



The Economic Impact OF THE Early Care and Education Industry *in Illinois*



A REPORT BY ACTION FOR CHILDREN, CHICAGO METROPOLIS 2020 AND ILLINOIS FACILITIES FUND

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This report on the economic impact of Early Care and Education looks at this industry through a new lens — an economic one that considers for the first time the industry's contributions to the Illinois economy. It also re-examines government savings and the workforce impact of Early Care and Education in Illinois.

Over the years, the Early Care and Education industry has changed to meet the growing needs of working families and their children. Regardless of program type or setting — child care, Head Start, family child care, preschool, or prekindergarten, for-profit or nonprofit, public or private, regulated or unregulated — the Early Care and Education industry provides economic benefits to Illinois and its businesses.

The findings in this report highlight the financial significance of the industry as well as the need to ensure access to high quality Early Care and Education for Illinois children. By targeting the Early Care and Education industry for economic and workforce development, the business community, government and industry leaders can capitalize on the high returns to our children and our economy.

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SECTION ONE: INTRODUCTION

I. OVERVIEW OF THE REPORT

The critical importance of developmentally appropriate learning opportunities for children from birth through age six continues to be supported by researchers nationwide. Recent research on early brain development demonstrates that, far from being a luxury, early care and education is a vital service that improves children's health, school readiness, and future employment potential.¹

This report quantifies the direct economic impact that the Early Care and Education (ECE) industry currently has on the economy of Illinois through direct employment and gross receipts.

Today, in addition to working parents, government officials and business leaders are demanding that Illinois' children have access to quality child care and early education. Although child care and early education services were once treated as separate activities, it is now recognized that they should be offered together. This report covers child care and early education and treats them as one industry, called the Early Care and Education (ECE) industry. The primary objective of this report is to demonstrate that early care and education programs, designed to nurture, support, enrich, and educate our young children, have the added benefit of contributing significantly to the Illinois economy.

Despite the recent growth of the ECE industry, its economic contributions have traditionally been overlooked. In reality, the ECE industry is not dissimilar to health care or other services. The ECE industry is an important component of the economic infrastructure of Illinois. As this report shows, the ECE industry provides financial benefits in three main ways:

1. The ECE industry in Illinois, in its own right, is an income-generating, job-creating industry;
2. Affordable, accessible early care and education options help Illinois workers with children to remain in the workforce and enable workers to seek additional education and training to expand their qualifications for the workforce; and
3. Quality early care and education programs promote future economic benefits for Illinois by helping to prepare young children for opportunities in the new economy and by reducing future government expenses on students and adults ill-prepared for school and the new labor market.

This report analyzes the significance of the ECE industry to Illinois' economy. Specifically, it quantifies the direct impact the industry currently has on the economy of Illinois by measuring its direct employment and gross receipts. It also discusses economic development and business benefits of early care and education, including bottom-line returns for individual Illinois businesses and substantial returns on targeted public investment.

¹ J.P. Shonkoff and D.A. Phillips (Eds.) From *Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, D.C.: National Academies Press, 2000.

The report further concludes that public and private support is necessary in order to ensure that the Illinois economy maximizes the benefits of the ECE industry. It examines current demographic and economic trends in the state and their implications for early care and education.

Finally, this report provides recommendations for building the capacity and sustainability of quality, affordable early care and education in Illinois.

II. DEFINING THE EARLY CARE AND EDUCATION INDUSTRY

Illinois parents find caring, nurturing providers in many kinds of early care and education settings, both licensed and license-exempt. The majority of Illinois children receive some non-parental care in either their own homes or others' homes.² Thousands of centers, schools and park district programs offer non-parental early care and education.

The ECE industry is comprised of businesses of all sizes and takes place in a range of economic organizations, including public sector entities, for-profit organizations, non-profits, and single proprietorships. Early care and education activities take place in both single-location establishments and in divisions of larger non-profit organizations and for-profit corporations, including national child care chains. Services are supported by parents' fees as well as financial contributions from various public and private organizations.

For the purposes of this report, the ECE industry includes all establishments and individuals that provide care and education for children under age six and are a part of the formal economy, subject to state rules and regulations and required to pay taxes. The findings in this report are based on an analysis of two groups of providers: 1) the entire universe of licensed child care programs in Illinois and 2) the portion of the license-exempt early care and education universe that can be tracked as part of the formal economy.

LICENSED PROVIDERS

Seventy-four percent of early care and education centers and about one-third of known family child care homes are licensed providers. Licensed early care and education programs meet standards set by the state legislature and are regulated by the Illinois Department of Children and Family Services (DCFS).³ DCFS maintains comprehensive lists of all licensed programs, and local child care resource and referral agencies track their cost and enrollment information. Illinois has more than 2,800 licensed early care and education centers and more than 13,000 licensed family homes, with a combined capacity to serve more than 250,000 children.⁴

² Action for Children calculations based on Illinois Department of Human Services data; Illinois Department of Children and Family Services. "Day Care and Early Childhood." <http://www.state.il.us/dcf/daycare/index.shtml>. February 2003; Data for all formal programs as of December 2003 provided by Illinois Network of Child Care Resource and Referral Agencies.

³ Illinois Department of Children and Family Services. <http://www.state.il.us/dcf/daycare/index.shtml>.

⁴ Illinois Department of Children and Family Services. "Day Care and Early Childhood." <http://www.state.il.us/dcf/daycare/index.shtml>. February 2003. Retrieved May 20, 2004.

LICENSE-EXEMPT PROVIDERS

A second component of the ECE industry is comprised of early care and education programs that are legally license-exempt. The majority of children of working parents are cared for in these settings. In September 2003, more than 58 percent of all children with Illinois Child Care Assistance, and 44 percent of those under six years old, were in license-exempt settings.⁵ Most license-exempt programs are small home settings, where relatives, friends, or neighbors provide child care. Other license-exempt programs are operated by public or private elementary school systems, secondary school units, higher learning institutions and on federal government premises. Head Start programs are another type of license-exempt provider which, while not required to hold a license with DCFS, have to comply with federal standards and track their expenditure information carefully. License-exempt providers are required to meet the state's health and safety standards. Many of these programs – including those covered in this report – can be tracked as part of the formal economy because they choose to list themselves formally with local child care resource and referral agencies.

III. CAPACITY OF EARLY CHILDHOOD AND EDUCATION PROGRAMS IN ILLINOIS

The programs covered in this study have the daytime capacity to provide early care and education for 262,811 Illinois children in combined full- and part-day programs. This includes 66,195 spaces in licensed family child care homes, 104,586 spaces in early care and education centers, 36,046 spaces in Head Start and Early Head Start, and 55,984 spaces in state pre-kindergarten programs. In addition, more than 22,000 license-exempt child care homes can legally provide care for up to three children each.

Table I
EARLY CARE AND EDUCATION DAYTIME CAPACITY,
BY TYPE OF PROGRAM, DECEMBER 2003

Type of Care	Capacity
Licensed Family Child Care Homes	66,195
Early Care and Education Centers	
Infants	10,179
Toddlers	30,731
Preschoolers	63,676
Head Start (part-day programs)	34,028
Early Head Start (part-day)	2,018
State Pre-K Program (part-day)	55,984
TOTAL, full-and part-day programs	262,811

Source: Illinois Network of Child Care Resource and Referral Agencies & Illinois Department of Human Services, July 2004. Capacity is only included for those programs that reported data for each age group.

⁵ Action for Children calculations based on Illinois Department of Human Services data.

SECTION TWO: DIRECT ECONOMIC BENEFITS OF THE EARLY CARE AND EDUCATION INDUSTRY

While it is well recognized that early care and education provides beneficial services to children and their families, what is traditionally overlooked is the fact that it is also an industry with an immediate positive impact on the Illinois economy. Its net contributions to the state's economy stem from the industry's employment base and its gross receipts. This section provides the results of a new study that quantifies the ECE industry's contributions and compares those contributions to other large industries in the state to show the significant impact the ECE industry has on the Illinois economy.

The study concludes that the ECE industry contributes significantly to the Illinois economy in two key areas, by:

- 1) Generating more than \$2.12 billion in gross receipts; and
- 2) Employing almost 56,000 full-time equivalent employees.

I. RECOGNIZING EARLY CARE AND EDUCATION PROGRAMS AS AN INDUSTRY

The ECE industry, comprised of a broad range of businesses, is a critical part of the economic infrastructure of Illinois. Early care and education providers and teachers working within the ECE industry offer needed care and nurturing with the goal of helping children with critical social, emotional, physical and cognitive development. Despite the ECE's economic contributions, there has historically been reluctance to recognizing its business aspects because of the type of service it provides. However, the end product should not minimize the economic benefits to our state's economy that stem from this industry.

Early care and education services should be thought of in much the same way as health care. The well-recognized term *health care industry* is comprised of a variety of health care professionals, including nurses, doctors and technicians, who have varying levels of education and types of vocations, and who work in a broad range of settings, including single-proprietorships, partnerships, non-profits and large for-profit corporations. This variety of providers and services is not dissimilar to that in the early care and education field and, therefore, the economic aspects and contributions of the two industries should be recognized in a similar way.

Early care and education establishments, non-profit and for-profit, contribute to the economy through their hiring and paying of a workforce, renting of space and taking out building loans for their facilities, purchasing food and supplies from other businesses, and charging parents and guardians for their services. It is because of these economic characteristics and their close interrelationships that we describe early care and education activities as an industry like any other.

II. DIRECT ECONOMIC BENEFITS OF THE ECE INDUSTRY

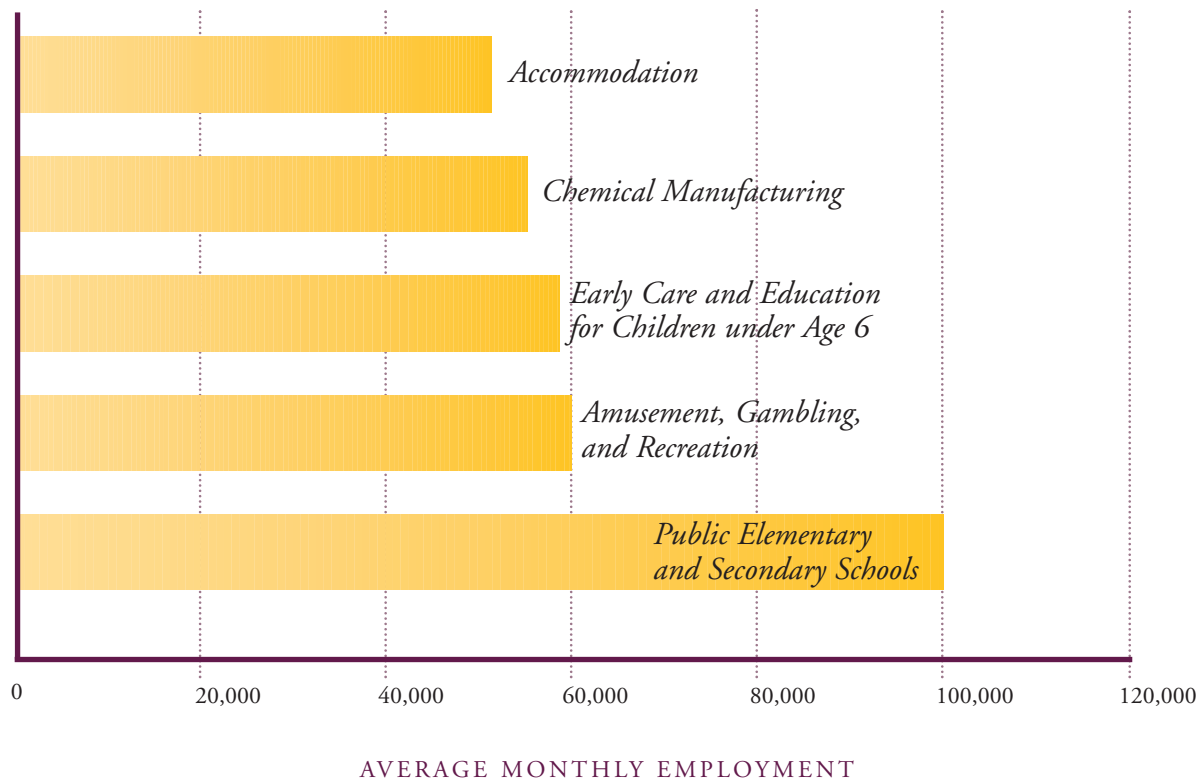
A. Direct Employment

Findings:

