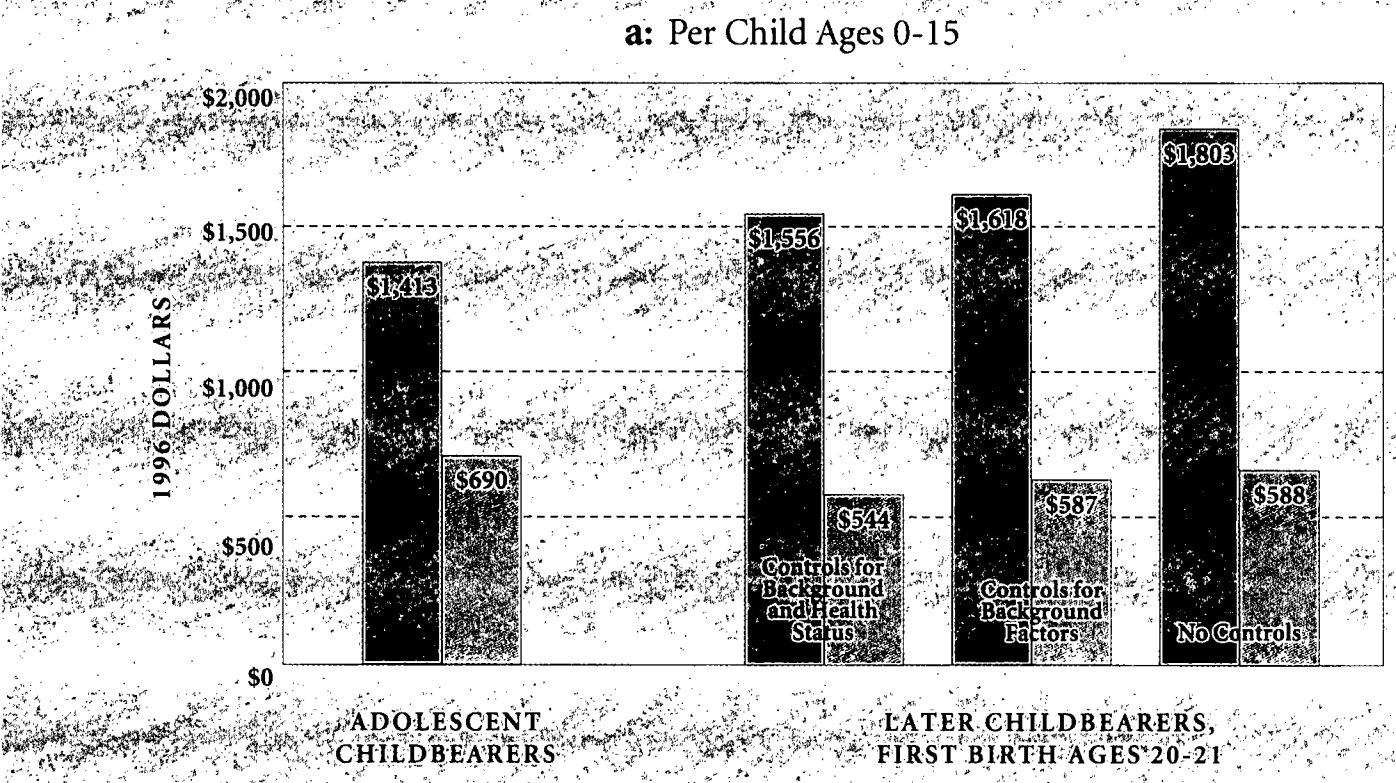
Medical Care Visits by Children of Adolescent and Later Childbearers

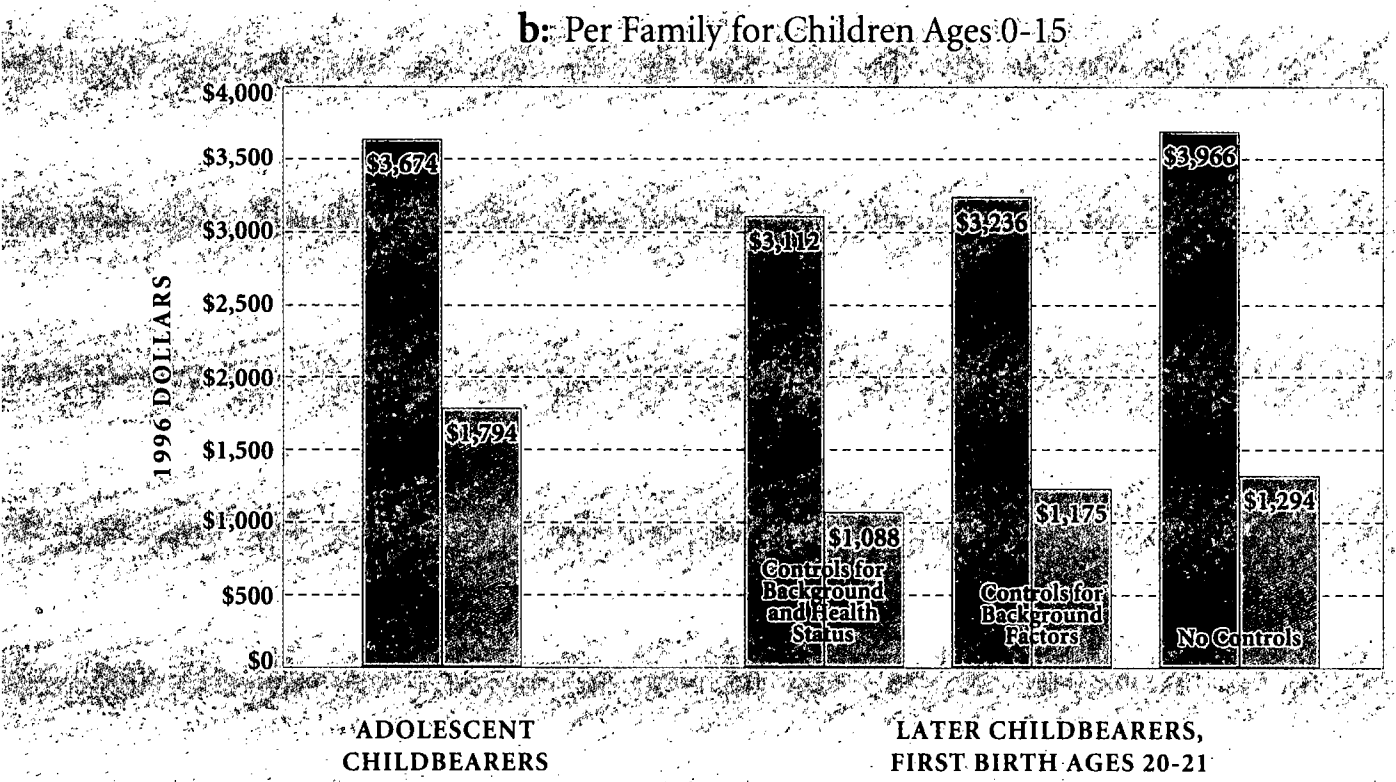


Source: Adapted from Wolfe and Perozek (forthcoming).

Figure 11

Annual Medical Care Costs





Source: Adapted from Wolfe and Perozek (forthcoming).

the family income effects, will lower overall medical-care costs per family to $3,112 (FIGURE 11B).

More important from a policy perspective, the payer of the medical-care services differs between adolescent and older childbearers (FIGURE 11, A and B). An average of 49 percent ($690 per year per child) of the medical-care services for children born to adolescent mothers is paid by the public through Medicaid or CHAMPUS (the U.S. military's health program). By contrast, the public pays only 36 percent ($588 per year per child) for those born to later childbearers. Thus, public expenditures on healthcare average $102 more per year for each child born to adolescent mothers than would be expected if those mothers were to delay childbearing until age 20 or 21 and society were to compensate for all other differences between them and the comparison group.

A more realistic set of assumptions, however, is that delaying childbearing will be accompanied by some improvement in health status and a change in consumption patterns, albeit not a change that would equalize either the expenditures or health status. When adjustments are made to control for differences in background factors between adolescent and 20- to 21-year-old mothers or the health-status differences of their children, the potential annual public cost savings are estimated to be an average of $146 per child ($690 minus $544).

The compound effect of these per-child expenditure patterns under various age-at-childbearing scenarios and of the impact of delaying childbearing on fertility rates leads to large differences both in total family healthcare expenditures on children and in the public subsidies for that health care. On average, with controls for changes in both health status and fertility, the adolescent mothers will consume an estimated $562 more per year in healthcare for their children than if they delayed childbearing until age 20 or 21. Moreover, virtually all of this difference in expenditures is paid for by the taxpayers in the form of subsidized healthcare (FIGURE 11B). Indeed, out-of-pocket healthcare costs are lower for adolescent mothers than for their later childbearing counterparts, despite their higher consumption levels. Their out-of-pocket costs average $1,880 annually compared with $2,024 for the comparison group.

Consequences of Longer Delays in Childbearing The consequences of delays in childbearing from, say, the late teens to ages 20 to 21 are smaller than those for more extensive delays. That is, delaying childbearing from under age 18 to over age 21 results in even larger differences than those reflected here. For example, if the young-teen births were delayed beyond age 21, estimated medical expenditures would

decrease by an average of $215 per year per child rather than the $143 difference estimated for the shorter delay. The public medical-cost savings associated with the delay would be about $336 per child per year, as contrasted with the $146 estimated for the shorter delay (Wolfe and Perozek forthcoming).

In sum, adolescent mothers use less medical care for their children despite the children's poorer average health status. However, a disproportionate share of the cost of medical care that they receive is paid for by the public sector rather than by private insurance or the recipient family. The children also undoubtedly bear a portion of these costs in the form of untreated health conditions.

HOME ENVIRONMENTS

Children born to adolescent mothers grow up in homes that are substantially less supportive of their development in a number of respects than are the homes of other children. The study found environments rated lower for factors such as the availability of educationally stimulating resources in the home, the type and level of parent–child interaction, and the physical condition of the residence.

