Chapter 1

Introduction

Wouldn’t it be great if there was some feasible policy that could boost the American economy and enlarge opportunities for more of our children?

We’re in luck. Our economic future and our children’s future can be significantly improved by expanding high-quality early childhood education programs, such as pre-K education.

In this book, early childhood education is examined from an economic perspective. The book evaluates the empirical evidence on the economic payoff to investing in early childhood education. What does this evidence imply for public policy?

An economic perspective includes quantifying the effects of early childhood education as benefits and costs measured in dollar terms. Although early childhood education programs have many benefits, this book will focus on one key benefit: earnings increases. Children who participate in high-quality early childhood education will tend to have higher earnings as adults, because these programs help unlock the child’s potential for skills development.

An economic perspective includes comparing benefits with costs. Not all early childhood education programs are equal in their “bang for the buck.”

An economic perspective includes examining who should pay for early childhood education programs. A key question is, “Who benefits from early childhood education?” Why should a taxpayer pay for other people’s children? One reason is that early childhood education can do more than benefit former child participants. Early childhood education can have large spillover benefits for others in society, including other workers, families, state and local economies, and government budgets. These spillover benefits are sufficiently local to justify support for these programs by state and local governments.
But federal support may be helpful for program evaluation to ensure quality, and for early childhood programs targeted at the poor.

WHAT ARE EARLY CHILDHOOD EDUCATION PROGRAMS?

In this book, early childhood education programs include any publicly supported program that has as a principal purpose providing children younger than age five with educational services. The goal of such educational services is to improve the child’s lifetime opportunities. Education is defined broadly to include cognitive skills as well as social or character skills. Early childhood education includes pre-K programs, parenting programs that provide parents with support in the art of parenting, and child care services with a strong educational component.

Early childhood education includes diverse programs. These programs can be targeted at children from disadvantaged families, or they can be more universal. (To avoid misinterpretation, let me state that “universal” programs are not compulsory. Rather, universal programs are available as an option for all families, without means-testing.) Early childhood education programs can be financed by federal, state, and local governments. These programs can be full-time from birth to age five, or they can operate for only one school year for a half-day at age four. Which approach will be the most cost-effective in increasing economic growth and expanding opportunities?

The book’s focus is on how early childhood education can influence the child’s future, and how that benefits society. But the book also considers benefits for parents. For example, child care frees up parent time for work or education.

Early childhood education includes diverse pre-K programs. Pre-K programs include the federally funded Head Start program, begun in 1965 as part of the War on Poverty. Head Start currently serves around one million children at a cost of around $8 billion. Pre-K programs include past experimental programs such as the Perry
Preschool Program, a 1960s program run by the HighScope Educational Research Foundation in Ypsilanti, Michigan, with follow-up data still being collected today. Pre-K programs also include many large-scale state and local pre-K programs. This includes Chicago’s Child-Parent Center Program (CPC), as well as state-financed pre-K programs in more than 40 states.

As of 2012–2013, state pre-K programs served 1.3 million children at an annual cost of over $6 billion.1 State pre-K has expanded in the past decade: From 2002 to 2013, the percentage of all U.S. four-year-olds in state pre-K programs doubled, from 14 percent to 28 percent. Recently, state pre-K programs have faced cutbacks because of state fiscal problems.

Some state pre-K programs are close to universal. Oklahoma’s pre-K program provides pre-K services to 74 percent of all four-year-olds in the state, with an additional 13 percent served by Head Start. Seven other states provide pre-K services to more than half of the state’s four-year-olds: Florida, Vermont, Wisconsin, West Virginia, Iowa, Georgia, and Texas.

Recent proposals have been made to expand federal support for state pre-K programs. The short-term political outlook is that large-scale expansion of federal support is unlikely.2

Early childhood education includes programs to improve parenting. These parenting programs often operate through home visits, in which a trained visitor interacts at home with the parent and child. The most extensively evaluated of such home-visiting/parenting programs is the Nurse Family Partnership (NFP). The NFP involves nurses making home visits from the prenatal period up to age two to a disadvantaged first-time mom and her child. The NFP has expanded with the Affordable Care Act (ACA): The ACA authorized about $0.4 billion per year for research-proven home-visiting programs, including the NFP.

Early childhood education includes child care with a significant focus on the child’s education. The most researched such program is the Abecedarian Project. This experiment, begun in North Carolina
in 1972, provided five years of full-time educational child care and pre-K services for children from six weeks after birth to age five. More recently, a program similar to Abecedarian, called Educare, has been promoted around the United States by the Buffett Early Childhood Fund and the Ounce of Prevention Fund.

This book’s definition of early childhood education does not include subsidized child care programs that do not focus on education. For example, the Child Care and Development Fund, a federal block grant to states created by welfare reform, has such low funding per child and such weak quality screens that it clearly is not aimed at better child development.

**WHAT ARE THE BENEFITS FROM EARLY CHILDHOOD EDUCATION?**

The main direct benefit of early childhood education is the resulting improvement in the future life course of the child. The child’s better life course is manifested in part by higher lifetime earnings. These earnings are valuable to the child. These earnings also mean the child is playing a more productive role in the American economy. And, these earnings enable the child to be more self-sufficient, a better husband or wife, a better parent, and a better contributor to neighborhood and civic life.