The ECE industry in Illinois is a job-creating industry. Direct employment for the ECE industry in Illinois is estimated to be more than 55,969 full-time equivalent (FTE) employees.⁶

Figure 1

Employment by Industry in Illinois



Source: Illinois Dept. of Employment Security; Illinois State Board of Education

A comparison of the number of FTEs in the ECE industry to employment in other more traditionally-recognized industries highlights the large contributions made to Illinois' economy by early care and education businesses. [See Figure 1] For example, the ECE industry has more FTEs than the accommodations industry, with more workers employed in early care and education businesses than in traveler accommodations in the state, which includes hotels, motels, and bed and breakfast establishments.⁷ There are also more early care and education FTEs than chemical manufacturing employees, and about as many as amusement, gambling, and recreation employees.⁸ The number of FTEs in early care and education is 54 percent of the number of public elementary and secondary school teachers in the state.⁹

⁶ NEDLC calculations based on detailed data from the Illinois Network of Child Care Resource and Referral Agencies and the Illinois Department of Human Services. July 2004.

⁷ Illinois Department of Employment Security. 2003 Current Employment Statistics (CES) Survey. <http://lmi.ides.state.il.us/cesfiles/ilceshis.htm>. Retrieved August 20, 2004.

⁸ *Ibid.*

⁹ Illinois State Board of Education. <http://www.isbe.net/research/brochure02.htm>. Retrieved August 20, 2004.

Methodology:

To determine the number of workers employed by the ECE industry, this study used enrollment numbers reported to statewide databases maintained by the Illinois Network of Child Care Resource and Referral Agencies (INCRRA) and applied the minimum staff-to-child ratios required by state law. While some high-quality programs may have additional staff, staff-to-child ratios provide an accurate way to capture the minimum number of teaching staff employed by early care and education providers. In addition, the results of an Illinois Department of Human Services (IDHS) survey that accounts for staff employed by larger centers outside of classrooms, such as administrators, accountants, and cooks, were included in the study.¹⁰

It should be noted that care-giving by nannies, babysitters, relatives, and those who care for children in their own home but are exempt from licensing are not included in the employment figure above. The Illinois Child Care Assistance Program counts more than 22,000 license-exempt home providers for children under age six with working parents with low incomes who receive child care assistance each month. If these providers were included in the employment count, the total would rise to over 77,000. In addition to these providers, the survey does not include license-exempt home providers who do not participate in the Illinois Child Care Assistance Program, which would also increase the total employment number significantly. [See Appendix A]

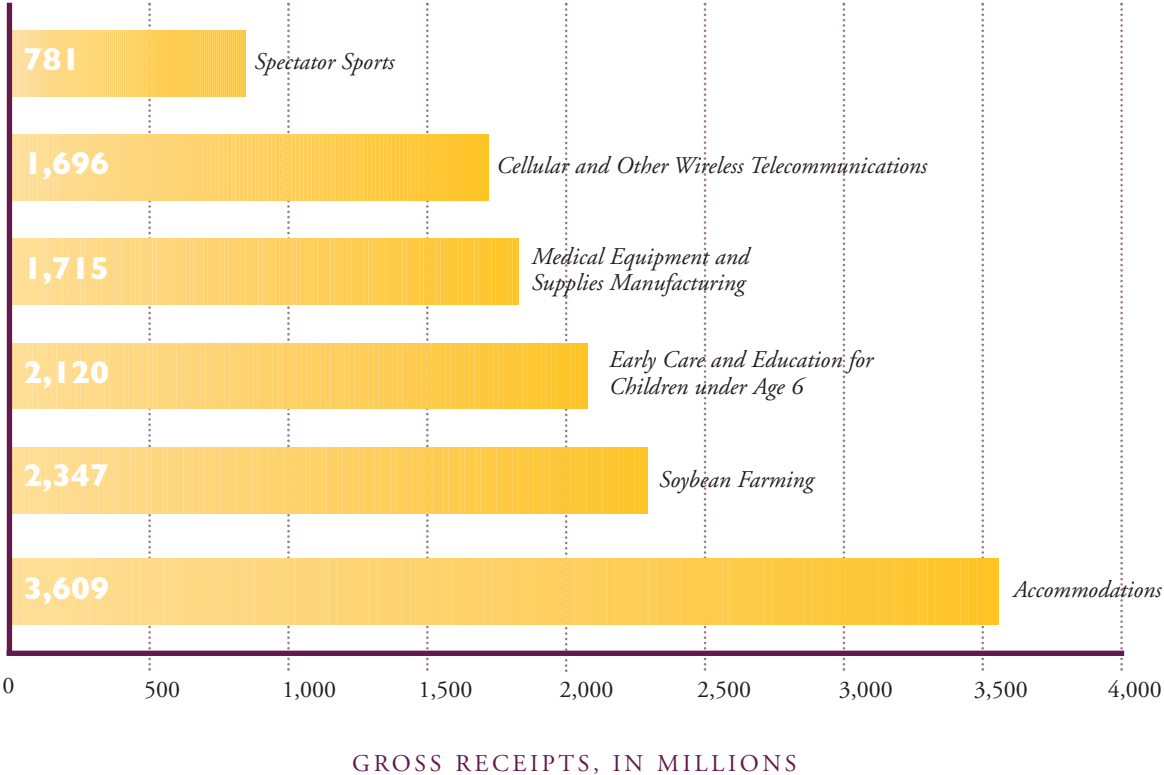
¹⁰ D. Ramsburg, D. Montanelli, and E. Rouge. *Illinois Salary and Staffing Survey of Licensed Child Care Facilities: FY 2003*. Illinois Department of Human Services. April 2004.

B. Gross Receipts

Findings:

The services provided by early care and education activities can be measured economically just like the services and goods of any industry. Gross receipts, also known as output, measure the size of an industry in terms of the overall value of the goods and services produced by that industry over the course of a given year. For the ECE industry, gross receipts are equal to the total amount of dollars flowing into the sector in the form of payments for care, which includes both parent fees and private and public subsidies for direct services.

**Figure 2
Annual Gross Receipts by Industry in Illinois**



Source: U.S. Census Bureau's 1997 Economic Census adjusted to 2004 using CPI. Soybeans only were based on Illinois Department of Agriculture's 2002 Cash Receipts. Facts adjusted to 2004 using CPI. Spectator sports data includes professional team revenue only.

¹¹ All industries except early care and education and soybeans are based on the U. S. Census Bureau's 1997 Economic Census, and adjusted to 2004 values using the Consumer Price Index (CPI). Note: The Economic Census asks companies to fill out questionnaires about their gross receipts or the value of their shipments from particular facilities. The Census determines Illinois industry figures by adding up these receipts for Illinois facilities only. If a company has receipts from facilities outside of Illinois, those appear in the totals for other states.
¹² Based on the U. S. Census Bureau's 1997 Economic Census and adjusted to 2004 values using the CPI.
¹³ Spectator sports includes revenue for professional teams only, and does not include horse racing, college teams, or beverage and snack sales.
¹⁴ Soybean farming cash receipts based on Illinois Department of Agriculture's Cash Receipts Facts. <http://www.agstats.state.il.us/annual/2003/03093.htm>. Cash receipts from 2002 were adjusted to 2004 using the CPI.

The ECE industry in Illinois is a large income-generating industry. Gross receipts of the ECE industry in Illinois total \$2.12 billion.

A comparison of the ECE industry with other Illinois industries finds that that it is on par with other significant industries in the state [See Figure 2].¹¹ Illinois industries range widely in size, from \$606,000 for geophysical mapping services to more than \$29 billion for retail sales of new automobiles.¹² Early care and education is more than twice the size of the spectator sports industry and considerably larger than wireless telecommunications.¹³ Early care and education receipts are similar in size to other Illinois industries recognized as being significant, including medical equipment manufacturing and the soybean farming industry, for which the state is nationally known. The ECE industry's gross receipts are 59 percent of the size of the state's accommodations industry, which includes all of the state's hotels, motels, and bed and breakfast establishments.¹⁴

Methodology

This study used an innovative, more comprehensive approach than economic surveys conducted in the past, in order to accurately measure the gross receipts of the ECE industry in Illinois so that it includes the full range of types of care. To calculate the gross receipts of the ECE industry, this study included all formal programs, both licensed and license-exempt, that could be accurately captured using data from state agencies charged with administering part of the complex early care and education system.

Previously, the research available on the amount of gross receipts by the ECE industry has had a limited scope. For example, according to the U.S. Census Bureau's 1997 Economic Census reports, gross receipts for "child day care services" totaled \$697 million in Illinois.¹⁵ However, this calculation does not fully represent the industry as it does not include large portions of early care and education establishments, such as self-employed individuals, programs run by religious or social organizations, and non-profit and for-profit small businesses and national chains.

C. A Note About the Study's Findings

While this study is broader than past calculations, its findings are still conservative. This study does not capture all establishments within each type of early care and education program. As noted earlier, it includes only those family child care homes that participate in the state's child care resource and referral network and/or state child care subsidy assistance program. Most young children, however, are cared for in family child care homes. It also does not include the employment and revenue of establishments that provide only infrastructure and support services to the ECE industry, including the Illinois Department of Children and Family Services, community colleges that provide early education professional training, and Illinois' 17 child care resource and referral agencies. Furthermore, it does not include the contributions to the economy that occur when early care and education providers purchase supplies from other businesses, and when early care and education employees spend a portion of their earnings on locally produced goods and services. As a result, our more comprehensive analysis still underestimates the magnitude of the industry's gross receipts and employment.

¹⁵ U.S. Census Bureau. 1997 Economic Census. The Census is mailed to a list based on U.S. businesses with employer identification numbers (EIN), and excludes private households and governments. The Census uses the North American Industry Classification System (NAICS), separating industries into 20 major sectors and 1,196 industry subsectors. "Child Day Care Services" is NAICS code 624410. The 1997 Economic Census is the most recent for which data is available. Although the value has been adjusted to 2004, it may not reflect industry changes over the past seven years.

SECTION THREE: LONG-TERM ECONOMIC BENEFITS OF THE EARLY CARE AND EDUCATION INDUSTRY

In addition to the direct impact the ECE industry has on Illinois' economy, it also provides long-term economic benefits to the state in a number of ways.

The ECE industry generates financial savings and increased revenues for the Illinois economy by:

- 1) Providing a public return on investments by reducing future public spending in such areas as criminal justice, remedial education, unemployment, and welfare;
- 2) Enabling parents to participate in the workforce and continue their education or training;
- 3) Contributing to decreased employee absenteeism, reduced turnover, and enhanced recruitment at existing businesses; and
- 4) Helping to expand Illinois' future workforce by preparing young children to succeed in school and qualify for higher paying jobs.

