

THE ECONOMIC IMPACT OF THE CHILD CARE INDUSTRY IN SOLANO COUNTY

Sponsored by

FIRST 5—Solano County Children and Families Commission

Prepared by

NATIONAL ECONOMIC DEVELOPMENT AND LAW CENTER



BACKGROUND

This report is based on a series of reports originally produced by the Local Investment in Child Care (LINCC) Project, launched in 1997 with support from the David and Lucile Packard Foundation, and designed to incorporate child care into local economic development planning. As part of the LINCC project, the National Economic Development and Law Center (NEDLC) produced Child Care Economic Impact Reports (CCEIRs) for eight counties in California in 1999. The CCEIRs articulate child care in economic development terms and quantify the ways in which the child care industry is critical to the local 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 California families. The Solano County Children and Families Commission contracted with NEDLC to quantify the economic impact of the child care industry in Solano County.

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Section I
Introduction

Policy makers, business leaders, urban planners, and a host of other community leaders are already discussing ways to improve the economic vitality and quality of life for families in Solano County. The child care industry should be included in economic planning and analysis because it is an important aspect of Solano County's economy. This report is a tool to bridge the gap between economic development planning and child care advocacy, demonstrating that child care is a critical component for any comprehensive plan for sustained economic development in local communities:

Why Focus on Child Care?

- **Child care is a major industry in Solano County in its own right.** Research presented in this report demonstrates that licensed child care is a significant income-generating, job-creating industry. Child care contributes more in annual gross receipts than other major industries in the county, such as automobile parts and accessories stores and the telecommunications industry. In addition, the industry employs almost as many people in the county as the finance and insurance sector. Solano's licensed child care industry directly employs 2,501 people and generates approximately \$87.2 million per year in gross receipts.¹
- **Child care is essential in enabling parents to work.** The nature of working America has changed dramatically since the 1950's, and child care has changed with it. Parents, especially mothers, are joining the labor force in record high numbers and are also returning to work more quickly following the birth of each child. Almost 20,000 children under six have all parents in the labor force, and over 34,000 children between six and 13 have all parents working, representing 55 percent and 63 percent of all children in their respective age groups.² Similar to transportation and housing, without available and affordable child care services, parents are unable to effectively participate in the workforce.
- **High-quality child care ensures a strong economy in the future.** Historically, child care has been perceived primarily as a social service or, at best, an educational service for parents who want to (and can afford to) provide their children with early learning experiences. Recent research on early brain development demonstrates that, far

Currently in Solano County, nearly 54,000 children ages 0 to 13 need some form of care because their parents are in the labor force.

The child care industry:

- **Is a major industry in its own right**
- **Enables parents to work and be more productive in their jobs**
- **Ensures a strong economy in the future**

¹ See Section 3 for further discussion of results and methodology.

² U.S. Census Bureau. Census 2000.

from being a luxury, child care is a vital service that improves children’s health, school readiness, and contribution to society. Quality child care also creates external economic and societal benefits for Solano County by reducing future public sector spending in such areas as the criminal justice system and welfare assistance. Cost-benefit analyses of three long-term studies indicate that every dollar spent on quality child care results in as much as seven dollars in future public sector savings.³

Despite the industry’s economic significance, it is unable to meet the increasing need for affordable child care services, and faces a number of barriers, including low reimbursement rates for publicly subsidized services, low wages, and high turnover—all of which create an unstable child care workforce. Because child care creates economic benefits not just for the families who use it, but for society at large, it is considered a public good. However, parents of young children rarely have the income necessary to pay for the complete costs of child care; therefore, it is imperative that traditional and nontraditional stakeholders develop comprehensive investment strategies to ensure affordable child care.

This report presents a wide range of compelling evidence showing investments in the child care infrastructure have direct, positive effects on the ability of the local economy to experience growth and vitality. The report also demonstrates that an intimate understanding of the interaction between child care supply and economic growth improves the efficiency of investments in child care, and saves both private and public expenditures, directly and indirectly. To cast child care as an economic development force, this report:

- Quantifies the local economic effects of the licensed child care industry in Solano County
- Assesses the extent to which child care currently supports the economy of Solano County
- Discusses other economic benefits of child care, including public sector savings that result from investments in child care

Defining Child Care

Child care includes a range of services that educate and nurture young children and enable parents to work or attend school. For the purposes of this report, child care includes full-day and part-day child development programs for young and school-age children, such as licensed family child care homes, child care centers, non-governmental pre-schools, Travis Air Force Base family child care homes and child development centers, Head Start programs, and state-subsidized child development centers (state pre-schools and general child development centers).

³ Barnett, Steven, W. *Some Simple Economics of Preschool Education*. Presented at the Early Childhood Municipal Leadership Academy, sponsored by the Institute for Youth, Education, and Families, National League of Cities, Alexandria, VA, April, 2002.

Child care may be licensed or license-exempt. *Licensed child care* meets minimum health and safety standards and staff-child ratios set by the state legislature and is regulated by the Community Care Licensing Division of the California Department of Social Services. Licensed establishments include most child care centers and many home-based providers, or “family child care homes.” Family child care homes are licensed as small or large, depending on the number and ages of children served (small and large family child care homes can serve a maximum of 8 and 14 children, respectively, of varying ages). Although Travis Air Force Base family child care homes and child development centers are not licensed by the State of California, they are licensed by the base, subject to regular inspections, and are part of the formal economy. Therefore, for the purposes of this report, we consider Travis Air Force Base family child care homes and child development centers to be *licensed child care* programs.

Licensed child care establishments, especially child care centers, must make capital investments in buildings and equipment to provide high-quality care. They must also cover employee salaries and benefits that attract and retain educated, credentialed staff. In short, licensed child care must meet state criteria for quality while maintaining a viable business.

In contrast, *license-exempt child care* generally is not regulated by the state and is not governed by any specific

Analyses in this report exclude legally unlicensed care by nannies, babysitters, or relatives, making the economic estimates conservative in terms of the full impact of the child care industry.

child care standards. However, license exempt providers that accept state or federal subsidies are required to register with Trustline, California’s background check for in-home child care. License-exempt child care services include nannies, babysitters, parent cooperatives, relative care, and some formal home-based care arrangements (where care for no more than one other person’s children is taking place). In addition, certain before- and/or after-school programs for school-age children in public and private schools are exempt, as well as certain public and private recreation programs.

Because licensed child care is a formal part of the economy (i.e., subject to taxes, state regulations, etc), its economic impact is more easily quantified. Although unlicensed child care arrangements are widely used, and add much to the economy, it is more difficult to track and ascertain their impact. Therefore, this report focuses on licensed care.

The Local Investment in Child Care Project

This report, funded by the First 5 Solano County Children & Families Commission, is based on a series of reports originally produced by the Local Investment in Child Care (LINCC) Project, launched in 1997 with support from the David and Lucile Packard Foundation. The project is designed to incorporate child care into local economic development planning. It is currently operating in Alameda, Kern, Los Angeles, Monterey, Orange, San Mateo, Santa Clara, Santa Cruz, and Ventura Counties. The Child Care Economic Impact Reports (CCEIRs) developed for each of these counties articulate child care in economic development terms and facilitate dialogue between the

child care sector, local policymakers, business leaders, and private lenders. In addition, the reports aim to build local partnerships to increase the child care industry's capacity to respond to the shifting child care needs of California families.

Outline of the Report

Following the introduction presented in **Section 1**, **Section 2** reviews recent economic and demographic trends in Solano County and suggests implications these trends have on the county's child care industry.

Section 3 measures the overall economic effects of child care by the size of the industry in terms of both output and employment, discusses the methodology behind the measurement, and assesses several other features of the child care industry that affect its size and performance.

Section 4 analyzes the impact child care has on economic competitiveness and worker productivity and discusses the role of the child care industry as it relates to economic development within Solano County. It details other economic benefits of child care, including: public sector savings that result from investments in quality child care, the impact of child care on increasing school readiness and academic success, the development of the future workforce, and the maintenance of the county's high quality of life standards. Lastly, the section outlines some of the public and private strategies that can be used to ensure that the projected economic and population growth in Solano County does not overwhelm the county's child care industry.

Section 5 provides recommendations based upon the concepts articulated in this report. It suggests key areas for Solano County's policymakers, business and civic leaders, economic development planners, and child care advocates to consider when planning for local urban and economic development activities.

Section 2

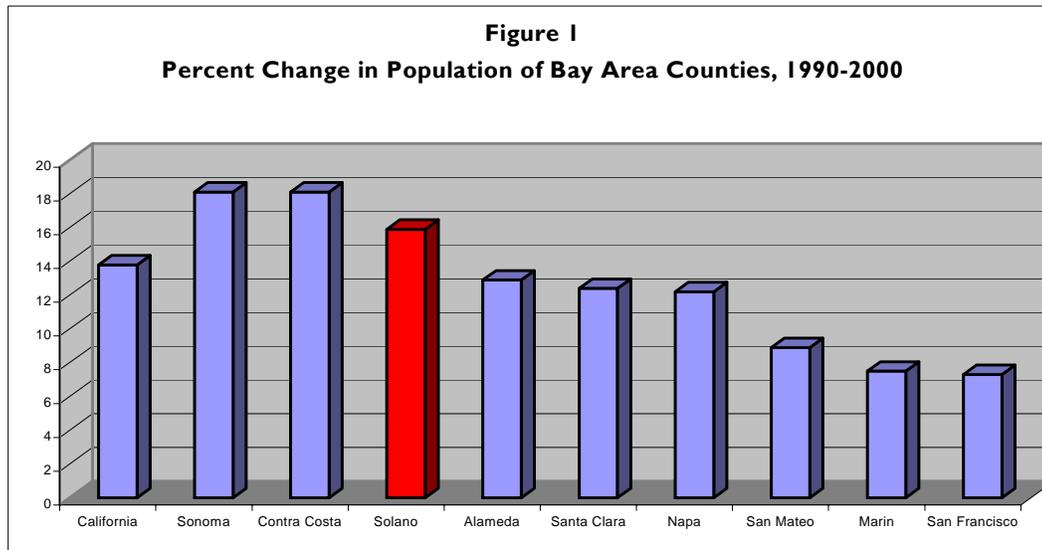
Economic Profile of Solano County

Solano County has seen steady changes, demographically and economically, in the last ten years; and projections indicate that the county will experience similar trends in the next twenty years. As one of the fastest growing counties in the Bay Area, Solano's current and future characteristics have significant implications for child care leaders, business leaders, government officials, and other key stakeholders who are responsible for strategic planning for the child care industry and the economic development of the county.

Population

Solano County has seen remarkable population growth since 1990, increasing from 344,116 to 403,800 in 2002—almost 6,000 new residents per year.⁴ From 1990 to 2000, Solano County outpaced the state of California in population growth by almost three percent; the California population increased by over 13 percent, while the population in Solano County increased by over 16 percent (see Figure 1).⁵

In addition to being the 16th highest populated county in California,⁶ Solano County's population grew up to four percent faster than most Bay Area counties in the last decade, including: Santa Clara, Alameda, and San Mateo. The county's growth was similar to that of Contra Costa and Sonoma Counties (see Figure 1).⁷



⁴ California State Department of Finance. County Population Estimates and Detailed Components of Change July 1, 2000-2002, with 2000 Census Counts.

⁵ Census Bureau. Census 2000.

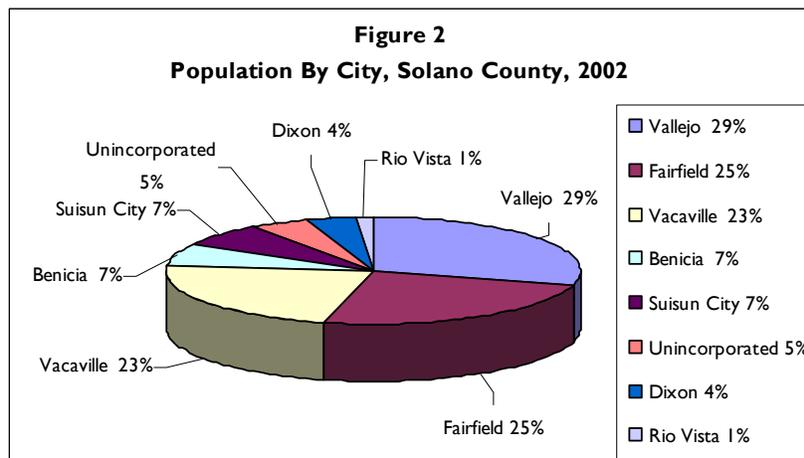
⁶ Ibid.

