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# Child Care, Parents, and Work: The Economic Role of Child Care in Iowa



**A study conducted by:**

Kathlene Larson, M.S.  
Georgeanne Artz, M.S.  
Susan Hegland, Ph.D.  
Yemisi Kuku, M.S.  
Daniel Otto, Ph.D.

IOWA STATE UNIVERSITY  
University Extension



CENTER FOR FAMILY POLICY

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## EXECUTIVE SUMMARY

Iowa communities rely on businesses to provide resources that support community life. Businesses rely on workers to carry out the day-to-day activities of doing business. These workers include parents with children. Parents with children rely on community child care businesses, extended family, and friends to care for their children while they work. Children need high quality early learning experiences that enable them to take advantage of school and other learning opportunities and equip them to be productive workers for their community in the future. Communities, businesses, employees, parents, and children form an interdependent framework, which supports economic vitality in Iowa. *Child Care, Parents, & Work* addresses this interdependent framework by providing information on the contributions of Iowa child care businesses to community and state economic vitality and the relationship between all business, child care, parents, and children.

Investing in child care results in additional benefits to the Iowa economy. The Iowa child care industry generates 17,290 direct jobs in child care and an additional 1,486 jobs in industries that supply child care businesses. The child care sector generates \$402.5 million in direct effects to the Iowa economy. Indirect effects are realized at \$144.4 million, while \$121.9 million in induced effects are generated for a total output of \$668.8 million. In other words, every dollar invested by state and local governments and parents yields an additional 66 cents in the Iowa economy. Investing in Iowa child care makes good business sense.

Benefits of such an investment, however, go beyond immediate dollars and cents. Based on a representative sample of Iowa households with children (Iowa Family Survey), this study indicates that parents are struggling to find quality child care for their children and to fit the cost of care into the family budget. While many parents report they would not allow their children to be cared for by anyone outside their family, most parents rely on non-family arrangements. Indeed, we estimate that, of the nearly 517,000 children in Iowa between the ages of birth and 12 years, approximately 67% are in some type of child care while their parents work.

Parents must work and they need quality care for their children while they work. Parents of Iowa infants, toddlers, and preschoolers report that fathers in the household work, on average, more than 40 hours per week while mothers work more than 25 hours. The majority of these parents say that they need child care that is flexible and nearly half indicate that they would have to stop working if paid child care were not available.

In households where the youngest child is between the ages of 5 and 12 years, nearly 80% of parent respondents are in the workforce and many rely on before/after school and summer care for their children to accommodate their work schedules. One of every 3 of these parents says they use child care. Most indicate that their spouse and other relatives assist in providing care. Fathers in these households work, on average, more than 40 hours per week, while mothers work over 30 hours per week.

This report examines child care usage patterns for the two types of families mentioned above: households with a youngest child under 5 years of age and households with a youngest child aged 5 to 12 years. The age groupings were selected based on a need to differentiate between care for infants/toddlers/preschoolers and care for children in elementary or middle school.

Parents of children under 5 years use the same criteria used by professionals when assessing the quality of child care. They look at safety factors, such as cleanliness and location. Parents look for a care environment that encourages learning in their children and where provider and child interaction is regular and encourages the child's desire to learn. However, parents of school-age children differ somewhat in the criteria they use to select child care. One of the most important factors for these parents is that the provider is located in the same school district as their home. A sizable portion of these parents also indicate that their child's school was either the source of referral for their current provider or is currently the provider of child care services.

Parents of younger children use family and friends as the source for referrals to a provider. A small portion of parents in both age groups recall that they used community sources, such as Child Care Resource and Referral, to locate a provider.

Parents with a youngest child under 5 years pay, on average, \$104.52 per week for child care for an average of 1.59 children. One of every 20 parent respondents indicates that they receive financial assistance from a government or social service agency to help cover child care costs. Lower income parents in both age groups pay lower amounts for child care. However, while these amounts are lower, they also represent a higher percentage of the total financial resources in the family budget. Lower income parents are also more likely than higher income parents to use more than one provider in order to maintain coverage while they work. These parents paying a higher percentage of income for care are also less likely to have eaten a meal, read a book, or played a math game with their youngest child in the previous 24 hour period.

When a parent changes the child care provider, either due to parent dissatisfaction or unavailability of the provider, parents must spend time searching for new care arrangements. This search can take from 2 to 4 weeks, depending on the age of the child. In addition, parents living in rural areas are significantly more likely than parents living in non-rural areas to disagree that good choices for child care are available in their community.

The majority of parents who changed child care providers of their own volition report that they changed because of the (less than) "caring nature of the provider." Further, families

living at or below 200% of the poverty level and younger parents are more likely to say they changed for this reason than older parents and parents with higher levels of household income. Another common reason for a changing a provider is that the provider no longer offers child care – also known as provider turnover. This information is consistent with other studies, which have found high turnover rates among child care providers.

Parents in this representative sample disagree on the purpose of Iowa’s child care regulatory system. Some parents report they only use center-based child care in order to ensure the safety and quality of the child’s care experience. These parents believe that center-based care assures them of trained staff, planned activities, safety, and adequate supervision for their children. Other parents believe that only family child care (care provided in a provider’s home) is adequate. Still other parents express frustration with the current registration process for family care due to the perceived lack of monitoring for this type of child care business.

Findings in Child Care, Parents, & Work point to the significance of child care cost for families and the child care industry. Nearly half of parents with a youngest child under 5 years do not agree that child care in their community is affordable. Yet, reports from child care directors and family child care providers point to the delicate balance the child care industry is currently facing as it attempts to maintain and improve the quality of care, while meeting parents’ demands for cost of care that fits the household budget.

In addition to impacting parent productivity and the quality of Iowa’s future workforce, communities and businesses looking to immediately increase the Iowa workforce will need to consider the impact of relocating families who may rely on a strong network of local friends, family, and neighbors for child care. Moving to a new community will generate a reliance on regulation and enforcement of child care providers to ensure quality learning settings. Parents who must spend time looking for new arrangements or coping with and replacing unsatisfactory arrangements are likely to be less productive in the workplace and less effective at fostering a home environment that encourages a quality workforce in the future.

Child Care, Parents, & Work is available at [www.extension.iastate.edu/cd-dial](http://www.extension.iastate.edu/cd-dial) in an Adobe Acrobat Reader file.



## **CHILD CARE, PARENTS & WORK: THE ECONOMIC ROLE OF CHILD CARE IN IOWA**

Iowa families are experiencing an urgent need for quality child care. The rate for workforce participation by mothers of Iowa preschool children more than doubled between 1970 and 1998 (Bruner, Marmaras, & Copeman, 2002). Analysis of Census 2000 data indicates that, at the end of the 1990s, Iowa ranked third in the nation for the percentage of children under the age of six (71.4%) with all parents working (U.S. Census Bureau, 2000). Only North Dakota (72.6%) and South Dakota (73%) ranked higher. More recent estimates have placed Iowa as high as first place in the nation for this statistic. In addition, shifts in the types of Iowa families have resulted in an increased number of single parent families, especially father-headed single parent families (the number of father-headed single parent families in Iowa increased 75% between 1990 and 2000). Single parent families are especially dependent on quality child care as they work to provide financial, physical, and emotional support for the children in their custody.

In the midst of this increasing public demand for accessible and affordable child care for all families, the Iowa child care industry has struggled to improve the quality of services offered. Since 2000, three task forces appointed by Iowa Governor Thomas Vilsack have called for improvements in child care. Both the Governor's 21<sup>st</sup> Century Workforce and the Governor's Iowa 2010 Strategic Planning Group recommended that child care improvement is an essential precondition of economic growth and development in the state (Bruner, et al. 2002). Members of the Iowa Governor's Child Care and Early Education Task Force concluded that the state of Iowa needs high quality child care programs that combine early learning experiences and care (Iowa Governor's Child Care and Early Education Task Force, 2000).

National studies indicate that, while the public generally believes that the optimal care arrangement for children is a stay-at-home parent, in reality this is no longer an option for the majority of U.S. families. Dependence on a privately paid system of care has resulted in low wages, low quality of care, and high staff turnover (Smith & Ribeiro, 2004) in an industry that provides care to children who must have stable and high quality relationships in order to thrive. Recent brain research shows that the quality of the early care and education experience for children younger than 6 years is crucial, since these early years are the years of fastest learning in an individual's life (Lakoff & Grady, 1998.) Providing high quality, stable relationships during a child's early years comes with the additional benefit of a high quality future workforce for a community's employers. The Perry Preschool study demonstrated that society receives a \$7.00 return for every dollar invested in early childhood programming (Warner, Ribeiro, & Smith, 2003). Further, Steven Barnett, Professor of Education, Rutgers

University, has suggested that the national cost of failing to provide quality early education, including child care, could be as high as \$400 billion (1995).

Since the economic downturn that began in 2000, Iowa policymakers at both local and state levels have worked to design and implement economic development strategies. State and local entities have especially sought to develop programs that attract 1) businesses to Iowa, promoting the state's quality workforce, and 2) residents to Iowa, touting the state's quality of life. These policies typically assume that Iowa communities have access to high quality child care services to support parents who will provide the growing workforce needed to support economic development.

Studies examining the economic impact of the child care industry recently completed in other states (for example, Minnesota, Kansas, New York, and North Carolina) recommend that public policymakers view child care as an important strategy in their economic development planning process - a strategy that provides both short term and long term economic benefits. In the past, Iowa policy makers have faced significant challenges in understanding how the addition of resources to support the state's child care industry would potentially impact the state's economic growth. Information typically used in other states' studies has not been readily available in Iowa. Recently, however, cross-sectional data from surveys of the child care workforce and Iowa parents have become available and have provided the basis for the Iowa analysis reported here.

### **Child care in the Iowa economy**

Child care plays three distinct yet inter-related roles in the Iowa economy. Child care affects the productivity of parents in the workforce. Child care also affects the development of the next generation of the workforce. Finally, child care, as an industry, affects the economy of the state as a consumer of goods related to care and an income-generating, tax-paying service industry.

**Table 1. Iowa's child care industry impacts**

1. Productivity of parents who work
2. Development of Iowa's next generation of workers
3. Iowa's economy as a consumer of goods and income-generating, tax-paying industry.

Child care directly affects the productivity of parents in the workforce. A short supply of child care may lengthen the time parents are out of the workforce seeking care. Poor quality child care may influence parents' decision to work at all. Poor quality child care may also pull parents out of the workforce, while they seek a higher quality of care. Further, poor quality child care may foster the spread of contagious diseases that

require the parent to spend more time at home caring for a sick child. Care that is too expensive may influence a parent to drop out of the job market, while care that is not in a convenient location or at the times needed by the parent may influence the parent to change positions or leave a job. Child care that is too expensive may also influence parents in dual-

income households to stagger their work and sleep shifts to reduce child care costs. This latter arrangement may increase the stress level under which parents live and work.

Child care influences the development of the next generation of workers. Parents' child-rearing values influence their selection of a child care provider, as they choose a provider who they believe will help their children develop the skills and understanding required of adult citizens in the workforce. Although most parents express satisfaction with their current child care provider, when asked why they left the previous child care provider, they frequently cite provider characteristics incompatible with their child-rearing values. In addition, child care that is inaccessible, due to cost, hours, or distance, may influence the parents to share more child care responsibilities. However, this sharing may increase parental stress levels and limit parents' ability to be responsive to their child's developmental needs.

