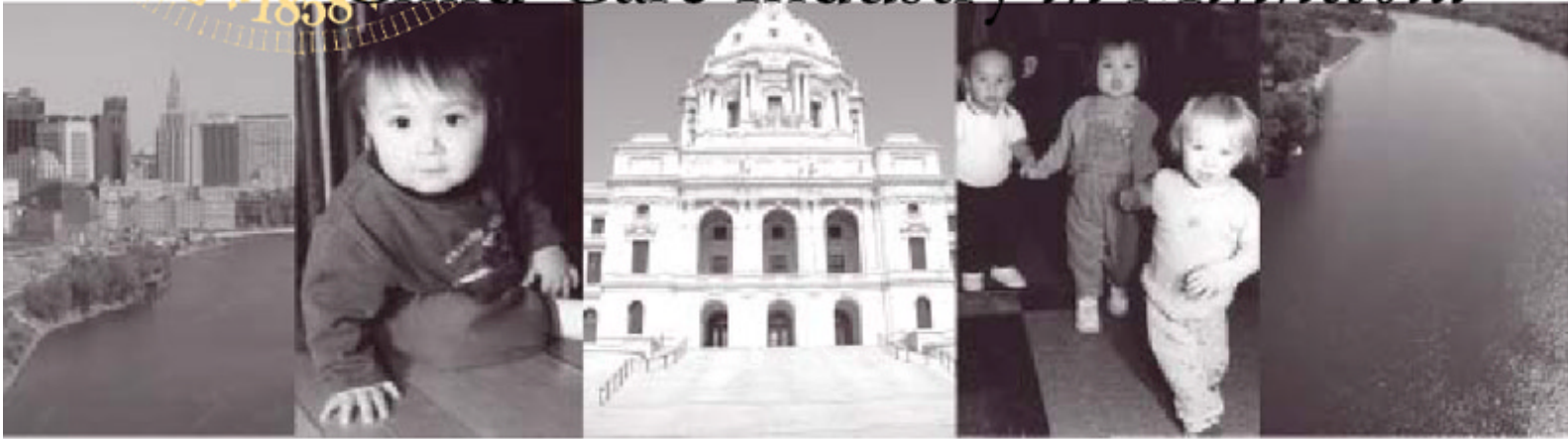


OCTOBER 2003



The Economic Impact OF THE Child Care Industry *in Minnesota*



PREPARED BY THE

NATIONAL ECONOMIC DEVELOPMENT AND LAW CENTER



BACKGROUND

THE ECONOMIC IMPACT OF THE CHILD CARE INDUSTRY IN MINNESOTA

The National Economic Development and Law Center (NEDLC), with a grant from the W.K. Kellogg Foundation, is working with states across the nation to produce reports and recommendations on the economic impact of the child care industry. The Child Care Economic Impact Reports articulate child care in economic development terms and quantify the ways in which the child care industry is critical to the state's economy. In addition, the reports help to build local partnerships aimed at increasing the child care industry's capacity to respond to the shifting child care needs of America's families. For the Minnesota report, NEDLC partnered with the Minnesota Child Care Resource and Referral Network, www.mnchildcare.org, to form an Advisory Board of Minnesota statewide leaders in the fields of business, government, child care, and economic development.

NATIONAL ECONOMIC DEVELOPMENT AND LAW CENTER

The National Economic Development and Law Center, established in 1969, is a non-profit public interest law and planning organization that specializes in community economic development. It works in collaboration with community organizations, private foundations, corporations and government agencies to build the human, social, and economic capacities of low-income communities and their residents. NEDLC helps to create both strong, sustainable community institutions that can act as "change agents" and an effective local infrastructure for their support.

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THE ECONOMIC IMPACT OF THE CHILD CARE INDUSTRY IN MINNESOTA

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INTRODUCTION

Policies and practices in the care and education of young children have changed dramatically since the 1950's. Today, the overwhelming majority of Minnesota's children -- almost 69 percent of children ages zero to six and 78 percent of children ages six to 17 -- live in households in which all parents participate in the labor force. This is in large part a result of mothers joining the labor force. In 1948, 13 percent of mothers with children under six and 31 percent of mothers with children ages six to 13 worked outside the home.¹ By 1975, the percentage of mothers with children under 18 who were in the labor force had risen to 52 percent and by 2000, to almost 70 percent.² There was no significant drop in the labor force participation of fathers during the same time. It is no longer the norm for one parent to provide daytime care and education for children. Indeed, welfare reform in the 1990's was grounded in the notion that parents have a responsibility to work.

The overwhelming majority of Minnesota's children today live in households in which all parents participate in the labor force.

For most parents work is not a choice but a necessity. In Minnesota today 21 percent of children live with only one parent. Eighty-three percent of these children ages zero to 17 live with a single working parent. In addition, many two-parent households in the U.S. must have both parents in the workforce to make ends meet, and Minnesota is no exception. Today, almost 73 percent of Minnesota children in dual-parent households have both parents in the labor force.³ Taken together, currently an estimated 45,180 infants, 90,060 toddlers, 93,980 pre-schoolers, and 442,570 children ages five to twelve need some form of care to enable their parents to work—a total of 671,790 children.⁴

Almost 73 percent of children in dual-parent households in Minnesota have both parents in the labor force.

Currently in Minnesota, more than 670,000 children ages zero to twelve need some form of care because their parents are in the labor force.

There have also been significant changes in the types of care and education opportunities parents seek for their children. In 1948, 94 percent of working mothers in the U.S. left children in the care of relatives, neighbors, or friends, and only four percent left children in a group setting.⁵ As extended families spread out geographically, however, and as the safety, education, and developmental needs of young children increasingly gain the public's attention more parents demand high-quality formal care and education for their young children. By 1975, the number of pre-schoolers who were cared for in centers had more than tripled from 1948 levels, to 15 percent, and by 1982, to 19 percent.⁶ Currently in Minnesota almost 40 percent of all preschool-age children are cared for in child care

¹ Child Care Action Campaign. *Child Care Action Campaign: The First Fifteen Years*, 1999.

² Data for 1975 is from the Child Care Action Campaign *The First Fifteen Years* report, and 2000 data is from O. Casale and A. Fisher., *Labor Force Participation Rates: How is Minnesota Different?* Minnesota Economic Trends series. Minneapolis, Minnesota: Minnesota Workforce Center, December 2002/January 2003.

³ U.S. Census Bureau. *Census 2000*.

⁴ Census 2000 data on parental employment and Census Bureau 2002 population estimates were used to estimate the number of children who live with parents who are all in the labor force in 2002.

⁵ Child Care Action Campaign. *Child Care Action Campaign: The First Fifteen Years*, 1999.

⁶ Ibid.

centers and 29 percent are cared for in licensed family child care homes.⁷

Almost 40 percent of Minnesota's pre-schoolers are cared for in child care centers today, and 29 percent are cared for in licensed family child care homes.

The outcome of these trends is that traditional child-rearing models in which daytime care of young children is left to parents have shifted to those in which early

care and education professionals care for children in facilities outside of the home. These trends have significant economic implications for Minnesota. They establish the licensed child care industry as an integral part of the formal economy and successful economic development by providing benefits in three main ways.

The child care industry:

- Enables businesses to recruit employees, decrease absenteeism and turnover, and increase productivity
- Ensures a strong economy in the future by preparing children for academic success
- Is a significant industry in its own right

First, child care enables businesses to recruit employees, decrease absenteeism and turnover, and increase productivity. Almost one-third of the total workforce in Minnesota are parents with children under the age of 18—fifteen percent are parents with children under the age of six.⁸ The vast majority of these parents live in families where every parent participates in the labor force. While not all of these parents use licensed child care—some families may arrange work hours so that children are always in one parent's care and others may find relatives, friends, or neighbors to care for children—a recent statewide parent survey indicates that 76 percent of the children of working parents are in some form of non-parental care and education setting.⁹ Like transportation and housing, child care must be affordable and accessible for working families. With quality, dependable child care, parents are more productive in their work and more likely to continue in their current positions, saving businesses money through turnover and loss of human capital and maintaining the vitality of the Minnesota economy as well.

Second, high-quality early education and care programs ensure a strong economy in the future. Recent research on early brain development demonstrates that far from being a luxury, early care and education is a vital service improving children's health, school readiness, and contribution to society.¹⁰ Targeted high-quality programs for young children in low-income families have been shown in three longitudinal studies to have positive long-term effects on participants, reducing future public spending in such areas as the criminal justice system and welfare assistance. Compared to other areas of public investment, these early childhood development programs yield a high rate of public return, making quality early childhood education one of the strongest candidates for public funding.¹¹

⁷ R. Chase and E. Shelton. *Child Care Use in Minnesota: Report of the 1999 Statewide Household Child Care Survey*. Roseville, Minnesota: Minnesota Department of Children, Youth & Families, 2001. Based on parent reports of all types of care used during school year months.

⁸ Derived from U.S. Census Bureau, Census 2000. See the Child Care and Economic Development section Five for more details.

⁹ R. Chase and E. Shelton. *Child Care Use in Minnesota: Report of the 1999 Statewide Household Child Care Survey*. Wilder Research Center: Minneapolis, 2001.

¹⁰ J.P. Shonkoff and D.A. Phillips, Editors. *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, D.C.: National Academies Press, 2000.

¹¹ A. Rolnick and R. Grunewald. *Early Childhood Development: Economic Development with a High Public*

Third, child care is an industry in Minnesota in its own right. Research presented in this report demonstrates that licensed child care is a significant income-generating, job-creating industry sector. Child care contributes more in annual gross receipts than many other significant and recognized industries in the state, including wireless telecommunications, plumbing and heating equipment, and all cash receipts from wheat, oats, barley, and hay combined. The licensed child care industry is 77 percent the size of the corn industry in the state, for which Minnesota ranks third nationwide. In addition, licensed early care and education directly employs more individuals than legal services and almost twice that of the health insurance industry.¹²

The licensed child care industry is 77 percent the size of the corn industry, for which Minnesota ranks third nationwide.

This report analyzes the significance of the child care industry to the economy. Specifically this report:

- Describes demographic and economic trends and their implications for the child care industry
- Quantifies the size of the licensed child care industry in Minnesota
- Assesses the extent to which child care currently supports the economy of Minnesota
- Discusses economic development benefits of child care, including public sector savings that result from investments in quality early care and education for low-income children
- Provides recommendations to build the capacity and sustainability of quality, affordable child care

This report presents a wide range of compelling evidence showing that child care is clearly a crucial component of the state's economic infrastructure. Understanding the interaction between the supply of affordable, accessible, quality child care and economic growth improves the efficiency of investments in child care and efforts to increase Minnesota's economic competitiveness.

DEFINING CHILD CARE

Child care includes a range of services that educates and nurtures young children while enabling parents to work or attend school. For the purposes of this report, child care includes all formal full-day and part-day early care and education programs, Head Start, pre-schools, family child care homes, after-school programs, and child care centers.

For the purposes of this report, child care includes all formal full-day and part-day early care and education programs, Head Start, pre-schools, family child care homes, after-school programs, and child care centers.

Child care may be licensed or unlicensed. *Licensed child care* meets minimum health and safety

standards set by the state legislature and regulated by the Department of Human Services.¹³ Licensed establishments include most child care centers and many home-based providers, or

Return. Fedgazette. Minneapolis, MN: Federal Reserve Bank of Minneapolis, January, 2003.

¹² See Economic Profile of the Child Care Industry section for further discussion of results and methodology.

¹³ Office of Revisor of Statutes, State of Minnesota. *Minnesota Statutes 2002*. Chapter 245A: Human

family child care homes. Family child care homes are licensed as “family child care” or “group family child care,” depending on the number and ages of children served (family child care and group family child care can serve a maximum of ten and fourteen children, respectively, of varying ages).¹⁴

In contrast, there are many care arrangements that are not regulated by the state or governed by any specific standards, which are known as kith and kin care; friend, family, and neighbor care; or legally unlicensed child care. These arrangements include care outside the child’s home – in the home of a relative, a neighbor, or a babysitter – as well as care that is provided in the child’s home by nannies, babysitters, relatives and others. Providers of this kind of care are not legally required to have a license. For example, under state law, a license is not required for a family day care serving only related children or the children from only one other unrelated family.¹⁵ Pre-kindergarten special education programs are also exempted from licensing under the Department of Human Services because they are regulated by the Department of Education.

As child care and early education moves into the formal economy (i.e., the sector is subject to taxes, state regulations, etc), its economic impact is more easily quantified than informal care arrangements or the work of caregivers in the home. Although unlicensed child care arrangements are still often used and thus also add to the economy, it is more difficult to ascertain their impact. Therefore this report focuses primarily on licensed care. One significant part of the formal child care system is pre-schools that are operated by school districts. These are funded through the state’s School Readiness program, which provides flexible support for a variety of school readiness strategies. There are not resources to gather statewide information on how much of these funds are allocated to pre-schools run by school districts, thus they are excluded from our analyses.

By excluding unlicensed child care and pre-schools supported by school districts this report’s findings are likely to be underestimates of the total gross receipts and direct employment of the child care industry.

Analyses in this report focus on legally licensed child care and early education programs.

OUTLINE OF THE REPORT

Following this introduction, section two describes the demographic and economic profile of the state and the implications for the child care industry. Section three analyzes the overall economic effects of child care as measured by both industry earnings and employment. Section four explores child care’s contribution to businesses through productivity and future workforce development. Section five discusses links between child care and economic development. Section six considers future implications for the state’s economy, and makes conclusions and recommendations.

Services Licensing and Chapter 119B: Child Care Programs. <http://www.revisor.leg.state.mn.us/stats/245A/>, 2002.

¹⁴ Minnesota Rules Chapter 9502: Licensing of Day Care Facilities and 9503 Child Care Centers. <http://www.revisor.leg.state.mn.us/arule/9500.html>, 2002.

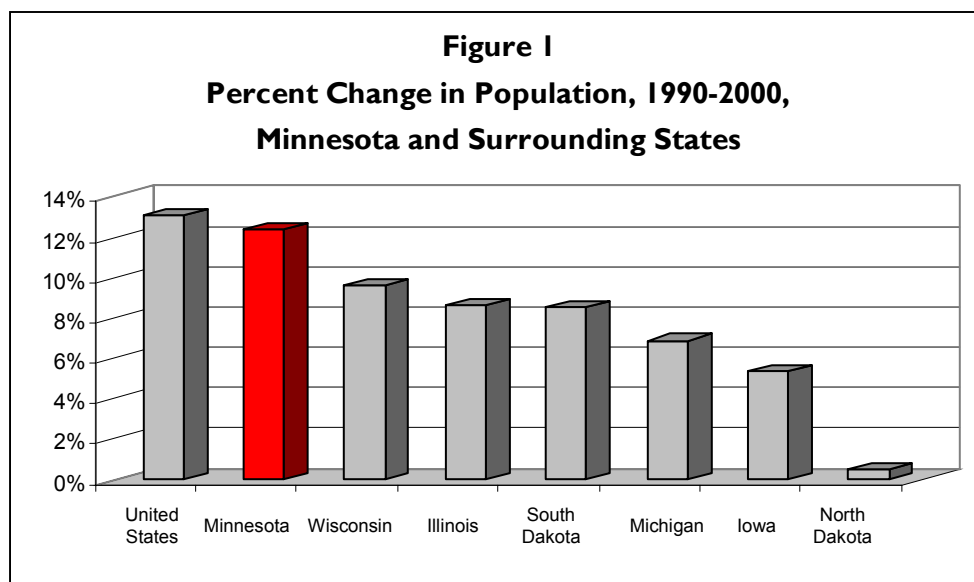
¹⁵ Office of Revisor of Statutes, State of Minnesota. *Minnesota Statutes 2002*. Chapter 245A.03.02. Minnesota Legislature. Taken from <http://www.revisor.leg.state.mn.us/stats/>, 2002.

Demographic and Economic Profile of Minnesota

Minnesota's demographic and economic trends have significant implications for the child care industry. This section gives a brief overview of those trends, including population shifts, labor force characteristics, employment demands, and the cost of child care, and discusses the implications of the trends for the child care industry.

POPULATION SIZE AND CHARACTERISTICS

Minnesota has seen remarkable population growth relative to neighboring states, increasing over 12 percent from 1990 to 2000 to reach 4.92 million residents in 2000. This rate is greater than that of any nearby state and similar to that of the total United States (see Figure 1).¹⁶ While 53 percent is a result of natural population increase (births and deaths), almost half of the population growth was due to migration from other states within the U.S. and from other countries.¹⁷ Strong economic forces in Minnesota during the nineties attracted young families with children; the age groups with the largest numbers of new Minnesotans during this time were 25 to 44 and 5 to 19, indicating a rise in the number of working families.¹⁸



Implications for Child Care

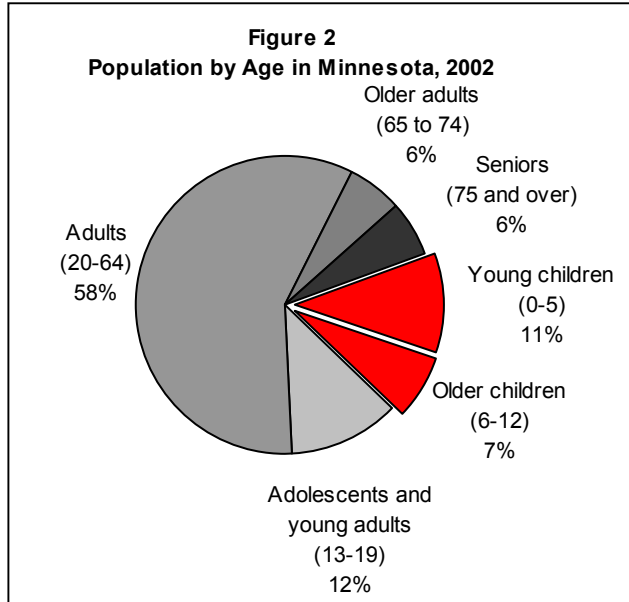
The population boom from 1990 to 2000 was a result of families moving into Minnesota and joining the labor force as well as natural population increase. Both of these demographic trends highlight the sustained need for quality child care in Minnesota.

