2004

INVESTING IN NEW YORK

An Economic Analysis of the Early Care and Education Sector

A high quality child care system, just like roads and bridges, is part of the infrastructure for economic development.

A report by the Cornell University Department of City and Regional Planning for the New York State Child Care Coordinating Council.

NEW YORK STATE Child Care COORDINATING COUNCIL

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An Economic Analysis of the
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April 2004

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The kind of cross-fertilization of ideas and thinking that underlies this report inspires NYSCCCC and the Cornell University Department of City and Regional Planning to seek out other cooperative ventures that recognize and act on the important role child care plays in New York State's economy.

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EARLY CARE AND EDUCATION IS AN IMPORTANT ECONOMIC SECTOR

Quality child care has long been recognized as an important social good. But while public policy analyses have focused on the critical contribution quality care makes to the lives of children and families, increasingly, states, counties, and municipalities have begun to understand its value to the local economy. The facts and figures that demonstrate the economic importance of the child care sector are numerous and compelling. Still, in New York, as in many other states, there is a need to bring together key elements of that information so that public officials and citizens have a clearer picture of the economic dimensions of child care services.

The purpose of this report is to provide such a synthesis. To capture the importance of child care on the state's economy, the report focuses not only on *traditional child care services* but also on programs, such as the ones operated as part of the state's Universal Pre-Kindergarten (UPK) initiative, that are most commonly called *early education* (although, of course, all good child care is educational). Taking this broad view, the report describes how the number of the state's early care and education establishments, their capacity, the employment they provide, and their gross receipts –the amount of payments and other funding they receive - affect the New York economy.

When early care and education is examined through the lens of economic development, it is clear that these services encompass thousands of small businesses and that, collectively, these establishments form an infrastructure that helps New York parents enter and stay in the workforce. It also becomes clear that besides serving the important function of providing quality services to families, the child care sector is a source of strength to New York's economy. In examining the connection between early care and education and economic viability, this report highlights how continued and expanded investments in this sector can benefit the New York economy.

Establishments: Over 22,000 small businesses

There are over 22,000 regulated[1] child care businesses in New York State.[2] They include private and not-for-profit institutions, such as child care centers, family day care providers[3], group

[1] Regulated care under the auspices of the NYS Office of Children and Family Services (OCFS) includes both programs that are licensed (child day care centers and group family day care homes) and those that are registered (family day care homes and school-age child care programs). In New York City, center-based programs are regulated by the NYC Department of Health and Mental Hygiene. Universal Pre-Kindergarten (UPK) programs are under the auspices of the NYS Department of Education. UPK programs may be located in a school or within a community-based, regulated child care setting.

[2] Based on OCFS Program Data. A 2003 survey of child care resource and referral agencies (CCR&Rs) undertaken by the NYSCCCC suggests that this number is accurate. With 33 counties reporting, all but three report a number of establishments within a range of 10% of the number reported through OCFS licensing data. Most differences between numbers reported by the two sources are due to fluctuations in the number of providers in the field of family day care, where the number of establishments varies as providers enter and leave the field.

[3] Family day care providers can care for a total of six children if all children are over two years of age. They may only care for a total of five children if they care for infants, and then may have only two children under the age of two. In both cases, they may care for two additional school-age children.

family day care providers[4], school-age child care providers, and nursery schools. Family day care businesses make up over half of the child care establishments in New York, as shown in Table 1. Other options for early care and education include Head Start, Early Head Start and Universal Pre-Kindergarten (UPK). This diversity in types of care creates a marketplace of public and private options, offering many locations for care, some choice for hours of care, differing styles of provision, and often the choice of mixed- or single-age groups.

The Universal Pre-Kindergarten Program (UPK) is a state-funded program that provides free early childhood education for four-year-olds to assure their school readiness. Statewide 3,509 UPK establishments serve 54,150 children. Head Start and Early Head Start are federally funded programs that serve children from birth to age five and their families, as well as low-income pregnant women. These programs operate through Head Start centers and private child care centers; Early Head Start also operates in family and group family day care homes. The New York State Office of Children and Family Services (OFCS), which collects data on the child care services it regulates, counts UPK programs located in child care establishments as part of its regulated capacity numbers.[5] In addition, all Head Start programs are regulated by OCFS and counted as part of OCFS data.

Table 1. Establishments by Type: New York State

Regulated Child Care Establishments	Number of Establishments
Center Care	3,806
Family Day Care	10,983
Group Family Day Care	3,665
School Age Child Care	2,086
UPK School-based Programs*	1,682
Total Establishments	22,222

Source: OCFS Licensing Data, 2003;New York State Department of Education
* Not counted among centers above

The total number of establishments shown in Table 1 excludes family, friend and neighbor care settings, where a provider cares for two children other than her/his own. Although the number of providers of this inf+ormal, legally exempt care cannot be reliably counted, they are a significant part of the market.[6]

[4] Group family day care providers are allowed to care for up to 12 children and are not limited in the number of infants they can accommodate. If they care for more than six children, there must be an assistant on site, and they are required to have one staff person for every two infants.

[5] Two thousand three hundred and fifteen community-based establishments provide UPK programs within child care settings that are regulated by the NYS OCFS or by the NYC Department of Health and Mental Hygiene, while 1,682 UPK programs are school-based and are not counted in OCFS Licensing Data.

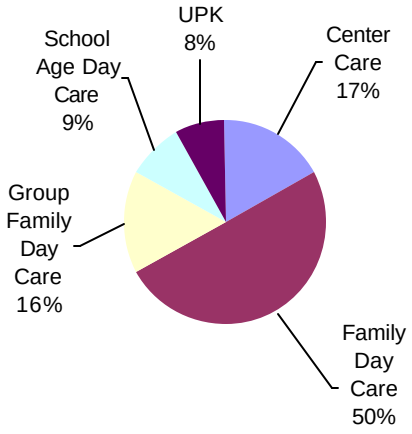
[6] The 2003 NYSCCCC survey data suggest that the number of non-regulated establishments can be as high as 70% - 85% of the total number of establishments in a county. Twenty-six of the 33 counties that responded to the survey report some type of non-regulated care including nursery schools, part-time care, and legally exempt care. The largest numbers of establishments reported are non-regulated family, friend, and neighbor care. According to the US Census non-employer data (2001), about 78% of home-based child care providers are not regulated in NYS. The non-employer data show that there are 49,047 self-employed family day care providers in New York State who pay taxes as sole business proprietors. However, the New York study found only 14,648 regulated family day care providers in the state. The difference between these two figures (34,399) is a rough estimate of the number of non-regulated family day care providers in the state.

Over 50% of establishments are small businesses in private homes

As shown in Figure 1, 66% of the regulated child care industry in New York consists of family and group family day care establishments, for a total of 14,648 establishments (10,983 family day care homes and 3,665 group family day care homes).

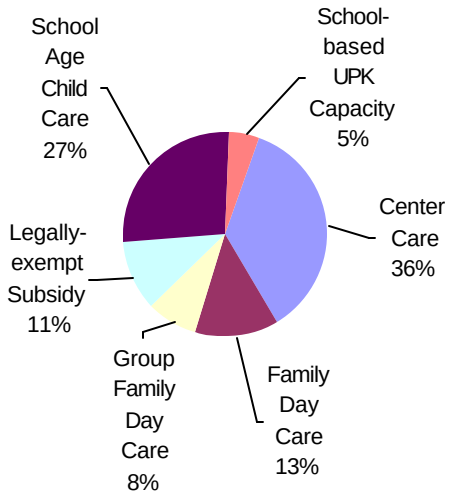
The majority of child care establishments are home-based, but two-thirds of all children are cared for in child care centers (including center care, school age child care, and UPK), as shown in Figure 2. The diversity of auspices underscores the importance of directing quality and safety improvements to multiple kinds of care situations.

Figure 1. Regulated Child Care Establishments, New York State



Source: OCFS Licensing Data, New York State Education Department, 2003

Figure 2. Regulated Child Care Capacity, New York State



Source: OCFS Licensing Data, New York State Education Department, 2003

Workforce: Child care sector employs almost 120,000 New Yorkers

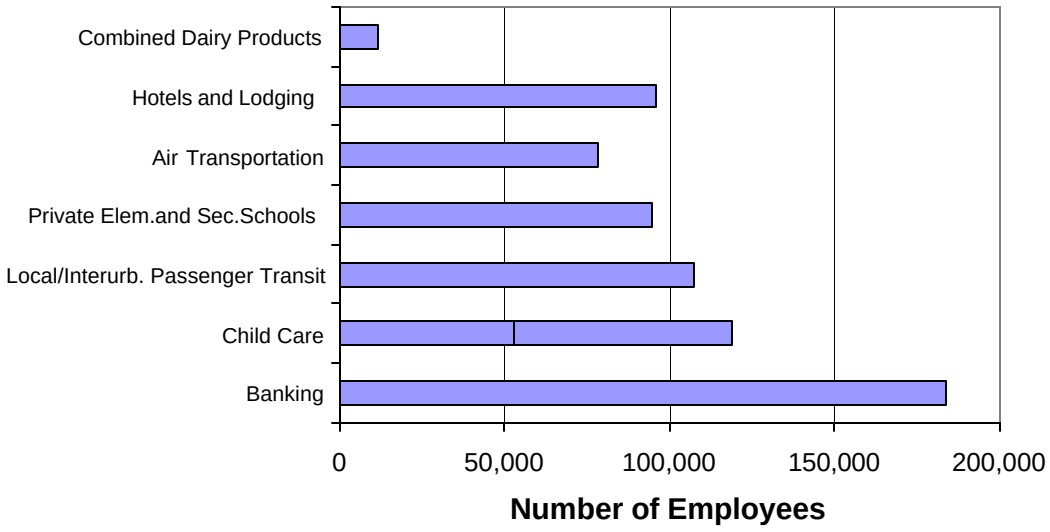
The 1997 Economic Census reports only 67,798 workers in regulated child care in New York State. But when self-employed providers, Head Start, and school-based UPK employees and administrative and support staff for child care programs are added to the calculation, the total number of workers in the state's regulated child care industry – teachers, aides, center directors, as well as administrators, janitors and other support staff.[7]-- amounts to 119,000.[8] Of this total, approximately 55,925 employees work in day care centers, 11,015 in family day care homes, 7,274 in group family day care homes, and 5,976 in community-based UPK settings.

[7] NYS retention data, based on Child Care Professional Retention Program applications, suggest that for every four teachers or direct-contact staff members, there is one janitor, cook, or administrator. Estimates of these ratios are explained in greater detail in Appendix 3.

[8] Based on estimates from the NYS OCFS. See Appendix 3 for a detailed description of how this number was estimated.

With roughly 10 million jobs, the New York State economy is very large. But while child care accounts for only a relatively small proportion of these jobs, the sector is as significant as a number of others more typically regarded as important to the state's economy.[9] For example, the child care sector has more employees than infrastructure sectors such as air transportation and local/interurban passenger transit and more than the important tourism sector of hotels and lodging. Child care employs more than five times as many workers as the combined dairy industries, and there are two-thirds as many workers in the child care sector as in retail banking, which is traditionally regarded as a significant New York State industry (see Figure 3).

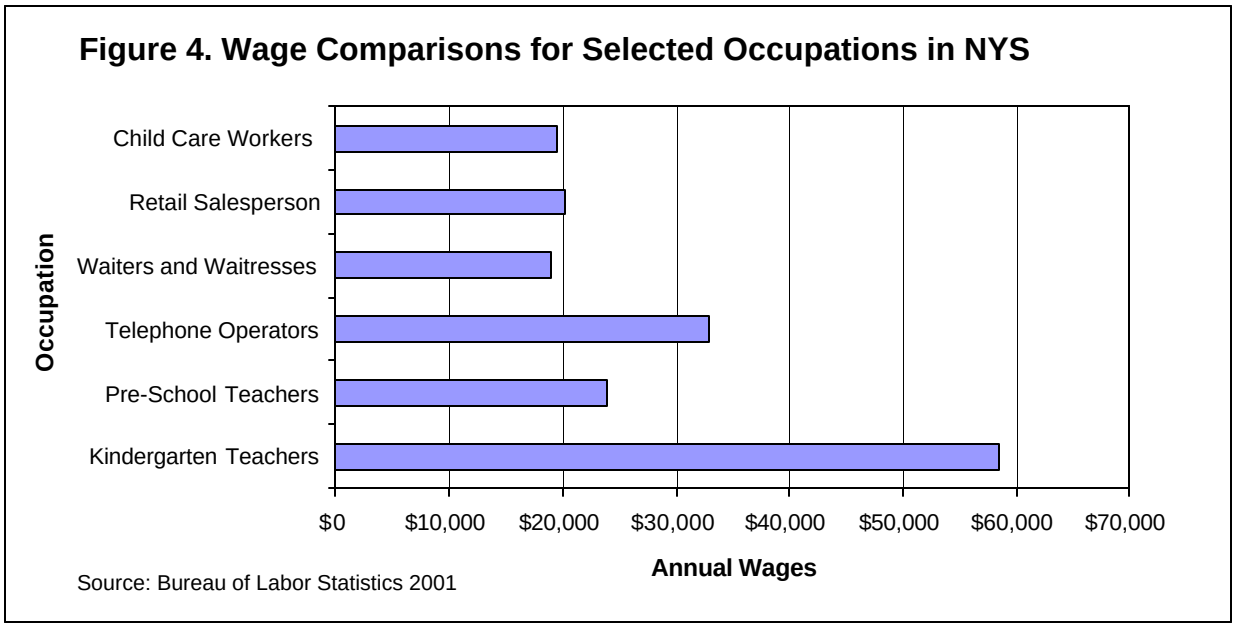
Figure 3. Employment Comparisons for Selected Industries



Source: IMPLAN based on ES 202 employment data, 2000
Child Care expansion based on NYS OCFS estimates, 2002

From the perspective of parents, child care is costly, averaging statewide from $3,000 for a school- aged child to $9,542 for a young child in a day care center.[10] The low staff-child ratios essential for quality early learning make it difficult to pay wages high enough and to offer enough benefits to attract and retain skilled teachers. With an average salary of $19,480, child care workers earn a wage comparable to waiters and waitresses. Wages for child care workers are roughly 20 percent lower than the average wage for preschool teachers and only one-third the average wage of a New York State kindergarten teacher.[11] Moreover, benefits are very limited. Some reports indicate that low wages and lack of a career ladder contribute to a turnover rate of more than 30% in the child care industry.[12]

[9] About half of these jobs are in the services category or in the so-called Fire, Insurance Real Estate (FIRE) category. US Bureau of Economic Analysis, REIS Table CA-25. http://www.bea.gov/bea/regional/reis/ 2003.
[10] Source: Market Rate Data, OCFS and Division of the Budget (DOB). The cost of daycare ranges from $8,185 in upstate New York to $11,279 in NYC. See Appendix 6 for further information on Gross Receipts methodology.
[11] Bureau of Labor Statistics, available at http://www.bls.gov/oes/2001/oes_ny.htm#b41-0000 , 11 May 2003.
[12] Senator Hillary Clinton's office. "Clinton Releases Analysis of Bush Budget and Its Impact on New York," available at http://clinton.senate.gov/news/2003/02/2003203B53.html , May 11, 2003.



New York State has responded to the need to promote the retention and education of child care teachers. The Professional Retention Program of the OCFS rewards employees who remain in their positions for 18 months and pursue postsecondary degrees. Across the state, many child care workers have managed to invest in their postsecondary education. For example, data on applicants to the Professional Retention Program indicate that 15% of the state's center teachers have master's degrees or higher, 16% have undergraduate degrees, and 37% have some type of associate's degree. Nine percent of family day care providers have undergraduate or master's degrees.

