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## **The Economic Impact of Childcare in Middlesex County**

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## Preface and Acknowledgements

The research presented in this report, *The Economic Impact of Childcare in Middlesex County*, was produced under a contract from Middlesex County, New Jersey to the John J. Heldrich Center for Workforce Development at Rutgers, The State University of New Jersey.

The principal authors of this report are Chief Economist and Professor *William M. Rodgers, III*, and *Scott Reynolds*, Project Coordinator. *Michael Lahr*, Associate Research Professor, Center for Urban Policy Research, contributed economic analysis to the report, and *Marci Berger*, a Research Associate at the Heldrich Center, conducted on-site and telephone interviews during the data collection phase of the project. *Robb C. Sewell* edited and managed production of the final version of this report.

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The opinions expressed in this report are those of the authors and do not necessarily reflect the views of the Heldrich Center, Rutgers University, or Middlesex County.

## Executive Summary

The childcare industry plays an important role in Middlesex County's economy, generating revenues, employing workers, and allowing parents to be productive members of the labor force. This report, *The Economic Impact of Childcare in Middlesex County*, establishes that:

- Childcare is expensive and there is currently a shortage of affordable slots for infants and preschoolers in Middlesex County. The existing public subsidy programs assist only a small percentage of the county's low- and middle-income families.

Without a subsidy, the cost of preschool care is prohibitive to many low- and moderate-income families. The public subsidies available through Work First New Jersey (the state's welfare program) and New Jersey Cares for Kids (a program for low-income workers) help some families afford childcare, but the available funding is too scarce to subsidize all eligible families. The welfare-based subsidy is guaranteed, but the working poor subsidy maintains a waiting list currently between 400 and 500 families, and the actual gap is probably much larger.

- Childcare is a significant industry in Middlesex County, supporting 2,600 jobs and bringing in over \$130 million annually.

The regulated childcare industry in Middlesex County provides approximately 2,600 jobs, or one out of every 180 jobs in the county, and pays its workers \$60 million per year. By

comparison, there are 3,150 elementary school teachers employed in Middlesex County. The annual revenues of the county's regulated childcare industry are approximately \$132 million, an amount comparable to the gross receipts of the nursing and residential facilities, arts, entertainment, and recreation industries.

- Quality childcare aids in children's development; provides employers with a stable, productive workforce; and allows parents time to develop their career skills.

Previous studies concluded that employees with stable childcare arrangements have proven to be less likely to miss work and more likely to remain with employers helping to support their children's care. Employers who maintain on-site childcare centers report having an easier time recruiting new workers as well. Childcare assistance can also give parents time to seek mid-career training that increases their productivity and raises their value to an employer. The three Middlesex County employers included in this study currently providing on-site childcare reported positive employee retention and productivity outcomes.

The high cost of childcare discourages re-entry into the labor force following the birth of a child. Private (employer-based) and public (state subsidies) assistance can increase this rate of return, expanding the county workforce. Childcare assistance also gives parents time to seek mid-career training that increases their productivity and raises their value to their employer.

Thus, our key recommendations are:

Businesses should:

- Work to establish common childcare centers within industrial parks or other commerce centers with a high number of employees. By pooling their resources, a series of small employers in a central region can create the same sort of scale efficiencies possessed by large hospitals and pharmaceutical companies. For example, companies located near each other could contribute to building a center that would maintain dedicated slots for children of these companies' employees. General childcare assistance services could also be established, such as a bus system where parents could drop their child off at a spot near their workplace and the child would then be transported to a childcare center.
- Consider subsidizing employees' childcare costs directly, similar to how many employers currently subsidize employee health insurance and pension plans. Employers could also offer pre-tax flexible spending accounts that include childcare as an option for employees. The federal tax code currently allows for up to \$5,000 in pre-tax income to be allocated to childcare costs.
- Encourage the use of corporate donations and community investments for nonprofit childcare quality initiatives, such as projects undertaken by Catholic Charities, the state resource and referral agency, or by large nonprofit providers such as the YMCA.

Government should:

- Adopt a program similar to the Childcare Executive Partnership currently operating in Florida. Under this program, the state matches an employer's contributions to employees' childcare costs as long as the employee qualifies for a state subsidy. This type of partnership would contribute to the movement toward fully funding the current childcare subsidy system, supporting parents' completion of high school as well as their efforts to find a job, training, and continue with higher education.
- Incrementally raise the income cutoff level to receive the state subsidy. There is a disincentive in the current system of subsidies, where parents with incomes slightly above the threshold pay a significantly higher percentage of their income for childcare than parents with incomes just below the threshold.
- Improve the qualifications of childcare workers. For example, by developing a professional development program to support current childcare workers, by expanding the state education and experience requirements for childcare workers to apply to all childcare staff, and by creating public service announcements about the important role that childcare workers play in the development of children.
- Generate new sources of funding for childcare subsidies such as funds

related to or targeted at economic development and business recruitment. Government should also ensure that childcare is included among priority funding areas for the county and expand the collection of data to track families' costs, eligibility for subsidies, and actual childcare assistance. Some providers, such as the YMCA, already do this.

Childcare providers should:

- Place representatives from the childcare industry and relevant state government agencies on economic development and business community planning boards.
- Form partnerships among providers, gaining efficiencies already present with large providers, such as the ability to charge lower fees to low-income parents to help make up the difference between the subsidy and the full price. Providers could also reduce administrative and marketing costs through collaboration.
- Expand care offerings in areas where care is currently scarce, such as infant, after hour, and sick care. These types of care are usually more expensive, so the economies of scale referred to above could be particularly beneficial.

## Introduction

Workers need stability in their lives outside of the workplace. A healthy balance between work and family — of which childcare is an essential part — helps provide this stability.<sup>1</sup> Workers are less productive when their children are in unreliable care arrangements. Mental distractions and missed work to cover gaps in care cost employers money.<sup>2</sup> Stable childcare arrangements also allow working parents to develop their workforce skills, making them more productive employees and able to adjust more quickly to the demands of a changing economy. The increasing emphasis on technological and knowledge-based occupations, as well as the influence of globalization, means that workers must constantly keep their skills up-to-date if they want to succeed.<sup>3</sup>

While childcare's value to parents and employers is becoming more evident, the price of quality care is high, making it difficult for families to find affordable care and maintain full-time employment. Some employers deal with the importance of childcare directly, providing their employees with varying degrees of support. A study by the Families and Work Institute of employers with over 100 employees showed that these supports are much more likely to be indirect, such as access to information (provided by 36% of

employers) or pre-tax paycheck deductions (50%). Direct childcare assistance, such as on-site care (9%), employer-paid subsidies (5%), and emergency backup care used when regular childcare arrangements fall apart (4%), were offered much less frequently. The study cites the high cost of these direct supports as a major barrier for employers. Despite this, more than three-quarters of firms surveyed reported that their childcare benefit programs were either cost-neutral or had benefits exceeding their costs.<sup>4</sup>

Government has also developed programs to address the limited access to affordable care. New Jersey maintains two public subsidy programs — one subsidy is linked to eligibility for welfare benefits under the federal Temporary Assistance to Needy Families law (TANF), and the second targets low-income workers not eligible for TANF benefits. While these subsidies help many lower-income families acquire stable childcare, their funding levels remain inadequate to meet the needs of many families, creating long waiting lists in some areas, including Middlesex County.

Some states, such as Florida, have adopted aggressive strategies to close the gap created by the difference between the available public subsidy dollars and the necessary amount to help all families afford childcare. Under Florida's Childcare Executive Partnership program, the state matches employers' contributions to their employees' childcare costs as long as the employee would otherwise qualify for a

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<sup>1</sup> Families and Work Institute, *The National Study of the Changing Workforce* (New York, NY, 1997).

<sup>2</sup> Ibid.

<sup>3</sup> U.S. Department of Labor, *Futurework: Trends and Challenges for Work in the 21st Century* (Washington, D.C., 1999).

