Economic Impact of Child Care in North Dakota

A North Dakota KIDS COUNT! Research Brief

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Contributors:
Dr. Polly Fassinger
Sarah Jenson
Dr. Richard Rathge

North Dakota KIDS COUNT!
North Dakota State University
PO Box 5636
Fargo, ND 58105

http://www.ndkidscount.org
Forward

This study provides insight into the economic contribution of the child-care industry to North Dakota. In this report we recognize that *child care involves a continuum of care* children may receive throughout a day, including early childhood education and preschool experiences. Much of our data are based on surveys of licensed child-care programs. In North Dakota, child-care programs may be either licensed (in which case, they are reviewed yearly), self-certified (i.e., voluntary registration without yearly review), or uncertified (i.e., operating without informing the state). Because the majority of the data utilized in this report reflect only licensed child-care programs, the *economic impacts noted here are very conservative estimates because they exclude unlicensed (self-certified and uncertified) child-care programs.*

Acknowledgments

We thank Dr. Mildred Warner, Department of City and Regional Planning, Cornell University for her assistance with the input-output modeling and her review of this report. She has been a vital advisor in designing and conducting our analysis. Her willingness to provide technical assistance has been greatly appreciated. We also thank Barb Arnold-Tengesdal of Voices for North Dakota’s Children for her encouragement and guidance. Finally, we acknowledge Linda Lembke, Director of Region 5 & 6, North Dakota Child Care Resource & Referral Network, for her important role in coordinating and collecting the survey data from child-care programs. Her commitment and desire to improve child care in North Dakota is an inspiration to us all.

In addition, we would like to acknowledge the following individuals who have contributed to this project by providing data, reviews, insights, and advice.

<table>
<thead>
<tr>
<th>Linda Rorman</th>
<th>Allison Dybing</th>
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<tbody>
<tr>
<td>Head Start State Collaboration Administrator</td>
<td>Director</td>
</tr>
<tr>
<td>ND Department of Human Services</td>
<td>Towner Early Explorers Head Start</td>
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<table>
<thead>
<tr>
<th>Corrine Bennett</th>
<th>Bobbi Gitter</th>
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<td>Early Childhood Services Administrator</td>
<td>Child Care Subsidy Administrator</td>
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<tr>
<th>Kathy Grafsgaard</th>
<th>Kim Jacobson</th>
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<tr>
<td>Child Nutrition &amp; Food Distribution Director</td>
<td>Child Nutrition &amp; Food Distribution Programs</td>
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<td>ND Department of Public Instruction</td>
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<th>John Hougen</th>
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<tr>
<td>Director, Public Assistance</td>
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<td>ND Department of Human Services</td>
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ECONOMIC IMPACT OF CHILD CARE IN NORTH DAKOTA

Child care makes numerous contributions to a state’s quality of life by enhancing the social and intellectual development of the next generation of citizens. According to the National Association of School Psychologists, enrollment in high quality child-care programs can enhance children’s chances for academic success by helping them develop “increased self-regulation, attention, verbalization, and competence in play and exploration.” In addition, benefits for at-risk children include “decreased placement in special education, fewer behavior problems, decreased grade retention, and lower drop-out rate.”

While much has been written about the social and educational benefits of child care, what do we know about the economic contributions of child care to North Dakota’s well-being? This report will outline several impacts, including the degree to which child care is an income-generating and job-creating industry that

- helps thousands of North Dakota parents join the labor force and provide for their families,
- creates employment for more than 6,000 child-care workers,
- results in annual revenues of more than $123 million,
- contributes to the state’s economy through the purchase of goods and services by child-care programs and their employees and the spin-off of new jobs, and
- provides an important resource for employee recruitment and reduces employee turnover and absenteeism.

In this report, we recognize that child care involves a continuum of care children may receive throughout a day, including early childhood education and preschool experiences.

Children with Working Parents

In 2000, 46,413 North Dakota children under six years of age lived with one or both of their parents. In two-parent homes, 71% of children under six had two employed parents. An even larger percentage (78%) of children living in single-parent families had a parent who worked. The vast majority of children of all ages in North Dakota have parents who are employed. These parental employment rates are considerably higher than in the nation as a whole, as shown in the charts below, indicating that families’ need for child care is relatively high in this state.
Who Provides Child Care?
Child-care programs are located in either private, for-profit facilities or in non-profit organizations. Approximately 1,630 child-care programs are licensed by the state and undergo yearly review. Persons who care for six or more children (or four infants) are required to be licensed.