Thus, despite its low pay, child care is a growing industry with an emerging career ladder and opportunities for educational development. The sector is an important source of income to a large number of New Yorkers, many of whom are small business owners. ***New York State's investment in the quality and retention of child care workers helps strengthen the sector***.

New York serves over half a million children

While both regulated and non-regulated providers serve New York State children, this report focuses exclusively on the children in regulated care, those in UPK programs, and those receiving subsidies in legally exempt care. Data are not available on many of the other children in New York who are cared for in non-regulated child care settings, including friend, family and neighbor care,[13] or in nursery schools that operate less than three hours per day.

[13] A large proportion of children who are in friend, family, and neighbor care cannot be counted because New York State does not regulate providers of this care and thus does not collect data on them. This study examines only those portions of the sector that can be counted.

According to OCFS, regulated early care and education programs in New York serve more than 622,000 children. As shown in Table 2, this includes 526,735 children in regulated (licensed and registered) child care,[14] 28,259[15] children enrolled in school-based UPK programs[16], and 67,801[17] additional children who receive subsidies for care by legally exempt providers.

Table 2. Children Served: New York State

Type of Care	Children Served
Total regulated care	526,735
Subsidy children not counted in regulated capacity	67,801
UPK children in school-based programs	28,259
Total	622,795

Source: OCFS – Bureau of Early Childhood Services, NYSED, 2003

The Urban Institute calculates that in New York, 36% of children are in center and family care, 30 % in parent care, and 34% in other relative/nanny care.[18] In addition, friends and neighbors – the exact number unknown -- give paid care to many children. The 2000 census data for New York State shows that there are almost 1.2 million children under age six whose parents work and an additional 2.2 million children between the ages of 6-13 with working parents. Thus, 622,000 is actually an undercount of the number of children in paid care.

Child care supports 750,000 parents who contribute to the New York State economy

The child care sector supports parents who go to work and helps sustain New York's economy. While it is difficult to get an accurate count of exactly how many working parents benefit from child care, the number of New York State Child and Dependent Care Tax Credit claims are a good proxy. *Almost 750,000 parents in New York claimed the credit in 2000 for their child care expenses.*[19]

[14] OCFS-Bureau of Early Childhood Services - Capacity worksheet, March 12, 2003.
[15] New York State Department of Education. Memo from Dee Dwyer dated 12/02/02
[16] UPK includes establishments classified by New York State as: Public and Non Public Schools, Nursery School, No Permit Programs, BOCES (Board of Cooperative Educational Services) programs, and programs listed as Other that are not counted in OFCS regulated care data.
[17] ACF-800: "Child Care and Development Fund Annual Aggregate Report For Services Provided from October 1, 2001 through September 30, 2002"
[18] Sonenstein, Freya L., Gary J. Gates, Stefanie Schmidt, and Natalyn Bolshun (2002). "Primary Child Care Arrangements of Employed Parents: Findings from the 1999 National Survey of America's Families." Occasional Paper Number 59,Washington, DC: The Urban Institute.
[19] Calculated by counting the number of working parents who filed for the tax credit, adjusting for married working parents who filed jointly. In order for parents to file for the NYS Child and Dependent Care Credit, both parents must be working with the income of the lower-earning parent exceeding the family's expenditures on child care.

Working parents who depend on child care have a significant impact on the state economy. The average salary in New York State in 2000 was $40,658 [20]. We estimate that the 750,000 working parents who utilize paid child care collectively earn an estimated $30.5 billion and fuel our state economy through their productivity and consumption. [21]

750,000 working parents in New York State	C	Average Wages **$40,658** (in 2000$)	=	Parent Earnings **$30.5** billion

As New York's economy grows, so will its demand for child care

Demographic indicators suggest there will be an increasing demand for child care services as more and more parents enter the labor force. Between 1992 and 2002, New York State's female labor force participation rate rose from 58 to 60 percent.[22] And in another indication of the growing need for child care services, the percent of children living in single-parent families increased from 28 to 31 percent.[23] Most of the growth in jobs has been in the services sector. With many parents in the expanding workforce taking service jobs, which often require night and weekend work, there is a special and growing need for child care during non-traditional hours. New York needs to ensure the availability of flexibly scheduled and affordable child care to support our growing workforce.

Intermediaries: Making it work for parents and businesses

In any economic sector, intermediary organizations connect consumers to producers and strengthen industry linkages among the producers themselves. Child Care Resource and Referral (CCR&R) agencies play this role in the child care sector, providing an essential infrastructure for child care providers and consumers across the state. New York State has contracted with 42 CCR&Rs, mostly community-based independent non-profit organizations, for services that help parents gain access to child care and that provide support to child care workers. CCR&Rs assess a community's need for child care, work to develop or expand the supply of providers, and help families make informed child care choices.

To carry out these critical tasks, CCR&Rs maintain databases that include information on the availability of child care by type and location within their regions. CCR&Rs also play an important intermediary role for providers. These organizations assist child care programs in meeting regulatory standards. In addition, CCR&Rs help providers get access to state and federal funds for initiatives to improve the quality of care and to programs that provide food for children in care. Many CCR&Rs train providers in child development and health and safety

[20] Fiscal Policy Institute, "The State of Working New York" (2001), p30, available at http://www.fiscalpolicy.org/SOWNY/links.stm, May 11, 2003.
[21] Figures are in 2000 dollars.
[22] U.S. Department of Labor, Bureau of Labor Statistics (2003), available at http://data.bls .gov/cgi-bin/surveymost, May 11, 2003.
[23] Kids Count. "Data Book Online," available at http://www.aecf.org/cgi-bin/kc2002.cgi?action=profile&area=New+York, May 11, 2003.

practices, and in business management. They also provide other kinds of consultation and guidance to providers. Resources from local government and private foundations that supplement CCR&Rs' basic state funding allow them to offer a variety of other intermediary services to their communities, such as family support and parenting programs, registrar services for counties, and "warm" lines to address parental concerns.

Under state service contracts, CCR&Rs collectively receive $16.6 million, of which $5.1 million is passed through to providers. CCR&Rs employ 169 people to implement these state-contracted services and use funds from diverse public and private grants to employ additional staff to meet other program needs. The aggregate budget for CCR&Rs statewide, including public and private funding, is $77.6 million.[24] The New York State Child Care Coordinating Council (NYSCCCC) is the umbrella agency that coordinates, strengthens, and supports the statewide CCR&R network.[25]

Estimate of gross receipts

An estimate of the total gross receipts of child care in New York State for a given year provides a measure of the magnitude of the sector within the regional economy. Our estimate covers both how much providers charge for child care and how much is paid to support those portions of the early care and education 0sector that are funded by government.

An initial examination of these estimates highlights two important points:

First, the regulated child care sector in New York is a $4.7 billion industry

The bottom-line estimate shown in Table 4, which combines private sector and government sector gross receipts, indicates the scope of New York's child care industry.

How was the estimate in Table 4 made? To start, our calculation of the provider fee portion of gross receipts draws on information on the capacity of regulated child care programs and on state market rate survey data on the average price of care. That price varies by county, age of child, and type of provider.

For example, as shown in Table 3, New York City families pay an average of $11,279 each year for full-time center care for one child. In the rest of the state, the average price of full-time center care is $8,185. Family and group family day care is less expensive, averaging $6,600 - $7,600 per year.[26]

[24] NYS Child Care Coordinating Council (NYSCCCC) asset mapping project. July, 2003.
[25] CCR&R dollars not included in estimates for the child care sector.
[26] Licensing data did not indicate difference in summer and school-year enrollment. It is possible that some school age programs are closed in the summers; however, we assumed these children were still in some form of full-time paid care.

Table 3. Average Cost Estimate for New York State, 2002

	Rest of State	New York City	New York State
Day Care Center	$ 8,185	$ 11,279	$ 9,542
Family Day Care	$ 6,788	$ 6,578	$ 6,692
Group Family Day Care	$ 7,778	$ 7,410	$ 7,641
School Age Child Care	$ 3,002	$ 3,284	$ 3,168

Source: Data was collected from Market Rate Data, OCFS and DOB. See Appendix 7 for further information. May 2003.

Using market rate survey data, we estimated total receipts from provider charges for each county, and then aggregated these receipts for the entire state. To complete the estimate of gross receipts, we calculated state and federal contributions in direct funding to child care providers. As shown in Table 4, direct government investments to improve the quality of care and to expand families' access to services adds $1.03 billion to gross receipts. That amount includes $420 million for Head Start/Early Head Start, and $205 million for UPK, $128 million for the Child and Adult Care Food Program, $4.6 million for CUNY/SUNY child care programs, $70 million for initiatives to improve the quality of care,[27] and $201 million in subsidies paid to legally exempt providers.[28] It is important to note that the estimate of $4.7 billion of total gross receipts is conservative because it does not include payments to providers who are outside the regulated system.

Table 4. Gross Receipts Estimates

Source	Receipts
Provider Fees, Outside of NYC	
Center Day Care	$ 1,052,000,000
Family Day Care	$ 303,000,000
Group Family Day Care	$ 242,000,000
School Age Child Care	$ 207,000,000
Outside of NYC, Provider Fees Subtotal	$ 1,803,000,000
Provider Fees, NYC	
Center Day Care	$ 1,132,000,000
Family Day Care	$ 247,000,000
Group Family Day Care	$ 136,000,000
School-Age Child Care	$ 324,000,000
New York City, Provider Fees Subtotal	$ 1,839,000,000
Provider Fees, Total	$ 3,642,000,000
Government – Direct Payments Total	$ 1,029,000,000
Total Gross Receipts	**$ 4,671,000,000**

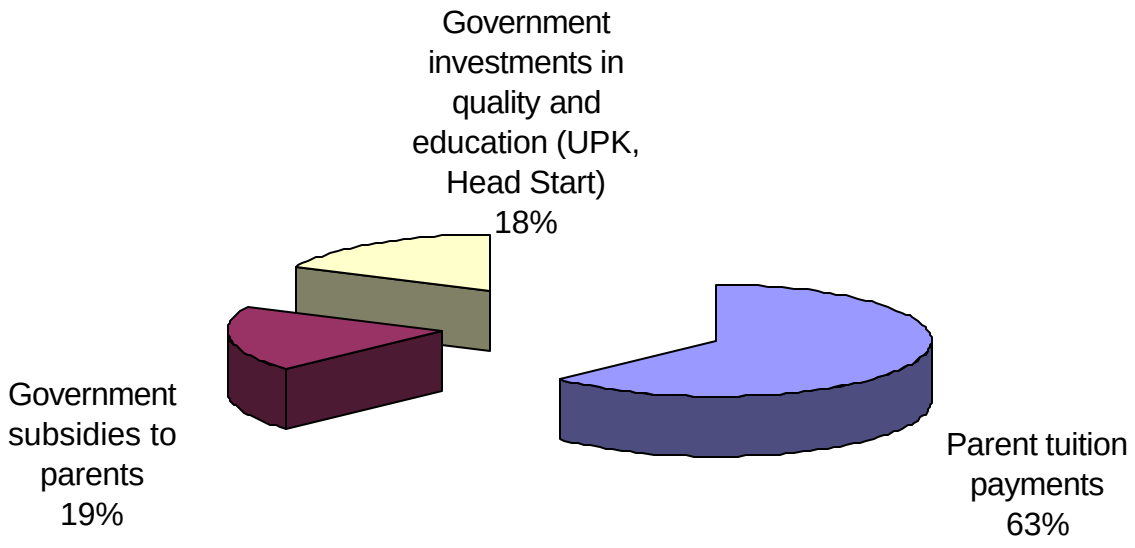
[27] See Appendix 7 for more information.

[28] Subsidies to parents to help cover tuition costs are not included in the government payment section because these subsidies are already reflected in the provider fees. Approximately $700 million of the $3.64 billion in private sector receipts is from government subsidies.

Second, parents pay most of the cost of child care

Most revenues to child care providers come directly from parents. Unlike the situation in higher education, where tuition accounts for only 35% of total costs,[29] parent tuition costs represent the largest portion of the gross receipts of the child care sector. As shown in Figure 5, it is estimated that parent tuition comprises 63 percent of the gross receipts of New York's child care sector, with government investment in quality early education, and subsidies for low-income parents accounting for the rest.[30]

Figure 5. Estimates of Gross Receipts of the Child Care Sector by Source



Source: NYS Office of Children and Family Services, 2002

The child care sector is an important economic sector:

- **Child care is a *$4.7 billion industry* in the State of New York.**
- **Child care supports *750,000 working parents.***
- **Parents using child care collectively earn more than *$30 billion*.**
- **There are *22,000 small businesses* in the child care sector.**
- **These businesses employ 119,000 workers.**

[29] Mitchell et al., 2001.

[30] New York State spent $874 million on subsidies in 2002, of which $674 went to licensed providers. This sum was subtracted from the $3.64 billion in provider fees to reflect the actual level of parent contributions. (Total Gross Receipts in New York State: $2.9 billion parent fees, $874 million subsidies, $828 million quality and education investments = $4.7 billion.)

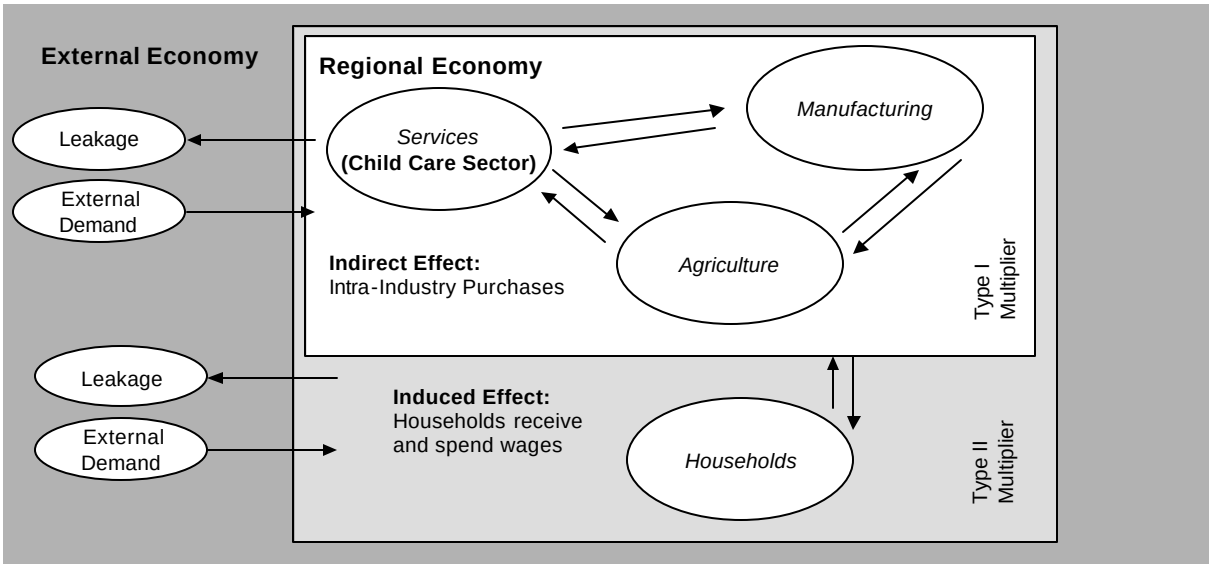
TO THE BROADER ECONOMY

Through its output and employment, each industry has its own *direct effect* on the economy. The information on the number of child care workers and gross receipts that was just presented gives a picture of this direct effect for the child care industry – and by these measures, child care is clearly an important economic sector for our state.