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<sup>4</sup> Families and Work Institute, *Business Work-Life Study* (New York, NY, 1998).

state subsidy. The program helped Florida move toward the full funding of its state subsidy; that is, the elimination of waiting lists.<sup>5</sup>

This report describes the economic impact of the regulated childcare industry in Middlesex County. Studies such as this one are becoming more common across the nation as states and localities continue to recognize both the high cost of childcare and its potential as an economic development tool. The purpose of this report is to encourage business, government, and childcare industry leaders to expand their investments in Middlesex County's childcare system — a crucial move in order to maintain a healthy economy. With greater numbers of children requiring non-parental care arrangements, it is important that we know the nature of these experiences since they will contribute significantly to a child's development. Numerous studies find that children who receive high-quality care at an early age are more likely to develop skills benefiting both themselves and society in general.<sup>6</sup>

Parents of preschool-age children face the difficult decision of whether to

work outside the home once their child is born. Staying home with the children is one option, but many families cannot afford to forgo a second parent's salary, and for single parents, choosing not to work is simply not possible. In Middlesex County, approximately one-quarter of families have incomes below a living wage level.<sup>7</sup> As a result, more than half of families with preschool children have all parents in the labor force, and almost 65% of parents with children under age five are working.<sup>8</sup>

In Middlesex County, parents and guardians who decide to return to work following their child's birth have two broad childcare options — regulated and unregulated care. Regulated care arrangements fall under the scope of state or county regulations. Licensed childcare centers — including private for-profit operations, nonprofit centers (YMCA or church-based care), and employer-sponsored on-site programs — account for approximately 78% of the regulated slots in Middlesex County. The Abbott preschools in New Brunswick and Perth Amboy, Head Start child development centers, and small family childcare homes also fall within this sector. All other forms of care, such as those provided by relatives, friends, and neighbors, are excluded from the capacity and cost discussions for the remainder of this report.

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<sup>5</sup> National Childcare Information Center, *The Childcare Executive Partnership*, <http://www.nccic.org/ccpartnerships/profiles/cep.htm>, accessed October 1, 2004.

<sup>6</sup> For examples of studies linking childcare and long-term outcomes, see The Carolina Abecedarian Project, *Early Learning, Later Success: The Abecedarian Study, Executive Summary*, [http://www.fpg.unc.edu/%7Eabc/executive\\_summary.htm](http://www.fpg.unc.edu/%7Eabc/executive_summary.htm), accessed September 27, 2004.

Art Rolnick and Rob Grunewald, "Early Childhood Development: Economic Development with a High Public Return," *Fedgazette*, 2003.

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<sup>7</sup> Family income data from the U.S. Census Bureau, *Census 2000* (Washington, D.C., 2000). The living wage definition here uses the U.S. Department of Housing and Urban Development's guideline that families should pay no more than 30% of their gross income on housing. For a family of four, the fair market rent for a two-bedroom apartment implies a living wage of approximately \$45,000.

<sup>8</sup> Calculations based on *Census 2000* data.



This report is organized into four sections:

Section I describes the market for childcare in Middlesex County, uncovering that many families cannot afford to put their children in regulated childcare without some sort of public assistance. We also find that the current funding levels for the public subsidy programs are too low to meet the needs of all eligible families. Additionally, the number of children requiring care is larger than the number of available slots in the regulated childcare industry. This gap is much larger for the infant- and toddler-age group, particularly in the two Abbott districts, than it is for the preschool-age group.

Section II shows the contribution of the regulated childcare industry to the Middlesex County economy. The section presents annualized estimates of the revenues that the regulated childcare industry generates each year in Middlesex County, as well as the number of people employed by regulated childcare providers.

Section III describes the links between childcare and economic development. More specifically, this section summarizes both national and county-specific research that identifies the economic development benefits of childcare investment. Employers who provide childcare to their workers find it easier to retain employees and to recruit new ones. Employees with available on-site care miss fewer hours of work due to childcare issues. Affordable childcare presents parents with an incentive to return to work following the birth of their child. Parents with childcare options are also able to pursue

education and training that will help develop their workforce skills. This section concludes with a discussion of results from early childhood intervention experiments. This research finds that children with access to quality care have higher learning and social outcomes than children who do not. These children are more likely to continue with their education following high school and less likely to commit crimes.

Section IV presents recommendations for how businesses, government, and childcare providers can increase the effectiveness of the childcare industry in Middlesex County. The recommendations focus on several key areas, including encouraging employers to help support their employees' childcare expenses, making care more affordable for low- and middle-income families through expanding the subsidy program, and suggesting unique employer collaborations to address community childcare needs. Tax credits, direct subsidies, and a program where the state matches employer contributions to their employees' contributions for childcare would all make acquiring quality care easier for parents. We also recommend encouraging small and moderately sized employers to pool their resources to establish childcare centers within geographical centers of economic activity.



## Section I: Descriptive Analysis of the Childcare Industry in Middlesex County

Our goal is to identify the number of Middlesex County children that need care, the amount of care that is available, the cost of this care, and its affordability. Three main results follow:

- The number of children requiring care is larger than the number of available slots in the regulated childcare industry. This gap is much larger for the infant- and toddler-age group, particularly in the two Abbott districts (New Brunswick and Perth Amboy), than it is for the preschool-age group.
- Many families cannot afford to put their children in regulated childcare without some sort of public or private assistance.
- The current funding levels for the public subsidy programs are too low to meet the needs of all eligible families.

This section presents estimates of the total demand for childcare in Middlesex County; the supply of childcare in the county; the average cost of care in the county, including a discussion of the “living wage” and current family income distribution; and the nature of the current public subsidy program in New Jersey.

## Demand for Care

Middlesex County is New Jersey’s third largest county, with over three-quarters of a million people.<sup>9</sup> Since 2000, the county’s population has grown at about 1.1% annually, slightly higher than the state average.<sup>10</sup> At the time of the Census survey, 6.6% of Middlesex County residents were under the age of five — the state percentage was nearly identical, at 6.7%. Using this distribution, intermediate Census population estimates by age, and county birth data,<sup>11</sup> we estimate that as the 2003-2004 school year began, there were approximately 52,000 children under the age of five living in Middlesex County.

This estimate should be viewed as the upper limit of children requiring care. Clearly, however, a significant number of children under five are cared for directly by their parents, reducing our estimate of potential demand. The 2000 Census indicates that about 56% of children under age five in Middlesex County were in households where all parents present were in the labor force,

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<sup>9</sup> U.S. Census Bureau, *Census 2000*.

<sup>10</sup> U.S. Census Bureau, *Annual Estimates of the Population for Counties* (Washington, D.C., 2003). New Jersey Department of Labor, *Projections of County Population by Age Group, 2000 to 2020*, <http://www.wnjpin.net/OneStopCareerCenter/LaborMarketInformation/lmi03/copage.pdf>, accessed September 8, 2004.

<sup>11</sup> U.S. Census Bureau, *Census 2000*. U.S. Census Bureau, *County Population Estimates by Selected Age Categories and Sex: July 1, 2002*. (Washington, D.C., 2002). New Jersey Department of Health and Senior Services, *New Jersey State Health Assessment Data: County Birth Rates*, <http://njshad.doh.state.nj.us/welcome.html>, accessed September 16, 2004.

suggesting that the true number of children in need of care is around 29,000 (56% of 52,000).<sup>12</sup>

## The Supply of Formal Childcare

During the 2003-2004 school year, we estimate that the formal childcare industry in Middlesex County had the capacity to serve approximately 16,000 children under the age of five. This estimate is constructed by adding the number of slots available in licensed childcare centers, registered family home providers, Head Start programs, and Abbott preschools. The remainder of this section describes how we built this estimate.

### Licensed Centers and Head Start Programs

In New Jersey, regulation of childcare depends on the number of children in the facility's care. Licensed centers, or centers that care for six or more children under the age of 13, must meet a series of health and safety standards established and monitored by the Division of Youth and Family Services within the State Department of Human Services.<sup>13</sup> Licensed centers, which account for a large percentage of the formal childcare slots in Middlesex County, must undergo annual inspections. Head Start programs within Middlesex County operate out of a licensed center, and thus fall within the estimates of the size of the formal

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<sup>12</sup> U.S. Census Bureau, *Census 2000*.

<sup>13</sup> New Jersey Division of Youth and Family Services, *Manual of Requirements for Childcare Centers*, [http://www.state.nj.us/humanservices/dyfs/child\\_care\\_manual\\_toc.html](http://www.state.nj.us/humanservices/dyfs/child_care_manual_toc.html), accessed September 7, 2004.

childcare sector. Eighty-one percent of regulated slots in Middlesex County are in licensed centers.

### Registered Family Day Care Homes

The law does not require licensing for providers caring for fewer than six children at a time, and these providers can opt instead for voluntary registration with the state as a "registered family day care home." A county-specific unified childcare agency (UCCA) monitors these family homes, which contain 4% of the licensed Middlesex County slots. UCCAs are typically community-based organizations that contract with the state to provide resource, referral, and other general childcare services within individual counties.<sup>14</sup> Catholic Charities of the Diocese of Metuchen serves as the UCCA for Middlesex County.