**Table 2. Research questions**

1. How many children in Iowa are in child care? What types of care are most frequently or least often used?
2. What criteria do parents use when they select child care? In parents' minds, how valuable are current regulations and monitoring of early care and education programs?
3. What do parents pay for child care? Do parents in low-income households pay less for care than households with higher incomes?
4. What impact does the child care industry have on parents' ability to work?
5. What are the total revenues of the Iowa child care industry?
6. How do child care businesses impact the Iowa economy ...
  - a. Directly through their day-to-day operations such as purchase of supplies, food, payment of taxes, and salaries to employees?
  - b. Indirectly when business owners and staff in centers use profits and salaries to purchase other goods and services?

Finally, child care acts as a service industry. As such, child care contributes to the total output of services, and the consumption of goods within the state. Child care businesses provide salaries for workers who, in turn, consume a variety of goods and pay sales, property, and income taxes.

Research questions that guided our analyses are illustrated in Table 2. To varying

extents, this study examines all three ways in which the child care industry plays a role in Iowa. Data used for the study is from a representative survey<sup>1</sup>, which examines parent perceptions of the impact of child care problems on various decisions about their work life, child care arrangements, parental involvement with their children, and household stress. Availability, accessibility, and affordability of quality child care in addition to household stress levels and parent/child interaction are used to study the effect of child care on the state's next generation of workers.

Finally, financial reports from representative samples of child care providers and salary levels are used to show how the child care industry generates additional state tax revenues, demand for goods and services, and additional employment in Iowa. In addition, we offer estimates for the size of the current child care workforce and the number of children in various types of child care arrangements.

Our report begins with two sections that describe child care usage patterns in Iowa households. The first section looks at child care use in households where the youngest child is less than 5 years of age. The second section examines child care use for children ages 5 through 12 years, when most are attending elementary or middle school. The age groupings were selected based on a need to differentiate between care for children in elementary/middle schools and care for infants, toddlers, and preschoolers. Data for analyses in these two sections are from the Iowa Family Survey (2004) (See Appendix B for more information). Next, modeling software and results of recent surveys of child care providers (Iowa Child Care Directors Survey, 2005; Iowa Family Child Care Providers' Survey, 2002), we examine the role of the child care industry on the Iowa economy. Our report concludes with a discussion of the implications of this research for the public policy process. Additional information on the modeling software and databases used for this research is available in the report appendices.

In Iowa, the child care industry is composed of regulated and unregulated providers and provides care in a variety of settings including child care centers, stand alone preschools, preschools with "wrap around child care" and family child care homes. Child care centers and preschools caring for seven or more children must be licensed by the Iowa Department of Human Services (DHS). Child care centers and preschools operated or contracted for operation by the board of directors of a public or non-public accredited school located on school property can be licensed by DHS or meet the state Board of Education guidelines.

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<sup>1</sup> Results of the Iowa Family Survey may be interpreted at a confidence level of 95% (+/- 5%)

**Table 3. Terms and definitions**

<b>Term</b>	<b>Definition</b>
Child care	Any paid or unpaid care provided for children while one or both parents work or go to school.
Family child care	Child care offered in a provider's home. May be of two types: registered (with Iowa Department of Human Services) or non-registered.
Child care centers	Child care offered in a center. Center may be privately funded through parent fees, publicly funded through grants and federal/state funds (for example, Head Start, Shared Visions), or a combination of both.
Child care subsidies	Funding provided for qualified children to pay for child care services. Fees are paid directly to the child care provider (can be a center, registered family provider, or non-registered family provider.)
Regulated child care	Care provided by a center licensed by the Iowa Department of Human Services or Iowa Department of Education. Also, care provided by a family child care provider, who is registered with the Iowa Department of Human Services.
Informal child care	Child care provided by family, friends, or neighbors. May be paid or unpaid. May also be regulated or non-regulated. This is the most difficult type of care to track and monitor since payment is often at a reduced rate or does not occur. Because of this difficulty in tracking and monitoring, we know the least about the quality of this type of care.
Parent worker productivity	The output of parents who work, captured as work attendance and the ability to focus on work and perform work effectively while in the workplace.

Family providers who care for six or more children must be registered with DHS, while providers caring for less than six children may voluntarily register. Non-registered child care family providers may participate in the Child Care Assistance program (receive payment for children on subsidized care), providing they meet minimum health and safety standards. In Table 3, terminology and definitions are provided as a guide to understanding terms used in this report.

*Child Care, Parents & Work* was written and compiled by a team of faculty and staff at Iowa State University. We express appreciation for guidance and assistance from representatives of the Iowa Department of Human Services, Iowa Department of Education, the Iowa Child Care and Early Education Network, and the Iowa Child and Family Policy Center<sup>2</sup>. “Child Care, Parents & Work” provides important information for parents, members of the child care industry, human service agencies that work with parents and child care providers, and public policy makers as they search for an understanding of the relationship between the child care industry and the Iowa economy and search for ways to enhance the quality, affordability, and availability of child care for the state’s children.

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## CHILD CARE USE IN HOUSEHOLDS WITH YOUNGEST CHILD UNDER 5 YEARS

The Iowa Family Survey (See Appendix B for a description of this database) collected responses from 631 households with children under the age of 18 years. In this section of the report, we describe child care usage patterns for families whose youngest child is under five years of age ( $n = 278$ ).



We also examine perceptions of community child care resources, how parents identify quality child care, and parents' report of the impact of child care on their work choices. These data suggest that location of the household, cost of care, and household income play a substantial role in parents' child care needs.

### Demographics

A total of 278 parents with the youngest child below five years of age responded to the Iowa Family Survey; 53% ( $n = 148$ ) of the respondents were female. The average respondent is 32.35 years old ( $SD = 5.83$ ) and the percentage of two-parent families is 85.5% ( $n = 236$ ). A total of 88.2% ( $n = 246$ ) of these parents agree with the statement that "I have someone I can share home and child care responsibilities with."

These families earn an average of \$62,356 dollars in calendar 2003 ( $SD = \$35,030$ ) from all sources. On average, the respondent reports that the mother in the household works up to 80 hours each week, with an average of 28.51 hours per week ( $SD = 17.70$ ) while the father in the household also works up to 80 hours each week, with an average of 44.92 ( $SD = 11.76$ ) hours per week. A total of 58.3% ( $n = 161$ ) of the respondents have completed at least a two-year college degree; 261 respondents (96.7%) report that their ethnicity is white or Caucasian.

Only 9.8% ( $n = 27$ ) of parents with children under five years of age report that they are full-time homemakers; in contrast, 72.1% of parents ( $n = 199$ ) indicate that they are employed full-time. Their children spend up to 50 hours each week ( $M = 27.15$ ,  $SD = 15.23$ ) in preschool or child care (median = 10). As seen in Table 4, the number of hours each week is unrelated to the age of the youngest child; mothers of infants work an average of 26 hours per week while mothers of four-year-olds work an average of 31 hours each week. Similarly, fathers of infants work an average of 45 hours per week while fathers of four-year-olds work an average nearly 45 hours each week.

**Table 4. Hours worked each week by mothers and fathers of children from infancy to 4 years of age**

Child's Age	Mothers' Work Hours			Fathers' Work Hours		
	M	SD	n	M	SD	n
Infants	25.97	20.63	59	45.17	14.20	60
1	29.85	18.45	47	43.53	11.53	49
2	26.81	17.41	57	45.29	8.73	58
3	30.13	15.98	53	45.55	10.48	47
4	31.08	14.42	38	44.97	13.80	35

### Child Care Beliefs

Of 278 parents with children under five, 83.2% ( $n = 228$ ) agree that child care is available in their community. A total of 182 (78.1%) rate the quality of child care in their community as good. However, 46.9% ( $n = 112$ ) disagree with the statement that child care in their community is affordable, while 39.4% ( $n = 69$ ) disagree with the statement that child care is adequately regulated in their community.

Parents of children under five years say they believe that a child could stay home without a care provider before and after school at an average of 11.4 years ( $SD = 1.9$ ), in the evening at 12.5 years ( $SD = 1.7$ ), and on summertime days at 13.0 years of age ( $SD = 1.6$ ).

Examining sources of child care in their own community, only 57.8% ( $n = 119$ ) report that they have a relative who could provide child care while the parent is working, living within a 30-minute drive from their home. However, over 90% of parents respond that both a family child care provider (94.8%,  $n = 183$ ) and a child care center (97.9%,  $n = 190$ ) are available within a 30-minute drive from their home.

### Challenges Reconciling Work and Child Care

Over 20% ( $n = 58$ ) of parents indicate that child care problems impact their decision to work outside the home, while 20.2% ( $n = 56$ ) say that child care problems impact the number of hours worked outside the home. Only 12% ( $n = 33$ ) believe that child care problems impact the type of work they chose; however, 44.2% ( $n = 87$ ) report that if paid child care were unavailable, they would have to stop working.

Parents were asked to rate the importance of several different goals for the youngest child's care experience. Over 85% of these parents rate social, nutrition, and communication as the highest priorities. However, the majority of all parents assign a rating of very important for each of the seven goals. Table 5 lists the importance of each goal as rated by the parents with children less than five years of age.

**Table 5. Importance of goals in child care experience for children under 5 years of age (n = 211)**

Goal	%	N
Learning to get along with others	89.5	187
Having quality meals and snacks	87.7	185
Learning to communicate needs, wants, and thoughts	86.2	181
Learning to be self-confident	83.4	176
Having opportunities for physical activity	80.2	169
Learning letters of alphabet	64.4	134
Counting to 10	63.5	134

As concerned as Iowa parents are with the developmental needs of their children, they also identify the need for child care that is responsive to the demands of their work. For example, 77.4% ( $n = 148$ ) of parents agree with the statement that “I rely on my caregiver to be flexible about my hours.” Although a majority of parents of young children (68.7%,  $n = 127$ ), agree with the statement that “There are good choices for child care where I live”, nearly one-third, or 32.5% ( $n = 60$ ), agree with the statement that “I have had difficulty finding the child care I wanted.” Furthermore, 32.7% ( $n = 50$ ) agree that “My evening or weekend work schedule limits my child care choices.”

It is not clear from this data, however, that there is a demand for paid child care for evenings and/or weekends. At least some parents perceive a lower need for high quality evening weekend care. For example, one parent wrote: “I am a night shift worker as well as my spouse. We need only a safe place to sleep.” Lower income parents are more likely to agree with both the statement that child care is needed for evenings and weekends and the statement that child care is unaffordable. These parents tend to pay a lower cost for child care and are more likely to use other relatives for care. Some of these relatives are probably not paid for providing child care; furthermore, it is not clear that these parents would use paid care if it were available. Rather, some parents alter their employment by either taking different jobs or by changing their work hours in order to limit the costs of child care, as is shown in the following written comments:

*“I work days and my wife works a few night hours.”*

*“Try to work opposite shifts.”*

*“Can only work nights.”*

*“Mainly just so that my wife and I work different shifts.”*

*“She can only work 10 [hours] a week because that is the only time her sister can watch the kids for free.”*

*“She can only do stuff with free child care.”*

*“Limited as pharmacy technician because relatives live over 1 hour away and can only come once a week.”*

It appears that families patch together child care in order to limit their child care costs.