But like other industries, child care also has a *linkage effect* on the economy. Child care businesses and their employees spend money in New York State to purchase goods and services, stimulating economic activity in other industries.

How can we gauge the level of these linkage effects? To start, it should be recognized that the regional economy is composed of many industries that buy and sell from each other (see Figure 6). The level of these inter-industry purchases can be measured to show the relative strength of the linkage of each industry to the regional economy.

Figure 6. Model of the Regional Economy

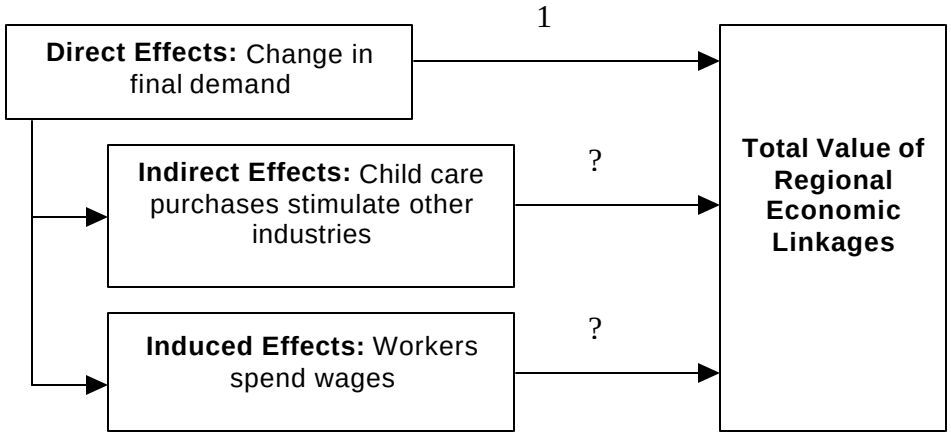


As money circulates between industries in the regional economy, it stimulates economic activity. These activities can be considered "ripples" in the regional economy pond. The larger the number of ripples before money leaks out of the regional economy through savings or purchases made outside the region, the larger the effect (see Figure 7).

This linkage or ripple effect is of two types:

1. *Indirect effects* are a count of the multiple rounds of inter-industry purchases spurred by child care industry spending. For example, when child care providers purchase toys and furniture, they stimulate demand in the retail and manufacturing sectors. The extent to which this demand generates economic activity *within New York State* increases the linkage effect.
2. *Induced effects* capture the impact of the household sector. Employees spend their wages in the larger economy. Most of child care workers' earnings are spent locally – on groceries, clothing or housing. These expenditures generate demand in these sectors.

Figure 7. Model of Child Care's Linkage Effects in Economy [31]



Regional economic modeling known as input-output analysis can be used to measure the linkage effect of any industry. The IMPLAN modeling software used for this analysis covers 540 economic sectors in New York. Input-output models are based on the assumption that export demand (or the ability of industries to sell to the external economy) is the engine that generates growth in the regional economy. Export growth infuses local industries with new funds, which they use to increase output and employment. In the case of child care, the only demand that comes from outside the region is federal investment in the state's child care sector. Households are the primary purchasers of child care, and demand is usually local.

[31] Typically, input-output models only calculate linkage effects on changes in final demand.

The Analysis

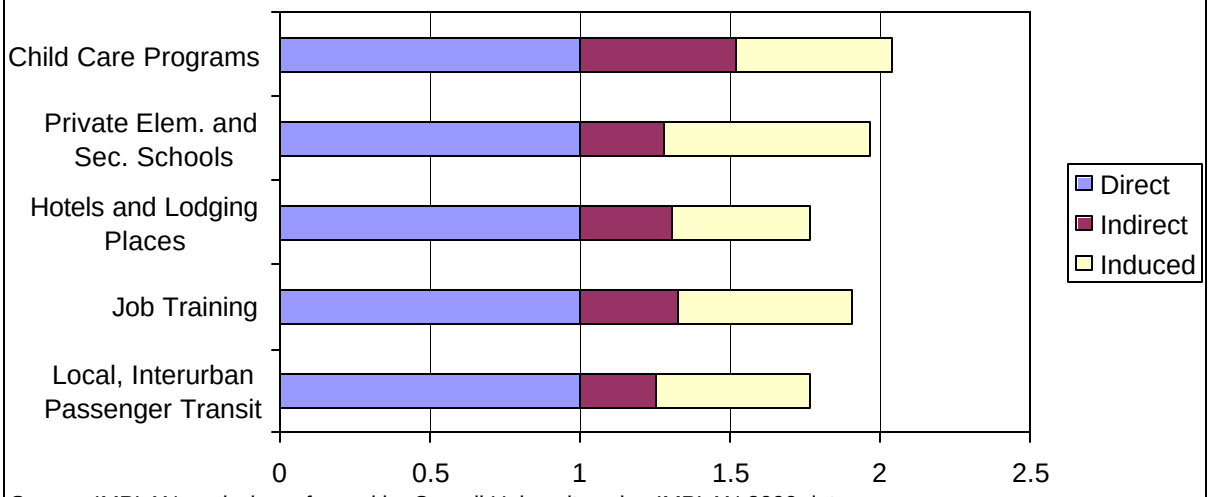
Input-output models measure the demand from each industry to its suppliers.[32] One of the most important uses of this modeling is to measure the impact of a change in the local economy. Our input-output analysis of the child care industry uses *multipliers* to help illustrate how a change in child care spending affects the broader regional economy.

We looked at both the *output* and *employment* multipliers for the child care sector.

- An *output multiplier* for the child care industry estimates the total sales that would be generated in the entire economy by each dollar of increased direct spending for child care services.
- The *employment multiplier* is an estimate of the gross number of jobs that would be created throughout the regional economy from the addition of one new job in the child care industry resulting from an increase in demand for child care services.

What do output multipliers tell us about the effect of the child care industry on the local economy? The child care sector primarily purchases labor, supplies, and food from other sectors. Because most of these purchases are local, child care has a strong linkage effect in the local economy. In fact, child care's multipliers are higher than multipliers in many sectors that receive significant economic development support (see Figure 8).

Figure 8. Output Multipliers by Industry: New York State



Source: IMPLAN analysis performed by Cornell University using IMPLAN 2000 data.

[32] These linkages are called backward linkages. However, while the child care industry has strong backward linkages (purchases from suppliers), its *forward linkages* (sales to other sectors) – may be even more significant because child care enables parents to work – supplying labor to other sectors. To measure the full economic linkage of the child care sector, both forward and backward linkages should be counted. Input-output multipliers only measure backward linkages. Cornell researchers are currently working on the development of a procedure that takes both backward and forward linkages into account.

Multipliers can measure industry output and employment at both so-called *Type I* and *Type II* levels. Type I multipliers include both the direct and indirect effects and count the impacts of inter-industry purchases. These multipliers are most appropriate for estimating the economic linkage effects of changes in internal (state or local) demand.

Type II multipliers count direct and indirect effects as well as *induced* effects. These effects are purchases made by workers as they spend their wages throughout the economy. Type II multipliers are most appropriate for estimating changes in external demand. In the case of child care, changes in external demand are typically triggered by changes in federal funding.

Table 5 shows the results of IMPLAN analysis of Type I and Type II multipliers for employment and output of New York State's child care industry.

Table 5. Child Care Multipliers: New York State

	Direct Effect	Indirect Effect	Induced Effect	Type I Multiplier	Type II Multiplier
Employment	1.00	0.26	0.27	1.26	1.52
Output	1.00	0.52	0.52	1.52	2.04

Source: IMPLAN analysis conducted by Cornell University using IMPLAN 2000 data.
Type 1 multiplier = (Direct+Indirect)/Direct
Type II Multiplier = (Direct+Indirect+Induced)/Direct

The analysis of the Type I multiplier indicates that:

- Each additional state or local $1 spent on child care in New York stimulates a total of $1.52 in activity in the state economy.
- Each additional job created by increased local demand for child care generates a total of 1.26 jobs in the broader state economy.

And from the analysis of the Type II multiplier we learn that:

- Each additional federal $1 spent on child care in New York generates a total of $2.04 in economic activity throughout the state.
- Each additional job created by an increase in external demand for child care generates a total of 1.52 jobs through the state.

In the following discussion of the role of government investment in the child care industry, we use the findings of our input-output modeling to measure how federal spending on child care affects the broader economy.

Government investment ensures quality and choice in the child care marketplace and has a favorable impact on the state economy

The discussion of gross receipts has already touched on the important role government investment plays in the child care industry. We now examine that role in more detail.

As shown in Table 6, in 2002, the child care industry in New York State received approximately $1.74 billion from the federal, state, and local governments, through subsidies, food programs, initiatives to improve quality, and market support. As shown in Table 6 – and previously noted in the discussion of gross receipts – the federal government made $1.3 billion in direct payments to the child care industry. This was the largest portion (79%) of the $1.74 billion total[33] of government funding for child care programs. The State spent about $306 million (17%) of the total, and local contributions added an additional $68 million (4%) to the total amount. [34]

Table 6. Summary of New York State Public Child Care Funding, 2002

	Federal Dollars	State Dollars	Local Dollars	Total Dollars
NYS Child Care Block Grant	$ 331,000,000	$ 96,000,000	$ 68,000,000	$ 495,000,000
TANF Transfers to CCBG	$ 418,000,000			$ 418,000,000
Title XX	$ 68,670,000			$ 68,670,000
UPK		$ 205,000,000		$ 205,000,000
Head Start / Early Head Start	$ 419,957,000			$ 419,957,000
CUNY		$ 2,095,000		$ 2,095,000
SUNY		$ 2,533,500		$ 2,533,500
Child and Adult Care Food Program	$ 128,646,627			$ 128,646,627
Total	**$ 1,366,273,627**	**$ 305,628,500**	**$ 68,000,000**	**$ 1,739,902,127**

Source: See Appendix 6 for detailed sources.

Next we examine the two main and complementary benefits of government investment – ensuring quality and choice, and strengthening the economy.

[33] See Appendix 6 for breakdown on government funding streams.
[34] This number includes the matching and maintenance-of -effort funding provided by localities. It does not include local investment in child care over and above the match and maintenance-of -effort funds, such as significant investment by New York City.

Ensuring Quality and Choice

By investing in the child care sector, New York State strengthens the quality of early care and education, and assists in the creation of the child care market. Government sets standards and regulates programs, and provides funding for initiatives, such as education and training workshops, that improve the quality of child care. Furthermore, the State's Professional Retention Program supports quality workers and keeps them within the sector.

Governmental investments also expand the number of children who get access to early care and education programs. As will be discussed in more detail below, subsidies and government-supported programs such as UPK and Head Start allow parents to take advantage of services that would otherwise be too costly. Besides benefiting children who are provided with an early education, these supports also make it easier for their parents to enter and stay in the workforce.

Strengthening the Economy

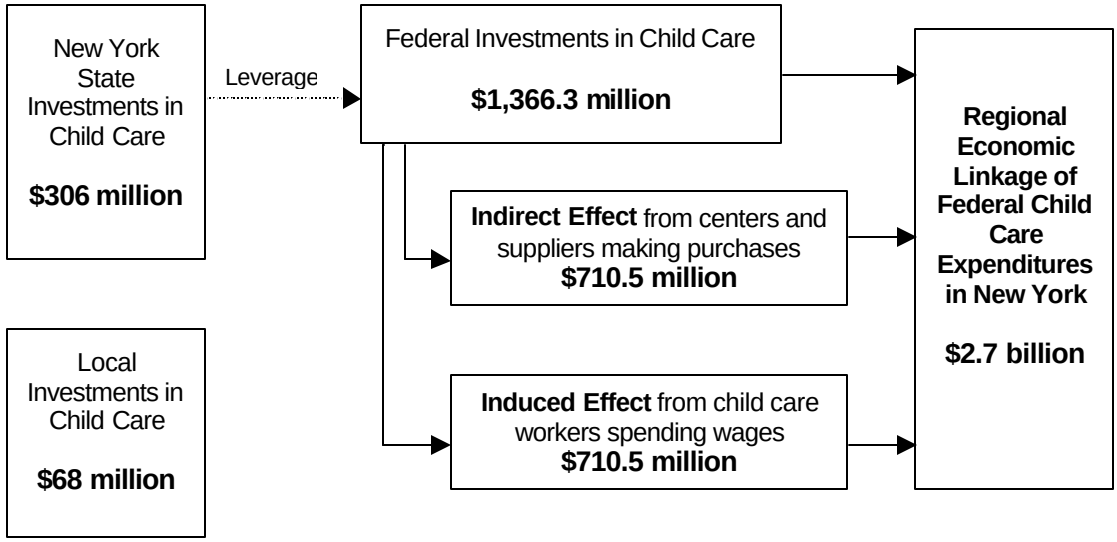
State and local investments in child care allow New York to draw down federal funding. New York provides the matching and maintenance-of-effort funds required to draw down its full federal Child Care Block Grant allotment, plus extra funding if there is a surplus from other states. These federal funds would be lost from our economy if state and local governments did not allocate their own funds to the child care sector. Programs like the Child and Adult Care Food Program (CACFP), which provides federal support so that nutritious food can be served to children in child care settings, spent approximately $129 million in New York in fiscal year 2002. Overall, our estimates show that New York State leverages roughly $3.66 federal dollars for each dollar of state and local expenditures on child care.

Federal investments in child care help stimulate the regional economy

We can use the Type II multipliers from the input-output analysis to determine the linkage effect of these federal dollars. We find that each federal dollar generates a linkage in the broader state economy of $2.04, for an impact of $2.8 billion on the regional economy. This linkage effect, combined with the leverage effect of state funds described above, creates a combined impact of more than $7.00[35] for every dollar the state invests in the child care sector.

[35] $3.66 in leverage * $2.04 in linkage = $7.47

Figure 9. Child Care is an Economic Investment



Every federal dollar invested in child care generates $2.04 in the New York State economy.

Each state and local dollar invested in child care leverages roughly $3.66 federal dollars.

Source: Based on OCFS data for 2002 and IMPLAN indirect and induced multiplier analysis by Cornell University (2000 data)

Subsidies make work pay

We now move from a broad examination of the economic effects of government investments in child care to examine the effects of a particular kind of government funding – subsidies to help parents pay for child care.

Quality care can be expensive, especially for parents in low-wage employment. In recent years, New York State has strengthened its efforts to assist these parents with child care costs. Since the enactment of new federal welfare reform legislation in 1996, funding for the state's child care subsidy program has increased by 223%.[36] In Fiscal Year 2002, New York State allocated $981.7 million for child care subsidies and served 183,400 children.[37] These crucial child care dollars have enabled thousands of parents to leave public assistance and have provided help with child care expenses to other low-income working families.

New York's Child Care Block Grant is funded through the federal Child and Development Block Grant (CCDBG) and from funds transferred into it from the Temporary Assistance to Needy Families (TANF) block grant. Many social services districts supplement their state block grant

[36] Governor's Executive Budget (2003) p.95, available at http://www.budget.state.ny.us/pubs/executive/fy0304littlebook/Overview0304.pdf Accessed May 11, 2003.
[37] Governor's Executive Budget (2003) p. 97, available at http://www.budget.state.ny.us/pubs/executive/fy0304littlebook/Overview0304.pdf Accessed May 11, 2003.

allocations with Title XX (federal social services block grant) funding.[38] For Fiscal Year 2002, the allocated New York State Child Care Block Grant totaled $913 million[39] and funds allocated from Title XX totaled $68.7 million. Parents are eligible to receive subsidies via licensed, registered, and legally exempt child care providers. New York families with incomes up to 200% of the federal poverty level qualify for subsidies on a sliding scale based on income. Families on public assistance receive full subsidies; all other families are responsible for a co-payment.[40]

The New York State OCFS estimates there are an average of 1.5 children in each of the 116,752 families receiving subsidies, and that one of nine of these families has two parents. Thus, there are approximately 130,000 working parents who benefit from the subsidy system.[41] In 2001, the average low-wage worker (defined as a worker at the 20th percentile of earnings or below) earned $8.07 per hour or approximately $13,275 per year (assuming a 35-hour work week for 47 weeks).[42] Therefore, we estimate that subsidies enable 130,000 parents to collectively earn $1.7 billion.

