

Executive Report • 2005

Early Care *and* Education: A Vital Economic Sector in Monroe County

An Economic Analysis

“A high quality early care and education system, like roads and bridges, is part of the infrastructure for economic development.”

~Professor Mildred Warner, Cornell University



A report by the New York State Child Care Coordinating Council Commissioned by Rochester-Monroe Early Childhood Development Initiative, funded by Rochester's Child, a program of Rochester Area Community Foundation Initiatives.

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Early Care and Education: A Vital Economic Sector in Monroe County An Economic Analysis

Introduction

Quality early care and education has long been recognized as a social good, a necessary support for working families and an opportune time and place for children to be taught essential life and learning skills. But more recently, several noted economists¹, as well as those within state and local government have come to recognize the significant impact that the early care and education sector has on the economy. This report describes the early care and education sector in Monroe County and documents the essential role it plays in the economic development of this region.²

What is Economic Development?

Economic development is the process of improving the quality of human life by increasing personal income and enhancing individual economic opportunities. Sometimes the definition also includes better education, improved health and nutrition, and a richer cultural life.³ Traditional economic models often overlook many of these quality of life aspects and focus instead on creating jobs and supporting business through physical infrastructure investments such as loans, tax abatement, and job training. More recently, however, there has been a growing awareness among economists of the importance of the social infrastructure to a region's economic health.

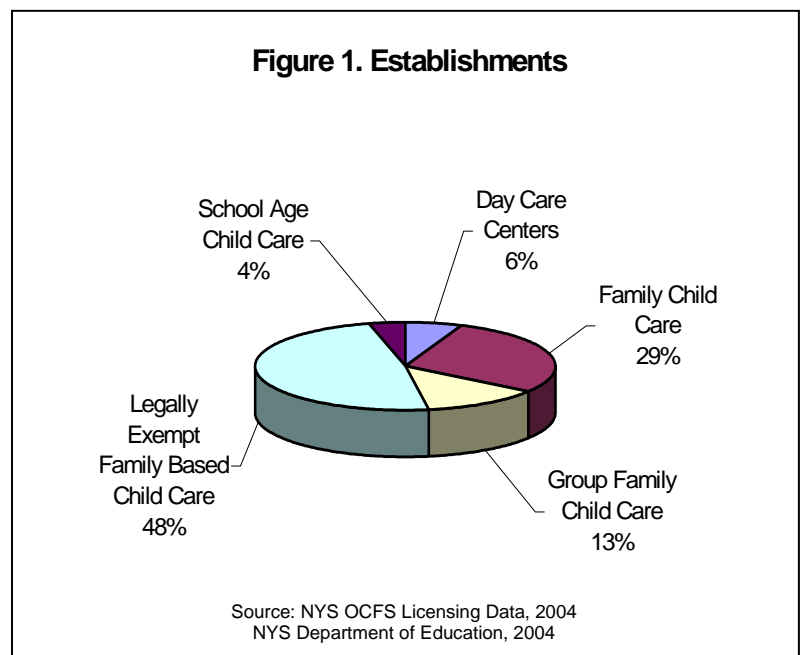
Framing the Sector

How a community frames early care and education “is a factor in determining whether [the community] looks to solve the issue in the public arena of government or in the private arena of family...”⁴ In the past, two frameworks have dominated the sector, a welfare framework and an education framework. Bringing an economic development framework to the field allows the full value of the sector to be showcased and can stimulate new approaches that strengthen the sector at the local level.

Early Care and Education in Monroe County

Establishments

According to New York State licensing data, there are 2,217 regulated and legally-exempt early care and education establishments operating in Monroe County.⁵ These include not-for-profit and for-profit child care centers, family and group family child care homes⁶, and school-age care programs, as well as targeted programs such as Head Start and state funded Universal Pre-Kindergarten (UPK).⁷ Family based programs, both regulated and legally-exempt, are small businesses located in private homes and comprise 90 percent of all early care and education establishments in Monroe County [See Figure 1].



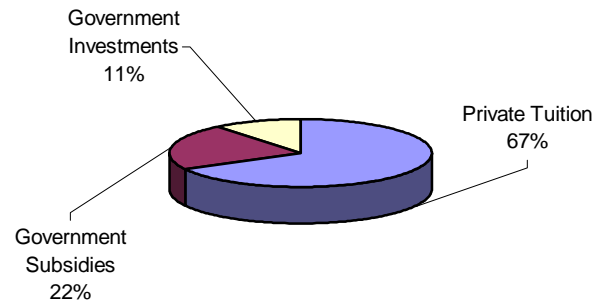
Gross Receipts: A \$210 Million Dollar Industry

The early care and education sector in Monroe County generates nearly \$210 million in gross receipts.⁸ As noted in Figure 2, gross receipts are comprised of parent tuition⁹, government subsidies¹⁰ and government funded industry supports.¹¹ Government subsidies and industry supports include money for start-up grants for new child care programs, funding for the Child and Adult Care Food Program (CACFP), State University of New York and City University of New York child care programs, and several other quality initiatives.