¹⁶ U.S. Census Bureau. *Census 1990 and Census 2000*.

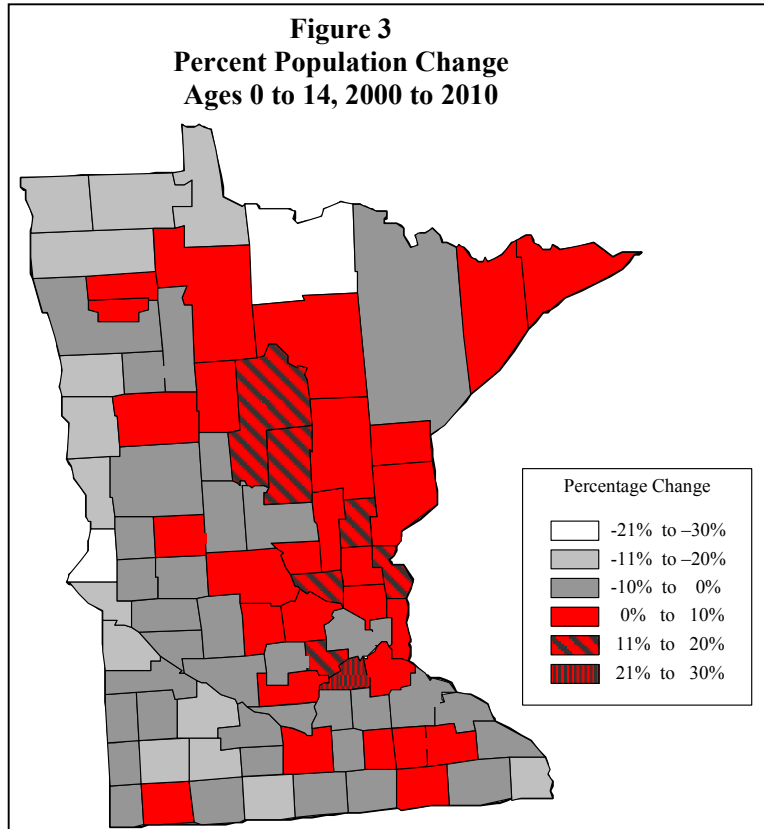
¹⁷ Minnesota Planning State Demographic Center. *Migration a Major Factor in Minnesota's Population Growth*. Population Notes series, July, 2002.

¹⁸ Ibid.

There were an estimated 5,019,720 people living in Minnesota in 2002, 910,267 of those ages zero to twelve—almost one-fifth of the total population (see Figure 2).¹⁹ Children 0 to 12 currently outnumber seniors 1.5 to 1. Despite a recent slowdown, Minnesota's population is projected to continue growing to 5.45 million by 2010, and to 6.27 million by 2030.²⁰ As the baby boom generation ages, the median age in the state is expected to increase from 35.4 in 2000 to 40.2 in 2030, but the population of children will continue to expand. By 2010, there are expected to be 926,040 children ages 0 to 12, by 2020, almost 990,000, and by 2030, over one million.²¹ Projected population increases for women ages 20-34 predict births around 2015 at their highest levels since the 1960's.²²



There are some regional differences in population projections. Significant increases in the number of children are likely to be in the eastern part of the state and particularly in those counties in and surrounding the Minneapolis/St. Paul metropolitan region. In particular, Scott and Kanabec counties are expected to see growth in children of over 20 percent and Benton, Sherburne, Chisago, Freeborn, Cass, and Crow Wing counties each have projected increases in their child populations of over 10 percent. The western part of the state is less likely to see child populations rise by 2010 (see Figure 3).²³



¹⁹ U.S. Census Bureau. *Annual Population Estimates by State for July, 2002, December, 2002*. Estimates of the proportion of children in the 2002 population are based on Minnesota Planning State Demographic Center *Minnesota Population Projections 2000-2030*, October, 2002.

²⁰ Minnesota Planning State Demographic Center. *Minnesota Population Projections 2000-2030*, October 2002.

²¹ Ibid.

²² Ibid.

²³ Ibid.

Implications for Child Care

Children 0 to 12 make up a significant part of the Minnesota population, and outnumber seniors 65 and over 1.5 to 1. While the population is expected to age, the number of children will continue to rise, particularly in the eastern part of the state. This indicates an increased need over time for education and care programs for young children 0 to 5 and for children of traditional school ages.

Demographics indicate increasing racial and ethnic diversity in Minnesota, particularly for young children. The proportion of births in the state to foreign-born mothers has increased dramatically from 5.4 percent in 1990 to 13.4 percent in 2000.²⁴ Foreign-born mothers are more ethnically diverse than U.S.-born mothers.²⁵ A study of students in Kindergarten through 12th grades in Minnesota indicates that 8 percent speak a language other than English at home, with Hmong and Spanish leading the non-English languages.²⁶

Parents have varied preferences about the cultural upbringing they want for their children. In a recent survey of immigrant families in the metro area, 33 percent said that they hoped their children would keep as much of their original culture as possible, 16 percent responded that they hoped their children would be as immersed in American culture as possible, and 51 percent of respondents said they hoped their children would be exposed to both American culture and the parents' culture of origin.²⁷ These preferences have implications for the types of early care and education parents desire for their children and indicate that many of Minnesota's parents desire care that reflects their cultural diversity.

Implications for Child Care

The increasing diversity in Minnesota's children requires a varied array of culturally appropriate child care and education programs. Dual- or multi-lingual staff, in particular Hmong- and Spanish-speakers, are necessary to communicate with children and their parents, and culturally sensitive curricula and care are necessary for meeting parents' desires for their children's upbringing.

²⁴ Minnesota Planning State Demographic Center. *Fertility of Foreign-born Women in Minnesota*. Population Notes series, January, 2003.

²⁵ While 92 percent of U.S.-born mothers in Minnesota are white (Caucasian or Hispanic/Latina), only 45 percent of foreign-born mothers are white. Seventeen percent of foreign-born mothers are Black or African-American, and 32 percent are Asian. Only 2 percent of U.S.-born mothers describe themselves as Latina or Hispanic (of any race), although 30 percent of foreign-born mothers do.

²⁶ Minnesota Department of Children, Families & Learning (February, 2001). *Language Spoken at Home: 2001-2002 School Year*. February 2001. Available through the Minnesota Planning State Demographic Center.

²⁷ Wilder Research Center. *Speaking for Themselves: A Survey of Hispanic, Hmong, Russian, and Somali Immigrants in Minneapolis-St. Paul*. Wilder Research Center, November, 2000.

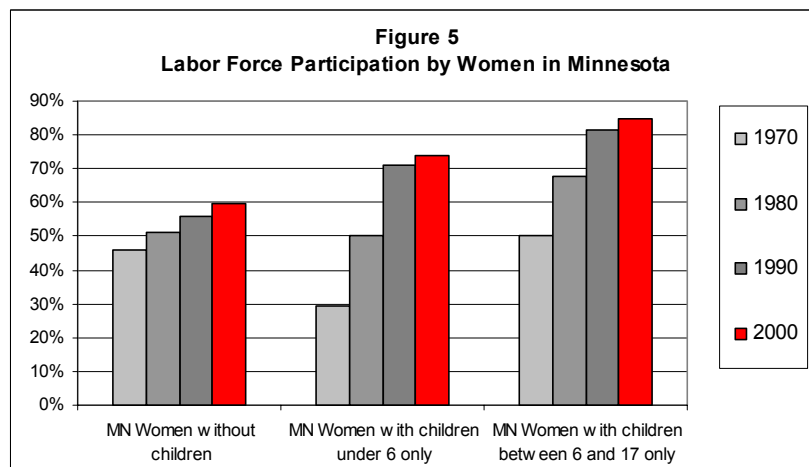
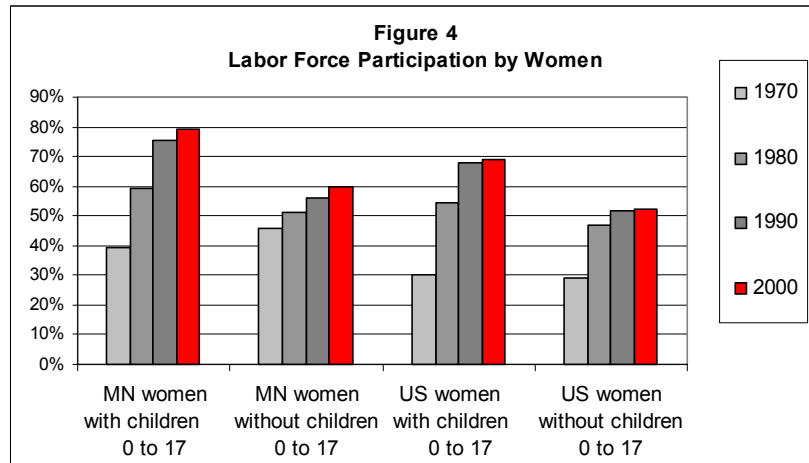
LABOR FORCE SIZE AND CHARACTERISTICS

Minnesota currently leads the nation in the participation of women in the labor force—at 70.3 percent in 2000 compared to the nation’s 60.2 percent.²⁸ In addition, the state ranks fourth in labor force participation of men.²⁹ While men have continued to have high levels of labor force participation over the past few decades,

women have seen a rapid increase in their work participation, resulting in the number of dual-earner married couples in Minnesota increasing from 47.8 percent in 1980 to 61.8 percent in 2000. The majority of these couples have children under 18.³⁰

In fact, the most significant labor force participation gain in these past few decades has been made by women with children (see Figure 4).³¹ In 1970, 30 percent of U.S. mothers and 40 percent of Minnesota mothers were in the labor force, either working for pay or actively looking for work. In 2000, the proportion of mothers in the workforce rose to 69 percent for U.S. mothers and 79 percent for Minnesota mothers. Women with children are now more likely to be in the labor force than women without children; while 60 percent of Minnesota women without children were a part of the labor force in 2000, over 79 percent of women with children under 18 were.³²

In Minnesota, more mothers of children six to 17 years of age are in the labor force (84.7 percent) than mothers of children ages zero to six (73.8 percent) although there has been a more rapid increase in the participation of mothers



²⁸ Legislative Commission on the Economic Status of Women. *Labor Force Participation on Women, Minnesota and U.S. Fact Sheet*, undated. Reported statistics based on information from the U.S. Census Bureau and the Bureau of Labor Statistics. Participating in the labor force refers to those who are engaged in paid work or are currently unemployed actively looking for paid work.

²⁹ M. McMurry. *Minnesota Labor Force Trends: 1990-2000*. Minnesota Planning State Demographic Center. Population Notes series, December, 2002.

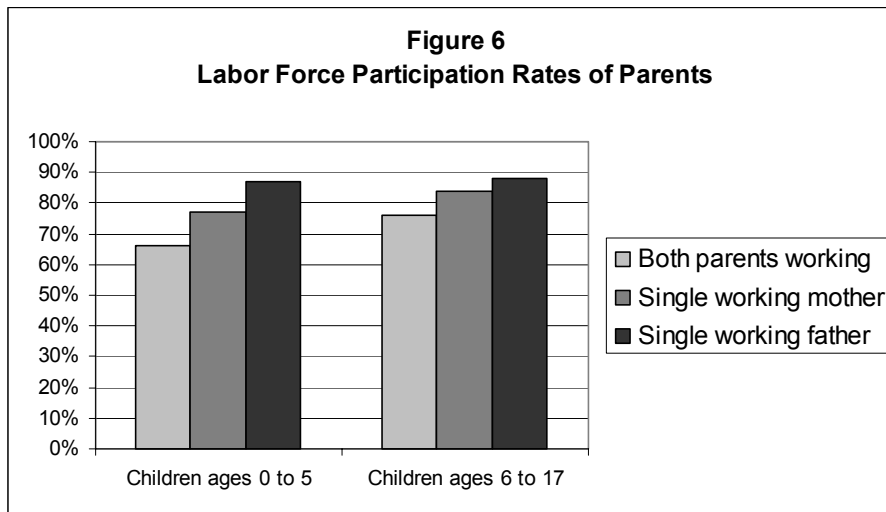
³⁰ Ibid.

³¹ O. Casale and A. Fisher. *Labor Force Participation Rates: How is Minnesota Different?* Minnesota Economic Trends series. Minnesota Workforce Center, December 2002/January 2003.

³² Ibid. This is likely due, in part, to age group; women of childbearing years are more likely to be in the workforce than younger or older women.

of young children in the labor force over the last four decades, a 44 percent jump from 1970 levels, compared to a 35 percent increase for mothers of school-age children (see Figure 5).³³ Both of these groups are well above U.S. averages.

Given the high labor force participation rates of both men and women in Minnesota, it follows that most Minnesotan children live in households where all parents are in the labor force. The 2000 Census indicates that in dual-parent households 66 percent of young children and 76 percent of school-age children have both parents in the workforce. The vast majority of children living with single parents have their parent in the workforce -- 77 percent of young children living with single mothers, 84 percent of young children living with single fathers, 87 percent of school-age children living with mothers, and 88 percent of school-age children living with fathers (see Figure 6).³⁴



Implications for Child Care

The vast majority of Minnesota's families need early care and education for their young children and before-and after-school programs for their school-age children to enable parents to continue participating in the labor force.

Given 2002 population estimates and labor force participation rates of parents, 45,180 infants (birth to one), 90,060 toddlers (one to three), 93,980 pre-schoolers (three to five), and 442,570 children ages five to twelve need some form of care so that their parents may work—a total of 671,790 children.

LABOR FORCE OUTLOOK

From 1990 to 2000, the Minnesota labor force grew from 2.3 million to almost 2.7 million and overall grew older, more diverse, and more female.³⁵ Labor force projections based on the patterns of the previous decade assume continued migration of working families into the state, moderate increases in labor force participation rates among women ages 25 to 44 and larger increases in older workers ages 65 and above. These assumptions lead to a projected labor

³³ Ibid.

³⁴ U.S. Census Bureau. *Census 2000*.

³⁵ M. McMurry. *Minnesota Labor Force Trends: 1990-2000*. Minnesota Planning State Demographic Center. Population Notes series, December, 2002.

force of 3.1 million workers in 2010 (16 percent increase) and of 3.39 million workers in 2030 (26 percent increase).³⁶ Conservative projections assuming no labor force participation increases and no continued migration of working families into the state project a much smaller labor force of 2.9 million (7 percent increase from 2000).

Assuming that parental employment levels will remain the same as in 2000, the number of children with all parents in the home working is currently over 670,000, and by 2010, will be almost 685,000, and by 2030 will be well over 740,000. Currently, licensed child care has the capacity to serve 265,700, indicating that many children and their working parents are underserved even now and that there is a sustained need for a strong child care infrastructure in the future.³⁷

Implications for Child Care

Labor force projections indicate that the number of children with working parents will rise from more than 670,000 currently to almost 685,000 by 2010 and well over 740,000 by 2030. Currently, licensed child care has the capacity to serve 265,700, indicating a sustained need for a strong infrastructure to ensure adequate quality, affordable and accessible child care and education.

EMPLOYMENT OUTLOOK

Over the long-term, the employment outlook for the state is strong, with recent projections estimating a 13.2 percent change in the number of jobs from 2000 to 2010, resulting in 379,000 new jobs over the decade and 3.26 million jobs overall.³⁸ The least conservative labor force estimates project slower growth than employment by the end of the decade, and most conservative projections suggest a significant labor shortfall by the end of the decade (see Figure 7).³⁹

These trends indicate that the population must grow at a faster rate than projected, that labor force participation rates within the population must increase, or that “workers will have to become more productive.”⁴⁰ Projections using conservative assumptions show labor force increases that are significantly inadequate to meet employment demands.⁴¹

Implications for Child Care

To meet employment demands in the future, Minnesota must strengthen economic infrastructures such as child care to maintain its high levels of labor force participation and to increase productivity for existing workers. Like transportation and housing, without accessible and affordable child care, parents will be unable to meet Minnesota’s labor demands.