⁷ Ibid.

Solano’s population is projected to grow faster than any other county in the Bay Area—an estimated 37 percent by 2020, totaling 552,105 residents and including almost 42,000 children under the age of five.⁸

Projections reveal that Solano County’s population will grow faster than any other county in the Bay Area over the next 20 years, totaling 552,105 residents, with over 42,000 children ages 0 to 5.

Many counties in California have one city that houses a large percentage of the county’s total population. Solano County is unique, however, because while no city contains more than 30 percent of the population, each of the three major cities hold over 20 percent of the county’s total population. With over 29 percent total county population, Vallejo is Solano County’s most populated city (see Figure 2). Only five percent of Solano’s population lives in unincorporated areas, and almost 96 percent of the county’s population lives in urban areas.⁹



Dixon, Rio Vista, Fairfield, and Vacaville recorded the highest percent growth between 1990 and 2000. Each city’s population increased by at least 24 percent. Dixon led all Solano County cities with a population increase of 55%.¹⁰

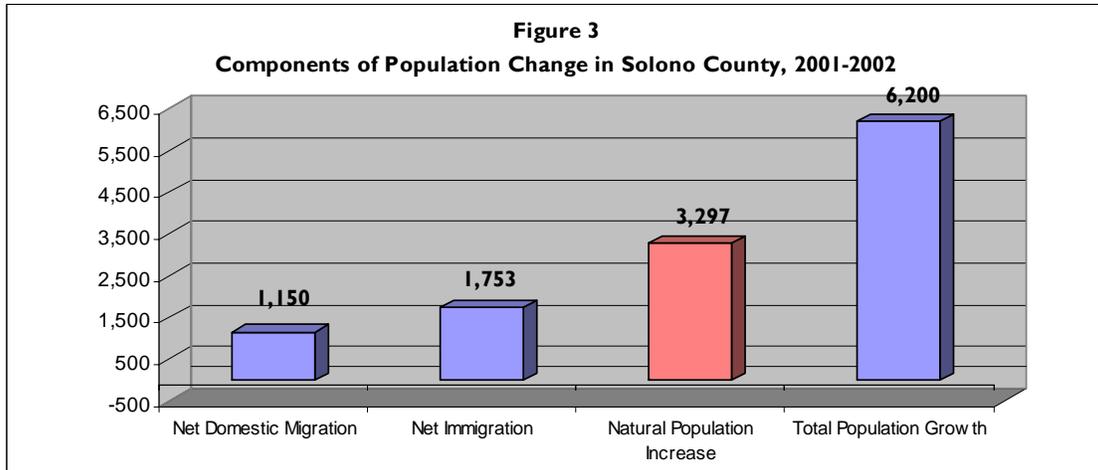
With almost 5,800 births in from 2001 to 2002, childbirth was the primary driver of population growth. As a result, the county’s natural population increase (the difference between the number of births and deaths) accounted for more than half of the total population increase of 6,200 from 2001 to 2002 (see Figure 3).¹¹

⁸ California State Department of Finance. County Population Projections with Age, Sex and Race/Ethnic Detail July 1, 1990-2040 in 10-year Increments.

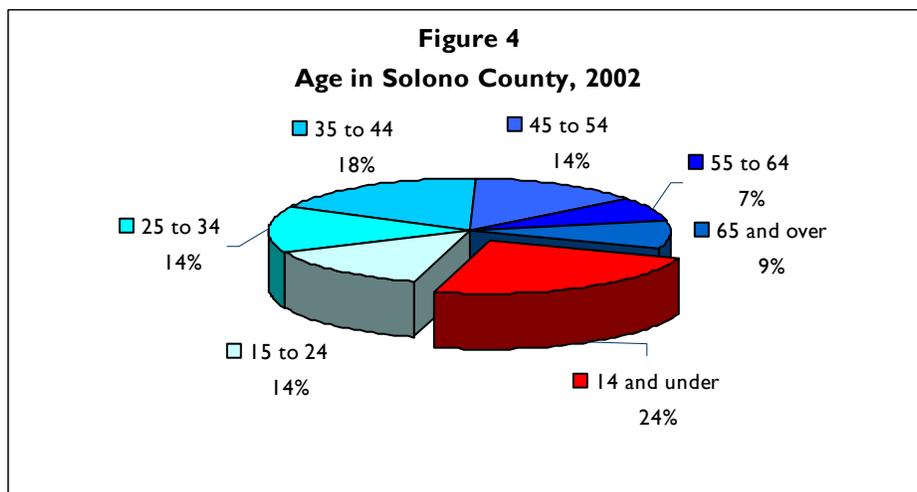
⁹ U.S. Census Bureau. Census 2000.

¹⁰ California Employment Development Department. *County Snapshot, Solano, 2002*.

¹¹ California State Department of Finance. County Population Estimates and Detailed Components of Change July 1, 2000-2002, with 2000 Census Counts.



Children ages 14 and under comprise almost one-fourth of the total population in Solano County (over 96,000 children in 2002; see Figure 4). Adults over the age of 65 comprise only nine percent of the total population in Solano County (see Figure 4).¹²



Of those children 14 and under, 37 percent are children ages zero to five, nearly nine percent of the total county population (approximately 35,000 children in 2002).¹³

Of the 52,835 families with children under 18 years old in Solano County, almost 26 percent are single-parent families. Nearly 23,000 families have at least one child under the age of six, and of these families, well over 5,000 are single-parent families.¹⁴

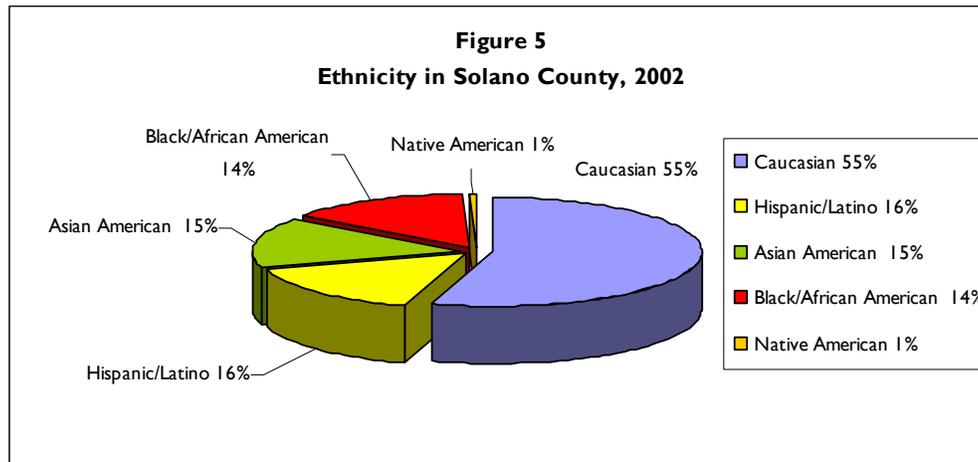
¹² California State Department of Finance. County Population Estimates and Detailed Components of Change July 1, 2000-2002, with 2000 Census Counts.

¹³ U.S. Census Bureau. Census 2000.

¹⁴ Ibid.

Diversity

Although the majority of Solano County is non-Hispanic white, the county is becoming increasingly diverse each year. Currently, Hispanic/Latino residents make up a higher percentage of the population than any other minority group with 16 percent of the Solano County population (see Figure 5). Asian and African Americans also account for 15 percent and 14 percent of the total population respectively (see Figure 5).¹⁵



Although minorities comprise 44 percent of the overall population in Solano County, they make up a much higher percentage of children. By the year 2020 minorities are expected to comprise 53 percent of the general population. Minority groups already comprise 53 percent of the population for children ages zero to four in Solano County.

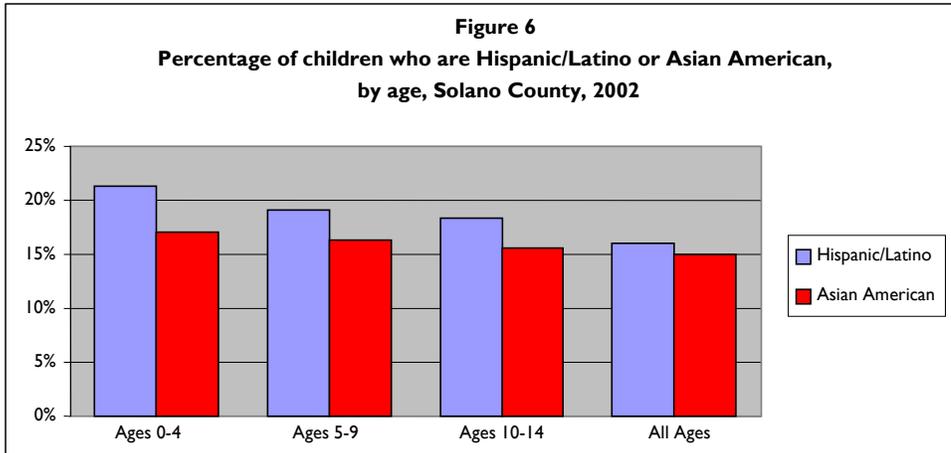
Asian Americans and Hispanics/Latinos appear to be the primary drivers of increased diversity among children. While only 16 percent of the general population is Hispanic/Latino and 15 percent is Asian, 20 percent and 16 percent of children 14 and under are Hispanic/Latino and Asian American, respectively.

The increasing diversity in Solano's children requires a varied array of culturally appropriate child care and education programs. Dual- or multi-lingual staff, in particular Spanish- and Tagalog-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.

Hispanics/Latinos and Asian Americans make up an even bigger proportion of Solano County children under 5 (see Figure 6). Approximately 46 percent of infants are Caucasian, 21 percent are Hispanic/Latino, 17 percent are Asian Americans, and 15 percent are African-American, representing greater diversity than the overall population.¹⁶

¹⁵ Association of Bay Area Governments. Bay Area Census, Solano County, California.

¹⁶ California State Department of Finance. *County Population Projections with Age, Sex and Race/Ethnic Detail July 1, 1990-2040 in 10 Year Increments.*



Of the 83,325 children ages 5 to 17 in 2000, almost 80 percent spoke only English and over 2 percent reported speaking English either “not well” or “not at all.” While the Census Bureau does not track the language skills of children ages zero to five, the percentage of young children who cannot speak English is likely much higher than school-age children because they have yet to attend school.¹⁷ Over 13 percent of children ages 5 to 17 speak Spanish, and of those who reported being Asian American in the 2000 Census, almost 73 percent were Filipino.

The ethnic/racial make up of Solano County varies from city to city. In particular, Vallejo is considerably more diverse than other cities in the county. Only 36 percent of Vallejo’s population is Caucasian, and Asians and African Americans each make up almost of quarter of the general population.¹⁸

Labor Force

From 1990 to 2000, Solano County’s civilian labor force grew approximately 17 percent, totaling 195,610 participants in 2000. Despite the economic downturn, the labor force has seen steady growth since 2000 with 206,200 participants in 2002.¹⁹ Mirroring countywide growth, the number of women participating in the labor force in Solano County grew by nearly 18 percent from 1990 to 2000. Furthermore, 60 percent of females over 16 participate in the labor force, which is five percent higher than the California statewide average of 55 percent.²⁰

Almost 20,000 children under six have all parents in the labor force, representing almost 55 percent of all children under age six. Likewise over 34,000 children between 6 and 13 have all parents working, which corresponds to over 63 percent of all children in that age group. These demographics indicate that there is growing need for child care to enable the labor force participation of parents.

¹⁷ U.S. Census Bureau. Census 2000.

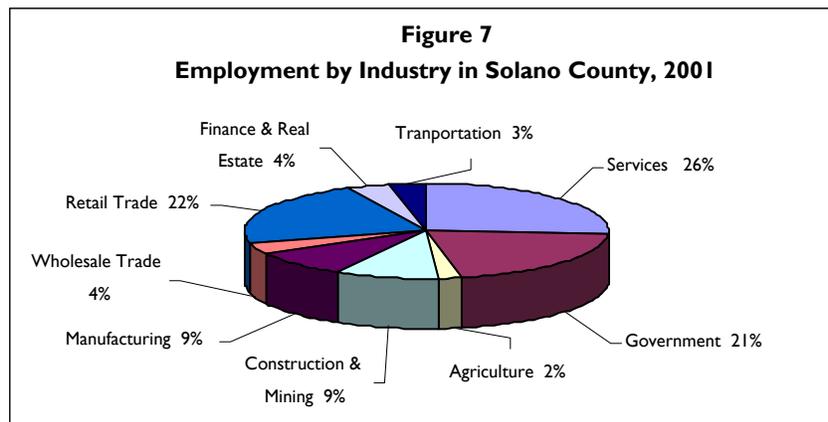
¹⁸ Association of Bay Area Governments. Census 2000 Data, Solano County, California.