I. PUBLIC SAVINGS DERIVED FROM HIGH-QUALITY EARLY CARE AND EDUCATION PROGRAMS

Cost-benefit analyses of three long-term, high-quality, early education intervention programs indicate that there are significant future public savings when money is invested in high-quality early care and education, particularly for children of low income. In the three studies discussed below, common quality elements include qualified staff comprised of teachers with specific training in early education, low teacher turnover rates, and classrooms with low child-to-teacher ratios.¹⁶

One flagship study, conducted by The University of Wisconsin-Madison, evaluated Chicago Child-Parent Centers, which are located in or close to public schools, offer educational and social services similar to Head Start in that they are centered on the entire family rather than just the child, and focus on the acquisition of basic skills through structured activities.¹⁷ A group of children of low income were randomly assigned to either a high-quality, child-focused early intervention program or a control group. Researchers found that children in the program were less likely than their peers to drop out of high school, be in special education, repeat a grade, or be arrested as juveniles.¹⁸

¹⁶ While experts differ on the precise definition of what constitutes "high quality" for defining early care and education programs, there is general agreement that programs with these three elements qualify.

¹⁷ A. J. Reynolds, J. A. Temple, D. L. Robertson, and E. A. Mann. *Age 21 Cost-Benefit Analysis of the Title I Chicago Child-Parent Centers*. Institute for Research on Poverty. Discussion Paper Number 1245-02. February 2002. p. 6.

¹⁸ A. J. Reynolds, J. A. Temple, D. L. Robertson, and E. A. Mann. *Long-Term Effects of an Early Childhood Intervention on Educational Achievement and Juvenile Arrest – a 15-Year Follow-Up of Low-Income Children in Public Schools*. *Journal of American Medical Association*. Vol. 285, No. 18. May 19, 2001. pp. 2239-2346.

A second long-term study, known as the Abecedarian Project, found that children who participated in an early intervention program were significantly more likely to attend college and be in a high-skill job or in higher education by time they were 21 years old.¹⁹

A third study, the Perry Preschool study, found that at both age 27 and age 40, adults who had participated in a high-quality program as young children earned more money and were more likely to own their own home than their peers who did not attend preschool.²⁰ At age 27, they were less likely to have been on welfare than their peers.²¹

Building on the Perry study, economists at the Federal Reserve Bank in Minneapolis examined the study's findings to estimate returns on public investment. Their study found that quality early childhood development programs generated a 16 percent rate of return on investment, of which 12 percent was a public rate of return.²² The study concluded, "Most of the numerous projects and initiatives that state and local governments fund in the name of creating new private businesses and new jobs result in few public benefits. In contrast, studies find that well-focused investments in early childhood development yield high public as well as private returns."²³

Furthermore, investments in early education provide benefits regardless of the economic status of the participants. Although the participants in the Chicago Child-Parent Centers, Abecedarian Project, and Perry Preschool studies were limited to children of low income who are at particular risk of repeating grades, not graduating from high school, and poor social and economic outcomes in adulthood,²⁴ studies show that children of middle- and high-income families can also benefit from receiving a quality early education.²⁵

¹⁹ The Frank Porter Graham Child Development Institute at the University of North Carolina at Chapel Hill. *Early Learning, Later Success: The Abecedarian Study*. www.fpg.unc.edu/~abc.

²⁰ L. J. Schweinhart, H.V. Barnes, and D. P. Weikart. *Significant Benefits: The High/Scope Perry Preschool Study Through Age 27*. Monographs of the High/Scope Educational Research Foundation, 10. Ypsilanti, MI: High/Scope Press, 1993; Lawrence J. Schweinhart, *The High/Scope Perry Preschool Study Through Age 40, Survey, Conclusion, and Frequently Asked Questions*, Ypsilanti MI: High/Scope Educational Research Foundation, 2004.

²¹ *Ibid.*

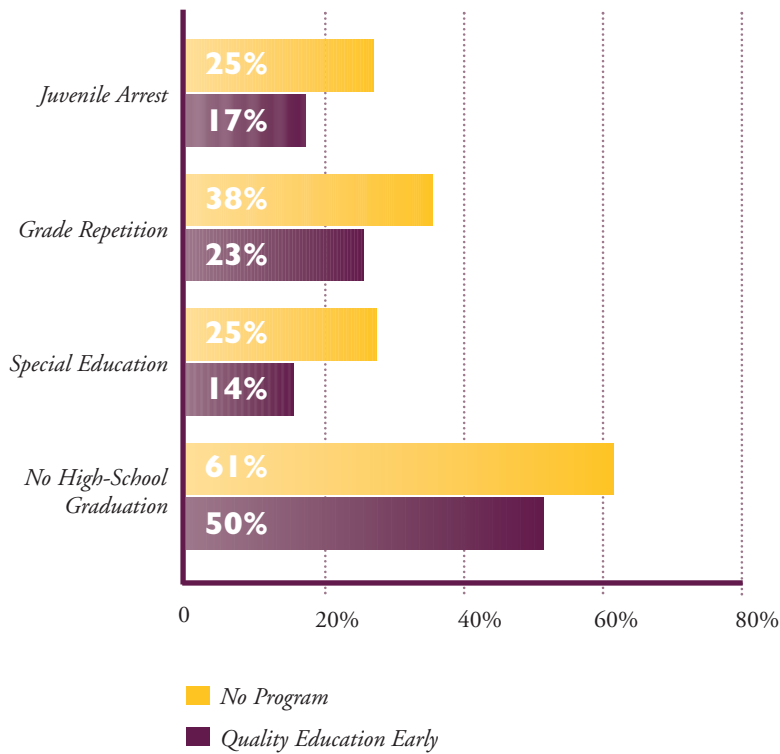
²² A. Rolnick and R. Grunewald. *Early Childhood Development: Economic Development with a High Public Return*. Fedgazette. Minneapolis, MN: Federal Reserve Bank of Minneapolis, January, 2003.

²³ *Ibid.*, p. 1.

²⁴ Families are eligible for Chicago Parent Child Centers if they reside in low-income areas where there are high concentrations of families receiving welfare subsidies and if parents commit to consistent parental participation and exemplary school attendance. Families were eligible for the Abecedarian study based on their score on a high-risk index that included household income, parental education, school histories of family members, welfare payments, parental intelligence, and parental occupations. Families were eligible for the Perry Preschool study if they were of low socio-economic status, as determined by household income and parents' education levels.

²⁵ W. S. Barnett. *Characteristics of Successful Early Education Programs*. Presentation at "The Economics of Early Childhood Development: Lessons for Economic Policy" Conference. Federal Reserve Bank of Minneapolis. October 17, 2003. Information based on data from the National Center for Education Statistics.

Figure 3
Outcomes of Children, at School Exit,
in Chicago Child-Parent Center Study



Source: see footnote 27.

The benefits garnered by young children who participate in high-quality early intervention programs go beyond the participants and provide significant cost-savings for the government. Future savings can be found in criminal justice costs²⁶ and material costs to victims by decreasing involvement in the criminal justice system, decreasing the need for remedial education in the traditional school system, and decreasing participation in the welfare system.

In addition to government savings, however, there are costs associated with increasing the number of children who attend high-quality early child care and education programs. For example, higher education costs rise with increased investment in early education because children who attend these programs are more likely to attend college. However, cost-benefit analyses of the overall costs in the three studies addressed above found that significant cost savings were realized by each program, ranging from four to nine dollars saved for every dollar spent.²⁷

²⁶ The average cost to incarcerate one adult in Illinois in FY 2003 was more than \$22,000, according to the Illinois Department of Corrections, Financial Impact Statement.

²⁷ Arthur J. Reynolds, Judy A. Temple, Dylan L. Robertson, and Emily A. Mann. *Age 21 Cost-Benefit Analysis of the Title I Chicago Child-Parent Center Program: Executive Summary, 2001*; A.J. Reynolds, J.A. Temple, D.L. Robertson, E.A. Mann, and S. Ou. *Prevention and Cost-Effectiveness in the Chicago Child-Parent Centers*. Paper presented at the Biennial Meeting of Society for Research in Child Development. Tampa, FL. April 2003. Values are in 1998 dollars and benefits are based on a 3 percent discount rate evaluated at beginning of preschool participation; Steven W. Barnett. *Lives in the Balance: Age 27 Benefit-Cost Analysis of the High/Scope Perry Preschool Program*. Ypsilanti, MI: High/Scope Press. Values are in constant dollars and based on a 3 percent discount rate.; Leonard N. Masse and W. Steven Barnett. *A Benefit Cost Analysis of the Abecedarian Early Childhood Intervention*. New Brunswick, NJ: National Institute for Early Education Research, 2002. Values are in 2002 dollars and are discounted at 3 percent.

Table 2
ECONOMIC BENEFITS OF TARGETED EARLY EDUCATION INTERVENTION PROGRAMS

	Number of Years of Program	Average Cost per Child per Year	Total Multi-year Cost per Child	Lifetime Benefit to Society per Child
Chicago CPC Study	2, half-day	\$3,500	\$7,000	\$48,000
Perry Preschool Project	2, half-day	6,000	12,000	108,000
Abecedarian Project	5, full-day	7,200	36,000	136,000

Source: see footnote 27.

“There are some areas of clear agreement between market economists and child development researchers. The time has come to invest in young children, and there are substantial gains to be made from these investments if they are made wisely.”

-Jack Shonkoff, Co-Editor of *From Neurons to Neighborhoods*²⁸

²⁸ J. Shonkoff. Closing remarks at “The Economics of Early Childhood Development: Lessons for Economic Policy” Conference. Federal Reserve Bank of Minneapolis. October 17, 2003.

II. ECONOMIC BENEFITS DERIVED FROM EXPANDING CURRENT WORKFORCE

Another way the government reaps economic benefits from the provision of high-quality early care and education programs is the increased income derived from having more qualified adults available to participate in the workforce. According to the 2000 census, one in ten Illinois labor force participants has a child under age six.²⁹ These working parents play a vital role in the economy, earning a total of \$21 billion annually.³⁰ The early care and education infrastructure is critical in enabling working parents, and parents who want to enter the workforce, to find and sustain employment. The ECE industry both supports parents' employment and career advancement and helps employers' bottom-line returns in enhanced recruitment, increased retention and reduced absenteeism.

A. Supporting Parents' Employment and Career Advancement

Parents who want to pursue further education must have access to affordable early care and education. Too often, the lack of early care and education programs offered in convenient locations during non-traditional hours can be a barrier to parents' enrollment in continuing education or training programs.

Student-parents have indicated that the availability of on-campus early care and education was critical to their decision to enroll in college.³¹ Furthermore, research demonstrates that, compared to student-parent counterparts, college students who have access to on-site early care and education facilities for their children have higher graduation rates, are more likely to remain in school and graduate in fewer years, and have higher grade point averages.³²

Future workers in Illinois will need to become even better trained and educated. One study found that new jobs - 66 percent of all those jobs by 2006, and 80 percent of new ones those by 2013, - will require workers to have some education beyond high school.³³ Ensuring the availability of child care options so that parents can access educational opportunities will contribute to fulfillment of the skilled labor force demands in Illinois in the coming years.

²⁹ Based on 2000 U.S. Census.

³⁰ 2000 U.S. Census median incomes for families with children.

³¹ National Coalition for Campus Children's Centers. *Campus Child Care Bill: Child Care Access Means Parents in School Act, S1151 and H.R. 3936*. Policy Brief, 1999. Findings based on 1998 data from the Child Care City Council at City College.

³² National Coalition for Campus Children's Centers. *Campus Child Care Bill: Child Care Access Means Parents in School Act, S1151 and H.R. 3936*. Policy Brief, 1999. Findings based on *Impact of Campus-based Child Care on Academic Success Student Parents at SUNY Community Colleges, 1999*, and *Child Development Center Participant Analyses*, Bronx Community College, 1994.

