

Introduction

Investing in Children: What Do We Know? What Should We Do?

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When the National Science Foundation (1996, 1) announced the “Human Capital Initiative: Investing in Human Resources,” it noted that

the human capital of a nation is a primary determinant of its strength. A productive and educated workforce is a necessity for long-term economic growth. Worker productivity depends on the effective use and development of the human capital of all citizens, which means that schools, families, and neighborhoods must function effectively. Unfortunately, there is substantial evidence that the United States is not developing or using the skills of its citizens as fully as possible. Only if the United States invests wisely in its human resources will it be able to maintain its place in a global economy where human creativity and human skill are increasingly more important than raw materials or physical infrastructure.

The chapters in this volume review what we know about the processes that affect child development and how we might wisely increase public and private investments in children to promote both their well-being and the productivity of the next generation. In October 1998, we convened scholars, policymakers, and practitioners to address this challenge. The conference, held at Columbia University and sponsored by the Ford Foundation’s Program on Asset Building and Community Development, brought together psychologists, economists, sociologists, demographers, political scientists, social workers, and physicians. We began by examining current investments in children and how they affect the development of the skills and competencies children will need to succeed as adults in work, family, and

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society. Then we reviewed and synthesized what we have learned about childhood interventions from birth to college and what further investments in children are required, especially for disadvantaged children.

The chapters follow the life cycle, from early childhood through the school-age years, until the period when youth make the transition from high school to work and/or college. By focusing on childhood and adolescence, we emphasize those factors—families, neighborhoods, school systems, and government interventions—that affect the intergenerational transmission of well-being. If investing in children is as important to both individuals and the nation as the National Science Foundation report concludes, then equality of opportunity will not become a reality until all children are provided with enhanced opportunities to maximize their potential. The years we study are critical because they set the stage for adult success, or failure, in the labor market, family life, and so on.

Recent advances in brain research emphasize the importance of the earliest experiences in life. The brain grows very rapidly in the first three to five years, and what happens at this time shapes cognitive and socioemotional development (see, for example, Shore 1997). Recent social science research has documented the processes through which families, schools, neighborhoods, and government programs and policies interact to affect developmental outcomes (see, for example, Brooks-Gunn, Duncan, and Aber 1997; and Duncan and Brooks-Gunn 1997). The chapters in this volume summarize and extend research on these topics.

A major theme of the volume is how the high rate of child poverty and persistent racial residential segregation restrict access to investments in poor children and racial-ethnic minority children. These children face greater than average developmental obstacles, yet we tend to invest fewer than average resources in them. Another cross-cutting theme is the need to consider factors such as gender, race, and ethnicity in thinking about appropriate investments for children. The United States is becoming ever more diverse, and an increasing share of children are immigrants or have parents who are immigrants. If interventions are to be successful, they must be responsive to the diverse needs of children. In fact, several authors emphasize the need in some areas for programs that differentially target girls, African Americans, African American males, children living in neighborhoods of concentrated poverty, or Latinos, especially immigrants.

The authors review what we know about effective interventions throughout childhood and how to evaluate that knowledge and formulate effective strategies for expanding investments in children and adolescents from birth to college. In the concluding section of this introduction, we outline our views regarding a number of key investments.

A successful strategy for investing in children must incorporate American values and beliefs about government interventions. Americans have always been more favorably inclined to invest in children as a way to promote equal opportunity and reduce poverty in the next generation of adults than they have been to redistribute resources to reduce labor market disadvantages and poverty among adults. President Lyndon Johnson, in declaring the War on Poverty, promised “a hand up and not a hand out.” It has been and remains the case that increasing or even maintaining public spending on cash transfers for the disadvantaged is more

difficult than increasing spending on educational, nutrition, or medical care programs on their behalf.

Although service-oriented programs for disadvantaged children tend to be popular, federal budgetary rules, congressional politics, and public opinion now make it more difficult than in the past to garner support for any major initiatives. Thus, the authors' goal is to demonstrate that the policies discussed here represent sound investments in the productivity of the next generation.