Type of Licensed Child-Care Programs in North Dakota, 2003

<table>
<thead>
<tr>
<th>Program Type</th>
<th>Program Qualities</th>
<th>Number of Programs</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family&amp;Group</td>
<td>6-18 children</td>
<td>1,403</td>
<td>13,957</td>
</tr>
<tr>
<td>Centers</td>
<td>19 or more children</td>
<td>152</td>
<td>10,974</td>
</tr>
<tr>
<td>Preschools</td>
<td>up to 3 hours per day</td>
<td>55</td>
<td>1,211</td>
</tr>
<tr>
<td>School Age</td>
<td>before/after school care</td>
<td>20</td>
<td>1,537</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>1,630</td>
<td>27,679</td>
</tr>
</tbody>
</table>

In addition, because we define child care as a continuum of care, including early childhood education and preschool experiences, we note that 14 federally-funded Head Start and Early Head Start comprehensive development program grantees in North Dakota (including four tribal grantees) provided early childhood care and education for 2,932 preschool children and 421 infants and toddlers in 2003.

In order to estimate the number of unlicensed child-care programs that exist in the state, we reviewed federal income tax information. These data indicate that there were 3,239 child-care establishments in 2001 in North Dakota that did not have a payroll, which suggests that 3,239 persons were operating a child-care service alone. By subtracting 1,630 from 3,239, we can infer that approximately one half of the state’s child-care programs (N=1,609) may be unlicensed (self-certified and uncertified).

If national data are good indicators of trends in North Dakota, we can assume that about 50% of children under six who have two parents in the labor force or who live with a single parent are cared for by a paid child-care provider. This would entail about 23,200 North Dakota children. The other half is likely to be cared for by one of their parents (22%) or by a grandparent or sibling (29%).

Type of Program Used by Parents
Information provided by the Child Care Resource and Referral Network and the Head Start and Early Head Start programs enables us to estimate the distribution of children in North Dakota’s licensed child care and Head Start settings in 2002-2003. According to these data, almost half (49%) of children were enrolled in licensed family (fewer than 8 children) or group (8-18 children) programs. An additional 27.5% of children were served in child-care centers (19 or more children), 4.4% were enrolled in preschool programs, 5.9% had before/after-school care and 13.2% participated in Head Start/Early Head Start. Most of these children (N=15,163) were under the age of six.
Of the approximately 7,000 school-aged children enrolled in a licensed program, about half are receiving care in a family or group setting, 31% are in a child-care center, and only 19% are in before and/or after school care programs during the school year. Of course, summer months present a special challenge for working parents with young school-age children.

**Affordability of Child Care**
Child-care costs vary depending on the type of program used and the age of the child who needs care. Licensed infant care costs in North Dakota range from about $88 to almost $100 per week. A family with a median family income for the state ($43,654 in 1999) would spend approximately 10% to 12% of their gross earnings on the care of one infant. Of course, costs rise with the addition of siblings.

**Average Costs of Licensed Child Care in North Dakota per Child, by Age of Child and Type of Program, 2003**

<table>
<thead>
<tr>
<th>Age of Child</th>
<th>Child-Care Centers</th>
<th>Family &amp; Group Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average Weekly Rate per Child</td>
<td>Estimated Average Monthly Rate per Child</td>
</tr>
<tr>
<td>0-11 months</td>
<td>$99.48</td>
<td>$397.92</td>
</tr>
<tr>
<td>12-24 months</td>
<td>$98.93</td>
<td>$395.72</td>
</tr>
<tr>
<td>24-36 months</td>
<td>$93.38</td>
<td>$373.52</td>
</tr>
<tr>
<td>3-5 years</td>
<td>$91.20</td>
<td>$364.80</td>
</tr>
<tr>
<td>K-12 years</td>
<td>$88.01</td>
<td>$352.04</td>
</tr>
<tr>
<td></td>
<td>$87.87</td>
<td>$351.48</td>
</tr>
<tr>
<td>12-24 months</td>
<td>$87.56</td>
<td>$350.24</td>
</tr>
<tr>
<td>24-36 months</td>
<td>$85.68</td>
<td>$342.72</td>
</tr>
<tr>
<td>3-5 years</td>
<td>$84.92</td>
<td>$339.68</td>
</tr>
<tr>
<td>K-12 years</td>
<td>$84.05</td>
<td>$336.20</td>
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</tbody>
</table>