Measured by the widely used Home Observation for Measurement of the Environment—Short Form (HOME-SF), homes in which the children of adolescent childbearers live scored significantly lower in overall quality than the homes of children born to women who were age 20 or 21 when they became mothers (TABLE 8). Children born to mothers who had their first child in their early 20s had homes that were about at the national norm on the HOME quality scale; children born to adolescent mothers lived in homes that, on average, were in the bottom 40 percent of the quality distribution. Moreover, the research shows a strong relationship between the age of the mother at the time of a child's birth and the quality of the home environment in general. Thus, for example, delaying childbearing from under age 15 to ages 20 or 21 results in a more than 10 percent increase in the home quality index.

RUNAWAY CHILDREN

Another indicator of the lower quality of the home environments of children born to young mothers is their relatively high rates of running away from home. More than five percent of children ages 12 to 16 who were born to women under age 18 reported that they run away from home during their adolescence, a figure two to three times the rate among children born to later childbearers (TABLE 8). In neither the HOME scores nor

the incidence of running away from home are the differences in outcomes for children of the two groups of mothers explained by measurable background characteristics of the family.

CHILD ABUSE AND NEGLECT

The *Kids Having Kids* researchers found a significant relationship between maternal age and the likelihood of child abuse and neglect. This relationship is important because of both the poor outcomes for abused and/or neglected children and the high social costs associated with foster-care placements, which nationally average about $21,000 per year per child in care. Abuse and neglect also carry with them other costs associated with family preservation as well as mental-health costs.

In their study of child abuse and neglect among children in Illinois, Goerge and Lee (forthcoming) found that children born to adolescent mothers are two times more likely to be victims of abuse and neglect than are children born to 20- or 21-year-old mothers. For example, Illinois had 109.6 reports of child abuse per 1,000 children born to women under the age of 18, compared with less than 50 reports per 1,000 children born to mothers who delay childbearing until age 20 or 21 (TABLE 9). Moreover, these differences are not narrowed by statistical controls for the background factors such as region of the state or birth cohort that could be controlled for in the analysis.

The ratio of foster-care placements to reported abuse and neglect is roughly one in four among children born to adolescent mothers and one in five among children born to the later childbearers. This difference in the ratio of abuse and neglect rates to foster-care placement rates is fully explained by the control variables, resulting in a 16 per 1,000 net difference in the foster-care placement rate between adolescent and later childbearers.

The reductions in abuse and neglect rates and in foster-care placement rates continue to increase with longer delays until women give birth. For example, delaying childbearing from under age 16 until age 20 or later leads to a 30 to 40 percent greater impact on the incidence of reported abuse and neglect than does a delay from age 17 to age 20 or later. The results of this study, if generalized to the nation (which currently has approximately 472,000 children in foster care), would imply that as many as five percent of foster-care placements could be averted if society could eliminate adolescent childbearing. This would not only benefit the children no longer needing this care but also reap savings for state and federal budgets.

Table 9

Child Abuse and Foster Care Placement by Mothers' Age at First Birth

(Reported Incidents per 1,000)

OUTCOME MEASURE	ADOLESCENT CHILDBEARERS	LATER CHILDBEARERS (AGE 20 OR 21)	
		WITH CONTROLS	NO CONTROLS
Reported child abuse	109.6	50.7	46.2
Foster care placements	28.5	12.1	10.4

Source: Adapted from R. Goerge and B. Lee (forthcoming), "Abuse and neglect: Effects of early childbearing on abuse and neglect of the children," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard (Washington, D.C.: Urban Institute Press). Data are from the Illinois child welfare reporting system and *Vital Statistics*.

COGNITIVE DEVELOPMENT AND EDUCATIONAL PROGRESS

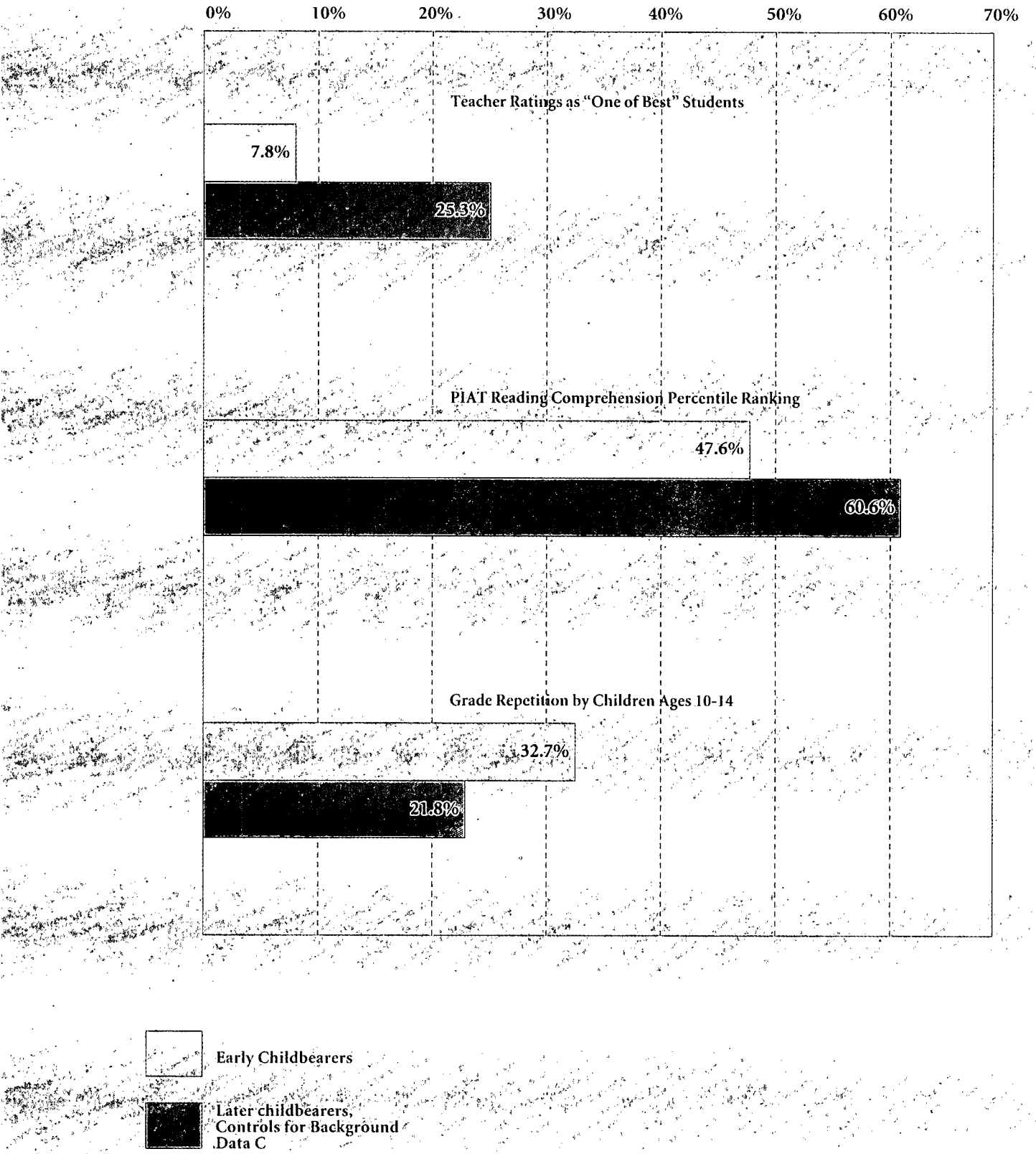
Adolescent childbearing has significant adverse consequences for the cognitive development of children and for their educational progress. Teachers give children of later childbearers higher ratings as students than they give children of teenage parents (FIGURE 12). For example, teachers are twice as likely to rate the children of later childbearers as excellent students. Moreover, the difference in the ratings increases to more than threefold when family background characteristics of the two groups of mothers are controlled for.

These higher teacher ratings are validated by the lower incidence of grade repetition and the higher measured cognitive development of the children. The test scores of children born to later childbearers are .2 to .4 standard deviations higher than among children born to adolescent mothers. These differences translate into movements of about 10 points in the percentile rankings of students, moving the average student from the 48th percentile in reading if he or she was born to an adolescent mother to the 61st percentile if born to a mother who began her family in her early 20s (FIGURE 12). A similar pattern of results is observed for math skills (TABLE 8). Moreover, the rate of grade repetition is nearly one third lower among children of later childbearers than among those born to adolescent mothers (FIGURE 12).

The adverse impacts of teenage childbearing on cognitive development and school performance are concentrated among children of adolescent mothers. Similar disadvantages do not appear when children born to older teens are contrasted with children born to women in their early 20s. However, evidence does exist of very strong benefits to delaying childbearing into the mid-20s or beyond—for this adolescent-childbearing population a seemingly unrealistic goal, but a positive one nonetheless.

Figure 12

School Performance of Children Born to Adolescent and Later Childbearers



Source: Adapted from Moore, Morrison, and Greene (forthcoming).

Outcomes for Teens and Young Adults of Adolescent Parents

The adverse consequences of adolescent childbearing do not stop with the young mothers and their young children. Rather, these consequences contribute significantly to the perpetuation of poor life prospects for children whose mothers gave birth early: poor school outcomes, early and out-of-wedlock parenting, low attachment to the labor force, and high rates of criminal activity.