A consensus has recently emerged among economists, developmentalists, and others that investments in early childhood are cost-effective. For example, a recent review (Karloly et al. 1998) found that a variety of early intervention programs have been successful in improving cognitive development and other outcomes for children. Several chapters in this volume provide further evidence on this point. In contrast, there is controversy about the cost-effectiveness of "second-chance" interventions to promote educational attainment among high school dropouts, welfare recipients, and other disadvantaged workers. For example, James Heckman (1996, 10), the author of chapter 2, has concluded that "adults past a certain age and below a certain skill level make poor investments." Lisa Lynch (1997, 16), the author of chapter 1, has challenged this conclusion: "However, this [discouraging evidence] does not mean that we should eliminate funding for all training programs. Instead we should be analyzing the most cost effective ways to improve the assistance to various 'at risk' groups so that they are successfully lifted out of poverty." Several chapters in this volume review the most recent evidence on promising second-chance programs and suggest how they can be further improved. The research evidence supporting early interventions is more favorable, and the political support is also greater. Investments in early childhood are seen as prudent because they come at an opportune time and because they can yield lasting benefits. The report of the Council of Economic Advisers (1997, 22) entitled "The First Three Years: Investments That Pay" reaffirmed the importance of early intervention:

Scientists and educators have identified the first three years of life as a time when children have "fertile minds." Efforts to help children during these years are especially fruitful. Because of the long-lasting effects, early investments can have big payoffs. They avert the need for more costly interventions later in life, and so contribute to happier, healthier, and more productive children, adolescents, and adults.

The chapters that follow review what is known about investments in physical, social, and cognitive development from birth through young adulthood, based on research and "best program practices," and then derive implications for scholarly research and for programs and public policies.

OVERVIEW OF THE BOOK

The chapters are organized chronologically, according to the life cycle. After two introductory chapters, two chapters focus on early childhood development, three

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examine school-age outcomes, and three analyze the transition from high school to work and/or college. The authors emphasize how, depending on the stage of the life cycle, developmental, school, and labor market outcomes are affected by family, school, neighborhood, and public policy inputs and interventions.

Current Investments in Children

The two chapters in part I provide background on the extent of current investments in children and what they have both accomplished and failed to accomplish. They analyze aggregate trends in educational outcomes and the returns from various intervention programs.

Lisa Lynch documents the scope of investments in children and the extent to which outcomes for children and adolescents have declined in recent years. Because employers increasingly value skills and favor workers with education and training beyond high school, young people who leave school with a high school degree or less have found it harder to get jobs, especially ones that provide good wages and benefits. As the workplace continues to become more technologically advanced, employer demands for workers with literacy and numeracy skills have increased. Yet 20 percent of young workers lack even basic math skills. (The corresponding figure for most European countries is 5 percent.) The fault, according to Lynch, lies not just with the schools but also with the environments in which children are being raised. More children are living with single and/or working parents who have less time to spend with them than families did in the past. Fewer children are participating in extracurricular activities, and more are living in neighborhoods where violence threatens their safety.

Lynch notes, however, that several trends present opportunities as well as challenges. Consider the increased share of young children whose mothers are working in the labor market. Although this trend may reduce the amount of time that parents devote to their children, it poses an opportunity to provide young children with valuable experiences in early childhood education—that is, if access to child care and preschools of sufficiently high quality can be increased. The effects of maternal employment may be positive if working mothers are satisfied and challenged in their jobs and can thus provide a more stimulating environment for their children. However, these effects may be negative if mothers are stressed and fatigued by their jobs and devote less attention to their children.

Another challenge that embodies an opportunity is the growing share of children whose first language is not English. This trend challenges schools to devise programs to help these children succeed in school, but it also creates opportunities in that these children, because of their dual language skills, will be well positioned to compete in the globalized labor market.

Lynch emphasizes three main findings. First, education begets education, and education begets training. Those who complete more education initially are more likely to seek additional education and additional training. Second, education begins at home. The educational level of a child's parents is a primary determinant

of how much education that child will get and how well she or he will do in school. Investments in parents' human capital not only raise their workplace productivity but also make them better teachers for their children. A government policy that focuses only on education and training for children will be ineffective if similar investments are not made in the parents. Third, individuals and employers, on their own, are likely to underinvest in children. Therefore, government policies that subsidize education and training are needed to offset private underinvestment.