130,000 parents receive subsidies	C	**$13,275 annual wage**	=	**$1.7 billion parent wages**

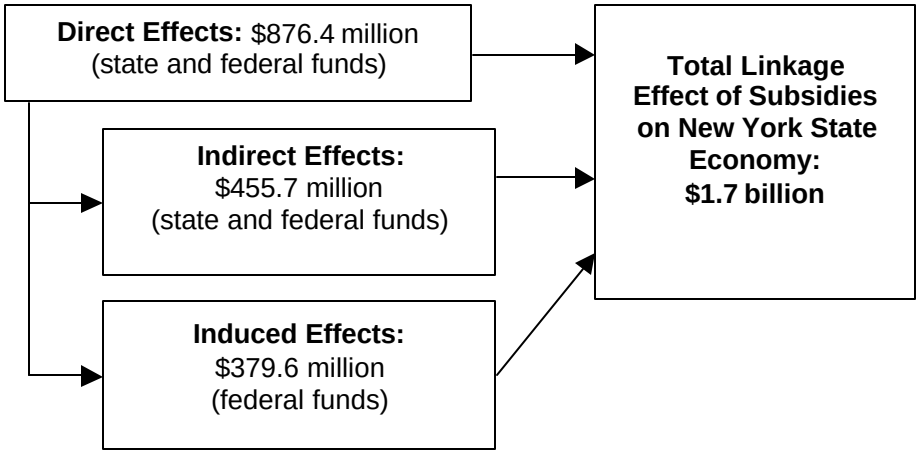
According to the 1999 National Survey of America's Families, only 25% of eligible low-income working families in New York State receive government subsidies for their child care expenses.[43] The proportion of eligible low-income families covered by New York State subsidies is higher than the proportion for the country as a whole (21% of these families in the nation vs. the 25% in New York). However, if New York were to provide subsidies to all of its eligible low-income working families, the estimated impact, measured by parents' earnings, would be nearly $7 billion.[44]

The money that New York State currently spends to subsidize child care for working parents also has a positive ripple effect throughout the economy. Using the Type I multiplier from our input-output analysis, we can determine that when New York spends roughly $876.4 million on

[38] For the most comprehensive analysis of New York State's subsidy program -- the analysis on which this section is based -- see Wendy Goodale Rolnick and Susan Antos (Eds) (2002). "Child Care in New York State: A Patchwork of Policies: A County-by-County Review of Subsidy Administration." Greater Upstate Law Project: Albany, p1.
[39] Governor's Executive Budget Overview (2003), available at http://www.budget.state.ny.us/pubs/executive/fy0304littlebook/Overview0304.pdf Accessed May 11, 2003.
[40] Wendy Goodale Rolnick and Susan Antos (Eds) (2002). "Child Care in New York State: A Patchwork of Policies: A county-by-county review of subsidy administration." Greater Upstate Law Project: Albany, See Table 12 of the report for the county breakdowns.
[41] This was calculated using the number of families receiving subsidies in New York State and adjusted for number of children and parents (see Appendix 5).
[42] Economic Policy Institute (2002). "State of Working America." The average weekly hours of an employee in the Retail Trade sector is 35 hours (p.240). The wage of a worker at the 20th percentile is $8.07 in 2001 dollars (at the 10th percentile it is $6.69) (p.128). In 2000 the average number of weeks an employee worked was 47 (p.117).
[43] Urban Institute, "Child Care Expenses and Getting Help with Child Care in New York," available at http://www.urban.org/pdfs/310615_OP62_NY_Data.pdf
[44] Since only 25% of eligible low-income working families are being served, the figure $1.7 billion in parental wages is multiplied by four to arrive at the figure of $6.8 billion as the estimated impact on all eligible families.

subsidized child care, the amount the OCFS data show counties claimed in subsidies last year[45]. This spending stimulates an additional $455.7 million in demand in other industries. The federal portion of this spending, which comes from outside the state economy, stimulates an additional $380 million in household spending, for a total economic impact of $1.7 billion (Figure 10).[46]

Figure 10. Effect of Subsidies on New York State Economy[47]



Source: IMPLAN multiplier based on NYS 2000 data calculated by Cornell University, Subsidy expenditure data from Office of Children and Family Services 2002.

[45] The discrepancy between this figure and the $981.7 million in subsidy funding published in the Governor's Executive Budget is due to the fact that the data published in the Executive Budget is *allocation* data whereas the data published by OCFS is the actual amount *claimed* by counties.

[46] For this analysis, indirect effects (Type I multiplier) were calculated for all funds (local, state and federal), while induced effects (part of the Type II multiplier) were calculated on the federal funds only. Roughly four-fifths of the total subsidy spending in 2002 was federal funding.

[47] There is considerable debate among economists about whether it is appropriate to use Type I or Type II multipliers when analyzing shocks to the child care sector. As shown in Figure 6, Type I estimates assume households do not change expenditures with changes in income, while Type II estimates assume households change expenditures linearly with income. It is clearly appropriate to use Type II multipliers on external demand – for example, federal aid in a state-level model. It is less clear how to deal with state funding inside a state level model. In the example above, two accounting frameworks have been mixed. For the state funds, a Type I multiplier (which assumes no change in household expenditures) was used, while for the federal funds, a Type II multiplier (which assumes there is a household effect) was used. This is not a satisfactory solution. However, the alternatives – to leave out state funds entirely and just use federal funds and a Type II framework, or to leave out household effects entirely and just use a Type I multiplier on both federal and state funds – are also unsatisfactory. For this reason, we decided to use a mixed approach.

CHILD CARE IS AN IMPORTANT ECONOMIC DEVELOPMENT STRATEGY

Broadly defined, economic development should create quality jobs, raise living standards, and provide a sustainable return on investment. With over 22,000 small businesses, 119,000 workers, $4.7 billion in gross receipts, and 750,000 parents, who need child care services to work, early care and education is an essential part of New York State's economic development infrastructure. But historically, the place of child care in that infrastructure has been overlooked. Bringing the child care industry under the umbrella of New York State's economic development efforts will benefit the entire regional economy.

Investments in child care support New York State businesses by supporting working parents

New York State's economy is complex. The State needs to maintain and strengthen its efforts to attract high-paying, skilled jobs and promote the growth of small businesses. New York also must find ways to support the work efforts of the many employees of its large service and retail sectors. Good child care is pivotal to meeting all of these needs.

In order to stay competitive in today's fast-paced economy, New York needs to attract *high-paying industries* such as those targeted by the New York State Economic Development Council (biotechnology and pharmaceuticals, electronics manufacturing and medical technology[48]) as well as a skilled workforce to staff them. Quality child care facilitates parents' productivity, giving them the peace of mind to meet work demands,[49] while promoting early childhood development for New York's next generation of business owners and employees. The availability of quality child care helps create what these high-skilled industries need – a business-friendly infrastructure that is also friendly to workers.

New York State must recognize that early care and education should be a key element of a strategy to attract industries to diversify and increase the number of good jobs for working families. Promoting professional child care providers helps support the pro-growth and pro-business climate that fosters the development of these jobs. As Joseph M. Tucci, Chairman of the Business Round Table's Education and Workforce Task Force and President/ CEO of EMC Corporation, puts it:[50]

"The business community supports high-quality early childhood education programs because they lead to improved education results, a world-class work force, a healthier society, and ultimately a stronger economy."

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[48] See the New York State Economic Development Council's Strategic Industry Profiles for more information on how these industries promote New York's economic growth at http://www.nysedc.org/profiles/index.shtml May 11, 2003

[49] U.S. Child Care Bureau, "It's Good Business to Invest in Child Care," available at http://www.nccic.org/ccpartnerships/toolkit/pdf/section1.pdf May 11,2003.

[50] The Business Roundtable and Corporate Voices for Working Families. (May 7th, 2003) "Business Leaders Warn of Early Learning Gap; Urge States, Federal Government to Build High-Quality Early Childhood Education Programs."

Notwithstanding the importance of attracting high-paying jobs to the state, one reality of New York's economy is that even moderately high-paying industries such as construction and manufacturing represent only a fraction of state jobs. The two largest industries – retail trade and services – collectively account for over 60% of private-sector jobs in New York State (Table 7). Between 1992 and 2000, nine of New York's 15 fastest growing industries were in the service sector, many of them paying significantly less than the state's average wage of $40,658. Growth in these service industries represented over 30% of the total state job growth from 1992 to 2000.[51] Child care subsidies are especially important to the many low-wage workers who struggle to make a living in these industries.

Another important part of the state's economy that relies on child subsidies is its *small businesses.*

Small businesses can offer workers critically important jobs, but they must compete with larger companies. For these establishments to thrive, whether upstate or in the New York City metropolitan region, New York State needs to ensure an adequate supply of quality child care for the families who work in them.

Table 7. New York State Private Nonfarm Employment, 2000

Industry	No. of Jobs	%
Ag. services, forestry, fishing and other	74,855	0.8%
Mining	9,087	0.1%
Construction	458,918	5.1%
Manufacturing	903,843	10.0%
Transportation and public utilities	520,988	5.8%
Wholesale trade	481,763	5.3%
Retail trade	1,480,740	16.4%
Finance, insurance, and real estate	1,142,706	12.7%
Services	3,932,496	43.7%
Total	9,005,396	100.0%

Source: US BEA, REIS Table CA-25
http://www.bea.gov/bea/regional/reis , 2003

"These businesses…are the bedrock of the small-town economy and the growth engine of the new economy".[52] - Governor George Pataki

[51] Fiscal Policy Institute, "The State of Working New York" (2001), p30, available at http://www.fiscalpolicy.org/SOWNY/links.stm Accessed May 11, 2003.
[52] New York Loves Small Business, "Welcome from Governor George Pataki," available at http://www.nylovessmallbiz.com/message_governor.asp May 11, 2003.

Subsidies make work pay

Subsidies are particularly important to workers in retail trades or services. A four-state study found 65% to 80% of parents who receive subsidies are employed in these sectors.[53] In our state, where only 25% of eligible children receive subsidies, employers must be educated to recognize the importance of these benefits so they can encourage more workers to use them. One place where such an effort is under way is Tompkins County where the Chamber of Commerce's Early Education Partnership is conducting an outreach campaign to encourage area employers to advertise subsidies to their eligible employees.[54]

Subsidy programs also can be structured so that employers match government funds in order to ensure child care for their employees. Florida did this through its Child Care Partnership Act and has succeeded in attracting $19 million in private sector support for subsidies to low-income employees.[55] Subsidies pay for themselves by fueling growth industries. However, to be most effective, they need to be expanded to serve all eligible working families.

New York leads nation in child care tax relief

For many New York families, child care costs are as high as housing expenses. Given this financial burden, state tax relief for working families who depend on child care is a fundamental part of New York's economic development strategy. The State ranks first in the country in providing tax relief for working families through the Child and Dependent Care Tax Credit (CDCC).[56] Building on this strong foundation can maintain New York's leadership on tax relief -- leadership that serves as a model for the rest of the nation.

The State has revamped the CDCC by expanding its income eligibility criteria and has increased its value by allowing taxpayers to claim 110% of the federal credit, up from 20% four years ago. New York also has made the state credit refundable.[57] As shown in Table 8, these reforms have greatly expanded the amount of tax credits claimed across the state. Still, use of the credit remains far short of what it could be.

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[53] Okuyama, Kumiko and Roberta Weber. "Parents Receiving Child Care Subsidies: Where Do They Work?. Oregon Child Care Research Partnership: October, 2001.

[54] Tompkins County Early Education Partnership, "Fill the Gap: Child Care Supports Workers and Employers" (2002), available at http://www.cce.cornell.edu/restructuring/doc/html/Filling%20the%20subsidy%20gap.htm May 11, 2003.

[55] Anne Mitchell et al., "Financing Child Care in the United States: An Expanded Catalog of Current Strategies" (2001), available at www.emkf.org/youth_development/childcare2001/index.cfm .

[56] National Women's Law Center, "Making the Grade for Care: Ranking State Child and Dependent Care Tax Provisions" (2002), available at http://www.nwlc.org/pdf/MakingTheGradeForCare2002.pdf .

[57] Fiscal Policy Institute, "The Impact of New York State's Personal Income Tax on Low Income Working Families" (2001), available at http://www.fiscalpolicy.org/incometaxthresholds02.PDF.

Table 8. New York State Personal Income Tax Credit (millions of dollars)

	1995	1996	1997	1998	1999	2002
Child and Dependent Care Credit	39.1	35.5	40.1	76.8	139.4	201.0

Source: NYS Division of the Budget 2003 Tax Expenditure Report
http://www.budget.state.ny.us/pubs/supporting/TaxExpendReport0304.pdf (p13)

Almost 750,000 working New York parents claimed the credit in 2000; however, the average credit received was only $270 per parent.[58] Highlighting the under-use of the credit among low-income families, the amount of this average credit is much lower than the $1,440 that a family with two dependents is eligible to claim.[59]

In addition to the CDCC, parents also can receive federal tax relief through the non-refundable Federal Child and Dependent Care Credit, with an average return of $490 dollars per claim.[60]

Over the years, New York has increasingly made it a priority to conduct outreach to ensure that eligible children in low-income families use the publicly subsidized health insurance they are entitled to. Given the under-use of both state and federal tax credits which help reduce the burden of child care expenses on working families, New York State should similarly expand its efforts to publicize these benefits, maximizing the number of families who take advantage of them.

The business community can help families afford the cost of child care

Businesses can create Flexible Spending Accounts (FSAs) where employees can set aside up to $5,000 of their pre-taxed earnings for child care. Employees can then withdraw the money by submitting receipts for child care services.[61]

FSAs reward both workers and employers for investing in child care

Since FSAs are non-taxable, the result is a significant tax savings for the worker -- on average, between $1,000 and $2,500.[62] All money placed into a FSA is exempt from Social Security, Medicaid, and other federal and state payroll taxes, resulting in a significant tax savings for employers as well.[63]

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[58] Single and head-of-household filers claim an average of $580, while married couples filing jointly claim an average of $390 per claim. Source: New York Office of Tax Policy Analysis (Nicholas_Gugie@tax.state.ny.us), April 2003.
[59] Tompkins County Early Education Partnership, "The Child Care Tax Credit: Too Little, Too Late," available at http://www.cce.cornell.edu/restructuring/doc/html/Tax%20credit%20problems.htm .
[60] IRS data from memo from Rus Sykes, Schuyler Center, April 2003.
[61] Early Education Partnership in Tompkins County, "Flexible Spending Accounts for Dependent Care," available at http://www.cce.cornell.edu/restructuring/doc/pdf/FSA%20employer%20info.pdf .
[62] Early Education Partnership in Tompkins County, "Flexible Spending Accounts for Dependent Care," available at http://www.cce.cornell.edu/restructuring/doc/pdf/FSA%20employer%20info.pdf .
[63] National Women's Law Center. "Credit Where Credit is Due," available at http://www.nwlc.org/pdf/CreditWhereCreditIsDue.pdf Accessed May 11, 2003.