³³ Women Employed Institute and Chicago Jobs Council. *Making the Pieces Fit: A Plan for Ensuring a Prosperous Illinois*. Chicago: February, 2004.

B. Enhancing Recruitment

To be competitive, employers need to be able to recruit the most qualified employees in their field. Benefits that help employees obtain quality, affordable early care and education can be an effective recruitment tool for businesses.

The link between the inclusion of child care as part of employee benefits and successful employee recruitment is exemplified by several Illinois businesses, including:

- Northwestern Memorial Hospital, in Chicago, named one of the “100 Best Companies for Working Mothers,” offers on-site child care, flexible dependent care spending accounts, and referrals to child care programs as part of a comprehensive benefits package. According to Dean Manheimer, the hospital’s Senior Vice President of Human Resources, “Even in these difficult economic times, Northwestern Memorial provides a stable and nurturing working environment while being able to continue to deliver on two of the hospital’s main goals — to attract, develop and retain the best people who will provide the best possible patient experience.”³⁴
- Northwestern University, in Evanston, after finding that the lack of accessible child care for their faculty and faculty candidates hurt recruitment efforts, took steps to guarantee spaces for the children of employees at a nearby provider and to provide child care resource and referral services to help employees find appropriate programs.³⁵
- Caterpillar, Inc., in Champaign, entered into a contract with the Child Care Resource Service (CCRS) of the University of Illinois for enhanced referral services for its employees. CCRS makes presentations on child care options, works with Caterpillar employees until they find the child care they desire, and follows up with the family to ensure they are satisfied with their early care and education arrangement.³⁶
- Southern Illinois Healthcare, a group of hospitals headquartered in Carbondale, has adopted multiple strategies to support early care and education, including contracting to provide consumer education and referrals to its employees, supporting a nearby child care center when it experienced financial stress, offering employees pre-tax dollar deduction to pay for child care, and co-sponsoring an annual Professional Development Day for providers.³⁷

³⁴ Northwestern Memorial. *Northwestern Memorial Hospital is Named “Best in Industry” in 2003 Ranking of 100 Best Companies for Working Mothers.* www.nmh.org. September 29, 2003. Retrieved June 30, 2004.

³⁵ Northwestern University. *KinderCare to Open Center Near Chicago Campus.* HR Review. <http://www.northwestern.edu/hr/benefits/childcare/news/index.html#kindercare>. May 27, 2004. Retrieved August 12, 2004. Information on other child care benefits may be found at <http://www.northwestern.edu/hr/benefits/childcare/solutions/index.html>.

³⁶ Interview with E-mail correspondence from Judy Hartley, University of Illinois, November 3, 2004.

³⁷ Interview with Lori Longueville, Executive Director, Child Care Resource and Referral Agency, John A. Logan College, January 6, 2005.

C. Increasing Employee Retention

Retaining existing staff is a priority, particularly for companies that rely on highly skilled workers. When employees leave the labor force or transfer to another employer, companies lose human capital and incur high turnover costs. An analysis of 15 different turnover cost studies found that average turnover costs for a full-time employee making \$8.00 per hour are over \$9,000, 56 percent of the annual wages for that employee.³⁸ For salaried employees, costs are at least 150 percent of the base salary, and they increase even more for higher-paid and more valued staff.³⁹

Non-portable benefits, such as early care and education, can be effective business tools to keep employees with young children from discontinuing work or moving to a more family-friendly company. According to a study by Blue Cross/Blue Shield of Massachusetts, those who feel supported in their new family roles and who feel that their workplaces support a balance between work outside the home and home obligations are less likely to leave their jobs.⁴⁰

There is considerable evidence demonstrating the correlation between the provision of early care and education benefits and increased employee retention. One national study of companies that provide early care and education centers for their employees found that turnover was nearly one-half in those who used the center compared to other workers and that more than half of center users had been with the company for more than five years.⁴¹ Another national survey found that 19 percent of employees with on-site early care and education said they turned down another job rather than lose that benefit.⁴² One local company that has exemplified this link is Abbott Laboratories in Lake County, which offers a range of family-friendly benefits, including on-site early care and education. The company's voluntary turnover rate is eight percent, compared to the pharmaceutical industry norm of more than 10 percent.⁴³

D. Reducing Absenteeism

According to a national survey of human resource executives, unscheduled absenteeism in 2002 cost an average of \$60,000 per year per small company, and more than \$3.6 million per large company.⁴⁴ While one-third of unscheduled absences were due to personal illness, one-quarter were due to family issues, including children's illness and unscheduled breakdown of early care and education arrangements.

³⁸ Sasha Corporation. www.sashacorp.com. November 2003.

³⁹ W. Bliss. *The Business Cost and Impact of Employee Turnover*. New Jersey: Bliss & Associates, Inc. www.blissassociates.com 1999.

⁴⁰ Blue Cross/Blue Shield of Massachusetts. *Blue Cross Blue Shield of Massachusetts Named One of the 100 Best Companies for Working Mothers Nationwide*. www.bcbsma.com. September 23, 2003.

⁴¹ Bright Horizons Family Solutions. *The Real Savings from Employer-Sponsored Early Care and Education: Investment Impact Study Results*. Boston, MA: Bright Horizons, 2003.

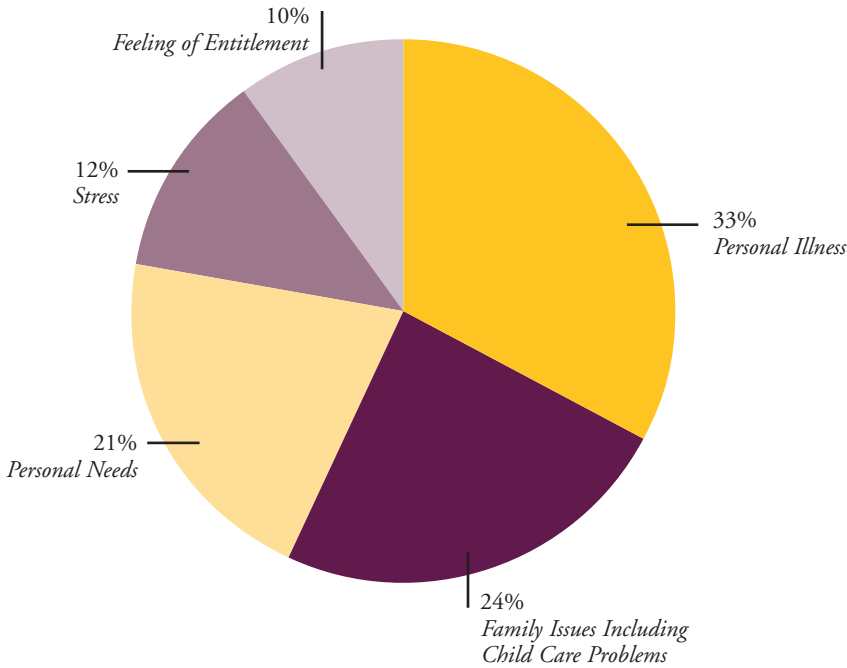
⁴² Simmons College. *Benefits of Work-Site Early Care and Education*. 1997. Cited by Bright Horizons Family Solutions.

⁴³ Press Release from Abbott Laboratories. "Working Mother Magazine Identifies Abbott Laboratories Among Companies Doing More For Employees With Tweens, Children Too Old For Day Care And Too Young To Be Left Alone At Home." www.abbott.com. Released September, 2003. Retrieved June 30, 2004.

⁴⁴ Harris Interactive. *The 2002 CCH® Unscheduled Absence Survey*. Riverwoods, IL: CCH®, 2003.

Currently, approximately 16 percent of major employers nationally offer sick or emergency back-up care for children to reduce absenteeism of their employees.⁴⁵ These programs generate a significant return on investment. An analysis of costs associated with absenteeism and the number of days a back-up child care center was used by employees at a large financial services company in Chicago over one year found that back-up child care saved over 2,300 days of work, corresponding to \$1.4 million in parents' salaries and benefits at the company.⁴⁶ A similar analysis at a Chicago-based company in the entertainment industry with fewer than 500 employees found that employees used the company's back-up child care program 94 times during the year, corresponding to \$150,000 in salaries and benefits.⁴⁷ Northern Trust Company, also based in Chicago, has an on-site early care and education facility with one-quarter of its spaces set aside for employees whose adjusted gross income is below \$40,000. As a recent best practices handbook on family-friendly practices stated, "Northern believes the availability of care at the center decreased absences due to unreliable child care."⁴⁸

Figure 4
Reasons for Unscheduled Absences by Employees



Source: Harris Interactive. The 2002 CCH® Unscheduled Absence Survey. Riverwoods, IL: CCH®, 2003.

⁴⁵ Hewitt Associates. *Hewitt Study Shows Work/Life Benefits Continue to Grow Despite Slowing Economy*. www.was.hewitt.com. April 23, 2001.
⁴⁶ ChildrenFirst. *Financial Services Industry Solutions*. Boston: ChildrenFirst, 2003.. Company name is not publicly released.
⁴⁷ ChildrenFirst. *Entertainment Industry Solutions*. Boston: ChildrenFirst, 2003..
⁴⁸ Chicago Metropolitan 2020. *Childcare Solutions for Your Employees*. Chicago: Chicago Metropolitan 2020, 2001. p23.

III. STATE REVENUE DERIVED FROM EXPANDING THE QUALIFIED FUTURE WORKFORCE

A third economic benefit for the government of high-quality early care and education programs is the increased future income that will be derived from having a larger pool of adults participating in the workforce, which will translate to a larger tax base for the state.

There is a demonstrable connection between high-quality early care and education programs and the preparation of qualified, skilled individuals entering the labor force. While early education programs cannot guarantee lifelong success for every participant, a number of large surveys and long-term studies have consistently found that quality early care and education programs increase children's likelihood of entering traditional K-12 schooling ready to continue learning and to succeed in future opportunities.⁴⁹ For example, the Perry Preschool study found that 40-year-olds from families with low income who attended high-quality preschool were 23 percent more likely to be employed than their peers without preschool, and their median income was 36 percent higher than those peers.⁵⁰

It is important to note that the benefits to participants are generated from participation in high-quality programs. The National Academy of Sciences brought together a committee of experts to synthesize research on early childhood development and they agreed that "the effects of child care derive not from its use or nonuse but from the quality of the experiences it provides to young children."⁵¹ This was seen in the results of a national survey which found that young children who attended high-quality early care and education centers had improved outcomes through elementary school, compared to peers in poorer quality settings.⁵² Specifically, those in higher quality programs had improved math and language ability, enhanced cognitive and social skills, and fewer behavioral issues.

Schools and universities receive public and private investments because the link between education and success in the future labor market is clear.⁵³ One study of individuals transitioning from welfare to work found that 88 percent of those receiving welfare assistance who obtained four-year college degrees discontinued participation in welfare after earning their degree.⁵⁴ Unemployment is also less likely for those with higher levels of education - nine percent of the nation's labor force with less than a high school diploma were unemployed between October 2002 and October 2003, compared to 5.4 percent

⁴⁹ J. Brooks-Gunn. *Do You Believe in Magic? What We Can Expect from Early Childhood Intervention Programs*. Social Policy Report, Vol. 17, No. 1. Society for Research in Child Development. 2003.

⁵⁰ Lawrence J. Schweinhart. *The High/Scope Perry Preschool Study Through Age 40, Survey, Conclusion, and Frequently Asked Questions*. Ypsilanti, MI: High/Scope Educational Research Foundation, 2004.

⁵¹ J. Shonkoff and D.A. Phillips, Editors. *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, D.C.: National Academies Press, 2000. p. 307.