Employees

Over 7,500¹² people in Monroe County work in early care and education businesses. Jobs within the sector include teachers, teachers' aides, center directors, administrators, janitors and other support staff. Collectively these workers earn over \$127.3 million annually.¹³ This money is primarily spent locally, supporting other local industries as well as the larger regional economy.¹⁴

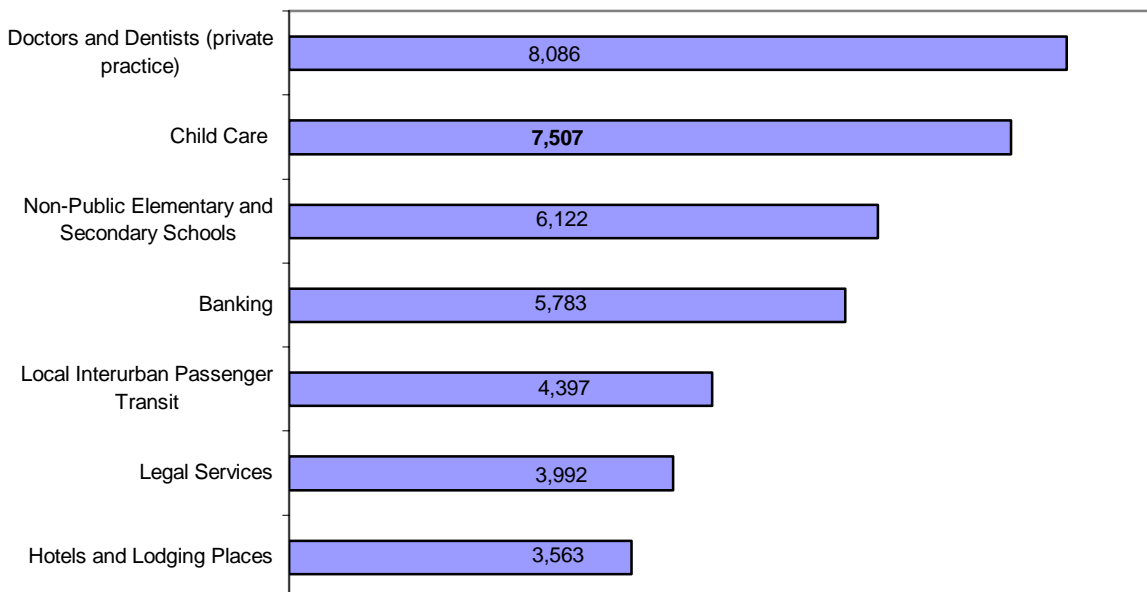
Figure 2. Gross Receipts of Monroe County Child Care: Sector By Source



Source: NYS OCFS LCM, 2004

The early care and education sector is a significant employer in Monroe County with more employees than sectors such as non-public elementary and secondary schools, local/interurban passenger transit, and banking¹⁵ [See Figure 3].

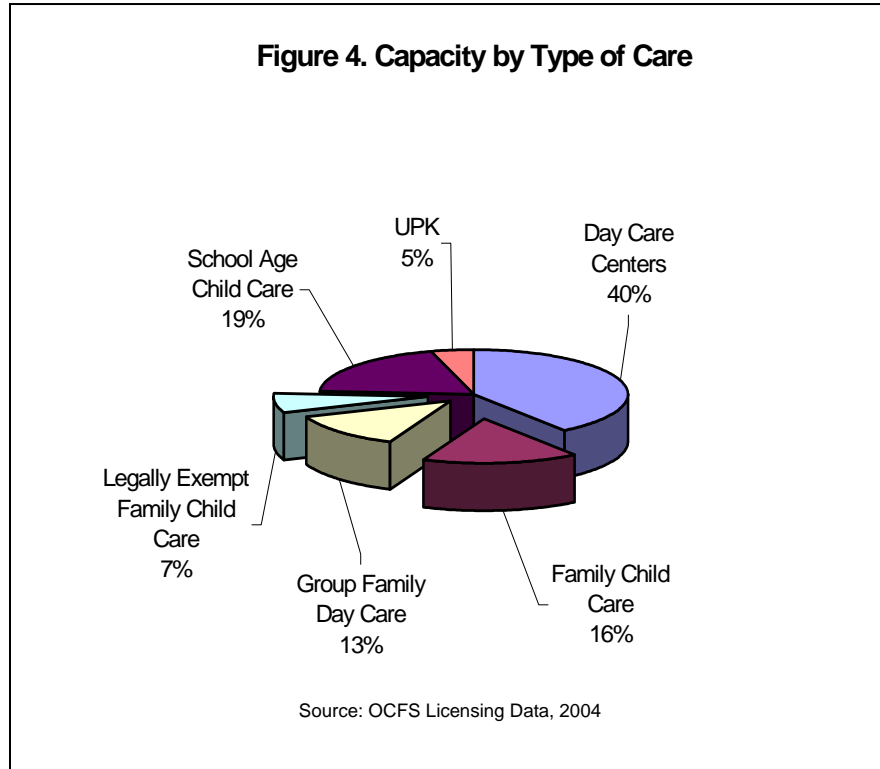
Figure 3. Monroe County Employment Comparisons