¹⁹ California Employment Development Department. *County Snapshot, Solano, 2002*.

²⁰ U.S. Census Bureau. Census 2000.

Because of the economic downturn, job growth did not match labor force growth. As a result, the unemployment rate in Solano County climbed from 4.2 percent in 2001 to 5.5 percent in 2002, the second-highest in the Bay Area. However, it is significantly lower than the California statewide 2002 unemployment rate of 6.7 percent.²¹ The 2002 annual unemployment rate varied across the county, with Fairfield and Vallejo experiencing at least 6 percent unemployment and Dixon experiencing 7.2 percent unemployment.

Solano County’s leading industry is the service industry (which currently includes the “child day care services” industry classification), accounting for 26 percent of all jobs in the county.²² Industry projections reveal that by the 2006, approximately 33,760 people will be employed in the service sector in Solano County.²³ Other leading industries in Solano County include retail trade (22 percent of the total employment), government (21% of total employment) and manufacturing (nine percent of the total employment; see Figure 7).



There were an estimated 121,000 jobs in Solano County in 2000, and services, retail trade, manufacturing, and government accounted for almost 78 percent of those jobs.²⁴ Large companies in Solano County span many industry sectors, are located in a number of cities, and rely on a diverse pool of labor force participants. Solano County’s largest employer is Travis Air Force Base, which employs more than 14,000 people, including 7,700 active duty personnel, 3,800 reservists and more than 3,100 civilian employees. The total economic impact of the base is estimated to be over \$792 million.²⁵ California State Prison, Solano supports 1,254 staff and has an operating budget of nearly \$110 million,²⁶ and California Medical Facility employs 1,686 and has an operating budget of \$145 million.

²¹ California Employment Department. *Monthly Labor Force Data for Counties, 1990-2003*.

²² Ibid.

²³ Ibid.

²⁴ Ibid.

²⁵ Solano Sources, The Reporter.com. *Travis Air Force Base*. Information found on the following website: www.thereporter.com/Specials/Source/pages/travis.html

²⁶ California Department of Corrections. *California State Prison, Solano*.

Of the major industries in Solano County, the service industry is projected to have the highest percentage increase of jobs by 2006. As a result there will be an increasing demand for child care outside of traditional hours care (8 a.m.-6p.m). Because the majority of these jobs pay low wages, affordable child care is needed to ensure that there is an adequate supply of workers to support the growth of these industry.

Kaiser Permanente, Six Flags Marine World, Anheuser Busch, Alza Corporation, and Genentech are four of the ten largest private employers in the county.²⁷ Solano County City School Districts and Solano Community College are major public sector employers in the county.

Health care companies are also among the largest employers, including Northbay Medical Center, Sutter Solano Medical Center, and Kaiser Foundation Hospital.²⁸ In 2001, almost 86 percent of Solano County's 8,286 businesses employed less than 20 people.²⁹

In terms of percent employment growth, Solano County is expected to lead all Bay Area counties through the year 2025, with significant job growth in each of the major economic sectors. Of the major industries, the service sector is projected to have the highest percentage increase of jobs

(almost 18 percent from 1999 to 2006).³⁰ This growth will create a demand for low- skilled workers and high-skilled workers needed to satisfy

Solano County is expected to lead every county in the Bay Area in percentage job growth through the year 2025.

the needs of firms in the business service sector. Additionally, the retail trade and government sectors are each expected to experience job growth of 10 percent from 1999 to 2006.

Transportation

Almost 43 percent of Solano County's workforce worked outside the county in 2000, which is significantly higher than any other surrounding county (see Figure 8). In addition, the mean one-way commute time for workers not working at home was 32 minutes in 2000, which is higher than the California statewide average of 28 minutes.³¹

Commuters living in Solano County travel farther than those living any other county in the Bay Area. In 2002, the average commuter traveled 25 miles one-way to work, which is nine more miles than the regional average.³²

According to a survey in 2002 of commuters conducted by Rides for Bay Area Commuters, Incorporated, perceptions of commute conditions in Solano County were

²⁷ Solano Economic Development Corporation. *Solano County Major Employers, 2003*.

²⁸ California Employment Development Department. *Major Employers in Solano County, 2002*.

²⁹ California Employment Development Department. *Third Quarter Payroll and Number of Businesses By Size Category, Classified By County for California, Third Quarter, 2001*.

³⁰ Association of Bay Area Governments. *Projections 2002*.

³¹ U.S. Census Bureau, Census 2000.

³² Rides for Bay Area Commuters, Inc. *Solano County, 2002 Commute Profile*.

less positive than they were in 2001, and these perceptions were significantly more negative than those from other counties in the Bay Area. Of those that reported that the commute had gotten worse, 73 percent said this drop in satisfaction came as a result of increased traffic.³³

There are almost 1.6 million people living within a 60 minute commute shed that surrounds Fairfield, Solano County's most central city. This commute shed represents the amount of area from which Solano County's businesses can draw labor. Sedway's *Regional Labor Study for Solano County* estimates that less than four percent of workers in this commute shed work in Solano County.³⁴ This highlights that there is an untapped labor pool for economic development for new and existing businesses in Solano County. Affordable, available, and quality child care located within the county will help attract this potential workforce to the county.

Child care and transportation are both critical elements of a strong county economic infrastructure, and both enable people to work and access community services. Barriers to transportation or child care limit economic and educational opportunities for Solano County residents. The *Solano County Welfare to Work Transportation Plan*, produced by Nelson/Nygaard Consulting Associates, highlights five major transportation programs that could alleviate transportation barriers for SolanoWORKs participants, including a 24-hour shuttle service for child. The transportation plan also demonstrates that parents and businesses benefit when child care centers are located near industrial parks and other large employers.³⁵ Employers and providers must consider land use and deed restrictions, zoning regulations, and liability concerns when supplying accessible child care options for working families.

Both child care and transportation directly affect the productivity and quality of life of working families in Solano County. A collaboration between child care leaders, businesses, economic developers, and transportation planners is needed to ensure that the needs of working parents are being met by both systems.

“By locating the child care centers at the places of employment, many trips will be eliminated and time will be saved. Parents appreciate knowing their children are on-site...Likewise, businesses benefit from more efficient, attentive, and motivated employees when child care centers are on-site.”

Solano County Welfare to Work Transportation Plan, Final Report, 2002.

³³ Rides for Bay Area Commuters, Inc. *Solano County, 2002 Commute Profile*.

³⁴ Sedway Group. *Regional Labor Market Study, Solano County, 2002*.

³⁵ Nelson/Nygaard Consulting Associates. *Solano County Welfare to Work Transportation: Final Report, 2002*.

Cost of Living

The median price for homes in Solano County increased 16 percent from \$238,000 in January of 2002 to \$276,000 in January of 2003. Of Bay Area counties, only Napa County's median price for homes grew faster over the same time span. While the median price of a home in Solano County (\$276,000) is only 68 percent of the Bay Area median price of a home (\$404,000), the prices of homes in the county are rising almost twice as fast as homes throughout rest of the Bay Area.³⁶ In addition, according to the California Housing Opportunity Index (HOI), only 18 percent of households in the Vallejo-Fairfield-Napa metro area can afford to purchase a medium-priced home. Lastly, the Vallejo-Fairfield-Napa metro area has the sixth-least affordable housing market in the country, when medium income is also considered.³⁷

While the prices of homes in Solano County are relatively low compared to the Bay Area, they are rising almost twice as fast. These rising costs impair a family's ability to pay for other necessary items like child care.

The Vallejo-Fairfield-Napa metro area is one of the least affordable housing markets in the country when medium income is also considered.

In Solano County, there was almost an eight percent increase in the number of renter households, from 42,120 in 1990 to 45,509 in 2000.³⁸ Approximately 35 percent of all households in Solano County

are renter households,³⁹ indicating that many residents cannot afford to purchase a home. The fair market rate for renting a two-bedroom apartment is \$1,086 per month, or \$13,302 annually, and the hourly wage needed to afford a two-bedroom apartment is \$21.88.⁴⁰

The average yearly cost of child care for an infant in a child care center in Solano County is currently estimated at \$9,698 per year,⁴¹ which is significantly higher than the cost of year's tuition at UC Davis for a California resident.⁴² Center-based child care for one infant and one toddler in Solano County has an average annual cost of over \$16,000 (see Appendix A for a breakdown average annual costs for child care).⁴³ For a family at median income, these child care costs are over 25 percent of its total annual income.⁴⁴

The average yearly cost for full-time infant care in a child care center is almost \$10,000, which is significantly higher than the cost of a year's tuition for California resident at UC Davis.

³⁶ DataQuick Information Systems, www.DQNews.com

³⁷ California Association of Realtors. California Housing Affordability Index, 2003.

³⁸ National Association of Home Builders. *Housing Opportunity Index, First Quarter 2002*.

³⁹ Ibid.

⁴⁰ Ibid. Hourly wage is based on the assumption that rent is 30% of total income.

⁴¹ California Child Care Resource and Referral Network. *Regional Market Rate Survey for California Child Care Providers, June 2002*.

⁴² U.C. Davis Office of Resource Management and Planning. Tuition schedule for a California resident for the 2003-2004 school year.

⁴³ California Child Care Resource and Referral Network. *Regional Market Rate Survey for California Child Care Providers, June 2002*.

⁴⁴ U.S. Census Bureau. Census 2000. Adjusted to 2002 dollars (\$65,434).

The Self Sufficiency Standard measures the amount of income needed for a family to adequately meet its needs without government assistance. This standard varies depending on the location and size of the family. While the cost of living in Solano County might be low relative to the Bay Area, compared to the rest of California, Solano County has one of the highest self-sufficiency wages in California at \$41,487 for an adult with two small children (see Appendix A).⁴⁵

While most of the jobs in the area pay wages above the self-sufficiency wage for a single adult, many jobs cannot adequately meet the needs of families in the area. Of all area jobs, 28 percent pay less than the self-sufficiency wage for a family of four (one infant and one preschooler) with both parents working (\$11.27/hour per parent; see Appendix B). An estimated 29 percent of Solano County area jobs pay less than \$8.63/hour for entry-level positions.⁴⁶

Future trends indicate that family self-sufficiency will continue to be a problem in the coming years for Solano County. For example, only three of the top ten jobs with the greatest projected growth by 2004 paid an hourly self-sufficiency wage (\$17.86/hour for single parent family with two school-aged children; see Appendix A) in 2001.⁴⁷

Only three of the top ten jobs with the fastest growth in Solano County by 2004 paid a self-sufficiency wage (\$17.86/hour for a single-parent family with two school-aged children in 2001).

At \$6.75, California's minimum wage is significantly higher than the federal minimum wage of \$5.15. However, according to the California Budget Project, a full time worker earning California's minimum wage earns about one-third of the income needed to support a family of three.⁴⁸

Low-income Families

In 1999, 31,344 of the residents lived under the federal poverty line—over eight percent of Solano County's total population.⁴⁹ In addition, the proportion of families living under the federal poverty line increases for families with younger children (see Figure 9). The percentage of families living in poverty also increases dramatically for single-mother families. While nine percent of families with children 18 and under are in poverty, 22 percent of single-mother families live in poverty. Similarly, 11 percent of all families with children 5 and under live in poverty, and 30 percent of single-mother families live in poverty (see Figure 9).⁵⁰

⁴⁵ Wider Opportunities for Women. *The Self-Sufficiency Standard for California*. The self-sufficiency standard is the minimum wage needed to cover basic costs of housing, food, transportation, health care, and child care in the local area.

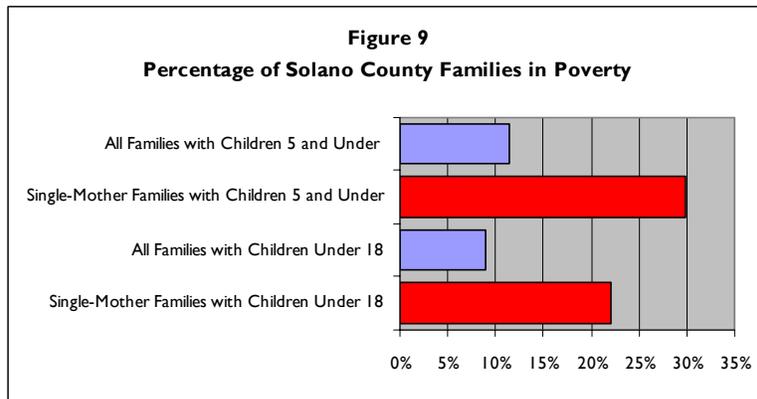
⁴⁶ California Employment Development Department. *County Snapshot, Solano, 2002*.