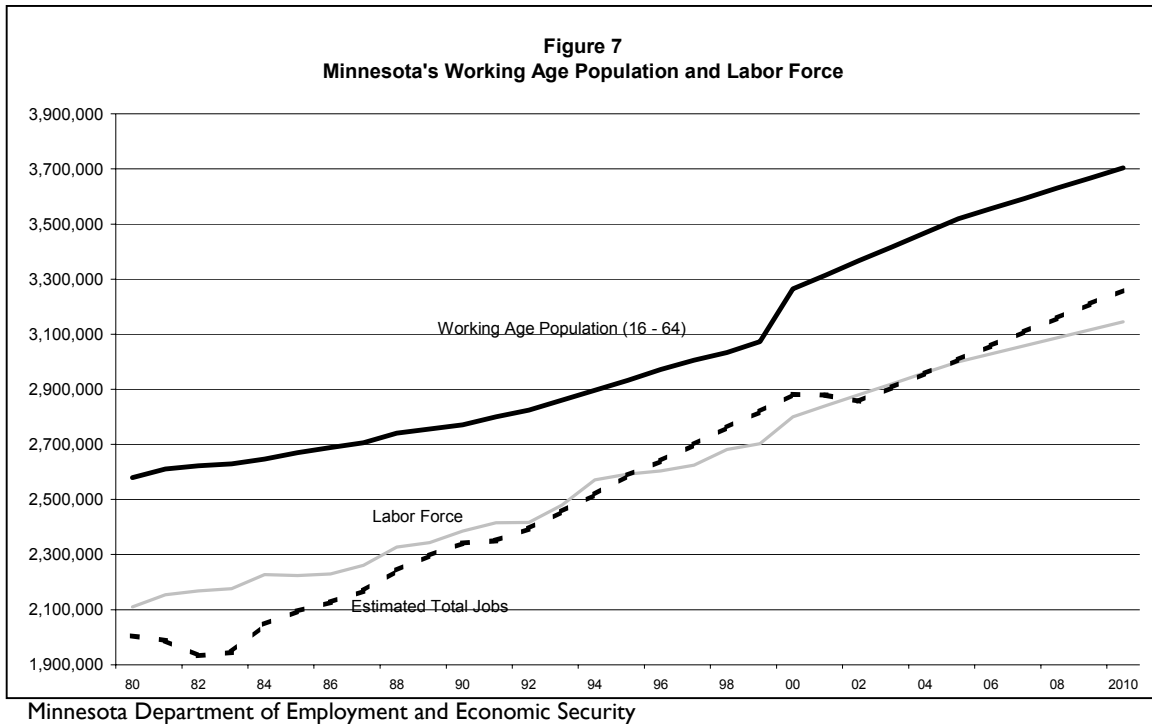
³⁶ Minnesota Department of Employment and Economic Development, June, 2003 and M. McMurry. *Minnesota Labor Force Trends: 2000-2030*. Minnesota Planning State Demographic Center. Population Notes series, February, 2003.

³⁷ Current capacity from the Minnesota Child Care Resource and Referral Network, 2003.

³⁸ Minnesota Department of Employment and Economic Development Research and Statistics Office. *Minnesota Employment Outlook by Industry, 2000 – 2010*. Minneapolis, April, 2003.

³⁹ Figure provided by the Minnesota Department of Employment and Economic Security, May, 2003.

⁴⁰ Minnesota Planning State Demographic Center. *Minnesota Population Projections: 2000-2030*. January 2003, p. 4.



INDUSTRY SHIFTS

In addition to projecting overall growth in employment in Minnesota, employment trends indicate that shifts will occur in the kind of work that the Minnesota economy will demand. Although the state economy relies on a diverse set of industries, the service industry has grown faster than other industries in the state, thus employing a larger portion of Minnesotans compared to other major industry sectors.⁴² From 1990 to 2000, the service industry moved from holding 24.8 percent of all jobs in Minnesota to 28.5 percent, taking a larger share than any other industry.

The service industry is expected to continue employing an increasing share of Minnesotans. It is estimated that nearly 231,700 jobs will be added by 2010, the majority of which are likely to be in the following focus areas:⁴³

- Business services (computer and data processing; personnel supply; public relations)
- Health services (surgical, medical, and other health services in facilities or in homes)
- Social services (family services, job training, and residential care)
- Educational services (elementary and secondary schools)
- Engineering and management services (management consulting, architecture or engineering consulting, some research and design)

⁴¹ Ibid.

⁴² Based on ES-202 (Covered Employment and Wages) annual average data available through the Minnesota WorkForce Center of the Minnesota Department of Employment and Economic Development, www.mnworkforcecenter.org.

⁴³ Minnesota Department of Employment and Economic Development Research and Statistics Office. *Minnesota Employment Outlook by Industry, 2000 – 2010*. Minneapolis, April, 2003.

In addition, employment increases in areas of wholesale and retail trade are expected, particularly:

- Eating and drinking establishments
- Wholesale trade
- Miscellaneous retail stores
- General merchandise stores

These projections indicate that a strong economic infrastructure for workers in these industries must be in place to secure the projected economic growth. The technical, business, professional, and some health services areas require highly skilled workforces and have relatively high wages. Educational opportunities to develop a skilled future workforce must be in place.

The growth areas in social and some health services and in retail and wholesale trade have jobs with low wages and which often require work outside of traditional workday hours. These workers require economic supports to sustain families who are not economically self-sufficient and economic infrastructures that enable employees to get to work during nontraditional hours.

Implications for Child Care

Increased demand in skilled service areas such as health, education, and business in Minnesota indicates a need for quality, accessible child care to continue labor force participation by skilled workers with young children.

In addition to quality care, increased demand in lower-wage service and retail area highlights the necessity for child care that is also affordable and offered outside of traditional workday hours.

A strong child care infrastructure is necessary to maintain Minnesota's attractiveness as a place to live and work for a skilled workforce.

Quality early education experiences are critical now to prepare the future workforce for the growth in technology and professional service occupations over the long term.

CHILD CARE AND THE FAMILY BUDGET

The average annual cost for full-time licensed care for a four-year-old is \$7,904 metro and \$6,240 non-metro; for an infant, cost is \$10,868 in the metro area and \$7,592 in Greater Minnesota.⁴⁴ Unsubsidized child care (\$7,904 full-time center-based care for a four-year-old in the metro area) costs more than the undergraduate tuition for Minnesota residents at the University of Minnesota (\$6,280 for two semesters at the Twin Cities campus).⁴⁵

For families in most income brackets, child care is a significant expense and takes up a large portion of the family budget. For a four-person family at family median income (\$70,553),

⁴⁴ Minnesota Child Care Resource and Referral Network, 2003.

⁴⁵ University of Minnesota, Twin Cities Office of Student Finance. "2002-03 Twin Cities Campus Tuition Rates for Undergraduates." Resident tuition and student services and activity fees total \$6,280 for two semesters, compared with annual fees for a four-year-old in a child care center of \$7,904.

center-based child care for an infant and a four-year-old takes up over one-fourth of the total household budget in the metro area and almost one-fifth in Greater Minnesota.⁴⁶ In a survey of parents in Minnesota, over two-thirds reported that cost was “very important” in choosing child care.⁴⁷ Child care options affect employment opportunities as well. Of parents with young children ages zero to five, 24.7 percent said that problems with child care in the last 12 months prevented them from keeping or accepting the kind of job they want.⁴⁸

Programs that reduce child care costs for low-income families are critical to sustaining parents’ participation in the workforce. A report from the Minnesota House Research Department found that without child care subsidies, single parents would need to earn significantly more than minimum wage to pay for basic necessities (food, housing, transportation, clothing, health care, child care, and taxes) in both metro and non-metro areas.⁴⁹ As of November, 2002, while more than 14,600 families were being served in the statewide Basic Sliding Fee program which subsidizes child care costs for low-income working parents, over 5,000 eligible families were on the waiting list. Many more eligible families do not receive support but do not place themselves on the long list. The legislature has since changed eligibility criteria (see Economic Profile of the Child Care Industry for more details).

Implications for Child Care

The availability of affordable child care affects families across all income brackets. Stable, affordable child care enables parents to pursue and maintain employment opportunities and ensures a stable labor force.

OVERALL IMPLICATIONS OF DEMOGRAPHIC AND ECONOMIC TRENDS ON THE CHILD CARE INDUSTRY

Minnesota’s shifting economic and demographic landscape creates a challenge for its child care industry. Changing and evolving economic and social conditions – population shifts, growing diversity, increased labor force participation by parents, and continuing welfare reform – fuel continued growth in child care and education programs.

POPULATION

- Minnesota’s child population continues to grow, particularly as a result of natural population increase. This creates demand for the entire education system for children of traditional ages for schooling as well as for children ages zero to five.
- The migration of working families and trends in natural population demographics directly affect the economy by changing the size of the labor force. Efforts to support and build the labor force are critical to supporting the Minnesota economy.

⁴⁶ Child care costs (\$18,772 urban and \$13,832 rural; from the Minnesota Child Care Resource and Referral Network database, 2003) take up 26.6% and 19.6%, respectively, of the Office of Community Services, Department of Health and Human Services. *State Median Income Estimates for Four-Person Families (FFY 2003)*. Federal Register, Volume 67, Number 20, January 30, 2002, pages 4454-4456.

⁴⁷ R. Chase and E. Shelton. *Child Care Use in Minnesota: Report of the 1999 statewide household child care survey*. Wilder Research Center: Minneapolis, 2001.

⁴⁸ Ibid.

⁴⁹ D. Hirasuna and N. Manzi. *Basic Needs Budgets for Custodial and Noncustodial Parents, Updated: October 1999*. Minneapolis: House Research Department, 1999. This report finds that, in 2003 dollars, parents without MFIP or child support must earn \$18.41 in metro areas and \$6.87 in non-metro areas.

DIVERSITY

- The increasing diversity in Minnesota requires more inclusive and culturally responsive child care programs including multi-lingual staff and programs and culturally sensitive curricula and care.
- The increasing demand in all sectors for skilled Hmong- and Spanish-speakers creates an increase in demand for Hmong- and Spanish-speaking child care professionals as well.

LABOR MARKET

- Employment demands are projected to increase at a higher rate than the labor force indicating a need to strengthen economic infrastructures such as child care, to sustain increased labor force participation among Minnesotans, and to increase productivity for existing workers.
- With the state's largest growth industries in service and retail, there is a greater demand for child care during hours outside of the traditional 8 a.m. to 6 p.m. child care schedule. In addition, because of low to medium wages in many occupations in the service and retail industries, supports to make quality child care affordable to families are even more necessary.
- Quality early education experiences are critical to prepare the future workforce for the growth in high-skilled technology and professional service occupations over the next two decades.
- The projected demand for a skilled workforce will only be met in Minnesota by providing economic infrastructures such as quality child care, transportation, and housing to maintain Minnesota's attractiveness as a place to live and work and to enable labor force participation by Minnesota residents.
- Many families eligible to receive child care benefits are on waiting lists, jeopardizing their chances for economic self-sufficiency and their contribution to the economy through work.

ECONOMIC PROFILE OF THE CHILD CARE INDUSTRY

To assess the economic characteristics of the child care industry in Minnesota, this section quantifies:

- the size of the industry, as reflected in output or gross receipts
- the total direct employment of the industry
- the capture of federal and state monies designated for child care

It should be emphasized that the majority of this analysis covers the licensed child care industry, which excludes a significant portion and variety of legally unlicensed, informal child care services which are used for both early education and to support parental employment (as discussed in the Introduction). The analysis also does not include pre-schools operated by school districts. Thus, the findings in this report are underestimates of the full impact of child care.

THE CHILD CARE MARKET

Currently, licensed child care, including child care centers, Head Start facilities, family child care homes, after-school programs, and pre-schools, has the capacity to serve 265,700 children at any one time.⁵⁰ There were an estimated 910,300 children ages zero to twelve in the state in 2002 and of those, an estimated 671,790 who have all parents in the home participating in the labor force.⁵¹ Thus, the licensed child care industry currently has the capacity to serve 30 percent of the total child population and 40 percent of those with working parents.

The average annual cost for full-time licensed care for a four-year-old is \$7,904 metro and \$6,240 non-metro; for an infant, cost is \$10,868 in the metro area and \$7,592 in Greater Minnesota.⁵² Some families receive direct benefits to support the high cost of care (over 25,000 families were served through the Minnesota Family Investment Program and the Basic Sliding Fee program in 2002 and almost 14,000 children were served in Head Start), but the majority do not.⁵³ In addition, tax credits help working families to defer some costs of care, and some employers may offer benefits that make child care more affordable.

MEASURING CHILD CARE INDUSTRY OUTPUT OR GROSS RECEIPTS

Output, also known as gross receipts, measures 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 child care services, gross receipts are equal to the total amount of dollars flowing into the sector in the form of payments for care, including both parent fees and private and public subsidies.

⁵⁰ Minnesota Child Care Resource and Referral Network statewide database, 2003. Pre-school numbers do not include those run by the state as part of the school readiness initiative (see Appendix A for more details).

⁵¹ U.S. Census Bureau. *Annual Population Estimates by State for July, 2002*, December, 2002. Estimates of the proportion of children in the 2002 population are based on Minnesota Planning State Demographic Center *Minnesota Population Projections 2000-2030*, October, 2002.

⁵² Minnesota Child Care Resource and Referral Network, 2003.

⁵³ Information from the Minnesota Department of Education, 2003.

Economists typically analyze industries and their impacts based on state and national surveys of businesses or employers. Although many surveys use an industrial classification system which recognizes “child day care services,” they underestimate the size of the child care industry because of its diversity of establishments, which includes self-employed individuals, programs run by religious or social organizations, not-for-profit and for-profit small businesses, and chains.⁵⁴

This study uses a more accurate method of measuring the size of the child care industry, which primarily relies upon data from the Minnesota Child Care Resource and Referral Network (CCR&R). This agency is charged by the state to collect comprehensive statewide data on the availability and use of licensed child care. Their database includes all actively licensed child care centers, family child care homes, after-school programs, and pre-schools that are not a part of the state’s school readiness initiative.

Gross receipts were calculated by multiplying the number of children enrolled in each type of care by the average cost of care by the average number of hours that Minnesota’s children typically spend in care. To ensure that gross receipts were accurately captured, cost and enrollment information was broken down by county, type of care (family child care homes, child care centers, pre-schools that are not a part of the state’s school readiness initiative, and after-school programs), and age of child (infant, toddler, pre-school age, and school age). Within each county in Minnesota, average hourly, daily, and weekly rates from the state’s market rate survey were converted to hourly rates and compared.⁵⁵ The lowest average rates in each county were used to ensure a conservative estimate of the full cost of care.

The statewide CCR&R database includes slots and enrollment of children whose families receive assistance with child care costs through the Minnesota Family Investment Program or Basic Sliding Fee program, so the value of these programs to the licensed child care industry is captured. The database does not include Head Start enrollment or cost, so government expenditure information was used. The gross receipts estimate does not include expenditures on school readiness pre-schools run by school districts, because there are not resources to separate these amounts from other school readiness activities (please see Appendix A for detailed methodology). While the locally derived estimate is likely to underestimate total gross receipts, it is much more reliable than state and national surveys because it primarily uses current and more comprehensive data.

Based on the methodology briefly described above, the estimated value of annual gross receipts for licensed child care in Minnesota is \$962 million including \$433 million for family child care homes and \$529 million for center-based care.

The estimated annual gross receipts for licensed child care in Minnesota total \$962 million.

Comparing estimates with data from the most recent national Economic Census for which data is currently available (1997) shows how much the total impact of the licensed child care industry is underestimated. Adjusting dollar values to 2003 for comparison, the survey reports gross receipts for child care in Minnesota of \$276.2 million, only 28 percent of those derived from comprehensive state data. This may reflect the survey’s methodology as well as rapid changes in the child care industry, since they would not be reflected in a dollar adjustment from the values in the 1997 survey.⁵⁶

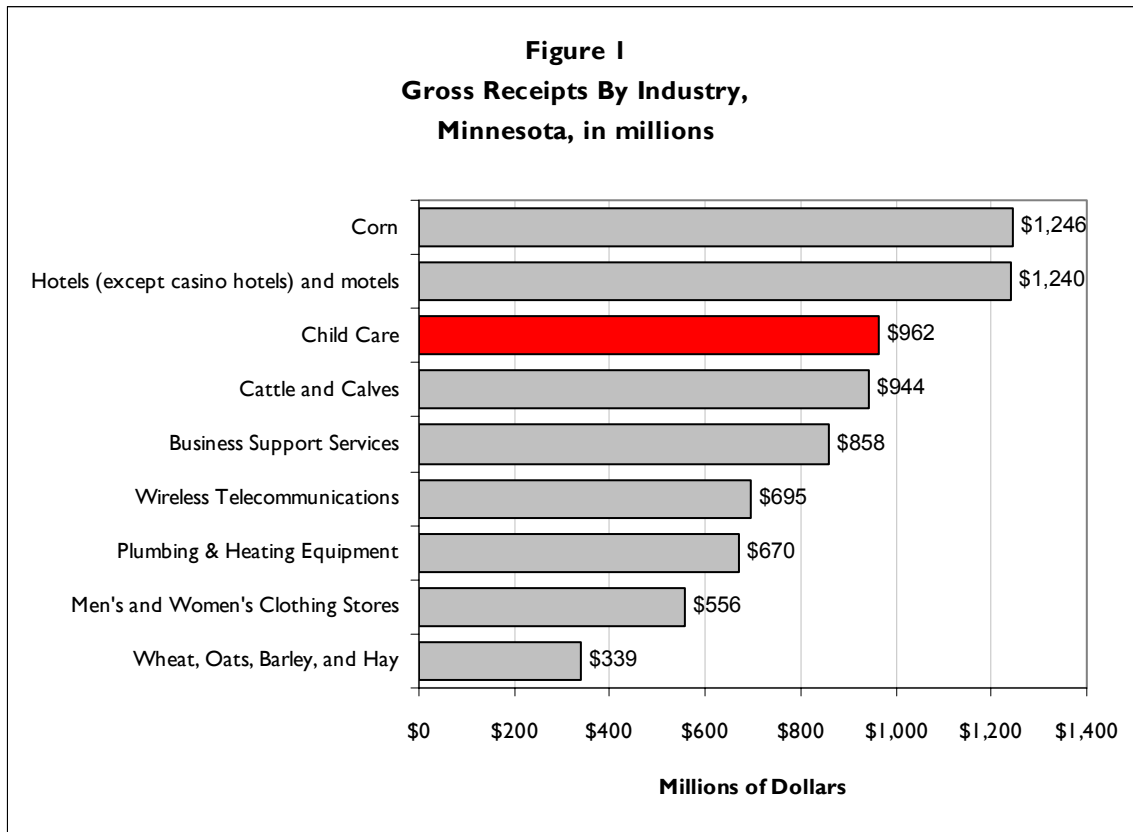
⁵⁴ The North American Industry Classification System (NAICS) is the most used classification system, separating industries into 20 major sectors, and 1,196 industry subsectors. “Child Day Care Services” is NAICS code 624410.