### Abbott Preschools

The Abbott v. Burke series of New Jersey State Supreme Court decisions,<sup>15</sup> notably 1998's Abbott V, created a mandate for state-provided preschool for all three- and four-year-olds living in one of 30 urban and traditionally underfunded districts statewide. Middlesex County contains two Abbott districts — Perth Amboy and New Brunswick. Since the districts themselves do not have the classroom

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<sup>14</sup> New Jersey Division of Youth and Family Services, *Childcare in New Jersey*, <http://www.state.nj.us/humanservices/dfd/chldca.html>, accessed September 7, 2004.

<sup>15</sup> For a good overview of the Abbott program, including transcripts of the court decisions, see: <http://edlawcenter.org/ELCPublic/AbbottPreschool/AbbottPreschoolProgram.htm>.

capacity to cover the entire enrolled population of three- and four-year olds, the state contracts with some private providers to close the gap. The total supply estimates include both school-based and private, center-based Abbott programs, which together account for 15% of regulated slots in Middlesex County.

## Informal Arrangements

Along with these regulated forms of care, parents have several additional options outside of any formal state system of standards. For example, informal arrangements with family, friends, and neighbors do not have to be registered with the state, regardless if they occur within the child's home. Further, since providers with five or fewer children are also not required to register with the state, our supply estimate does not fully capture this small provider market. We estimate that about half of children under the age of five with all parents in the labor force are cared for through these informal arrangements.

We can estimate the size of the regulated childcare sector using state capacity and funding data. As part of the annual licensing process, the New Jersey Department of Human Services collects information on the maximum number of children in each center for each specific age group. Catholic Charities maintains a listing of the county's registered family day care homes, and state budget and enrollment data indicate the number of children in Abbott programs during 2003-2004. Estimates based on these

data sources are listed in Figure 1. Note that the preschool-age population has been divided into two groups — zero to two-and-a-half-year-olds (infants/toddlers) and two-and-a-half-year-olds to five-year-olds (or preschoolers). These two groups, along with the 6- to 13-year-old "school-age" cohort, are the same groups used by the state during its licensing process. There are about 16,300 regulated childcare slots for children under the age of five in Middlesex County. As of July 2003, there were 209 licensed centers (including 13 with Head Start programs) and 197 registered family homes, providing approximately 15,350 total slots. Approximately an additional 950 Abbott preschool slots are housed directly in school buildings. A detailed description of the methodology used for the estimates is provided in Appendix A.

Figure 2 brings together our supply and demand estimates. The number of children potentially needing care far exceeds the number of regulated slots. Further, a survey of a sample of providers, combined with interviews with center directors and program administrators, indicates that the existing slots are not filled to capacity. The senior management staff we spoke with agreed that for a parent who could afford the market rate, finding a slot for a preschool-age child was not difficult. That is, the failure to realize full enrollment is most likely due to gaps between tuition rates and the amounts that many families can afford.

**Figure 1: Estimated Capacity of Formal Childcare Sector by Type of Provider and Age Group**

Type	Providers	Estimated Number of Slots	
		Infant/Toddler (0-2½ years)	Preschool (2½-5 years)
Licensed Centers	209	1,520	11,140
Registered Family Homes	197	400	200
Head Start	13*	N/A	570
Abbott (in schools)	N/A	N/A	950
Abbott (private providers)	19*	N/A	1,490
<b>TOTAL</b>	<b>N/A</b>	<b>1,920</b>	<b>14,350</b>

\* These centers are not unique from the number of licensed centers.

**Figure 2: Comparison of Existing Childcare Capacity with Demand**

<b>Formal Childcare Slots — Children Under Age 5</b>	
Total number of slots in formal childcare sector	16,300
Percent of slots for infants/toddlers (0-2½ years)	12%
Percent of slots for preschoolers (2½-5 years)	88%
<b>Children with Parents in the Labor Force</b>	
Percent of children under age five with all parents in labor force as of Census 2000	56%
2004 estimate for number of children under age five with all parents in labor force	29,000

However, the supply gap is severe when the number of slots is compared to the population of children along an age split. Figure 3 shows that the vast majority of the shortage is present in the infant/toddler care market. Although the lack of infant and toddler slots is a problem across the nation, it is particularly severe within New Brunswick and Perth Amboy. Since the

school buildings in these two districts do not yet have the capacity to handle all of the three- and four-year-olds seeking a preschool spot, the Abbott program had to contract with private providers to house some of its public preschools. The rate per child paid by the state for an Abbott slot is significantly higher than the market rate for infant care, and the difference between profit rates for the

**Figure 3: Comparison of Existing Childcare Capacity in Abbott and Non-Abbott Communities**

	Population	Regulated Capacity (percent of population)
<b>Abbott Communities (New Brunswick and Perth Amboy)</b>		
Infant/Toddler	3,950	230 (6%)
Preschool	3,600	2,640 (73%)
<b>Non-Abbott Communities</b>		
Infant/Toddler	21,100	1,690 (8%)
Preschool	23,350	11,710 (50%)

two is large. Thus, as Abbott was implemented, private providers with infant/toddler slots had an incentive to convert their resources to Abbott care, reducing the availability of infant/toddler care.

### Cost of Care

Slots in licensed centers are more expensive than slots in registered family homes, costing an average of \$950 per month for full-time infant/toddler care and \$700 per month for preschool care. The average rates for registered family homes are \$750 and \$600 for infants/toddlers and preschoolers, respectively.

To estimate a reasonable market rate for both infant/toddler and preschool care, we used data from the New Jersey Department of Human Services' biannual market surveys,<sup>16</sup> the New

Jersey Association of Childcare Resource and Referral Agencies,<sup>17</sup> and individual providers. The age groupings (zero to two-and-a-half, two-and-a-half to five) used for the supply estimates are also the ones used in the surveys. Note that registered family home care is generally cheaper than licensed center care, reflecting, among other things, the lower regulatory requirements. Interviews with center administrators confirm the established view that labor generally accounts for approximately 70% of provider costs.

<sup>16</sup> New Jersey Department of Human Services, *New Jersey Childcare Market Rate Survey* (Trenton, NJ, 2002). The New Jersey Department of Human Services, under the conditions for receipt of federal childcare grant money, is required to conduct biannual market rate surveys to determine the appropriate level

for state subsidies. The text of the Childcare and Development Block Grant law is available at: <http://www.acf.hhs.gov/programs/ccb/policy1/current/ccdbgact/ccdbgact.pdf>.

<sup>17</sup> New Jersey Association of Childcare Resource and Referral Agencies, *Childcare Wage and Benefit Survey and Childcare Market Rates* (Trenton, NJ, 2003).