⁵² E. S. Peisner-Feinberg, M. R. Burchinal, R. M. Clifford, M. L. Culkin, C. Howes, S. L. Kagan, and N. Yazejian. *The Relation of Preschool Child-Care Quality to Children's Cognitive and Social Development Trajectories through Second Grade*. *Child Development*, Vol. 72, No. 5. September/October 2001. pp. 1534-53. Quality was assessed in this study using the following criteria: classroom quality measures using the Early Childhood Environment Rating Scale (ECERS), teacher sensitivity using the Caregiver Interaction Scale (CIS), child-centered teaching style using the Early Childhood Observation Form (ECOF), and teacher responsiveness using the Adult Involvement Scale (AIS). In addition, teacher-child relationship and child assessment measures were used.

⁵³ U.S. Department of Labor. *The Employment Situation: October 2003*. Washington, D.C.: U.S. Department of Labor Bureau of Labor Statistics, 2003.

⁵⁴ T. Karier. *Welfare Graduates: College and Financial Independence*. Levy Economics Institute of Bard College. Cited in *Grassroots to Graduation: Low-income Women Accessing Higher Education*. Boston: Wellesley College Center for Research on Women and Women's Institute for Housing and Economic Development, 2003.

of those with a high school diploma, 4.8 percent of those with an associate's degree or some college, and 3.1 percent of those with a bachelor's degree or higher.⁵⁵ While more research will enable a better understanding of the long-term effects of high-quality early care and education for all children, current findings clearly indicate that investments in early education complement investments in K-12 and higher education because younger people have more time to generate returns on investments and because “skill begets skill.”⁵⁶

“Early learning begets later learning and later success.”

-James J. Heckman,
Nobel Prize-Winning Economist, University of Chicago

The economic benefits that result from investment in the ECE industry are shared by a variety of stakeholders. Taxpayers benefit from lower costs for criminal justice, remedial education, and welfare that result from the provision of high-quality early care and education services. Businesses benefit because accessible early care and education options support their current employees to do their best work, as well as prepare children for skilled employment in the future. Communities benefit because parents have access to safe, quality early care and education for their children while they work outside the home. Finally, children benefit because, equipped with age-appropriate cognitive, social, and emotional skills, they are better prepared to succeed in kindergarten, to achieve later academic success, and, eventually, to be productive and successful as adults.

⁵⁵ U.S. Department of Labor. *The Employment Situation: October 2003*. Washington, D.C.: U.S. Department of Labor Bureau of Labor Statistics, 2003.

⁵⁶ J. J. Heckman and A. W. Forum. *Policies to Foster Human Capital*. Joint Center for Poverty Research working paper: Northwestern University/University of Chicago. p. 39.

SECTION FOUR: NEED FOR INCREASED PUBLIC AND PRIVATE SUPPORT FOR THE EARLY CARE AND EDUCATION INDUSTRY

Recognizing both the immediate and future benefits the ECE industry provides to Illinois' economy, there is a need for increased public and private support in order to maximize the industry's economic benefits to the state. There are several areas of the industry which can be improved upon and can benefit from increased investments. Efforts by both the public and private sectors to meet industry challenges to increase capacity and improve quality of early care and education programs will ensure that the ECE industry can meet the needs of the Illinois economy.

I. CURRENT INVESTMENTS IN EARLY CARE AND EDUCATION PROGRAMS

The formal early care and education programs included in this study can serve about 26 percent, or 262,811, of the 1.05 million children in Illinois under age six, at any one time.⁵⁷ This capacity includes centers, Head Start facilities, family child care homes, and preschools.

Total state and federal funding for early care and education for children under age six from families of low income in Illinois was \$856.3 million in state fiscal year (SFY) 2003. The amount of public sector investment that a program receives varies by the type of program. Head Start and State pre-kindergarten, which make possible much of Illinois' capacity to educate and care for young children, are fully funded by the public sector. State and federal spending also contribute significantly to programs for working families with low incomes who use existing early care and education settings. The monthly average number of children of all ages in these families who received Illinois Child Care Assistance grew from 92,000 children in Fiscal Year 1997 to 190,000 in FY 2003. In the latter year, 302,000 unduplicated children received some child care partially paid by this assistance.⁵⁸

Examples of early care and education programs that benefit from state and federal support to families of low income include:

- Child Care Assistance subsidies, which are provided by IDHS to income-eligible working families for early care and education. In SFY 2003, payments to child care providers totaled \$381.9 million for services to children under age six.⁵⁹ In addition, \$205.6 million was dispersed for school-age children under age 13. To qualify for such assistance, families must earn less than 50 percent of the state median family income, which was \$56,716 in 2002, and meet other eligibility requirements.

⁵⁷ Data for all formal programs as of December 2003 provided by Illinois Network of Child Care Resource and Referral Agencies and Illinois Department of Human Services, July 2004. The number of child care homes excludes more than 20,000 license-exempt programs.

⁵⁸ K. Stohr, S. Lee and S. Nyman. *The Illinois Child Care Experience Since 1996: Implications for Federal and State Policy*. Chicago: The Day Care Action Council of Illinois (now Action for Children), 2002; CLASP report on Illinois; Communication from Holly Knicker; Illinois Department of Human Services, December 15, 2004.

⁵⁹ Communication from Holly Knicker; Illinois Department of Human Services, December 15, 2004.

- Illinois State Board of Education (ISBE) pre-kindergarten programs, which serve three and four-year-olds in high-quality part-day programs on or off school sites. Pre-kindergarten funding totaled \$191.6 million state dollars in SFY 2003. School officials identify children for the program through screening and assessment programs. Many participants are in low-income families.⁶⁰
- Head Start, which serves children from birth to age five, pregnant women, and their families in family-focused part-day and full-day programs designed to increase school readiness of young children in families of low income.⁶¹ In federal fiscal year (FFY) 2001-02, Illinois received \$192.1 million in federal funds for Head Start and an additional \$14.6 million for Early Head Start, expansion grants, and other related monies, totaling \$206.7 million.⁶²
- United States Department of Agriculture (USDA) early care and education food program, which provides funds to supply nutritious meals for children in low-income families. These contributions had an annual cost of \$76.1 million for Illinois in FFY2002.⁶³

While these programs fulfill a critical need, the funding is not sufficient to provide assistance to many additional families who would benefit from affordable, high-quality early care and education programs. For example, in SFY2003, more than 10,000 children were on a waiting list for ISBE pre-kindergarten programs alone. Additional financial support is needed to both expand the capacity and improve the quality of the ECE industry.

⁶⁰ Illinois State Board of Education Data Analysis and Progress Reporting Division. *Illinois Pre-kindergarten Program for Children at Risk of Academic Failure FY 2003 Evaluation Report*. Springfield: June 2004.

⁶¹ U.S. Department of Health and Human Services, Administration for Children, Youth and Families. Head Start website, www2.acf.dhhs.gov/programs/hsb/about/index.htm.

⁶² Illinois Head Start. www.ilheadstart.org. Retrieved August 10, 2004.

⁶³ www.fns.usda.gov/pd/cccash.htm

II. CHALLENGES TO INCREASING EARLY CARE AND EDUCATION CAPACITY AND QUALITY

Despite substantial state and federal investments in early care and education in Illinois, much of the industry lacks the financial resources needed to expand capacity and improve the quality of their programs. While businesses in many industries face difficult trade-offs between price and quality, those in early care and education feel special pressures. With few exceptions outside of public sector programs, even the most prosperous, business-savvy early care and education establishments persistently operate on tight margins, with the difference between their revenues and their costs small at best.

Statistics support frequent reports from program directors and home providers that their revenues barely cover their costs. Between July 1999 and December 2003, approximately 400 child care centers capable of serving an estimated 17,000 Illinois children under age six closed their doors.⁶⁴ This represented as much as 17 per cent of the capacity of the 2,784 centers known to serve that age group in December 2003.

Unlike other businesses, the additional needed resources cannot typically be collected from the ECE industry's customers. Providers cannot increase the amount they charge parents because working parents face equally tight family budgets. The average annual cost in 2003 in Illinois for full-time licensed center-based care and education for an infant was nearly \$8,700 and for full-time center-based care and education for a preschooler was more than \$5,900.⁶⁵ At these rates, even a family at the Illinois median income (\$56,716 in 2002) would need to pay up to 15 percent of its total income for placing an infant full-time in center-based care.⁶⁶ For a family with the median income and with both a preschooler and an infant in full-time center-based care, these early care and education costs would take up more than 25 percent of its total income. Most private-pay customers cannot afford to pay the full tuition of high-quality early care and education programs, and, as a consequence, programs struggle to provide quality.

III. AREAS WITH A NEED FOR OUTSIDE SUPPORT FOR IMPROVEMENTS

A. Aid Needed to Expand Capacity of Early Care and Education Programs

Improvements to Infrastructure

The ECE industry currently faces a financial challenge in meeting its capital needs for both the development of new facilities and the improvement of existing early care and education centers. Research has found that children need an appropriate physical environment in order to develop.⁶⁷ Children must be comfortable with, and secure in, their physical environment in order to move freely in space, respond to their senses, act independently, and develop their identity.⁶⁸ Spaces that create these opportunities for children provide the basis for their intellectual development.

⁶⁴ Data provided by Illinois Network of Child Care Resource and Referral Agencies to Action for Children, January 2003. Note: during the same time, other centers opened.

⁶⁵ Cost estimates based on market rate information collected in 2003.

⁶⁶ U.S. Census Bureau. *2002 American Community Survey Profile, Population and Housing Profile: Illinois*.

⁶⁷ Susan W. Gallagher. *The Power of Place: How Our Surroundings Shape Our Thoughts Emotions and Actions*. New York: Simon and Schuster, 1993; G.T. Moore and R.A. Hart (Eds.) *Child Care Environments: Policy, Research, Design*. Special Issue of *Children's Environments Quarterly*, Vol. 6, No.4. Winter 1989.

⁶⁸ Anita R. Olds. *Psychological and Physiological Harmony in Child Care Center Design*. *Children's Environments Quarterly*, Vol. 6, No. 4. Winter 1989.

High-quality care and education for young children requires relatively open, carefully designed, and inviting spaces.⁶⁹ According to the Illinois Facilities Fund, the capital costs associated with creating well-designed spaces for children can range from less than \$10,000 for a classroom makeover to \$200,000 for renovation to \$700,000 for the purchase and expansion of a space.⁷⁰ The costs associated with re-doing a classroom are largely for materials and equipment, whereas renovation and building projects incur additional expenditures for property acquisition, architecture and engineering, and legal fees. Dedicated capital funds are needed to enable early care and education providers to enhance and develop the quality programs Illinois needs.

Currently, Head Start and Early Head Start are the only early care and education programs that provide any capital investments. However, even these grants are insufficient as they are only made for program expansion, the application process is cumbersome, and the grants are made with the prior year's unspent funds rather than from a standard line-item of the annual Head Start budget. Given the current financial structure, providers rarely have money available for capital investment, let alone cosmetic improvements, once program expenses are met. Governments, businesses, and communities need to consider capital investments in early care and education as comparable to investments in local public schools.

Improved Access to Infant Care

The most labor-intensive early care and education settings are the most expensive to maintain. One area of particular concern is infant care.

Despite the 40 percent higher revenues available to programs if they offer infant care instead of care for three and four-year-olds, the costs of providing this care exceed the additional revenues that can be earned. Both licensing requirements imposed by the DCFS and best practices in the care for infants stipulate a low ratio of infants to staff of four infants to one adult, compared to a ten-to-one ratio for three and four-year-olds. These differences in minimum staffing ratios make salaries per child 150 percent times higher in infant care. As a consequence, in the 23 most populous counties of Illinois, center care for infants costs parents an average of 40-43 percent more than care for their three and four-year-olds.⁷¹ In 2003, a family at the state median income paid an average of \$8,768 – 15 percent of their income – for infant care.