HIGH SCHOOL GRADUATION

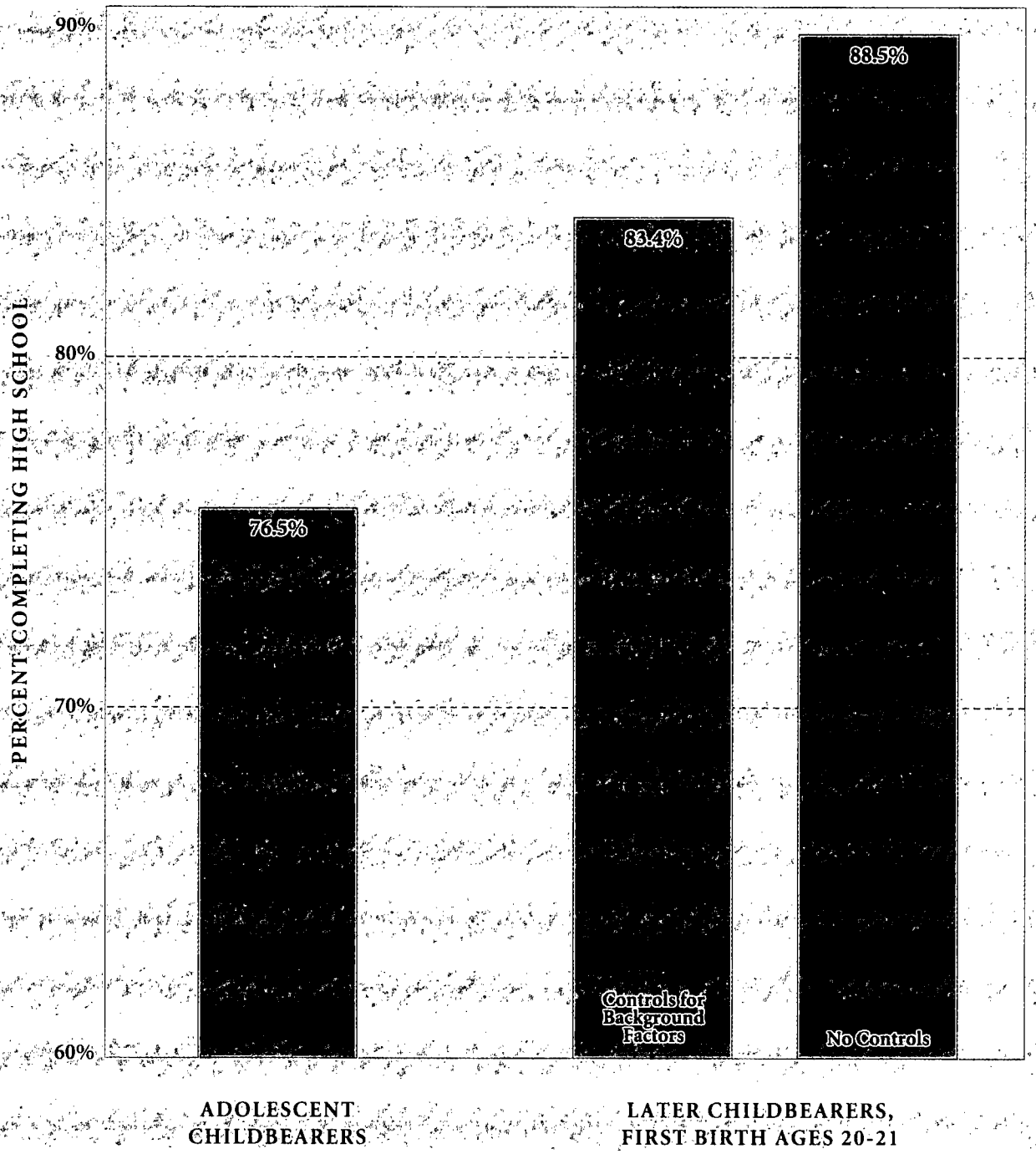
The children of adolescent parents are much less likely to complete high school than are their peers. For example, approximately three fourths of the children born to adolescent mothers complete high school by early adulthood, compared with 89 percent of children born to 20- to 21-year-old mothers (FIGURE 13). The comparable figures for those whose mothers gave birth before age 16 show an even greater discrepancy (71 percent versus 89 percent, not shown).

This pattern of relatively poor school outcomes for children of adolescent mothers is consistent with the fact noted above: the children were reared in relatively poor home environments and had relatively poor school performance during their younger years. Yet, only about 30 percent of this difference is explained by these background factors. The pattern also portends some of the other consequences of the disadvantaged upbringing faced by children born to young mothers.

The scholars have placed aggregate annual price tags for society in excess of $3 billion a year on just the educational shortfall and the increased incarceration levels associated with being born to an adolescent parent. This figure would be even higher if it included other significant factors, such as the costs of the intergenerational transmission of

Figure 13

High School Completion of Children of Adolescent and Later Childbearers



Source: Adapted Haveman, Wolfe, and Peterson (forthcoming). See also: Hotz, McElroy, and Sanders, chap. 3 in this volume

high rates of adolescent childbearing on public assistance, special educational needs of children, and publicly subsidized healthcare services.

THE NEXT GENERATION OF ADOLESCENT MOTHERS

The children of adolescent mothers face significantly elevated probabilities of having a child at a young age. Overall, daughters of adolescent mothers are themselves nearly twice as likely to give birth during adolescence as are their older childbearing counterparts (FIGURE 14). Of the daughters born to adolescent mothers, 17 percent repeat the adolescent childbearing patterns of their mothers, compared with only 9 percent of their peers whose mothers began childbearing after age 20. However, over half of this difference in fertility patterns is accounted for by factors other than the adolescent childbearing of the mother—particularly the mother's education and other background factors.

A high proportion of births to women whose mothers were adolescent childbearers are out of wedlock, regardless of the age at which they begin having children. However, this rate is exacerbated if the mother was a teenager when the daughter was born. Delaying childbearing of the mother beyond the 20- or 21-year age level used for the primary comparison group has the largest benefits in terms of reductions in out-of-wedlock childbearing. For example, second-generation adolescent parents are estimated to be 25 percent more likely to give birth out of wedlock than would be the case if their mothers had delayed childbearing until their mid-20s or beyond.[2]

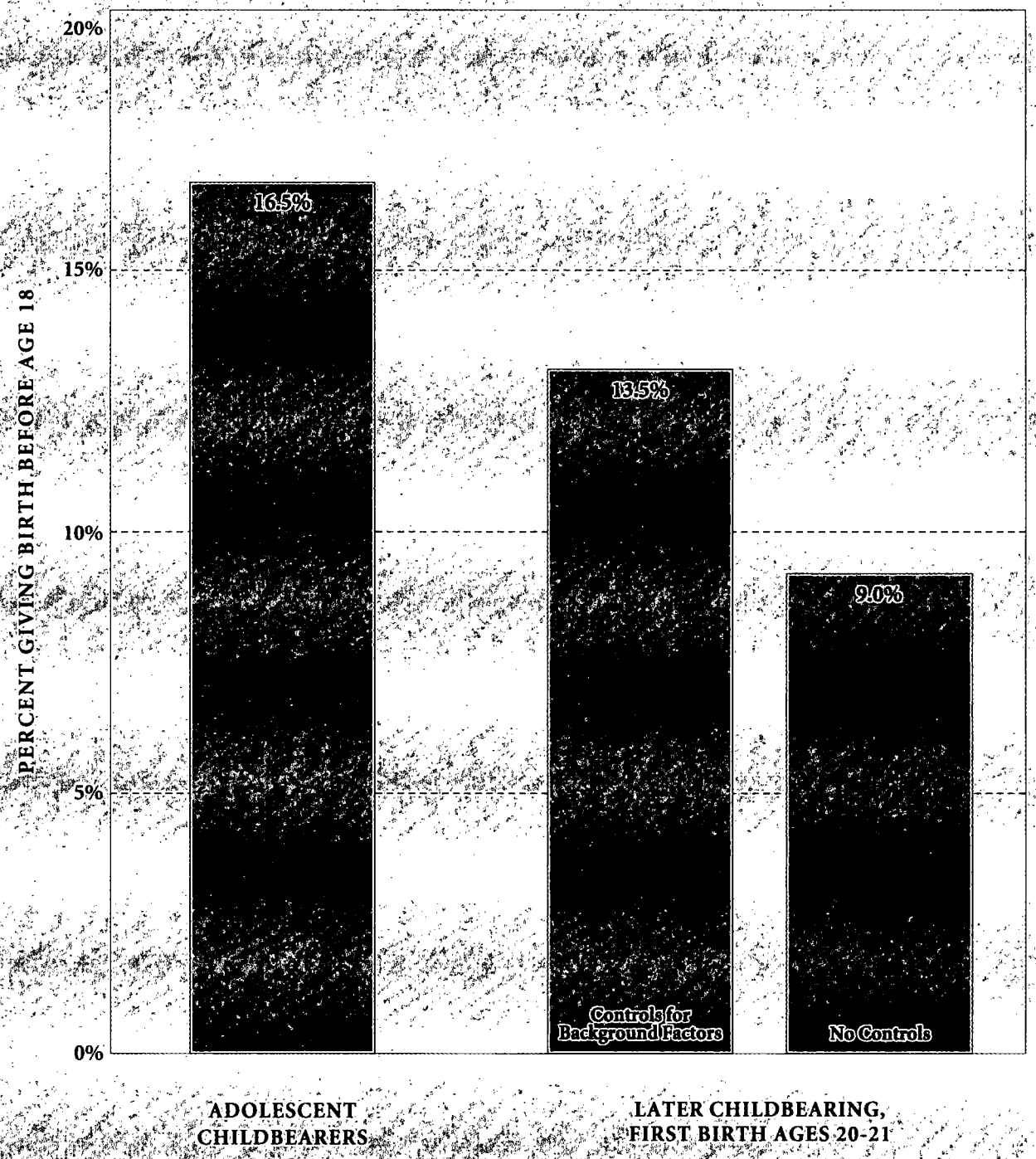
ECONOMIC INACTIVITY

Nearly 30 percent of children born to adolescent mothers are neither working nor looking for work nor attending school by the time they are 24 years old. This contrasts with only 17 percent of the children born to 20- or 21-year-old mothers (FIGURE 15). Roughly half of the economic inactivity gap is explained by factors that can reasonably be considered external to adolescent childbearing. Nonetheless, a policy that succeeded in delaying those early (before age 18) births until the mothers reached age 20 or 21 would increase the economic *activity* rate of the children by an estimated 7 percentage points (from 71 to 78 percent).