## Subsidy Programs in New Jersey

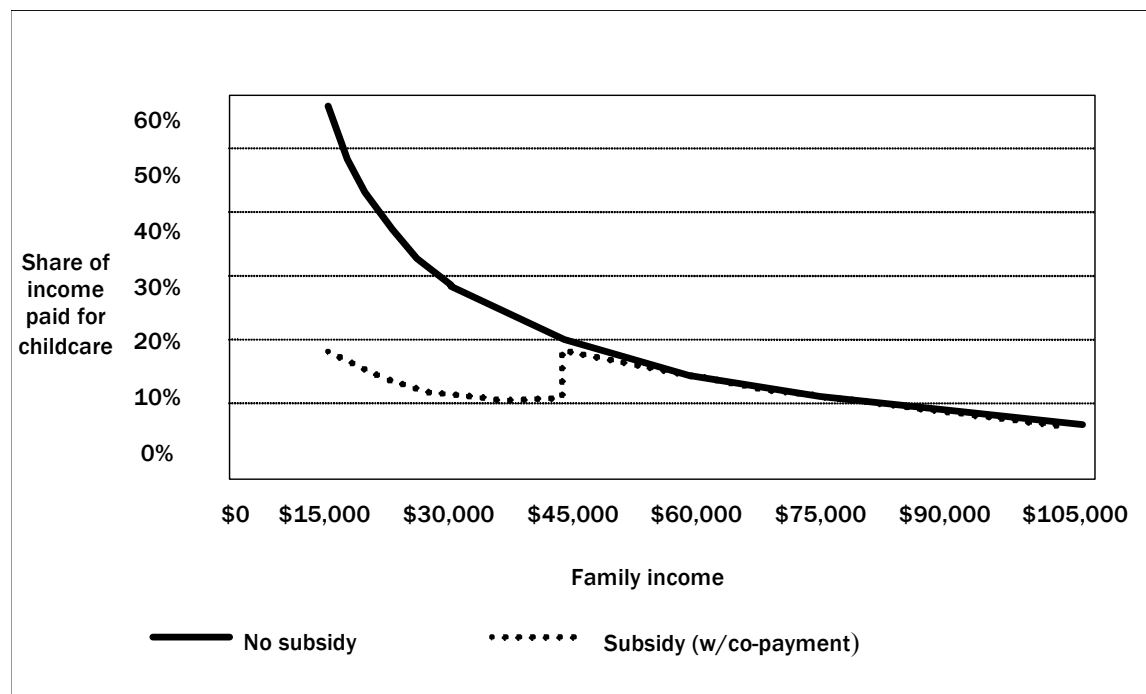
### Impact of the Public Subsidies

To help make formal childcare more affordable for low-income New Jersey residents, two state subsidies are available — a subsidy based on eligibility for Work First New Jersey (WFNJ), the state welfare program, and a subsidy program, New Jersey Cares for Kids (NJCK), for low-income workers who either do not qualify for WFNJ or who have exhausted their WFNJ benefits. These subsidies have several important implications.

First, subsidies reduce the burden of childcare costs substantially for low-income families. At current market rates, a year of full-time care for a

preschooler in a licensed center costs approximately \$8,400. For a family making \$30,000 per year, childcare would comprise almost 30% of their income. If this family applies for and receives the NJCK subsidy, while a co-payment would be required (\$150 per month in this example), their costs would be cut by more than half. This savings is represented in Figure 4 by the distance between the solid and broken lines — the share of income paid for care with and without a subsidy, respectively. Figure 4 shows the effect of introducing a subsidy into the purchase decision for childcare. To keep things relatively simple, we project the subsidy influence for the situation where each family has only one child requiring preschool (two-and-a-half to five-year-olds) care.

**Figure 4: Illustration of the Effect of Childcare Subsidy (Family of Four, One Preschool-Age Child Full-Time in Licensed Center)**





Families with incomes just above the cutoff level pay a much higher percentage of income than those who qualify. As family incomes move over the cutoff level<sup>18</sup> (approximately \$45,000 for the 2003-2004 school year),<sup>19</sup> they lose eligibility for the subsidy all at once, increasing significantly their relative childcare burden. The vertical broken line at about the \$45,000 per year income mark illustrates this influence.

While subsidies help the families who receive them, the subsidy programs as currently funded and implemented do not approach the needs of the entire eligible population. Statewide subsidy figures on the age distribution of both the number of subsidized children and the size of the subsidies indicate that Middlesex County subsidizes about 1,000 children under the age of five each month.<sup>20</sup> There are approximately 40,000 families in Middlesex County<sup>21</sup> with at least one child under age five, housing, as we estimated above, about 52,000 preschool-age children. Census

figures<sup>22</sup> show that 18% of these 40,000 families had incomes equal to less than 185% of the federal poverty guidelines — well within the cutoff level to qualify for a public subsidy.

Thus, at least 7,200 families (18% of 40,000) have children under age five and qualify for a state subsidy — a number significantly above the estimated 1,000 children actually served each month, and a gap the current waiting list does not even come close to approximating. It is also important to note that this estimate is fairly conservative. We make no allowances for families with multiple children under age five — recall the assumption that there are 52,000 children living among those 40,000 families, or 1.3 children under age five per family with any children under age five. Second, our use of the 185% of federal poverty guidelines falls below the actual 200% to 250% cutoff for NJCK eligibility.<sup>23</sup>

## Subsidy Value

The maximum value of these subsidies covers about 70% of full-time childcare costs. Estimates of subsidy value compared to market rates for different types of care are listed in Figure 5.

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<sup>18</sup> The income level at which families are not eligible for the NJCK subsidy depends on whether a family is currently in the program. For families that did not receive a subsidy in the previous year, their income must not exceed 200% of the federal poverty guidelines. Once in the program, however, families remain eligible until their income exceeds 250% of the federal poverty guidelines. Catholic Charities estimates an annual turnover rate of about 20% (i.e., 80% of the families in the program remain there each year).

<sup>19</sup> Two hundred and fifty percent of the federal poverty guidelines.

<sup>20</sup> Calculations based on New Jersey Department of Human Services, Division of Family Development data released in June 2004.

<sup>21</sup> Calculations based on data from the U.S. Census Bureau, *Census 2000*.

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<sup>22</sup> U.S. Census Bureau, *Census 2000*.

<sup>23</sup> The 185% figure is used here because it refers specifically to families with children under age five, rather than the overall family income distribution numbers cited in the living wage discussion. The extra accuracy is worth the inability to approach the precise eligibility cutoff, and even with the lower threshold, the gap is still very large.

**Figure 5: 2004 New Jersey Monthly Subsidy Levels for Full-Time Care by Age Group and Type of Provider (Percent of Market Rate)**

	Infant/Toddler	Preschool
Licensed Center	\$659 (69%)	\$544 (78%)
Registered Family Day Care	\$520 (69%)	\$409 (68%)

Parents must pay the difference between the value of their subsidy and the full tuition charged by their child's provider. In addition, parents who do not qualify for WFNJ benefits receive less than the maximum value of the subsidy, and must contribute a co-payment to receive the partial subsidy. This co-payment varies according to family size, income, number of children requiring care, and the subsidy program the family qualifies for. Limited funding causes some families to be placed on a waiting list prior to receiving the subsidy. Eligibility for this waiting list is discussed below.

A portion of the statewide subsidy program is tied directly to Work First New Jersey under the federal Temporary Assistance to Needy Families law. Residents receiving TANF benefits and taking part in some WFNJ activity, such as job training or language skills, are automatically eligible for the subsidy. Prior to employment, WFNJ clients receive the full subsidy amount, which generally covers somewhere between 65% and 75% of the market rate.

### **Major Subsidy Programs — Work First New Jersey and New Jersey Cares for Kids**

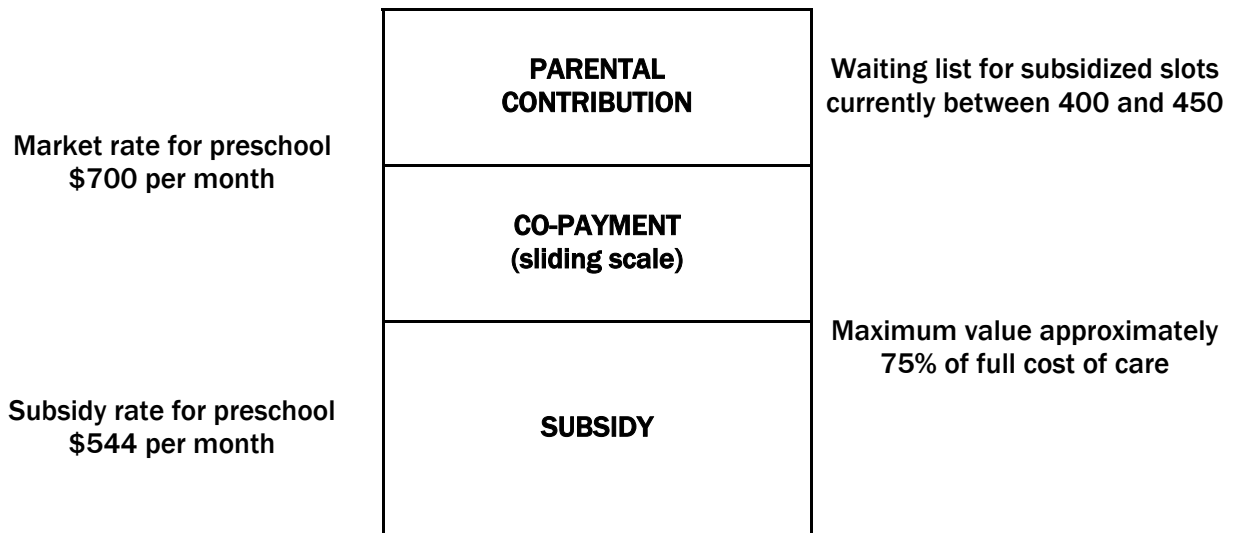
Once WFNJ clients become employed, the state requires a parental co-payment (i.e., the parent no longer receives 100% of the subsidy amount), and must cover the balance themselves according to a sliding scale schedule based on income, family size, and the number of children requiring care.<sup>24</sup> (See Figure 6). Subsidies qualified for through TANF participation are guaranteed — there is no waiting list. Further, these subsidies remain guaranteed even once parents stop receiving formal TANF assistance — clients are eligible for the guaranteed subsidy for either 24 months after moving off TANF aid or until they meet an income cutoff, set at 250% of the federal poverty guidelines.<sup>25</sup>

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<sup>24</sup> New Jersey Department of Human Services, *Client Income Eligibility and Co-Payment Schedule for Subsidized Childcare Assistance or Services* (Trenton, NJ, 2004).