Some parents report that they have limited their work hours not to make child care more affordable, but to participate more in the lives of their children. For these parents, the availability of child care and the cost of child care is not as relevant as their desire to actively parent their children. For example, some parents write:

*“To ensure a parent was home when children come home from school*

*“Needed day hours so we are around for after-school activities, homework, and just to be a family.”*

Therefore, for some families who are seeking to balance family and work, increasing the affordability and accessibility of child care may not increase their work productivity.

### **Use of Child Care**

Of the 278 parents of children under five years, 178 parents (62.9%) report that they currently have a child care provider, while 22 (7.8%) parents report that they do not currently have, but are looking for a child care provider. A total of 50.5% ( $n = 106$ ) of parents using or looking for child care agree that it is very important that their child care provider be registered or work in a licensed center. A total of 56.4% ( $n = 93$ ) of parents using care indicate that their child's primary child care provider is registered or licensed. However, while less than half of parents using family child care (46.5%,  $n = 33$ ) say that their provider is registered or licensed, 92.9% ( $n = 52$ ) of parents using center care indicate that their provider is licensed. This difference most likely reflects the differences in Iowa child care regulations that require that all center care be licensed, but require registration only for family child care providers who care for six children or more.

The most common source used by parents when locating a provider is a referral by a friend or relative, which was reported by 60.1% ( $n = 113$ ) of parents using or seeking care. Only 9% ( $n = 17$ ) of parents report that they used a public or community agency, such as Child Care Resource and Referral, to locate child care.

On average, parents report that they pay \$104.52 ( $SD = \$85.79$ ) per week for child care for an average of 1.59 children ( $SD = .89$ ). Only 5.8% ( $n = 11$ ) of parents indicate that they receive financial assistance from a government or social service agency to help with child care, although an additional 3.7% ( $n = 7$ ) say that they have applied for assistance. Parents using child care report that they spend 2% to 61% of their income on child care (median = 9%).

Nearly one-third (32.6%,  $n = 62$ ) of parents currently using care report that they looked for new child care in the past 24 months. A total of 42 parents, 71.2% of those seeking care, are attempting to replace an existing provider. On average, these parents report that it required 2.77 weeks ( $SD = 3.38$ ) to find acceptable child care arrangements. However, over a quarter of the parents (27.9%,  $n = 12$ ) indicate that it required four or more weeks to find acceptable care. Table 10 lists the criteria to select a child care provider that were rated by parents; criteria are listed in order of importance. Additional comments offered by parents

most often referred to the fact that the child care provider is a neighbor, friend, or family member. The second criterion most often provided by parents was that the provider was a school or school-sponsored program.

Asked to choose the most important criterion for selecting care from the list in Table 6, parents most often indicate the provider's knowledge of child development (21.2%,  $n = 25$ ), followed by family or at-home type atmosphere (19.5%,  $n = 23$ ), and age-appropriate learning experiences available (8.5%,  $n = 10$ ).

Only 3.5% ( $n = 8$ ) of parents report that they are currently looking for child care arrangements; on average, they report that they have been searching for 4.88 weeks ( $SD = 3.23$ ). However, 43 parents did indicate why they left their previous caregiver. One fourth (25.6%,  $n = 11$ ) report that they changed caregivers due to the caregiver's caring nature. A total of 16% ( $n = 7$ ) state that they left the last provider because of location while 18.6% ( $n = 8$ ) indicate that they left the last provider due to cost. In contrast, fewer than 10% of parents report that they left the previous caregiver due to reasons such as cleanliness or the need to keep siblings together.

**Table 6. Criteria rated as very important in selection of current care provider by parents of children less than 5 years**

Goal	%	N
Cleanliness of facility/home	76.7	89
Quality meals and snacks	75.0	88
Provider's knowledge of child development	65.0	76
Age-appropriate learning experiences available	59.0	69
Family- or at-home type atmosphere	54.7	67
Same place other children in the family go	47.0	55
Convenient location	41.9	49
Provider was registered/licensed	36.8	42
Limited television/video use	33.3	39
Provider/center was accredited	32.4	36
In same school district as home	22.4	26
Only location found	9.2	10

Parents ( $n = 10$ ) who cite the caring nature as reason for changing caregivers report an average household income ( $M = \$47,100$ ,  $SD = \$17,785$ ) that was significantly less than the average income ( $M = \$61,429$ ,  $SD = \$30,615$ ) of other parents ( $t(36) = -2.36$ ,  $p = .02$ ). Parents who cite the caregiver's caring nature as the reason for changing caregivers also are significantly younger ( $M = 28.45$ ,  $SD = 4.82$ ) than those ( $M = 32.87$ ,  $SD = 3.70$ ) who do not

( $t(40) = -3.14, p = .003$ ). A total of 28 (65.1%) of these parents, however, cite other reasons for changing caregivers. The most often reason written in by parents is that the provider stopped offering care, a reason consistent with the reported high turnover rates among child care providers. For example, one parent wrote “She found a higher paying job with benefits.” The second most common reason given for changing providers is related to quality. Typical comments from parents include:

*“teacher turnover rate”*

*“older children were a bad influence”*

*“two children not getting along.”*

*“We had our daughter hurt at a child care provider, broken leg.”*

### Types of Child Care Used

Parents were asked to report all the types of child care used for their youngest child. Allowable responses were not mutually exclusive. The majority of parents use family child care; however, over a third of the parents also use care provided by a spouse or other relatives. Because some parents would not describe a preschool as a child care center, although both occur in a center setting, both choices were provided. Combining these two types of center care, over 37% ( $n = 56$ ) of parents indicate that they use either center or preschool/child care. Table 7 describes the types of care used and the average number of hours the child is in care per week from parents who report using at least one caregiver so that one or both parents can work or go to school. The most commonly offered reason for choosing *other types of care* is from parents who use family, friends, or neighbors as providers.

**Table 7. Types of care used for children under 5 years of age while parents work**

Type	%	n	Hours/week <i>M</i>	Hours/week <i>SD</i>
Family child care	53.2	74	33.06	11.91
Spouse (partner)	38.3	51	18.56	14.58
Other relative	36.8	49	14.02	17.43
Center care	29.2	40	31.87	12.49
Preschool/child care	19.8	26	25.78	15.23
Other type of care	13.7	14	26.71	18.64
Brother/sister of child	9.3	12	13.36	16.99

Parents using child care centers differ from those using family child care on three criteria: preference for regulation/enforcement of standards, age of children in care, and source of child care referrals. First, parents who use center care are more likely to value care that is registered or licensed [ $\chi^2(2, N = 225) = 79.37, p < .001$ ]. Although 94.4% ( $n = 85$ ) of parents using center care indicate that it is very important that the center be licensed, only

34.8% ( $n = 47$ ) of parents using family child care believe it is important that the child care provider be licensed or registered. Parents who do not believe that the provider needs to be registered most often state that they use friends or family members. For example, parents write:

*"Nobody watches my child but my family."*

*"My sister provides my child care and I trust her more than any registered child care provider."*

*"If it is family or close friends they don't need to be registered. If it is a daycare setting they should be."*

*"I would like them to be at least registered if it's not family or friends."*

*"Very important unless a family member."*

*"If it were a stranger, it would be much more important to me."*

For these parents, the personal relationship and trust they have with family, friends, or neighbors supersedes the need for governmental regulation or enforcement.

In contrast, parents who do believe it is important to have child care registered or licensed most often cite reasons related to the regulation and/or enforcement of quality standards. Typical comments include:

*"They have proper credential."*

*"The safety of my children is very important."*

*"They need to know what they're doing—not just 'watching' the kids."*

*"It is good to know that they know what they're doing."*

*"Greatly increases the quality of care."*

*"I want professional teachers who are evaluated routinely."*

*"I don't think just anyone should think they can care for children."*

*"I feel it's important for them to be state certified and have a background check."*

*"Want a safe environment for the kids—CPR trained, nutritious meals, etc."*

*"Make sure they have the proper training."*

*"To ensure balanced meals, planned activities."*

*"Licensed center adds credibility and education for workers."*

*"I want good, reliable care in an educational environment where kids are not babysat by a TV."*

*"Eases my mind to know that they have training and monitored."*

Thus, these parents rely on regulations and monitoring to ensure that training, planned and educational activities, supervision, safety, nutritious meals, and background checks are sufficient to ensure quality.

However, some parents expressed frustration with the poor level of regulation and/or

enforcement in Iowa's child care licensing and registration system. Parents sometimes confuse the licensing and registration processes. Although many states license family child care homes, in Iowa, only child care centers are required to be licensed, which requires annual on-site inspection visits. In contrast, the registration system used with family child care providers requires that only 20% of the homes be visited by a child care consultant or licensing specialist each year; many providers have never received an on-site visit. Both systems require criminal record checks and mandatory annual training hours completed, but require no training prior to caring for children. Although some negative parental comments focus on the licensing of child care centers, more comments disparage the registration system used for family child care homes. Typical parent comments include:

*“Registered child care doesn’t guarantee more quality in my opinion.”*

*“The process we have for registration does not require registrant to be qualified in a special sense.”*

*“If registered, you know the history is not criminal, but that doesn’t make them a better person just because the state has checked them out.”*

*“Just because you have a license does not always mean you are a good provider. It’s just a piece of paper.”*

*“License does not guarantee safety—even though it should.”*

Hence, these parents appear to be frustrated with inadequate child care regulations and/or enforcement.

Children receiving care in centers ( $M = 2.82$  years,  $SD = 1.31$ ) are, on average, older than those in family child care homes ( $M = 1.77$  years,  $SD = 1.22$ ) [ $t(139) = -4.01$ ,  $p < .001$ ]. Finally, parents using family child care homes are more likely to have located the provider through the referral of a friend or family member [ $\chi^2(1, N = 222) = 19.60$ ,  $p < .001$ ]. A total of 69.4% ( $n = 68$ ) of parents using family child care providers used the referral of a friend or relative to locate the care; only 39.5% ( $n = 49$ ) of parents who do not use family child care used such a referral. However, parents using centers do not differ from parents using family child care homes on income, education, or location. Parents who report that they live in rural areas (in other words, on farms, in open rural areas, or in rural communities with less than 2500 residents) are no more likely to use family child care homes than are those living in non-rural areas (communities larger than 2500 residents).

The use of other relatives for child care is related to the age of the child [ $\chi^2(1, N = 222) = 19.60$ ,  $p < .001$ ]. A total of 50% ( $n = 25$ ) of the children cared for by other relatives are three or four years of age, while only 31.2% ( $n = 29$ ) of three and four-year-olds are in other forms of care. In contrast, only 4% ( $n = 2$ ) of one-year-olds are cared for by relatives while 96% ( $n = 23$ ) are in other forms of care. Nearly one fourth (23%,  $n = 36$ ) of parents report that their youngest child is cared for by two or more caregivers. However, the majority of children (77.4%,  $n = 123$ ) are cared for by only one provider.