⁵⁵ Minnesota Department of Children, Families & Learning. *2001 Rate Survey Data—Rate Survey Averages*. 2001.

⁵⁶ The Economic Census is mailed to a list based on U.S. businesses with employer identification numbers (EIN), and excludes private households and governments.

GROSS RECEIPTS COMPARED WITH OTHER INDUSTRIES

Comparing the child care industry's gross receipts with other industries in the state puts the gross receipts calculation into context. Industries range widely in size, from \$3.2 million for hazardous waste disposal to \$11.3 billion for retail sales at new car dealerships. Comparing the licensed child care industry with Minnesota's other industry subsectors indicates that licensed child care is larger than wireless telecommunications (\$795 million), business support services (\$858 million), and the cattle industry (\$944 million; see Figure 1).



Gross receipts for non-agricultural industries are from the 1997 Economic Census and for agricultural industries are from the Minnesota Trade and Economic Development's *Compare Minnesota: Profiles of Minnesota's Economy and Population 2002-2003*. All values have been adjusted to 2003. Child care gross receipts are calculated using methodology described in Appendix A.

Child care is considerably larger than plumbing and heating equipment sales in the state (\$670 million), sales in men's and women's clothing stores (\$656 million), and more than twice the gross receipts of wheat, oats, barley, and hay production combined (\$339 million). The child care industry is 77 percent of the size of the hotel and motel industry (excluding casino hotels) in the state (\$1.24 billion) and the corn industry in Minnesota (\$1.25 billion), for which the state ranks third in the nation based on crop production.⁵⁷

The gross receipts of licensed child care are more than three-quarters the size as the corn industry, for which the state ranks third nationwide in crop production.

⁵⁷ Minnesota Department of Agriculture. *The Economic Impact of the Ethanol Industry in Minnesota, 2003*. Available at www.mda.state.mn.us/ethanol/economicimpact.pdf

DIRECT EMPLOYMENT

Direct employment for licensed child care in 2003 in Minnesota is estimated to be 28,058 full-time equivalent jobs (FTEs). This figure is derived from the actual child care inventory and the number of children in different types of care, assuming compliance with minimum staffing requirements imposed by licensing laws for different age groups and minimal support staffing in centers serving more than 80 children at a time (please see Appendix A for a detailed methodology).

The child care industry directly supports more than 28,000 full-time equivalent jobs.

The total number of people working in the child care industry is likely higher, because so many child care professionals work part time. The estimate derived from statewide data also understates the total child care economic activity because it only counts licensed child care establishments, excluding informal, individual care-giving by nannies, babysitters, relatives, or neighbors. In addition, the estimate is calculated based on the minimum staff-child ratio required by state law. Some child care operators choose to maintain higher ratios in order to improve program quality or to achieve specific quality goals that increase their business' competitiveness.

This estimate is similar to occupational and employment estimates from the labor market information office in the Minnesota Department of Employment and Economic Development (DEED). Their estimates are compiled using data from multiple sources to account for the child care industry's diversity of establishments, highlighting the difficulty in compiling accurate and comprehensive statistics about the child care industry.⁵⁸

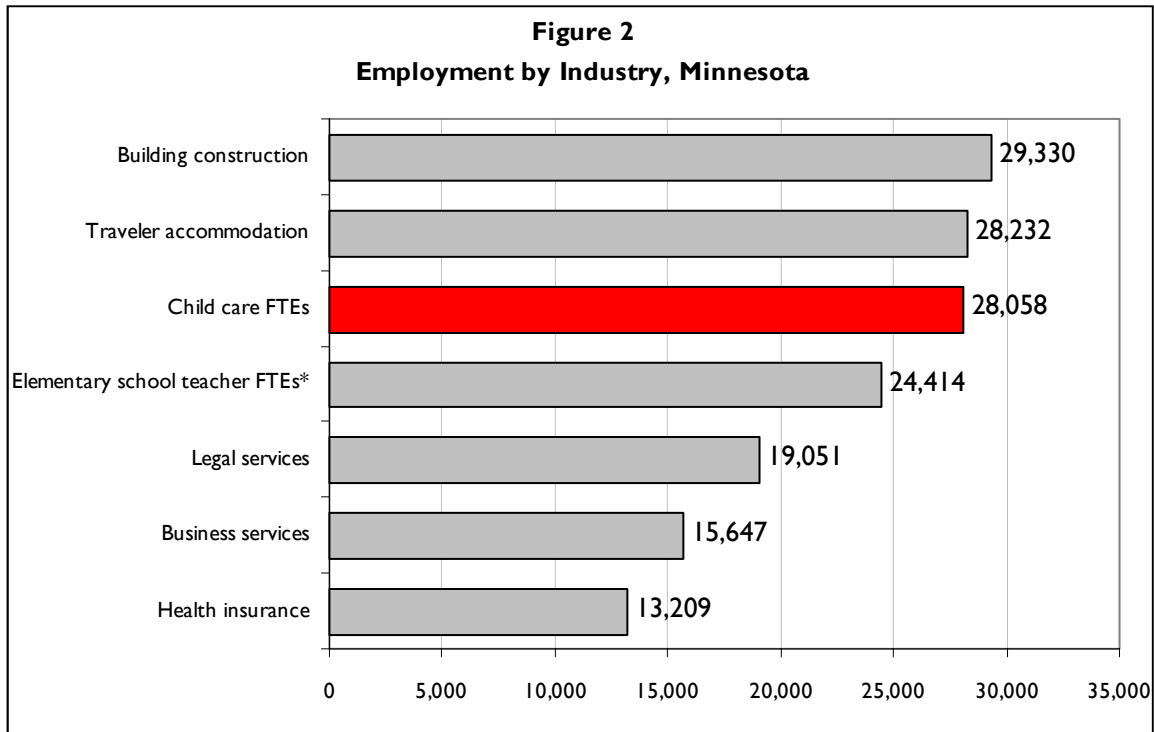
Every industry, including child care, is linked to the rest of the local economy through a number of avenues, reflecting the fact that the business purchases supplies from other business and the employees of a business spend their earnings in part on locally produced goods and services. The linkages of the child care industry in Minnesota can be measured using an input-output model and its associated multipliers, a methodology used by some economic development specialists. Many informed observers have indicated that these effects are not part of a conservative approach and thus these analyses are not included in the main body of this report. An analysis of these linkages for employment in other industries is included in Appendix B.

DIRECT EMPLOYMENT COMPARED WITH OTHER INDUSTRIES

To put employment findings in context, the number of FTEs in child care is compared to employment in other industries.⁵⁹ The number of FTEs in child care is similar to the number of employees in traveler accommodation (28,232), which includes individuals working in hotels, motels, and bed and breakfast establishments (see Figure 2).

⁵⁸ The Covered Employment and Wages (ES-202) annual statewide survey of employment in industries (by NAICS), covers all employees liable for Unemployment Insurance, and thus primarily captures employment in child care centers within the child care industry. The survey reports that there are 11,383 employees in the child care industry, which is similar to findings in this report for FTEs in child care centers, more than 13,000. Methodological differences or recent shifts in the industry could account for the discrepancy. "Occupational Projections 2000 – 2010" estimates the number of employees in child care by projecting from the most recent data available about employment in occupations (Occupational Employment Statistics, ES-202, and the 1990 Census). They estimate that in 2000, there were 35,376 child care workers, which includes employees in establishments, self-employed licensed child care providers, pre-school teachers, and self-employed legally unlicensed individuals, such as private nannies or "au pairs."

⁵⁹ Data is from the 2001 Minnesota Covered Employment and Wages (ES-202) survey, adjusted to 2003 labor force levels for comparison.



*Licensed teacher FTEs in elementary schools, 2002-03 school year, Minnesota Dept. of Education. All employment information for industries is from the ES-202 Covered Employees and Wages 2001 Survey, adjusted to 2003, except for elementary school teachers, which is taken from the Occupational Employment Statistics, fourth quarter 2002, and child care, which is taken from findings in this report.

There are more FTEs in child care in the state than there are elementary school teachers (26,740). There are almost as many FTEs in child care as there are people working in building construction (29,330), including residential and commercial buildings. There are more FTEs than employees in legal services (19,051) or business services (15,647) and twice as many as employees in the health insurance industry in the state (13,209).

There are more people working in the child care industry in Minnesota than work at the University of Minnesota (25,000, which includes 9,000 student workers), Northwest Airlines (17,300 employed in Minnesota as of 12/2002; 21,300 in 2000), or the Hormel Foods Corporation in Austin, Minnesota (15,600).⁶⁰ The child care industry in Minnesota has slightly fewer workers than UnitedHealth Group (32,000) or Medtronic (28,000) have nationwide.⁶¹

CAPTURE OF FEDERAL AND STATE SUBSIDIES

The state and federal governments provide support for child care and early education programs, including child care assistance, child development programs, and quality improvement. As these funds are part of the economic composition of the child care and early education industry, they are described here. The economic benefits of government support of early care

⁶⁰ University of Minnesota employment information from America's Career InfoNet, part of the Career One Stop system, www.acinet.org. Northwest Airlines employment information from Minnesota Public Radio "Northwest's role in Minnesota economy diminishing", April 9, 2003 and Hormel information taken from the *Star Tribune*, "The 12th Annual Star Tribune 100: Minnesota's Largest Publicly Held Companies," April 13, 2003.

⁶¹ Ibid, *Star Tribune*.

and education programs, particularly for those families who cannot afford quality programs, are described in the economic development section of this report.

Direct child care assistance to support low-income Minnesota families is provided through two main programs, the Minnesota Family Investment Program (MFIP) and the Basic Sliding Fee (BSF) program. Child care assistance available through the welfare-to-work MFIP program is intended to provide care and education opportunities so that parents can participate in work activities. In addition, Transition Year funding provides for one additional year of support following welfare-to-work activities. Families may choose their own licensed or legally unlicensed child care provider. This program is fully funded and all families who are eligible and need child care receive assistance with child care costs. All of these families have incomes below the federal poverty level (\$18,400 for a family of four in 2003).⁶²

Direct child care assistance programs to support low-income Minnesota families is provided through the Minnesota Family Investment Program (MFIP) and the Basic Sliding Fee (BSF) program.

In state fiscal year (SFY) 2002-03, the BSF program offered supports for families who earned up to 75% of the state median income (\$52,915)⁶³. Policy changes from the 2003 Legislative Session have resulted in BSF eligibility dropping to 175% of the federal poverty level (FPG; \$32,200 for a family of four in 2003) for eligibility to enter the program and 250% of FPG for program exit, with increased parent co-payment requirements. The program is available to parents who have low-wage employment but have never received welfare support, or to parents who have found stable employment and who have left the MFIP program. Families may choose their own licensed or legally unlicensed child care provider. These funds are intended to maintain parental employment and to support low-income working families. This program also includes the At-Home Infant Care (AHIC) Program, which provides financial support for families who meet certain parameters to stay at home with their infants up to one year. The AHIC program was repealed in the 2003 Legislative Session. In November, 2002, over 5,000 families were on the waiting list for the BSF program. There is no information yet on 2003 waiting list length.⁶⁴

Child care assistance programs received a total of \$198.4 million in state fiscal year 2002.

Together, MFIP and BSF served 49,565 children in SFY 2002 with a total of \$198.4 million in state and federal funds.⁶⁵ The MFIP Program received \$60.0 million in state funding and \$44.9 million in federal funding for child care assistance, totaling \$104.9 million. The BSF program received \$93.5 million in state funding.⁶⁶ There are two different markets between the gross receipts reported here and the market available to families accessing child care assistance. The child care assistance market includes legally unlicensed providers which is not reflected in the gross receipts quantified in this report. Therefore it is an inappropriate use of the information to compare the gross receipts to allocations for child care assistance to determine the share of the market attributable to government spending. In federal fiscal year 2002, 52.7 percent of children in the MFIP program and 68.5 percent of children in the BSF program

⁶² Minnesota Department of Children, Families & Learning. *Review of Child Care Assistance Program: Report to the Legislature*. Minneapolis: January, 2003. Poverty rate from Department of Health and Human Services. "Annual Update of the HHS Poverty Guidelines." *Federal Register*, Volume 68, Number 26, February 7, 2003, pages 6456 – 6458.

⁶³ Federal Register. *FFY 2003 Minnesota State Median Income*. Volume, 67, No. 20, January 20, 2002, as cited by the Legislative Commission on the Economic Status of Women.

⁶⁴ Minnesota Department of Children, Families & Learning. *Review of Child Care Assistance Program: Report to the Legislature*. Minneapolis: January, 2003.

⁶⁵ Minnesota Department of Children, Families & Learning. *Child Care Assistance Family Profile, SFY02*. March 20, 2003.

⁶⁶ Minnesota Department of Human Services, 2003.

primarily attended licensed child care programs.⁶⁷

In federal fiscal year 2002, 52.7 percent of children in the MFIP program and 68.5 percent of children in the BSF program primarily attended licensed child care programs.

Another significant area of public funding is the comprehensive child development programs in Head Start. Head Start serves children from birth to age 5, pregnant women, and their families with child-focused programs designed to increase school readiness of young children in low-income families.⁶⁸ Programs include school-readiness programs for four-year-old children, Early Head Start specifically geared towards for infants, Migrant Head Start for the children of migrant or seasonal workers (typically agricultural workers), and Native American Head Start programs for tribal communities. In SFY 2002, the Department of Children, Families & Learning received \$18.0 million in Head Start funding and local agencies received more than \$78.8 million directly from the federal government, for a total of \$96.8 million for Head Start.

Minnesota received \$96.8 million in state and federal funds for Head Start child development programs.

Federal Child Care Development Funds (CCDF) include a requirement that a minimum of four percent of the total child care funds available be used to improve the quality of child care. These federal dollars are combined with state

funds for total state and federal quality improvement funding in Minnesota in SFY 2002 totaling \$11.4 million. This money supports education and training of child care professionals, capacity building, resource and referral, and a number of other activities designed to build and sustain the capacity of high-quality child care and education.

Licensed and unlicensed child care in Minnesota received a total of \$133.3 million from the federal government in state fiscal year 2002.

In total, state and federal funding for child care and development in Minnesota was \$288.6 million in SFY 2002 (see Table 1). Of this, \$133.3 million was drawn down from the federal government

and \$155.3 million was used from state funds. Some of these funds were distributed through licensed child care facilities; however, a significant portion of child care assistance payments were made to legally unlicensed child care providers. Again, it is inappropriate to compare subsidy information reported here to gross receipts to determine the share of the licensed child care market made up from government spending. The availability of federal and state child care supports plays an important role in supporting local economic development and sustained employment of low-income families.

Program	State	Federal	Total
MFIP Child Care	\$59,956,000	\$44,940,000	\$104,896,000
Basic Sliding Fee	\$93,471,000		\$93,471,000
Head Start	\$17,981,000	\$78,835,000*	\$96,816,000
Quality Improvement	\$1,824,000	\$9,574,000	\$11,398,000
Total:	\$155,251,000	\$133,349,000	\$288,600,000

* Because Federal Head Start allocations are given directly to local agencies, some funds may not be captured in this amount.

⁶⁷ Minnesota Department of Children, Families & Learning. *Child Care Assistance Family Profile, SFY02*. March 20, 2003 reports percentages of children using various types of care, based on federal fiscal years.

⁶⁸ US Department of Health and Human Services, Administration for Children, Youth and Families; Head Start website at <http://www2.acf.dhhs.gov/programs/hsb/about/index.htm>.



There are additional state monies provided for early childhood programs that are not all directly related to children in child care settings, but that are related to the education and welfare of young children in the state. The state spent \$10.4 million in SFY 2002 on a School Readiness program, which was distributed to school districts. Many districts use these funds for pre-school programs, but because of the flexibility of this funding, there are no resources available to segregate pre-school spending from spending for parent education, community services and other programs designed to increase school readiness. In addition, the state has an Early Childhood Family Education program, funded with \$20.8 million in SFY 2002 and geared toward parent education on the care and development of their young children. There was an additional \$8.5 million spent towards health screening, the *Way to Grow* program, and an Infants and Toddlers program. In total, state spending in SFY 2002 was \$212.9 million for these early childhood initiatives. Private-sector dollars go into these programs for young children as well, through co-payments and other fees, but they are not captured in this report.