Similar delays in childbearing for those giving birth before age 16 would have an impact nearly double that size (from 63 percent active to 78 percent active, not shown). Higher participation in the work force, combined with the higher skills of the workers, translates into

Figure 14

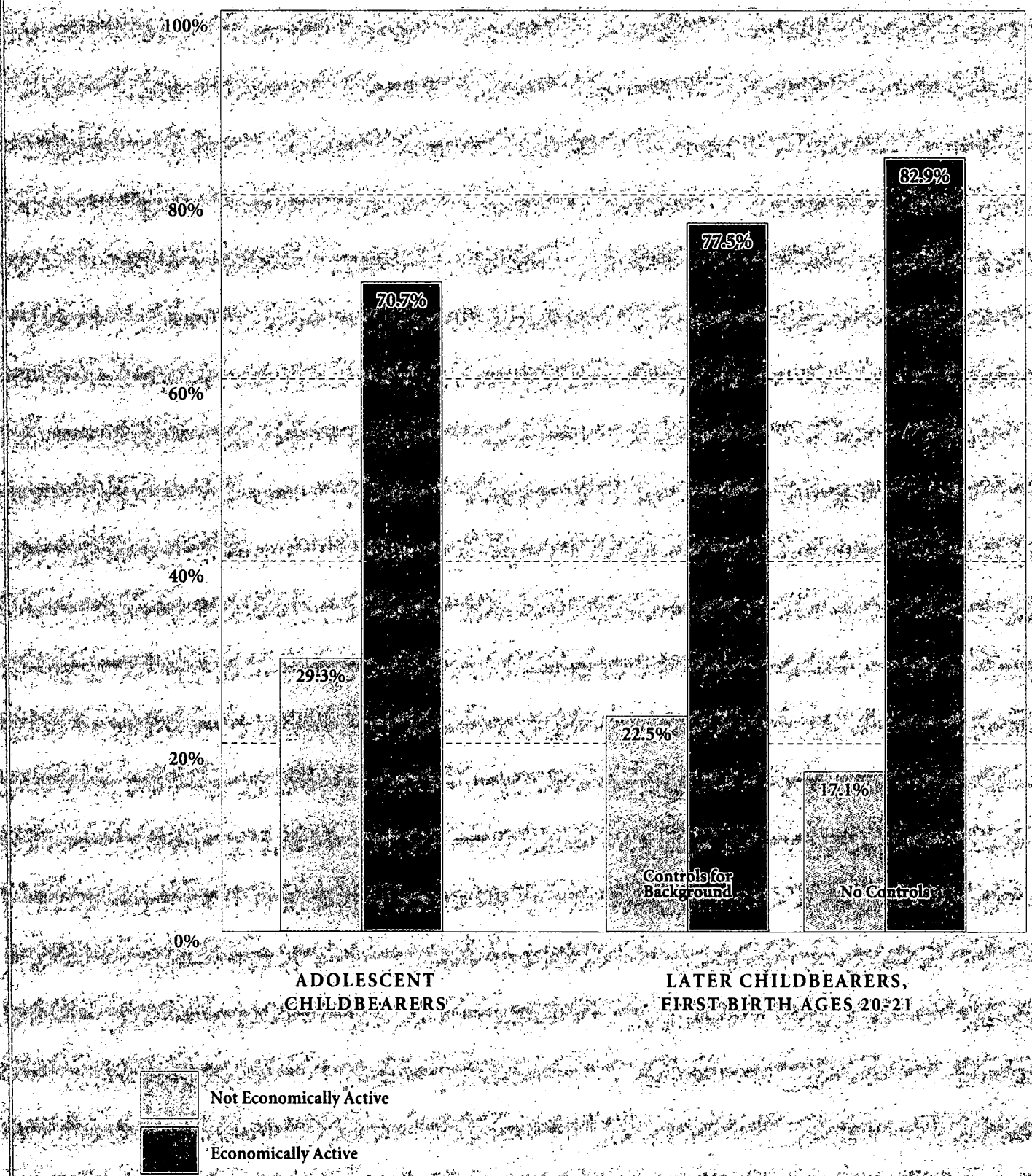
Childbearing Before Age 18 by Female Children of Adolescent and Later Childbearers



Source: Adapted from Haveman, Wolfe, and Peterson (forthcoming).

Figure 15

Economic Activity/Inactivity by Children of Adolescent and Later Childbearers



Source: Adapted from Haveman, Wolfe and Peterson (forthcoming).

Note: Economic activity includes working, looking for work, and attending school

increased national productivity, higher tax receipts, and more income to share with one's own family.

CRIMINAL ACTIVITY

Youths' *self-reports* of delinquency and illegal activities provide no evidence of higher levels of behavioral problems and delinquency associated with having been the children of a young parents (Moore, Morrison, and Greene, forthcoming). Yet the sons of adolescent mothers are 2.7 times more likely to end up behind bars than are the sons of older mothers (Grogger forthcoming; FIGURE 16).

At the annual interviews conducted by the NLS-Y, nationally about five percent of all young men were found to be incarcerated over a 13-year period—a rate well below the 10.3 percent rate of observed incarceration for young men born to adolescent mothers and slightly above the 3.8 percent observed incarceration rate over this same period for young men born to mothers who began their families at age 20 or 21 (FIGURE 16).

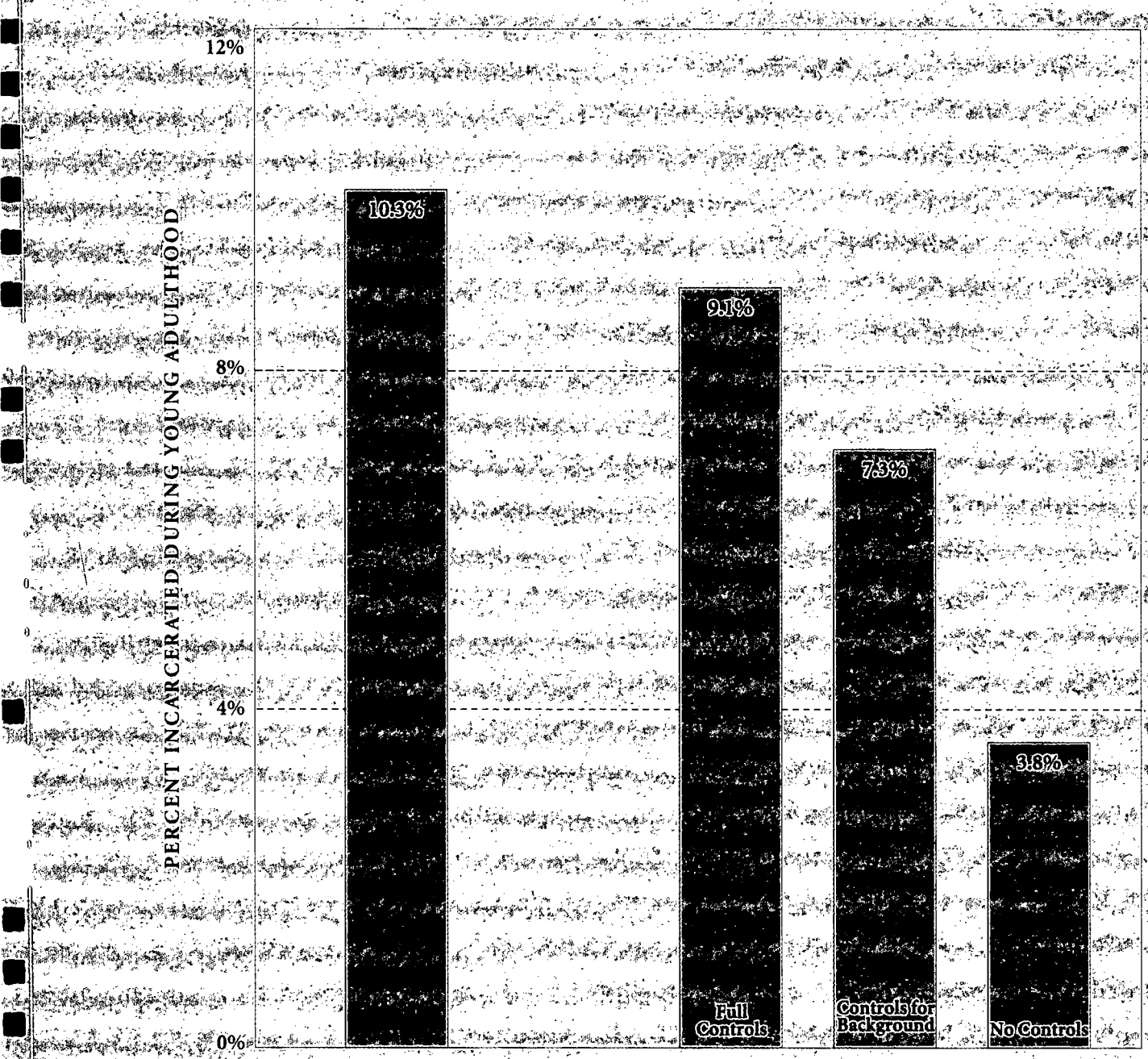
Roughly half of the observed difference in observed incarceration rates for the young men born to adolescent versus older childbearers is accounted for by observable differences in the demographic and background characteristics of offspring of both groups of mothers. Still, simply postponing adolescent childbearing just until ages 20 to 21 would, by itself, reduce the incarceration rate for the affected children by 13 percent (from 10.3 percent to 9.1 percent).

Even the relatively small fraction of the higher incarceration rate that is directly attributable to adolescent childbearing costs the government and society dearly. If we simply could delay childbearing until would-be adolescent childbearers reached age 20.5, the national average incarceration rate would fall by 3.5 percent. In dollar terms, our correctional costs would decline by $1 billion dollars a year. Of course, these savings would not be realized overnight. Even if all adolescent mothers were to delay their childbearing as of tomorrow, the incarceration rates would not fall by this full sum for about 20 years—the earliest age at which young delinquents start going to jail in any substantial numbers.