James Heckman and Lance Lochner evaluate the issue of when in the life cycle investments in children's development are most effective and conclude, given our experience to date, that returns are highest in early childhood. As a result, their top priority is to expand investments during the preschool years. They reinforce the evidence presented in part II that the preschool years are very important for the development of cognitive skills, social skills, and motivation, and that early intervention programs can foster the development of these competencies.

Well-designed early intervention programs, according to Heckman and Lochner, are a more cost-effective investment than the ones that have garnered the largest share of public investment in education and training—"second-chance" programs for school-leavers and dropouts. For instance, investments that prepare children to enter school ready and motivated to learn have greater effects than additional investments in school resources, such as higher teacher salaries or reductions in class size. Heckman and Lochner also conclude that the returns to further subsidizing the costs of college are limited. They find that the lower college enrollment rates for youths from low-income families are due more to the youths' early educational experiences, which inhibited skills and motivation, than to financial constraints at the point of college entry. Investing in children at an early age has the advantage that the returns to those investments are cumulative over time—those who have higher levels of skills at kindergarten benefit more from later schooling and training.

Heckman and Lochner emphasize the higher returns of early investments relative to those at later ages, but they do find that some programs for school-age children and adolescents have been cost-effective. In particular, they report positive effects of some mentoring programs (such as the national Big Brothers/Big Sisters program and Philadelphia Futures' Sponsor-A-Scholar program) and some dropout prevention programs (such as the nationwide Quantum Opportunity Program). These programs raise young people's motivation and change their school attendance and other behaviors to a greater extent than they improve measured cognitive ability. Nor should investments stop after high school dropout or graduation—Heckman and Lochner conclude that additional private (as opposed to public) training for young adults who have completed their schooling would be beneficial.

Process of Early Childhood Development

The two chapters in part II focus on the processes of early childhood development and the impact of family and neighborhood resources and parenting practices

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on child well-being. They advocate expansion of the number of children served by programs that have been shown to be most effective.

Barry Zuckerman and Robert Kahn review the social and biological pathways that influence children's early health and development. Understanding these pathways, especially their effect on early brain development, is critical because the developmental foundation for the skills that children need to succeed in later years is laid during these years.

Zuckerman and Kahn emphasize the influences of maternal health and document how adverse social conditions, such as poverty, can be conveyed to children prenatally through maternal health-related behaviors or conditions such as smoking, substance use, folate deficiency, or bacterial vaginosis. The influence of maternal health continues into early childhood. Maternal depression has long been identified as a risk factor for children's cognitive development and behavioral adjustment. Children who witness domestic violence are at risk of emotional and behavioral problems; this may also be true of children who witness violence in their communities. The influence of fathers and paternal health has been less studied, but fathers' smoking, alcohol use, and obesity all affect child outcomes. Environmental factors, such as a shortage of dietary iron or exposure to lead, are also correlated with poverty and can place children at risk.

Zuckerman and Kahn call for expanded provision of comprehensive health services and new models of service delivery, including home visits to women of childbearing age, beginning before conception and continuing after birth. Particular attention should be given to providing services for low-income women whose children are at elevated risk of poor outcomes.

They also emphasize the connection between reading and early childhood development. Although reading was once thought to be a separate skill that children learned when they entered school, it is now understood that reading skills develop early in childhood and depend to a larger extent than previously thought on early environmental influences. Reading out loud to children, beginning as early as six months old, is probably the most effective intervention for developing literacy skills. Children from low-income families start out with disadvantages compared to those in higher-income families because they are less likely to be read to and because they grow up with fewer books in their homes. Zuckerman and Kahn call for increased investment in early childhood literacy promotion, especially programs such as Reach Out and Read that target both parents and children from low-income families.

Sharon Landesman Ramey and Craig Ramey examine the connections between early childhood experiences and developmental competencies. They emphasize two points: that experience matters and that providing the right experiences at the right developmental stages can enhance children's competencies. Both of these points apply with particular urgency to early childhood, given recent findings from brain research.