SECTION SUMMARY

The diversity of the child care system is a vital feature in its ability to meet the needs of Minnesota's families, but that diversity makes it difficult to analyze and measure. However, using data maintained by organizations charged by the State of Minnesota with tracking the supply, cost and licensure of child care facilities, an estimate of its composite size can be derived. This overall size, measured in terms of gross receipts and employment, is comparable to many other more easily recognizable industries in Minnesota, such as business support services or wireless telecommunications.

The substantial size of the child care industry means that it not only supports the economy by allowing parents to work, but also contributes to its vitality by employing significant numbers of workers, providing tax revenue, and purchasing goods and services from many other industry sectors. The child care field also boosts the economy by drawing down significant levels of federal funds available to support quality improvement and to provide child care services to poor families. These families represent a substantial portion of the existing and potential workforce and are vital to the continued growth of the economy.

CHILD CARE AND BUSINESS

Like other components of a strong economic infrastructure, the child care industry supports businesses by increasing productivity. Quality transportation systems and affordable housing enable workers to get to their jobs and make areas attractive places to live and work. Similarly, quality, stable and accessible child care supports businesses. A strong child care infrastructure:

- Cultivates the future workforce, helping to prepare young children for K-12 education and success in adulthood
- Increases employee retention and labor force participation, which, in turn, lowers turnover costs and ensures a healthy labor market
- Enhances recruitment of new employees and attracts a skilled workforce to the area
- Reduces absenteeism in existing employees, which increases productivity

These effects have a direct impact on the bottom line for businesses of all sizes and for the Minnesota economy as a whole.

CULTIVATING THE FUTURE WORKFORCE

Businesses invest their time, financial resources, and expertise in efforts which improve the lives of their customers, employees, or surrounding communities and ensure a stable and productive economy in the future. By improving opportunities for children in the K-12 education system, or providing adults with career training for today's labor market, businesses support public goods such as education. Research on brain development and early education for young children indicates that efforts in the education and cultivation of the future workforce should begin at birth for the maximum benefit (see next section for more details).

Employment projections indicate a labor force shortage in Minnesota by 2010, with growth in demand for skilled jobs, particularly in technology and professional business

Quality child care and early education helps to build a skilled workforce for the future.

services being the most pressing (see Demographics Profile section for more details). These projections suggest that business investments in the child care and early education industry are particularly necessary now to build the pool of skilled employees for the future.

Many business leaders and top companies have realized the importance of accessible, affordable, quality early education and of their role in advocating for a strong system of support for this necessary and beneficial public good. The Business Roundtable (BRT), an association of CEOs from leading companies, and Corporate Voices for Working Families (CVWF), a national, non-partisan, non-profit organization made up of corporate members, have both recognized quality early education as a key focus for their current agendas.⁶⁹ The two groups recently published a joint paper enumerating the public benefits of quality early education and providing recommendations to support the child care industry.⁷⁰

⁶⁹ More information about the Business Roundtable can be found at www.brtable.org. More information about Corporate Voices for Working Families can be found at www.cvworkingfamilies.org.

⁷⁰ Business Roundtable and Corporate Voices for Working Families. Early Childhood Education: A Call to Action from the Business Community, 2003: www.cvworkingfamilies.org/downloads/CVWF-BRTjointStatement.doc.

“In today’s world, where education and skill levels determine future earnings, the economic and social costs to individuals, communities, and the nation of not taking action on early childhood education are far too great to ignore, especially when the benefits far outweigh the costs....BRT and CVWF are committed to working with all stakeholders to build a quality early learning system for today’s and tomorrow’s young children.”

The Business Roundtable and Corporate Voices for Working Families

INCREASING EMPLOYEE RETENTION

Retention of existing employees is critical to a company’s economic success, particularly in establishments relying on a skilled workforce. Employees who feel supported in their new family roles and/or who feel that their workplaces support a balance between work and home obligations are less likely to leave their jobs, either for other, more family-friendly companies or to stay at home with children. When employees do leave because of child care problems or transfer to a company with better child care benefits, companies lose human capital and incur high turnover costs.

There is considerable evidence that child care benefits increase employee retention. Employees at Nations Bank who used a child care subsidy program offered by the bank were three times more likely to remain with the bank than those in similar jobs who did not use the program.⁷¹ Similarly, while 27 percent of Citicorp employees left their jobs, only eight percent of those using an on-site child care center left their positions.⁷² After Carlson Companies instituted on-site child care at its headquarters in Minneapolis, 94 percent of parents using the center said that if they were considering other employment, the benefit of the on-site child care center would be one of the factors that they would consider in remaining with Carlson.⁷³ In a survey, 19 percent of employees at companies with child care programs indicated that they have turned down another job rather than lose work-site child care.⁷⁴

Using child care benefits to help reduce turnover has a direct impact on an organization’s bottom line. 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 Not every company can offer on-site child care, of course, but there are a wide range of options to support the child care needs of employees (see Appendix D for more details).

In addition to retaining employees, stable, quality child care options also enable parents to continue to advance in their careers after they have started a family. In Minnesota, 24.7 percent of parents with young children ages zero to five said that problems with child care in the last 12 months prevented them from keeping or accepting the kind of job they want.⁷⁶

Almost 25 percent of Minnesota parents with young children report that problems with child care have prevented them from keeping or accepting the kind of job they want.

⁷¹ S. Burud, citing Rodgers and Associates study in *Evidence That Child Care and Work-Life Initiatives Will Impact Business Goals*. Claremont Graduate University, 1999.

⁷² Bright Horizons Family Solutions. *Return on Investment*. Presentation, 2003.

⁷³ Carlson Companies. Internal survey, 2001. Minneapolis, MN.

⁷⁴ Simmons College, *Benefits of Work-Site Child Care*, 1997, as cited by Bright Horizons Family Solutions.

⁷⁵ Personnel Journal, December 1990, as cited in Bright Horizons Family Solutions, *Benefits of Employer-sponsored Care*, www.brighthorizons.com.

⁷⁶ R. Chase and E. Shelton. *Child Care Use in Minnesota: Report of the 1999 Statewide Household Child Care Survey*. Wilder Research Center: Minneapolis, 2001.

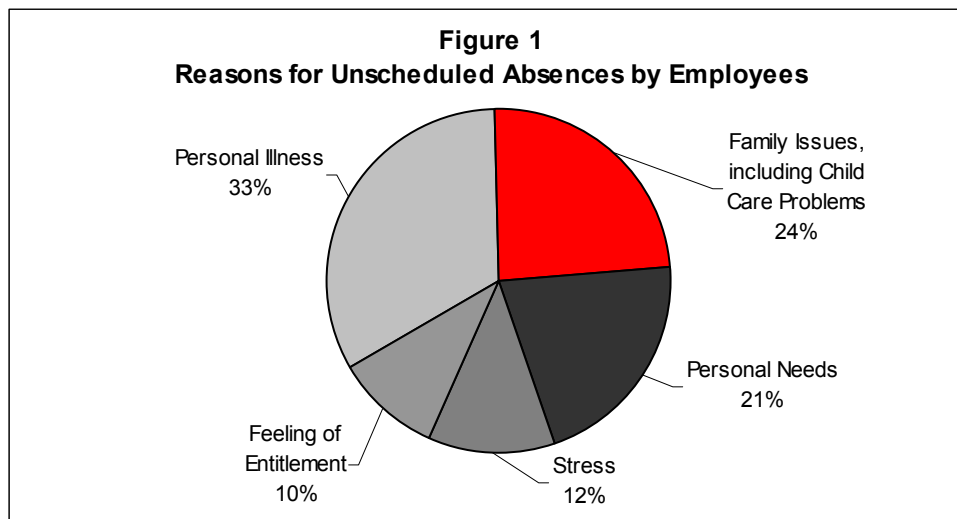
ENHANCING RECRUITMENT

The accessibility of quality, affordable child care on-site or in the community is a strong recruitment tool. The availability of child care is necessary to attract employees to the area who do not have nearby family and friends. In a survey by Carlson Companies, 78 percent of parents who were hired since the on-site child care center opened and who use the center reported that the benefit played a role in their decision to seek employment at Carlson.⁷⁷ In addition to directly benefiting some employees, strong work-life benefits also indicate positive, family-friendly values of a company, which make the company more attractive in a competitive workforce market. Particularly for highly specialized workers, company values are critical to attracting the best of the labor pool, with or without young children.

REDUCING ABSENTEEISM

Unscheduled absenteeism in 2002 cost an average of \$60,000 a year for small companies and more than \$3.6 million for large companies, according to a national survey of human resource executives.⁷⁸ 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 child care arrangements (see Figure 1).

Absenteeism in 2002 cost an average of \$60,000 per year for small U.S. companies and more than \$3.6 million per year for large U.S. companies.



These national findings are mirrored in a survey of Minnesota's working parents. In the survey, 22.6 percent of Minnesota parents indicated that they have been late for work, left work early, or missed an entire day of work in the last six months due to child care problems; of those, eight percent said they "often" lose time from work.⁷⁹ This instability translates directly to higher absenteeism and reduced productivity in the workplace across the state.

22.6 percent of Minnesota parents indicated that they have been late for work, left work early, or missed an entire day of work in the last six months due to child care problems.

⁷⁷ Carlson Companies. Internal survey, 2001. Minneapolis, MN.

⁷⁸ Harris Interactive. *The 2002 CCH® Unscheduled Absence Survey*. Riverwoods, IL: CCH®, 2003.

⁷⁹ R. Chase and E. Shelton. *Child Care Use in Minnesota: Report of the 1999 Statewide Household Child Care Survey*. Wilder Research Center: Minneapolis, 2001.

There are a variety of ways in which employers can use child care benefits to help reduce unscheduled absenteeism. Options to support back-up care for employees when regular child care arrangements fall through include operating an on-site drop-in center, reimbursing employees for higher emergency child care costs, providing resource and referral services, or offering flexible scheduling. Based in Minneapolis, 3M and Target both offer back-up care options for their employees, among other benefits.⁸⁰

While there are no statistics publicly available on the successes of back-up programs in Minnesota, American Express Financial Advisors, based in New York, found that a newly created back-up child care service recovered 105 days in worker productivity.⁸¹ J.P. Morgan Chase found that operating a back-up center and providing employees with resource and referral consulting to help them find stable quality care had an annual savings of \$800,000, a 112 percent return on the company's investment in child care benefits.⁸² Currently, approximately 16 percent of major employers nationally offer sick or emergency back-up care.⁸³ Small businesses with fewer employees to cover work loads of absent coworkers may find even greater benefits from reducing absenteeism, particularly when programs are low or no cost.

One company enjoyed a 112 percent return on investment from providing back-up child care and resource and referral services to employees.

BUSINESS STRATEGIES FOR CHILD CARE

Understanding the economic benefits of child care, both to an individual company and to the economy as a whole is critical to developing innovative solutions to meeting the child care needs of Minnesota's families. There are a wide range of options that businesses can choose to ensure that they have an adequate child care infrastructure for their employees and for the economic success of the region. Strategies include:

- Becoming a partner in long-term planning to strengthen the child care infrastructure
- Incorporating child care into business and residential development
- Providing benefits directly to employees

BECOMING A PARTNER IN LONG-TERM PLANNING

Becoming a partner in strengthening the child care infrastructure ensures that child care exists not only for employees, but for the community as well. Working with government representatives and Chambers of Commerce to get child care issues on the policy agenda enables the needs of businesses to integrate with the needs of government, the community, the child care industry, and other key stakeholders.

⁸⁰ Children First. *Children First Clients*. Boston, MA: 2003.

⁸¹ S. Burud, *Evidence That Child Care and Work-Life Initiatives Will Impact Business Goals*. Claremont Graduate University, 1999.

⁸² Bright Horizons Family Solutions. *Return on Investment*. Presentation, 2003.

⁸³ Hewitt Associates. "Hewitt Study Shows Work/Life Benefits Continue to Grow Despite Slowing Economy" April 23, 2001. www.was.hewitt.com

Working with each other, businesses can find appropriate solutions within the business community that address their employee's specific needs. For example, General Mills partnered with nearby Carlson Companies, which offers on-site child care, so that it could provide child care for its employees' toddlers at the Carlson child care facility.

Working with other child care stakeholders outside of the business community will help to create innovative public/private partnerships to purchase property, develop facilities, and/or strengthen existing child care enterprises. Encouraging public policy improvements or local projects aimed at increasing supply, affordability, and quality of child care will highlight a business' commitment to work-family issues, and bring new voices to the table to ensure high-quality, sustainable child care in Minnesota.

Example: Carlson Companies, Inc. is one of the largest privately held corporations in the U.S. Carlson and Carlson-related brands, including Radisson hotels and T.G.I. Friday restaurants, employ about 180,000 people in 140 countries. Chairman and Chief Executive Officer Marilyn Carlson Nelson is an outspoken champion of quality work-life benefits, and has brought attention to the need for company commitment to its employees. She has spoken at conferences, Chamber of Commerce meetings, and government hearings about the value of work-life benefits. She was appointed by the President to lead the National Women's Business Council. Carlson Companies is on Working Mother magazine's 2001 list of "The 100 Best Companies for Working Mothers," and Fortune magazine's 2002 list of "The 100 Best Companies to Work For."

INCORPORATE CHILD CARE INTO BUSINESS AND RESIDENTIAL DEVELOPMENT

Working with developers and planners to ensure that affordable, quality child care is accessible to employees is critical. Companies building a new headquarters or moving to a new location can consider incorporating child care into construction. Small businesses moving into business parks or commercial areas can work with developers or other neighboring companies to create near-by child care options. Residential developers can build child care into developments to meet the needs of residents.

Example: EMR Innovations is a private software company with nearly 60 employees. In 1998, EMR purchased a 25,000 square foot building on 10 acres in St. Cloud, Minnesota for its new headquarters. Seeing a need for its employees as well as the community, the company included a child care facility in the development of this new headquarters campus. "Little Innovators" opened in 1999 with spaces for children of all ages. For two years in a row, EMR has won the "Family Friendly Employer Award" from Child Care Choices, Inc., the regional resource and referral agency.

PROVIDING CHILD CARE BENEFITS

Child care benefits save businesses money by lowering turnover and absenteeism, which reduces training dollars and turnover costs. Similar to health care benefits, not all employees will need to use child care benefits at any one time. By 2010, however, it is estimated that 85 percent of employees will be parents at some point during their careers.⁸⁴ Child care benefits also help employees without young children who work alongside those who do because co-workers are not required to cover for absent parent-employees. High morale and commitment is contagious.

A study by the Families and Work Institute found that:

- Two-thirds of employers report that benefits of child care programs exceed costs or that the programs are cost-neutral;
- Three-quarters of employers who offer flexible work schedules find that benefits exceed costs or that the programs are cost-neutral; and
- Of those employers with family leave policies, three-quarters find that benefits exceed costs or that the programs are cost-neutral.⁸⁵

During an economic downturn, strategies that boost morale and employee output, but are cost-neutral, may be particularly advantageous. As Paul Orfalea, the founder of Kinko's put it, "wise business leaders know their biggest asset is morale. In a tight economy, it's all the more important to strengthen your business and take care of your people."⁸⁶

Child care benefits also helps employees with do not currently have young children. They are not asked to cover for absent parent-employees.

There are many options for child care benefits (see Appendix D for more options):

- Flexible scheduling policies
- Resource and referral services to help parents find accessible, affordable care
- Dependent care assistance plans to reduce income taxes and stretch child care dollars
- Back-up care programs to help when regular arrangements fall through
- Parental leave programs for new parents
- Payment assistance for child care costs
- Partnerships with local child care programs to offer spaces to employees

⁸⁴ U.S. Census Bureau. Current Population Reports, P20-514, 1999.

⁸⁵ E. Galinsky and J. T. Bond, *The 1998 Business Work-Life Study: A Sourcebook*. New York, NY: Work and Families Institute, 1998.

⁸⁶ P. Orfalea. Interview, the National Economic Development and Law Center, 2002.

Example: Administrators at the Inter Faith Care Center, a nursing home in the Arrowhead region of the state, realized that child care options for their 120 employees were limited. In 2001, they worked with local providers to move a community family child care program to existing space on the property of the nursing home. The site serves up to 14 children, with preference given for nursing home employees. Rent and meals are subsidized by the nursing home, keeping costs low for families who use the program. The child care and nursing home programs are often combined so that children and seniors interact regularly. Employees with children in the program can visit their children during the work day, and some grandparents in the senior apartments have their grandchildren close by.

CONCLUSION

Ensuring that employees have access to quality, affordable child care is advantageous for employees, communities, and businesses. Stable, quality care leads to greater productivity and a healthier Minnesota economy. Just as businesses work to ensure that quality transportation networks, good school systems, and affordable housing are in place to attract and retain the best employees, they need to work together and collaborate with government, community planners, financial planning institutions, and the child care industry to build the capacity and sustainability of quality child care in Minnesota. Child care is a crucial component of workforce development and ensures a skilled workforce in the present and in the future. Some Minnesota companies recognize this need and have responded accordingly. These companies realize the importance of the child care industry and their role in supporting this critical economic infrastructure.