*Based on a fifty-two week year.
Employment Generated by Child Care
Child care is a popular occupation in North Dakota. Child-care providers constitute the 10th largest occupation in the state, employing more than 6,000 people. This is similar to the number employed as registered nurses.\footnote{10}

Top Ten Occupations in North Dakota, by Gender: 2000\footnote{10}

Income of Child-Care Workers
Unfortunately, child-care workers’ wages are relatively low in the United States and they are even lower in North Dakota. Child-care workers earn 63% of the median hourly income for workers in North Dakota. These low wages are not a function of a poorly educated workforce. Child-care workers are well educated in North Dakota: about 36% of head child-care teachers have a bachelor’s degree and more than 90% of child-care teacher assistants have at least a high school degree.\footnote{11} In the U.S., about 22% of child-care workers have less than a high school degree.\footnote{12}

Workers’ Wages in 2002\footnote{13}

<table>
<thead>
<tr>
<th></th>
<th>North Dakota</th>
<th>National</th>
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<tbody>
<tr>
<td><strong>Median Hourly Wage for All Workers</strong></td>
<td>$11.12</td>
<td>$13.31</td>
</tr>
<tr>
<td><strong>Child-Care Workers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Hourly Wage</td>
<td>$7.50</td>
<td>$8.32</td>
</tr>
<tr>
<td>Median Hourly Wage</td>
<td>$7.06</td>
<td>$7.86</td>
</tr>
<tr>
<td>Average Annual Wage</td>
<td>$15,590</td>
<td>$17,310</td>
</tr>
<tr>
<td><strong>Preschool Teachers, Except Special Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Hourly Wage</td>
<td>$8.79</td>
<td>$10.45</td>
</tr>
<tr>
<td>Median Hourly Wage</td>
<td>$7.95</td>
<td>$9.26</td>
</tr>
<tr>
<td>Average Annual Wage</td>
<td>$18,280</td>
<td>$21,730</td>
</tr>
<tr>
<td><strong>Educational Administrators (Child-Care Centers/Programs)</strong></td>
<td></td>
<td></td>
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<tr>
<td>Average Hourly Wage</td>
<td>$16.74</td>
<td>$18.84</td>
</tr>
<tr>
<td>Median Hourly Wage</td>
<td>$14.39</td>
<td>$16.03</td>
</tr>
<tr>
<td>Average Annual Wage</td>
<td>$34,820</td>
<td>$39,190</td>
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</table>
Because child care work is a predominately female-based occupation and the concentration of females in an occupation has been shown to affect wages, we compared the mean annual incomes of several female-dominated occupations. As the chart below indicates, child-care workers earn approximately 72% of the annual income of secretaries and 47% of the annual income of elementary school teachers in North Dakota in 2002.

**Mean Annual Incomes of Select Occupations, 2002**

Unfortunately, one of the ramifications of child-care workers’ low wages is relatively high job turnover rates. Nationally, approximately one-third of child-care workers leave their positions each year, usually to find a better-paying job. In North Dakota, about 29% of head child-care teachers in licensed programs have been at their job for less than a year; more than half (52%) have less than two years in the same job. Child-care teacher assistants/aides have even higher turnover in North Dakota: more than half have less than a year’s experience (58%) and more than three-quarters (78%) have less than two years on the job. Because stability is important for children and quality child care, the turnover of employees is a serious issue that needs to be addressed. When polled, licensed care programs in the state dominantly indicated that if they had access to more funds, their top spending priority would be increased wages for employees.

**Length of Time at Current Job for North Dakota Child-Care Workers in Licensed Programs, 2002**
Direct Economic Contributions of Child Care
Licensed private-sector child care for children under six in North Dakota generated gross receipts of almost $59 million in 2003, according to survey data from the Child Care Resource and Referral Network. Care for school-aged children brought in approximately an additional $31.5 million. Government funds related to child-care programs, such as the Child and Adult Care Food Program, and comprehensive child development programs, such as Head Start and Early Head Start, resulted in an additional almost $32.7 million in revenues to the state. In total, more than $123 million were directly contributed to the North Dakota economy through the activities of licensed child-care programs. (If we were able to include data from unlicensed programs, these numbers would, of course, grow significantly.)