To grow and develop normally across a range of competencies, all children need what Ramey and Ramey call "psychosocial developmental priming mechanisms." These mechanisms include experiences that support development through activities such as encouraging exploration, rehearsing new skills, and guiding and lim-

iting children's behavior. When children in low-resource environments do not have these experiences, their development suffers. As a result, early intervention programs that provide these experiences (through models such as Partners for Learning) can improve child development, particularly when they are well-designed, intensive, high-quality programs that target high-risk children. Gains seem to last longer when children receive follow-up services or enter schools that are at least reasonably supportive. Well-designed out-of-home programs, such as the Perry Preschool Project in Ypsilanti, Michigan, the Infant Health and Development Program (IHDP) in various states nation wide, and the Abecedarian Project in Chapel Hill, North Carolina, have demonstrated that they can compensate for experiences children do not receive at home.

However, poor-quality out-of-home programs can compromise children's development. This is a concern given that about 40 percent of young children are now in child care judged to be of poor quality. Thus, Ramey and Ramey call for more developmental programs, such as IHDP and the Abecedarian Project, that target the highest-risk children, as well as for broader strategies to improve the early childhood experiences of all children.

School-Age Interventions

The chapters in part III evaluate programs and policies that target children's development in the school-age years. Jacquelynne Eccles and Allan Wigfield examine the influence of elementary and middle schools on motivation and achievement; Margaret Beale Spencer and Dena Phillips Swanson consider the influence of families and communities on adolescent development; Robert Sampson evaluates the influence of neighborhoods and communities on youth outcomes.

Eccles and Wigfield review what is known about the development of motivation, an important determinant of performance in and out of school, and emphasize the influence of the classroom and the school on both motivation and learning outcomes. Programs to enhance motivation attempt to help students reduce test anxiety, overcome learned helplessness, maintain self-worth, and avoid apathy.

Eccles and Wigfield note that good teacher-student relationships provide the foundation for academic motivation and success. They review research on the kinds of teacher beliefs and classroom practices that facilitate motivation and achievement. For some disadvantaged children growing up in neighborhoods with few role models, effective teachers represent a stable source of nonparental role models. Eccles and Wigfield endorse programs that recognize the achievements of all students rather than those that reward only the best students, and they favor programs that evaluate students on their personal progress and mastery rather than ones that evaluate solely on the basis of outcomes. They conclude that ability tracking often perpetuates poor achievement and behavior among low-ability children, and they propose that, if used, grouping should be limited to certain classes, such as reading and math.

Because children make the transition from elementary to middle school or junior high school in the early stages of adolescent development, the environmental

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changes associated with this transition—from a smaller to a larger school, from teachers who have about thirty students for the whole day to ones who have five times as many and see each of them for only an hour a day—can negatively affect motivation and academic outcomes for some students. Eccles and Wigfield note that there is often a poor fit between the developmental needs of the early adolescent and the structure of the middle school environment. The creation of small schools, “schools within a school,” and team teaching can foster, they argue, a sense of community to ease this transition. In addition, linkages between schools and the broader community, through initiatives such as Comer schools or Partnership 2000 schools, especially in high-risk neighborhoods, can facilitate adolescent development.

Spencer and Swanson focus on the barriers to development for adolescents, particularly African American youth, who grow up in poor families in poor neighborhoods. They point out that racial and economic inequalities compromise school adjustment and that perceptions of limited opportunities lead some disadvantaged youth, especially African American males, to react negatively to outcomes valued by the mainstream. Poor and minority parents thus need even greater school and neighborhood supports for socializing their children than do nonpoor and majority parents; however, they have less access to them.

Spencer and Swanson advocate the empowerment of families by informing them of available services and resources, promoting their skills in communication and assertiveness, and fostering their sense of “self-efficacy” so that they become more engaged with the schools and other institutions that play a role in the lives of their children. They suggest that teachers need training in cultural diversity so that they can better understand and work with the increasing numbers of students of color. They criticize school intervention programs that emphasize academic achievement and cognitive skills but neglect the overall sociocultural and emotional development of students.

Sampson reviews the literature on neighborhood contexts, which can either facilitate good outcomes or increase the risk for problem behaviors such as school dropout, teen childbearing, and low labor-force attachment. Racially isolated neighborhoods with high concentrations of poor people and high crime rates tend to have low social organization and lack the informal social controls that keep young people “on the right track.” As a result, there are likely to be higher levels of troublesome child and adolescent behaviors in these neighborhoods.