## Rural/Non-rural Comparisons

We compared the responses of parents of young children in rural (in other words, on farms, in open rural areas, or in rural communities with less than 2500 residents) and non-rural areas. Parents in rural and non-rural areas differ in the strategies they use to locate child care, as well as in their perceptions of the availability of care. Although 13.4% ( $n = 13$ ) of non-rural parents used a public or community agency, such as Child Care Resource and Referral, to locate child care, only 3.3% ( $n = 2$ ) of parents who live in rural areas did so [ $\chi (1, N = 158), p = .04$ ]. Furthermore, only 12.8% ( $n = 12$ ) of non-rural parents disagree that child care is available in their community in contrast to only 27.1% ( $n = 16$ ) of rural parents [ $\chi (1, N = 153) = 4.99, p = .02$ ]. Similarly, parents living in rural areas (44.6%,  $n = 25$ ) are more likely to disagree with the statement “There are good choices for child care where I live” than are parents living in non-rural areas (22.8%,  $n = 21$ ) [ $\chi (1, N = 148) = 7.74, p = .01$ ].

## Income Level Comparisons

In order to determine whether parents' child care usage patterns and needs are affected by household income levels, household incomes were compared to the federal poverty guidelines (found at <http://aspe.hhs.gov/poverty/index.shtml>), which consider household size in addition to household income. For example, the federal poverty limit for a family of four in 2004 is \$18,850; 200% of that limit is \$37,700 for a family of four. In the present survey, among families with at least one child less than five years of age, the median household income is 318% of the poverty guideline, or \$60,073.

In order to determine whether lower income households describe their child care needs differently from higher income households, we divided households into those with incomes below 200% of the government-established poverty level, and those at or above 200% of poverty. Lower income parents do not differ from higher income parents in the criteria they use for selecting child care; however, they are more likely to use relative care, such as grandparents or aunts. Although 54.2% ( $n = 13$ ) of lower income parents use relative care, only 31.2% ( $n = 34$ ) of higher income parents use relative care [ $\chi (1, N = 132) = 4.41, p = .04$ ].

As seen in Table 8, families with lower incomes are less likely to report that they have someone they could share home and child care responsibilities with and that they are on their own in raising their child(ren). Furthermore, lower income families are more likely to report that they have had difficulty finding the child care they needed, and that their evening or weekend work schedule limits their child care choices. Higher income families pay approximately twice what lower income families pay for child care. However, the percentage of total income paid for care by higher income families' is slightly more than half what lower income families pay ( $t(26.92) = 2.89, p = .007$ ). Although higher income families pay an average of 10% ( $SD = .07$ ) of their income for child care, lower income families pay an average of 17% ( $SD = .12$ ).

**Table 8. Differences in child care needs and usage between higher and lower income groups in households with youngest child under 5 years of age**

Statement	Income	N	M	SD	T	df	p
I have someone I can share home & care responsibilities with. <sup>3</sup>	Lower	57	3.11	1.16	-3.41	7.23	.001
	Higher	200	3.66	.76			
I am on my own in raising my child. <sup>1</sup>	Lower	55	1.89	1.29	3.60	64.37	.001
	Higher	201	1.24	.75			
I have difficulty finding the child care I want. <sup>1</sup>	Lower	34	2.41	1.05	2.35	167	.02
	Higher	135	1.94	1.04			
My evening or weekend work schedule limits my choices. <sup>1</sup>	Lower	27	2.56	1.34	2.60	138	.01
	Higher	113	1.86	1.23			
How much does your household pay for all child care per week?	Lower	29	\$67.00	42.33	-4.23	91.13	.001
	Higher	140	\$113.64	91.44			
Percent of total income paid for child care	Lower	25	16.93%	12.46	2.90	27.07	.007
	Higher	123	9.49%	6.90			
How many child care providers being used for youngest child?	Lower	25	1.68	.99	2.35	28.13	.03
	Higher	127	1.20	.64			

Lower income families also report using more child care providers than do higher income families. Although only 20% ( $n = 35$ ) of higher income parents report using multiple child care providers, 40% ( $n = 10$ ) of lower income parents report using multiple care providers. The lower costs and use of more providers may be related to low income parents' greater

<sup>3</sup> 1=Strongly disagree; 4=Strongly agree

need for evening and weekend care, and the more frequent use of relatives to provide child care by these families. Some comments written by parents suggest that the relatives also may provide free care.

Higher income parents report that their community has child care and recreational assets, including recreational and social activities for youth, available, affordable, quality, and regulated child care ( $r = .15$ ,  $p = .02$ ). Lower income parents report higher levels of stress related to shift and work schedule, lack of supports, limited child care choices, and evening/weekend work stresses ( $r = -.26$ ,  $p < .001$ ). Finally, lower income parents report that they are less likely to have played with, eaten a meal with, or participated in reading with their youngest child in the last 24 hours ( $r = .14$ ,  $p = .04$ ). This pattern of findings suggests that the children of lower income parents are less likely to arrive at school with the skills needed for success. Previous research has shown that children of lower income families need high quality child care in order to develop the social and academic skills required for success in school.

Families who use a higher percentage of their income for child care are, not surprisingly, less likely to agree that child care in their community is affordable ( $r = -.20$ ,  $p = .01$ ). They are more likely to provide more hours of child care themselves ( $r = .39$ ,  $p = .02$ ) while the other parent worked. They are also less likely to have eaten a meal, read a book, or played a math game with their youngest child in the past 24 hours ( $r = -.22$ ,  $p = .004$ ). This pattern of relationships is unrelated to the educational level of the parent.

### **Summary of parent usage patterns for children under 5 years of age**

These data are consistent with studies of child care in other states, and with 2000 Census figures on the employment of Iowa parents of young children. Nearly 75% of the parents of children under five years are in the work force and use either family child care or center-based care. It is important to note that some parents indicate that they have chosen to limit their work hours or change their jobs in order to spend more time with their family; these choices are unlikely to be affected by the affordability and accessibility of quality child care. However, the majority of both rural and non-rural parents at all income levels and with children at all age levels use paid child care to remain in the workforce.

Over one third of parents report that their spouse and other relatives also assist in providing child care. Parents of infants, toddlers, and preschoolers say that fathers work, on average, over 40 hours while mothers work, on average, over 25 hours each week. The majority of these parents indicate that they need child care that is flexible to meet their needs and nearly half say that they would have to stop working if paid child care were unavailable. Nearly one third report that their evening and weekend work limits their child care choices.

Parents in both rural and non-rural areas and at all income levels describe similar expectations for their child care provider to foster social-emotional skills, communication skills, physical activity skills, and academic skills. These data indicate that parents concur

with the criteria used by professionals to evaluate the quality of care in other studies. However, nearly one third of these parents report that they replaced a child care provider in the previous 24 months; the most common reasons for replacing the provider were the caring nature of the provider, the quality of care, and caregiver turnover. These findings are consistent with those from previous studies where annual caregiver turnover rates have exceeded 30%. Searching for a new provider requires, on average, approximately three weeks; however, over 25% of the parents report that it required four or more weeks to replace a provider. Worker productivity is likely to be impacted by the frequency and duration of the search process.

Family child care, in the provider's home, is the most common form of child care used, followed by care provided by the spouse, preschool/center care, and other relative care. Parents who prefer family child care providers or relatives over center care are more likely to have younger children and to believe that regulation and enforcement are not important. These parents most often state that they rely on their own evaluation to ensure that their children's needs are being met by the child care provider. Many of these parents state that they are using family, friends, or neighbors to provide care and would seek regulated care only if these known and trusted individuals were unavailable. In contrast, parents using center care indicate that they rely upon the regulation and enforcement provided through licensing to ensure that quality criteria such as balanced meals, an educational environment, trained and supervised staff, and planned activities are provided.

The criteria used by parents to select care are similar to those used by professionals in other studies. However, parents who are at work cannot be present to monitor the quality of care. Some of these parents report that later events changed their assessment of the quality of care given by their child care provider; these events led to a decision to change child care providers in order to improve quality. When they change providers because of quality, some parents who had previously used unregulated care rely more heavily on licensed or registered care providers. In contrast, following negative experiences, other parents decide state standards, particularly those relating to the registration of family child care providers, are inadequate. From the written comments, it appears that some parents do not understand what Iowa licensing and registration standards require.

Parents in rural communities are less likely than non-rural parents to state that there are good choices for child care in their community. As one parent wrote "Small community, not a lot of options." Rural parents are also less likely to use a public or community agency to locate care. Long time residents may be able to locate care through their network of family, friends, and neighbors. However, rural communities seeking to attract new businesses and residents may need to also ensure both a supply of child care and a referral system to link parents and providers.

Lower income parents pay a greater percentage of total household income for child care, use more caregivers, and use more relatives than do higher income parents. They are also more likely to report encountering difficulty in finding care, and have more difficulty finding

care that is compatible with their evening/weekend work schedule. Lower income parents also more frequently state that they change child care providers because of concerns about the caring nature of the provider. These difficulties are consistent with the increasing demands of the 24/7 work week. Furthermore, the high use of family, friend, and neighbor care suggests a workforce tied to a location with a strong social support network. If this family, friend, and neighbor care were unavailable, for example, because parents relocated to a new community, parents report they would rely more on enforced regulations to insure a safe and high quality child care experience. Consistent with these statements, nearly 40% of the parents indicate that regulation of care is not adequate in their community.

Finally, while families living below 200% of the poverty level do not differ from high income families in how they judge the quality of child care, lower income families do report lower availability of quality care in their community. These lower income parents pay lower amounts for child care, possibly because they provide more hours of care themselves through the use of swing shift work or seek out child care providers with lower rates. However, when child care cost is calculated as a percent of total household income, these lower income families pay more. They have more trouble finding care compatible with their evening/weekend work schedules. They also are more likely to use relative care than are higher income families and they tend to use a higher number of people to patch together a system of care for their children. Low income families are less likely to have eaten a meal, read a book, or played a math game with their youngest child in the past 24 hours. These responses suggest that neither they nor their child care providers are providing children with the skills needed for success in school.

Findings from these data point to the importance of the cost of care for households with children under five years of age. Nearly half of these parents report child care in their community is not affordable, thereby suggesting that households with young children will be strongly affected by increases in cost. Changes in public policy that may be expected to raise provider costs must be accompanied by contingencies to help parents offset those costs. Without such contingencies, parents can be expected to struggle even more to find time for interaction with their young children. We suggest that such a struggle will have negative consequences both on parents' work productivity and the quality of the next generation of workers in Iowa.

In addition to impacting parent productivity and the quality of next generation of workers, these findings are also important for businesses seeking to attract new workers to move to a community. Parents with a strong local network of friends, family, and neighbors are more likely to seek referrals from and to find acceptable child care within that network. However, parents lacking such network, for example, because they have moved to a new community for a new job are more likely to rely on the regulation and enforcement of child care providers, both family child care and center care, to ensure safe, healthy, learning environments for their children. Furthermore, because the quality and/or unreliability of child care providers force parents to spend several weeks seeking new providers, the quality and

availability of child care in the community does affect the productivity of parents at their places of employment.

Over 70% of the parents of young children in Iowa are in the workforce. Iowa businesses depend on a workforce that includes parents of young children. Therefore, Iowa businesses are affected by the accessibility, affordability, and quality of child care in Iowa.