Revenues from Child Care in North Dakota, 2002 (in millions of dollars)

In order to gain a sense of the relative contribution of child care to the state’s economy, we compared the revenues listed above with contributions to North Dakota’s gross state product, a statistic used to indicate the value of goods and services produced in the state. Revenues from child care were comparable to the gross state product generated by coal mining, motor vehicle equipment manufacturing, and insurance agents, brokers and services. Child-care revenues exceeded the contributions of industries such as legal services and printing and publishing.

North Dakota Gross State Product for Select Industries Compared to Child-Care Revenues, 2001 (in millions of dollars)
Direct, Indirect, and Induced Economic Contributions of Child Care
Child-care programs enable other North Dakota businesses and organizations to succeed. They directly contribute to the state’s economy by generating income and creating jobs. In addition, they enable thousands of parents to earn an income and, ultimately, to spend their wages purchasing North Dakota goods and services.

The indirect economic effects of child care result when child-care businesses and their employees purchase goods or services. This creates new revenues for the state and serves as a catalyst for maintaining or increasing employment in other industries. In addition, when employees spend their wages, this induces further economic activity and adds to the state’s economy.

Estimates of the direct, indirect, and induced effects of child care on North Dakota’s economy based on regional economic modeling are as follows: every additional $1.00 spent on child care in North Dakota creates another $0.53 in economic activity throughout the state. In addition, each new job created in North Dakota’s child-care industry generates an additional 0.31 jobs in other industries.

Child care also makes valuable economic contributions to workers and employers that are more difficult to quantify. According to recent research, lack of affordable, quality child care can make it difficult for businesses to attract employees. When employees leave their jobs because of child-care problems, hiring and training costs rise. Moreover, when employees are forced to take time off because of child-care problems, productivity can suffer.

Economic Impact of Public Investments
In 2001, 17,021 North Dakota families with children ages 0 to 13 filed for federal child-care tax credit. These parents obtained credits totaling $6.6 million, which came back to the state as expendable income. In addition to this credit, the earning potential of these parents is considerable. A conservative estimate of the total household income for all families relying on child care can be obtained by multiplying the number of families who filed for federal child-care tax credit by the North Dakota median family income. This indicates that more than $743 million of North Dakota’s income is generated by families who are reliant on paid child care.

\[
\begin{array}{c}
17,021 \text{ Working families with child-care tax credit}^{24} \\
x \$43,654 \text{ Median family income}^{25} \\
\$743,034,734 = \text{North Dakota household income reliant on child care}
\end{array}
\]

Federal spending such as Head Start and Early Head Start funding and child-care food programs contribute more than one quarter (27%) of the child-care sector’s gross receipts. Our economic analysis indicates that each new federal dollar contributed to the child-care industry generates $0.86 to the broader North Dakota economy through purchases by child-care centers and spending from wages. This investment has an overall impact on the revenue created in other industries of about $87 million.
Conclusion

Based on these findings it is clear that the child-care industry plays an important role in North Dakota’s economy in many ways:

*Child care is a significant industry*
- Child care is the tenth largest occupation in North Dakota employing over 6,000 residents
- More than $123 million in revenue was generated in the child-care industry alone

*Child care indirectly contributes significantly to North Dakota’s economy*
- Every new dollar spent on child care creates an additional $0.53 in economic activity
- For every additional 100 jobs created in the child-care industry, 31 other jobs are spun off in other industries

*Child care has major effects on North Dakota’s economy*
- Nearly $47 million in federal monies were allocated to North Dakota to support children’s care and development
- Each additional dollar contributed to child care in North Dakota by the federal government generates $0.86 more in economic activity throughout the state

*Child care increases household income and enables parents to work*
- More than 17,000 families rely on paid child care in North Dakota
- North Dakota families using child care earn more than $743 million annually

While the economic impact of the child-care industry in North Dakota is impressive, these data only reflect publicly-reported information. A large informal network of child care adds to the magnitude of the child-care industry as an important revenue and job creating segment of North Dakota’s economy.