Sampson conceptualizes community social organization as the ability to realize the common values of residents and to maintain social controls. Social control involves the realization of collective goals, such as the desire of community residents to live in safe environments, to have access to good schools and housing, and to experience high levels of economic activity and low levels of crime. He recognizes that community interventions are hard to implement, especially in the poor neighborhoods that need them the most.

Sampson emphasizes policy interventions that would restore safety, increase resources, and promote residential stability. These include community policing and collective strategies that organize residents to form patrols and pickets and to “take back” their neighborhoods, as well as initiatives that bring together the police and the community, such as Boston’s Ten Point Coalition to reduce youth violence. Inter-

ventions that enhance social organization attempt to exert informal social control over adolescents and to supervise adolescent peer groups through such activities as organizing leisure-time activities, enforcing truancy laws, and promoting mentoring systems to build intergenerational ties between adults and youth. Interventions that would promote housing stabilization include policies such as resident management of public housing, rehabilitation of run-down housing, strict municipal code enforcement, and encouragement of community development corporations. He also sees promise in housing policies, such as Moving To Opportunity (MTO), that encourage (but do not require) increased neighborhood integration.

Sampson is optimistic that neighborhoods can be improved if residents join forces to build community and maintain social order. He cautions, however, that outcomes are ultimately shaped by forces broader than those that prevail in the neighborhood context, including, for instance, the national economy and the allocation of city services across neighborhoods.

Transitions to Work or College

Part IV turns to the transitions that adolescents and young adults make as they leave school and enter the world of work and/or continue on to college. Debra Donahoe and Marta Tienda focus on transitions from school to work; Hillard Pouncy reviews the evidence on “second-chance” workforce development programs for youth who have left school but have not yet settled in to work or college; and David Ellwood and Thomas Kane provide new evidence on how the transition from school to community college or college is affected by family background, student ability, public financing, and other factors.

Donahoe and Tienda document recent trends in educational attainment, labor-force participation, and unemployment for youth and examine the evidence on the timing of arrival to stable employment. Although basic and vocational skill levels among youth have not declined in absolute terms, they have not kept pace with the increasing employer demand for skills. This skills mismatch is a growing problem among poor urban youth and ethnic minorities, especially among Hispanics, who have the lowest rates of graduation from high school. Most youth find a stable job by their early twenties. However, youth who do not finish high school, and black youth in general, have difficulty finding stable work. Unemployment is particularly severe for black young men, and low wages are a problem for all youth with less than a high school degree.

Donahoe and Tienda analyze the potential benefits of early labor-market experience, which has been advocated as a way to improve labor-force outcomes. They conclude that because of the recent rise in the returns to education, youth employment is valuable only if it does not interfere with educational attainment, which is even more valuable in the long run. Programs designed to facilitate the school-to-work transition—such as vocational education, including co-op programs, career academies and career clusters, tech-prep programs, and youth apprenticeships, as well as second-chance programs for youths who have already left school—are likely to be beneficial only insofar as they also keep youth connected, or help reconnect them, to school.

Pouncy reviews the history of job training strategies for the disadvantaged and concludes that traditional programs, originally developed for unemployed or displaced workers, do not provide the broad range of services needed by most young, disadvantaged workers. He argues that the mismatch between the design of these job training programs and the needs and problems of the disadvantaged can be overcome by comprehensive “sectoral development” programs like the Center for Employment Training (CET) in San Jose, California. These programs focus on building trusting relationships with employers and trainees, teaching trainees the skills that employers want, and offering trainees a broad range of services. Other examples include Project STRIVE, which works with a broad range of young adults in New York City, and Project Match, which works with welfare recipients in Chicago. Few of these programs have been rigorously evaluated, but many of them can muster evidence that they help the most disadvantaged get jobs and move into the mainstream. Further research should be able to pinpoint the extent to which they have succeeded in helping clients and the extent to which successful programs such as CET, Project STRIVE, and Project Match can be replicated.

Ellwood and Kane analyze differences and recent trends in the extent of enrollment in two- and four-year colleges by youth according to their family income and parental education. Although differences in academic preparation account for many of the differences in college attendance by family background, very large gaps in college-going by students from high- and low-income and high- and low-education parents remain. Youth with similar academic preparation and test scores at the conclusion of high school enter college at very different rates, depending on parental income and education.