As a result, infant care is scarce. About 25 percent of parents who call Illinois Child Care Resource and Referral Agencies are seeking infant care.⁷² Unless family incomes in Illinois rise significantly, many parents might not be able to remain in the labor force during their children's first year. This gap between parents' incomes and the costs of care in centers points to the need for public policy to target infant care for special support.

⁶⁹ T. Proscio, C. Sussman and A. Gillman. *Child Care Facilities: Quality by Design*. New York: Local Initiatives Support Corporation, May 2004.

⁷⁰ Illinois Facilities Fund. *The Building Blocks of Design: A Handbook for Early Childhood Development Facilities*. Chicago: October 2004.

⁷¹ Illinois Department of Human Services. *FY2002 Market Rate Survey of Licensed Child Care In Illinois*. Table 6, p.108. Based on average rates for the 23 Group 1A and 1B counties (see p. 3 for list of included counties). In the remaining counties, infant care cost 33 percent more.

⁷² Illinois Department of Human Services. *2002 Report On Illinois Child Care*. pp. 13, 20-21.; Many parents call these agencies only when their personal contacts cannot provide successful referrals for care. By comparison, only 20 percent of calls sought care for three and four-year-olds. The State of Illinois has been trying to address this problem within the limits of its resources, See p. 28. . Accessed January 12, 2005, <http://www.ilchildcare.org/parentsandpublic/data/FY02%20Ann%20Rep.pdf>. Retrieved January 12, 2005.

Improved Business Skills

Some of the ECE industry's economic challenges are due to the fact that many directors of early care and education programs, similar to entrepreneurs and heads of small businesses in other industries, are better trained in leading their organizations and managing the services than in the business and financial side of their job. The ECE industry and the families they serve would benefit from expanded on-going public and private efforts to improve financial skills at the entrepreneurial and management levels of early care and education.

B. Aid Needed to Improve Quality of Early Care and Education Programs

Increased Salary and Benefits for the Early Care and Education Workforce

A qualified, stable workforce is a critical component of a successful early care and education program. There are currently more than 55,969 full-time equivalent jobs in the ECE industry. However, child care centers too often experience high rates of staff turnover. Forty-nine percent of center-based early care and education teachers have been in the field less than three years and 70 percent have spent less than six years in the field.⁷³ Between July 2001 and June 2003, two-thirds of licensed centers lost at least one early childhood teacher.⁷⁴

Recruiting and training new staff who stay for a short period of time is not cost effective. In general, employee turnover is estimated to cost 1.5 times the annual salary of a salaried employee, and .75 times the annual wage income of an hourly employee.⁷⁵ Similarly, one study found that centers, on average, spend about seven percent of their annual budget on recruitment.⁷⁶ While many industries face high turnover costs, the effects of these turnover costs on the quality that providers can afford to offer affect Illinois' children and its future workforce.

High turnover in an industry is often due to low wages and poor benefits and the ECE industry is no different. The two reasons employees most commonly report for leaving their center jobs are to work in another industry and the inadequate pay of the job.⁷⁷ Center directors observe that the two main reasons applicants find child care center jobs unattractive are low salaries and poor benefits.⁷⁸

The current wage for a full-time ECE professional does not provide enough income to meet basic household expenses for employees in many parts of the state. For example, the income required to meet basic household expenses, known as the self sufficiency standard, ranges from \$17,906 in Edgar County to \$31,338 in Cook County to \$37,806 in McHenry County for one adult with no dependents.⁷⁹ The median wage for workers in the ECE industry ranges from \$7.00 per hour for a part-time assistant teacher in a full-year center to \$20.00 per hour for an administrative director in a part-year center.⁸⁰ Only one-third of providers in family child care homes report gross incomes of more than \$23,000 per year.⁸¹

⁷³ *Illinois Salary and Staffing Survey of Licensed Providers*, Table 17, p. 21.

⁷⁴ *Ibid.*

⁷⁵ Personal Journal, December 1990. Cited in Bright Horizons Family Solutions, Benefits of Employer-Sponsored Care, www.brighthorizons.com.

⁷⁶ L. Vandell and B. Wolfe. *Child Care Quality: Does it Matter and Does it Need to Be Improved?* Institute for Research on Poverty. <http://aspe.hhs.gov/hsp/ccquality00/ccqual.htm> econ. 2000.

⁷⁷ Illinois Department of Human Services. *Illinois Salary and Staffing Survey of Licensed Child Care Facilities: FY2003*, prepared by D. Ramsburg, D. Montanelli and E. Rouge, April 2004, pp 13-14.

⁷⁸ *Ibid.*, p. 18.

Early care and education professionals are paid significantly less than workers in other occupations with the same or less stringent training requirements. Early education professionals with teaching degrees who work full time in full-year center-based establishments make far less than kindergarten or preschool teachers in public school settings, with average salaries of \$18,741 and \$34,731, respectively.⁸² Janitors and school bus drivers, who earn \$20,196 and \$25,460, respectively, both have higher median wages than early care and education professionals, who often have degrees in early childhood education and child development.⁸³ Correctional officers, who earn \$39,446, also make more than early care and education teachers in public school settings.

Furthermore, many early care and education professionals do not receive traditional employment benefits. Forty-five percent of center-based employees do not receive any health benefits and 61 percent have no retirement or pension coverage provided by the center employer.⁸⁴ Only 23 percent of home-based providers bought health insurance themselves. In many cases, ECE providers are covered by other policies. Of home providers, for example, 53 percent were covered through another person or a second job.⁸⁵ Paid vacation is also not prevalent in the early care and education workforce, with almost one-fifth of centers saying they provided no vacation for their employees.⁸⁶

While other industries may likewise face high turnover rates, the consequences of turnover in the ECE industry are especially troublesome because they decrease the overall ability to best serve children. The stability of a child's relationship with his or her provider is important to a child's social, emotional, and cognitive development.⁸⁷ And, the many costs associated with high turnover divert much needed financial support for activities such as professional development.

⁷⁹ D. Pearce with J. Brooks. *The Self-Sufficiency Standard for Illinois*. Women Employed. 2001.

⁸⁰ D. Ramsburg, D. Montanelli, and E. Rouge. *Illinois Salary and Staffing Survey of Licensed Child Care Facilities: FY 2003*. Illinois Department of Human Services. April 2004.

⁸¹ *Ibid.*

⁸² Illinois Department of Economic Opportunity. *Employment and Wages by Occupation, Second Quarter, 2003; Illinois Salary and Staffing Survey of Licensed Child Care Facilities: FY2003*.

⁸³ Illinois Department of Economic Opportunity. *Employment and Wages by Occupation, Second Quarter, 2003*. Note: This does not include some self-employed family child care homes or employees in public schools.

⁸⁴ D. Ramsburg, D. Montanelli, and E. Rouge. *Illinois Salary and Staffing Survey of Licensed Child Care Facilities: FY 2003*. Illinois Department of Human Services. April 2004. Similarly, a University of Chicago Lab survey of Illinois early care and education centers, conducted for Action for Children, found that while 64 percent of all center employees in Illinois were eligible for health care, only 46 percent were covered by the center's own insurance.

⁸⁵ *Ibid.*

⁸⁶ Calculated from data collected for the *Illinois Salary and Staffing Survey of Licensed Child Care Facilities: FY2003*.

⁸⁷ S. Barnett. *Solving the Real Preschool Teacher Crisis*; C. Todd and D. Deery-Schmitt. *Factors Affecting Turnover Among Family Child Care Providers: A Longitudinal Study*. *Early Childhood Research Quarterly*, Vol. 11. 1996. pp. 351-376.

Better Trained Workforce

Although some key attributes of a quality early care and education teacher, such as being warm and engaged, cannot be taught, other aspects, such as developmental stages, curriculum development and teaching techniques, require advanced training. It takes an attractive salary to motivate young and returning workers to devote time and concentration to acquiring these skills and to keep highly skilled teachers from leaving the industry.

Without attracting and training skilled classroom teachers, the public will not realize many of the large gains of high quality early education. It will cost a significant amount to expand and maintain Illinois' infrastructure to train skilled staff. Particularly notable needs include supporting early care and education students through scholarships and strengthening early care and education training in teaching departments of colleges, universities and in community settings. Currently, some who desire to pursue a career in early care and education cannot afford to borrow large amounts to pay college tuition because they cannot earn high enough incomes in the field to repay loans. Achieving a quality workforce will require public or private support to enable providers to develop needed skills.

In order to address the issues surrounding expansion and quality, the ECE industry needs additional outside support. The public sector is an appropriate source of core support for early care and education in Illinois, as this report has shown that the public receives benefits from increased early care and education capacity and quality.

In addition, private industry should play a role in supporting early care and education programs due to benefits it receives from high-quality programs. Early care and education in Illinois currently receives private subsidies from employers, foundations, religious institutions and universities, and community agencies that operate or support early care and education establishments. These private subsidies amount to approximately nine percent of current spending on early care and education in Illinois.⁸⁸ While this is a significant amount of support, it should be increased to help meet the needs of Illinois families for quality early care and education.

⁸⁸ Derived from survey data reported in D. Ramsburg, D. Montanelli, and E. Rogue. *Illinois Salary and Staffing Survey of Licensed Child Care Facilities: FY 2003*. Illinois Department of Human Services. 2004.

SECTION FIVE: DEMOGRAPHIC AND ECONOMIC PROFILE OF ILLINOIS

Illinois' demographic and economic trends have significant implications for early care and education programs for young children in the state. This section gives a brief overview of some of these trends and discusses their implications for the ECE industry. Changing economic and social conditions necessitate continued focus on early care and education programs and should be taken into consideration when planning for future investments in early care and education programs is conducted.

I. POPULATION TRENDS INDICATE SUSTAINED DEMAND FOR EARLY CARE AND EDUCATION PROGRAMS

Illinois is currently the fifth most populous state in the nation. Of the estimated 12.6 million people in Illinois in 2003, 8.5 percent were children under six and 10.4 percent were children ages six through 12.⁸⁹ By 2025, the state is projected to have the ninth largest proportion of children under age five.⁹⁰

One in ten labor force participants - more than 650,000 workers - has a child under age six.⁹¹ According to the 2000 census, there were 238,000 two-parent families in Illinois with both parents working outside the home. As a result, almost 53 percent of Illinois children in two-parent families live with dual-working parents. At the same time, almost 72 percent of children under age six who live in single-mother family households – 68,000 households – have mothers participating in the labor force and seventy-eight percent of children who live in households headed by single fathers have fathers who participate in the labor force. These demographics highlight the need for early care and education programs for children so that their parents can continue to participate in the labor force.

II. EARLY CARE AND EDUCATION PARTICIPANTS' DIVERSITY IMPACT THE TYPE OF PROGRAMS NEEDED

Although the state's population growth has been modest compared to national trends,⁹² the source of its growth has implications for the future of the ECE industry. The largest factor of population growth in Illinois has been international migration which has accounted for 55 percent of the population growth in Illinois between 1990 and 1999.⁹³ The growth in international migration is projected to continue in Illinois for the next several decades. Between 1995 and 2025, projections rank Illinois fifth for net international migration gains.⁹⁴

⁸⁹ U.S. Census Bureau. 2000 Census; *Annual Population Estimates by State*.

⁹⁰ U.S. Census Bureau. *State Population Rankings Summary, Illinois Population Projections: 1995-2025*. Note: This report analyzes those under 5 years of age rather than 6 years.

⁹¹ U.S. Census Bureau. 2000 Census; U.S. Department of Labor Bureau of Labor Statistics. *Geographic Profile of Employment and Unemployment, 2002*.