For the full benefits of delayed fertility to show up in the form of reduced prison budgets, an entire generation of adolescent mothers would have to forgo early childbearing. Once this generational change had occurred, however, and the children had reached adulthood, the cost savings could be substantial. Because prison costs are only one third of total expenditures for all levels of law enforcement (U.S. Department of Justice 1992), the total savings to the criminal justice system could reach nearly $3 billion.

Figure 16

Incarceration of Young Men Born to Adolescent and Later Childbearers



Source: Adapted from Grogger (forthcoming).

Notably, the research indicates that delays in childbearing beyond age 21 would lead to even larger reductions in the incarceration rates of young men born to would-be adolescent childbearers. It also is clear from this analysis, however, that much of the high incarceration rates and related prison costs associated with adolescent childbearing results from other factors that are strongly related to or that compound the effects of adolescent childbearing. Thus, policies that successfully address adolescent childbearing as well as these other factors could lead to additional cost savings for the nation. Furthermore, if these young men spent less time in jail, they could contribute more to the support of their children.

The Economic Costs of Adolescent Childbearing

Adolescent childbearing has substantial impacts on the *sources* of financial resources available to a mother and her children but relatively modest impacts on the average overall *level* of support during her first 12 years of parenthood. Depending on the assumptions one makes regarding the life courses of would-be adolescent mothers, the study estimates that they would experience incomes between $900 and $10,000 a year more if they were to postpone their childbearing until age 20 or 21. In contrast, adolescent childbearing costs U.S. taxpayers between $6.9 billion and $18.6 billion a year, mainly the result of higher public-assistance costs, lower tax revenues, increased levels of child welfare, and higher criminal-justice costs. Moreover, adolescent childbearing lowers overall national productivity by between $8.9 billion and $28.8 billion a year, again depending on the assumed mechanisms used for achieving delay and on what related disadvantages are addressed simultaneously with achieving the delay, including disadvantages of the men who are fathering these children.

MEASURING THE COSTS OF ADOLESCENT CHILDBEARING

This study estimates the costs of adolescent childbearing from the perspective of three different groups: (1) adolescent mothers, (2) taxpayers, and (3) society as a whole. Each of the economic outcomes measured in the *Kids Having Kids* project was inventoried to establish the framework for assessing the economic consequences of adolescent childbearing. This framework recognizes the consequences of each outcome for each of the three groups (TABLE 10).[3]

The accounting framework was applied to a range of estimates that make different assumptions about the outcomes for would-be adolescent mothers if they delayed childbearing until their early 20s. The assumptions are that (1) their outcomes would be the same as those of women who

have their first child at age 20 or 21, regardless of the fact that the two groups differ in many respects other than the timing of first births; (2) outcomes would be similar to those of 20- or 21-year-old mothers, with controls for observable differences between the two groups; and (3) outcomes would resemble those of older mothers, with controls for observable and, to the extent possible, unobservable differences between the two groups.

Measuring Costs to Adolescent Mothers From the perspective of adolescent mothers, the consequences fall into four categories. The first is changes in *income from the mother's own employment.* This includes changes in earnings and the partially offsetting changes in income and consumption taxes. A second category pertains to *income from husbands and the fathers* of one's children. Adolescent childbearing affects the amount of income a mother can expect to receive from a husband—an outcome that depends both on the consequences of adolescent childbearing for the earnings of the husband and on the proportion of time the mother lives with the husband. Adolescent childbearing also influences the level of child support, both by affecting the probability of bearing a child out of wedlock and by altering somewhat the earnings patterns of nonmarital fathers.

The third category of consequences of adolescent childbearing from the perspective of the young mothers is *public assistance.* This includes changes in access to and reliance on Aid to Families with Dependent Children (AFDC), food stamps, public housing, and healthcare subsidies for children.[4] The final category of consequences pertains to the changes in direct *out-of-pocket costs of healthcare for children* that arise from differences in the healthcare needs of children born to adolescent versus older mothers and from different fertility rates.

This framework does not include direct estimates of the economic implications of *all* the consequences of adolescent childbearing. For example, it ignores possible differential access to a number of educational and training resources, such as student financial aid and publicly funded job training. It ignores changes in access to subsidized healthcare for the mother. Also, numerous adverse social consequences of adolescent childbearing have been excluded from the framework, since attaching dollar values to them is difficult. These consequences include outcomes such as higher rates of single parenthood, lower levels of educational attainment, and lower qualities of home environments.

Costs to Taxpayers The costs to taxpayers of adolescent childbearing fall into five categories. The first is *tax revenues* that reflect changes in productivity of the mothers and the fathers of their children (whether

Table 10

Framework for Assessing the Economic Consequences of Adolescent Childbearing

BENEFIT (COST) COMPONENT	IMPACT OF *POSITIVE* VALUES OF THE MEASURED CONSEQUENCE FROM THE PERSPECTIVE OF:		
	ADOLESCENT CHILDBEARERS	TAXPAYERS	SOCIETY
Mother's earnings	Gain	—	Gain
Mother's income and consumption taxes	Loss	Gain	Neutral
Father's earnings	—	—	Gain
Father's income and consumption taxes	—	Gain	—
Spouse's earnings	Gain	—	Gain
Spouse's income and consumption taxes	Loss	Gain	Neutral
Child support paid by nonresident father	Gain	Neutral	Neutral
AFDC benefits	Gain	Loss	Neutral
Food stamp benefits	Gain	Loss	Neutral
AFDC administrative costs	Neutral	Loss	Loss
Food stamp administrative costs	Neutral	Loss	Loss
Public housing	Gain	Loss	Neutral
Medical care	—	—	Loss
Paid by society	Neutral	Loss	—
Paid by parent	Loss	Neutral	—
Foster care	Neutral	Loss	Loss
Incarceration of young men	Neutral	Loss	Loss

Note: — means that the category of benefit or cost either does not apply or is captured in a super- or subcategory.

husbands or not). The second is *public assistance* expenditures (AFDC, food stamps, and public housing) and the costs of administering those programs.[5] The third through fifth categories of costs pertain to the public costs of addressing the adverse consequences of adolescent childbearing for children—*healthcare subsidies, foster-care* costs, and *criminal-justice* (prison) costs, respectively. In each of these cases, two sources of increased costs are associated with adolescent childbearing: (1) the worse health and social outcomes for children born to very young mothers as compared with children born to mothers in their early 20s and (2) the increased fertility rates associated with adolescent childbearing, which raise the number of children who experience the relatively poor (and costly) outcomes.

This framework does not include all potentially relevant costs to taxpayers for adolescent childbearing. For example, changes in the demand for secondary education and publicly funded higher education are not considered. So, too, adolescent childbearing is associated with higher levels of learning disabilities and social problems among children, which have implications for educational and social-service costs that are not captured in this framework.

Costs to Society The estimated social costs of adolescent childbearing pertain only to those measured consequences that reflect real changes in the resources available for consumption by the population at large—changes in the productivity of the mothers themselves, in the productivity of the fathers of their children, in the level of resources devoted to administering public assistance (but not public-assistance payments themselves), in the level of medical care provided to children, and in child-welfare and criminal-justice costs associated with higher foster-care placement and incarceration rates of children born to adolescent mothers.

The framework ignores a number of potentially important social costs factors. For example, it does not include the costs of administering the healthcare subsidies, the costs of child-welfare services other than foster care, or the costs of property damage and personal injuries that likely precipitate the higher incarceration rates among children of adolescent mothers. Finally, this framework ignores the intergenerational effects of adolescent childbearing on the productivity and social well-being of future generations.[6]

Source of the Component Cost Estimates The estimated costs of adolescent childbearing from each of the three perspectives are sensitive to the source of the outcome estimates. We present one set of estimates—*gross estimates*—that reflect the costs incurred by or the

benefits to adolescent mothers relative to later childbearers, not controlling for the fact that these two groups differ in important ways other than the timing of their childbearing decisions (no controls). In essence, these are the differences we observe when we simply look at the two groups of mothers and track their life courses. These estimates are derived in a manner conceptually similar to looking at the differences in outcomes represented in the first and last bars of the outcomes charts in previous sections of this synthesis (the columns reflecting outcomes for adolescent mothers and those for their later childbearing counterparts with no adjustments).

A second set of estimates—*Adjustment 1*—corresponds to those we would observe if we compared adolescent mothers with later childbearers whose family backgrounds were similar to their own (controlling for observed differences). These estimates are derived in a manner conceptually similar to looking at the differences in outcomes represented in the first and next-to-last bars in the outcomes charts in previous sections (outcomes for adolescent mothers versus those who are age 20 or 21 when they have their first child, assuming that the policies that led to the delayed childbearing also would compensate for some but not all differences between adolescent and later childbearers that could lead to better or worse outcomes).

The third set of estimates—*Adjustment 2*—is similar to the second except that, to the extent possible, the estimates also control for unobserved differences between adolescent and comparison mothers who were age 20 or 21 when they had their first child (controlling for observed and unobserved differences).[7] These estimates are derived in a manner conceptually similar to looking at the differences in outcomes represented by the first and second bars in the outcomes charts in previous sections (outcomes for adolescent mothers versus older mothers, assuming that the delay in childbearing would not also compensate for any of the other factors that contribute to their poor outcomes).

The estimates for the adolescent mothers reflect the cumulative net costs or benefits associated with their adolescent childbearing during their first 13 years of parenting. We have expressed this sum in March 1996 dollars, assuming that the adolescent mothers will discount future income at a rate of 5 percent per year. The estimates for the taxpayers and for society reflect the sum of costs in a single year for *all* adolescent mothers under age 29—an average of 13 cohorts of childbearers ranging in age from 16 to 28, on average. In these calculations, we have assumed that each cohort of adolescent childbearers is the same size as that in 1993 (175,259 first births to women under age 18).[8]

COSTS AND BENEFITS TO ADOLESCENT MOTHERS

Adolescent mothers do not suffer large economic losses as a result of their adolescent childbearing decisions. In fact, when scholars control for unobserved differences to the extent possible, they find that these adolescent mothers are only slightly worse off financially than if they had delayed childbearing until their early 20s (TABLE 11). Their life prospects are quite poor regardless of whether they delay childbearing or not.