⁴⁷ Northern California Council for the Community. *Bay Area Indicators: Measuring Progress Toward Sustainability, 2003*.

⁴⁸ California Budget Project. *Boom, Bust, And Beyond: The State of Working California, 2003*.

⁴⁹ US Census Bureau. Table DP-3. Profile of Selected Economic Characteristic: 2000.

⁵⁰ Ibid.



Of the nine counties in the Bay Area, Solano County has the third- highest percentage of the population living below the federal poverty line.⁵¹ In 2001, 29 percent of Solano County school-age children were classified as low-income children.⁵²

Implications for Child Care

Solano County’s shifting economic and demographic landscape creates a challenge for its child care industry. There is a clear and growing need for affordable, accessible child care. Changing and evolving economic and social conditions – a greater number of low-paying jobs, natural population increase, escalating housing prices, and welfare reform – fuel continued growth in demand for child care programs. These conditions have the following implications for the county’s child care industry:

Population

- ◆ Solano County’s population continues to grow, creating demand for the entire education system, for children of traditional ages for schooling and for children ages zero to five.

Diversity

- ◆ The increasing diversity in Solano County requires more culturally appropriate child care services, including dual- or multi-lingual staff and programs, and culturally sensitive curricula and care.
- ◆ There is an increasing demand for Spanish and Tagalog-speaking child care professionals.

⁵¹ U.S. Census Bureau. Census 2000.

⁵² California Department of Education, DataQuest, The State Of Our Children, 2000, County Data Table. Low-income children live in households with a total income at or below 185% of the poverty level (approximately \$17,650 for a family of four in 2001).

Labor Market

- ◆ Because there has been a significant increase in the percentage of females who participate in the labor force, there is a growing need for child care services in Solano County. If this trend continues over the next decade, the need to increase the supply of child care will be even greater.
- ◆ With the county's largest growth industries being in service and retail, there is a demand for child care during hours outside of the traditional 8am – 6pm child care schedule. In addition, because of the low to medium wages in the service and retail industries, many employees cannot afford child care.
- ◆ Quality early education experiences are critical now to meet growth in high-skilled technology and professional service occupations over the next two decades.

Transportation

- ◆ Because almost half the labor force commutes to areas outside of Solano County and the average commuter spends 32 minutes getting to work each day, there is a considerable demand for non-traditional hours child care and child care programs that provide parents with transportation options.

Cost of Living

- ◆ The county's high cost of living threatens the stability and continued growth of the child care industry because low-wage workers, such as those in child care, struggle financially to remain in the county.
- ◆ With a growing proportion of family income going to basic needs, such as housing and child care, the quality of life in Solano County is increasingly difficult to maintain, particularly for families with low or middle income.

Low Income Families

- ◆ Because of the high number of low-income children in Solano County, child care programs experience an aggressive demand for subsidized slots.
- ◆ Continued implementation of the state's CalWORKs program contributes to the increasing need for subsidized child care.
- ◆ The number of families timing out of CalWORKs participation and the projected increase in the proportion of low-wage jobs in Solano County's industries indicate a continued need for strategies to make child care affordable for low-income working families.

Conclusion

The county needs to expand its supply of accessible, quality, and affordable child care to provide an adequate social infrastructure that enables more families and single parents to go to work, thus increasing the county's supply of labor. This added workforce is essential to satisfy production of the community's needed goods and services.

Section 3

Economic Profile of the Child Care Industry

To assess the economic characteristics of the child care industry in Solano County, 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 of legally unlicensed, informal child care services (*licensed exempt care*). Thus, the analyses in this report underestimate the full impact of child care on Solano County's economy.

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 local economy in the form of payments for care, including both parent fees and private and public subsidies.

Economists typically analyze industries and their impacts based on state and national surveys of businesses or employers. Many surveys use an industrial classification system that recognizes "child day care services," but underestimates the size of the child care industry because of its diversity of establishments (i.e. self-employed individuals, programs run by religious or social organizations, and both not-for-profit and for-profit small businesses and chains).⁵³

This study uses a more accurate method of measuring the size of the child care industry, which primarily relies upon data from the Solano Family and Children's Services, Solano County's child care resource and referral service provider (R&R). This agency is charged by the state to collect comprehensive countywide data on the availability and use of most licensed child care programs. Local enrollment and budgetary information for Travis Air Force Base child development centers and family child care homes, state-subsidized child development centers (state pre-schools and general child development centers) and Head Start was gathered by directly interviewing directors from each program.

Gross receipts for family child care homes, child care centers, and Travis Air Force Base family child care homes were calculated by multiplying the number of children enrolled in each type of care by the average cost of care. To ensure that gross receipts were

⁵³ 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.

accurately captured cost and enrollment information were broken down by type of care (family child care homes and child care centers), age of child (infant, toddler, pre-school age, and school age), and length of care (part-time/full-time). Average hourly, daily, and weekly rates from the *Regional Market Rate Survey for California Child Care Providers, 2002* were used. The Solano County R&R database does not include capacity or enrollment information on Head Start, Travis Air Force Base child care development centers or state-subsidized child development centers (state pre-schools and general child development centers); therefore, total government expenditure for administrative and operational costs were used to estimate gross receipts for these programs (see Appendix B, for more details).

The estimated annual gross receipts for licensed child care in Solano County total \$87.2 million.

There are approximately 783 licensed child care facilities in Solano County that are actively caring for approximately 11,579 children.⁵⁴ The facilities include:

- 646 family child care homes
- 63 non-subsidized child care centers
- 16 Head Start centers
- 36 Travis Air Force Base family child care homes
- 3 Travis Air Force Base child development centers
- 19 state-subsidized child development centers⁵⁵

Based on the methodology briefly described above, the estimated value of annual gross receipts for licensed child care in Solano County is \$87.2 million, including:

- \$33.7 million for family child care homes
- \$34.9 million for child care centers
- \$7.0 million for Head Start programs
- \$1.2 million for Travis Air Force Base family child care homes
- \$4.0 million for Travis Air Force Base child development centers
- \$6.4 million for state-subsidized child development centers

Comparing estimates contained in this report with data from the most recent Bureau of Labor Statistics' ES-202 Covered Employees and Wages 2001 Survey shows how much the total impact of the licensed child care industry is underestimated. The survey estimates that gross receipts for child care in Solano County are \$17.4 million, only 20 percent of those derived from comprehensive local data.⁵⁶

⁵⁴ Current survey results from Solano Family & Children's Services and individual interviews from program directors.

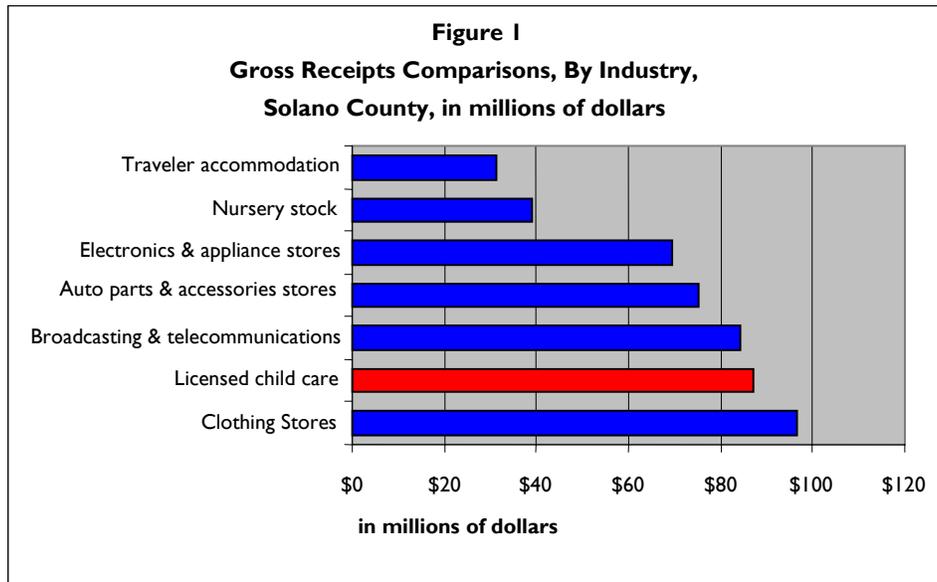
⁵⁵ Shepherd of the Hills Lutheran is a state-subsidized child development center (State Pre-school) and a private child care center. For the purposes of this report, this facility is considered a private child care center, and gross receipts and direct employment estimates for it are included under child care centers.

⁵⁶ Gross receipts estimates were derived from the Bureau of Labor Statistics ES-202 Covered Employees and Wages 2001 Survey. Employment estimates were run through IMPLAN to estimate total gross receipts. The ES-202 Covered Employees and Wages 2001 Survey is mailed to a list based on U.S. businesses with employer identification numbers (EIN), and excludes private households and governments. Estimates were updated to 2003 for comparison.

Gross Receipts Compared with Other Industries

Comparing the licensed child care industry with Solano County's other industry subsectors indicates that licensed child care is larger than the following major industries: broadcasting and telecommunications (84.4 million), auto parts and accessories stores (\$75.1 million), and electronics and appliance stores (\$69.4 million; see Figure 1).⁵⁷ Child care generates considerably more gross receipts than the largest crop in the county—nursery stock (\$38.9 million) and the traveler accommodation industry (\$31.3 million; see Figure 1).^{58 59} The child care industry generates almost as many gross receipts as clothing stores (\$96.6 million; see Figure 1).⁶⁰

In Solano County, the licensed child care industry generates almost as many gross receipts as clothing stores.



Gross receipts for non-agricultural industries are from the 1997 Economic Census and gross receipts for agricultural industries are from the Solano County Department of Agriculture's 2001 Crop Report. All values have been adjusted to 2003. Child care gross receipts are calculated using methodology described in Appendix B.

Direct Employment

Direct employment for licensed child care in Solano County is estimated to be 2,501 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

The child care industry directly supports more than 2,501 full-time equivalent jobs.

⁵⁷ U.S. Census Bureau. Economic Census (1997). All gross receipts values are updated to 2003 levels.

⁵⁸ Solano County Department of Agriculture. *Solano County Agricultural Overview, 2001*. Nursery stock includes cuttings, buds, scions, Christmas trees, turf, root-stock, greenhouse, timber, firewood, ornamental etc. All gross receipts values are updated to 2003 levels.

⁵⁹ U.S. Census Bureau. Economic Census (1997). All gross receipts values are updated to 2003 levels.

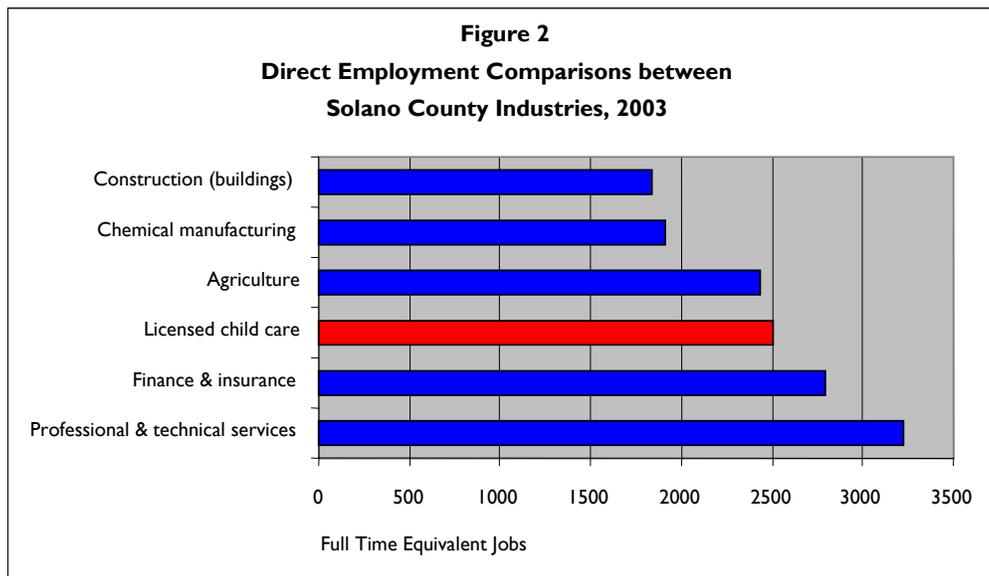
⁶⁰ Ibid.