<sup>25</sup> New Jersey Department of Human Services, *Childcare Subsidies*, <http://www.state.nj.us/humanservices/dfd/statesubchildcare.html>, accessed September 30, 2004.

**Figure 6: Structure of the Sliding Scale Co-Pay System**



The second subsidy program — New Jersey Cares for Kids — serves the working poor who have either exhausted their TANF eligibility<sup>26</sup> and completed their transitional period, or who had never been eligible to receive TANF aid. Parents must either be working or in school full-time to receive the NJCK subsidy, and they must not exceed a maximum income level of 200% of the federal poverty guidelines. Once they qualify under the initial income ceiling, families may remain in the program until their incomes exceed 250% of the federal poverty guidelines, at which point the subsidy disappears completely.<sup>27</sup> The same schedule of co-payments applies to both working WFNJ participants and parents covered under the NJCK program.

Significantly, limited funding means the working poor subsidy is not guaranteed, and a waiting list exists for families eligible to receive the subsidy but for whom funds are not currently available. As of summer 2004, Catholic Charities estimated this list at between 400 and 450 children. In an effort to ensure that families most in need receive the subsidy the most quickly, Catholic Charities (and any other county resource and referral agency across the state) maintains three income tiers. Families with incomes below 150% of the federal poverty guidelines receive top priority, followed by families between 150% and 175% of the guidelines, with families in between 175% and 200% holding the lowest priority. These tier priorities take precedence over length of time on the waiting list when new subsidy money becomes available (i.e., a child whose family falls in the poorest tier will enter

<sup>26</sup> New Jersey Department of Human Services, *Work First New Jersey*, <http://www.state.nj.us/humanservices/dfd/wfnjws.html>, accessed August 8, 2004.

<sup>27</sup> New Jersey Department of Human Services, *Childcare Subsidies*, <http://www.state.nj.us/humanservices/dfd/statesubchildcare.html>, accessed September 30, 2004.

**Figure 7: Characteristics of Subsidy Programs in New Jersey**

	<b>Work First New Jersey</b>	<b>New Jersey Cares for Kids</b>
<b>Eligibility</b>	WFNJ participant, plus 24-month transition period once TANF support ends	Must be working or in school full-time; must not exceed income levels
<b>Waiting List</b>	No	Yes
<b>How Long Allowed to Remain on Subsidy</b>	Until transition period expires or income threshold of 250% of federal poverty guidelines is met	As long as eligibility requirements are met
<b>Co-Payment</b>	Once WFNJ client becomes employed	Yes
<b>Amount for Full-Time Licensed Center</b>	Infant/Toddler - \$675, Preschool - \$544	

the waiting list ahead of all children from the relatively wealthier tiers), regardless of length of time on the list.

The subsidy levels are set after an annual evaluation of market rates by the New Jersey Department of Human Services. The biannual market rate survey referenced above informs this process, although the subsidy has historically been set at a level far below the full market cost. While a fixed percentage formula is not used, the federal government recommends setting the maximum reimbursement level at the 75th percentile of market rates (i.e., the level at which a parent receiving the maximum subsidy amount could cover the full tuition of at least 75% of local providers).<sup>28</sup> Although a complete distribution of tuition rates for providers in Middlesex County is unavailable, data

from Catholic Charities indicate that the maximum subsidy level falls below the unsubsidized tuition level in nearly every case.<sup>29</sup>

The discussion above and Figure 7 focus on three distinguishing features of public subsidies — eligibility, amount, and accessibility. That is, who gets subsidized, how much the subsidy is worth, and whether a waiting list exists. Other possibly important factors — such as restrictions on which types of providers can receive subsidies or the timing of payments to providers — do not appear to be very significant in New Jersey. Both major subsidies can be used at licensed centers, registered family homes, or at “approved homes” (i.e., arrangements approved by the state on a case-by-case basis). The WFNJ and NJCK subsidies operate on different payment schedules — NJCK pays providers prospectively, while WFNJ does so retroactively. Although

<sup>28</sup> G. Adams and K. Snyder, *Essential but Often Ignored: Childcare Providers in the Subsidy System*, [http://www.urban.org/UploadedPDF/310613\\_OP63.pdf](http://www.urban.org/UploadedPDF/310613_OP63.pdf) (Washington, D.C., 2003).

<sup>29</sup> Based on internal Catholic Charities provider rate data.

this difference does present a relative disincentive for providers to accept children subsidized under WFNJ, it is not clear how significant this disincentive is, except for small providers who cannot absorb the temporary payment delay. A far more important disincentive to accepting subsidized children is the provider concern that the parent will not be able to make up the difference between the subsidy amount and full tuition.

### Gaps Between Cost of Care and What Parents Can Pay

There are a significant number of Middlesex County families with an insurmountable gap between what childcare costs and what they can afford. Childcare expenses — even for only one child — quickly absorb a significant portion of a family’s income. Consider the following examples for three hypothetical family income levels. For each suggested income level, Figure 8 displays the share of total pre-tax income that would be required to rent a two-bedroom apartment at the current fair market rate in Middlesex County and to pay for full-time care for one preschool child in a licensed childcare center.<sup>30</sup> The figures indicate that for low- and moderate-income families, in the absence of a subsidy, childcare within the formal sector is not an affordable option.

**Figure 8: Projected Budget Shares for Rent and Childcare; Two-Bedroom Apartment and One Preschool Child Full-Time in a Licensed Center**

Scenario	Income	Housing	Childcare
		(as percent of total income)	
Two Minimum Wage Jobs <sup>31</sup>	\$21,424	64%	39%
Single Mother at Median Income <sup>32</sup>	\$34,615	40%	24%
Family at Living Wage <sup>33</sup>	\$45,600	30%	18%

*Note: All numbers are for Middlesex County. Living wage calculation based only on housing costs, excluding estimates of the reasonable amount of income to be spent on food and clothing.*

Even for families earning a “living wage,” defined here as the income level at which the fair market rent for a two-bedroom apartment equals 30% of pre-tax income,<sup>34</sup> almost one-fifth of pre-tax earnings go toward paying for just one child in a licensed center. A family supporting itself on two full-time minimum wage jobs — roughly

<sup>31</sup> Calculated using the state minimum wage of \$5.15 per hour, assuming 2,080 hours worked annually (52 weeks multiplied by 40 hours per week).

<sup>32</sup> U.S. Census Bureau, *Census 2000*. Median income figure is indexed to 2003 dollars.

<sup>33</sup> Living wage calculated using federal U.S. Department of Housing and Urban Development guidelines stating that no more than 30% of income should be spent on housing. The number cited here assumes renting a two-bedroom apartment at 2003 market rates.

<sup>34</sup> U.S. Department of Housing and Urban Development, <http://www.hud.gov/>.

<sup>30</sup> U.S. Department of Housing and Urban Development.

equivalent to one full-time job at about \$11 per hour — would have more than 100% of income occupied by rent and childcare costs. Note also that each of the scenarios below exclude taxes and the presence of additional school-age children — including each of these factors could further constrain income and increase costs.

Despite a relatively high overall level of wealth, Middlesex County has a significant number of lower-income families with young children. The median family income in Middlesex County was \$71,500<sup>35</sup> in 2003, placing it in the top third of counties in a state at the top of the nation in median family income.<sup>36</sup> However, the distribution of wealth in the county remains somewhat diverse. Figure 9 displays this county income distribution, including the percentage of families below several income levels.

**Figure 9: Percentage of Middlesex County Families with Incomes Below Selected Levels**

Income Level	Percent Below Income Level
\$0-\$10,000	3%
\$10,001-\$20,000	6%
\$20,001-\$30,000	13%
\$30,001-\$45,000	24%
Median: \$71,500	50%

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<sup>35</sup> U.S. Census Bureau, *2003 American Community Survey* (Washington, D.C., 2003).