## CHILD CARE USE IN HOUSEHOLDS WITH YOUNGEST CHILD AGED 5 TO 12 YEARS

In this section of the report, we describe child care usage patterns for families with a youngest child between five and twelve years of age ( $n = 258$ ). Similar to the previous section, we also examine perceptions of community child care resources, how parents identify quality child care, and parents' report of the impact of child care on their work choices.

### Demographics

A total of 258 parents with the youngest child between five and twelve years of age responded to the Iowa Parent Survey; 47% ( $n = 119$ ) of the respondents were female. The average respondent is 38.19 years old ( $SD = 5.79$ ) and the percentage of two-parent families is 76.2% ( $n = 195$ ). A total of 79.3% ( $n = 203$ ) of these parents agree with the statement that "I have someone I can share home and child care responsibilities with."

These families earned an average of \$59,105 dollars in 2003 ( $SD = \$36,662$ ) from all sources. On average, the respondent reports that the mother in the household works up to 70 hours each week, with an average of 31.8 hours per week ( $SD = 45.34$ ) while the father in the household works up to 80 hours each week, with an average of 44.80 ( $SD = 13.16$ ) hours per week. A total of 46.8% ( $n = 119$ ) of the respondents have completed at least a two-year college degree; 242 respondents (97.6%) report that their ethnicity is white or Caucasian.

Only 5.2% ( $n = 13$ ) of parents whose youngest child is of school age report that they are full-time homemakers; in contrast, 81.6% of parents ( $n = 204$ ) report that they are employed full-time. About half of these parents respond that they currently have or are looking for a child care provider ( $n=123$ , 47.7%). Their children spend an average of 6.13 hours in preschool or child care each week ( $SD = 10.42$ , maximum = 50). As seen in Table 9 and compared to a similar table (Table 4 on page 6), the number of hours worked each week is unrelated to the age of the youngest child. Mothers of 5-year-olds work an average of 28 hours per week, while mothers of 12-year-olds work an average of 31 hours each week. Similarly, fathers of 5-year-olds work an average of 42 hours each week, as do fathers of 12-year-olds.

**Table 9. Hours worked each week by mothers and fathers of children 5 to 12 years of age**

Child's Age	Mothers' Work Hours			Fathers' Work Hours		
	M	SD	n	M	SD	n
5	28.09	18.41	32	42.06	13.42	31
6	30.29	16.73	34	48.84	12.00	31
7	33.46	11.40	37	45.90	5.89	30
8	33.28	13.91	29	42.52	15.72	27
9	27.50	18.81	24	43.90	19.28	25
10	34.85	15.56	20	46.94	10.29	18
11	37.44	13.29	25	46.39	7.87	23
12	30.54	12.99	26	42.28	15.44	25

### **Child Care Beliefs**

Of 258 parents whose youngest child is between ages 5 and 12, 76.9% ( $n = 200$ ) agree that child care is available in their community. A total of 168 (65.1%) rate the quality of child care in their community as good. However, 31% ( $n = 80$ ) disagree with the statement that child care in their community is affordable. And 18.6% ( $n = 48$ ) disagree with the statement that child care is adequately regulated in their community.

Parents of children 5-12 years report they believe that a child could stay home without a care provider before and after school at an average age of 11.27 years ( $SD = 1.6$ ), in the evening at 12.4 years ( $SD = 1.6$ ), and on summertime days at 12.6 years ( $SD = 1.6$ ).

Examining sources of child care in their own community, only 64.5% ( $n = 100$ ) reported that they have a relative with a 30-minute drive from their home who could provide child care while the parent is working. However, almost 90% of parents respond that both a family child care provider (87.7%,  $n = 136$ ) and a child care center (85.8%,  $n = 133$ ) are available within a 30-minute drive from their home.

### **Challenges Reconciling Work and Child Care**

Compared to parents whose youngest child is under age five, fewer parents of school age children report that child care problems have affected their work. About 16% ( $n = 58$ ) of parents indicate that child care problems impacted their decision to work outside the home, while 17.6% ( $n = 44$ ) say that child care problems impact the number of hours worked outside the home. Only 10.3% ( $n = 26$ ) agree that child care problems impact the type of work they chose and relatively few, 13.7% ( $n = 20$ ), believe that if paid child care were unavailable, they would have to stop working.

Parents of school age children who are using or looking for child care identified the need for child care that is responsive to their work demands. A total of 67.7% (n = 84) parents agree with the statement that “I rely on my caregiver to be flexible about my hours.” Although a two-thirds majority of parents of school age children (66.7%, n = 82) agree with the statement that “There are good choices for child care where I live,” one-third (33%, n = 41) agree with the statement that “I have had difficulty finding the child care I wanted.” In addition, 34.5% (n = 41) agree that “My evening or weekend work schedule limits my child care choices.”

It appears that some parents alter their employment by either taking different jobs or by changing their hours in order to limit the costs of child care, as shown in the following written comments:

*“We both got out of Des Moines and closer jobs so kids wouldn’t be in daycare so long.”*

*“Grandmother gets them off to school.”*

*“I only work after the kids leave for school, 8:30 or later...”*

*“Had to leave office by end of school day.”*

*“I only want to work 9-3 so I don’t need childcare.”*

As noted in households with the youngest children under 5 years, it also appears that families with the youngest child between ages 5 and 12 years patch together multiple child care arrangements in order to limit their child care costs.

In some cases, parents with elementary-aged children report that they have limited their work hours not to make child care more affordable, but to participate more in the lives of their children. Similar to households with children under 5 years, the working productivity of parents in these families may not be as readily influenced by increases in the affordability and accessibility of child care as parents who do not express this value.

### **Use of Child Care**

Of the 258 parents of children 5 to 12 years, 94 parents (36.4%) report that they currently have a child care provider, while 29 (11.2%) parents report that they do not currently have, but are looking for a child care provider. A total of 69.3% (n = 88) of the parents using or looking for child care agree that it is important that their child care provider be registered or work in a licensed center. A total of 52.1% (n = 49) of parents using care indicate that their child’s primary child care provider is registered or licensed. However, while less than half of parents using family child care (n = 10) indicate that their provider is registered or licensed, most (n = 20) of those using center care indicate that their provider is licensed.

The most common source for finding child care is a referral by a friend or relative, which was reported by 35% (n = 33) of parents using or seeking care. Only 12.8% (n = 12) of parents say that they used a public or community agency, such as Child Care Resource and

Referral, to locate child care. A little more than one-fifth 22.3% ( $n = 21$ ) report that their current provider is a relative. About one third of parents convey that they located their current child care provider through a source not indicated on the survey. Many of these parents indicate that the source of referral (or the care itself) is the school. A number of parents also say that their child care provider is a friend.

On average, parents with a youngest child between 5 and 12 years report that they pay \$44.83 ( $SD = \$52.51$ ) per week for child care for an average of 1.4 children ( $SD = .81$ ). Only 8.1% ( $n = 8$ ) parents report that they receive financial assistance from a government or social service agency to help with child care. Parents with children in this age group and who use child care spend 0% to 44% of their income on child care (median = 3%).

A total of 24.4% ( $n = 23$ ) parents currently using care recall that they looked for new child care arrangements in the past 24 months. Fifteen parents were attempting to replace an existing provider. On average, these parents report that it required 4.32 weeks ( $SD = 6.64$ ) to find acceptable child care arrangements. However, 7 parents indicate that it required four or more weeks to find acceptable care.

Only 4 parents report that they are currently looking for child care arrangements; on average, they report that they have been searching for 0.28 weeks ( $SD = 0.5$ ). However, 15 parents did indicate why they left their previous caregiver. Four parents reported that they left the last provider due to cost with the same number and percentage leaving due to hours; 3 say that they changed caregivers due to the caregiver's caring nature, and 2 recall that they left the last provider because of location. In contrast, none reported that they left the previous caregiver due to cleanliness and only one parent reported changing providers in order to keep siblings together.

Table 10 lists the criteria to select a child care provider that were rated by parents; criteria are listed in order of importance. Asked to choose the most important criterion for selecting care from the list in Table 10, parents most often indicated the cleanliness of the facility (67.2%,  $n = 39$ ), followed by its location in the same school district as their home (63.8%,  $n = 37$ ), and the provider's knowledge of child development (59.6%,  $n = 34$ ).

**Table 10. Criteria rated as very important in selection of current care provider by parents with youngest child between 5 and 12 years old**

<b>Goal</b>	<b>%</b>	<b>N</b>
Cleanliness of facility/home	67.2%	39
In same school district as home	63.8%	37
Provider's knowledge of child development	59.6%	34
Age-appropriate learning experiences available	59.6%	34
Family- or at-home type atmosphere	56.9%	33
Quality meals and snacks	54.2%	32
Convenient location	52.5%	31
Same place other children in the family go	50.0%	28
Limited television/video use	46.6%	27
Provider/center was accredited	38.0%	19
Provider was registered/licensed	34.0%	18
Only location found	12.5%	6

### **Types of Child Care Used**

Parents were asked to report all the types of child care used for their youngest child aged 5 to 12 years. Allowable responses were not mutually exclusive. The majority of parents of school-age children use other relatives and care provided by a spouse to meet their child care needs.

**Table 11. Types of care used for youngest children between 5 and 12 years of age**

<b>Type</b>	<b>%</b>	<b>n</b>	<b>Hours/week <i>M</i></b>	<b>Hours/week <i>SD</i></b>
Other relative	38.3%	36	7.74	10.91
Spouse (partner)	28.7%	27	9.07	10.04
Family child care	22.3%	21	16.82	16.95
Center care	22.3%	21	16.22	13.33
Brother/sister of child	20.2%	19	4.50	3.14
Preschool/child care	13.8%	13	16.17	11.89
Other type of care	13.8%	13	7.58	5.40

Because some parents would not describe a preschool as a child care center, although both occur in a center setting, both choices were provided in the questionnaire. Combining these

two types of center care, over 36% ( $n = 34$ ) of the parents indicate that they use either center or preschool/child care<sup>4</sup>. Table 11 describes the types of care used and the average number of hours the child is in care per week. The most commonly offered comments are from parents who use family or friends as providers. More than one fourth (26%,  $n = 24$ ) of parents respond that their youngest child is cared for by two or more caregivers. However, the majority of children (59.6%,  $n = 56$ ) are cared for by only one provider.

### **Rural/Non-rural Comparisons**

We compared the responses of parents of school age children in rural (in other words, on farms, in open rural areas, or in rural communities with less than 2500 residents) and non-rural areas. Parents in rural and non-rural areas differ in their perceptions of the availability of care. Only 10.1% ( $n = 14$ ) of non-rural parents disagree that child care is available in their community in contrast to 25.7% ( $n = 26$ ) of rural parents [ $\chi^2(1, N = 240) = 10.34, p = .001$ ].

### **Income Level Comparisons**

In order to determine whether parents' child care usage patterns and needs are affected by household income levels, household incomes were compared to the federal poverty guidelines (found at <http://aspe.hhs.gov/poverty/index.shtml>), which consider household size in addition to household income. For example, the federal poverty limit for a family of four in 2004 was \$18,850; 200% of that limit is \$37,700 for a family of four. In the present survey, among families with the youngest child between the ages of 5 and 12 years, the median household income is 314% of the poverty level, or \$59,105.