The influence of family background on enrollment has increased over time, with family income becoming a more important predictor. At the same time, parental education and income have become more highly correlated, owing to the increased payoff to education. Thus, students from high-income families are now doubly advantaged in that they tend to have parents with higher levels of education as well. This advantage leads to 5 to 10 percent higher earnings for these youth later in life.

Ellwood and Kane propose two types of policy responses to narrow the gap in college-going between low-income and high-income youth. In the long run, reducing the high school achievement gaps between low- and high-income youth would do the most to narrow this gap. However, this effort is likely to be difficult and to take a long time. In the meantime, Ellwood and Kane suggest expanding policies to address the barriers to college entry for low-income youth. Such policies include providing additional grants for low-income youth or helping youth make better use of available funding opportunities by, for instance, hiring more guidance counselors or simplifying eligibility procedures. They also suggest that states and schools consider providing a larger share of aid through income-contingent loan programs.

POLICY IMPLICATIONS

All of the authors discuss the implications of their findings for policymakers and program developers. Taken together, these chapters contain a wealth of detailed

policy suggestions. We draw on these and offer our conclusions regarding the major components of a comprehensive investment strategy for maximizing opportunities for children and youth.

One key finding concerns the timing of investments and the advantages of investing early in the life cycle. Lynch, Heckman and Lochner, Zuckerman and Kahn, and Ramey and Ramey provide several reasons for emphasizing early investments. In addition to the evidence that early experience matters a great deal, especially for brain development, the evidence from early intervention programs shows that well-designed programs improve developmental outcomes. Early interventions come at a time when families are more open to interventions and lay the groundwork for later development and success.

This recommendation does not imply, however, that only investments in early childhood are warranted. Some children, especially the disadvantaged, may miss out on early investments and arrive at school not ready and motivated to learn. Other children may have thrived in early childhood but encounter problems in their school years if they experience new stresses, such as a move to a less supportive school or a more dangerous neighborhood, a family disruption, a decline in family economic status, or a health or learning problem. As Eccles and Wigfield note, many children need more support from teachers to cope successfully with school transitions (for example, the transition into primary school, or into secondary school). As Spencer and Swanson note, many students and their parents need more support during the transition from adolescence to adulthood. And as Donahoe and Tienda and Pouncy note, many adolescents and young adults need support during the transitions from school to work or school to training. Therefore, it is important to expand investments throughout childhood and adolescence in effective programs that build social competencies and vocational and academic skills.

A second implication concerns the providers of investments in children. At each stage of the life cycle, many adults can affect children's social and cognitive development. It is not the case that the only facilitators of development are the parents in the preschool years, schools in the school-age years, and then employers, trainers, or colleges in the postschool years. Most preschool-age children now spend substantial time in out-of-home care (whether child care or preschool), but that care is too often of less than adequate quality, as Ramey and Ramey point out. Although school-age children spend much of their time in school, families and communities continue to influence their development and their transitions from school to work or further education. As Spencer and Swanson emphasize, because parents are essential to guiding and monitoring their children's school success, additional efforts should be made to promote their involvement in schools. And as Sampson documents, community conditions and the interactions at that level between adults and youth can either facilitate or curtail children's development.

Investments in children are most successful when efforts are coordinated, when providers work in partnership, when their efforts are comprehensive, and when the child is treated as a whole person who is developing in the context of his or her family and community. Kahn and Zuckerman, for instance, conclude that pediatricians should broaden their focus beyond children's physical health to promote

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maternal health and child literacy and to advocate for families experiencing problems with inadequate income or housing. Programs such as Healthy Steps for Young Children and Reach Out and Read are promising examples.

A third implication concerns the benefits of investments in children. Because early investments lay the groundwork for later success, preschool interventions are particularly cost-effective: their benefits accumulate and are compounded over time. Some interventions for school-age children also yield benefits that exceed their costs. And these benefits can continue into later life: more education in the school-age years fosters additional education and training in adulthood. The benefits of these investments accrue not just to the children who participate in these programs. Other children benefit by having peers who are more focused and motivated in the classroom, and hence less involved in antisocial or harmful activities. Society benefits when the children in whom we invest today become the workers and taxpayers of tomorrow. Most important, the children of today are the parents of tomorrow. Effective investments in children today benefit the next generation of children because tomorrow's parents will be better positioned to support their development.