Source: IMPLAN, 2000 generated by Mildred Warner, PhD. and Yuri Mansury PhD of Cornell University City and Regional Planning Department – IMPLAN data is generated from several data bases and notes 2,523 Child Care Employees; however, child care expanded numbers based on NYS OCFS estimates (2002) indicates 7,507 sector employees. (See footnote 11 for more information).

Children

More than 30,000 Monroe County children attend early care and education programs.¹⁶ Though the majority of child care businesses are home-based, only 36 percent of all children are cared for in these establishments. Sixty-four percent of children are cared for in either a child care center, or a community/school-based after-school program. It is important to note, however, that these numbers under represent the children in care because they reflect only regulated and legally exempt capacities documented by the Monroe County Department of Human Services [See Figure 4].



Working Families

Quality early care and education programs are critical to the well-being of working families. These programs support working parents by allowing them to be more productive knowing that their children are safe and thriving. In Monroe County, over 36,000¹⁷ working parents have children who attend regulated early care and education programs. With an average salary of \$34,448, these parents collectively earn more than \$1.25 billion annually,¹⁸ fueling Monroe's economy through their productivity and consumption of local goods and services.

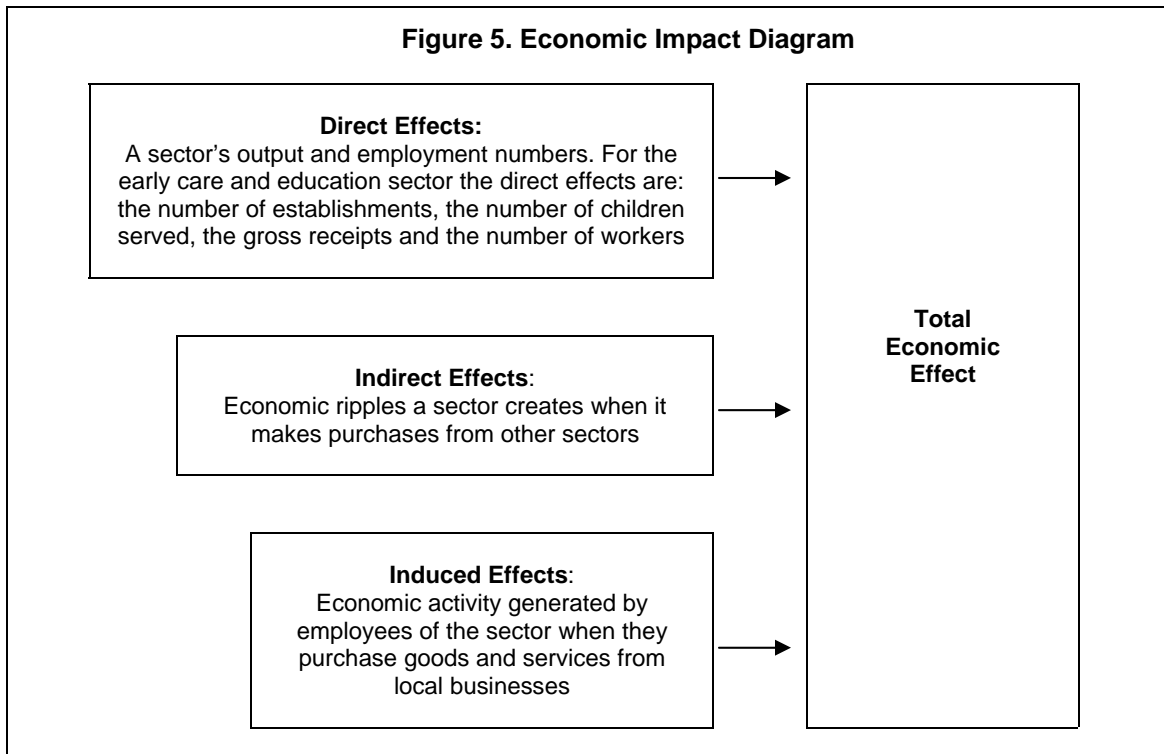
Economic Impact and Linkages to the Broader Economy