Shortcomings of the current FSA program

The maximum yearly FSA contribution of $5,000 has not been raised since the inception of this federal program in 1983. As discussed, the current average price of full-time child care in New York State is $6,600 -- $11,000 per year for one child -- and many families have two children in care. The business community could play a critical role in pointing out the economic benefit of increasing the maximum level of FSA contributions to reflect the actual costs of care.

A still more serious problem is that many employees hesitate to use the program because it operates by reimbursement and any money left in the account at year-end is forfeited. As a result, nationwide only 2% to 4% of workers who are invited to participate in the program do so.[64] To make the program more attractive, New York State starts its employees' plan year in February so employees have reimbursable expenses as soon as funds are withdrawn from their paychecks. The State also contributes $200-$600 to employees' FSAs.[65] Tompkins County's largest employer, Cornell University, utilizes FSAs to contribute up to $5,000 per year toward child care expenses for low-income employees. Like many Fortune 500 companies, this university recognizes the importance of early education for its current and future workforce. Cornell's FSA strategy should be of interest to other employers who care about the stability of their workforce and the well being of the next generation.

Applying traditional economic development strategies to child care situations

Tax abatements and tax credits can be structured in ways that encourage employers to help their workers get access to quality child care, and tax credits can be used as incentives to keep child care workers in the field.

Tax abatements are designed to motivate businesses to locate or stay in a particular area. Using an approach recently tried in Austin, Texas, these abatements can be made contingent on employers using a portion of them to fund child care. Austin has earmarked 20% of a tax abatement package for workforce development services and for child care.[66] Austin employers understand that abatements linked to child care have double benefits: The abatements not only save their businesses money, but enable them to help create a child care infrastructure that has the potential to improve the entire local business climate.

Tax credits for businesses encourage them to develop on-site child care facilities or subsidize employee child care. *Tax credits targeted to child care employees* can supplement their wages and provide an incentive for them to remain in the field. This use of tax credits to improve wages and reduce turnover is a good example of how economic development policies can further important objectives of the child care field.

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[64] Early Education Partnership in Tompkins County, "Flexible Spending Accounts for Dependent Care," available at http://www.cce.cornell.edu/restructuring/doc/pdf/FSA%20employer%20info.pdf Accessed May 11, 2003.
[65] New York State, Flexible Spending Account Department, Dependent Care Advantage Account, 2002 Change in Status Form. The match amount varies by employee salary.
[66] National Child Care Information Center., "Tax Credits, Deductions and Exemptions," available at http://www.nccic.org/pubs/financing-cc/child018.html Accessed May 11, 2003.

Thinking of child care as a business

Support small businesses

Economic development incentives geared to small businesses would help child care providers upgrade facilities and hold down their operating costs. These incentives also might reduce the high turnover rate for these establishments. In addition, child care employees might benefit from policies aimed at improving wages and benefits. For example, the reduction of health insurance premiums for child care workers who are eligible for New York State's Healthy New York insurance program could make it easier for these workers to afford the health care they need.

Improve general business management skills

Child care providers, many of whom naturally focus mainly on the child development and education that is their area of expertise, often need extra support to help them reduce costs and improve operating efficiency. As intermediary organizations, CCR&Rs are a valuable resource to providers in this area, offering them critical consultation and support on referrals, insurance, budgeting, record keeping, zoning, and navigation of state programs. Because they are a hub for child care providers, CCR&Rs are well positioned to disseminate information on successful business practices.

To improve their own resources for helping providers manage small businesses, CCR&Rs can develop relationships with local community development corporations (CDCs), business groups, and New York State's Small Business Development Centers (SBDCs). For example, the SUNY Stony Brook SBDC worked with the Institute for Entrepreneurship to develop business planning software for family day care providers.[67] Partnerships with the New York State Department of Economic Development and the U.S. Small Business Administration can help CCR&Rs forge relationships with groups experienced in general business management, employment training, and community organizing. Ultimately, these approaches will enable CCR&Rs to do even more to give providers the business help they need.

Develop support structures that promote economies of scale

If providers and CCR&Rs work together to develop economies of scale, they can reduce the overhead costs of running individual child care establishments. While it is important to maintain the child care market's diversity of providers and parent choice, mechanisms used in other industries – such as the travel industry - that streamline billing, marketing, and purchasing can be adapted to the child care sector. These mechanisms would reduce administrative costs and cash flow problems[68], enabling providers to spend less time on back-office tasks and more time on delivering quality care.

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[67] Wesnofske, Lucille (2000). "Building Blocks Child Care Business Planner." The Institute for Entrepreneurship.
[68] Stoney, Louise, (2004) "Collective Management of Early Childhood Programs: Approaches That Maximize Efficiency, Help Improve Quality and Stabilize the Industry." Ithaca, NY and Raleigh, NC: Cornell University and National Smart Start Technical Assistance Center. Available at: http://economicdevelopment.cce.cornell.edu.

Investment in quality early care and education benefits all of us

This report highlights the short-term effects of early care and education on the regional New York State economy. But child care also brings long-term benefits to the economy *and* to society that are equally important as the immediate results, if not more so. Economists Rolnick and Grunewald of the Federal Reserve have investigated the long-term return of investments in early care and education. [69] Their analysis suggests that increased funding for child care would lead to an even higher rate of internal return – a return to society that will offset even expensive investments in quality.

"Early childhood development is rarely portrayed as economic development and we think that is a mistake… well focused investments in early childhood development yield high public as well as private returns." –Rolnick and Grunewald

The pathway from quality care to long-term economic benefits

What a child learns early in life affects brain development and future learning potential. Patterns of interpersonal and moral development, pro-social behavior, empathy, self-confidence, and a sense of responsibility for oneself and others are critical traits that develop early (0-5). All of them support future learning, and all are competencies that high quality early care and education programs know how to nurture. Investing in children now by supporting those skills will benefit society later by creating a better-educated and more productive workforce, ensuring that more people are able to care for themselves without government support, and reducing crime and expenditures on prisons and law enforcement.[70]

"Kids are the raw material from which society is made." -Lakoff and Grady

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[69] Rolnick, Art and Rob Grunewald, (2003) "Early Childhood Development: Economic Development with a High Public Return," available at http://minneapolisfed.org/pubs/fedgaz/03-03/earlychild.pdf Accessed May 10, 2003.
[70] Lakoff, George and Joseph Grady (1998). "Why Early Ed Benefits All of Us." *Effective Language for Discussing Early Childhood Education and Policy*. Washington, DC: The Benton Foundation.

Quality matters

Parent fees alone are not enough to bring about improvements in the quality of care. For example, making teacher-child ratios low enough to ensure that children get the attention they need elevates the cost of care but is essential to quality. In insisting on these kinds of ratios for subsidized care, New York State has demonstrated an understanding that quality requires an adequate level of resources. However, across the country the level of public investment in early care and education is much lower than the level of public resources devoted to K-12 and higher education. National estimates show that on average tuition charges cover only 35% of the cost of college, but nearly 90% of the cost of early education.[71]

The Committee for Economic Development believes that quality child care 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. "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," says Richard Florida of Carnegie Mellon University.[72] Recognizing the role that quality child care plays in creating communities that are up to the challenges of the 21st century economy, a coalition of Rochester, NY business, education, and non-profit organizations created the Early Childhood Development Initiative to increase public and private investment and community responsibility for early care and education.[73] Similar exemplary efforts have been tried elsewhere in New York and around the U.S.

…[I]t is time for the United States to acknowledge society's stake in and responsibility for early education…by making publicly funded pre-kindergarten, offered by a variety of providers, available to all children….[74]

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[71] Mitchell, Anne, Louise Stoney, and Harriet Dichter (2001). "Financing Child Care in the United States: An Expanded Catalog of Current Strategies" ,The Ewing Marion Kaufman Foundation. Available at www.emkf.org.
[72] "Top Quality Of Life A Magnet For Business" available at http://www.heinz.cmu.edu/~florida/pages/new_economy/top_quality.htm.
[73] "Financing Childcare in the United States: An Illustrative Catalog of Current Strategies". Pew Charitable Trusts: 1997. Available at http://www.nccic.org/pubs/financing-cc/.
[74] "Preschool For All: Investing in a Productive and Just Society" available at www.ced.org/docs/summary.PDF.

Conclusion

This study has shown that early care and learning has positive short-term benefits for the New York State economy. The child care sector includes more than 22,000 small businesses that employ 119,000 workers. It serves more than 750,000 working parents and generates $4.7 billion in gross receipts. But this is only the beginning. Our regional economic analysis has shown that each additional dollar spent in the child care sector generates a total of $1.50-$2.00 in the broader state economy. These results leave little question that child care has a positive economic impact, even in the short-term.

However, the primary impact of the early care and education sector is on our collective future – preparing children for school and building the foundation for our future workforce. Suggesting that the public understands the importance of early care and education programs, surveys show that most people rank early care and education programs as a high priority.[75] Moreover, farsighted business leaders such as members of the influential Committee for Economic Development (CED), which in 2002 called for "the United States to acknowledge society's stake in and responsibility for early education," recognize that the child care sector promotes long-term benefits to the economy. More and more members of the business community are beginning to share this view.

The next step is to act decisively. Now is the time for new partners from the business and economic communities to join with the child care and early learning community and its allies from the world of business and elsewhere to enhance the quality of early education for New York's children, in turn strengthening the regional economy. Unquestionably, this kind of partnership will be a win/win scenario for New York State's families, businesses, workers, and taxpayers and for everyone who cares about the well being of the state's children.

[75]Brandon, Richard, Effective Language for Discussing Early Childhood Education and Policy, available at http://www.benton.org/Stratcom.PDF Accessed May 11, 2003.

Appendix 1. Estimating the Number of Establishments

Table 9. Number of Establishments, New York State, Rest of State and New York City

NUMBER OF ESTABLISHMENTS - Entire State	Number of Establishments
Center Care*	3,806
Family Day Care*	10,983
Group Family Day Care*	3,665
School Age Child Care*	2,086
UPK Establishments**	
BOCES	34
Non Public School	164
Nursery School	328
Public School	1,124
No Permit Requirement	13
OTHER	19
Total UPK Establishments	1,682
Total Establishments	22,222
NUMBER OF ESTABLISHMENTS - Rest of State	**Number of Establishments**
Center Care*	1,892
Family Day Care*	5,856
Group Family Day Care*	2,320
School Age Child Care*	1,186
UPK Establishments**	
BOCES	34
Non Public School	64
Nursery School	75
Public School	446
OTHER	14
Total UPK Establishments Rest of State	633
Total Establishments	11,887
NUMBER OF ESTABLISHMENTS - New York City Only	**Number of Establishments**
Center Care*	1,914
Family Day Care*	5,127
Group Family Day Care*	1,345
School Age Child Care*	900
UPK Establishments**	
BOCES	-
Non Public School	100
Nursery School	253
Public School	678
OTHER	5
Total UPK Establishments New York City	1,049
Total Establishments	10,335

Sources:
*OCFS-Bureau of Early Childhood Services-Capacity worksheet given March 12, 2003
**New York State Department of Education: Memo from Dee Dwyer dated 12/02/02
UPK=These are the establishments not already counted in OCFS list of establishments (Labeled public school, non public school, nursery, no permit, other and BOCES)

Appendix 2. Estimating the Number of Children Served

Table 10. Capacity and Children Served

Licensed Care by Type*	Children Served
New York City	
Day Care Center	100,368
Family Day Care	38,012
Group Family Day Care	18,310
School Age Child Care	97,752
Subtotal	254,442
Rest of State	
Day Care Center	127,922
Family Day Care	44,538
Group Family Day Care	30,681
School Age Child Care	69,152
Subtotal	272,293
TOTAL	526,735
Children with Subsidies (not included in licensed capacity)**	
Child's home by relative	10,846
Child's home by non-relative	11,575
Family home by a relative	19,098
Family home by a non-relative	26,282
Total	67,801
UPK***	
New York City	
Non Public School	1,821
Nursery School	4,306
Public School	11,627
No Permit Requirement	806
OTHER	69
New York City Total of UPK Children (not included in licensed capacity)	18,629
Rest of State	
BOCES	417
Non Public School	944
Nursery School	909
Public School	7,089
OTHER	271
Rest of State Total of UPK Children (not included in licensed capacity)	9,630
Total Number of UPK Children (not included in licensed capacity)	28,259
Total Number of Children Served by New York State	
Total Licensed Care	526,735
Children Using Subsidies (not counted in licensed capacity)	67,801
UPK (not counted in licensed capacity)	28,259
Total Children Served*	622,795

Note: Head Start/Early Head Start serves 52,158 children, and the state Migrant and CUNY/SUNY programs serve 11,941 children, all of which are included in the licensed care totals.

Sources:

*OCFS-Bureau of Early Childhood Services-Capacity worksheet given March 12, 2003

**ACF-800: CC& D Fund Annual Aggregate Report For Services Provided from 10/01-9/30/02

***New York State Department of Education: Memo from Dee Dwyer dated 12/02/02

Appendix 3. Employment Estimates

The Bureau of Labor Statistics uses the ES-202 Covered Employment and Wages to report 52,200 employees in the child care sector in 2002.[76] Likewise, IMPLAN uses the same source to find 52,791 workers. However, as discussed in the body of this report, there are many reasons to believe these numbers are an undercount. A large percentage of the sector is self employed or employed by a government program, which keeps them from being counted by these surveys.

The 1997 Economic Census reports 67,798 workers, including both employees and self-employed child care providers.[77] However, this may not account for administrative and support staff, and thus appears to be an undercount.

Since standard economic sources do not accurately count child care workers (in part due to the diversity of providers and many small providers who are not captured in the Unemployment Insurance system, on which ES-202 data is based), there have been several methodologies developed to estimate employment based on capacity, number of centers, and regulated teacher-child ratios. The following method, which finds a sum of 119,564 child care workers, uses OCFS numbers of providers, capacity and regulated ratios to estimate employment. It also includes a ratio to account for support and administrative staff, as well as UPK employment in public settings (not included in OCFS licensing data).

Table 11. Number of Employees, OCFS

Number of Employees	Explanation
11,015	Family Day Care: there are 11,015 Family Day Care Homes, with one staff per center
7,274	Group Family Day Care: There are 3,637 Group Family Day Care Homes, for which it can be assumed two staff people
17,000	School Age Child Care: there is a capacity of 170,000 children in school age care, with a ratio of 1:10
63,500	Centers: based on a day care center capacity of 230,000, with an average ratio of 1:5. Because most centers stay open from 7 am to 6pm, there is an additional 0.38 FTE for every one full time employee.
18,515	Administrative and support staff for centers and school age child care based on ratios from retention data that indicate there is 0.23 non-direct care staff person for each direct care employee.
2,260	39% of UPK classrooms are in public schools, and therefore not included in OCFS capacity numbers. There are a total of 5,797 UPK teachers and teaching assistants.
119,564	TOTAL

Source: OCFS, Suzanne Sennett, April 2003.

Two other estimates of employees, also based on ratios, were not used in this report because they undercounted employment by excluding part of the school age child care and extra staff to cover the longer hours of staffing centers. We have included them to show alternative methods available.