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. However, some child care operators choose to maintain higher ratios in order to improve program quality. Employment estimates for Head Start, state-subsidized child development centers, and Travis Air Force Base family child care homes and child development centers were derived from interviews with the director of each program (please see Appendix B for a detailed methodology).

An economic analysis of the indirect and induced effects of the child care industry on the economy is included in Appendix C. Many informed observers have indicated that these effects are not part of a conservative approach at conducting economic impact reports, and thus, these analyses are not included in the main body of this report.⁶¹

Direct Employment Compared with Other Industries

The number of FTEs in child care is similar to the number of employees in the professional and technical services industry (3,225 jobs) and the finance and insurance industry (2,787 jobs; see Figure 2).⁶² There are more FTEs in the county's child care industry than there are in the agriculture, the chemical manufacturing, and the building construction (see Figure 2).⁶³



All employment information for industries is from the ES-202 Covered Employees and Wages 2001 Survey, adjusted to 2003, except for licensed child care. Child care direct employment is calculated using methodology described in Appendix B.

⁶¹ Personal communication, Art Rolnick, Director of Research, Federal Reserve Bank of Minneapolis, 2003.

⁶² Data is from the 2001 Solano County Covered Employment and Wages (ES-202) survey, adjusted to 2003 labor force levels for comparison.

⁶³ Ibid.

Capture of Federal and State Subsidies

Federal and state governments provide child care subsidies primarily to help poor families participate in workforce, training, or educational activities. Federal and state governments subsidize quality improvement for child care programs. These subsidies are provided in three basic forms: direct contracts with child care centers based on the number of low-income children they serve and the number of days of care provided, an “Alternative Payment” (AP) program which enables families to choose their own licensed or license-exempt child care provider, and direct payments to providers to improve child care quality.

Another significant area of public funding is the comprehensive child development programs in Head Start and state-subsidized child development centers. Head Start serves children ages zero to five, pregnant women, and their families in child-focused programs designed to increase school readiness of young children in low-income families.⁶⁴ state-subsidized child development centers include state pre-schools, general child development centers, and latch-key programs. These programs are typically operated through local school districts.

Child care subsidies, both at the federal and state levels, increased substantially following sweeping reforms to the federal welfare system in 1996 (the Personal Responsibility and Work Opportunities Act). California created its own version of welfare to comply with the new federal system, called CalWORKs (California Work Opportunity and Responsibility to Kids). Under CalWORKs, child care assistance expanded.

CalWORKs replaced separate welfare-related child care systems with an integrated three-stage child care system, coordinated by two state agencies. “Stage One” child care services are administered by the California Department of Social Services (CDSS) through county welfare departments. Stages Two and Three child care services are administered by local agencies under

CalWORKs Child Care at a Glance

Stage One: CalWORKs families become eligible when the parent starts work or work-related activities and there is no other adult family member to provide care. The child’s age, the cost of care, and the provider chosen sometimes limits eligibility. Centers, licensed family day care, or license-exempt providers provide care based on the parent’s choice. Families who cannot transfer to Stage Two continue to receive subsidies through Stage One under Stage Two rules and limits.

Stage Two: Once work activity is stable or parents transition off aid, parents or caretakers are eligible for child care subsidies for up to two years from the date they leave assistance if they are engaged in an approved activity, have a need for child care to continue this activity, and meet all other child care eligibility factors.

Stage Three: When a funded space is available, a family whose income is at or below 75% of the state median income, and who have exhausted their 24-month maximum for Stage Two care, enters Stage Three.

⁶⁴ 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>.

contract with the California Department of Education (CDE). Funding for each of the three stages of child care assistance is determined annually through the budget process.

Child care subsidies benefit Solano County in several ways. First, since they are tied to job training and work activities, they are an important part of workforce development, and enable many people (who would otherwise have to look after their own children or leave them in an unsafe setting, such as self-care) to join the labor force. Second, they bring in new dollars to the local economy, which then circulate through various service sectors and stimulate other economic activity.

Some federal funds for child care include a requirement that four percent be used to improve the quality of child care. These federal dollars are matched by state funds. This money goes to support: the education and training of child care professionals, capacity building, resource and referral services, local child care planning councils, and a number of other activities designed to build and sustain the capacity of high-quality child care and education.⁷²

In 2002, Solano County drew down roughly \$37.6 million in child care-related subsidies (see Table I for breakdown). Some of these funds were distributed through licensed child care facilities; however, a significant portion of child care vouchers were redeemed by license-exempt child care providers.

Vouchers	
CalWORKs Stage One, Two, and Three ⁶⁵	\$18.6 million
General Alternative Payment Program (GAPP) ⁶⁶	\$394,000
Federal Alternative Payment Program (FAPP) ⁶⁷	\$1.2 million
Direct Services	
Head Start ⁶⁸	\$7.0 million
state-subsidized child development centers ⁶⁹	\$6.4 million
Travis Air Force Base Child Care Subsidies ⁷⁰	\$2.0 million
USDA Child Care Food Program ⁷¹	\$2.0 million
Total:	\$ 37.6 million

Because lower-wage occupations lead much of Solano County's projected job growth, the availability of federal and state child care subsidies play an increasingly important

⁶⁵ Solano County Department of Health and Social Services (FY 2001-2002).

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Napa-Solano Head Start FY 2002-2003. Only dollars spent in Solano County are included in this number.

⁶⁹ Most of this information comes from the California Department of Education, Management Systems, Child Youth and Family Services Branch. However contract amounts for Amy Blanc State Pre-school and all state-subsidized Child Development Centers in Dixon were derived from Child Development Incorporated, the agency that administers the funds for those programs.

⁷⁰ Alan Tornay, Director CDC II, Travis Air Force Base. Interview, conducted by the National Economic Development and Law Center, 2003.

⁷¹ California Department of Education, Nutrition Services Division. FY 1999-00 County Profile for California Child Care Food Program, Solano County.

role in supporting local economic development. Targeted local investments in child care helps the county garner a larger share of child care subsidies and, in turn, maximizes the local economic effects of federal and state funds. Possible realignment of child care services to the local counties from the state could significantly change the way child care services are provided and affect the economic impact of child care in Solano County.

Section Summary

The diversity of the child care system is a vital feature in its ability to meet the needs of Solano County's families, but makes it difficult to analyze and measure. However, using data maintained by organizations charged by the State of California 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 Solano County, such as the finance and insurance industry and the broadcasting and clothing stores.

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. The child care field also supports the economy by drawing down significant levels of federal funds available to support low income families. These families represent a substantial portion of the existing and potential workforce, and are vital to the continued growth of the economy.

Section 4

Child Care, Business & Economic Development

The child care industry in Solano County supports other businesses by increasing employee participation and productivity. A healthy child care industry helps businesses attract and retain the best employees. Also, quality, stable child care reduces employee turnover and absenteeism and increases loyalty and morale. These effects have a direct impact on the bottom line for businesses of all sizes.

In addition, child care, like other economic infrastructures, builds the local economy and improves the quality of life in the county. Child care reduces crime, enables individuals and families to live better and more fully, and increases governments' budgets to provide enhanced services for residents.

Investing in quality child care is a win-win situation:

- **Businesses win** when quality, affordable, accessible child care options attract new skilled workers to the area, and improve attendance and job satisfaction with existing employees
- **Children win** because they enter the traditional K-12 school system healthy, socialized and ready to learn
- **Financial Institutions 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
- **Government wins** when taxpayers pay less in criminal justice, remedial education, and welfare costs as a result of high-quality child care

Public and private investments in the child care infrastructure contribute to Solano County's overall productivity and economic competitiveness by:

- Expanding local labor force participation by enabling people to work
- Contributing to increased economic output
- Increasing productivity and retention of employees in businesses in the county
- Ensuring future public savings on social needs by lowering drop-out and crime rates, and decreasing special education and welfare costs
- Cultivating Solano County's future workforce by improving the cognitive skills and emotional well-being of children and ensuring that they enter the K-12 school system ready to learn

The Impact of Child Care on Economic Competitiveness

Like transportation, education, public works, and affordable housing, child care is a necessary and vital part of the economic infrastructure. Investing in the child care

infrastructure of Solano County has direct, positive benefits for the county's overall economic competitiveness. Just as a highway system enables Solano County to bring in a skilled workforce to support its local industries, a healthy child care industry helps businesses attract and retain the best employees and makes Solano County a desirable place for businesses wishing to start, expand, or relocate their operations. In the same way that local government and the private sector collaborate to increase the availability of affordable housing in order to attract a skilled workforce, they also benefit from investing together in the child care infrastructure.

Maintaining Labor Force Participation

Stable, affordable, high-quality child care enables parents to continue to work and advance in their careers after they have started a family. The majority of families with children in Solano County do not have a parent who stays home full-time. There are over 18,000 dual-parent families with children ages 0 to 13 in which both parents are in the labor force and approximately 9,500 single-parent families with children 0 to 13 in which the parent works—together constituting 27,600 families and 64 percent of all families with children 13 and under.⁷³ This is, in large part, a result of mothers joining the labor force. While not all working parents use licensed child care, the majority of their children are in someone else's care at some time during the day.⁷⁴

Almost 64 percent all families in Solano County with children ages 0 to 13 (28,000 families) have all parents in the labor force.

Using previous estimates that center and family-based licensed care account for 42 percent of care provided to children ages zero to five and 22 percent of school-aged children,⁷⁵ there are over 8,000 working parents in the county with children 0 to 13 who use licensed child care who might otherwise have stayed home to care for children in 2002.⁷⁶ In total, Solano County parents using licensed child care (all single working parents and one parent in a dual-earning household) earn over \$259 million annually (see Table 1).⁷⁷

⁷³ U.S. Census Bureau, Census 2000.

⁷⁴ Richard Chase. Household Use Survey.

⁷⁵ Bolshum, N., Gates, G., Schmidt, S., Sonenstein, F. *Primary Child Care Arrangements of Employed Parents: Findings from the 1999 National Survey of America's Families*. From *The New Federalism: National Survey of America's Families*. Washington, D.C.: The Urban Institute, May 2002. Licensed child care usage rates for children ages 6 to 12 were used because there were no available usage rates for children ages 6 to 13.

⁷⁶ Only one parent was included in dual parent families because we assumed that if this parent were not working they could stay home and care for the children.

⁷⁷ 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 2002 dollar values.

Table I The Economic Output of Solano County's Working Parents Using Licensed Child Care, 2002	
Family Type	Labor income of working parents using licensed child care
Dual-parent families w/ children 0-13 in which both parents are in the workforce	\$168.8 million
Single-parent families with children 0-13 in which the parent is in the workforce.	\$90.7 million
Total	\$259.5 million

A lack of affordable and suitable child care is a deterrent for many parents who want to enter the workforce and may inhibit economic growth in the area. In a national survey of the child care needs of working parents, 43 percent of parents indicate that a lack of acceptable child care prevents either them or their spouses from taking a job they want.⁷⁸ In numerous studies tracking the success of welfare-to-work programs, child care and transportation were identified as the top two barriers for welfare clients in obtaining and maintaining jobs. In county transportation plans across California, getting to and from child care facilities and children's schools was listed as a major transportation barrier to work.⁷⁹ Accessible child care options are crucial to enabling employees to obtain and retain their jobs.

"Prior to and even more so since the implementation of welfare reform in Solano County, welfare-to-work participants have consistently identified the lack of child care and assistance in paying for such services as the number one barrier to employment and reaching their self-sufficiency goals."

Gail Jack, Program Specialist,

Solano County Health & Social Services Department

The supply of licensed child care is a crucial variable in the capacity of a local area to experience economic growth. Choosing child care is a complicated process for many working parents, and involves factors such as quality, availability and affordability. In some cases, child care is used because a parent chooses to pursue a profession or supplement the household income, or because it is an economic necessity. In the latter case, affordable child care is vital for a family's economic self-sufficiency. In either case, *the provision of child care services increases the available labor pool.* While licensed child care is not necessary for all parents who choose to work, it is the only answer for some.

⁷⁸ The Harris Poll survey, January 14-18 1998, cited in *Polls Indicate Widespread Support for Investments in Child Care*, the Children's Defense Fund, www.childrensdefense.org/cc_polls.htm.

⁷⁹ *Regional welfare-to-work transportation plan.* Prepared by Moore, Iacofano, Goltsman, Inc. Oakland, CA: Metropolitan Transportation Commission, 2001.