Adolescent childbearers would have only slightly higher earnings during their first 13 years of parenthood if they delayed childbearing. But they would have substantially higher levels of support from the fathers of their children and from spouses. Thus, one of the most significant economic impacts is that the sources of their income will change. On average, those who give birth as adolescents will contribute slightly less themselves to the support of their family during their early years as parents while the fathers of their children and their spouses contribute considerably less than they would if the young mothers delayed their childbearing. Welfare largely compensates for the lower support from the parents, leaving the young mothers with only $919 less annually as a result of their decisions to become teen moms.

During their first 13 years of parenting, adolescent mothers receive substantially higher public-assistance benefits than would be the case if they delayed childbearing. They work only about 70 hours a year less than their later childbearing counterparts keeping their earnings roughly comparable. Their lower marriage rates and levels of support from the fathers of their children mean that higher proportions of them are eligible for public assistance and they receive benefits for a longer time.

Overall, with maximum controls for unobservable differences between adolescent and older mothers, adolescent mothers receive an average of $1,368 annually in public-assistance, even though their average annual earnings are only $366 less than expected had they delayed childbearing. In part, the higher public assistance costs can be attributed to adolescent childbearers' higher rates of single parenthood and relatively low rates of child support. They are also partly the result of these mothers' higher average fertility levels relative to the levels of slightly later childbearers.

The higher levels of public-assistance benefits to adolescent mothers are partially offset, however, by the $138 higher out-of-pocket and private-health-insurance costs for care of their children—largely a result of the higher fertility rates among adolescent childbearers.

Table 11

Estimated Benefits and Costs to Adolescent Childbearers of *Not* Delaying Parenting Until Age 20 or 21

(Costs Denoted by Parentheses)

BENEFIT OR COST COMPONENT	AVERAGE ANNUAL BENEFIT (COST)		
	GROSS[a] (No controls)	ADJUSTMENT 1[b] (Some controls)	ADJUSTMENT 2[c] (Full controls)
Own income	($3,363)	($2,493)	($366)
Income of spouse/father of child(ren)	($9,694)	($7,893)	($1,780)
Public assistance	$2,508	$2,106	$1,368
Out-of-pocket healthcare for children	$105	($122)	($138)
Total Annual Value	**($10,444)**	**($8,402)**	**($919)**
Cumulative net present value (13 years)	($135,778)	($109,217)	($11,950)

Note: These estimates are based on outcome and cost estimates reported in the various project studies. The estimates are based on a 13-year time horizon following the birth of the first child and reflect a 5 percent discount rate. All figures are in 1996 March dollars. Appendix Table A.3 presents greater detail on the components of the various categories of costs or benefits.

[a] These figures represent simple (unadjusted) differences in outcomes between those who have their first child before age 18 and those who have their first child between the ages of 20 or 21.

[b] These figures represent differences between observed outcomes for those who had their first child before age 18 and those who delayed childbearing until ages 20 or 21, controlling for observable background factors that are not expected to change as a result of adolescent childbearing. These estimates correspond to estimates of the costs or benefits associated with a policy that would both lead to a delay in adolescent childbearing and compensate for some, but not all, other factors that also tend to promote poor outcomes for young women and their children.

[c] These figures represent differences between observed outcomes for those who had their first child before age 18 and those who delayed childbearing until ages 20 or 21, controlling for differences in background between the adolescent and later childbearers as well as differences in other factors closely linked to adolescent childbearing. These estimates correspond to estimates of the costs or benefits associated with a policy that would result in a delay in childbearing but that would affect no other aspects of the young mothers' lives.

COSTS TO TAXPAYERS

By any measure, taxpayers pay a high price for adolescent childbearing. For example, based on the most highly controlled estimates of the consequences of adolescent childbearing, scholars estimate that each adolescent mother in this country costs U.S. taxpayers, over the 13 years following the birth of her first child, an average of $3,042 a year that could be saved if her childbearing had been delayed until age 20 or 21 (TABLE 12). In the aggregate over all adolescent childbearers, this totals $6.9 billion a year.

Of this annual total, more than $2.2 billion ($970 per adolescent mother) is the result of higher public assistance (AFDC and food stamps combined), and another $1.5 billion a year ($641 per adolescent mother) is spent on medical care for the children (TABLE 12). In addition, taxpayers spend an average of about $.9 billion a year ($404 per adolescent mother) on foster care and over $1 billion annually ($460 per adolescent mother) on prison costs that could be saved if adolescent childbearing were eliminated, even if little else changed in the lives of these young mothers. The combined impacts of adolescent childbearing itself on the earnings of the mothers and fathers costs taxpayers an estimated $1.3 billion less per year in lost tax revenues (or $556 per adolescent mother).

Using intermediate levels of controls for differences in the backgrounds of adolescent and 20- or 21-year-old mothers, the estimated cost to taxpayers of adolescent childbearing exceeds $13 billion a year. That is, if we could not only delay adolescent childbearing but also address some of the other measured social and environmental forces that contribute to the poor outcomes of the adolescent mothers, the steady-state payoff to the taxpayers could reach this higher level.

The unadjusted (gross) estimates of the costs to taxpayers provide the upper limit of the potential gains of not only successfully combating adolescent childbearing but also eliminating or otherwise fully compensating for other differences between adolescent and later childbearers that contribute to the poor observed outcomes for the adolescent mothers. This figure totals an average of about $8,160 per year per adolescent mother or nearly $19 billion a year aggregated across all adolescent mothers who are in their first 13 years of parenthood.

COSTS TO SOCIETY

The cost of adolescent childbearing to society includes resources that are diverted to mitigate problems associated with adolescent childbearing—in our estimates, the costs of administering welfare programs, providing foster care, and building and maintaining prisons. Costs to society also include the parent's changes in productivity that are attributed to the

Table 12

Estimated Costs to Taxpayers for Adolescent Childbearing

($Billions, March 1996 dollars)

COST COMPONENT	ESTIMATED METHOD		
	GROSS[a] (No controls)	ADJUSTMENT 1[b] (Some controls)	ADJUSTMENT 2[c] (Full controls)
Annual Taxper			
Tax revenues	$5.1	$3.8	$1.3
Public assistance expenditures	$5.6	$4.5	$2.2
Health care costs for children	$1.1	$1.3	$1.5
Foster care costs	$1.2	$1.1	$0.9
Criminal justice costs	$5.6	$2.6	$1.0
Total annual cost ($billions)	**$18.6**	**$13.3**	**$6.9**
Annual cost per adolescent parent	$8,160	$5,825	$3,042

Note: These estimates are based on outcomes and costs reported in the various project studies. They have been constructed based on undiscounted values estimated for a 13-year time horizon for the early childbearers. The average annual undiscounted value per person has been used as the basis for calculating the average annual cost for mothers who began their families as young teen (under age 18) at some point during the last 13 years. We have assumed that each of the 13 cohorts contains 175,259 mothers, a number equal to the number of women under age 18 who had their first child in 1993. Appendix Table A.4 presents greater detail on the components of the various categories of costs or benefits.

[a] These figures represent simple (unadjusted) differences in outcomes between those who have their first child before age 18 and those who have their first child between the ages of 20 or 21.

[b] These figures represent differences between observed outcomes for those who had their first child before age 18 and those who delayed childbearing until ages 20 or 21, controlling for observable background factors that are not expected to change as a result of early childbearing. These estimates correspond to estimates of the costs or benefits associated with a policy that would both lead to a delay in adolescent childbearing and compensate for some, but not all, other factors that also tend to promote poor outcomes for young mothers and their children.

[c] These figures represent differences between observed outcomes for those who had their first child before age 18 and those who delayed childbearing until ages 20 or 21, controlling for differences in background between the adolescent and later childbearers as well as differences in other factors closely linked to adolescent childbearing. These estimates correspond to estimates of the costs or benefits associated with a policy that would result in a delay in childbearing but that would affect no other aspects of the young mothers' lives.

Table 13

Annual Costs to Society of Adolescent Childbearing

(Costs Denoted by Parentheses)

COST COMPONENT	ESTIMATED METHOD		
	GROSS[a] (No controls)	ADJUSTMENT 1[b] (Some controls)	ADJUSTMENT 2[c] (Full controls)
Annual Social			
Productivity of mothers	$13.6	$9.9	$1.3
Productivity of fathers	$8.6	$6.5	$4.3
Public assistance administration	$0.2	$0.2	$0.1
Increased medical care for children	$0.4	$1.0	$1.3
Foster care costs	$1.2	$1.1	$0.9
Criminal justice costs	$5.6	$2.6	$1.0
Total annual cost ($billions)	**$28.8**	**$21.3**	**$8.9**
Annual cost per adolescent parent	$12,645	$9,349	$3,918

Note: These estimates are based on outcomes and costs reported in the various project studies. They have been constructed based on undiscounted values estimated for a 13-year time horizon for the early childbearers. The average annual undiscounted value per person has been used as the basis for calculating the average annual cost for mothers who began their families as young teenage mothers (under age 18) at some point during the last 13 years. We have assumed that each of the 13 cohorts contains 175,259 mothers, a number equal to the number of women under age 18 who had their first child in 1993. Table A.4 presents greater detail on the components of the various categories of costs or benefits.

[a] These figures represent simple (unadjusted) differences in outcomes between those who have their first child before age 18 and those who have their first child between the ages of 20 or 21.

[b] These figures represent differences between observed outcomes for those who had their first child before age 18 and those who delayed childbearing until ages 20 or 21, controlling for observable background factors that are not expected to change as a result of early childbearing. These estimates correspond to estimates of the costs or benefits associated with a policy that would both lead to a delay in early childbearing and compensate for some, but not all, other factors that also tend to promote poor outcomes for young mothers and their children.