The benefits of investments are sometimes underestimated because program outcomes are defined too narrowly. As Heckman and Lochner note, programs that have little effect on cognitive ability may nevertheless raise children's motivation to learn, boost school attendance, and promote prosocial behavior. The Perry Preschool Project achieved its most lasting effects, not on test scores, but on outcomes such as higher employment and earnings and reduced crime. Benefits may sometimes be defined too narrowly in evaluations of second-chance programs for adults. As Lynch notes, such programs may enable parents to be better teachers for their children. As a result, a program that helps adults pass the high school equivalency exam may have benefits in addition to its impacts on adult earnings or employment.

There is no better way to break the intergenerational cycle of poverty and inequality than to invest in the current generation of children. Well-designed investments in children and adolescents today promote their future success in the labor market, family life, and social life. Yet we view these investments as more than a strategy for alleviating the problems of poverty and inequality. Although the poor, racial and ethnic minorities, and immigrants face greater challenges to successful child development and have fewer resources, an increasing share of children—well over half—are growing up in families with either only one parent or two parents who are each dividing their time between parenting and working.

Given the realities of today's labor market, many parents cannot provide all of the care, attention, and resources that children need to maximize their development. These challenges are particularly acute in the preschool years, when an increasing share of young children are spending time in child care that is often of dubious quality. Most school-age children could also benefit from programs that offer them a safer and more productive way to spend their time after school and on weekends. School-age children are often left unsupervised and, as a result, may be more likely to engage in a variety of risky behaviors.

Continuing changes in the labor market place further pressure on today's children as they become tomorrow's workers. As the workplace becomes increasingly

technical, it is not just high school dropouts who face bleak prospects. Many high school graduates who do not receive further education or training may not have the skills needed to succeed in the labor market. In the late 1980s, the William T. Grant Foundation (1988) raised a warning flag about the situation of the “forgotten half”—youth who do not go on to college. Today, the prospects for these youth are even worse. Thus, the need to develop an investment strategy that prepares and motivates them to participate in further training or education, along the lines suggested in chapters 8, 9, and 10 by Donahoe and Tienda, Pouncy, and Ellwood and Kane, is even more critical. Chapters 8 and 9 show how schools and workforce development programs can better prepare high school graduates for the labor market, and chapter 10 demonstrates that college-going increases when financial subsidies and information about college access are improved.

Based on our reading of the chapters, we propose that parents, foundations, non-profit organizations, and the government work together to expand investments in the following kinds of programs.

1. *Programs to improve the health of women of childbearing age:* Because maternal health has strong effects on child outcomes, because many of these effects begin before birth, and because many births (roughly 50 percent) are to first-time mothers, interventions that target only women who already have children fail to serve a substantial number of disadvantaged children. There is substantial evidence about a range of interventions that reduce the risks that can compromise outcomes for children prenatally. The challenge is to expand programs, such as school-based health clinics and public education programs, and convey that knowledge to young women before they have children. In addition, we need to expand programs, such as Healthy Steps for Young Children, the WIC program, and proven home visiting programs, to improve maternal health among women who are already pregnant or who already have children.
2. *Early childhood interventions that target the most disadvantaged children, who are at highest risk of school failure:* Much evidence documents the effectiveness of early childhood interventions in improving a range of developmental outcomes. We cannot afford to wait until children reach elementary school to undertake investments to improve their school achievement and other outcomes. Learning begins early in life, and our interventions must begin then too. The elements of successful programs are well established; the challenge is to expand them to reach larger numbers of children, whether through the expansion of model programs, such as IHDP or the Abecedarian Project, or larger-scale initiatives, such as Early Head Start.
3. *Measures to raise the quality of child care and early childhood education for preschool-age children:* The risks associated with poor-quality care in early childhood are not limited to disadvantaged children. Preschool-age children now spend a substantial portion of time in out-of-home care, much of which is of poor quality. Although there has been debate about what constitutes quality care, especially for very young children, the evidence reviewed in this volume, including new studies from the National Institute of Child Health and Development (NICHD Early

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Child Care Research Network 1997, 1998), documents that children benefit when they are in settings that provide sensitive care and experiences that promote their development. We must increase access to preschools and improve the quality of child care, whether through universal preschool initiatives, such as Georgia's, or through more effective regulation and monitoring of child-care providers.