Economic Productivity

Licensed child care contributes to a stable and productive workforce by lowering absenteeism and turnover rates. Absenteeism in 2002 cost an average of \$60,000 for small companies and more than \$3.6 million for large companies, according to a national survey of human resource executives.⁸⁰ While one-third of unscheduled absences were due to personal illness, one-quarter were due to family issues, including children's illness and unscheduled breakdowns of child care arrangements. Nationwide, it is estimated that worker absenteeism due directly to child care problems cost U.S. businesses \$3 billion per year.⁸¹

Absenteeism due to family issues, including child care, cost an average of \$15,000 per year for small companies and more than \$900,000 for large companies.

In a survey conducted by Parents Magazine, working mothers reported missing two full days and six partial days every six months due to child care problems, and working fathers reported missing one full day and four partial days every six months.⁸² The same survey highlights the lack of security many parents have in their child care arrangements. Only 40 percent of families surveyed were confident that their current child care arrangements would be in place six months from the date of the survey. This instability translates directly to reduced productivity in the workplace. Additionally, 52 percent of parents reported that the problems of finding child care affected their ability to do their job well.⁸³

Increasing productivity by providing child care benefits saves businesses money. 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. Numerous other studies point to the importance of child care in retaining employees and improving productivity. American Express Financial Advisors found that a newly created back-up child care service recovered 105 days in worker productivity.⁸⁴

Businesses with strong benefits packages that include low cost or cost-neutral child care benefits increase loyalty among their workers. Employees using a Nations Bank child care subsidy program had one-third the turnover of non-participants in similar jobs.

⁸⁰ Harris Interactive. *CCH Unscheduled Absence Survey, 2002*.

⁸¹ As cited in *Building Blocks: A Legislator's Guide to Child Care Policy*, National Conference of State Legislatures, 1997, p. vii.

⁸² Parents Magazine survey, August 1997, cited by the Children's Defense Fund, *Polls Indicate Widespread Support For Investments In Child Care*, www.childrensdefense.org/cc_polls.htm.

⁸³ Parents Magazine survey, August 1997, cited by the Children's Defense Fund, *Polls Indicate Widespread Support For Investments In Child Care*, www.childrensdefense.org/cc_polls.htm.

⁸⁴ Sandra Burud, *Evidence That Child Care and Work-Life Initiatives Will Impact Business Goals*. Claremont Graduate University, 1999.

When employees leave because of child care problems, companies lose human capital and incur turnover costs. Reducing 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.⁸⁵ This loss of human capital is preventable and there are cost-effective solutions to ensure that employees' child care needs are met.

In a survey of employees conducted by Merck, one of the world's largest human resources consulting companies, caring for dependents was one of the top six employee considerations concerning benefits.

In "Using Benefits to Attract and Retain Employees," Merck, one of the world's largest human resources consulting companies, recommends that businesses hoping to reduce turnover should adopt benefits packages that address their employees' personal needs. In a survey of employees, Merck found that caring for dependents was one of the top six employee considerations concerning benefits. However, child care benefits were not considered by employers as being essential.⁸⁶ Businesses can avoid this disconnect by offering benefits that focus on their employee's needs and reduce costs stemming from absenteeism, low productivity, and turnover.

Companies have a menu of child care benefits that they can offer their employees. Smaller companies may offer Dependent Care Flexible Care Spending Accounts and flexible time options. Larger companies may offer off-site referral services, company sponsored on/off site child care centers, child care subsidies, after-school programs, and emergency or sick child care.

Strong benefits packages, which may include child care and a public commitment to work-life issues, increase loyalty and reduce the likelihood that employees will leave the company, either to stay home or to work for another company. In a survey, 19 percent of employees at companies with child care programs indicated that they have turned down another job rather than lose their work-site child care.⁸⁷ Similarly, while 27 percent of Citicorp employees who did not use an on-site child care left their positions, only eight percent of those using the center left.⁸⁸

These policies have become increasingly popular in recent years due to the growing crisis in available, affordable child care. As Paul Orfalea, the founder of Kinko's, said, "Wise business leaders know that their biggest asset is morale.

**"Wise business leaders know that 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."
Paul Orfalea- Founder of Kinkos**

⁸⁵ Phillips, J. Douglas (Senior Director of Corporate Planning, Merck & Co. Inc.), "The Price Tag on Turnover," *Personnel Journal*, December 1990, pp. 58-61.

⁸⁶ Merck. *Using Benefits to Attract and Retain Employees*, 1999. As cited on www.probenefits.com.

⁸⁷ Simmons College, *Benefits of Work-Site Child Care*, 1997, as cited by Bright Horizons Family Solutions.

⁸⁸ Bright Horizons Family Solutions. *Return on Investment*. Presentation, 2003.

In a tight economy, it's all the more important to strengthen your business and take care of your people.⁸⁹

Some Solano County companies and companies in neighboring counties with employees who reside in Solano County recognize this need and support their employees. These businesses implement policies such as: providing flexible work schedules and work sites, offering pre-tax programs to pay for childcare and paid family sick leave, and covering child care for employees. Back-up child care is becoming increasingly popular among businesses trying to cut costs. Since 1993 the percentage of U.S. employers offering this benefit increased 10 percent. According to an estimate by WFD consulting, for every one dollar invested in back-up care, employers can expect a return of \$3 to \$4 dollars in increased productivity and reduced turnover.⁹⁰

Locally, Genentech and the city of Vacaville offer child care benefits through a flexible spending account (FSA). Employees may place up to \$5,000 in a pre-tax funds in to the FSA, which they may then spend on federally approved necessities, such as child care. By setting up a FSA, employers save their employees between \$1,000 and \$2,500 per

Locally, Genentech and the city of Vacaville offer cost effective child care assistance to their employees through a pre-tax flexible spending account. This allows their employees to increase their disposable income without increasing the companies' salary expenses. Additionally, the Solano County Department of Health and Human Services offers an on-site child care option to their employees.

year. Solano County Health and Social Services located in Fairfield, offers an on-site child care option to their employees. The on-site child care program is run by La Petite Academy, Inc. Other companies in Northern California that offer on-site child care include: Avant, Genentech, USAA, Cisco, and Intel.

Enabling Workforce Development

Child care is a critical component of workforce development. Child care services are needed during various activities, such as education and training, which prepare individuals to enter the workforce. In recognition of this, many colleges and universities have developed on-site child care facilities to accommodate parents pursuing both undergraduate and graduate degrees. The Solano County Workforce Investment Board recognizes the significance of workforce development for increased economic growth and diversification in the county. In 2000, the board received a grant of \$495,000 from the U.S. Department of Labor to provide training to more than 100 participants in high-tech jobs. However, without child care many working parents may not have the ability to access to this opportunity for professional development.

⁸⁹ Paul Orfalea. Interview, the National Economic Development and Law Center, 2002.

⁹⁰ Jill Elswick. *Benefitnews.com*. "In-A-Pinch Perks: More Employers Offering Back-up Child Care." July 18, 2003.

“Children have to be in child care ... in order for parents to work and go to school. Parents need someone to help keep those pretty smiles on their children's faces while they are away taking care of business.”

SolanoWORKs Participant as quoted in the Solano County WIC's Nutrition Program: Photo-Voice Slide Presentation.

The *Regional Labor Market Study, Solano County, 2002* acknowledges the importance of workforce development for economic growth. “Even in the downturn many companies indicated that it is still difficult to attract top engineering and very highly skilled labor talent. In addition there continues to be a gap of high-end/highly skilled workers (e.g. engineers, scientists and computer programming and software/hardware developers).”⁹¹

Because California recognizes the importance of child care for working parents needing training to achieve economic self-sufficiency, community colleges across the state receive government funds to support the child care needs of their students. The Children's Programs at Solano Community College serves an average of over 150 preschoolers and infants and toddlers every semester. Child care provided to students is predominately subsidized and is paid for through five grants under the Office of Child Development and one CalWORKs grant from the State's Chancellor's Office. Total grant funding equals \$684,010 per year. However, because of the budget crisis, a large portion of this funding for 2003-2004 is contingent upon appropriation and availability of sufficient funds and may be in jeopardy. The majority of the enrollment is extended to student-parents, although some faculty and staff have children enrolled in these programs.⁹²

The Children's Programs at Solano Community College serves an average of 150 preschoolers and infants every semester, enabling many parents to attend school.

Also, a study of the impact of high-quality child care programs tracked the performance of parents in addition to the children themselves. 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 high-quality program.⁹³

In Children's Network of Solano County's Children Report Card, 2002, Solano County's child care industry (ages 0 to 5) received only a “C” grade, meaning that the industry is only doing an “average” job at preparing young children for learning and succeeding in school. The report also acknowledges that there is a shortage of “quality, accessible, and affordable child care in Solano County.”

⁹¹ Sedway Group. *Regional Labor Market Study, Solano County, 2002*.

⁹² Doyleen McMurtrey, Early Childhood Education, Solano Community College. Interview, National Economic Development and Law Center (NEDLC), 2003.

⁹³ Discussion of results of *The Abecedarian Study*, as cited on www.fpg.unc.edu/~abc/.

Developing the Future Workforce

In addition to supporting working parents, child care is a crucial component of developing the future workforce. Schools and universities receive many public investments because their role in educating and preparing children for the future labor market is clear. Although recent research demonstrates the importance of 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 has not yet been well-established.

Example: In 2001, the California First 5 Commission approved a \$200 million for a School Readiness Initiative that spans across California. As a result, the Solano County Children & Families Commission was able to spend \$1.7 million dollars over four years to “improve the abilities of families, schools and communities to prepare children to enter school ready to succeed.”

High-quality child care programs improve children’s readiness to learn once they enter the public school system, but these programs are not widely available locally or nationally.⁹⁴ Consequently, many children enter school with various barriers to

learning. Polls administered in research journals about early childhood document this: 46 percent of kindergarten teachers report that half of their class or more have specific problems with entry into kindergarten (such as lack of academic skills and difficulty following directions).⁹⁵ Conversely, a number of large-scale, long-term studies document that children in high quality child care are better able to learn and thrive during traditional school-age years and into adulthood.

Children in high-quality child care are better prepared to enter kindergarten, and subsequently have more capacity to learn in the traditional education system. A study by the University of North Carolina found that children in high quality child care showed greater language development, mathematical ability, thinking and attention skills, and fewer behavioral problems in kindergarten than children in informal care settings.⁹⁶ Another well-known pre-school study, known as the Abecedarian Project, concluded that children who participated in an early intervention program delivering high-quality child care had higher cognitive test scores than their peers, from toddler years through elementary school.⁹⁷

Reducing Future Public Spending

Not only does high-quality child care better a child’s chance of success in kindergarten and elementary school, it significantly improves a child’s chance of thriving as an adult. Children in high-quality child care become more productive members of the labor force and less likely to require public spending, in both basic

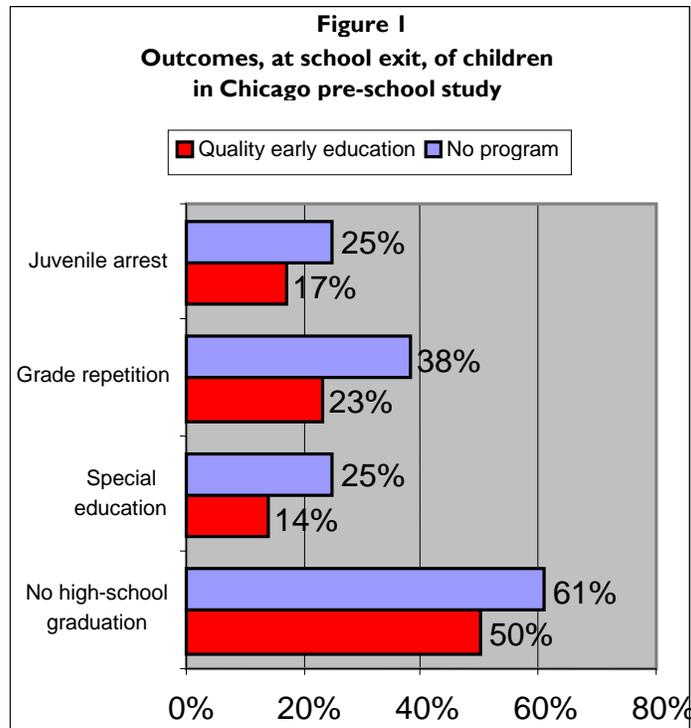
⁹⁴ The Children’s Network of Solano County. *Solano County Children’s Report Card, 2002*. This report acknowledges that there is a shortage of “quality...child care in Solano County.”