Methodology and Findings

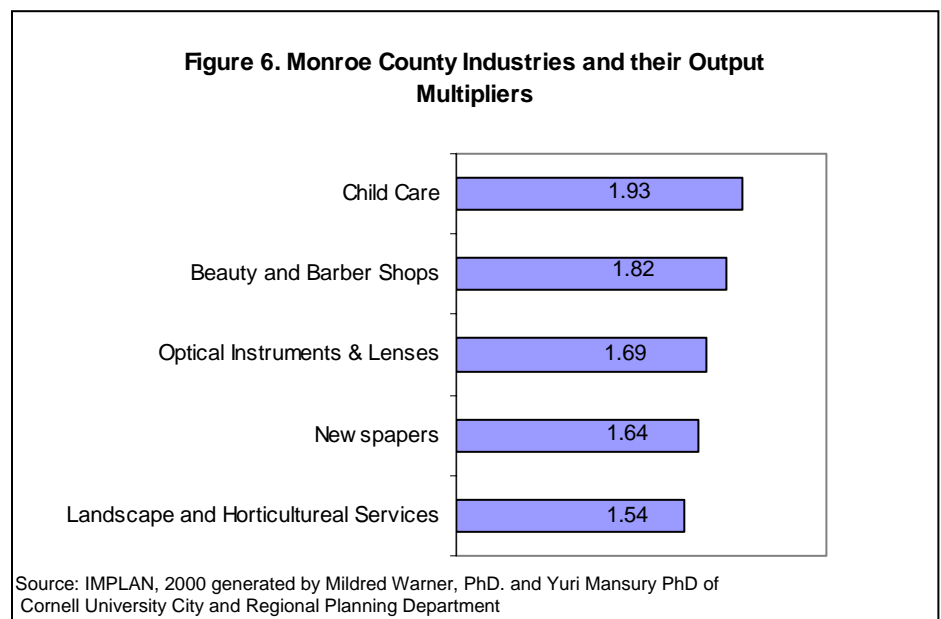
Regional economic modeling, known as input-output analysis, was used to measure the linkage effect – the combined direct, indirect, and induced effects of Monroe County's early care and education sector. An output and employment multiplier was used to assess the sector's impact on the broader regional economy. An output multiplier estimates total sales generated in the larger economy by each dollar of increased direct spending for child care services. An employment multiplier estimates the gross number of jobs created throughout the economy from the addition of one new job in the early care and education sector resulting from an increase in demand for child care services.

Every industry has its own direct effect on the economy. The number of workers and the gross receipts presented on the previous pages provide a picture of the direct effect of the early care and education industry in Monroe County. By these measures, early care and education is clearly an important economic sector.

However, like all other businesses, child care also has linkages to other industries, and these linkages have both indirect and induced effects on the economy [See Figure 5]. Indirect effects measure the activity that the industry creates within the economy when it makes purchases from other sectors. For example, when child care businesses purchase toys and furniture, they stimulate demand in the retail and manufacturing sectors. Induced effects capture the impact of the wages spent by child care workers for goods and services. Workers spend money on groceries, clothing, housing, and so forth, generating demand in other local industries.



Because most purchases by the early care and education sector are made locally, the sector has a strong linkage effect within the local economy. The stronger the linkage effect, the larger the output multiplier defined by IMPLAN, an economic modeling software program. A statewide report conducted by Cornell University for the New York State Child Care Coordinating Council in 2004 found that the early care and education sector's linkage effect in the state economy is higher than many other sectors that receive significant economic development support such as hotels and lodging, job training and local interurban transit.¹⁹ The sector's linkage effect in Monroe County is higher than sectors such as optical instruments and lenses, newspapers, and beauty and barber shops.²⁰ [See Figure 6]