[c] These figures represent differences between observed outcomes for those who had their first child before age 18 and those who delayed childbearing until ages 20 or 21, controlling for differences in background between the adolescent and later childbearers. These estimates correspond to estimates of the costs or benefits associated with a policy that would result in a delay in childbearing but that would affect no other aspects of the young mothers' lives.

adolescent childbearing; these are generally estimated to be sizable negative effects for the fathers (because of education and work effort effects) and slightly negative for the mothers. The latter result reflects the fact that adolescent mothers work only slightly less than their later childbearing counterparts once researchers control for background and other factors closely linked to early childbearing.

Using estimates that, to the extent possible, control for unobserved differences between adolescent and later childbearers, the study estimates that the social costs of adolescent childbearing total $8.9 billion in 1996 dollars (TABLE 13). This is the estimated amount by which the social welfare of the nation would increase if 13 years ago society had successfully implemented a policy that delayed childbearing until adolescents reached the age of 20 or 21 but did not at the same time address the myriad other factors that contribute to the poor outcomes.

The major contributors to the social costs of adolescent childbearing are those associated with the productivity of the fathers and with the care and discipline of the children of adolescent mothers, relative to the level of resources required had childbearing been delayed. On average, the study estimates roughly $1.3 billion per year ($551 for each adolescent mother under the age of 29) is devoted to increased medical-care for the children; $.9 billion ($404 per adolescent mother) to higher rates of foster care placements; and $1 billion ($460 per adolescent mother) to higher prison costs—all costs that would be avoided if childbearing were delayed until age 20 or 21. The adolescent mothers appear not to suffer major adverse labor-market effects as a result of their early childbearing (only about $555 per year). In contrast, the fathers of their children earn about $1,907 less per year than would be the case if the mothers delayed childbearing until age 20 or 21. The net result is an estimated $5.6 billion annual less in worker productivity due to adolescent childbearing.

A hypothetical policy that not only delayed childbearing but also addressed some of the related factors that contribute to poor outcomes for adolescent mothers would save $21 billion a year in social costs (although such a policy would be costly to implement). Such a policy would have a stronger effect on the earnings of the fathers of the children born to adolescent mothers than would a policy that simply addressed the adolescent childbearing but did not deal with these related factors. In a perfect world in which we could fully compensate for or eliminate all differences between adolescent and later childbearers, the net gain to society in higher productivity and lower public assistance and social service costs would approach $29 billion annually.

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Footnotes

[1]As of 1993, only 28 percent of births to teenagers occurred within the marriage (Moore, Snyder, and Glei 1995).

[2]The estimate of out-of-wedlock childbearing for the study sample was 15 percent both for adolescent childbearers and for later childbearers who were born to teenage mothers. In view of the rapid rise in the population of teen births that are out of wedlock, the results of a more current sample than the one available for this study (a sample of teenagers in the late 1970s and early 1980s) would be quite different.

[3]The framework is not comprehensive in that we have omitted many possible costs (and a few benefits for the adolescent childbearers) because they were not a focus of the project studies. In most cases, the fact that certain costs were not estimated reflects the inadequacies of available data to address the outcomes.

[4]The project studies did not provide detailed estimates of the effects of adolescent childbearing on costs and subsidies for healthcare provided to the mothers.

[5]This category does not include healthcare and administrative costs for the mother, since the research did not address maternal health outcomes.

[6]Haveman et al. (forthcoming) provides clear evidence that adolescent childbearing imposes costs on those among the next generation of young adults who were born to adolescent mothers. These costs are relatively straightforward to measure. It is more challenging to extrapolate from the estimated outcomes for individuals to the second-generation costs for society, however. This is because adolescent childbearing increases fertility and so expands the size of the next generation's workforce at the same time it changes the skills composition. Untangling these components of social benefits and costs was beyond the scope of the *Kids Having Kids* project.

[7]As noted above, only two of the project studies controlled for observed and unobserved differences between adolescent and later childbearers. In computing the cost estimates, we have sometimes combined the estimates from studies that were and were not able to control for unobservables. For example, we combined estimates of outcomes for children (not controlling for unobservable differences between adolescent and later childbearers) with estimates of the effects of adolescent childbearing on fertility patterns (controlling for observable and unobservable differences) to obtain an estimate of the aggregate effects of the outcome per mother rather than per child.

[8]This assumption about the cohort size likely will tend to overstate current costs, insofar as this figure exceeds the average cohort size over the past 13 years. It understates future costs, insofar as the size of the teenage parent population has been increasing in recent years. A more precise estimate would entail both making population projections and projecting future trends in the teenage birth rate.

Appendix: Supplementary Tables

Table A.1

Control Variables Used in the Analyses

VARIABLE	STUDY						
	HOTZ, McELROY & SANDERS	BRIEN & WILLIS	MOORE, MORRISON & GREENE	WOLFE & PEROZEK	GOERGE & LEE	GROGGER	HAVEMAN, WOLFE & PETERSON
Demographic Characteristics							
Marital Status		✓**		✓			
Race/ethnicity	✓	✓**	✓**	✓	✓	✓	✓
AFQT	✓	✓					
Child's Age			✓**	✓**		✓	
Birth Order				✓	✓	✓	✓
Mother's age at birth	✓**	✓**	✓**	✓**	✓**	✓*	✓
Family Background							
Living arrangement as teen	✓	✓	✓				✓
Mother's education	✓	✓	✓				✓
Father's education	✓	✓					✓
Mother's achievement test score							✓
Family income	✓						
Years lived in poverty							✓
Mother on welfare/family in poverty	✓						✓
Religion		✓					✓
Number of children				✓		✓	
Home resources		✓					
Other							
Region of residence		✓		✓	✓	✓	
Child's health			✓				
Birth year					✓	✓	
State per capita spending on family planning							✓
Neighborhood unemployment rate							✓
State maximum welfare benefits							✓

Notes: * indicates that the variable was used only in models that included correction for selection bias; ** indicates variable was used as a subgroup identifier.

Table A.2

Simulation Estimates of the Costs of Prior Teenage Childbearing

(March 1996 Dollars)

	SINGLE-YEAR COST ($BILLIONS)	SINGLE-BIRTH COST 20-YEAR HORIZON ($1,000s)	ANNUAL COHORT, 20-YEAR HORIZON ($BILLIONS)
Gross costs[a]	$29.9	$21.6	$8.6
Net costs[b]	$12.4	$8.6	$3.5

Source: M. Burt (1992), "Estimates of public costs for teenage childbearing: A review of recent studies and estimates of 1985 public costs" (Washington, D.C.: Center for Population Options), Exhibits 2–4. The methodology used to generate these estimates is detailed in M. Burt and D. Haffner (1986), "Teenage childbearing: How much does it cost?" (Washington, D.C.: Center for Population Options). Numbers have been adjusted to March 1996 dollars, based on the Consumer Price Index-Urban.

[a] Gross costs include AFDC payments, food stamps, Medicaid costs, and welfare administration costs. They do *not* include other costs, such as those associated with public housing, special education, child protective services, foster care, day care, or other social services.

[b] Net costs assume that 60 percent of the outlays for AFDC, food stamps, and Medicaid to teenage parents would have been made to those women even if they had delayed childbearing until age 20. This assumption was derived from the observation that average public assistance dependency rates were 60 percent as high for those having their first child after age 19 as for those having their first child as a teenager (see K. A. Moore and R. F. Wertheimer (1984), "Teenage childbearing and welfare: Preventive and ameliorative strategies," *Family Planning Perspectives* 16, (November–December): 285–289.

Table A.3

Average Annual Discounted Differences in Outcomes Between Adolescent and Later Childbearers

(First 13 Years of Parenthood)

BENEFIT OR COST COMPONENT	ESTIMATION MODEL		
	GROSS DIFFERENCES[a] (No controls)	ADJUSTMENT 1[b] (Some controls)	ADJUSTMENT 2[c] (Full controls)
Own Income			
Earnings	($4,368)	($3,237)	($474)
Income and consumption taxes	$1,004	$745	$109
Income From Spouses and Fathers of Children			
Spouse's earnings	($13,015)	($10,442)	($2,339)
Spouse's taxes	$2,993	$2,402	$538
Child support	$328	$146	$21
Public Assistance			
AFDC benefits	$734	$640	$507
Food stamp benefits	$397	$318	$129
Public housing	$738	$514	$44
Medical care paid by society	$639	$635	$688
Out-of-Pocket Medical Care for Children			
Medical care paid by respondent	$105	($122)	($142)

Note: Values are expressed in March 1996 dollars. All figures are discounted at 5 percent per year. Discounted values were used only in the calculation of benefits and costs from the perspective of the young mothers. Since the young mothers do not bear the financial costs of either foster care or incarceration of their male children, we have not included these cost elements in the table of discounted figures.

[a] These figures represent simple (unadjusted) differences in outcomes between those who had their first child before age 18 and those who had their first child at age 20 or 21.

[b] These figures represent differences between observed outcomes for those who had their first child before age 18 and those who delayed childbearing until age 20 or 21, controlling for observable background factors that are not expected to change as a result of early childbearing. These estimates correspond to estimates of the costs or benefits associated with a policy that would both lead to a delay in adolescent childbearing and compensate for some, but not all, other factors that also tend to promote poor outcomes for young women and their children.

[c] These figures represent differences between observed outcomes for those who had their first child before age 18 and those who delayed childbearing until age 20 or 21, controlling for differences in backgrounds between the adolescent and older childbearers as well as differences in other factors closely linked to adolescent childbearing. These estimates correspond to estimates of the costs or benefits associated with a policy that would result in a delay in childbearing but that would affect no other aspects of the young mothers' lives.