4. *After-school programs and mentoring programs for school-age children and adolescents:* Because parents need help in supervising their children after school, there is a need for expanded programs to serve children during these hours of the day. More generally, adolescents need more support than their schools and families can provide. Mentoring programs such as Big Brothers/Big Sisters and Sponsor-A-Scholar can help provide that support, and such programs should be expanded.
5. *Programs to raise the level of college attendance by high-ability youth from low-income families:* There is a substantial gap in college attendance between youth who have comparable levels of ability but differ in their level of family resources. Although some of this gap is explained by differences in school achievement prior to college entry, some of the gap is due to differences in family income. Expansion of programs to facilitate college enrollment by qualified low-income students is required if we are to achieve greater equality of opportunity in college attendance. These programs might entail expanded funding opportunities, different types of funding opportunities, or programs that help students make greater use of existing funding sources.

These program and policy enhancements do not exhaust the list of potentially beneficial investments. Given the current political environment, however, it would be difficult to persuade Congress to allocate the additional funds needed in just these five areas. Nonetheless, we are convinced that these investments would, in the long run, pay for themselves.

The chapters in this volume also provide evidence on other policies and programs that could be sources of investment in children. Readers will differ in what they believe to be the most promising programs and policies, but they should all conclude that the challenges documented here are substantial and that if we are willing to spend the requisite funds, we can invest prudently. Such investments can improve children's outcomes in later life, generating positive benefits that will accrue to other children and to society more generally and spill over to the next generation of children. We have pointed out what those investments should look like, when we should invest, and who the partners in investment should be. Although the effectiveness of some programs is still uncertain, the key elements of a strategy to secure our future by investing in children are clear. There is little time to lose: this generation of children cannot afford for us to wait any longer.

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REFERENCES

- Brooks-Gunn, Jeanne, Greg J. Duncan, and J. Lawrence Aber, eds. 1997. *Neighborhood Poverty: Context and Consequences for Children*. New York: Russell Sage Foundation.
- Council of Economic Advisers. 1997. *The First Three Years: Investments That Pay*. Washington, D.C.: Council of Economic Advisers.
- Duncan, Greg J., and Jeanne Brooks-Gunn, eds. 1997. *Consequences of Growing Up Poor*. New York: Russell Sage Foundation.
- Heckman, James J. 1996. "What Should Our Human Capital Investment Policy Be?" Milken Institute for Job and Capital Formation (Spring): 3–10.
- Karoly, Lynn A., Peter W. Greenwood, Susan S. Everingham, Jill Hoube, M. Rebecca Kilburn, C. Peter Rydell, Matthew Sanders, and James Chiesa. 1998. *Investing in Our Children: What We Know and Don't Know About the Costs and Benefits of Early Childhood Interventions*. Santa Monica, Calif.: Rand.
- Lynch, Lisa M. 1997. "What Can We Do?: Remedies for Reducing Inequality." Paper presented at the Council on Foreign Relations Study Group on Global Trade and Wages, New York (June 4, 1997).
- National Science Foundation. 1996. *Investing in Human Resources: A Strategic Plan for the Human Capital Initiative*. Washington, D.C.: National Science Foundation.
- National Institute of Child Health and Human Development (NICHD) Early Child Care Research Network. 1997. "The Effects of Infant Child Care on Infant-Mother Attachment Security: Results of the NICHD Study of Early Child Care." *Child Development* 68(5): 860–79.
- . 1998. "When Child Care Classrooms Meet Recommended Guidelines for Quality." Paper presented at the meeting "Child Care in the New Policy Context." U.S. Department of Health and Human Services, Bethesda, Md. (April 30, 1998).
- Shore, Rima. 1997. *Rethinking the Brain: New Insights into Early Development*. New York: Families and Work Institute.
- William T. Grant Foundation Commission on Work, Family, and Citizenship. 1988. *The Forgotten Half: Non-College Youth in America*. New York: William T. Grant Foundation.