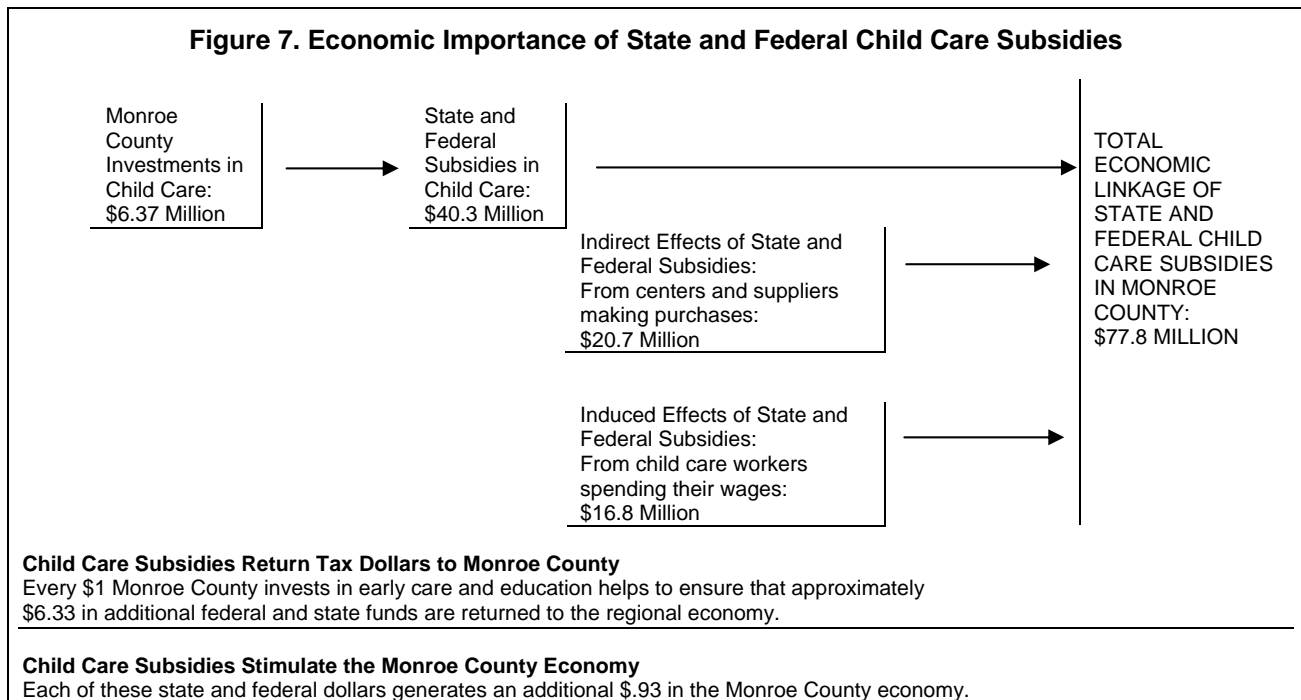


Impact of Government Investment

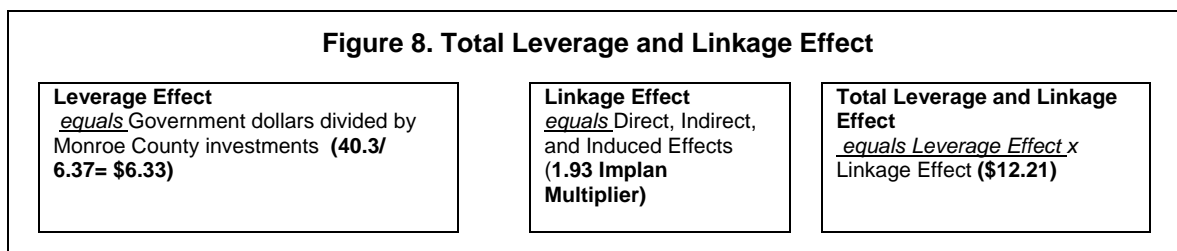
Linkage and Leverage Effects

In 2003-04, Monroe County invested \$6.37 million local dollars to help low-income families pay for child care.²¹ In turn, this local investment in the early care and education sector allowed Monroe County to leverage (i.e. draw down) state and federal dollars. Each local dollar secured \$6.33 state and federal dollars, which totaled \$40.3 million in 2003-04.

In order to estimate economic changes in demand for child care services that come from outside of the County, we used an IMPLAN derived Type II multiplier²² to measure the direct, indirect, and induced effects of the child care sector. In this case, because the primary source of outside funding for child care is state and federal investments, our analysis focused specifically on these dollars. The impact of these state and federal dollars on the local economy was larger than their direct effect (i.e. greater than \$40.3 million). The Type II output multiplier for Monroe County is 1.93. This means each state and federal dollar generates an additional \$.93 in the broader Monroe County economy. Thus the total economic linkage effect of these federal and state child care dollars in Monroe County was \$77.8 million [See Figure 7].



Combining the leverage and linkage effects described above, we find that each local dollar invested in the early care and education sector generates \$12.21 within the broader county economy [See Figure 8]. Clearly, investments in child care not only support children and families, they also provide an excellent immediate economic stimulus to the Monroe County economy.



Quality Matters to Children, to Business and to the Community

What a child learns early in life affects brain development and future learning potential. Patterns of interpersonal and moral development, prosocial behavior, empathy, self-confidence and a sense of responsibility for oneself and others are critical traits that develop early (birth to 5 years). High quality early care and education programs nurture all of these traits. According to the National Institute for Early Education Research,²³ studies on investment within the early care and education sector indicate that quality early care and education programs promote school readiness benefits, such as decreasing grade retention, and reducing special education costs by allowing early intervention. Longitudinal studies such as the Perry PreSchool Project²⁴ have shown that low-income children who participated in a quality early care and education preschool program in their early years “have higher earnings, are more likely to hold a job, have committed fewer crimes, and are more likely to have graduated from high school.”