⁹⁵ S.E. Rimm-Kaufman, R.C. Pianta, and M.J. Cox, *Kindergarten Teachers Perceive Difficulties in Transitions to School*, *Early Childhood Research Quarterly*, Vol. 15, no. 2, November 2000.

⁹⁶ Ellen S. Peisner-Feinberg, et al, *The Children of the Cost, Quality and Outcomes Study Go To School*, Chapel Hill, NC: University of North Carolina, June 1999.

⁹⁷ www.fpg.unc.edu/~abc/.

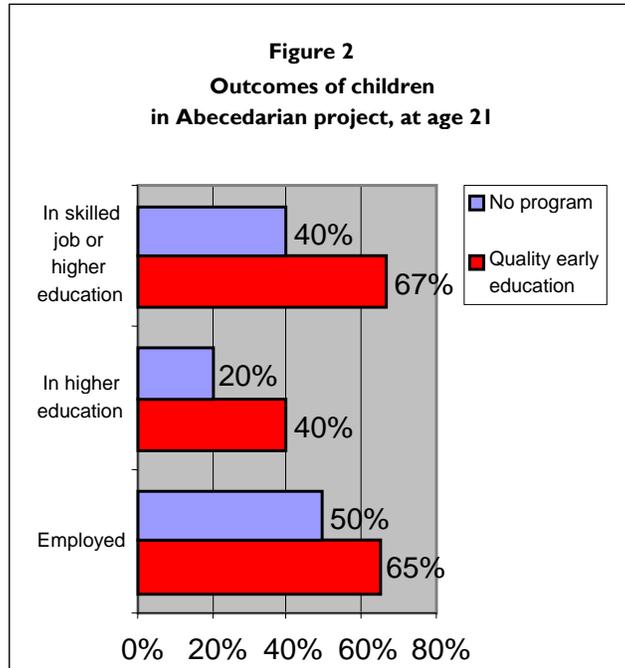
needs subsidies and in criminal justice costs. Long-term studies following children from pre-school through their adult years document the effects of high quality child care in adulthood. A study of low income children in Chicago found significant differences at the end of high school between children in a high-quality child care program and their peers who were not offered the program. The children in the program were less likely to drop out of less likely to have been in special education, less likely to have repeated a grade, and less likely to have been arrested as a juvenile (see Figure 1).⁹⁸



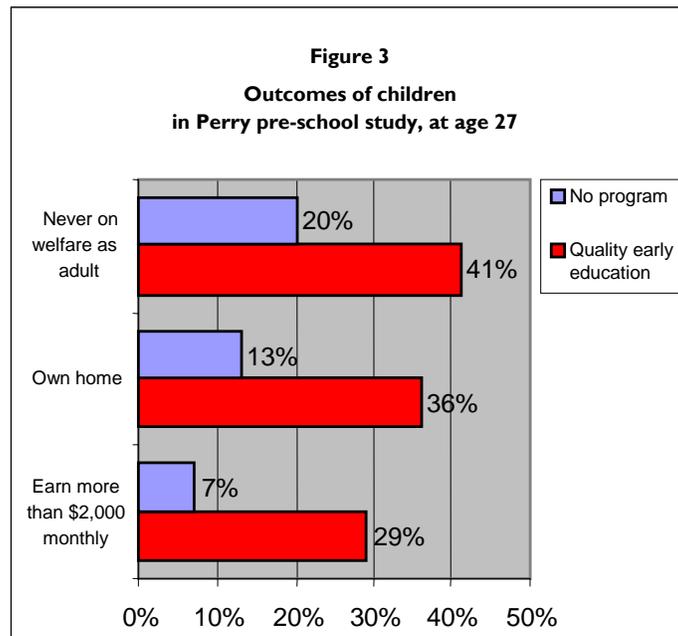
The Abecedarian Project found that children who participated in the early intervention program were more likely to attend a four-year college, and more likely to be in a high-skilled job or in higher education at age 21 (see Figure 2).⁹⁹

⁹⁸ Reynolds, A. J., Temple, J. A., Robertson, D. L., Mann, E. A. 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, pages 2239-2346. All values in Figure 1 are statistically significant.

⁹⁹ www.fpg.unc.edu/~abc/. All the values in Figure 2 are statistically significant.



Another long-term study of low-income African-American children showed similar benefits of high-quality child care on the economic well-being of the children as adults. The children in the high-quality child care project, at age 27, earned more money, were more likely to own their own home, and less likely to be on welfare than their peers who were not offered the program (see Figure 3).¹⁰⁰



¹⁰⁰ Schweinwart, L. J., Barnes, H.V., Weikart, D. P. 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. All the values in Figure 3 are statistically significant.

Cost-benefit analyses of spending on child care show, across all of these long-term studies, that there are significant future savings when money is invested on high-quality child care. With initial costs between \$7,000 and \$33,000, public savings ranged from \$48,000 to \$123,000 (see Table 2).^{101 102 103} These savings indicate that for every dollar spent on child care now, as much as seven dollars are saved in public expense in later years.

Table 2 Economic Benefits of Investing in Quality Child Care		
Study	Cost	Benefit
Chicago CPC study	\$7,000	\$48,000
Perry pre-school project	\$12,000	\$108,000
Abecedarian project	\$33,000	\$123,000

A recent study by economists at the Federal Reserve Bank in Minneapolis used the Perry High-Scope findings to estimate 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

“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

¹⁰¹ Reynolds, Arthur J., Temple, Judy A., Robertson, Dylan L., Mann, Emily A. Age 21 Cost-Benefit Analysis of the Title I Chicago Child-Parent Center Program: Executive Summary, 2001.

¹⁰² Barnett, Steven, W. Lives in the Balance: Age 27 benefit-cost analysis of the High/Scope Perry Preschool Program (monographs of the High/Scope Educational Research Foundation, 11) Ypsilanti, MI: High/Scope Press, 1996.

¹⁰³ Barnett, Steven W. Some simple economics of preschool education. Presented at the Early Childhood Municipal Leadership Academy, sponsored by the Institute for Youth, Education, and Families, National League of Cities, Alexandria, VA, April, 2002.

¹⁰⁴ Art Rolnick and Rob 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.

Child Care for School-Aged Children

After-school programs also serve as an effective crime prevention activity and save public sector dollars. Nationally, nearly 7 million children ages 6 to 14 (18 percent of the children in this age group) are home alone after-school each week during the afternoon hours when juvenile crime peaks.¹⁰⁵

In California, two percent of six to nine year olds are reported to be in self-care as their primary child care arrangement, and another four percent spend some of their time each week in self-care.¹⁰⁶ In the 10 to 12 year-old age category, one in seven are in self-care as their primary child care arrangement and one in three spend some of their week in self-care. These figures work out to be slightly lower than the national average. Self-care in older children and young adolescents is correlated with negative educational, social, and health outcomes for youth. In a 1990 study, 8th graders left home alone after-school reported greater use of cigarettes, alcohol, and marijuana than those who were in adult-supervised settings.¹⁰⁷

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

“People who are under-employed and under-paid often cannot afford school-age child care. As a result, affordable general recreation and academic after-school programs are in great need in Solano County. After-school programs that offer group activities develop needed social skills for the county’s future workforce.”

***Pelton Stewart, Executive Director
Continental of Omega Boys and Girls Club, Inc., Vallejo***

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:

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

¹⁰⁶ Kathleen Snyder and Gina Adams, *State Child Care Profile for Children With Employed Mothers: California, Assessing the New Federalism, An Urban Institute Program to Assess Changing Social Policies*, February 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. Mastrofski and Scott Keeter*. Washington, DC, November 1, 1999.

- 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
- Partnering in long-term planning that incorporates child care
- Participating in funding of low-income children in high-quality child care programs
- Supporting a stable and skilled child care workforce

These strategies 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 Solano County's economic development.

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. Providing public dollars for facilities development, in low-interest loans, grants, or matching funds support the development of facilities. Many businesses rely on debt financing to invest in long-term capital assessments and expand their operations. Although the child care industry has historically been debt-averse and the financial sector has not traditionally offered products that matched the needs of providers, 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, provide more flexible or longer payment terms, provide credit enhancement for borrowers who lack a track record in carrying and repaying debt, and provide business trainings for child care providers who are interested facilities financing.

Example: The Santa Cruz Community Credit Union tripled the size of its loan fund for child care providers over the past two years. The Credit Union now has \$150,000 in loan funds, continues operating with an extremely low default rate, and is pursuing new funding sources between \$300,000 and \$500,000.

Partnering for Long-term Planning

Government, businesses, child care advocates, and financial institutions must partner in long-term planning and strategizing to strengthen the child care infrastructure. Working with each other, businesses find appropriate solutions within the business community to address their employee's specific needs, and child care stakeholders outside of the business community help 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 highlights a business' commitment to work-family issues, and brings new voices to the table to ensure high-quality sustainable child care in Solano County.

Example: In Vallejo, economic development planners and child care planners partnered in an affordable housing/community development project called Sereno Village. Thanks to early planning that included child care leaders, the housing complex includes on-site child care and a community center, where community college courses will be offered in the fall of 2003. Currently, the child care center located at Sereno Village serves 32 school-age children, 16 to 24 full time preschoolers, and 24 part-day preschoolers.

Funding Participation of Low-income Children in 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 is not yet 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 as many young low-income children in Solano County as possible. Also it is important to educate parents about the elements of quality programs and the potential benefits for their children.

Supporting a Stable and Skilled Child Care Workforce

A stable and skilled child care workforce is critical to industry stability and sustained program quality. The issue of workforce development within the child care industry is closely related to the task of reframing child care as a key component to economic development. High rates of staff turnover lower program quality and negatively affect the development of the children that the programs serve. Staff salaries and retention are excellent predictors of staff education, which in turn predicts the quality of classroom interactions.¹⁰⁹

In the *2001 Solano County Child Care Wage & Benefits Survey*, directors of child care centers and large family child care homes reported that:

- Approximately, 65 percent of child care center staff that work with children earn less than \$25,000 per year, while 86 percent of family child care assistants earn less than \$17,000 per year.
- 32 percent of child care centers do not offer benefits of any kind to their staff.
- Child care centers in the county experienced 25 percent turnover in teachers.
- Family child care homes experienced 27 percent turnover in their assistants.

¹⁰⁹ 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>.

- Leaving the child care field (23 percent of respondents) and finding a job with higher wages (15 percent) were two main reasons that child care workers leave their jobs in Solano County.¹¹⁰

Child care providers typically have tight budgets and 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.

Child care professionals who have extensive training in child development and early education may have little business training. Providing technical assistance about the business aspects of operating a child care facility will reduce turnover within the industry. Entities such as Small Business Development Centers (SBDC's) provide various small businesses with assistance in financial and business planning, marketing and management. SBDC's should assist the child care industry, particularly when the centers have expertise in child care business issues. Educating providers on business skills is critical to ensuring that child care facilities stay open.

Staffing shortages and rapid turnover reduce the quality of many programs and minimize the positive effects that Solano'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 Solano C.A.R.E.S. Initiative (Compensation and Retention Encourage Stability), funded by First 5 Solano Children & Families Commission, First 5 California Children and Families Commission, and the California Department of Education, offers financial incentives to family child care providers and child care center-based staff who meet certain education and training qualifications, commit to continuing their professional development, and agree to provide child care services for a specified period of time.**

Conclusion

Child care, like other economic infrastructures, builds the local economy and improves the quality of life in the county. Investing in child care saves businesses money through increased participation in the workforce by parents, increased productivity at work, and increased human capital through the reduction of turnover. Investing in child care saves government money by reducing costs in the traditional education system, welfare, and both the juvenile and adult criminal justice systems. Reducing crime, school failure, and future welfare participation maintains a high quality of life and standard of living in Solano County.

¹¹⁰ International Child Resource Institute. *Profile of Solano County Child Care Workforce Salaries, Benefits and Turnover Rates, October 2002.*

Section 5

Conclusion: Strategies & Recommendations

Conclusion

Solano County's child care industry is critical to its overall economic vitality and quality of life. The licensed child care industry directly supports an estimated 2,501 local jobs directly and generates roughly \$87.2 million dollars per year in gross receipts. Annually, \$37.2 million is brought into the county through federal and state subsidies for licensed and license-exempt care for low-income families.

The child care industry helps sustain the county's growing workforce by enabling parents to enter the workforce or return to it sooner. In total, working parents using licensed child care in Solano County earned an estimated \$259.5 million in 2002. In addition, stable, quality child care improves worker productivity and expands the ability of parents to advance in their careers and earnings.