Providing child care benefits directly to employees can benefit each business individually by increasing company loyalty and productivity and reducing costs from employee turnover, absenteeism and low morale. There are a range of options to support the child care needs of employees.

In the next section, the report discusses the links between child care and economic development, which has additional implications for the business sector in the state.

CHILD CARE AND ECONOMIC DEVELOPMENT

Economic development policies that support child care programs are necessary and viable options that not only increase the availability, sustainability and quality of care, but also promote the vitality of local, regional, and state economies. Economic development refers to public and private activities designed to attract, expand, retain, or start up businesses in state and local economies. They often provide land, tax abatements, regulatory relief, low-cost capital financing, facilities and workforce development resources, business assistance programs, and/or other concessions. These activities help stabilize and expand the child care industry by addressing its unmet facilities and business development needs.

Linking quality, licensed child care and education with community economic development is important both within the field of child care and for its stakeholders. Investing in quality child care is a win-win situation:

Government wins when public investments in high-quality early education and care programs for low-income families generate a significant return on investment through savings in criminal justice, remedial education, and welfare costs.

Businesses win when quality, affordable, accessible child care options for their employees improve employee recruitment, retention, attendance and job satisfaction.

Banks win when the child care industry becomes a more viable market for their loan products.

Communities win when parents have access to safe, quality child care for their children while they work.

Children win because they enter the traditional K-12 school system healthy, able to relate to others, and ready to continue learning.

Public and private investments in quality care and education contribute to Minnesota's economic development by:

- Maintaining high labor force participation rates
- Enabling parents to enhance their workforce development through schooling or job skills training
- Cultivating Minnesota's future workforce by improving the cognitive skills and emotional well-being of children and ensuring that they enter the traditional K-12 school system ready to continue learning
- Reducing future public spending in such areas as criminal justice, remedial education, and welfare

MAINTAINING LABOR FORCE PARTICIPATION

Child care enables parents to participate in the labor force. Almost one-third of the total Minnesota workforce are parents with children under the age of 18—fifteen percent are parents

with children under the age of six.⁸⁷ The vast majority of these parents live in families where every parent participates in the labor force. While not all of these parents use licensed child care--some families may arrange work hours so that children are always in one parent's care and others may find relatives, friends, or neighbors to care for children—a recent statewide parent survey indicates that 76 percent of the children 0 to 14 of working parents are in some form of non-parental child care.⁸⁸ In total, all single working parents and one parent in each dual-earning household earn more than \$8.9 billion annually.⁸⁹ These estimates provide a snapshot of the vital role that working parents play in the economy.

Almost one-third of the total Minnesota workforce are parents with children under the age of 18—fifteen percent are parents with children under the age of six.

Child care options and preferences also affect career development. As further evidence of the impact of child care on the labor market, a survey of Minnesota parents found that 24.7 percent of parents with children ages zero to five responded that problems with child care in the last 12 months prevented them from keeping or accepting the kind of job they want.⁹⁰

Workforce projections for the state, which indicate a shortage of workers by 2010, highlight the necessity of maintaining significant labor force participation statewide and attracting new people to the labor force (see the Demographic and Economic Profile of Minnesota section for more details).

ENABLING WORKFORCE DEVELOPMENT

Child care is also a critical component of workforce development. Child care services are needed during activities such as education and training which prepare individuals to enter the workforce. In recognition of this, some colleges and universities have developed and maintained on-site child care facilities to accommodate parents pursuing both undergraduate and graduate degrees.

High-quality child care programs help to improve the education attainment and income status of parents.

High-quality early care and education support workforce development in low-income families more substantially than average-quality child care. One long-term study of the effect of a high-quality early care and education program, which included parental

involvement, tracked the performance of parents in addition to the children. The study found that mothers whose children participated in the high-quality program achieved higher educational and employment status than similar mothers whose children were not in the program.⁹¹

CULTIVATING THE FUTURE WORKFORCE

In addition to supporting the current workforce, child care is a crucial component in cultivating the future workforce. Decades of research have been dedicated to understanding the

⁸⁷ Derived from U.S. Census Bureau, Census 2000. See Introduction for more details.

⁸⁸ R. Chase and E. Shelton. *Child Care Use in Minnesota: Report of the 1999 Statewide Household Child Care Survey*. Wilder Research Center: Minneapolis., 2001.

⁸⁹ Based on Census 2000 estimates for single-father and single-mother earnings, and the lower of male/female single householder age 15-64 as a proxy for one parent's earnings in a dual-parent household, adjusted to 2003 dollar values.

⁹⁰ R. Chase and E. Shelton. *Child Care Use in Minnesota: Report of the 1999 Statewide Household Child Care Survey*. Wilder Research Center: Minneapolis., 2001.

⁹¹ Discussion of results of *The Abecedarian Study*, as cited on www.fpg.unc.edu/~abc/.

effects of child care on young children. The National Academy of Sciences recently brought together a committee of researchers, who 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.”⁹² A number of large survey and long-term studies have consistently found that high-quality child care programs are beneficial to young children, particularly those at risk of poor academic and social outcomes.

Researchers brought together by the National Academy of Sciences agree 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.”

A study of a large sample of children in the United States found those young children in higher quality pre-school settings showed greater language development, mathematical ability, thinking and attention skills and fewer behavioral problems in kindergarten than children in lower quality care settings.⁹³ A well-known study of a high-quality, intensive, early education intervention program for children in low-income families, known as the Abecedarian Project, found that children who were randomly selected to participate in the intervention had higher cognitive test scores than their peers who were not selected for the program, from toddler years through elementary school.⁹⁴

Long-term studies have found significant effects, not just in kindergarten and elementary school, but through high school and into adulthood as well. In one study, low-income children in a high-quality, child-focused intervention program were less likely to drop out of high school, be in special education, repeat a grade, or be arrested as juveniles than peers.⁹⁵ The Abecedarian Project found that children who participated in the early intervention program were more likely to attend college and be in a high-skilled job or in higher education at age 21.⁹⁶ In another study, individuals who were in the high-quality child care program as children were assessed at age 27. The study found that these children, as adults, earned more money, were more likely to own their own home and were less likely to have been on welfare than their peers who were not offered the program (see Figure 1).⁹⁷

Long-term studies of high-quality education intervention programs for low-income children show significant improvements in employment, educational attainment, public subsidy participation rates, and home ownership compared to peers.

⁹² 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.

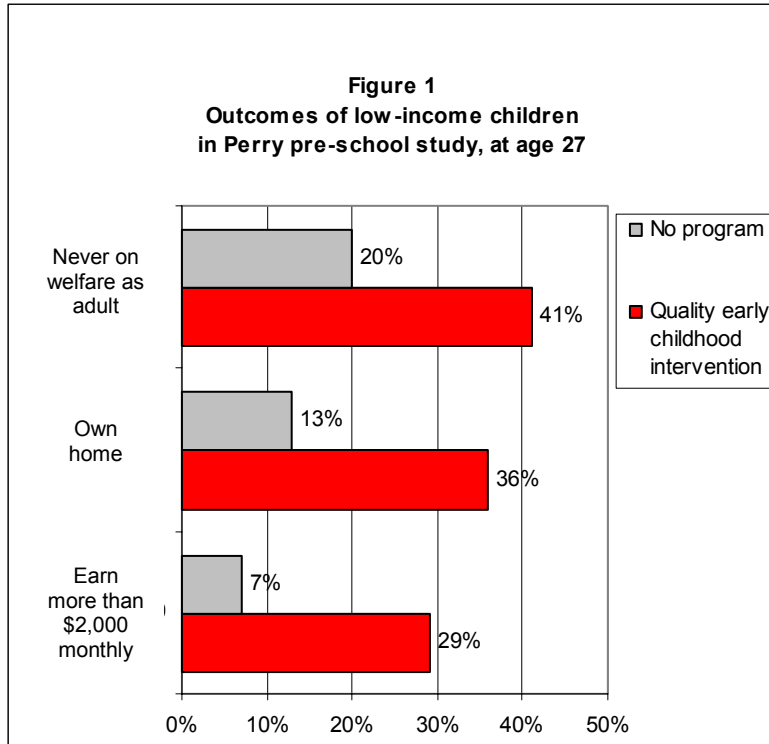
⁹³ E. S. Peisner-Feinberg, M. R. Burchinal, R. M. Clifford, M. L. Culkin, C. Howes, S. L. Kagan, and N. Yazejian. “The Relation of Preschool Child-Care Quality to Children’s Cognitive and Social Development Trajectories through Second Grade.” *Child Development*. September/October 2001, Volume 72, Number 5, Pages 1534-1553.

⁹⁴ www.fpg.unc.edu/~abc/.

⁹⁵ A. J. Reynolds, J. A. Temple, D. L. Robertson, 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*, May 19, 2001, v. 285, no. 18, pp. 2239-2346.

⁹⁶ www.fpg.unc.edu/~abc/.

⁹⁷ L. J. Schweinwart, 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.



This collection of research establishes a demonstrable link between high-quality child education and care intervention programs for low-income families and the preparation of qualified, skilled individuals entering the labor force. While not every early education program can guarantee lifelong success for its participants, quality early childhood education and care can increase children’s ability to enter traditional K-12 schooling ready to continue learning so that they are prepared for future opportunities.⁹⁸

Many children enter kindergarten in Minnesota with various barriers to learning. A recent study by the Minnesota Department of Education found that kindergarten teachers rate 13 percent of children as “not yet” proficient in a majority of mathematical thinking indicators and 18 percent as not yet proficient in a majority of indicators of language and literacy development.⁹⁹ The majority of children are proficient in only one of six domains. The report recommends parent education and access to quality early education opportunities as strategies to reduce barriers to learning.

Kindergarten teachers in Minnesota report that 13 percent of children are “not yet” proficient in a majority of mathematical thinking indicators, and 18 percent are “not yet” proficient in the majority of indicators of language and literacy development.

Employment projections indicate that Minnesota will have a workforce shortage by the end of this decade, which is projected to continue at least through 2030 (see the Demographic and Economic Profile of Minnesota section of this report). Without significant investments to develop a skilled workforce for the future, the economy of the state will suffer. Schools and universities receive many public investments because their role in educating and preparing children for the future

⁹⁸ J. Brooks-Gunn. “Do You Believe in Magic? What We Can Expect from Early Childhood Intervention Programs.” *Social Policy Report*, 17, 1. Society for Research in Child Development, 2003.

⁹⁹ Minnesota Department of Education. *School Readiness Initiative: Developmental Assessment at Kindergarten Entrance Fall 2002 Pilot Study*. St. Paul: Minnesota Department of Education, 2003.

labor market is clear. While more research will enable a better understanding of the long-term effects of high-quality child care for all children, current findings indicate that investments in early education have greater returns than educational investments in later life.¹⁰⁰ Decision makers will give child care systems the recognition they deserve when they fully understand that child care is part of the education system that prepares the future workforce for success.

“The returns to human capital investments are greatest for the young for two reasons: (a) younger persons have a longer horizon over which to recoup the fruits of their investments and (b) skill begets skill.”

James J. Heckman, Department of Economics, University of Chicago

Aaron Wildavsky Forum, School of Public Policy, University of California at Berkeley

REDUCING FUTURE PUBLIC SPENDING

The economic benefits of improving children’s lives extend past the children and their families. Decreasing the need for remedial education in the traditional school system and decreasing involvement in the criminal justice and welfare systems save public funds otherwise spent on these programs. Increased earnings by adults who attended quality early education programs translate into a larger tax base. Cost-benefit analyses of three long-term, high-quality, early education intervention programs indicate that there are significant future savings when money is invested on intensive programs for low-income children.

The cost-benefit analysis of the Chicago Parent-Child Center programs was based on comparisons of those in the model program and their peers when they were at age 21. The benefits include reductions in criminal justice costs and tangible costs to victims (\$13,000 per child over a lifetime), reductions in grade retention and special education expenditures (\$5,000), decreased child welfare spending associated with child abuse and neglect (\$1,000), the participants’ own child care costs (\$2,000), and increases in adult earnings and tax revenues based on increased educational attainment (\$28,000). Increased higher education costs (\$1,000) were also included. Taken together, the \$7,000 pre-school program yielded \$48,000 in future benefits.¹⁰¹

The cost-benefit analysis of the Perry High-Scope Study was based on findings when the children reached age 27. The analysis included various benefits to the public and excluded the personal gains to children in the program, roughly \$20,000 estimated to return to participants in increased earnings. The study found benefits in welfare (\$3,000), taxes on earnings (\$9,000), educations savings (\$6,000), justice system savings (\$13,000), and savings to crime victims (\$58,000).¹⁰² With benefits to the public totaling \$108,000 and costs totaling \$12,000, \$7 in public spending was saved for every dollar invested in the program.

¹⁰⁰ J. J. Heckman and A. W. Forum. *Policies to Foster Human Capital*. Joint Center for Poverty Research working paper, Northwestern University/University of Chicago, 2003. Quotation is from page 39.

¹⁰¹ 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 Center Program: Executive Summary*, 2001, and 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 % discount rate evaluated at beginning of pre-school participation.

¹⁰² W. S. 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% discount rate.

Researchers used findings from the Abecedarian Program, also at age 21, to estimate increased earnings of participants by age 21 (\$37,000) and their mothers (\$74,000 by the time their child was 21), as well as earnings of future generations of the family (\$6,000 over their lifetime, based on demographic changes of family). The study included costs of remedial K-12 education (\$9,000), and smoking and health costs (\$18,000). Including costs for higher education (\$8,000), total benefits were \$136,000 with total programmatic costs of \$36,000 (See Figure 2 for a summary).¹⁰³

Figure 2		
Economic Benefits of Targeted Early Education Intervention Programs		
	Cost of Program	Lifetime Benefit to Society
	per Child	per Child
Chicago CPC Study	\$7,000	\$48,000
Perry Pre-School Project	\$12,000	\$108,000
Abecedarian Project	\$36,000	\$136,000

A recent study by economists at the Federal Reserve Bank in Minneapolis used the Perry High-Scope findings to estimate that that quality early childhood development programs generate a 16 percent rate of return on investment, 12 percent of which is a public rate of return. As a result, they argue that high-quality early education is one of the strongest candidates for public funding.¹⁰⁴

While these analyses are based on findings of three particular and unique intervention programs for at-risk populations, they do indicate the potential economic value of investing in quality child care now, particularly for low-income young children in Minnesota.

“Early childhood development programs are rarely portrayed as economic development initiatives, and we think that is a mistake. Such programs, if they appear at all, are at the bottom of the economic development lists for state and local governments. They should be at the top. 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.”

*Art Rolnick, Senior Vice President and Director of Research, and
Rob Grunewald, Regional Economics Analyst, Federal Reserve Bank of
Minneapolis*

¹⁰³ L. N. Masse and W. S. 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 %.

¹⁰⁴ 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. Quotation in text box is from page 1.

After-school programs for school-age children also serve as an effective crime prevention activity and save public sector dollars. Nationally, nearly 7 million children ages six to 14 (18% of this age group) are home alone after school each week during the afternoon hours when juvenile crime peaks.¹⁰⁵ In Minnesota, five percent of children six to nine, 24 percent of children ages 10 to 12, and 41 percent of families with children 13 to 14 report using self-care as their primary form of child care during the school year.¹⁰⁶ Eighth graders left home alone after school reported greater use of cigarettes, alcohol, and marijuana than those who were in adult-supervised settings.¹⁰⁷ Risk behaviors during adolescence predict a future of increased criminal behavior and health problems in adulthood. In a George Mason University study, 91 percent of Police Chiefs surveyed agreed that “If America does not make greater investments in after-school and educational child care programs to help children and youth now, we will pay more later in crime, welfare, and other costs.”¹⁰⁸

Ninety-one percent of Police Chiefs agree:
“If America does not make greater investments in after-school
and educational child care programs to help children and youth
now, we will pay more later in crime, welfare, and other costs.”

ECONOMIC DEVELOPMENT STRATEGIES FOR CHILD CARE

Saving public dollars, maintaining high labor force participation rates, enabling workforce development activities for parents, and developing the future workforce make child care a critical area for economic development activities. Depending upon regional needs and priorities, several broad strategies to link child care and economic development can be used. Such strategies include, but are not limited to:

- Providing options for financing the construction and renovation of high-quality facilities
- Using economic development resources and planning to incorporate child care into future development
- Altering land use regulations to provide incentives for child care development
- Funding participation of low-income children in high-quality child care programs
- Improving business management skills of child care professionals
- Supporting a stable and skilled child care workforce

These strategies can work on local, regional, or statewide levels. Some promising practices are described below. They represent a small piece of the overall child care picture in the state. Expanding or replicating these efforts will support the child care industry and Minnesota’s economic development.

¹⁰⁵ K. Smith, *Who’s Minding the Kids? Child Care Arrangements: Fall 1995*. Current Population Reports P70-70, Washington, DC: US Census Bureau.

¹⁰⁶ R. Chase and E. Shelton. *Child Care Use in Minnesota: Report of the 1999 Statewide Household Child Care Survey*. Wilder Research Center: Minneapolis, 2001.