<sup>36</sup> *Ibid.*

Especially striking is the percentage of Middlesex County children living below 185% of the federal poverty guidelines<sup>37</sup> — nearly 20% of families with at least one child aged five or younger live below this threshold. Further, approximately half of all single parent families with children under age five have incomes less than 185% of the federal poverty guidelines. The poverty guidelines vary according to family size, but for a four-person family in 2003, the 185% level was approximately \$33,500.<sup>38</sup> Noting that living wage calculations suggest that nearly \$46,000 is needed to live sufficiently in a two-bedroom apartment, we see that a significant portion of Middlesex County families have trouble both paying for formal childcare and covering the rest of their expenses. (See Figure 10.)

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<sup>37</sup> Another way to look at the income spread is to use the Census data describing the number of families living within various ranges of income versus poverty ratios. The federal government publishes an annual set of “poverty guidelines,” which then serve as a baseline for many measures of state and federal aid, including, as we shall see later, the childcare subsidy in New Jersey. One advantage of using the Census figures is that, unlike the previous measures of family income distribution, the data are split by both parent status and the presence of children aged five and under.

<sup>38</sup> U.S. Department of Health and Human Services. For information on the poverty guidelines, including the methodology used to set them, see: <http://aspe.hhs.gov/poverty/03poverty.htm>.

**Figure 10. Family Poverty Status by Parent Arrangement (Families with Children Under Age Five)<sup>39</sup>**

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	<b>Two-Parent Families</b>	<b>Single-Parent Families</b>	<b>Overall</b>
<b>Under 185% of Federal Poverty Line</b>	<b>11.2%</b>	<b>49.4%</b>	<b>18%</b>
<b>Over 185% of Federal Poverty Line</b>	<b>88.8%</b>	<b>50.6%</b>	<b>82%</b>
<b>Federal Poverty Line (2003) for Four-Person Family</b>			<b>\$18,100</b>
<b>185% of Federal Poverty Line for Four-Person Family</b>			<b>\$33,450</b>
<b>Percentage of Families with Children Under Age Five with a Single Parent</b>			<b>17%</b>

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<sup>39</sup> U.S. Census Bureau. *Census 2000*.





## Section II: Economic Impact Analysis of the Childcare Industry in Middlesex County

In addition to enabling parents' labor force participation, the childcare industry fuels the economy through its own production. Regulated childcare in Middlesex County provides an estimated 2,600 jobs, generates \$132 million in revenue, and pays its workers \$60 million annually. One way to measure the influence of the childcare industry on Middlesex County's economy is through these direct effects.

An indirect influence also exists as businesses within Middlesex County purchase goods and services from each other and childcare workers spend their incomes within the county. This section establishes dollar estimates for each of these by applying an economic modeling tool that measures the local effects of spending within an industry,<sup>40</sup> including:

- Indirect effects due to childcare or the series of purchases across industries following an initial purchase by a childcare provider. For example, when a licensed care center purchases recreation equipment from a local retailer, the retailer then reinvests some of that income in other county businesses.

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<sup>40</sup> The indirect influence of childcare on the Middlesex County economy is calculated using an economic tool known as an input/output model. This report applies the R/ECON Input-Output model developed by the Center for Urban Policy Research at Rutgers, The State University of New Jersey.

- Induced effects due to childcare, or the spread of money through the county economy by employees of the childcare industry. Employees spend some of their wages on county goods and services, thus adding value to the economy in addition to the value represented by their salaries.

### Gross Revenues of the Childcare Industry

As mentioned, regulated childcare in Middlesex County generates an estimated \$132 million in gross revenues annually. This section develops this estimate and uses the number to compare the size of the childcare industry to the sizes of other industries within the county.<sup>41</sup> For the childcare industry, the dominant service is the provision of care, and thus its total output includes the following:

- Total tuition payments to both private (direct from parent) and public (through state subsidies) providers,
- Abbott preschool funds, and
- State subsidies paid to unregulated providers.<sup>42</sup>

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<sup>41</sup> Using the "Sales, Receipts, and Shipments" value from the Economic Census. Includes the total sales, shipments, receipts, revenue, or business done by establishments within the scope of the Economic Census. The definition of each of these items is included in the information provided below.

<sup>42</sup> "Approved homes" of one or two children are also eligible for state subsidies. R. Koralek, N. Pindus, J. Capizzano, and R. Bess, *Recent Changes in New Jersey Welfare and Work, Childcare, and Child Welfare Systems* (Washington, D.C, Urban Institute, 2001).

**Figure 11: Total Childcare Industry Output, by Type of Provider and Age Group**

	<b>Enrollment</b>	<b>Price (Monthly)</b>	<b>Abbott Rate</b>	<b>Gross Receipts Yearly Total</b>
<b>Center Care</b>				
Infant/Toddler (0-30 months)	1,340	\$950	N/A	\$15,276,000
Preschool (30-60 months)	9,650	\$700	N/A	\$81,060,000
<b>Registered Family Care</b>				
Infant/Toddler (0-30 months)	400	\$750	N/A	\$3,600,000
Preschool (30-60 months)	200	\$600	N/A	\$1,440,000
<b>Head Start</b>				
Preschool	570	\$700	N/A	\$4,788,000
<b>Abbott Programs</b>				
Universal Preschool — New Brunswick and Perth Amboy	2,382	N/A	\$10,700	\$25,487,400
<b>Unregulated Care</b>				
Subsidy Payments for Children in Unregulated Care				\$340,000
<b>Direct Payments to Providers</b>				<b>\$131,991,400</b>

To estimate the tuition total, for each type of provider (licensed center, registered family home) and age group (infant/toddler, preschool), the number of regulated slots is multiplied by the market rate. State enrollment amounts and average expenditures per child project total revenues from Middlesex County's Abbott preschool programs,<sup>43</sup> and Head Start slots are priced at the same level as licensed centers. The results of these calculations are shown in Figure 11. The last row of the figure shows that our estimate for the total

output for the childcare industry in Middlesex County for the period from September 2003 through August 2004 is almost \$132 million.

The methodology for these calculations excludes the cost of administering state subsidy programs. This choice is consistent with the methods used by the National Economic Development and Law Center in its series of economic impact studies.<sup>44</sup> The \$132 million figure also excludes any extra investments in childcare centers not captured by tuition payments. While most capital improvements by private providers are financed through tuition, some nonprofit or company-based

<sup>43</sup> New Jersey Department of Education, Office of Early Childhood Education. *End of the Year Report: 2003-2004* (Trenton, NJ, 2004). E. Applewhite and L. Hirsch, *The Abbott Preschool Program: Fifth Year Report on Enrollment and Budget* (Newark, NJ, Education Law Center, 2003).

<sup>44</sup> National Economic Development and Law Center, <http://www.nedlc.org>.

centers rely on external funding to expand or improve upon their facilities. One of the centers discussed in Section III — the John Kenney Childcare Center — operates out of a building donated by the owner of the industrial park whose tenants the center serves at a subsidized rate.<sup>45</sup> Excluding these types of childcare expenditures underestimates the size of industry output.

Childcare, while by no means an enormous industry within Middlesex County, still contributes significantly to the county's economy.<sup>46</sup> For example, the estimated \$132 million places childcare at approximately the same size as the nursing and residential facilities, arts, entertainment, and recreation industries. Figure 12 shows the relative size of childcare's receipts compared to several other industries within the county.<sup>47</sup>

## Direct Employment in Childcare

In addition to the sector's direct revenue, providers also contribute to the economy by their employment of Middlesex County's residents. Approximately 2,600 people are employed in the childcare industry in the county, or roughly one out of every 180 workers.<sup>48</sup> The total annual earnings for these workers are about \$60 million. Building off the enrollment baselines outlined above, minimum state staffing ratios can be used to project the number of people employed by each type of provider. Multiplying these projections by average wage data then estimates the total income of all childcare workers. A detailed account of the methodology used to estimate employment within the regulated sector is available in Appendix B. Figure 13 displays the relative size of this employment number compared to other industries within the county. Again, the estimate of 2,600 probably understates the actual size of the childcare labor force because all forms of unregulated care — friends, relatives, and nannies — are excluded.

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<sup>45</sup> Interview with Donna Lambdin, Director of Education, John Kenney Childcare Center, Heller Park, August 6, 2004.