⁹² U.S. Census Bureau. *Annual Population Estimates by State*.

⁹³ Maryland Department of Planning, Planning Data Services. *Analysis of Population Components of Change, 1990-1999*. September 2000.

⁹⁴ U.S. Census Bureau. *State Population Rankings Summary, Illinois Population Projections: 1995-2025*.

Children living in Illinois ages birth through five are more diverse in terms of race and ethnicity than the general population. Overall, these children are 54 percent non-Hispanic/Latino white, 15 percent Black/African-American, 17 percent Hispanic/Latino, more than three percent Asian or Pacific Islander, and more than 11 percent Native American, Alaskan, or one or more of another self-reported race.⁹⁵ Of particular note is the significant growth in Illinois in the Hispanic/Latino population.

Between 1990 and 2000, the number of Hispanics/Latinos in the state grew by 69 percent, exceeding the nationwide growth rate of 58 percent. Rapid growth has caused the Hispanic/Latino share of the population to increase from 8 percent of Illinois' total population in 1990 to 12.3 percent in 2000. Furthermore, currently half of the Illinois Hispanic/ Latino population is 25 years old or younger, compared to the state's median age of 36 years old for non-Hispanic/Latino residents. Nearly 12 percent of the state's overall population aged five years and older speak Spanish at home.⁹⁶ In 2025, Illinois' Hispanic/Latino population is projected to comprise 16.9 percent of the state's total population, which would make Illinois the fifth largest state in terms of the population of Hispanics/Latinos.⁹⁷

With one-fifth of its residents age five and older speaking a language other than English, Illinois ranks 10th in the nation in number of non-English speakers. Focus groups indicate that Latino mothers in metropolitan Chicago report that it is important for them to speak Spanish with early care and education providers and for their children to begin their K–12 education speaking English.⁹⁸ Both the state's strong international migration and the increasing number of families who do not speak English increase the need for dual-or multi-lingual early care and education staff and culturally appropriate programs.

III. ILLINOIS' REGIONAL DIFFERENCES IMPACT ECE INDUSTRY

Illinois is a state with significant regional differences that affect the demand for, and delivery and affordability of, early care and education programs.

According to the 2000 census, almost two-thirds of Illinois' population lives in the Chicago metro area, with 42 percent in the suburbs (the collar counties) and 23 percent in the city of Chicago. The other 35 percent of the population lives outside the Chicagoland area.⁹⁹ A slightly higher percent of young children live in Chicago and its suburbs than in non-metropolitan areas.¹⁰⁰

Illinois' collar counties are seeing rapid changes. Between 1990 and 2000, the population of the Chicago suburban area (DuPage, Kane, Lake, McHenry, Will, DeKalb, Grundy, Kendall and Cook counties) grew by 26 percent, on average, compared to 4 percent growth in Chicago. There was a simultaneous increase in the collar counties in the number of people living in poverty.¹⁰¹

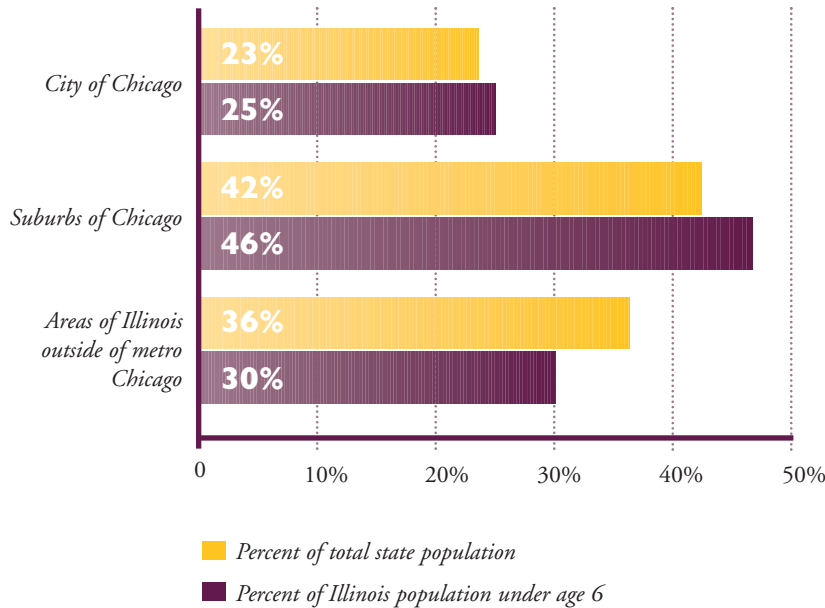
⁹⁵ U.S. Census Bureau. 2000 Census. Note: The following ethnic and racial groups are all non-Hispanic/Latino: White/Caucasian, Black/African American, Asian, and "other."

⁹⁶ U.S. Census Bureau. 2002 American Community Survey Profile, Population and Housing Profile: Illinois. Note: In addition to nearly 12 percent who speak Spanish at home, more than 5 percent speak other Indo-European languages and slightly more than 2 percent speak Asian/Pacific Islander languages.

⁹⁷ U.S. Census Bureau. State Population Rankings Summary, Illinois Population Projections: 1995-2025; P.Cambell. State Population Projections. Census Bureau, Population Division and Housing and Household Economic Statistics Division: January 18, 2001.

⁹⁸ Illinois Facilities Fund. We Need More Day Care Centers: Latino Families and Child Care Preferences in Metropolitan Chicago. Chicago: June 2003.

Figure 5
Percentages of Population by Region, Illinois, 2000



Source: U.S. Census Bureau, 2000 Census

Growth in the suburbs has been spurred by changes in immigration patterns. Many recent immigrants are bypassing the traditional move to the city of Chicago and moving directly from foreign countries into the suburbs.¹⁰² In 2000, there were more foreign immigrants in the suburban portions of metropolitan Chicago than in the city of Chicago itself, 788,000 and 629,000 respectively.¹⁰³ These trends have increased the need for early care and education programs in the suburbs, especially those that can meet the cultural and linguistic needs of immigrant communities.

Regional economic conditions have also played a role in demographic changes. Between 1990 and 2000, the rural areas of Illinois grew an average of only 1.1 percent. Between 1980 and 2000, there was a 4 percent drop in rural wages adjusted for inflation. Given these economic factors, the issues of access to and affordability of early care and education programs will continue to be important for rural working families.

IV. FAMILY INCOMES AFFECT AFFORDABILITY OF ECE PROGRAMS

Paying for early care and education programs is a significant challenge for families in most income brackets in Illinois. The average annual cost in 2003 for full-time licensed center-based care and education for an infant was nearly \$8,700 and for full-time center-based care and education for a preschooler was \$5,900.¹⁰⁴ A family at the state's median family income would need to pay up to 15 percent of its total income for placing an infant full-time in a center-based care and more than 25 percent for placing both a

⁹⁹ U.S. Census Bureau. *Illinois Census 2000*; Department of Commerce and Community Affairs.

¹⁰⁰ U.S. Census Bureau. 2000 Census.

¹⁰¹ D. Mendell. "The Boom Decade: Census data show Chicago area rode wave of economic prosperity in '90s." *Chicago Tribune*, May 15, 2002.

¹⁰² S. Gupta. *Immigrants in the Chicago Suburbs: A Policy Paper*. Chicago: Metropolis 2020, 2004.

¹⁰³ R. Paral. *Chicago's Immigrants Break Old Patterns*. Institute for Metropolitan Affairs, Roosevelt University, September 1, 2003.

¹⁰⁴ Cost estimates based on market rate information collected in 2003.

preschooler and an infant in full-time center-based care.¹⁰⁵ To put the costs for early care and education into perspective, annual full-time unsubsidized center-based care and education for an infant costs more than undergraduate tuition for an Illinois resident at the University of Illinois at Urbana-Champaign.¹⁰⁶

Almost one-third of Illinois children under five years old live in families with incomes at or below 50 percent of the state median family income.¹⁰⁷ This family income makes their parents eligible to receive Illinois Child Care Assistance if they meet other work, training or education eligibility requirements. Combined, the state and federal dollars distributed through the Illinois Child Care Assistance Program provide modest support for about 80,000 working families each month. However, despite the large number of children eligible for Illinois Child Care Assistance, eligibility for assistance is restricted to families with rather low incomes. For example, a single working parent with two children with an income of \$29,000, which is less than 50% of the state median family income for a family of three, would not have been eligible for assistance in 2004.¹⁰⁸

Programs that reduce early care and education costs are critical to sustaining parents' participation in the workforce and maintaining their ability to participate in early care and education programs. The current high costs of care, along with the income levels of those who most need early care and education services, lead to a critical demand for both government assistance and employer-generated solutions to reduce early care and education costs for Illinois' workers.¹⁰⁹

¹⁰⁵ U.S.Census Bureau. *2002 American Community Survey Profile, Population and Housing Profile: Illinois*.

¹⁰⁶ University of Illinois at Urbana-Champaign Tuition and Fees Information. www.universities.com. Retrieved October 25, 2004. Note: These costs do not include room and board costs. Other University of Illinois tuition information can be found at www.oar.uiuc.edu/current/tuit.html. Illinois State University costs \$5530, according to their website, www.faoilstu.edu/eligibility/ucost2004.shtml.

¹⁰⁷ Estimate by Action for Children based on 2000 Census data.

¹⁰⁸ State of Illinois Department of Human Services. *Important Parent Co-payment Information*. www.dhs.state.il.us/ts/pdf/feeScale.pdf. Issued July 2004. Retrieved September 16, 2004.

¹⁰⁹ Anna Barnes Communications. *Illinois Child Care: Options for Employers*. Illinois Department of Human Services and Illinois Network for Child Care Resource and Referral Agencies. 2001.

SECTION SIX: RECOMMENDATIONS

The ECE industry is a good investment because it provides long-term benefits to participating children and their families while also yielding government savings from reduced costs in areas including grade retention, special education, and crime.

This first-of-its-kind study in Illinois demonstrates that these long-term benefits are not the only reason that early care and education deserves support. Early care and education is also an industry that provides direct economic benefits. It contributes to the state's economy by:

- Generating \$2.12 billion in gross receipts annually, comparable to the annual gross receipts of the soybean farming industry.
- Employing almost 56,000 people, more than the number of employees in the chemical manufacturing industry.

Based on these findings, the following policy goals and action steps are recommended:

- Goal One:* Increase awareness and understanding of early care and education as an industry and fully integrate it into discussions on economic, community and human development as well as education.
- Goal Two:* Integrate early care and education into state, regional, and local planning in Illinois to ensure that all Illinois children have access to high-quality early care and education programs.
- Goal Three:* Bring public and private investment in early care and education to the level needed so that Illinois' children are prepared to succeed and working parents can access programs meeting their needs.

These goals are critical to achieving the future educational and social dividends that research tells us are possible. The early care and education community should continue to work with government and the business community to realize these outcomes.

BUSINESS

- Support state legislation that expands access to quality early care and education programs and that makes working families eligible for subsidies at higher income levels.
- Leverage funds through public-private partnerships to build quality early care and education facilities and develop programs that can address the shortage of infant care.
- Provide resource materials to enable more businesses to help support their employees' early care and education needs.
- Develop partnerships and provide resources to help the ECE industry improve its business skills and practices.
- Nominate ECE industry representatives and experts for appointment to the boards of business community organizations involved in economic development and workforce issues.

GOVERNMENT

- Pass state legislation that expands access to high-quality early care and education programs and makes working families eligible for subsidies at higher income levels.
- Integrate early care and education into statewide planning for education, housing, and workforce development.
- Publicly recognize businesses that support their employees' early care and education needs.
- Analyze how population trends affect the demands for and geographic distribution of early care and education services in Illinois.