¹⁰⁷ K.M. Dwyer, et al. “Characteristics of Eighth Grade Students Who Initiate Self-Care in Elementary and Junior High School.” *Pediatrics*, Vol. 86, No. 3, 1990.

¹⁰⁸ Fight Crime, Invest in Kids. *Poll of Police Chiefs conducted by George Mason University Professors Stephen D. Mastroski and Scott Keeter*. Washington, DC, November 1, 1999.

FINANCING OF FACILITIES AND BUSINESSES

Innovative strategies to support the high costs of building or renovating facilities are necessary to increase the capacity of high-quality programs for children. Governments can provide public dollars for facilities development through low-interest loans, grants, or matching funds. A bond fund program in which public entities which want to build early childhood facilities must match bond funds on a one-to one basis exists. But bond monies have not been allocated for this purpose since 2000.¹⁰⁹ Many businesses rely on debt financing to invest in long-term capital assessments and expand their operations. Although the child care industry has not historically relied on debt financing, it may be cost effective and beneficial to some providers to incur long-term debt for facilities. Economic development resources can be made available to lower the cost of financing, to provide more flexible or longer payment terms, or to provide credit enhancement for borrowers who lack a track record in carrying and repaying debt.

Example: First Children's Finance, a division of the Development Corporation for Children, is a loan fund developed specifically for start-up, renovation, or expansion costs for child care centers and family child care providers in Minnesota. In nearly four years of operation, over \$2.3 million has been invested, creating 2,700 child care spaces.

ECONOMIC DEVELOPMENT RESOURCES

Economic Development resources and planning can be used to ensure that child care is incorporated into the state's future development. For example, child care centers frequently encounter difficulties finding space. Some economic development offices specialize in helping businesses find suitable locations. They can also help child care programs find public and private land, acquire land for business purposes, and obtain any necessary zoning variances.

Example: In an effort to attract working families to the town, the Economic Development Authority (EDA) of Tracy, MN, in the southwestern part of the state, is leading the pre-development phase of what will be Tracy's only child care center. The EDA funds a coordinator to lead the project and is helping to write a business plan, secure loans, find an appropriate space, and gather necessary permits. The center will increase Tracy's child care capacity by almost 40 percent and will offer care for infants and toddlers as well as after-hours care. "If we can get this built, it would be another feather in our cap to help us attract more young families to Tracy," said Robert Gervais, Community Development Director and Tracy Chamber of Commerce President.¹¹⁰

LAND USE REGULATIONS

Land use regulations govern how land may be developed and outline the process through which a business or agency may develop a piece of property. In order to promote certain types of economic development changes to land use regulations are often used to attract particular businesses or types of businesses to a community. Amending policies and fee structures to encourage the growth and sustainability of the child care industry is an economical

¹⁰⁹ Minnesota Statutes, 119.a.45, 2002.

¹¹⁰ Headlight Herald. "Daycare Center Plans Progress." *Headlight Herald*. Tracy, Minnesota: January 22, 2003.

and efficient way to support both the quality and affordability of existing child care services and the development of additional child care facilities. In addition, land use policies for new commercial and residential developments can be altered to encourage or require developers to mitigate an increased demand for essential economic infrastructures such as child care.

Example: The Evergreen Heights Collaborative Partnership in Scott County built an affordable housing complex that includes an on-site child care center and job services, enabling residents to access services easily and effectively. The Scott County Housing Redevelopment Authority bought the land for the child care center and a private developer worked with the Community Action Program and the Scott-Carver Educational Cooperative Youthbuild Program to build the facility and get it running. Because of the innovative partnership and the quality of the complex for its residents, the Minnesota Housing Finance Agency awarded the developer almost \$200,000 in competitive housing tax credits, which helped fund the building of the complex.

PUBLIC POLICIES THAT PROVIDE FOR LOW-INCOME CHILDREN'S HIGH-QUALITY CHILD CARE

Although recent research demonstrates the importance of high-quality child care for school readiness and the importance of school readiness on academic achievement and later success in adulthood, the concept of cultivating the future workforce in the child care classrooms of America as a public policy goal has not yet been well-established. Given the demonstrated economic benefits of targeted investments in high-quality early education opportunities particularly for low-income children, resources and planning should be dedicated to providing these services to all low-income children in Minnesota and to educating parents about the elements of quality programs and the potential benefits for their children.

Example: Researchers from the Federal Reserve Bank of Minneapolis propose creating a \$1.5 billion endowment made up of funds from government, private foundations, individuals and businesses to support early childhood development programs on an annual basis. They estimate \$105 million in annual earnings, which would cover costs required to fully fund comprehensive, high-quality early education programs for all three- and four-year-old children from low-income families in Minnesota.¹¹¹

BUSINESS DEVELOPMENT AND TECHNICAL ASSISTANCE

In Minnesota, 15 to 20 percent of family child care providers drop their licenses per year.¹¹² While some providers may close their businesses by choice, others may close due to a lack of business skills. Ensuring that providers have necessary business skills is critical to ensuring that child care facilities stay open. Providing technical assistance in the business aspects of operating a child care facility will reduce turnover within the industry.

¹¹¹ A. Rolnick and R. Grunewald. *Early Childhood Development: Economic Development with a High Public Return*. Federal Reserve Bank of Minneapolis, March 2003.

¹¹² Minnesota Child Care Resource and Referral Programs Capacity-Building Initiative Evaluation. February, 2000, as cited in *Staff Recruitment and Retention in Early Childhood Care and Education and School-Age Care* report and information from the Minnesota Department of Education.

Entities such as Small Business Development Centers provide various kinds of small businesses with assistance in financial and business planning, marketing and management. These may help individuals in the child care industry, particularly when the centers have expertise in child care business issues. The Redleaf National Institute, a division of Resources for Child Caring (RCC) located in Saint Paul, offers materials, training, and resources for family child care providers to improve their business skills or receive technical assistance. The Development Corporation for Children, a non-profit organization dedicated to supporting the business side of child care, runs a Business Development Center which offers training and consulting services targeted to child care providers in Minnesota.

In Northeastern Minnesota, a partnership between the regional resource and referral agency and the North Star Community Development Corporation to provide intensive, individualized business training increased the retention rate of new family child care providers from 70 percent before the start of the program to over 90 percent in their region for program participants.¹¹³

Example: A hospital located in an Empowerment Zone in Minneapolis is providing space for a child care business incubator that will be managed by the YWCA. The center will provide space for up to six culturally or ethnically diverse independent child care providers. The providers, while offering care to the members of the surrounding multicultural community and hospital employees, will also be trained in business aspects of running their own child care business. The funding to start up the facility includes a grant from the hospital and others and federal empowerment zone funding.

SUPPORTING A STABLE AND SKILLED CHILD CARE WORKFORCE

A stable and skilled child care workforce is critical to the industry and program quality. The issue of workforce development within the child care industry is closely related to the task of reframing child care as an economic development issue. High rates of staff turnover lower program quality and negatively affect the lives of the children that the child care programs serve. Staff salaries and retention are excellent predictors of staff education, which in turn predicts the quality of classroom interactions.¹¹⁴

Child care providers face two major systemic barriers to workforce development: a lack of investment in consistent, intense training and support needed by providers to give high quality care, and grossly inadequate pay scales and support systems.¹¹⁵ President Clinton highlighted this issue when he hosted the first White House Conference on Child Care in the fall of 1997, calling for better pay and better training for child care workers.¹¹⁶ More recently, First Lady Laura Bush, recognizing the importance of early learning and co-hosting a number of Early Childhood Cognitive Development Summits stated at one of the summits that “Our early childhood

¹¹³ Information from the Child Care Resource and Referral Agency, Serving the Arrowhead Region and the North Star Community Development Corporation, May 2003.

¹¹⁴ 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.

¹¹⁵ A. Wallace, K. Tarr and C. Marano. *Putting the Pieces Together: Connecting Industries, Workers, and Communities to Strengthen Traditionally Low-Wage Sectors.* Oakland, CA. A Report on the National Network of Sector Partners' 2001 Low-Wage Sector Learning Forum, 2002.

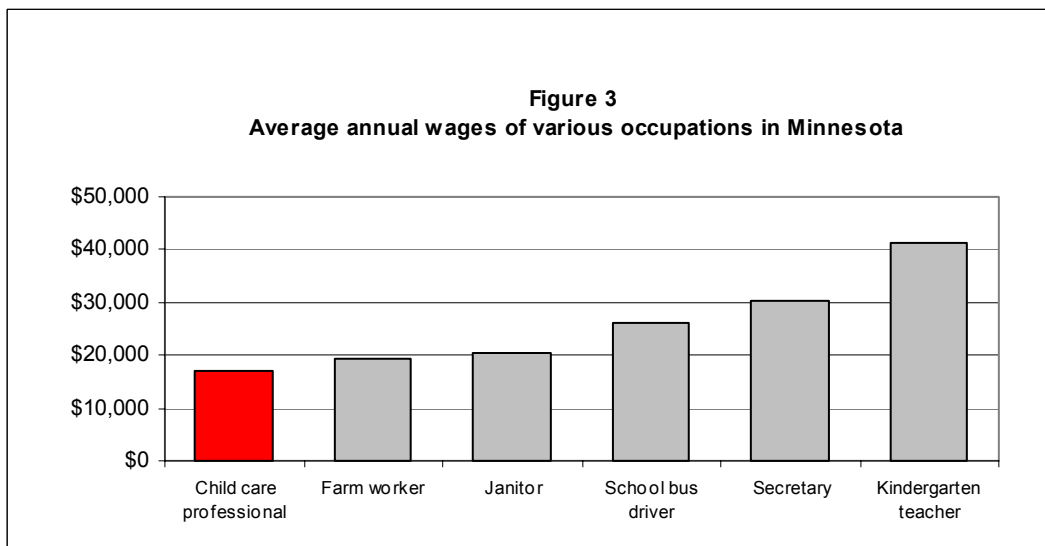
¹¹⁶ M. Whitebook, *Working for Worthy Wages: The Child Care Compensation Movement, 1970-2001.* New York, NY; The Foundation for Child Development, Working Paper Series, 2001.

educators deserve training based on the latest research proven to help prepare children for success in school.”¹¹⁷

Child care providers typically have tight budgets that can rarely afford professional development benefits or programs, such as trainings and conferences, for their staff or for themselves. Without outside grants or incentive systems, professional development benefits are not feasible.

It is predominantly the low wages that have become standard for the child care industry that mitigate against a skilled workforce over the long term.

In a marketplace where jobs with the same or even less stringent training requirements, have higher average wages than child care workers, many child care professionals cannot afford to stay in their trained field. The average annual wages for a child care worker in Minnesota is \$16,952 per year.¹¹⁸ School bus drivers (\$26,000), general secretaries (\$30,169), and janitors (\$20,488) make more, on average, than those in the child care field (see Figure 3).



In addition, many child care workers cannot get benefits, such as health insurance or paid vacation leave. In Minnesota, only 19 percent of full-time paid teaching staff in child care centers had fully paid health care benefits; 26 percent received no health care benefits at all.¹¹⁹

Low wages and poor benefits lead to high turnover. In child care centers and preschools, 23 percent of teachers leave each year, compared with a nine percent turnover rate for public school teachers.¹²⁰ Of those child care providers who indicated that they were leaving the field in a statewide survey, 46 percent said they were leaving for employment in an unrelated field.¹²¹

¹¹⁷ Speech made by Laura Bush at the Early Childhood Cognitive Development Summit, Boise, Idaho, June 10, 2002 as posted on www.whitehouse.gov.

¹¹⁸ Minnesota Workforce Center. Wage Estimates Updated to Fourth Quarter 2002. www.mnworkforcecenter.org. This survey includes part- and full-time workers in all types of child care establishments, but excludes self-employed individuals, which excludes many family child care providers.

¹¹⁹ R. Chase. *Staff Recruitment and Retention in Early Childhood Care and Education and School-Age Care*. Wilder Research Center, 2001.

¹²⁰ As cited in *Staff Recruitment and Retention in Early Childhood Care and Education and School-Age Care* report.

¹²¹ R. Chase. *Staff Recruitment and Retention in Early Childhood Care and Education and School-Age Care*. Wilder Research Center, 2001.

All of these issues undermine the economic contribution child care makes to Minnesota. Staffing shortages and rapid turnover reduce the quality of many programs and minimize the positive effects that Minnesota's children and future economy would experience from quality early education. Efforts to support and stabilize the child care workforce improve the sustainability and quality of the child care industry.

Example: The Minnesota Child Care Resource and Referral Program now offers TEACH Early Childhood® and REETAIN Programs for providers of young and school-age children in child care centers and family child care homes to encourage them to pursue educational training and to stay in the field. The program provides scholarships for further child development education and annual retention bonuses for qualified professionals.

CONCLUSION

Investing in the child care infrastructure of Minnesota has direct benefits for the state's overall economic competitiveness. The child care industry is ripe for significant public and private investment and economic development activities in Minnesota. Economic development leaders in government, non-profit agencies and businesses must partner with the child care industry to meet the needs of the changing Minnesota economy.

Investments in high-quality early education programs for Minnesota's low- and mid-income families who cannot otherwise afford these programs help Minnesota to develop a skilled and productive workforce now and in the future. In addition, intervention programs for young children in low-income families save future public spending and offer a significant return on public investment.

CONCLUSION AND POLICY RECOMMENDATIONS

Minnesota's child care industry is critical to the state's overall economic vitality and quality of life. The licensed child care industry supports over 28,000 full-time equivalent jobs directly and generates \$962 million dollars per year in gross receipts. The child care industry sustains the state's workforce by enabling businesses to employ parents and increase their productivity. Quality early care and education also helps children to continue to learn effectively when they enter the traditional K-12 education system, leading to future economic success and a competitive and skilled workforce for Minnesota's future. Investments in quality child development programs for children in low-income families especially offer strong returns and are a prime candidate for public funding. A healthy licensed child care industry for families of all income levels helps businesses attract and retain the best employees and enables the state to attract and retain the best businesses. Overall, these effects help to maintain a healthy Minnesota economy.

On their own, the child care industry and parents cannot meet the child care and early education needs of Minnesota's children. Increased public and private engagement is necessary to address barriers to quality child care, such as high operating and start-up costs, low wages, and poor benefits. Otherwise, the child care industry and the economy as a whole will suffer a setback. A number of key recommendations must be implemented to ensure the sustainability, quality, and affordability of child care and early education opportunities in the state.

INCORPORATE CHILD CARE INTO ECONOMIC DEVELOPMENT

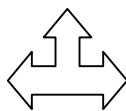
Economic development activities that build the infrastructure of the child care industry are natural given the economic benefits of the industry. Including child care into planning documents across the state, ensuring that low-income children have access to quality child development and education programs, and strengthening the infrastructure of quality child care to attract and retain a skilled workforce in the state are some successful strategies.

Government examples

- Incorporate child care into state and local consolidated planning documents
- Pass tax credit legislation to promote child care infrastructure building
- Hold hearings to demonstrate the linkages between child care and economic development
- Increase funding for equal access to quality early education programs

Business examples

- Promote the link between child care and economic development in Chambers of Commerce
- Match public economic development dollars with private support



Child Care Industry examples

- Collaborate with Small Business Development Corporations and the Small Business Administration to help child care providers access technical assistance, training, loan products, and other resources for small businesses
- Introduce strategies to state and local government and businesses that incorporate child care into economic development planning

INVOLVE BUSINESS IN THE CHILD CARE INDUSTRY

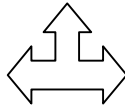
Businesses work with each other and with other groups of stakeholders to strengthen transportation systems, K-12 and higher education, and housing availability because they understand that these industries enable businesses to operate. Similarly, understanding that child care enables companies to conduct business underscores the importance of business involvement in sustaining the child care infrastructure.

Government examples

- Pass tax credit legislation to promote business investment in child care

Business examples

- Create a child care business task force to lend an active advocacy voice to child care, other businesses and government
- Offer improved child care benefits for employees
- Promote the link between child care and economic development in Chambers of Commerce



Child Care Industry examples

- Inform business, government and child care professionals that the child care industry:
 - Generates \$962 million annually
 - Enables parents to work
 - Cultivates the future workforce
- Work with businesses that have implemented successful child care programs to create an active advocacy voice within the business sector

ENHANCE THE QUALITY OF THE CHILD CARE INDUSTRY

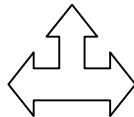
Long-term studies show the economic and social importance of quality intervention programs for low-income children. Defining and measuring quality and working towards a seamless child care system that offers affordable child care and early education to all Minnesota children will improve the state's economy and quality of life.

Government examples

- Establish standards and incentives for quality child care programs
- Improve wages and benefits for skilled providers
- Create a tiered reimbursement system to support quality programs

Business examples

- Advocate publicly for increased quality of programs
- Provide benefits to employees that include access to quality child care programs



Child Care Industry examples

- Educate parents about benefits of quality child care
- Increase professional development opportunities
- Create programs that are inclusive and culturally responsive

BUILD A COORDINATED EARLY EDUCATION AND CARE SYSTEM

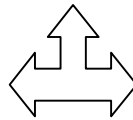
While the vast majority of parents work while they have young children in the home, not all families have access to quality, licensed child care. Capacity, affordability, and transportation issues hinder families' access to quality care. All stakeholders must envision a seamless child care and early education system which ensures every child in Minnesota access to programs that develop their skills, competencies and characteristics to enter K-12 education ready to continue learning. Child care providers must understand that they are an important part of Minnesota's economic infrastructure and are businesses in their own right. This will help them to improve the sustainability and quality of existing programs.