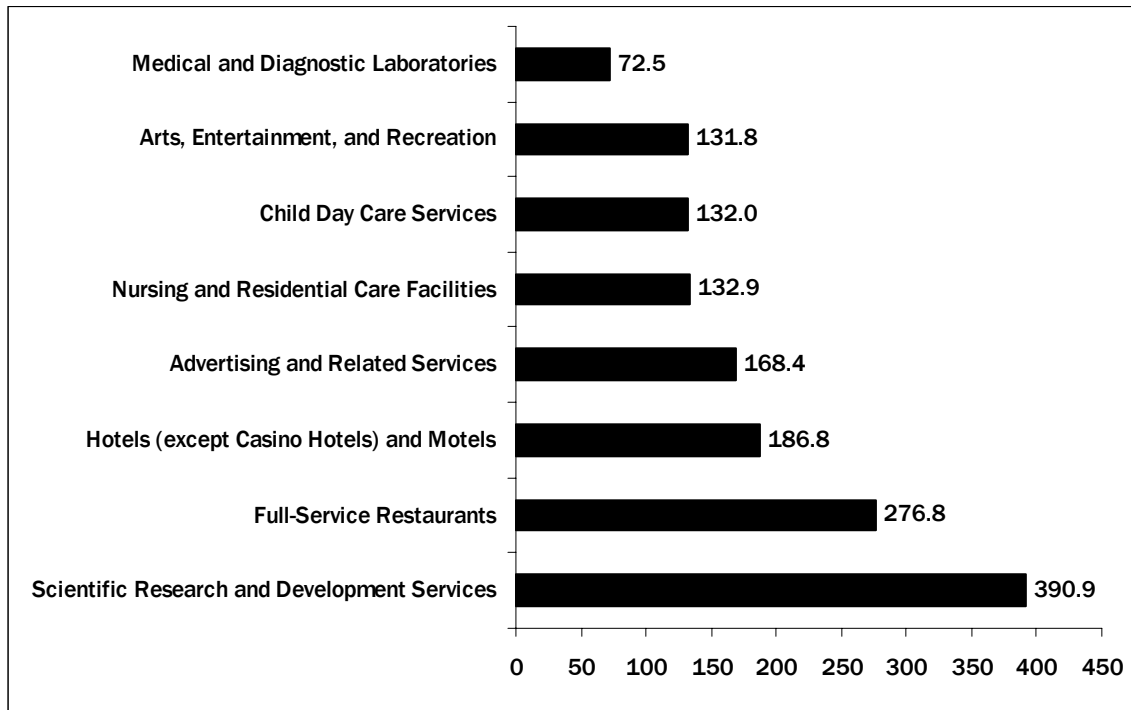
<sup>46</sup> For reference, the Center for Urban Policy Research estimates the total output in Middlesex County to be around \$63 billion in 2003. Thus, the \$132 million estimate for childcare implies that about one out of every \$500 of output in Middlesex County is attributable to childcare.

<sup>47</sup> U.S. Census Bureau, *1997 Economic Census: Summary Statistics for Middlesex County, NJ*, <http://www.census.gov/epcd/ec97/nj/NJO23.htm>, 1997.

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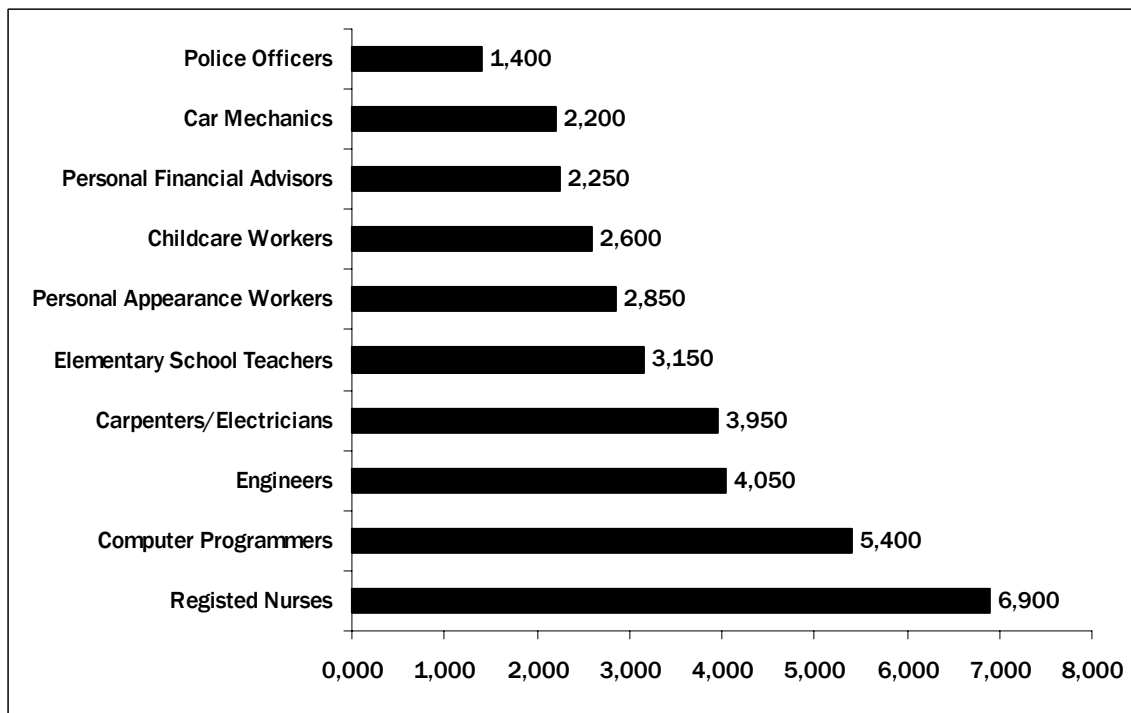
<sup>48</sup> New Jersey Department of Labor and Workforce Development, *Middlesex County Industry Employment Projections, 2000-2010*, <http://www.wnjpin.net/OneStopCareerCenter/LaborMarketInformation/lmio4/mid/midmajoc.c.htm>, accessed September 22, 2004.

**Figure 12: Gross Receipts of Various Industries in Middlesex County, Including Childcare (in Millions of Dollars)**



Note: Dollar figures for all industries besides childcare are from the 1997 Economic Census and have been indexed to 2003 levels by the CPI.

**Figure 13: Employment by Selected Occupations in Middlesex County**



## Indirect and Induced Effects of the Childcare Industry in Middlesex County<sup>49</sup>

In addition to the direct impact childcare has on the economy through employment and income, parental expenditures have secondary effects. When a childcare provider receives tuition payments, these funds are then used to cover the provider's operating expenses. In terms of estimating the impact of childcare expenditures on Middlesex County's economy, we are interested in the percentage of these secondary purchases that occur within the county. Some of the tuition also flows to employees of the provider; workers then spend a portion of these wages within the county on things such as rent, food, and clothing.

We use the R/ECON model<sup>50</sup> maintained by the Center for Urban Policy Research to estimate the size of these secondary effects. The R/ECON

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<sup>49</sup> Other studies have minimized the use of input/output model-based analysis. The two largest research projects studying the economic impact of childcare each treat the conclusions of input/output analysis with a considerable amount of caution, viewing multiplier effects as incompatible with a conservative estimate of the economic impact of the childcare industry. The National Employment and Law Center series of economic impact reports places indirect and induced effect analysis in its appendices, and the Linking Economic Development and Childcare project at Cornell University includes a summary of its concerns in its methodology guide.

<sup>50</sup> The R/ECON model utilizes the same basic theory as other frequently used models in the regional planning field, including the Bureau of Economic Analysis's Regional Impact Modeling System, Minnesota IMPLAN Group Inc.'s IMPLAN Pro model, and the Regional Science Research Corporation's PC Input-Output model.

model uses the gross revenue and direct employment estimates as inputs and applies county-specific purchasing patterns<sup>51</sup> to calculate the impact of additional revenue and hiring by childcare providers. Our estimates of the size of the childcare industry in Middlesex County are the model's basic inputs.

Based on these values, we estimate that the direct impact of the childcare industry in 2003 on the gross county product to be about \$68.4 million, where gross county product<sup>52</sup> is considered to be the value added to the county's economy by a specific industry. Counting its secondary effects, the regulated childcare industry is responsible for nearly \$100 million of Middlesex County's gross county product.