Quality early care and education sets children on a path to becoming productive, resourceful, creative, and problem-solving adults, and businesses want to locate in places with these kinds of citizens and workers. According to Richard Florida, Professor of Regional Economic Development, Heinz School of Public Policy and Management, Carnegie Mellon University²⁵ “What attracts a business to a community has less to do with low taxes and cheap land, and much more to do with the presence of talented people.”

“Helping our youngest children develop their life and learning skills results in better citizens and more productive workers. Compared with the billions of dollars spent each year on economic development schemes, ECD [Early Childhood Development] is a much better economic development tool. Now is the time to capitalize on this knowledge.”

--Rob Grunewald and Art Rolnick, Federal Reserve Bank of Minneapolis from A Proposal for Achieving High Returns on Early Childhood Development, 2004

Summary

- The early care and education sector is a \$210 million dollar industry that directly serves over 30,000 children, employs over 7,500 workers, and supports 36,000 working parents.
- The sector has greater economic linkages than industries such as optical instruments and lenses, newspapers, and beauty and barber shops.
- In 2004, Monroe County invested \$6.37 million local dollars to fund early care and education. These local dollars, in turn, secured (i.e. drew down) an additional \$40.3 million from federal and state government.
- Each state and federal dollar generates \$1.93 in the larger Monroe County economy. This results in a total leverage and linkage effect of \$12.21.
- Countywide, the total economic impact of local, state and federal funding is estimated at \$77.8 million.
- Quality early care and education provides children with the skills they need to be successful in school and in life and has economic benefits for the community.
- Early care and education in Monroe County is not only a public good, but also an important economic sector in its own right.

Recommendations

All child care industry stakeholders-businesses, government and the child care industry- must work and plan together to maximize the economic potential of the child care industry.

❑ ***Include the child care sector in community efforts to build a stronger economy.***

The child care sector supports thousands of working parents and helps build a talented future workforce.

The sector is essential in helping to attract new county residents and businesses to the area and needs to be part of the efforts of other key partners such as Greater Rochester Enterprise and the Rochester Business Alliance to build a stronger economy.

In order to facilitate continued economic development within the early care and education industry, stakeholders should convene a discussion to create an economic development action plan for the early care and education sector. This plan, developed as a partnership effort, will guide efforts to strengthen the community economically and enhance the quality of early education for the children and families in Monroe County in the years ahead.

❑ ***Support improved and expanded data collection methods within Monroe County and the Rochester Metropolitan Statistical Area.***

Parents, employers, and the community need a comprehensive picture of both current availability and desired capacity of quality child care and early education programs. A joint data collection strategy between the local child care resource and referral organization and Monroe County will ensure accurate and comprehensive information about supply and demand so that resources can be identified and more accurately targeted to specific business, geographic or demographic areas of need. Improved data collection will also demonstrate the vital role the child care sector plays in supporting local employers and the County's economy as a whole.

❑ ***Support collective management strategies for the sector.***

Supporting efficient communication, management, and administrative strategies within the early care and education sector will allow businesses to share services and save money. For example in Lawrence, MA, Community Day Care, Inc./ Community Day Charter School serves seven centers, a network of family child care homes, and a charter school. All three programs share one administrative unit, which provides fiscal services, human resources, staff development, physical and mental health support services, food services, data analysis, technical support, and maintenance and transportation. These examples and others are highlighted in another Cornell University report authored by Louise Stoney.²⁶

❑ ***Identify additional financial resources to support the early care and education sector.***

Working with non-traditional partners will allow the sector to tap into additional funding streams not previously considered. A recent report by Cornell University Cooperative Extension outlines a number of ways in which different economic development strategies can be applied to strengthen the child care sector. Examples of funding sources that should be considered for Monroe County are Enterprise Zone funding, and transportation and information technology funding.²⁷

Acknowledgements

We would like to acknowledge Professor Mildred Warner of Cornell University Department of City and Regional Planning and Cornell Cooperative Extension for the background research, computer analysis and advice throughout this project. Additional acknowledgments go to Child Care Council, Inc. specifically, to Ursula Burke for her data collection and advice throughout the project and to Joe Martino from the Monroe County Department of Human Services, and Dee Dwyer from New York State Education Department.

End Notes

¹ Economists such as Art Rolnick and Rob Grunewald of the Federal Reserve Bank of Minneapolis, Mildred Warner at Cornell University and Robert Lynch of the Economic Policy Institute..

² NYSCCC and the Child Care Council, INC. of Monroe collected all data for this report, with the exception of IMPLAN analysis, which was conducted by Mildred Warner, PhD. and Yuri Mansury PhD of Cornell University City and Regional Planning Department. The local Monroe data was collected in November and December 2004.