Government examples

- Legislate tax credits to provide incentives for business investment in child care infrastructure
- Create loan funds and resources using public/private dollars to ensure that providers can access loans and increase sustainability
- Work with business to ensure that child care is affordable for all working families

Business examples

- Create loan funds and resources using private/public dollars to ensure that providers can access funds and increase sustainability
- Develop innovative partnerships to ensure that child care is affordable for all working families
- Give employees access to resource and referral agencies



Child Care Industry examples

- Develop innovative partnerships to ensure that child care is affordable for all working families
- Work with school systems to ensure continuity and a smooth transition to kindergarten
- Create incentives for programs that offer after-hours care and care during nontraditional workday hours

CONCLUSION

Given the comprehensive economic benefits of child care for business, government, financial institutions, and the child care industry, planning for and investment in a strong child care infrastructure in Minnesota should not rely on parents and providers alone. Businesses, economic development planners, government, financial institutions, and the general public must be equipped with a firm understanding of the economic benefits of a stable, quality child care infrastructure. This diverse group of stakeholders has a role in the vitality of the child care industry and must work and plan together to reach innovative solutions to industry barriers. By creating newly engaged stakeholders, partnerships may then be formed to successfully implement solutions that incorporate the interests and needs of each group. Implementing or expanding the examples given in this report will benefit all stakeholders and the Minnesota economy.

APPENDIX A:

METHODOLOGY FOR CALCULATING GROSS RECEIPTS AND DIRECT EMPLOYMENT FOR LICENSED CHILD CARE

The economic contribution of the child care industry is significantly undercounted in traditional economic accounting tools and alternate methodologies for collecting data are necessary. The methodology used in this report relies on comprehensive, timely data about care in child care facilities, maintained by the Minnesota Child Care Resource and Referral Network. Each regional resource and referral agency (R&R) is required by Minnesota law to maintain a database containing licensed child care capacity, average costs, vacancies, and enrollment. For this report, enrollment and capacity were derived from February 2003 data from the Minnesota Child Care Resource and Referral Network. Information on cost was derived from a survey conducted by the Minnesota Department of Education to determine the average cost of care by county. Information for total yearly expenditures and enrollment for Head Start programs came from the Department of Education.

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 child care sector, because enrollment and costs are difficult to measure for the informal child care sector. In addition, because of the flexibility of state funding to school districts for school readiness, it is not possible to capture the portion of those funds that are spent on pre-schools run by school districts. Therefore, we have not included their economic impact in our analysis. Adding informal, legally unlicensed care and pre-schools run by school districts would significantly increase gross receipts and direct employment figures.

GROSS RECEIPTS

Gross receipts estimates for family child care homes, child care centers, and those pre-school and after-school programs that are not run by school districts, are based on one simple calculation:

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

Gross receipts for Head Start equal the total budget spending in the 2002 state fiscal year, as reported by the Department of Children, Families & Learning.

ENROLLMENT

Enrollment numbers are derived from the statewide resource and referral database which tracks enrollment in licensed child care centers, licensed family child care homes, pre-school and after-school programs in each county by children’s age groups (infant, toddler, pre-school-age child, and school-age child). The database is constantly updated with provider information, so it can give a “snapshot” of enrollment at a given time.

To estimate the total enrollment rates of all family child care providers and child care centers, average enrollment by age group from those providers who have current information listed in the database was used to estimate enrollment by age group for those providers who have not recently updated their enrollment information in the database. To ensure that we did not include recently closed family child care homes, we excluded a portion of the total number of

family child care homes in each county, assuming maximum turnover in an eight-week period (2.31 percent, resulting in an annual turnover rate of 15 percent).¹²²

Enrollment for programs with pre-school licenses is difficult to maintain, because one slot may serve multiple children in half-day programs (e.g. one child in morning pre-school and another in afternoon pre-school, or one child on Mondays and Wednesdays and another on Tuesdays and Thursdays). Thus, the total capacity was taken as a conservative estimate of enrollment for these programs. After-school program enrollment was used as reported in the database.

AVERAGE/COST/CHILD/YEAR

In order to calculate the average yearly rate for each type of care and each age group we relied on *2001 Rate Survey Data—Rate Survey Averages* from the Minnesota Department of Children, Families & Learning, released in the fall of 2002. The survey reports hourly, full day, weekly, and non-standard hourly rates for each county. To estimate a conservative hourly rate, we converted each of these rates to hourly rates (full day assumed to be 8 hours and weekly assumed to be 40 hours, on average) and used the lowest hourly rate for each county. Some counties (Freeborn, Houston, Pine, and Roseau) did not have average rates for center-based care in one or more age group, either because the center recently opened or because an existing center did not respond to the survey. In instances where this occurred, we used statewide non-metro averages for care for that age group, derived from the counties who did have average rates for center-based care (see Table 1 for a list of statewide average rates). Hourly rates for pre-school and school-age children in child care centers was used for hourly rates for children in preschools and after-school programs, respectively.

Table 1 Statewide Lowest Average Hourly Costs for Child Care Centers				
	Infant	Toddler	Preschooler	School-age child
Non-metro	\$2.89	\$2.64	\$2.43	\$2.33
Metro	\$5.48	\$4.49	\$3.96	\$3.62

Child care use varies considerably between families, and therefore must be accounted for in estimating gross receipts. The *Child Care Use in Minnesota: Report of the 1999 Statewide Household Child Care Survey* from the Wilder Research Center reported parental survey information on the number of hours per week children were in non-parental care. These statewide average hourly usage rates were broken down by type of care, age of the child, and time of year (school year or summer; see Table 2).

¹²² R. Chase. *Staff Recruitment and Retention in Early Childhood Care and Education and School-age Care*. Wilder Research Center. Saint Paul: Minnesota Department of Children, Families & Learning, 2001.

Table 2 Child Care Use, By Type of Care, Age Group and Time of Year (Hours per week)								
	Infant		Toddler		Preschooler		School-age child	
	Summer	School Year	Summer	School Year	Summer	School Year	Summer	School Year
Family Child Care	28.53	29.63	35.58	35.82	37.82	33.66	35.77	16.1
Child Care Centers	26.82	33.88	38.65	30.78	39.65	25.33	37.78	16.68
Pre Schools						16.03*		

* Pre-school information was not published in the Wilder Research Center report, but was supplied for the purposes of this report.

Based on the length of the school year for Minnesota's public school year (172 days), estimates included a school year that lasts 34.4 weeks, and summer and vacation time that last 17.6 weeks. Thus, the following equation was derived for yearly costs per child:

$$\frac{(\text{Avg. Hourly Rate} \times \text{Avg. Hours of Care Used/week (summer)} \times 17.6 \text{ weeks}) + (\text{Avg. Hourly Rate} \times \text{Avg. Hours of Care Used/week (school year)} \times 34.4 \text{ weeks})}{\text{Average Cost/Child/Year}}$$

Because there is no certain information about what forms of care children in pre-schools use during summer weeks, no enrollment in summer care was estimated for these children, again making our estimates conservative, since it is likely that many of these children are in care during summer months as well. Children in after-school programs were assumed to participate in programs for the same average number of hours as school-age children in child care centers.

DIRECT EMPLOYMENT

Direct employment is an estimate of the total number of full-time equivalent jobs available in the child care industry. The number of people working in family child care homes was calculated based on licensing requirements. For A, B1, B2, C1, and C2 family child care licenses, one adult caregiver is required at all times. For C3 and D licenses, two adult caregivers are required.

For child care centers, licensing ratios were used, according to Table 3. These were applied to enrollment, which was estimated according to the method described above.

Table 3 Statewide Staff-to-child Ratios for Child Care Centers			
Infant	Toddler	Preschooler	School-age child
1:4	1:7	1:10	1:15

In addition, it was assumed that 2.5 additional full-time equivalent jobs, including a full-time administrator, a full-time cook, and a part-time administrative assistant, exist in each child care center licensed to serve over 80 children. There are 581 centers in Minnesota licensed to serve over 80 children.

Direct employment in pre-schools and after-school programs was based on 1:10 and 1:15 licensing requirements. Head Start was assumed to have paid adult employment ratios of 2.5 staff for every 17 children, according to unpublished data from the Department of Education.

APPENDIX B:

INDIRECT AND INDUCED EFFECTS OF THE CHILD CARE INDUSTRY IN MINNESOTA

Every industry, including child care, is linked to the rest of the local economy through a number of avenues, reflecting the fact that the business purchases supplies from other business and the employees of a business spend their earnings in part on locally produced goods and services. The linkages of the child care industry in Minnesota can be measured using an input-output model and its associated multipliers, a methodology used by some economic development specialists. While the multiplier methodology is not without controversy, these estimates illustrate that child care is an important component of the Minnesota economy, both through its direct employment and output, and through its economic linkages.

These estimates for the impact of child care services on indirect and induced earnings and other productivity effects are based on the application of the 2000 Minnesota 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, child care 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 child care 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 child care services.
- Indirect effects: Effects reflecting spending by the child care industry
- Induced effects: Effects on household spending by the child care workforce. These effects reflect changes in the state's economy caused by changes (for instance, increases) in spending patterns as a result of the direct and indirect activity.

For Minnesota, the various multipliers for the child care industry are reported in Table 1.

Table 1 Child Care Industry Type II Multipliers Minnesota			
	Indirect	Induced	Total Type II
Output	.598	.514	2.11
Value-Added	.787	.775	2.56
Employment	.317	.288	1.61
Indirect Business Taxes	1.79	2.84	5.63
Labor Income	.648	.522	2.17

These multipliers may be used to assess indirect and induced effects of these economic indicators. For example, based on a direct employment estimate of 28,058 jobs in licensed child care, 8,894 indirect jobs are sustained by licensed child care. These include jobs in accounting and bookkeeping (544 jobs), personnel supply services (562 jobs), real estate (507 jobs), maintenance and repair services (362 jobs), computer processing (297 jobs), and advertising (57 jobs).

Based on a direct employment estimate of 28,058 jobs in licensed child care, an additional 8,083 induced jobs are sustained by the licensed child care industry. These include jobs in health care (1,105), restaurants and bars (871 jobs), colleges and universities (117 jobs), and even in commercial sports (6 jobs).

In total, direct, indirect, and induced employment in the Minnesota licensed child care industry totals 45,035 in this analysis.

APPENDIX C:

GLOSSARY FOR CHILD CARE ECONOMIC IMPACT REPORT

Term	Definition	Example(s)
Basic Sliding Fee Program	This subsidized program is designed to aid low-income families by offering parents a choice of child care options including family child care, or center-based care.	Once parents chose a child care option, the child care provider receives a vendor payment for part or all of the costs.
Minnesota Family Investment Program (MFIP)	Overseen by the Minnesota Department of Human Services, MFIP is a “work first” program that provides support services to help recipients move from welfare to work and toward self-sufficiency.	
Transition Year	A state-funded part of the Minnesota Family Investment Program (MFIP) which provides for support for an additional year following participation in welfare-to-work activities in MFIP.	A family who has found stable employment may still be eligible for additional funding to support them in their first year out of the MFIP program if their total income does not exceed 250% of the Federal Poverty Level in that year.
Child Care and Development Fund (CCDF)	The federal Child Care and Development Fund assists families with low incomes, families receiving temporary public assistance, and families transitioning from public assistance in obtaining child care so that the adults can work or attend education or training programs.	
Child Care Center	A licensed facility, either leased or owned, designed or renovated to provide early care and education to a group of young children.	Head Start Centers, state preschools, and private child care centers are all examples of child care centers.

Term	Definition	Example(s)
Child Care Subsidies (includes Minnesota Family Investment Program and Basic Sliding Fee program)	Financial assistance for child care to families who meet income and employment eligibility requirements. Available for care received from licensed centers, family child care homes, and certain license-exempt caregivers.	Working parents with a family income below 175% of the federal poverty guidelines (FPG) are eligible for subsidized child care for their children until they reach 250% of FPG. In Minnesota, thousands are on waiting lists for the Basic Sliding Fee program.
Civilian Labor Force	Working-aged population looking for work or working, excluding those receiving government welfare assistance (e.g. MFIP)	About 2.7 million in Minnesota
Dependent Care Assistance Plan (DCAP)	To offer child care as a tax-free benefit, employers set aside a portion of an employee's salary (within a range amount determined by employee) in a DCAP, which enables the child care costs to be paid with "pre-tax" dollars.	By not paying taxes on child care costs, a family at median income paying for two young children in licensed child care could save hundreds of dollars per year.
Direct Employment	Employment created by an industry in that industry	Child care center workers and family child care providers in the child care industry
Employment Multiplier Effect	The total number of jobs supported by an industry within the industry and through other industries it supports.	The child care industry in Minnesota supports 28,050 full-time equivalent jobs within the child care industry and another 16,977 in other industries.
Establishment	Individual firm or business selling products, services, or both	McDonalds, Bank of America branch, family child care home
Family Child Care Homes	Licensed child care programs which operate out of a home. Family child care homes may take care of a maximum of 10 children and group family child care homes may take 14 children ages 0 to 14.	There are 13,391 licensed family child care homes in Minnesota.

Term	Definition	Example(s)
Final Demand	Purchases of final products in an industry category	Purchases of child care, cheeseburgers, computers, etc.
Head Start	A comprehensive, federally funded program that combines skills development with health, nutrition, social services, and parental involvement for young children of low-income families.	There are Head Start, Early Head Start, Native American Head Start, and Migrant Head Start programs operating in the U.S.
Indirect Employment	Employment created by one industry in related or supporting industries through the purchase of goods and/or services	Construction employment due to refurbishing a child care facility
Inflation	Change in general price level	Consumer Price Index (CPI), shows price increases/ decreases for most consumers
Licensed Child Care	Child care programs in a center or provider's home which follow state regulations for staff-to-child ratios, educational standards, program structure, and facilities.	There are licensed family child care homes, child care centers, pre-school programs, after-school programs, and Head Start facilities in Minnesota which care for an estimated 265,726 children.
Legally Unlicensed Child Care	Child care which under state law does not require a license.	A family child care home with only the provider's children and children from one other family; a school-based extended day care program.
Output (Gross Receipts)	Total value of goods and/or services produced	At least \$40 billion nationally for child care industry
Resource and Referral Programs (R&R)	The Minnesota Department of Human Services funds a statewide agency and several regional agencies to provide information about child care availability, assist potential providers in licensing, provide direct services and coordinate community resources for the benefit of parents and local child care providers.	The Minnesota Child Care Resource and Referral Network in Saint Paul collects statewide information on child care in the state.

APPENDIX D:

BUSINESS OPTIONS FOR CHILD CARE BENEFITS

The following chart of business options is from the Minnesota Child Care Resource and Referral Network:

Option	Advantages	Considerations
<p>Providing Information</p> <ul style="list-style-type: none"> ■ Resource and Referral Services ■ Parenting/Child Care Seminars 	<ul style="list-style-type: none"> ■ Low cost ■ Addresses a variety of child care needs ■ Appropriate for any size company ■ Can be provided in a variety of locations 	<ul style="list-style-type: none"> ■ Depends on ample child care services in the community ■ Offers no assistance in paying for care
<p>Flex-Time and Leave Policies</p> <ul style="list-style-type: none"> ■ Flexible Scheduling, Compressed Time ■ Job Sharing, Part-time Options ■ Parental Leave ■ Use of Sick Leave for Family Illness ■ Personal Leave 	<ul style="list-style-type: none"> ■ Minimal investment with big payoffs ■ Reduces absenteeism, improves moral and productivity ■ Expands pool of potential employees ■ Enhances recruitment and retention 	<ul style="list-style-type: none"> ■ May require greater planning on the part of managers and work teams ■ May disrupt work flow if not carefully planned ■ May require manager training to effectively implement
<p>Providing Financial Assistance</p> <ul style="list-style-type: none"> ■ Dependent Care Spending Assistance Plan ■ Flexible Benefit Plans ■ Child Care Vouchers 	<ul style="list-style-type: none"> ■ Most options require little administrative responsibility ■ Can support and strengthen community services ■ Appropriate for any size company ■ Does not require large capital or start-up costs 	<ul style="list-style-type: none"> ■ Only directly impacts the cost of care; not a solution for low supply or poor quality ■ Depending on benefits offered, some options can be costly
<p>Creating and Supporting Services</p> <ul style="list-style-type: none"> ■ On-Site Or Near-Site Care ■ Partnering with Other Employers ■ Family Child Care Network ■ Back-Up, Sick Child, Or Odd-Hour Care ■ Before/After School Programs, Summer Camp and Holiday Care 	<ul style="list-style-type: none"> ■ Can address specific needs and/or shortages in the community ■ Builds community resources for families ■ Can be a very effective recruitment tool ■ Cuts absenteeism and improves morale and productivity ■ Can adapt hours and programs to employees' needs 	<ul style="list-style-type: none"> ■ Initial start-up costs can be significant ■ Requires a long-term financial commitment ■ Demand may fluctuate or be difficult to predict ■ May take time to build stable enrollment