In order to determine whether lower income households describe their child care needs differently from higher income households, we divided households into those with incomes below 200% of the government-established poverty level, and those at or above 200% of poverty. Approximately 38% ( $n=97$ ) of households with the youngest child between 5 and 12 fall below this poverty threshold. Lower income parents do not differ significantly from higher income parents in the criteria they use for selecting child care; however, they are more likely to use relative care, such as grandparents or aunts. Although 54.2% ( $n = 13$ ) of lower income parents use relative care, only 31.2% ( $n = 34$ ) of higher income parents use relative

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<sup>4</sup> Parents of children aged 5 through 12 years would generally not be expected to have children in preschool. However, since these two types were combined in the questionnaire, some parents in this age group did select this option. The ages of some of these children were 5 or 6. However, a couple of parents of older children also selected this option, perhaps confusing preschool/child care with simple child care.

care [ $\chi (1, N = 132) = 4.41, p = .04$ ].

**Table 12. Differences in child care needs and usage between higher and lower income groups in households with youngest child between 5 and 12 years of age**

Statement	Income	N	M	SD	T	df	p
I have someone I can share home & care responsibilities with. <sup>5</sup>	Lower	97	3.06	1.24	-2.89	163	.00
	Higher	159	3.48	.94			
I am on my own in raising my child. <sup>5</sup>	Lower	95	2.01	1.28	4.48	146	.00
	Higher	160	1.35	.86			
I have difficulty finding the child care I want. <sup>5</sup>	Lower	49	2.45	1.27	0.66	104	.51
	Higher	75	2.29	1.29			
My evening or weekend work schedule limits my choices. <sup>5</sup>	Lower	47	2.94	1.47	1.86	105	.07
	Higher	72	2.40	1.62			
How much does your household pay for all child care per week?	Lower	37	\$30.97	35.57	-2.33	90.2	.02
	Higher	56	\$54.00	59.75			
Percent of household income paid for child care?	Lower	23	10.73	12.94	2.25	77	.003
	Higher	56	4.49	4.89			
How many child care providers being used for youngest child?	Lower	37	1.32	.82	0.61	72.9	.54
	Higher	50	1.22	.74			

As illustrated in Table 12, families with lower incomes are less likely to report that they have someone with whom they could share home and child care responsibilities and are more likely to report that they are on their own in raising their child(ren). Furthermore, lower income families are more likely to report that their evening or weekend work schedule limits their child care choices. Higher income families pay amounts that are approximately twice what lower income families pay for child care. However, the percentage of their income used for child care is less than half what lower income families pay ( $t(24.6) = 2.25, p = .003$ ).

<sup>5</sup> 1=Strongly disagree; 4=Strongly agree

Although higher income families pay an average of 4% (SD = .05) of their income for child care, lower income families pay an average of 11% (SD = .13).

### **Summary of parent usage patterns for children 5 to 12 years of age**

Nearly 80% of parents with school-age children (ages 5 to 12) are in the workforce. Many of these parents rely on before/after school and summer care for their children in order to accommodate their work schedules, as well as to provide a caring atmosphere and supplemental educational opportunities for their children.

Approximately 36% of parents whose youngest child is between 5 and 12 years of age report using child care. The majority of parents indicate that their spouse and other relatives assist in providing child care. These parents say that fathers work, on average, over 40 hours while mothers work, on average, over 30 hours each week. The majority of parents with children in this age category indicate that they need child care that is flexible to meet their needs and nearly one-third say that they would have to reduce the number of hours worked if paid child care were unavailable. Nearly one third report that their evening and weekend work limits their child care choices.

Parents of school age children rank the criteria for selecting their providers differently than do parents of children under five. One of the most important factors for parents of school-age children is that the provider is located in the same school district as their home. A sizable proportion of these parents also recall that their child's school was either the source of referral for their current provider or is the provider of child care services.

Nearly one fourth of parents using child care report that they replaced a child care provider in the previous 24 months. In contrast to parents of children under five years of age, parents of school age children cite cost and hours as the most common reasons for replacing the last provider. Searching for a new provider requires, on average, approximately four weeks; however, over 25% of the parents report that it required four or more weeks to replace a provider. Worker productivity is likely to be impacted by the frequency and duration of the search process.

Lower income parents pay lower amounts but a greater percentage of total income for child care. They also use more caregivers than do higher income parents. They are also more likely to have difficulty finding care that is compatible with their evening/weekend work schedule.

## THE ECONOMIC ROLE OF IOWA'S CHILD CARE INDUSTRY

Child care services are a significant part of the social and economic infrastructure in Iowa making important contributions to the lives of children and their families. Education and social skills are enhanced in many settings. High quality, reliable child care services allow parents to enter and stay in the workforce. In addition to playing a supporting role for the Iowa workforce and economy, the child care services sector can be viewed and analyzed as its own industry, providing jobs and income in the Iowa economy. This section of the report presents an economic profile of the child care industry in Iowa and discusses its importance in the Iowa economy.

Child care services are provided through a wide array of organizations and arrangements. Generally, the list includes licensed child care and preschool centers, registered family child care facilities, non-registered family providers. Friends, neighbors, and extended family also provide care on an informal basis. Informal child care arrangements may not involve the exchange of money for services, especially when the person providing care is a relative. Because many parents use informal child care, it is difficult to fully document all elements of the Iowa child care sector. The analyses in this section use secondary data, licensing and registration records, and several recent surveys that have been conducted with parents and child care providers to develop a profile of the child care industry. This profile is then used to discuss the economic contribution of the Iowa child care industry.

### Estimates of Iowa's child care industry

A range of data and approaches are available for estimating the magnitude of the child care industry in Iowa. Iowa Workforce Development, which collects data based on withholding of payroll taxes, reported an estimated \$105 million in wages were paid to 8,086 workers. These numbers do not include self-employed proprietors of small family child care facilities; nor do they include any worker for whom payroll taxes were not formally withheld. The data series employed by the IMPLAN<sup>6</sup> (2003) modeling system includes these workers

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<sup>6</sup> IMPLAN is an economic analysis model that captures levels of economic activity (sales, wages, etc.) as well as the flow of activity between industries and households. It is a useful tool for describing the role of particular industries in a region's economy, as well as estimating the impact of changes (for example, in industry structure or policies) on the economy. Data contained in the model are derived from several government sources, including the Bureau of Economic Analysis, Bureau of Labor Statistics, U.S. Census Bureau, and U.S. Department of Agriculture. For more information see Appendix A.

in their estimates of the child care workforce. The IMPLAN system calculated an estimate of 17,290 workers and \$402.5 million in expenditures for Iowa's child care industry.

The importance of the child care industry in Iowa can be appreciated by comparing it to other major service industries in Iowa (Table 13). Employment levels in the child care sector are comparable to the number of jobs in Iowa insurance agencies (not including underwriters). The child care sector employs more Iowans than the hotel and lodging industry and the accounting and bookkeeping sector.

**Table 13. Industry statistics for child care vs. other service industries<sup>7</sup>**

	<b>Employment</b>	<b>Industry Revenues (\$ million)</b>	<b>Labor Income (\$ million)</b>
Private elementary & secondary schools & colleges	30,340	1,174.54	586.16
Child care services	17,290	402.48	129.70
Insurance agencies	15,112	1,368.60	575.82
Civic, social and professional organizations	11,582	656.25	241.95
Accounting and bookkeeping	10,300	522.10	267.50
Hotels and lodging	10,285	507.35	183.94

These IMPLAN estimates for the state child care industry are roughly consistent with estimates generated by a series of recent surveys of the child care industry. Results from the Iowa Family Survey (2004) suggest that 51% of families with children under 13 are using some type of child care. Of those 51% using child care, 32% use licensed centers, 17% use registered family child care, and 18% use non-registered family child care. The remaining 33% use informal arrangements such as relatives or friends. The 2000 Census of population indicates the presence of 177,488 households with children under 13.

Information on registered and non-registered family child care providers is available courtesy of the Iowa Family Child Care Providers Survey (2002). Data from this survey indicates the annual average receipts for registered family child care businesses is \$15,654. Applying this level of estimated revenue to the 5,668 registered family provider businesses generates an aggregate total of \$88.7 million. Survey data from a recent survey of child care

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<sup>7</sup> Source: BLS and IMPLAN

center directors (Iowa Child Care Directors' Survey, 2005) indicate average receipts of \$185,080 per center. Aggregating over the 1,455 licensed centers in Iowa implies a total of \$269.3 million of receipts from these centers.

**Table 14. Estimates of the Iowa child care workforce by type of facility**

<b>Type of facility</b>	<b>Estimated number of facilities</b>	<b>Estimated average annual income per facility</b>	<b>Estimated total annual receipts</b>
Licensed child care centers	1,455	\$185,080	\$269.3 million
Registered family child care providers	5,668	\$ 15,654	\$ 88.7 million
Non-registered family child care providers	3,868-4,275	\$ 10,931	\$ 44.5 million
Informal child care arrangements	not available	unknown	unknown

The estimated combined receipts from these registered and licensed facilities (Table 14) are \$358 million. The difference between this figure and the \$402.5 million of receipts estimated in the IMPLAN data system is most likely due to revenues and earnings by non-registered family child care businesses. In addition, it is unlikely that informal child care arrangements (family and friends) are consistently included in official data collections. Because the IMPLAN estimates do not include complete information on informal child care arrangements, the \$402.5 million of receipts can be viewed as a reasonable and conservative estimate.

Data on federal and state subsidies to childcare as summarized in Table 15 (following page) are another source of information on resources going into the Iowa childcare sector. A survey of funding by source indicates about \$179.6 million of public monies going toward early childhood education and support. A portion of these dollars are part of the overall \$402.5 million of total revenues estimated for the statewide childcare sector. Some of the listed funds go directly to Iowa child care providers in the form of subsidized child care, grants, and training opportunities. These funds are part of the overall \$402.5 million of total revenues estimated for the child care sector. Other funding shown in the chart is directed toward other aspects of the health and well-being of children, including parent supports. While this report views the latter funding as not directly impacting the child care sector, it is not possible to correctly isolate child care-only funds from other parent and family support funds.