[76] Bureau of Labor Statistics, ES202 Covered Employment and Wages (NAICS), available at http://data.bls.gov.labjava.outside.jsp?survey=en Accessed May 11, 2003

[77] 1997 Economic Census NAICS code 6244

Table 12. Number of Employees, Methodology from Rus Sykes and Anne Mitchell

Number of Employees	Explanation
45,468	Centers: 3,789 regulated day care centers as reported by OCFS, multiplied by estimated 12 staff per center. (This is a comparable number to the 46,001 number found using capacity and ratios.)
10,457	Administrative and support staff for centers. Data from the Retention Program suggests that for every 1 direct staff person there is 0.23 support or administrative staff.
17,980	14,384 regulated Family Day Care Homes from OCFS multiplied by estimated 1.25 staff per center. (Assumed one staff per small Family Day Care and two for group Family Day Care and weighted heavily towards small homes.)
2,260	39% of UPK classrooms are public schools, and therefore not included in OCFS capacity numbers. There are 5,797 UPK teachers and teaching assistants.
76,165	TOTAL

Source: Rus Sykes and Anne Mitchell. Estimates based on numbers of centers from OCFS; April, 2003.

Table 13. Number of Employees, Estimated using Regulated Ratios

25,626	Rest of State (ROS) Center Capacity from OCFS, multiplied by regulated ratios ROS Capacity Ratio Staff Infant 11,614 4:1 2,904 Toddler 21,478 5:1 4,296 Pre-School 80,138 Av. 8:1 10,017 School-age 84,093 10:1 8,409
4,356	ROS Center administrative and support staff; multiplier of 1.17 from retention data base
22,591	NYC Center Capacity, assuming the same distribution of capacity by age as for ROS, multiplied by regulated ratios. NYC Capacity Ratio Staff Infant 9,277 4:1 3,575 Toddler 17,009 5:1 5.285 Preschool 61,851 Av. 12:1 8,191 School age 66,490 Av. 12:1 5,540
6,552	NYC Center administrative and support staff; based on a multiplier of 1.29 from retention data base
11,015	Number of Family Day Care Homes, assumed one staff person.
7,274	There are 3,637 Group Family Day Care Homes, for which it can be assumed two staff people.
2,260	39% of UPK classrooms are public schools, and therefore not included in OCFS capacity numbers. There are 5,797 UPK teachers and teaching assistants.
79,674	TOTAL

Source: Estimated from capacity of centers and regulated ratios. Ratios are from the Department of Health and Human Services; Administration for Children and Families; New York; Accessed 10 May 2003. http://www.nccic.org/statepro/newyork.html

Appendix 4. Employee Wages

The average wages reported in this paper are based on a variety of sources that provide a range of estimates centered around approximately $19,000. The following table comes from wage information reported by the NYS Professional Retention Program data and from employment surveys.

Table 14. Average Wages, Various Sources

Rest of State Teachers: $16,970	Retention Data 2002-2003, Rest of State Administrative Staff $20,579 Aide $12,094 Assistant Teacher $12,935 Cook $14,014 Director $25,815 G/FDC Assistant Provider $12,961 FDC or GFDC Provider $16,942 Janitor/Custodial Staff $13,101 Other direct $16,855 Other non direct $19,063 Teacher $16,923
New York City Teachers: $23,000	Retention Data 2002-2003; NYC Administrative Staff $23,923 Aide $13,256 Assistant Teacher $19,806 Cook $19,389 Director $40,116 G/FDC Assistant Provider $13,873 G/FDC Provider $19,933 Janitor/Custodial Staff $17,473 Other direct $26,132 Other non direct $22,144 Teacher $27,525
$14,895	1997 Economic Census[78] 640,024,000 is the annual pay roll divided by for 42,967 employees; it excluded self-employed and small business owners.
$17,273	Bureau of Labor Statistics 2000; (Covered Employment and Wages CEW) NAICS
$17,409	Center for Childcare Workforce (based on Occupational Employment and Wage Statistics, 1999)
$19,480	NACCRRA (Based on Occupational Employment Statistics, 2001)
$19,610	Occupational Employment Statistics Survey Projected 2002. The projection is based on the Occupational Employment Statistics (OES) survey. Data were collected in 1999, 2000, and 2001 and then updated to the fourth quarter of 2002 by making cost-of-living adjustments. This source also breaks down entry level employees who earn $14,530, and experienced who earn $22,140.

[78] U.S. Census Bureau; 1997 Economic Census: NAISCS 6244, Child Day Care Services, available at www.census.gov/epcd/ec97/industry/E6244.HTM May 11, 2003.

Appendix 5. Estimating the Number of Working Parents

- Almost 750,000 working parents in New York State benefit from child care.

- There are 266,257 single or head of household earners claiming $154,463,000 (average of $580/parent) of New York State's refundable Child and Dependent Care Tax Credit. The 239,589 married filing jointly total 479,178 working parents with children in care claiming $47,087,000 (average of $98/parent). The number of filers claiming the non-refundable Federal Dependent Care Credit was 402,447, just under $197 million in credits and averaging almost $490 per parent.[79] In total, there are almost 750,000 working parents benefiting from New York State's refundable tax credit for child care (see Table 15). The Child and Dependent Care Credit helps parents pay the cost of child care for children under 13 years of age.

Table 15. New York State Refundable Child and Dependent Care Credit, 2000

	No. of filers	*Amt ($1,000)*
Total Filers	505,846	201,550
Single	*9,328*	*5,429*
Married Jointly	*239,589*	*47,087*
Head of Household	*256,929*	*149,034*
Additional Married Working Parent[1]	239,589	
Total Working Parents	745,435	201,550

Source: NYS Office of Tax Policy Analysis, Tax Year 2000
[1]Married filing-jointly figure is doubled to account for both working parents that file under the same form.

Estimating Number of Working Parents Based on Census Data

Because US Census data on children under 13 years of age by family and parent working status is unavailable, the study team used data on "own children" under 6 years of age living with families and subfamilies by employment status of parents (Census 2000, SF-3, Table P46) and data on the number of families with "own children," children under 6 years of age (Census 2000, SF-3, Table P15) to estimate the number of working parents per child (see Table 16).

Table 16. Data Used for Estimating Number of Working Parents Per Child

Total number of children under 6 years of age living with families and subfamilies (Census 2000, SF-3, Table P46)	1,405,240
Number of children under 6 years of age living with working parents (excludes dual-parent households with only one parent in labor force), (Census 2000, SF-3, Table P46)	764,721
Number of children under 6 years of age living in dual-parent families, both parents in labor force (Census 2000, SF-3, Table P46)	*488,013*
Number of children under 6 years of age living in single parent families, parent in labor force(Census 2000, SF-3, Table P46)	*276,708*
Number of families with children under 6 years of age, (Census 2000, SF-3, Table P15).[80]	999,401

Estimating the number of working parents per child in NYS requires essentially four steps.

Table 17. Estimating Number of Working Parents per Child in NYS

Step 1	Ratio of children under 6 years of age to families with children under 6 years of age	
	= 1,405,850/999,401	1.41
Step 2	Ratio of working parents with under children under 6 years of age to children in families where all parents are in the labor force.	
	= [(488,013*2)+276,708)]/764,721	1.64
Step 3	The number of working parents per child is estimated as the ratio of working parents per children of working families divided by the ratio of children to families.	
	= 1.64 / 1.41	1.17

The 2000 Census shows that there are 764,721 children under age 6 in New York living with working parents (Table 17). According to the Census, there are 1.17 working parents associated with each child under age 6. Thus, we estimate that there are over 894,723 (1.17 x 764,721) working parents associated with these children under age 6 (see Table 18). However, not all parents have children in paid child care. In New York, only 745,435 parents claim the state Child and Dependent Care Tax Credit (DCTC).

[80] The US Census breaks families with children under 18 years of age into three categories: families with children under 6 years of age only, families with children under 6 years of age and children 6-17 years of age, and families with children between ages 6-17 years only. In order to get the total number of families with children under 6 years of age, we added the number of families with children under 6 years of age only (519,519) to the number of families with children under 6 years of age and 6-17 years of age (479,882).

Estimating Number of Working Parents Who Receive Child Care Subsidies

We estimated the number of working parents who receive child care subsidies, based on data and methodology from the Office of Child and Family Services (OCFS). OCFS estimates that there are an average of 1.5 children in each of the 116,752 families receiving subsidies, and that 1 of 9 families have two parents. Thus there are approximately 130,000 working parents that benefit from the subsidy system (Table 19). With that, we estimated the total earnings of those parents. The wage of a low-wage worker in 2001 (defined as a worker at the 20th percentile) was $8.07/hr or almost $13,275/yr (assuming a 35 hour work week for 47 weeks).[81] We estimate that subsidies enable 130,000 parents to collectively earn $1.7 billion.

Table 18. Estimated Number of Working Parents Receiving Child Care Subsidies

	2002
Number of Subsidy Cases (Families)	116,752
Number of Children per Case	1.5
Ratio of Two-Parent to Single-Parent Families	1/9
All families + second parents in two-parent households	116,752 + (116,752/9) =
Total Working Parents	**129,724**

Source: OCFS, Suzanne Sennett, May 2003.

[81] Economic Policy Institute. State of Working America (2002) The average weekly hours of an employee in the Retail Trade sector is 35 hours (p240). The wage of a worker at the 20th percentile is $8.07 in 2001$ (at the 10th percentile it is $6.69) (p128). In 2000 the average number of weeks worked for a worker is 47 (p117).

Appendix 6. Government Investments in Child Care

Table 19. Source of Government Investments in Child Care, 2002

	Federal Dollars	State Dollars	Local Dollars[7]	Total Dollars
Child Care Block Grant[1]	$ 331,000,000	$ 96,000,000	$ 68,000,000	$ 495,000,000
TANF Transfers to CCBG[1]	$ 418,000,000			$ 418,000,000
Title XX[2]	$ 68,670,000			$ 68,670,000
UPK[3]		$ 205,000,000		$ 205,000,000
Head Start / Early Head Start[4]	$ 419,957,000			$ 419,957,000
CUNY[5]		$ 2,095,000		$ 2,095,000
SUNY[5]		$ 2,533,500		$ 2,533,500
CACFP (Food) [6]	$ 128,646,627			$ 128,646,627
Total	**$ 1,366,273,627**	**$ 305,628,500**	**$ 68,000,000**	**$ 1,739,902,127**

1. DOB Data, Email from Rus Sykes on 4/14/03
2. OCFS Child Care Funding FY 2002
3. NYS Dept. of Education, June 7, 2002, http://www.emsc.nysed.gov/nyc/upk0607mem.htm
4. US Dept. of HHS, Head Start Bureau
5. New York State Higher Education Budget
6. CACFP, Budget for New York State
7. This number includes local match and maintenance of effort funds, but New York City and some counties also add to their own subsidy programs.

The leverage of federal dollars was determined by dividing the federal expenditures by the combined state and local expenditures on child care. The result was that the State of New York leverages approximately $3.66 in Federal revenue for every $1 spent on child care.

Appendix 7. Gross Receipts Estimates

Gross receipts include both private payments by parents to providers and government supported early education. To estimate gross receipts we took average price per type of care and age of child for each county from the NYS Market Rate survey and then aggregated these across all counties in the state to estimate private pay receipts. Government paid programs such as UPK and Head Start and direct subsidies to providers were then added to get total gross receipts.

Table 20. Gross Receipts Estimates, 2002

Source	Receipts
Provider Fees Rest of State	
Centers	$ 1,052,000,000
Family Day Care	$ 303,000,000
Group Family Day Care	$ 242,000,000
School Age Care	$ 207,000,000
Rest of State Subtotal	$ 1,803,000,000
Provider Fees New York City	
Centers	$ 1,132,000,000
Family Day Care	$ 247,000,000
Group Family Day Care	$ 136,000,000
School Age Care	$ 324,000,000
New York City Subtotal	$ 1,839,000,000
Provider Fees, Total	$ 3,642,000,000
Government – Direct Payments Total	$ 1,029,000,000
Total Gross Receipts	**$ 4,671,000,000**

Source: Market Rate Survey data, OCFS and DOB, May 2003.

Table 21. Detailed Gross Receipts Estimates, 2002

Rest of State			Formula
Centers	$	1.05 Billion	Weekly Cost of Care by Age **x** Capacity by Age **x** 52 weeks for infant, toddler and preschool care + [Part-time School age Cost x Total Capacity x 40 weeks (school year)] + [Full-time Cost x Total Capacity x 12 weeks (summer)]
Family Day Care	$	.30 Billion	Weekly Average Cost Across All Age Brackets **x** Total Capacity **x** 52 weeks
Group Family Day Care	$	.24 Billion	Weekly Average Cost Across All Age Brackets **x** Total Capacity **x** 52 weeks
School Age Care	$	.21 Billion	Part-time Cost **x** Total Capacity **x** 40 weeks (school year) **+** [Full-time Cost **x** Total Capacity **x** 12 weeks (summer)]
Total	$	1.80 Billion	
NYC			
Centers	$	1.13 Billion	
Family Day Care	$	.25 Billion	
Group Family Day Care	$	.14 Billion	
School Age Care	$	.32 Billion	
Total	$	1.84 Billion	
State Totals			
Centers	$	2.18 Billion	
Family Day Care	$	.55 Billion	
Group Family Day Care	$	.38 Billion	
School Age Care	$	.53 Billion	
	$	3.64 Billion	

School age children are calculated at the part-time rate for 40 weeks and the full time rate for 12 weeks. The summer charges for full-time care for school-age children serves as a proxy for summer camp and other summer programs.

The CCR&R survey currently underway suggests that prices in New York State are slightly lower than the OCFS market rate prices used in this report. For center and family/group family care, the average price tends to be 80%-100% of the market rates. For part-time school age care, the average price is higher than the market rates.

Gross Receipts for Government Pay in NYS Methodology

Government investments include publicly funded programs such as UPK and Head Start and direct subsidies to providers. We also included subsidies paid to informal providers not already counted in the licensed system.

Table 22. Distribution of Government Sector Pay in Gross Receipts, 2002

Quality[1]	$	70,000,000
CUNY[2]	$	2,095,000
SUNY[2]	$	2,533,500
Child and Adult Care Food Program[3]	$	128,646,627
UPK[4]	$	205,000,000
Head Start / Early Head Start[5]	$	419,957,000
Subsidies[6]	$	201,000,000
Total:	**$**	**1,029,232,127**

Sources:

1. National Child Care Information Center. http://www.nccic.org/pubs/stateplan/charts-tables/table 5-2.html
2. NY State Higher Education Budget
3. Memo from Sandra Rhoades, Child and Adult Care Food Program, April 9, 2003.
4. NYS Education Dept. June 7, 2002, http://www.emsc.nysed.gov/nyc/upk0607mem.htm
5. US Dept. of Health and Human Services, Head Start Bureau

Appendix 8. Geography

For this report, we selected several different areas of New York State to analyze for economic linkage effects using input-output analysis. The technical advisory committee of this report chose the areas. The committee endeavored to pick areas of New York that illustrated different kinds of regional economies. Some counties were linked together because they represented a single labor market area.