Greater legal earnings are accompanied by lower criminal activity. Lower costs of the criminal justice system and lower crime victimization are important social benefits of early childhood education.

A more fundamental spillover benefit of early childhood education is what it means for overall economic productivity. As explored in Chapter 6, when some workers gain more skills, wages increase for other workers. Businesses are more likely to invest in new technologies if average skills increase.
How Can Early Childhood Education Affect the Child’s Future Life Course?

A skeptic could argue that no program that provides services for such a limited time—say a pre-K program for one school year at age four—could affect a child’s future earnings at age 40. Government intervention could only work, a skeptic might say, by taking over the child’s upbringing. Such a role is inappropriate for a government that respects individual liberty.

But, as explored in Chapter 2, the evidence suggests that even very time-limited early childhood education can have large effects on adult outcomes. This empirical evidence is surprising. Obviously it can’t be that knowing a few more letters and numbers at kindergarten entrance influences adult earnings at age 40 by any direct effect. Somehow, what happens early to the child’s development must have some indirect benefits for future development.

A plausible logic for long-term effects of early childhood education is as follows. The child’s brain is more malleable prior to age five than in later years. Suppose an early childhood program increases the child’s skills: cognitive skills such as math and reading skills; social skills such as getting along with peers and teachers; character skills such as patience, persistence, and self-confidence.

All of these skills prepare the child for later learning. The five-year-old with more skills will do better in kindergarten, interacting better with peers and the kindergarten teacher, and gaining further self-confidence. As a result of this greater learning in kindergarten, this child enters first grade better set up for further learning. And so on.

Early childhood education can develop skills that lead to more skills growth later. Early childhood education investment appreciates over time rather than depreciates. As Nobel Prize–winning economist James Heckman has said, “Skill begets skill” (Heckman 2000, p. 3).

The effect of any early childhood education program is relative to what would have happened without the program. Even without
new early childhood education programs, there are existing public programs. In addition, most parents spend much time educating their child—for example, through talking and reading with their child and exposing the child to the natural world, playgrounds, museums, and the library. Parents may also spend money on private child care or pre-K. The benefits of any early childhood education program depend upon its superiority to what is already being provided by the public sector, or to what the parents are able to provide on their own. This means that the benefits of early childhood education may vary with the abilities or resources of the child’s parents.

Parents may be unable to “go it alone” because early childhood education is often expensive. For example, high-quality full-day pre-K may cost over $10,000 per school year. Such a cost is difficult for even middle-class parents to afford.

As explored in Chapters 3 and 5, the benefit-cost analysis of early childhood education also depends on costs. The cost per child will tend to be higher at earlier ages, when class sizes will be lower.

Alternative services available to parents and higher costs are two reasons why the earliest possible interventions may not offer the highest ratio of benefits to costs. Brain neurons may indeed develop more at ages one and two; however, earlier intervention has a high opportunity cost, because it substitutes for something that many parents can provide on their own. Earlier intervention also has higher program costs per child, because younger children require more individual attention.

A PROPOSAL FOR EARLY CHILDHOOD EDUCATION

Based on this research, this book argues that we know enough to move forward with a full-scale proposal for early childhood education. This proposal has economic benefits exceeding costs, and it would particularly help children from poor and working-class families.
The proposal includes

- Universal full-day pre-K at age four for children from all income backgrounds;
- For low-income children, developmental child care and pre-K from birth to age five;
- For low-income families, home-visiting programs to improve parenting.

This proposal’s national cost is $79 billion annually. This cost is 2 percent of total government taxes.

This proposal would not reverse all of the recent increases in U.S. income inequality since 1979, but it would help. For low-income Americans, this proposal would offset most of the increased income inequality since 1979; for middle-income Americans, this proposal would offset one-sixth of the increased income inequality (see Chapter 7).

THE PLAN OF THE BOOK

Chapter 2 summarizes the empirical evidence that has led most researchers to believe that early childhood programs can affect adult outcomes.

Chapter 3 compares adult earnings benefits from early childhood education with costs.

Chapter 4 analyzes common criticisms made of the empirical evidence for early childhood education.

Chapter 5 discusses how the benefits and costs of early childhood programs vary with program features, such as classroom quality, program duration, and the income of the child’s family.

Chapter 6 explores social benefits of early childhood programs.

Chapter 7 outlines a specific early childhood proposal.

Chapter 8 puts early childhood education in the context of past efforts to reform American education.
In sum, this book argues the following:

- Many early childhood education programs have rigorous evidence for high benefit-cost ratios.
- We know something about what types of programs have the biggest bang for the buck, and how to improve program quality over time.
- Benefits of early childhood education are broad enough that taxpayer support is justified.
- Benefits of early childhood education are local enough to justify support by state and local governments.
- Early childhood education can play a significant role in an overall economic strategy to enhance U.S. economic growth and broaden economic opportunities.