**Table 15. 2004 state and federal contributions to Iowa early care and education<sup>89</sup>**

<b>Program Name</b>	<b># Children Served (Age=0-5)</b>	<b>Target Audience</b>	<b>Program Description</b>	<b>Federal + State Dollars</b>
Shared Visions	2,251	3-5 year olds in families with incomes below 130% poverty threshold and at-risk factors	Shared Visions Programs provide early learning opportunities for Iowa's young children from eligible families	\$ 6,905,207
Shared Visions Parent Support	1,495	Birth to 3 year olds in families with incomes below 130% poverty threshold or other at-risk factors	Family support and parent education programs providing comprehensive services	\$728,972
Early Childhood Special Education Instructional & Support Services	5,773	3 – 5 year olds eligible for special education	Early childhood special education provides specially designed interventions to support children with special health, behavioral or developmental needs. Instructional and AEA support services are provided in a variety of settings (LRE)	Early Childhood \$29,449,017 <sup>10</sup>
				IDEA \$ 9,246,251
Head Start Early Head Start	9,328	Birth to 5 year olds at 100% federal poverty level with at-risk factors (~40% of eligible children are not served due to limited program capacity)	Targets at-risk, low income 0-5 year olds and provides comprehensive services, including early care, health, education and family support	Early Head Start \$ 7,810,547
				Head Start \$43,239,303

(continued on following page)

<sup>8</sup> Sources: Iowa Department of Human Services, Iowa Department of Education, Iowa Office of Community Empowerment

<sup>9</sup> Data on federal and state funding directed to early care and education in Iowa is summarized in Table 15. Some of the listed funds go directly to Iowa child care providers in the form of subsidized child care, grants, and training opportunities. These funds are part of the overall \$402.5 million of total revenues estimated for the child care sector. Other funding shown in the chart is directed toward other aspects of the health and well-being of children, including parent supports. While this report views the latter funding as not directly impacting the child care sector, it is not possible to correctly isolate child care-only funds from other parent and family support funds.

<sup>10</sup> Due to the extent of braiding in special education allocation of state and federal dollars, this figure may not reflect the total funding sources.

Table 15. 2004 state and federal contributions to Iowa early care and education (cont.)

Program Name	Number of Children Served (Age=0-5)	Target audience	Program Description	Federal + State Dollars
Individual with Disabilities Education Act (IDEA) – Part C- Early Access.	1,931	Birth to 3 year olds with developmental delays or conditions known to have a high probability of delay and their families	Public and private partners work together to identify, coordinate and provide needed early intervention services that will help families assist the development of their infants and toddlers with special needs	\$ 2,515,712
Iowa Community Empowerment	No estimates available	Children 0 to 5 years and their families. Investment decisions are made by community boards (CEAs) based on existing programs and activities in their community.	Early Childhood grants to CEAs enhance quality & capacity of 2 <sup>nd</sup> and 3 <sup>rd</sup> shift care and child care provider recruitment, training, and support for registration and licensure.	Early Childhood grants \$ 7,261,647
			School Ready grants provide comprehensive services (preschool, child care, parent support, family home visitation, parent education)	School Ready grants \$15,373,657
Subsidies for child care costs – Child Care Assistance	Child care Assistance and Protective Child Care 29,866 PROMISE JOBS Child Care: 7,513	Family Investment Program (FIP) participants with a child under 13 (or under 19 if the child has special needs). Non-FIP participants with income up to 140%/175% (non-special needs/special needs) of Federal Poverty Level and working an average of 28 hours per week; or attending approved training or education program full-time; or looking for work; or unable to provide care due to an approved medical reason. Families are also eligible for Child Care Assistance when child care is part of a protective service plan to prevent or alleviate child abuse or neglect.	Child Care Assistance (CCA) available to children of income-eligible parents absent for a portion of the day due to employment or participation in academic or vocational training or PROMISE JOBS activities, and when child care is part of a protective service plan to prevent or alleviate child abuse or neglect. Assistance may also be available for a limited period of time to children of a parent looking for employment or when the parent who normally cares for the child is unable to provide care due to hospitalization or outpatient treatment for physical or mental illness.	\$57,000,000
<b>Total</b>				<b>\$179,530,313</b>

In Table 16, we use percentages of children in types of care from the Iowa Family Survey (2004) to develop upper and lower bounds for the estimated number of Iowa children in each type of care. 2000 Census of the population shows 188,413 children less than 5 years of age in the Iowa population. The estimate for number of children aged 5 to 12 years is 328,466. Note that more than one type of care may be used while parents work.

**Table 16. Estimated number of Iowa children by type of child care arrangement**

<b>Type of care</b>	<b>Estimated range of children under age 5 in this type of care</b>	<b>Estimated range of children 5 to 12 years in this type of care</b>
Family child care	95,224 to 105,248	69,586 to 76,910
Spouse (partner)	68,554 to 75,770	89,556 to 98,983
Other relative	65,869 to 72,803	119,512 to 132,093
Center care	52,266 to 57,767	69,586 to 76,910
Preschool/child care	35,440 to 39,171	43,062 to 47,595
Other type of care	24,522 to 27,103	43,062 to 47,595
Brother/sister of child	16,646 to 18,399	63,033 to 69,668
Not in child care	78,579 to 86,850	199,707 to 220,707

### **Economic effects to the broader economy**

Through its output and employment, every industry has its own direct effect on the economy. For this study, we use a state-level IMPLAN I-O model to estimate the multiplier effects generated by the child care sector (see Appendix A for more information on methodology). The economic impact information collected from the survey on revenue, employment and earnings are used as the direct effects. The direct effects in turn generate additional spending effects referred to as “indirect” and “induced” effects.

The child care facilities in Iowa generated over \$402 million in gross receipts and paid wages of \$129.6 million to workers in 2003. The interrelated nature of regional economies means this direct activity in child care generated multiplier effects to the overall state economy. Like other industries, child care is linked to the rest of the economy. Child care businesses purchase goods and services from other businesses and their employees also purchase personal goods and services. Together, these purchases and payments stimulate economic activity in other Iowa businesses. These businesses and individuals in turn generate a stream of tax payments to state and local governments.

Because the child care sector is very labor intensive, much of the economic impact generated by the industry occurs through payment of labor income to workers. Nonetheless, the child care businesses in Iowa purchase a significant quantity of goods and services from Iowa-based firms.

Using reporting procedures in our IMPLAN I-O model for Iowa, we detail estimates of the

purchases by child care facilities from Iowa-based businesses. Labor costs represent an estimated \$129.6 million or 33% of the total expenses. The remainder of the expenses, in aggregate, go to business taxes and other returns. The estimates presented in Table 17 indicate that Iowa's child care businesses purchased \$134.68 million of goods and services from Iowa-based sources (Column 3), or about 64.7% of the \$208.15 million of total purchases (Column 2) made. About 35% came from out-of-state sources. These purchases go for food, utilities, rent and other services needed to operate child care facilities. The list indicates purchases being made from a wide range of businesses.

**Table 17. Iowa child care business purchases of total and Iowa-based goods and services by industry**

NAICS Sector	Coefficient (per \$1)	Inputs*	Regional inputs*
22 Utilities	0.023	9.46	7.94
23 Construction	0.018	7.39	6.76
31-33 Manufacturing	0.137	55.04	38.47
42 Wholesale trade	0.029	11.71	8.83
48-49 Transportation & warehousing	0.023	9.44	6.86
44-45 Retail trade	0.003	1.24	1.17
51 Information	0.024	9.49	2.19
52 Finance & insurance	0.017	6.92	4.23
53 Real estate & rental	0.118	47.67	26.99
54 Professional-scientific & tech services	0.029	11.71	6.47
55 Management of companies	0.020	8.06	2.16
56 Administrative & waste services	0.031	12.49	7.37
61 Educational services	0.000	0.07	0.05
71 Arts-entertainment & recreation	0.008	3.26	2.75
72 Accommodation & food services	0.023	9.29	8.24
81 Other services	0.007	2.71	2.25
92 Government & non-NAICs	0.005	2.20	1.95
Sum of Input	0.515	208.15	134.68
Labor	.322	129.60	
Other value added	.161	64.68	
Total	1.000	402.50	

The direct expenditures of \$402.5 million on child care services in the Iowa economy also have multiplier effects on the rest of the economy. Input-Output (I-O) models are commonly used to quantify the economic multiplier effects in a state or regional economy resulting from business activity in a particular industry such as child care. An I-O model is essentially a generalized accounting system of a regional economy that tracks the purchases and sales of commodities between industries, businesses, and final consumers. Successive

rounds of transactions stemming from the initial economic stimulus (such as a new plant or community business) are summed to provide an estimate of direct, indirect, induced (or consumer-related) and total effects of the event. The impacts are calculated for our study using the IMPLAN Input Output modeling system, originally developed by the US Forest system and currently maintained by the Minnesota IMPLAN Group (<http://www.implan.com/index.html>). This modeling system is widely used by regional scientists in the U.S. and worldwide to estimate economic impacts.

### Findings of economic effects

The results of the input-output assessment are presented in Table 18, which summarizes the findings. The \$402.5 million of output requires an estimated \$144.4 million in state supplied inputs. When the workers in the child care sector and in the industries supplying goods and services spend their paychecks, they induce an additional \$121.9 million in estimated local spending. Total regional output identified with the child care industry's output is \$668.8 million. The output multiplier is 1.66. This means that for every dollar of output by the industry, \$.66 of additional, identified industrial output is generated in the remainder of the economy.

**Table 18. Summary of economic effects**

	Direct	Indirect	Induced	Total	Multiplier
Industrial Output (\$million)	402.5	144.4	121.9	668.8	1.66
Employee Compensation (\$million)	129.6	42.6	39.2	211.4	1.63
Jobs	17,290	1,486	1,536	20,313	1.20

The child care sector generates \$129.6 million in total employee compensation. The employee compensation multiplier is 1.63, meaning that for every dollar paid by the firm in wages and salaries, the remainder of the economy yields \$.63 in wage and salary support.

The 17,290 direct jobs in child care stimulate 1,486.4 jobs in the supplying sectors, and induce 1,536.4 jobs in the sectors that take care of household goods and services. The jobs multiplier of 1.2 is fairly small because of the relatively low wage scale that workers in the child care industry currently receive (Iowa Family Child Care Provider Survey, 2002; Iowa Child Care Directors' Survey, 2000), which limits stimulation of secondary jobs. These overall economic effects for the childcare industry are likely under-reported because of a significant amount of informal childcare service provision that is not picked up by the formal reporting mechanisms. At this time, we have not attempted to estimate the size of this informal component.

### Tax implications

The total economic activity in the child care industry and related sectors generates substantial tax revenues in Iowa. Focusing on the personal income and sales tax revenue

stream, the personal income earned in these sectors can be used to estimate general fund revenues. As indicated in Table 18, direct income, as well as the multiplier effects on earned income (indirect and induced income) in the child care sector is \$230 million with \$14.68 million paid in taxes, including \$7.0 million in sales and use taxes and \$7.68 million in personal income taxes. Using 2004 state averages, approximately 6.4% of all direct labor income earned by workers in Iowa, including child care workers, is paid in sales and income taxes.

### **Economic role conclusions and considerations**

This analysis has considered the economic effects of the child care industry in Iowa. We have attempted to quantify only the economic effects associated with spending and employment in child care businesses. This approach does not include the child care sector's role as an important part of the social infrastructure of the state. Quality child care options improve social, educational and emotional development of future generations of citizens as well as providing very important benefits to current economic development efforts aimed at expanding the Iowa labor force.

According to our estimates, the child care industry in Iowa uses a combination of varying quantities of locally supplied inputs and imported inputs. The balance between the kinds of locally supplied inputs and those that must be imported determines a large percentage of the multiplier that is inferred. Our model indicates strong input linkages with wholesale trade and with business services. The values that we estimate for the industry are *expected* values based on the interrelationships among industries that we have observed statewide. If the child care sector relies more heavily on imported inputs and services, then local multipliers will decline. If the sector relies more heavily on locally supplied inputs than we have estimated, then the multipliers will increase.