We chose counties within five different categories:

1. New York State as a whole

2. Rest of state without New York City

3. New York City (five boroughs)

4. *MSA groupings*

Albany-Schenectady-Troy MSA:	Albany, Montgomery, Rensselaer, Saratoga, Schenectady and Schoharie Counties
Buffalo-Niagara Falls MSA:	Erie and Niagara Counties
Nassau-Suffolk PMSA:	Nassau and Suffolk Counties
Rochester MSA:	Genesee, Livingston, Monroe, Ontario, Orleans and Wayne Counties
Syracuse MSA:	Cayuga, Madison, Onondaga and Oswego Counties

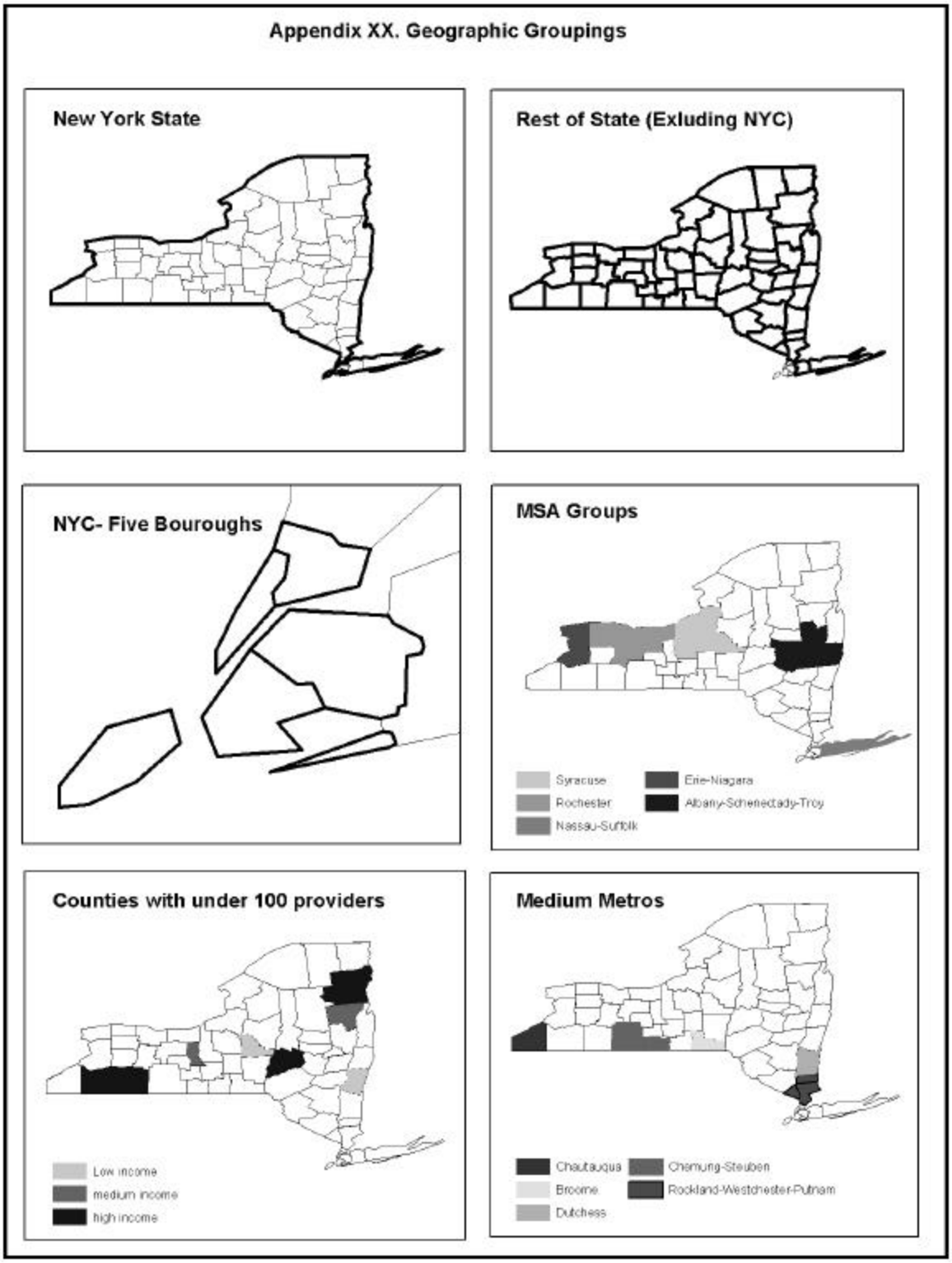
5. Counties with under 100 providers – three groups: low income, middle income, higher income:

Median household income < $35,000	Allegany and Cattaraugus (together), Essex, Otsego
Median Household Income < $40,000	Seneca and Warren
Median Household Income > $40,000	Columbia and Madison

6. Medium Metro counties
   - NYC suburbs: Rockland, Westchester, Putnam as a group
   - Chemung and Steuben together
   - Dutchess
   - Broome
   - Chautauqua

Figure 11 on the next page shows the areas we analyzed for their economic linkage effects using input-output analysis.

Figure 11. Geographic Groupings



Appendix 9. Input-output Analysis Results by Geography

Regional economic modeling known as input-output analysis can be used to measure the linkage effect of any industry. The IMPLAN modeling software used for this analysis includes 540 sectors in the regional models for New York State, including child care. Input-output models are based on the assumption that export demand (or the ability of industries to sell to the external economy) is the engine that generates growth in the regional economy. Export growth infuses local industries with new funds, which they use to increase output and employment. In the case of child care, the only demand that comes from outside the region is federal investment in the state's child care sector. Households are the primary purchasers of child care, and demand is usually local.

Input-output models measure the demand from each industry to its suppliers.[82] The child care sector primarily purchases labor, supplies and food from other sectors. Because most of these purchases are local, child care has a strong linkage effect in the local economy. In fact, child care's multipliers are higher than many sectors which receive significant economic development support. For our input-output analysis, we looked at both the employment and output multipliers for the child care sector.

- An output multiplier, in the case of the child care industry, estimates the total sales that would result from each dollar of increased direct spending for child care services
- The employment multiplier is an estimate of the jobs that would be created throughout the whole economy from the addition of one new job in the child care industry, which was added due to increased demand for child care services

Multipliers can measure both industry output and employment at Type I and Type II levels. Type I multipliers include both the direct and indirect effects and count the impacts of inter-industry purchases. Type I multipliers are most appropriate for estimating the economic linkage effects of changes in internal (state or local) demand.

Each additional state or local $1 spent on child care in New York stimulates a total of $1.52 in activity in the state economy.

Each additional job created by increased local demand for child care generates a total of 1.26 jobs in the broader state economy.

Type II multipliers include direct, indirect and induced effects (purchases made by the household sector as child care workers spend their wages throughout the economy). Type II multipliers are most appropriate for estimating changes in external demand. In the case of child care, changes in external demand are typically triggered by changes in federal funding.

[82] These linkages are called backward linkages. However, the most significant linkages for the child care industry may be its forward linkages, because it enables parents to work – supplying labor to other sectors. To measure the full economic impact of the child care sector both forward and backward linkages should be counted. Cornell researchers are currently working on a model to do this.

Each additional federal $1 spent on child care in New York generates a total of $2.04 in economic activity throughout the state.

Each additional job created by an increase in external demand for child care generates a total of 1.52 jobs through the state.

The table below separates the direct, indirect and induced effect for employment and output multipliers. It shows all the results for the geographies that we were interested in looking at within New York State.

Multiplier effects will be very different depending on the size and economic organization of the selected region. Although we might expect regions with larger geographic areas to have higher multipliers, this result is not always the case due to the way that regional economies are structured. There is a short discussion of the findings following Table 24.

Table 23. Input-output Results for Selected Geographic Groupings

	direct	indirect	induced	total	type I	type II
1. New York State						
Employment	20.31	5.22	5.40	30.93	1.26	1.52
Output	1.00	0.52	0.52	2.04	1.52	2.04
2. New York State w/o NYC						
Employment	22.22	6.39	6.03	34.64	1.29	1.56
Output	1.00	0.58	0.51	2.09	1.58	2.09
3. NYC (5 Boroughs)						
Employment	17.94	4.11	4.19	26.24	1.23	1.46
Output	1.00	0.43	0.46	1.89	1.43	1.89
4. MSA groupings						
· **Albany-Schenectady-Troy MSA**						
Employment	21.95	6.13	5.62	33.70	1.28	1.54
Output	1.00	0.52	0.45	1.97	1.52	1.97
· **Buffalo-Niagara Falls MSA**						
Employment	23.45	6.99	6.23	36.67	1.30	1.56
Output	1.00	0.58	0.48	2.06	1.58	2.06
· **Nassau-Suffolk PMSA**						
Employment	20.47	4.89	4.74	30.10	1.24	1.47
Output	1.00	0.48	0.44	1.92	1.48	1.92
· **Rochester MSA**						
Employment	23.28	6.48	5.46	35.21	1.28	1.51
Output	1.00	0.54	0.42	1.96	1.54	1.96
· **Syracuse MSA**						
Employment	22.86	6.53	6.00	35.39	1.29	1.55
Output	1.00	0.54	0.47	2.01	1.54	2.01

	direct	indirect	induced	total	type I	type II
5. Medium Metros						
· **NYC Suburbs**						
Employment	20.75	4.97	4.19	29.91	1.24	1.44
Output	1.00	0.50	0.42	1.93	1.50	1.93
· **Chemung Steuben**						
Employment	24.59	6.46	4.41	35.46	1.26	1.44
Output	1.00	0.48	0.31	1.79	1.48	1.79
· **Dutchess**						
Employment	22.01	5.84	4.70	32.54	1.27	1.48
Output	1.00	0.50	0.37	1.86	1.50	1.86
· **Broome**						
Employment	24.23	7.19	5.45	36.87	1.30	1.52
Output	1.00	0.52	0.38	1.91	1.52	1.91
· **Chautauqua**						
Employment	22.62	6.25	5.03	33.90	1.28	1.50
Output	1.00	0.43	0.33	1.76	1.43	1.76
6. Counties with Under 100 providers						
Low income						
· **Allegany-Cattaraugus**						
Employment	24.81	6.07	4.02	34.90	1.24	1.41
Output	1.00	0.41	0.26	1.67	1.41	1.67
· **Essex**						
Employment	25.91	5.98	3.13	35.02	1.23	1.35
Output	1.00	0.42	0.21	1.63	1.42	1.63
· **Otsego**						
Employment	24.41	5.73	4.16	34.30	1.23	1.41
Output	1.00	0.40	0.28	1.68	1.40	1.68
Medium income						
· **Seneca**						
Employment	26.01	6.18	3.16	35.35	1.24	1.36
Output	1.00	0.42	0.21	1.63	1.42	1.63
· **Warren**						
Employment	23.21	6.00	4.99	34.20	1.26	1.47
Output	1.00	0.46	0.36	1.82	1.46	1.82
High income						
· **Columbia**						
Employment	26.28	7.41	3.14	36.83	1.28	1.40
Output	1.00	0.53	0.23	1.76	1.53	1.76
· **Madison**						
Employment	25.87	6.26	3.76	35.89	1.24	1.39
Output	1.00	0.46	0.25	1.71	1.46	1.71

Source: IMPLAN multipliers based on 2000 data, analysis by Cornell University
Type 1 multiplier = (Direct+Indirect)/Direct; Type II Multiplier = (Direct+Indirect+Induced)/Direct

Geography matters

Figure 12. Total Output Multiplier by Geography

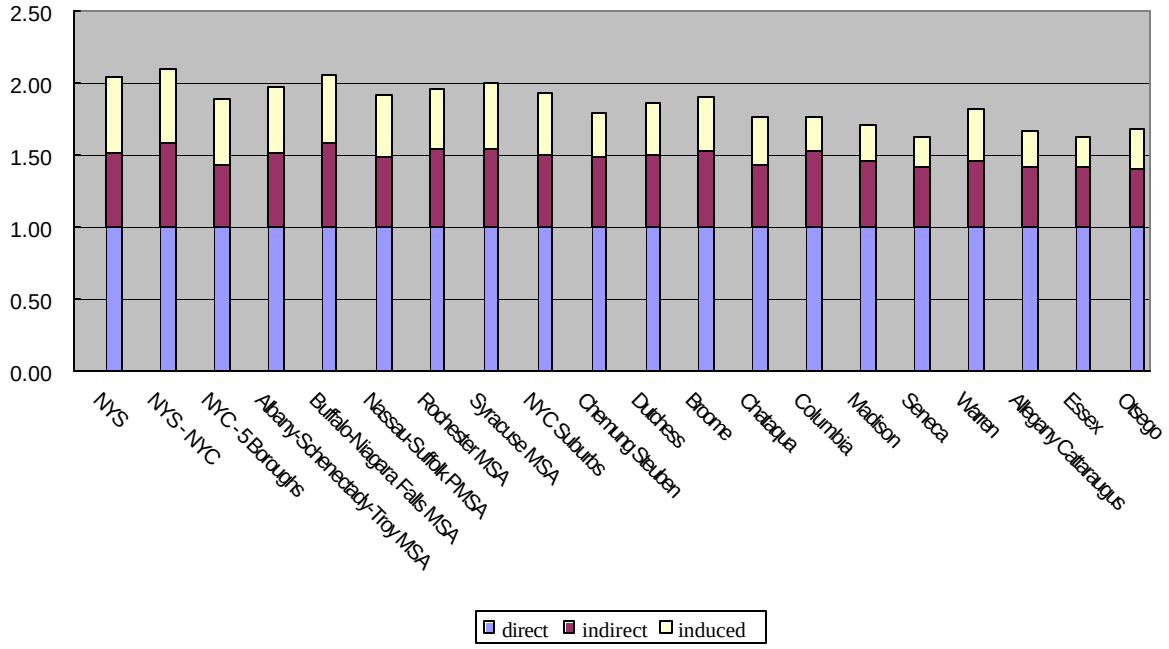


Figure 12 demonstrates some variation of output multipliers for child care across New York State, ranging from 1.63 to 2.09. The fact that child care is a service sector with labor as its primary input may depress the variation of multipliers between regions. This is because the sector generally employs (buys labor) locally, no matter the size of the geographic area considered.

The chart begins with the larger areas – the state, upstate, New York City – and then moves to the metropolitan areas, medium metropolitan areas, and counties with few providers (more rural areas). Several factors are evident: the five boroughs of New York City have a lower multiplier than the rest of the state. This may be because the New York City economy is truly a tri-state regional economy, so there is a lot of leakage to the wider metropolitan area and indeed to the world at large from the five boroughs. A second standout is the high multiplier for the Buffalo-Niagara Falls MSA. This suggests that Buffalo is a relatively self-sufficient economy due to its isolated location in the northwest corner of the state, surrounded by the Great Lakes and the Canadian border. Also, the Nassau-Suffolk PMSA has a lower output multiplier than the other large metropolitan areas, possibly because of its economic leakage to New York City and to the larger world. In general, the multipliers are lower for the more rural areas, suggesting that there is heavier leakage from these areas to surrounding economies. Columbia and Warren counties (the higher income rural counties) have higher multipliers than the lower income counties.

Appendix 10. Government Definitions of the Child Care Industry

The Bureau of Labor Statistics has broadened its definition of the child care sector. The 1987 SIC definition focused on the care of children before reaching school age and after school programs.[83] In 2002, the government added babysitting and pre-kindergarten centers to the current NAICS definition. This shift acknowledges the educational advantages of child care.[84]

SIC 8351 Child Day Care Services

Establishments primarily engaged in the care of infants or children, or in providing pre-kindergarten education, where medical care or delinquency correction is not a major element. These establishments may or may not have substantial educational programs. These establishments generally care for pre-kindergarten or preschool children, but may care for older children when they are not in school. Establishments providing babysitting services are classified in Industry 7299. Head Start centers operating in conjunction with elementary schools are classified in Industry 8211.

- Child day care centers
- Family day care services
- Head Start centers, except in conjunction with schools
- Nursery schools
- Preschool centers

2002 NAICS 624410 Child Day Care Services

This industry comprises establishments primarily engaged in providing day care to infants or children. These establishments generally care for preschool children, but may care for older children when they are not in school and may also offer pre-kindergarten educational programs. ***Cross-References.*** Establishments primarily engaged in offering kindergarten educational programs are classified in Industry 611110, Elementary and Secondary Schools.