High-quality early child care and education increases school readiness and enables the development of the future workforce. Investing in early care and education improves the success of children in the traditional K-12 public education system, raises test scores and high-school graduation rates, and lowers grade repetition and special education needs. Every dollar spent on quality care and education for low income children saves as much as seven dollars in future public spending.

Solano County's economic and demographic profile indicates that there is an increasing need for affordable, accessible, quality child care across the county. On its own, the child care industry is unable to expand at a rate adequate to meet the growing need for child care services. Without local long-term planning using a collaboration of stakeholders to address barriers to child care affordability, sustainability, and supply-building, the Solano County child care industry and the county economy as a whole will not grow as quickly as possible in the next few years.

Local Constraints on Child Care in Solano County

- The private sector, government, and local community leaders are not as actively engaged as they could be in helping families afford quality child care and in creating enough child care to support economic growth.
- Child care is becoming increasingly less affordable in relation to the cost of living in Solano County. Escalating housing costs consume a more disproportionate share of the household income of low- and moderate-income families.
- Child care centers and family child care homes struggle to attract and retain qualified staff. The availability of quality child care is directly related to child care workforce retention and development. Investments in improving the skills and increasing the wages of the child care sector is needed to ensure that all children enter kindergarten ready to learn.

Recommendations

Child care is part of the economic infrastructure of Solano County and needs to be incorporated into both short- and long-term economic development planning. Financial institutions, businesses, government leaders, and those working directly in the child care industry must work together to ensure that the needs of Solano County's families are met.

A collaborative partnership should be formed between business leaders, government leaders, financial institutions, child care leaders, and other nontraditional stakeholders to ensure that Solano County's child care infrastructure is meeting the needs of working parents and their children.

What Businesses Can Do to Support Child Care

- Work with local elected officials and Chambers of Commerce to get child care issues on the policy agenda.
- Create flexible personnel policies and provide sick/personal leave to meet child care needs.
- Partner with dependent care resource and referral agencies.
- Provide employees 24-hour on-line access to local provider data
- Offer dependent care financial assistance by creating a dependent care pre-tax account or a child care voucher program.
- Develop a network of child care providers for employees or contract for on or near-site child care
- Offer technical assistance and business skills training to child care providers.
- Become a partner in long-term planning and strategizing about strengthening the child care infrastructure.
- Help create innovative public/private partnerships to purchase property, develop facilities, and/or strengthen existing child care enterprises.

What Financial Institutions Can Do to Support Child Care

- Develop loan products, such as micro-loans or low-interest loan programs, with alternative payment structures for child care businesses.
- Provide business plan, marketing, and loan application assistance.

What Government Can Do to Support Child Care

- Incorporate language that supports child care development into the General Plan of the county and every city.

- Develop strategies for sustained funding that provide workforce development for child care professionals, including recruitment, training, and compensation.
- Identify and secure suitable land for the development of new facilities or expansion of existing ones. Find vacant buildings and develop a non-profit child care business.
- Develop strategies to make child care affordable for low-income families in Solano County.
- Integrate child care into transportation planning.
- Work with child care leaders to develop incentive programs that encourage providers to care for infants.
- Provide incentives for businesses adopting family friendly benefits for their employees.
- Assist lending institutions that are providing low interest loans and/or micro loans to child care providers. Local government can match micro loans or provide loan guarantees to banks working with child care providers.

How the Child Care Industry Can Be More Effective

- Recognize that the child care industry is an economic force in Solano County.
- Work with businesses and financial institutions to provide business skills and facilities finance technical assistance to child care providers and employees.
- Prioritize the development of accessible child care programs that serve different ages of children.
- Educate parents and providers about the aspects of high-quality child care so parents can identify quality child care and providers can enhance the quality of care that they are already supplying.

Appendix A**Average Annual Cost of Child Care, By Age & Type of Care**

Average annual child care costs for licensed child care providers in this report were derived from the *Regional Market Rate Survey for California Child Providers, 2002*. Hourly, daily, weekly and monthly averages were combined and weighted to estimate one annual average for each age group (infants, preschoolers, school-age children), each type of care (child care centers or family child care homes), and length of care (full- or part-time; see Table I).

Table I Average Annual Cost, By Age, Time & Type of Care, Solano County, 2002	
Type	Average Annual Cost/Child
Family Child Care Homes Full-Time Infant	\$6,782
Family Child Care Homes Full-Time Preschool	\$6,290
Family Child Care Homes Full-Time School-age	\$5,909
Family Child Care Homes Part-Time Infant	\$4,024
Family Child Care Homes Part-Time Preschool	\$3,789
Family Child Care Homes Part-Time School-age	\$4,016
Child Care Centers Full-Time Infant	\$9,698
Child Care Centers Full-Time Preschool	\$6,666
Child Care Centers Full-Time School-age	\$6,051
Child Care Centers Part-Time Infant	\$5,287
Child Care Centers Part-Time Preschool	\$3,525
Child Care Centers Part-Time School-age	\$4,273

The Self-Sufficiency Standard measures how much income is needed, for a family of a given composition in a given place to adequately meet its basic needs—without public assistance (please see Table 2 for Solano County’s Self Sufficiency Standard).¹¹¹

¹¹¹ Wider Opportunities for Women. *The Self-Sufficiency Standard for California*. The self-sufficiency standard is the minimum wage needed to cover basic costs of housing, food, transportation, health care, and child care in the local area.

**Table 2
The Self Sufficiency Standard for Solano County, CA, 2000**

Monthly Costs	Adult	Adult + Infant	Adult + Preschooler	Adult + Infant + Preschooler	Adult + Schoolager + Teenager	Adult + Infant + Preschooler + Schoolager	2 Adults + Infant + Preschooler	2 Adults + Pre-schooler + Schoolager
Housing	\$659	\$804	\$804	\$804	\$804	\$1,116	\$804	\$804
Child Care	\$0	\$591	\$502	\$1,093	\$413	\$1,506	\$1,093	\$915
Food	\$164	\$241	\$249	\$325	\$429	\$437	\$466	\$511
Transportation	\$203	\$209	\$209	\$209	\$209	\$209	\$395	\$395
Health Care	\$102	\$257	\$234	\$280	\$285	\$303	\$339	\$316
Miscellaneous	\$113	\$210	\$200	\$271	\$214	\$357	\$310	\$294
Taxes	\$278	\$485	\$442	\$640	\$412	\$1,055	\$725	\$655
Earned Income Tax Credit (-)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Child Care Tax Credit (-)	\$0	\$-40	\$-40	\$-80	\$-40	\$-80	\$-80	\$-80
Child Care Tax Credit (-)	\$0	\$-42	\$-42	\$-83	\$-83	\$-125	\$-125	\$-83
Self-Sufficiency Wage								
Hourly	\$8.62	\$15.42	\$14.53	\$19.64	\$15.01	\$27.14	\$11.27	\$10.59
Monthly	\$1,518	\$2,715	\$2,558	\$3,457	\$2,642	\$4,777	\$3,967	\$3,726
Annually	\$18,216	\$32,576	\$30,695	\$41,487	\$31,707	\$57,324	\$47,608	\$44,713
							Per Adult	Per Adult

Appendix B

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 Solano Family and Children's Services, Solano County's resource and referral agency (R&R). Each regional R&R is required by California law to maintain a database containing licensed child care capacity, average costs, vacancies, and enrollment. For this report, enrollment and capacity were derived from a June 2003 of child care providers conducted by the R&R. Information on cost was derived from a survey conducted by the California Child Care Resource and Referral Network, entitled *Regional Market Rate Survey for California Child Care Providers, 2002*.

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. Therefore, we have not included their economic impact in our analysis. Adding informal, legally unlicensed care run by school districts would significantly increase gross receipts and direct employment figures.

Gross Receipts:

Family Child Care Homes, Child Care Centers, and Travis Air Force Base Family Child Care Homes

Gross receipts estimates for family child care homes, child care centers, and Travis Air Force Base family child care homes are based on one simple calculation:

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

Enrollment

Enrollment numbers for family child care homes and child care centers are derived from the countywide resource and referral database which tracks enrollment in licensed child care centers and licensed family child care homes 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. Enrollment for Travis Air Force Base family child care homes was taken from a survey conducted by the base in 2003.

Average/Cost/Child/Year

In order to calculate the average yearly rate for each type of care and each age group we relied on *Regional Market Rate Survey for California Child Care Providers, 2002* from the California Child Care Resource and Referral Network. The survey reports full- and

part-time hourly, daily, weekly, and monthly rates for each county. A yearly average was taken from these rates and used in the gross receipts calculations. For a table of average annual child care rates used to calculate gross receipts, please see Appendix A.

Gross Receipts:

Travis Air Force Base Child Development Centers, State-subsidized Child Development Centers & Head Start Programs

Gross receipts estimates for Travis Air Force Base child development centers and Head Start programs, and state-subsidized child development centers were derived by using total programmatic and administrative budgets for fiscal year 2001-2002 for each program.¹¹²

Direct Employment in Licensed Child Care

Family Child Care Homes

Family Child Care Homes licensed for (6-8) = 1 FTE Employee
 Family Child Care Homes licensed for (12-14) = 2 FTE Employees

Travis Air Force Base Family Child Care Homes

Family Child Care Home = 1 FTE Employee

Child Care Centers & State-subsidized Child Development Centers

These figures are calculated based on the number and ages of children for which a center is licensed, and the state-required ratio of staff to children under that license. In general, younger children require a lower staff-to-child ratio, so a center that cares for 12 infants will require 3-4 adults to care for those infants, whereas a center that cares for 12 school-aged children will require only one adult to care for those children.

1. Center-based infant care:

Accredited or Title V (subsidized) = (1 employee for every 3 children) x (FTE for staff)
 Title 22 (non-subsidized) = (1 employee for every 4 children) x (FTE for staff)

2. Center-based preschool care:

Title V (subsidized) = (1 employee for every 8 children) x (FTE for staff)
 Title 22 (non-subsidized) = (1 employee for every 12 children) x (FTE for staff)

3. Center-based school age care

Title V (subsidized) = (1 employee for every 14 children) x (FTE for staff)
 Title 22 (non-subsidized) = (1 employee for every 14 children) x (FTE for staff)

Head Start Programs & Travis Air Force Base Child Development Centers

These direct employment estimates were derived by directly interviewing the director of each program. Staff working less than 40 hours per work was considered part-time, and staff working more than 40 hours per week was considered full-time.

¹¹² Budgets for Amy Blanc State Pre-school and all California CDCs in Dixon were taken from fiscal year 2002-2003.

Non-Teaching Staff (Child Care Centers & State-subsidized Child Development Centers)

Custodians/Cooks/Receptionists: Many centers fill these positions with teaching staff. Larger centers tend to have separate employees in these roles. Counties are the best judges of the general practices in their area. The following are suggested guidelines counties can utilize to maintain consistent estimates. Each slot except “Family Worker” can be considered full time.

Custodians: Typical practice is to have one custodian for every center over 80 children. Therefore, the formula is: **# of centers with slots for more than 80 children = # of custodians**

Cooks: Typical practice is that state- funded centers and larger centers have cooks: **# of state-funded centers + number of non-state funded centers with over 80 children = # of cooks**

Receptionists: Typical practice is to have one receptionist for every center over 80 children: **# of centers with slots for more than 80 children = # of receptionists**

Non-teaching supervisory staff (directors): Typical practice is to have one director for every 80 children: **# of licensed slots / 80 = # of supervisory staff**

Family workers: Typical practice is that they are employed part-time (average 50% time) at state- funded centers: **# of state-funded centers / 2 = # of family workers**

Administrative (off site): Typical practice is for larger centers to have off-site as well as on-site administrators: **# of centers with slots for over 80 children = # of administrators**

Appendix C

IMPLAN Input-Output Model

Many informed observers of regional economic analysis quantify the indirect and induced effects of an industry on the economy when assessing the economic impact of that industry. As such, this report includes these analyses in this appendix.

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 Solano County 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 report, 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 goods and services consumed by households with direct and indirect income support from an industry. 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.

Based on a direct employment estimate of 2,501 jobs in licensed child care, 597 full-time equivalent (FTE) indirect jobs are sustained by licensed child care. For example, these

include jobs in real estate (20 jobs), accounting and book keeping (11 jobs), and maintenance and repair services (27 jobs).

Based on a direct employment estimate of 2,501 jobs in licensed child care, an additional 378 FTE induced jobs are sustained by the licensed child care industry. These include jobs in health care (55 jobs) and restaurants and bars (50 jobs).