## POLICY IMPLICATIONS

Our report provides evidence of the linkages between the child care industry and other aspects of the economic vitality of Iowa communities. This vitality is built on a foundation composed of business, personal, and public life. Businesses create goods, whether services or products, and generate salaries to support workers and tax revenues to support public life. In turn, income, salaries, and taxes are used to support businesses, families, and community quality of life. Interdependency exists between communities, families, and businesses. Actions taken to effect one part of the foundation also have an impact on other parts of the foundation.

The childcare sector is important to community economic vitality. As demonstrated in the latter section of this report, child care supports more than 17,000 Iowa jobs, while generating \$126 million in earnings and an additional \$402.5 million in revenues. For every dollar spent on child care by parents, communities, and the state of Iowa, an additional 66 cents is generated toward the economic vitality of the immediate community, region, and state. Child care provides a significant contribution to the economy. This contribution is greater than the hotel and lodging industry, the accounting and bookkeeping industry, and non-underwriting insurance agencies.

However, child care contributes more than the direct effects of jobs and monies. Child care allows parents to work. And, when quality child care is readily available, it permits parents to maximize their contribution in the workplace by allowing them to focus on work: be on time at the job and avoid distractions as they work, thereby enhancing parent worker productivity.

All parents want high quality child care, the *best* care for their children. Indeed, our study provides evidence that parents identify quality care in the same way that early care and education professionals identify quality care. In addition to supporting parents' work lives, high quality, easily accessed child care allows parents to focus their non-work time on family and children. These analyses suggest that in households where parents face a significant *time poverty* challenge, parents spend less time in activities that contribute to school readiness such as reading, playing a game with numbers, and sharing meals regularly. These activities are indicators of how well the home environment supports early learning and brain development for its children. Parents who are dealing with *time poverty* because they are working so much or are forced to "make do" with less than quality child care while they search for new arrangements can be hindered in their efforts to create this optimal environment. Thus, availability of child care and the reliability of quality child care impact not only parents' ability to be productive at work, but also their ability to parent and provide a home environment that is conducive to raising a future, educated workforce.

Due to the cost of child care and lack of reliable, available child care in Iowa, we find evidence that parents use a patchwork of providers in order to meet family budget

restrictions and quality standards. We also find evidence that, for some parents, the best child care and, perhaps, only acceptable type of care is care provided by a family member. However, most families do not have the ability to select family care. When businesses consider attracting new employees to a community, special considerations must be made to accommodate the needs of parent workers. Considerations must be given to how parents will *find* quality care, in addition to the *local supply* of quality care.

Finally, quality child care, including all early care and education efforts, support the healthy growth and development of children, preparing them for school and allowing them to take advantage of future learning opportunities. Communities with quality early care and education opportunities provide a fertile ground for development of an educated future workforce that can meet business needs in the next generation. This concept is often the hardest for parents and employers to grasp, since the impact of choices made now seems so distant in the future. However, research from other states has shown that the quality of child care provided to preschool children, especially those at risk for school failure, impacts their social and academic skills through at least second grade (Peisner-Feinberg et al., 2001). Therefore, we believe that the conscientious steps taken today by Iowa state and local entities *will* help ensure availability of the human resources needed by business twenty years from now.

The interdependent nature of child care and the local economy is the key point from this study. Child care, families, businesses, and communities all operate together to create communities with a high quality of life, including economic vitality. Within this system, children and families are especially sensitive to other community facets. Recent studies by the Midwest Child Care Research Consortium provide evidence that the quality of child care in Iowa is, at best, mediocre (Hegland, Peterson, Jeon, & Oesterreich, 2003). Especially for lower-income households, “Child Care, Parents, & Work” provides evidence that policies aimed at increasing the quality of care that also ultimately raise the cost of care to parents must be carefully weighed. Communities may benefit from seeing early care and education as a shared responsibility, with parents taking the major responsibility for paying for care while the community ensures, both through financial support and monitoring, the educational quality of local programs.

Increasing the quality of care is likely to result in a compensatory increase in the cost of care. Contingencies for low-income and rural households must be provided. Evidence reported here indicate that parents with these characteristics are dependent on child care and will be most sensitive to changes that impact cost or availability.

The impact of such contingencies on child care businesses must also be considered. We already have evidence that child care centers and family providers are barely getting by at the rates now being charged. These providers report they constantly struggle to provide adequate income and benefits to attract and retain quality staff and to stay in business (Iowa Child Care Directors’ Survey, 2005). Child care businesses are an integral part of the interdependent fabric of Iowa communities.

Multiple surveys at the local level and now the representative statewide sample found in the Iowa Family Survey confirm that parents are confused about the meaning of current regulations. While some parents see regulation as a safeguard for their inability to be with their children while the parent works, many others believe that current regulations and monitoring levels provide no peace of mind for parents. Future regulations must address this issue by providing adequate funding for monitoring the quality of care more regularly than now provided. And parents need a better understanding about what assurances are and are not provided by the Iowa child care licensing and registration system.

Community, business, family, and public policy must all work together in this interdependent environment to create an environment that supports parent worker productivity, parent involvement with children, child care businesses, and quality early learning experiences that will provide for future economic vitality in Iowa.

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## APPENDIX A: ECONOMIC ANALYSES USING IMPLAN

### Input-output modeling

An input-output (I-O) model of the Iowa economy was compiled. I-O models are at their most basic level an inter-industrial accounting of transactions along with estimates of household demands for goods and services in light of the availability of goods and services locally. There are several important pieces of data that are reported from an I-O analysis. *Direct values* are those that describe the industry that we are studying. The direct data for our analysis are contained in Table 1. *Indirect values* are a measure of the value of linkages that the direct firm has with the local economy. All firms require inputs, so they indirectly influence the local economy in that inputs that can be purchased locally are purchased locally. The last piece of data that is reported refers to *induced values*. Induced values are sometimes referred to as household values. They accrue in a region when workers in the direct and indirect industries spend their earnings locally. When workers spend their paychecks, they spark an additional round of economic transactions as household goods and services are provided. When we sum all of these values together we get a total, duplicated accounting of transactions that are potentially attributable to the industry that we are measuring.

We also provide several measures of economic activity. The first is industrial output. Industrial output normally refers to the current value of gross sales of the firm that we are assessing. The next value is employee compensation. Employee compensation refers simply to the wages, salaries, and the value of normal benefits that accrue to workers in the industry that we are measuring. The third measure is jobs. Jobs are measured in terms of full or part time jobs rather than as full time equivalent or persons. Most of the manufacturing jobs are full time whereas many of the personal service jobs tend to be part time. When assessing the basic economic importance of an industrial activity to a region, it is almost always preferable to focus on employee compensation, or labor income. Employee compensation is earned and spent locally – it is the portion of value added that communities capture. If this firm is locally owned, then a high fraction of the remainder of value added that is generated will also benefit the community economy.

## **APPENDIX B: IOWA FAMILY SURVEY (2004)**

The Iowa Family Survey database is provided by the Center for Family Policy, Iowa State University. The database is composed of 1,167 respondents who replied to a questionnaire distributed in late fall, 2004. The sampling frame for the survey was the Iowa Household Database, a list of names and addresses for Iowa heads of households that also includes age and gender of the household head and estimated total household income. The database is maintained by CD-DIAL and updated quarterly with InfoUSA, an Omaha, Nebraska firm that markets household lists.

Sampling for the survey was stratified by metro/non-metro status using Metropolitan Statistical Areas to make this distinction. The random sample included 1,535 Iowa residents. Since the questionnaire dealt so heavily with child care and early education issues and the random sample was unlikely to yield adequate respondents with young children, especially those who use child care, an supplemental sample was added. This supplement of 1,534 included randomly selected heads of households who were under 40 years of age. The supplement was also stratified by metro/non-metro status. The response rate for the random sample was 55.8% and the overall response rate was 47.8%. Results may be interpreted at a confidence level of 95% (+/-5%). For more information on the Iowa Family Survey, contact Carol Roskey, Director, Center for Family Policy, Iowa State University, PH: 515.294.3028 or email to [cbroskey@iastate.edu](mailto:cbroskey@iastate.edu).

## APPENDIX C: IOWA FAMILY CHILD CARE PROVIDERS' SURVEY (2002)

The Iowa Family Child Care Providers' database was provided by CD-DIAL, Iowa State University. Funding for this survey was provided by the Iowa Early Care and Education Professional Development Project, now a part of the Iowa Child Care and Early Education Network. The database is composed of 726 respondents who replied to a questionnaire distributed in 2002. The sampling frame for the survey was a list of providers who offered child care in their homes. The list came from the database of regional office of Iowa Child Care Resource and Referral (CCR&R). In addition, a list of providers who receive subsidies (courtesy of Iowa Department of Human Services) for children in their care and who were thought to be non-registered was added to the sampling frame since the CCR&R list probably under-represented family providers who did not participate in the state's system of early care and education training and information.

Sampling for the survey was stratified by CCR&R's Services Delivery Areas – five regions of the state. In addition, an oversample of providers from the DHS list of family providers receiving child care subsidies was included.

Response rate for the survey was 42%. Since it is unknown how many non-registered family providers exist in the state, confidence levels were calculated based on the known number of providers at the time (i.e., the sampling frame). Results may be interpreted at a confidence level of 95% (+/-5%). More information on the Iowa Family Providers' Survey may be accessed online at <http://www.extension.iastate.edu/cd-dial/report04.asp> . Or, contact Kathlene Larson, Research Director, CD-DIAL, PH: 515.294.3452 or email to [katelar@iastate.edu](mailto:katelar@iastate.edu) .

## **APPENDIX D: IOWA CHILD CARE DIRECTORS' SURVEY (2005)**

The Iowa Child Care Directors' database is provided by CD-DIAL, Iowa State University. Funding for this recent survey was provided by the Iowa Business Council and the Department of Sociology, Iowa State University. The database is composed of 293 respondents who replied to a questionnaire distributed in January 2005. The sampling frame for the survey was a list of center child care directors compiled from the databases of Iowa Child Care Resource & Referral (CCR&R). Programs selected for the list were those that were known not to be funded by Head Start funds. However, some directors do report receipt of these funds and other state funds such as Shared Visions. The original intent was to provide an update to the Iowa Child Care Directors' Survey, originally conducted in 2000 by the Iowa Early Care and Education Professional Development project. In addition, financials were needed from directors in order to conduct the economic impact analyses contained in *Child Care, Parents, & Work*.

Sampling for the survey was stratified by CCR&Rs regions. However, the number of directors in all but one region was less than 200. Consequently, all directors in these four regions were included in the distribution list and a sample of 200 providers in the southeast region was also included.

The distribution used a four-phase mailing process, with announcement letter going to each director, followed by a questionnaire, cover letter, and postage-paid envelope. Approximately one week after the questionnaire, a thank you/reminder postcard was mailed. Subsequently, a replacement questionnaire was mailed to those who had not responded. Responses were tracked using a number stamped on the front of the questionnaire.

Results of this survey of child care directors will be available in June, 2005. For more information contact Kathlene Larson, Research Director, CD-DIAL, PH: 515.294.3452 or email to [katelar@iastate.edu](mailto:katelar@iastate.edu).