³ AgTrade.com: www.agtrade.org/defs.cfm accessed 1 March 2005

⁴ Source: Warner et al., "[Addressing the Affordability Gap: Framing Child Care as Economic Development](#)," *Journal of Affordable Housing and Community Development Law*, 12(3):294-313.

⁵ State licensing data divides establishments into four modalities: Child Care Centers, Family Child Care, Group Family Child Care, and After school Care. Data from the state licensing was obtained using CCFS in November 2004. In addition to licensed care Ursula Burke, from the Child Care Council, Inc of Monroe County provided the number of legally exempt providers documented by the county. This information was reported to Ms. Burke from a contact at the Local Department of Social Service. **Establishment** numbers include: **Day Care Centers** (138) + **Family Child Care** (634) + **Group Family Child Care** (282) + **Legally Exempt Care** (1077) + **School Age Care** (86). Family based programs include Family Child Care, Group Family Child Care and Legally Exempt Care.

⁶ Family based care includes family and group family care. Family child care centers can care for a total of 6 children if all children are over two years of age. They can only care for a total of 5 children if they care for infants, and then may have only 2 children under the age of 2. In both cases, they may take two school age children in addition to their licensed total. Group family child care centers are allowed to care for up to 12 children and are not limited in the number of infants they can accommodate. Whenever they care for more than 6 children, there must be an assistant on site and they are required to have one staff person for every 2 infants.

⁷ Universal Pre Kindergarten establishments are licensed by OCFS

⁸ Gross receipts include: Parent tuition, Government Industry Support, and Government Subsidy.

⁹ In order to calculate parent tuition receipts a formula using capacity numbers retrieved from the state licensing data and a cost of care by age and modality were used. Following is the detail formula used for each modality. **Center Care:** [For Infants, toddlers, and Pre-Kindergarten center care] Weekly Cost of Full-Time Care by Age x Capacity by Age x 52 weeks ($\$168 \times 10,803 \times 52 = 96.4$) + [For School Age center care] Part-time School Age cost x Total Capacity x 40 weeks (a full school year) ($\$17 \times 1,426 \times 40 = 2.6$) + Full-time School Age Cost x Total Capacity x 12 weeks (summer time care) ($\$150 \times 1,426 \times 12 = 969,680$) **Center Care = 96.4 + 2.6 + 969,680 = 99.9 Million**

Family Day Care: Weekly Average Cost of Care all Age Brackets x Total Capacity * 52 weeks

Family Day Care = $\$129 \times 5,046 \times 52 = 33.8$ Million

Group Family Day Care: Weekly Average Cost of Care all Age Brackets x Total Capacity x 52 weeks

Group Family Day Care = $\$139 \times 3,897 \times 52 = 28.1$ Million

Legally Exempt Care: Weekly Average Cost of Care all Age Brackets x Total Capacity x 52

Legally Exempt Care = $\$92 \times 2,154 \times 52 = 10.3$ Million

School Age Programs: Part-time cost x Total Capacity x 40 weeks (a full school year) ($\$17 \times 5,949 \times 40 = \4 Million) + Full-time cost x total capacity x 12 weeks (summer time care) ($\$150 \times 5,949 \times 12 = 10.7$)

School Age Programs = 4 Million + 10.7 Million = 14.8

Total parent tuition = Center Care (99.9 Million) + Family Day Care (33.8 Million) + Group Family Day Care (28.1 Million) Legally Exempt Care (10.3 Million) + School Age Care (14.8 Million) = 186.9

¹⁰ **Government Subsidy** includes: Child Care Block Grant allocation (40.3M) + Maintenance of Effort (4.9M) + Additional Local Funds (1.4M). **Total Government Subsidy = 46.7M**

¹¹ **Government Industry Support** which includes: CACFP (2.7M) + Head Start (12.4M) + UPK (7.0M) Start UP/Health and Safety (138,100) + Professional Retention (493,550). **Total Government Industry Support = 22.8M**

¹² Employee numbers include: **Family Providers** (estimating one staff per establishment = 634) + **Group Family Providers** (estimating two staff people per establishment = 564) + **School Age Care** (estimating a ratio of 1:10 = 595) + **Day Care Centers: Staff** (estimating a ratio of 1:5 and additional .38 FTE for every one full time employee because most centers stay open from 7 am to 6pm = 3,375) + **Administrative and support staff for centers and school age care** (estimating ratios from retention data that indicate there is .23 non-direct care staff person for each direct care employee = 913) + **Legally Exempt Providers** (estimating one staff per establishment = 1077) + **UPK** (estimating a 1:4 ratio in these classrooms = 349).

¹³ Average employee salary = State Average $\$16,970 \times$ Number of employees (7,507) = $\$127.3$ Million

¹⁴ As indicated in the New York state-wide report, the number of employees contained in the IMPLAN modeling software is lower than estimates noted in this report because the data sources used by IMPLAN tend to undercount self-employed providers. In addition government/public school employees are counted under government – not child care. .