EARLY CARE AND EDUCATION INDUSTRY

- Advocate for legislation that expands access to high-quality early care and education programs.
- Advocate with the business community for increases in investments in early care and education capital and programs.
- Work with government and the economic development community to market early care and education as a vital multi-billion dollar state industry that employs tens of thousands of workers.
- Advance an ECE industry workforce development agenda within government to improve quality through staff training and development.
- Provide data on trends in early care and education to business and government leaders annually.

APPENDIX A

Methodology for Calculating Direct Employment and Gross Receipts for Early Care and Education

The economic contribution of the ECE industry is significantly undercounted in traditional economic accounting tools and alternate methodologies for collecting data are necessary.

Direct Employment

Minimum licensing staff-to-child ratios required by Illinois Department of Child and Family Services (DCFS) were used to estimate the number of teaching staff in early care and education establishments. These correspond to one staff person for every four infants, for every five younger toddlers, for every eight older toddlers, for every 10 younger preschoolers, and for every 20 older preschoolers. This undercounts staff in those establishments that choose to maintain lower staff-to-child ratios in order to improve quality and maintain a competitive edge. The Illinois Statewide Staffing and Salary Survey indicates that staff work an average of 50 hours per week. Thus, to calculate the full-time equivalent employment, total employment was adjusted to reflect a 40-hour-week, consistent with a full-time equivalent norm.

A survey of Illinois' early care and education providers indicates that centers have an additional 14 percent of staff engaged in non-teaching activities, such as administration, accounting, food preparation, or cleaning.¹¹⁰ Thus, an additional 14 percent was applied across the board to account for non-teaching staff.

Family child care homes are required to have one full-time employee. The Illinois Statewide Staffing and Salary Survey indicates that these staff members also work an average of 50 hours per week. Thus, to calculate full-time equivalent employment, total employment was adjusted to reflect a 40-hour-week, consistent with a full-time equivalent norm. The survey also indicates that 21 percent of family child care homes have an assistant who works, on average, 28 hours per week. These averages were adjusted to measure the number of full-time equivalent positions statewide.

A survey of Illinois' early care and education providers indicates that licensed centers have, on average, 14 staff people.¹¹¹ However, this includes staff providing care and education for the 16 percent of children in these centers who are school age. To derive an estimate of the average number of staff who care for children under age six, 84 percent of the total staff number was used, reflecting the distribution of children. This is a conservative estimate as more staff are needed to care for younger children. This value, 11.76, was multiplied by the number of license-exempt centers to derive a best estimate of the early care and education workforce in license-exempt settings.¹¹²

¹¹⁰ D. Ramsburg, D. Montanelli, and E. Rouge. *Illinois Salary and Staffing Survey of Licensed Child Care Facilities: FY 2003*. Illinois Department of Human Services. April 2004.

¹¹¹ *Ibid.*

¹¹² Since exempt park districts have a higher proportion of school age children, a different methodology was used – dividing three to five-year-old enrollment by 20, which is the child-staff ratio for five-year-olds.

Gross Receipts

To measure gross receipts, all formal programs that could be accurately captured were included. These were:

- Early care and education centers licensed through DCFS
- Family child care homes licensed through DCFS
- License-exempt family child care homes or centers that provide services to subsidized children
- License-exempt programs that choose to list their program in the Illinois Network of Child Care Resource and Referral Agencies (INCCRRA), such as Boys and Girls Clubs or park districts
- Head Start programs
- Early Head Start programs
- State funds for the Illinois State Board of Education (ISBE) preschool program
- United States Department of Agriculture (USDA) early care and education food program, which contributes to the total direct service revenues of establishments

The estimates of gross receipts and direct employment represent a “snapshot” of the industry taken at a particular time. It is important to note that the estimates only capture the formal early care and education sector. This is because enrollment and costs are difficult to measure for the informal education and care sector. Adding informal, unlicensed care would increase both gross receipts and direct employment figures.

Many parts of the formal early care and education system record funding information carefully and thus are easy to quantify. Other areas must be estimated using existing databases. Funding information was included for the following programs:

- Subsidized care and required parental co-payments, administered by Illinois Department of Human Services (IDHS)
- Head Start and Early Head Start funding levels, administered by the federal government for FFY01.
- Pre-K funding levels of ISBE for SFY03
- Federal Nutrition Program

The methodology for calculating parents' fees relies on comprehensive, timely data collected by local child care resource and referral agencies about current use of early care and education establishments. These data are aggregated and maintained by INCCRRA and include active early care and education program's capacity, vacancy, enrollment, and cost information. This information is broken down by age group (Infant: 6 weeks to 14 months; Toddler 1: 15 to 24 months; Toddler 2: 25 to 36 months; Preschool 1: 36 to 60 months; and Preschool 2: 5 yrs to kindergarten), county, shift (day, evening, night) and type of care (center and family child care home). To accurately reflect differences throughout the state, analyses for this report were broken down into these categories (county, type of care, shift, and age group). The majority of information used in this report was collected between October and December 2003.

Gross receipts estimates for the amount that parents paid to family early care and education homes and early care and education centers are based on this calculation:

$$\text{Enrollment} \times \text{Average Cost/Child/Year} = \text{Gross Receipts}$$

Licensed Centers

Enrollment rates were derived from enrollment and capacity information maintained in the statewide INCCRRA database broken down by age group and county and from DCFS. From these enrollment estimates, information from IDHS about the number of children receiving any government funding towards early care and education costs was used to get an estimate of those children whose early care and education is paid for by parents or another private source. In four counties, enrollment rate information was not available; in those cases, average non-metro statewide enrollment rates were applied to total capacity to estimate enrollment.

Average cost was reported as daily, weekly, or monthly for October through December 2003 for each establishment by county, age group, and type of care. These were converted to annual rates assuming 8 hours per day, 52 weeks per year, and 12 months per year. Annual cost information was weighted by establishment capacity to get average rates by county and age group. In cases in which cost information was not available, an average non-metro cost for that age group was used. This did not occur in suburban counties or Chicago.

Licensed Family Child Care Homes

Overall capacity and vacancy information was broken down by age group according to reported enrollment-by-age information made possible during an INCCRRA survey conducted in the fourth quarter of 2003. Subsidized licensed family child care enrollment by age was subtracted to isolate private pay. Weighted cost information was multiplied by enrollment for each age group within each county to estimate gross receipts.

Subsidized Children

IDHS expenditure and required parental co-payment information for 2003 was added to gross receipts value. Some families who receive subsidized care pay additional fees to early care and education settings on top of their required parental co-payment. Because the amounts of these payments are not available, the analyses for this report do not factor in these additional payments. It assumes that there are no additional funds to make up the difference between market rate and the sum of the reimbursement rate plus parent co-payment.

License-exempt settings

A list of active, formal license-exempt centers was derived from the INCCRRA database and the IDHS child care assistance database. For centers listed with INCCRRA (regardless of whether they were also listed by IDHS), capacity, vacancy, and reported age range of children served was used to generate enrollment estimates. Vacancy was subtracted from capacity to get an overall enrollment estimate. In those centers that which also had subsidized children according to IDHS, the number of subsidized children was subtracted from this enrollment estimate. Then, the percentage of the age range under six

was applied to the overall enrollment to derive an estimate of the number of children under six in the program. This assumes that there are equal numbers of children of various ages in the program. Age breakdown information is not available.

Average enrollment in INCCRRA-listed centers was used to derive private-pay enrollment for centers listed only with IDHS. The number of subsidized children at the center was subtracted from the average enrollment estimate.

APPENDIX B

Indirect and Induced Effects of the Early Care and Education Industry

Every industry, including early care and education, is linked to the rest of the local economy through a number of avenues, reflecting the fact that establishments purchase supplies from other businesses and the industry's employees spend their earnings in part on locally produced goods and services. The linkages of the ECE industry in Illinois can be measured using an input-output model and its associated multipliers, a methodology used by some economic development specialists. While there is some disagreement concerning the interpretation of multipliers, these estimates illustrate that early care and education is an important integrated component of the Illinois economy, both through its direct employment and gross receipts, and through its economic linkages.

These estimates for the impact of early care and education on indirect and induced earnings and other productivity effects are based on the application of the 2001 Illinois module of the IMPLAN Input-Output (I-O) model. Initially developed for use by the U.S. Forest Service, IMPLAN is now used in many fields. It relies on the same basic model structure and underlying economic data as the U.S. Department of Commerce Bureau of Economic Analysis Regional Impact Modeling System (RIMS).

I-O models use area-specific data on industrial and commercial activity to trace the linkages between industries. IMPLAN is based on a table of direct requirement coefficients which indicate the inputs of goods and services from various industries required to produce a dollar's worth of output in another, single industry. Standard economic "production functions" - the capital, labor and technology needed to produce a given set of goods - determine how changes in one industry's demand ultimately affect the demand for the inputs to that industry. For example, producing a ton of steel may require three workers and a particular set of equipment, which would not be required if the steel were no longer needed. Likewise, early care and education programs must purchase educational materials, facilities and professional staff services.

IMPLAN contains more than five hundred economic sectors and uses economic census data to compile regional economic information. National data are adjusted for the industrial and trading patterns for the subject region. Based on this structure, IMPLAN estimates the regional economic impact that would result from a dollar change in demand of a particular industry.

The multiplier effect estimates the links between an industry and other areas of the economy. For this analysis, Type II multipliers, which exclude government spending, are used. Estimates for the impact of early care and education on the economy are based on three primary types of multipliers:

- Direct effects: Effects introduced into the state's economy as a result of spending on early care and education.
- Indirect effects: Effects reflecting spending by the ECE industry.

- Induced effects: Effects on household spending by the early care and education workforce. These effects reflect changes in the state's economy caused by increases or decreases in spending patterns as a result of the direct and indirect activity.

For Illinois, the various multipliers for the ECE industry are reported in Table I.

Table I EARLY CARE AND EDUCATION INDUSTRY TYPE II MULTIPLIERS			
	Indirect	Induced	Total Type II
Output	.448	.515	1.96
Value-Added	.481	.570	2.12
Employment	.126	.175	1.30
Indirect Business Taxes	2.64	3.28	6.92
Labor Income	.409	.489	1.90

Source: IMPLAN, 2001

These multipliers may be used to assess gross indirect and induced effects of these economic indicators.¹¹³ Based on gross receipts of \$2.12 billion in the ECE industry, there is \$952 million in gross indirect output, including output in real estate (\$124 million), wholesale trade (\$91 million), and food services (\$37 million). Gross receipts totaling \$2.12 billion also corresponds to \$1.09 billion in gross induced output, including hospitals (\$68 million), wholesale trade (\$67 million), eating and drinking establishments (\$49 million), car maintenance and repairs (\$28 million), legal services (\$17 million), and the movie and video industry (\$2.5 million). In total, direct, indirect, and induced industry output for the Illinois ECE industry totals \$4.17 billion.

Similarly, a direct employment estimate of 55,969 jobs in early care and education corresponds to 7,034 gross indirect jobs sustained by the ECE industry. These include jobs in food and drinking establishments (829 jobs), real estate (602 jobs), and wholesale trade (512 jobs). In addition, 9,827 gross induced jobs, including those in food and beverage stores (1,101 jobs), hospitals (564 jobs), colleges and universities (138 jobs), and museums, historical sites, and zoos (11 jobs), are sustained. In total, direct, indirect, and induced employment for the Illinois ECE industry totals 72,830 in this analysis.

¹¹³ Gross economic impacts do not account for the effects of other spending that would be curtailed by funds being directed towards the ECE industry. For example, if \$1000 spent on early care and education had not been spent on early care and education, and had instead been spent on food, this food spending would also have multiplier effects. Net economic impacts take these negative effects into account. The multiplier effects reported in this appendix are gross economic effects.

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