- Babysitting Services
- Child day care centers
- Family day care services
- Head Start programs
- Nursery Schools
- Pre-kindergarten centers (not part of elementary school system)
- Preschool centers

[83] Occupational Safety and Health Administration, U.S. Department of Labor, Child Day Care Services, SIC Code 8351, available at http://www.osha.gov/cgi-bin/sic/sicser2?8351 May 11, 2003.
[84] U.S. Census Bureau, Child Day Care Services, 2002 NAICS Definitions, available at http://www.census.gov/epcd/naics02/def/ND624410.HTM May 11, 2003.

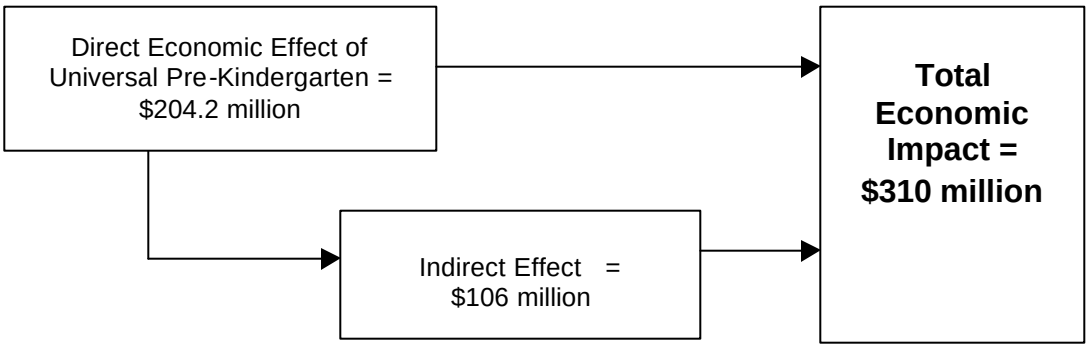
Appendix 11. Universal Pre-Kindergarten

Reports have shown that quality early learning programs improve school readiness. New York State invests in an early learning program known as Universal Pre-Kindergarten (UPK). UPK is a state funded program that provides free early childhood education for four year old children. New York State currently has a total of 54,150 children in UPK. Estimated funding for the 2002-2003 school year is $204.2 million.[85]

UPK has an impact on the New York State economy due to the fact that both public and private establishments receive funding. One of the scenarios in the 2003 state budget debates was to eliminate the UPK program. A cut of this magnitude would create a "shock" to the early care and education system. The total effects would reach beyond the direct effects on early learning programs. Licensed care spaces would shrink, teachers and teaching assistants would no longer be employed and the dollars that classrooms would spend on supplies, food, furniture, and other expenses would no longer generate demand for other New York industries.

An input-output analysis can be used to measure the broader regional economic impact of such a "shock." The $204.2 million that UPK receives in state funds creates a direct impact of $204.2 million in the New York State economy through teacher salaries and class space rent payments. Indirect impacts from UPK that occur when providers buy goods from other industries equal $106 million (204.2 x 0.52). The total economic linkage effect on the state's economy of a cut in UPK is $310 million dollars. Because these are state funds, we used a Type I multiplier.

Figure 13. Economic Effects of Cutting the UPK Program

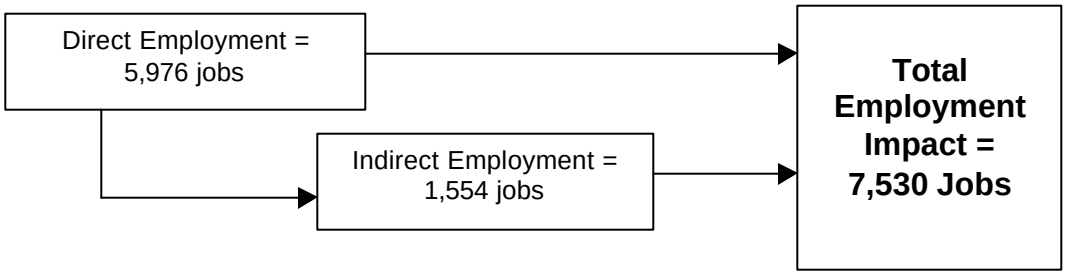


Analysis based on NYS Dept of Education data 2002. IMPLAN indirect multiplier (Type 1) conducted by Cornell University using NYS 2000 data

[85] New York State Department of Education: Memo from Dee Dwyer dated 12/02/02

A similar analysis was conducted on the overall effects of UPK employment. UPK directly employs 5,976 workers. If the program were totally cut, the direct jobs would be lost and an additional 1,554 (5,976 **x** 0.26) jobs would be lost through the linkage effect. The total employment impact of cutting the UPK program would be 7,530 jobs in the NYS economy. Early education provides important jobs to the early care and education sector, and prepares New York's children for school – thus building our future work force.

Figure 14. Employment Effects of Cutting the UPK Program



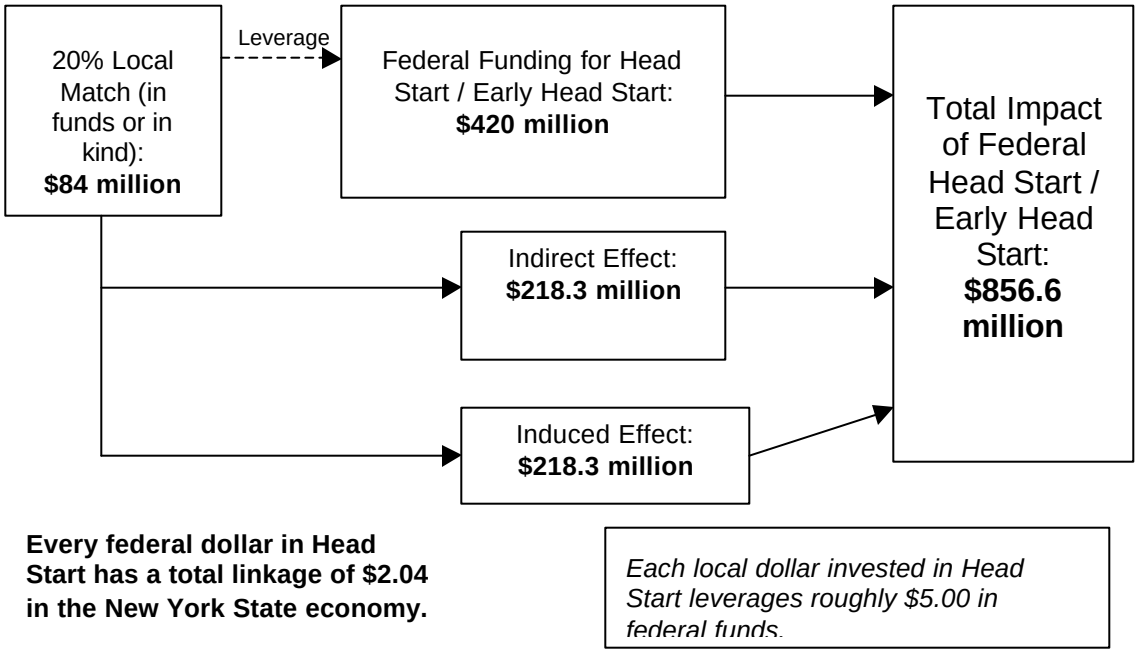
Analysis based on NYS Dept of Education data 2002. IMPLAN indirect multiplier (Type I) conducted by Cornell University using NYS 2000 data

Appendix 12. Head Start

Head Start is an important early education program that provides educational support to infants and preschoolers. In New York State over 52,000 are served – 47,902 children are served in Head Start and 4,256 in Early Head Start.[86] Head Start is a federally funded program and as such represents a source of external demand for early education in New York State. These dollars help strengthen the number and quality of early education in NYS, and also help stimulate the broader economy.

Federal funding for Head Start/Early Head Start in New York State totaled $420 million in 2002. The program requires a 20% match of local funds, which may be provided in kind. Frequently, a community provides rent-free facilities or other goods for the Head Start program to leverage significant federal dollars coming in to their community.[87] Thus each $1 provided in funds or in kind by communities leverages $5 in federal Head Start funds. The federal funds ripple through local economies through inter-industry purchases and employment. Each federal $1.00 has a total linkage effect in the state economy of $2.04. The local leverage and the federal linkage effect combine to reach a total impact of $10.00 ($2.04 * $5.00) for every $1.00 in local match provided.

Figure 15. Impact of Head Start Funds on New York Economy



Analysis based on US Department of Health and Human Services, Head Start Bureau data 2002. IMPLAN analysis using Type II multiplier [(direct+indirect+induced effects)/direct effects] conducted by Cornell University using NYS 2000 data

[86] OCFS Bureau of Early Childhood Services, 2003
[87] Memo from Susan Gibbons, New York State Head Start Association, May 16, 2003

Appendix 13. Child Care Resource and Referral Agencies

Child Care Resource and Referral Agencies (CCR&Rs) also contribute directly to the economy through their own employment and output, including operating costs of programs. The network of CCR&Rs in New York covers every county and New York City. The 42 CCR&Rs have global budgets that total $77.6 million to accomplish their mission of supporting providers, creating supply, and helping families find child care that meets their needs. Of the total funding, New York State provides a total of $16.6 million per year to CCR&Rs, $5.1 million of which is passed on to child care providers, including the Family Day Care Start-up Grants and the Family Day Care Health and Safety Grants. The base funding and funding for fingerprinting, the infant/toddler initiative, and registration is for programs conducted by the CCR&Rs themselves. There are 169 employees at the CCR&Rs that work with the state-funded programs, as well as additional employees in other programs. [88] Many CCR&Rs secure additional funding through local governments, foundations, or other grants for enhanced programming. Only state funding from OCFS is included in the table below.

As intermediaries, the CCR&Rs are an important component of the child care sector. However, the employment and revenues of the CCR&Rs are not included in the gross receipts and employment calculations used in this report.

Table 24. Total State Funding for CCR&Rs

Funding Stream	Amount Given
Base Funding	**$ 5,500,099**
Family Day Care Start-up Grants	$ 2,176,250
Family Day Care Health and Safety Grants	$ 1,194,481
Informal Provider Funding	$ 1,752,800
Fingerprinting Funding	$ 574,700
Infant/Toddler Initiative	$ 1,200,000
Sub-Total	$ 12,398,330
Registration Funding	$ 4,204,761
TOTAL	**$ 16,603,091**

Source: OCFS CCR&R Data, May 2003.

[88] NYS Child Care Coordinating Council (NYSCCCC) asset mapping project. Information given by Ana Winans, NYSCCCC, July 8, 2003.

Appendix 14. New York Child Care Resource and Referral Agencies Survey Results, 2003

The New York State Child Care Coordinating Council conducted a survey of member Child Care Resource and Referral agencies (CCR&Rs) in the spring of 2003, with Cornell University. We started with the idea that family and group family care providers might be undercounted in the available licensed data and that the market rates might be higher than local prices of care. We had no data on legally exempt care, such as part-time programs and family, friend and neighbor care. We also wondered how capacity compared to actual enrollment. The intent of the survey is to provide more accurate information to enrich the New York State economic impact analysis. Preliminary results from the study suggest that data from the NYS Office of Child and Family Service Child Care Division (OCFS) that were used in the report were fairly accurate for licensed care.

The survey is a web-based instrument that each CCR&R was asked to complete for the county or counties that it serves. They could submit the survey online or print and fax it in. The major measures requested include: number of establishments and capacity by age for centers, family care, group family care and registered school age programs. The survey also contains questions about nursery schools, private school or church-based part-time programs, license-exempt school age programs, and legally exempt informal care (providers that care for only two children). A total of 40 counties and New York City,[89] 73% of the 62 counties in the state, are represented in the survey, however, some responses included multiple counties and thus were not directly comparable to the OCFS data.

The simplest way to compare the two sets of data is to compare within each county. The wide variations in county size and population across NYS make comparisons between counties less useful. For the major questions on the survey, we will look at ratios of the CCR&R responses to the OCFS numbers. The source for all of the data is the CCR&R survey results, available through the NYS Child Care Coordinating Council (unpublished), and the licensing data and Market Rate Survey data from OCFS, April 2003.

Establishments

There are 27 counties that report establishment numbers comparable to OCFS data. The ratios of CCR&R survey total establishments to OCFS total establishments range from 0.76 to 1.19 (with 2 outliers). The average is 0.94, and the median is 0.99. This suggests that the number of licensed establishments used in the report is accurate. The largest differences in county reports are within family and group family establishments, which vary as providers enter or leave the field. School age child care was excluded from this comparison because too few counties reported on this type of care.

License-Exempt Establishments

Twenty-six of 33 counties that responded to the survey report some type of unlicensed care, including nursery schools, part-time care, and informal care. The results suggest that the number

[89] New York City comprises five counties: New York, Bronx, Kings, Queens, and Richmond, so 45 counties responded in all.

of informal and unlicensed establishments can range as high as 70% - 85% of the total number of establishments in the county (including both licensed and unlicensed). The percentage of license-exempt establishments in the total establishments ranges from 2% to 85%. The average is 28%, and the median is 20%. On the survey, 79% of counties report nursery schools, 42% report license-exempt part-time programs, and 55% report legally exempt informal care in their counties. The largest numbers of establishments reported are the legally exempt informal care providers. Because these establishments only have a capacity of two children, they do not increase the total capacity of the county as much as they increase the establishment totals.

Licensed Capacity

Of the 28 counties reporting total licensed capacity, the ratio of CCR&R capacity to OCFS capacity ranges from 0.76 – 1.53 (excluding two outliers). The average and the median are both 0.98. This suggests again that the OCFS data used in the report is accurate for licensed establishments and capacity. Twelve of 28 counties (43%) report higher licensed capacity in centers and family/group family care than the OCFS licensing data.

Rockland County has the highest ratio of establishments and the highest ratio of total capacity. It may be that this county, which is a growing suburb of New York City, is experiencing an increase in child care due to an expanding population.

Utilization

Of the 32 counties that report legal capacity, only 16 report utilization for each type of care. The ratio of enrollment to legal capacity gives the utilization rate for each type of care in the county. This can be used to calculate a vacancy rate (1 - utilization rate). For center care, the utilization rate ranges from 76% - 100%. The average is 91% and the median is 93%. For family care, the utilization ranges from 64% - 97%, with an average of 89% and a median of 91%. The utilization rate is lowest for group family care, with a range from 52% to 97%, an average of 84% and a median of 86%.

Price of Care

The CCR&R survey results suggest that prices in New York State are slightly lower than the OCFS market rate prices used in the report. Thirty-nine counties report average prices by type of care (some responses give an average for multiple counties). For center and family/group family care, the average price tends to be 80%-100% of the market rates. Given that New York State pegs its market rate at the 75th percentile of prices, these survey results suggest that the market rates are reasonably accurate. For part-time school age care, the average price is higher than the market rates.

Hamilton, Warren, and Washington Counties (reported together), and Niagara County are the only counties that report higher average prices than the market rates across all types of care. Most counties report average prices lower than market rates, with center prices closer to market rates, and family/group family prices noticeably lower. Putnam, Rockland, Sullivan and Ulster Counties, all counties in the southern Catskills or exurban New York City, are the only counties to report that family/group family prices are closer than center prices to market rates.

This report was prepared by the Cornell University Department of City and Regional Planning for the New York State Child Care Coordinating Council.
Copies of both Executive Summary and full report are available at **www.nyscccc.org**
or by contacting NYSCCCC at 230 Washington Avenue Extension, Albany, NY 12203, 518.690.4217.