<table>
<thead>
<tr>
<th>Current Economic Contributions of North Dakota Child Care</th>
<th>Potential Economic Contributions&lt;sup&gt;27&lt;/sup&gt;</th>
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</thead>
<tbody>
<tr>
<td>$123 million in revenue</td>
<td>$1,230,000 in additional child care revenue</td>
</tr>
<tr>
<td>6,020 jobs</td>
<td>$651,900 in additional revenue for other industries</td>
</tr>
</tbody>
</table>

Total: an additional $2,287,800
Policy Implications:
Quality, Affordable Child Care

Clearly North Dakota’s child-care industry plays a significant, vital role in the state’s economy. It contributes to state revenues and job growth and enables thousands of parents to remain in the labor force and support their households. Because North Dakota families are heavily involved in the labor force (including having one of the highest rates of multiple job holders in the nation) and are employed at much higher rates than families across the U.S., it seems likely that North Dakota residents are more reliant on child care than most Americans.

In light of these trends, what kinds of changes in child care would best serve the needs of this state? First, since such a large proportion of our state’s children have working parents, we suggest that the state is best served by enhancing the quality of child care. Research on the effects of child care shows that positive outcomes are dependent on high quality child care. Maintaining and enhancing the quality of child care in a state with a well-educated child-care workforce should focus on addressing issues of low pay. This will, in turn, help stem the tide of high turnovers.

In addition, North Dakota should increase access to affordable child care. Our evidence indicates that the average family spends between 10% to 12% of their income on child care for one infant in North Dakota. According to The Urban Institute, families in the U.S. with a child under 13 spend an average of 9% of their earnings on child care. Of course, this proportion increases significantly for U.S. low-income families (14%) and poor families (18%). Their recent analysis notes that “even with free help from a relative or participation in a subsidized program, child care is a significant burden for low-income working families, probably ranking third in their budgets after shelter and food.”

Taking Action: Whose Responsibility is it?

Child care is an investment in the future of our state. Greater access to high quality child care will enhance the lives of children, help businesses attract and keep employees, generate increased state revenues, contribute to the strength of our future state workforce, and strengthen the quality of life that North Dakotans currently enjoy. All citizens, including employers, the child-care industry, state and local governments, and parents can be catalysts for policies and programs that could assure a strong future for children in our state.

We encourage businesses and other employers to
- urge the government to implement incentives for employers who support employee child-care plans or benefits and
- be a public advocate for increased access to affordable, high quality child care.

We suggest that the child-care industry
- create partnerships with organizations (such as T.E.A.C.H.) that support the development of high quality child-care personnel.
• partner with small business development organizations to help child-care programs gain access to small business assistance and resources,
• increase professional development opportunities for child-care workers, and
• educate the public about the benefits of high quality child care.

We recommend that **state and local governments**

• utilize federal block grants to develop programs to raise the wages and benefits of child-care workers,\(^{32}\)
• institute incentives (such as tax credits and program quality rating systems for parents) that support the development of high quality child-care programs and better paid staff,
• pass legislation that encourages businesses to support child-care plans for their employees, and
• create incentives for after-school and summer-care programs.

We encourage **parents and the general public** to

• encourage their state and local legislators to support child-care program incentives and tax credits and
• raise the issue of access to affordable, high quality child care with candidates for public office.
Citations


3. Child Care Resource and Referral. 2003. (Unpublished data.) Bismarck: Child Care Resource and Referral. Note that approximately 50% of licensed care programs did not respond to the survey cited here. Therefore, information obtained by Child Care Resource and Referral Network on licensed programs is very conservative.


20. In addition, the state and tribal units received more than $14 million from Child Care and Development Funds in 2002. Because most of this money went directly to child care programs and would be reflected in program receipts, we did not include those funds in this estimate. U.S. Census Bureau. 2001. “Consolidated Federal Funds Report.” Washington, D.C.: U.S. Census Bureau. Retrieved June 2004 (http://harvester.census.gov/cffr/index.html).


22. Regional economic modeling was conducted using IMPLAN. For a detailed description of the methodology used in the model see (http://government.cce.cornell.edu/doc/pdf/MethodologyGuide.pdf).


26. Forty-seven million dollars includes $32.7 million from the Child and Adult Care Food Program and Head Start/Early Head Start programs in addition to the more than $14 million received from the Child Care and Development Funds.

27. Regional economic modeling was conducted using IMPLAN. For a detailed description of the methodology used in the model see (http://government.cce.cornell.edu/doc/pdf/MethodologyGuide.pdf).


32. Wisconsin’s Local Child Care Wage Initiative used federal Child Development Block Grant money from the TANF program to support their pilot program. See (http://www.cows.org/current/childcare-ov.asp).