Table A.4

Average Annual Undiscounted Differences in Outcomes Between Adolescent and Later Childbearers

(First 13 Years of Parenthood)

BENEFIT OR COST COMPONENT	ESTIMATION MODEL		
	GROSS DIFFERENCES[a] (No controls)	ADJUSTMENT 1[b] (Some controls)	ADJUSTMENT 2[c] (Full controls)
Productivity and Tax Revenues			
Earnings	($5,978)	($4,367)	($555)
Income and consumption taxes	($1,375)	($1,004)	($127)
Father's earnings (married and nonmarried)	($3,775)	($2,841)	($1,907)
Father's taxes (married and nonmarried)	($868)	($653)	($438)
Public Assistance Payments and Administration			
AFDC benefits	$914	$793	$591
Food stamp benefits	$522	$42	$150
AFDC administrative costs	$46	$40	$29
Food stamp administrative costs	$26	$21	$7
Public housing	$762	$543	$117
Medical care paid by society	$432	$566	$641
Other			
Medical care paid by respondent	($645)	$715	($90)
Foster care	$496	$455	$374
Incarceration of young men	$2,269	$1,051	$424

Note: Values are expressed in March 1996 dollars. All figures are discounted at 5 percent per year. Discounted values were used only in the calculation of benefits and costs from the perspective of the young mothers. Since the young mothers do not bear the financial costs of either foster care or incarceration of their male children, we have not included these cost elements in the table of discounted figures.

[a] These figures represent simple (unadjusted) differences in outcomes between those who had their first child before age 18 and those who had their first child at age 20 or 21.

[b] These figures represent differences between observed outcomes for those who had their first child before age 18 and those who delayed childbearing until age 20 or 21, controlling for observable background factors that are not expected to change as a result of early childbearing. These estimates correspond to estimates of the costs or benefits associated with a policy that would both lead to a delay in adolescent childbearing and compensate for some, but not all, other factors that also tend to promote poor outcomes for young mothers and their children.

[c] These figures represent differences between observed outcomes for those who had their first child before age 18 and those who delayed childbearing until age 20 or 21, controlling for differences in backgrounds between the adolescent and older childbearers as well as differences in other factors closely linked to adolescent childbearing. These estimates correspond to estimates of the costs or benefits associated with a policy that would result in a delay in childbearing but that would affect no other aspects of the young mothers' lives.

Table A.5

Sources of Economic Support for Adolescent and Later Childbearers, by Source

SOURCE OF SUPPORT	ADOLESCENT CHILDBEARERS	LATER CHILDBEARERS (AGES 20 OR 21)	
		WITH CONTROLS	NO CONTROLS
Average Annual Outcomes During the First 15 Years of Parenthood			
Own Earnings	30.2%	30.3%	29.4%
Earnings of spouse	46.9%	55.7%	64.9%
Child support[a]	4.2%	3.7%	1.1%
AFDC	6.9%	3.7%	1.4%
Food stamps	3.8%	2.8%	0.8%
Medical assistance[b]	8.1%	3.8%	2.3%
Total	100.1%	100.0%	99.9%
Average Annual Outcomes During Young Adulthood (Ages 19 to 30)			
Own Earnings	31.8%	29.5%	30.5%
Earnings of spouse	48.0%	52.3%	59.7%
Child support	3.9%	4.6%	1.7%
AFDC	4.5%	4.0%	1.7%
Food stamps	2.8%	2.9%	0.9%
Medical assistance	9.0%	6.7%	5.5%
Total	100.0%	100.0%	100.0%

Source: Except as noted, these data are adapted from J. Hotz, S. McElroy, and S. Sanders (forthcoming), "Mothers: Effects of early childbearing on the lives of the mothers," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard (Washington, D.C. Urban Institute Press) and reported in Tables 5 and 6 above. Control variables included in the models are listed in Appendix Table A.1.

[a] Estimates are derived from M. Brien and R. Willis (forthcoming), Fathers: Costs and consequences of early childbearing for the fathers, the young mothers, and their children," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard (Washington, D.C. Urban Institute Press). They assume that support awards average 17 percent of the father's income for the first child, that total awards are half that amount for subsequent children, and that awards are issued and paid in only 30 percent of the cases. They also assume that 81 percent of births to early childbearers are out of wedlock. The rate is 42 percent for those observed to delay childbearing until ages 20 or 21, and it would be midway between those two rates (61.5 percent) if we controlled for basic demographic differences between early and later childbearers.

[b] Estimates are derived from B. Wolfe and M. Perozek (forthcoming), "Health: Early childbearing's costs to society for health and medical care of the children," in *Kids Having Kids: The Costs and Social Consequences of Teen Pregnancy*, ed. R. Maynard (Washington, D.C. Urban Institute Press). The estimates, which include only publicly supported medical assistance, assume that the average subsidies per child pertain to all children born to mothers under the various scenarios (2.6 children if she has her first child while under age 18; 2.0 children if she delays childbearing and we compensate for or otherwise equalize circumstances other than basic family circumstances; 2.1 children if she delays childbearing and we fully compensate for all differences between her and her counterparts who delay childbearing until their early 20s, including compensating for her family demographics.

ABOUT THE ROBIN HOOD FOUNDATION

The Robin Hood Foundation was created as a public charity in 1988 to find, fund and provide management help to the best and most innovative programs serving poor people in New York City. Since then, the foundation has provided more than $35 million in money, volunteer resources and material goods to these programs. Robin Hood has supported a wide range of poverty-fighting projects, including housing for the homeless, medical help for the sick, job training for the jobless, hospice care for people with AIDS, drug treatment for the addicted, and soup kitchens for the hungry.

But, from the very beginning, Robin Hood's primary aim was—and continues to be—to develop the best programs and schools for young children and teenagers living in poverty. In the course of visiting and working with hundreds of youth programs, Robin Hood has observed first hand the pervasive and damaging impact of adolescent childbearing in the city's very poorest communities. The foundation has also witnessed the profound impact of programs that help children delay parenthood until they grow up, graduate from school, get married and become emotionally and financially ready to rear children of their own. Through its very direct community-level work, Robin Hood has increasingly explored the larger dimensions of adolescent childbearing in New York City and the nation. In this context, the foundation commissioned this report on the costs and consequences of adolescent childbearing.

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Vol. 5 No. 2 Summer/Fall 1995

THE URBAN INSTITUTE

Policy and Research Report

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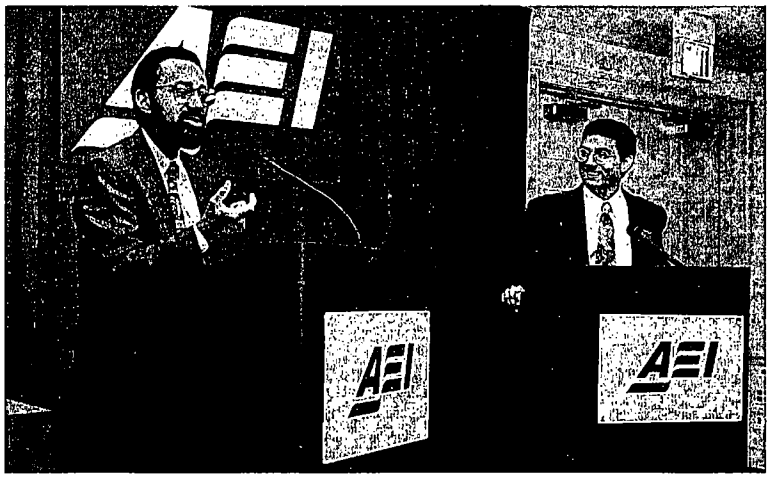
American Enterprise Institute for Public Policy Research

AEI

October 1995

Newsletter

A Debate on Affirmative Action Policies



Christopher Edley, Jr., and Dinesh D'Souza

"Ever since the 1960s there has been an assumption in our public discourse that racial groups are fundamentally the same in their endowments and capacities. This has led us to expect that equality of rights for individuals will lead to equality of results for groups. A generation after passage of the Civil Rights Laws, we now have plenty of empirical evidence that this is not so. Yet it remains the basis of much American social policy."

So asserted Dinesh D'Souza, John M. Olin Research Fellow, at AEI's September 13, 1995, debate on affirmative action policies. Mr. D'Souza, the author of *The End of Racism: Principles for a Multicultural Society* (Free Press, 1995), debated Christopher Edley, Jr., professor of law, Harvard University, and coauthor of President Clinton's *Affirmative Action Review* (July 1995) as part of the Institute's Amgen Forum, a series of public policy debates, lectures, and conferences sponsored by Amgen, Inc.

"The pernicious effects of affirmative action are threefold," Mr. D'Souza continued. "First, policies that were put into place to fight discrimination now

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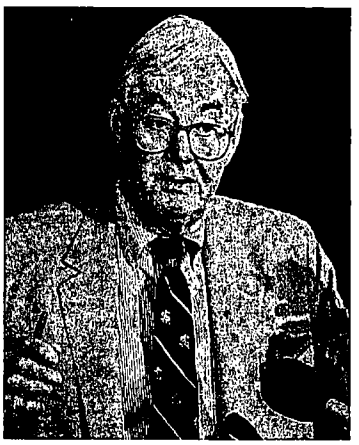
Can Welfare Reform Reduce Illegitimacy?

"The ratio of illegitimate to legitimate births in the United States was about 4 percent in 1940. It then began to rise in an exponential curve that looks like a jet plane taking off. According to this curve, the rate will get to 50 percent by the year 2004."

So asserted Senator Daniel Patrick Moynihan (D-N.Y.) in his keynote address to AEI's September 11 conference, "Addressing Illegitimacy: Welfare Reform Options for Congress," organized by Douglas J. Besharov, resident scholar.

Describing the rise of illegitimacy as "an unprecedented change in our social structure," Senator Moynihan warned that if legislative proposals to end the federal commitment to poor families become law, "within ten years you are going to find children sleeping on heating grates" the way the adult homeless now do.

"Children born out-of-wedlock are more likely to drop out of school, to have lower test scores and grades, to become teenage parents, and to have criminal justice encounters," according to Rebecca Maynard, senior vice-president, Mathematica Policy Research, Inc. "But there is no evidence that welfare promotes larger family sizes or that the rate of out-of-wedlock childbearing corresponds to generosity of benefits," she added.



Sen. Daniel P. Moynihan

C. Rudolf Myers, director,

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March 1996