¹⁵ The IMPLAN code and SIC crossover codes can be found at the Minnesota IMPLAN Group Inc. website available at: <http://www.implan.com/kb/question.php?qstId=228>. Detailed SIC definitions for the sectors can be available at: Occupation Safety and Health Administration, US Department of Labor available at http://www.osha.gov/pls/imis/sic_manual.html. The following are the IMPLAN Codes for each sector noted in this section: *doctors and dentists* IMPLAN 490; *child care* IMPLAN 499; *private*

elementary and secondary schools IMPLAN 528; *banking* IMPLAN 456; *local/interurban passenger transit* IMPLAN 434; *legal services* IMPLAN 494; *hotel and lodging places* IMPLAN 463

¹⁶ The estimate for licensed care capacity was derived using state licensing data and was collected November 2004. These estimates document capacity, not actual enrollment rates, and if vacancies are large, may be a slight overestimate. This data reports the capacity, broken down by modality as: **Centers** (12,229), **Family Day Care** (5,046), **Group Family** (3,897), and **School Age Care** (5,949). In addition, the Child Care Council of Monroe supplied the documented capacity for **legally-exempt care** (2,154) and Dee Dwyer, from the State Education Department documented the number of children enrolled in **UPK** but not already counted in state licensing data (1,396). **Total licensed capacity=30,671**

¹⁷ In order to find the number of Monroe County working parents Census data was collected to find the number of children living in families and subfamilies with one single parent and two parents (in dual parent families) in the labor force (Total=35,122). This number was then divided by the average number of children per family to determine the ratio of children to working parents (children per family=1.6). This ratio was then applied to the number of child care slots found in Monroe County to determine the number of working parents associated with children estimated to be using regulated slots. (Total Monroe County working parents with children in regulated care=32,192) All Census data used comes from Summary File 3 (SF3) and can be downloaded from American Fact Finder: <http://factfinder.census.gov/>. This report used SF3 tables P46 and P15. The methodology noted above was demonstrated in the following report:

Ribeiro, Rosaria and Mildred Warner, Ph.D. 2004. *Measuring the Regional Economic Importance of Early Child Care and Education: The Cornell Methodology Guide*. Ithaca, NY: Cornell University Department of City and Regional Planning.

¹⁸ Parents Annual Salary- Number of Working Parents in Monroe County (36,192) * Average Finger Lake Region (\$34,448)= \$1.25 Billion

¹⁹ Source: IMPLAN, 2000 analysis conducted by Cornell University December 2004.

²⁰ The IMPLAN code and SIC crossover codes can be found at the Minnesota IMPLAN Group Inc. website available at: <http://www.implan.com/kb/question.php?qstId=228>. Detailed SIC definitions for the sectors can be available at: Occupation Safety and Health Administration, US Department of Labor available at http://www.osha.gov/pls/imis/sic_manual.html The following are the IMPLAN Codes for each sector noted: *optical instruments and lenses* IMPLAN 406; *newspapers* IMPLAN 174; and *beauty and barber shops* IMPLAN 466.

²¹ **Local dollars** include: state required **Maintenance of Effort (MOE)** dollars (\$4.97 million) + **Additional local funds** (\$1.4 million). In 2003-04 Monroe County received its \$40.3 million CCBG allocation as a result of meeting county required *MOE*. *Additional local funds* invested toward child care does not effect the county's CCBG allocation.

²² Type II multipliers count direct and indirect effects as well as induced effects. Induced effects are purchases made by workers as they spend their wages throughout the economy.

²³ Source: National Institute for Early Education Research reports available at: <http://nieer.org/resources/facts/index.php?FastFactID=6>

²⁴ Source: High/Scope Research Foundation "Lifetime Effects: The High/Scope Perry Preschool Project" <http://www.highscope.org/Research/PerryProject/perrymain.htm>

²⁵ Source: "Top Quality Of Life A Magnet For Business" available at http://www.heinz.cmu.edu/~florida/pages/new_economy/top_quality.htm.

²⁶ For more information please see "*Economic Development Strategies to Promote Quality Child Care*" by Mildred Warner, Ph.D., et al. Additional examples of collective management strategies are highlighted in another Cornell University report: Stoney, Louise 2004. *Collective Management of Early Childhood Programs: Approaches that Aim to Maximize Efficiency, Help Improve Quality and Stabilize the Industry*. Ithaca, NY and Raleigh, NC: Cornell University and the National Smart Start Technical Assistance Center.

²⁷ Please see "*Economic Development Strategies to Promote Quality Child Care*" by Mildred Warner, Ph.D., et al. 2005. Ithaca, NY: Cornell University Department of City and Regional Planning.

<http://economicdevelopment.cce.cornell.edu>. for more examples of funding sources.