Multipliers are then applied to each of these inputs to determine the overall — direct and secondary — impact of

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<sup>51</sup> Input-output tables, upon which the models are constructed, are generated from nationwide censuses and surveys of businesses and households. An input-output table is a matrix-based accounting of the value of the shipments from each industry to each other industry.

<sup>52</sup> The Center for Urban Policy Research defines gross state (or county) product as, "Also known as 'wealth accumulated' or 'value added' — the equivalent at the subnational level of gross domestic product. Value added is widely accepted by economists as the best single measure of economic well-being. It is estimated from state-level data by industry. For a firm, value added is the difference between the value of goods and services produced and the value of goods and non-labor services purchased. For an industry, therefore, it is composed of labor income (net of taxes), taxes, non-wage labor compensation, profit (other than proprietors' income), capital consumption allowances, net interest, dividends, and rents received."

childcare on the Middlesex County economy. These numerical results are shown in Figure 14. For each additional \$1 million in gross childcare receipts, Middlesex County gains 23 jobs, \$750,000 in additional gross county product, and \$575,000 in additional income earned by Middlesex County workers.

**Figure 14: Estimated Multiplier Effects of the Childcare Industry on Middlesex County's Economy**

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Gross County Product (GCP) Multiplier	1.45
Total Impact of Childcare on GCP	\$99,470,000
Employment Multiplier	1.28
Total Impact of Childcare on Jobs	3,300
Income multiplier	1.34
Total Impact of Childcare on Workers' Income	\$80,340,000

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## Section III: Links Between Childcare and Economic Development

Beyond the direct employment and income generated by the childcare industry, and beyond its indirect “ripple effects,” there are a series of other influences a healthy childcare industry has on the economy. This section describes the human resource benefits to having an affordable and accessible childcare sector. We focus on identifying the extent to which national research on the benefits to employers exist among Middlesex County employers. We present evidence that providing childcare to employees increases retention and reduces absenteeism, both of which bolster productivity. Access to childcare also enhances employers’ recruitment of skilled workers, encourages parents to return to the labor force following the birth of their child, and allows parents to pursue training that will develop their workforce skills.

In Middlesex County currently, larger firms and organizations are the ones most likely to have the resources to provide their employees with some sort of childcare support as seen by the large on-site programs maintained by Johnson & Johnson, Bristol-Myers Squibb, and the John F. Kennedy Medical Center. Each is among the top 10 of Middlesex County’s largest employers as measured by workforce size.<sup>53</sup>

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<sup>53</sup> Middlesex County Office of Economic Development, <http://co.middlesex.nj.us/comptroller/majoremps.asp>, accessed August 12, 2004.

Childcare supports are expensive, but as the research below indicates, the returns can be positive and significantly cost effective. In one national survey, more than three-quarters of firms with over 100 employees reported that their childcare benefit programs were either cost-neutral or had benefits exceeding their costs.<sup>54</sup>

### Increasing Employee Retention

Employers who help their workers set up stable childcare arrangements have employees who are less likely to leave their jobs. Bright Horizons Family Solutions, a company that contracts with private firms (including Bristol-Myers Squibb and Johnson & Johnson in Middlesex County) to establish various types of childcare arrangements for employees, conducted a national study of employers in 2002. The study found that workers who utilized on-site care were half as likely to leave their jobs as workers who didn’t — only 3.7% of employees who used an employer-sponsored center left their jobs voluntarily, compared with 7.2% of employees overall.<sup>55</sup> Another survey, conducted by Simmons College, found that 19% of employees currently using

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<sup>54</sup> Families and Work Institute, *Business Work-Life Study*, <http://www.familiesandwork.org/summary/worklife.pdf> (New York, NY, 1998).

<sup>55</sup> Bright Horizons Family Solutions, *The Real Savings from Employer-Sponsored Childcare: Investment Impact Study Results* (Watertown, MA, 2002).

on-site childcare services had turned down a new job due to the risk of losing the company care.<sup>56</sup>

For firms with high worker replacement costs, making their employees happy with their current jobs is essential. When intensive training is required to do a job properly, firms will often have already invested significant resources in an employee, resources that would be lost if the employee were to leave and a new worker would have to be similarly trained. The interim loss in productivity here is also significant. The transaction cost of recruitment and the wage premium customarily required to lure high-skilled workers away from an existing job also drag on business profits.<sup>57</sup>

Thus, if childcare can maintain employees' satisfaction with their current jobs, it likely pays for a company to offer it. Childcare may even have extra influence in this area because, unlike things such as health insurance or pension plans, there is probably still a competitive advantage since relatively few firms offer childcare assistance. County employers currently sponsoring on-site childcare noted the advantage of continuing to sponsor care if other firms in the industry do not.

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<sup>56</sup> Simmons College, *Benefits of Work-Site Childcare* (Boston, MA, 1997), as cited in Burud and Associates, *National Trend Study of Work-site Childcare* (Monrovia, CA, 1998). Bright Horizons Family Solutions, *Benefits of Employer Sponsored Care*, [http://www.brighthorizons.com/Site/pages/benefits\\_employer.aspx](http://www.brighthorizons.com/Site/pages/benefits_employer.aspx), accessed September 15, 2004.

<sup>57</sup> Employment Policy Foundation, *Employee Turnover: A Critical Human Resource Benchmark*, <http://www.epf.org/pubs/newsletters/2002/hb20021203.pdf>, accessed September 18, 2004.

## Reducing Absenteeism

Reliable childcare arrangements reduce the amount of unscheduled absences workers must take from their jobs. CCH Incorporated, a private research and professional service firm, conducted an annual survey of unscheduled absences, including a breakdown of absences by reason. The results of this survey show that in 2002 and 2003, between 20% and 25% of all unscheduled employee absences were due to "family issues," which encompasses occasions when a child is sick or otherwise unable to attend arranged care. This number compares to approximately 35% of lost days to "personal illness," the most cited category. The same study estimates the annual cost of absenteeism at about \$650 per worker.<sup>58</sup>

Unregulated care arrangements are more likely to break down than regulated ones, and even if care fails only for a short period of time, parents must miss some work to either cover the care themselves or to spend time finding someone who can. These missed hours of work cost employers money through lost productivity.

## Recruitment of Workers

One often-cited study reports that 85% of employers found that providing childcare services improved employee recruitment,<sup>59</sup> and local industry administrators support this claim. One

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<sup>58</sup> CCH Incorporated, *2003 CCH Unscheduled Absence Survey*, <http://www.cch.com/absenteeism/>, accessed September 15, 2004.

<sup>59</sup> Results from survey conducted by the National Employer-Supported Childcare Project in 1984.



center director reports that parents cite the presence of her employer-sponsored center as an influence on their decision to relocate their families.

## Labor Force Participation

A significant percentage of parents avoid childcare's high costs by remaining out of the workforce to care for their children themselves. Reduced work hours also may be a parental solution. Increasing access to formal care would allow these parents to return to the labor force more quickly, expanding the economic capacity of the county. Approximately 56% of children under age five have all parents in the labor force. Combined with data on the distribution of one- and two-parent families, we can estimate the number of non-working parents of children under age five at about 19,000, or 35% of the total parent population with children under age five.<sup>60</sup> Returning to the workforce or entering it for the first time brings along a high price when it means placing children in paid care. The \$8,400 it costs to place a preschool child in a licensed center for a year represents approximately \$4 per hour worth of pre-tax wages for someone working a full year of 40-hour work weeks.

## Enabling Career Development and Educational Advancement

Expanding access to affordable childcare would enable parents to pursue further career training or educational opportunities. Expensive care means that time that could be spent on education and training has a very

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<sup>60</sup> U.S. Census Bureau, *Census 2000*.

high opportunity cost if paid childcare is needed. The pressure childcare places against receiving additional schooling and general career development is particularly troubling in light of the direction of the economy toward more highly skilled jobs.

For example, a 2004 New Jersey State Employment and Training Commission study of jobs likely to be in demand in New Jersey over the next decade found that increased training is needed across the board to meet the developing needs of the state's economy.<sup>61</sup> The study's recommendations focused not only on strengthening education prior to workers' entry into the full-time labor force, but mid-career as well:

*As a result of the increasing use of technology and constantly changing nature of work, existing employees must frequently upgrade their skills even to perform their current job. Employers report that the skills of some of their employees have not kept pace with the skill needs...[and] some workers lack the skills needed for advancement.*<sup>62</sup>

Many companies are not able to afford work time and resources to provide these skill upgrades, leaving employees to prepare for new demands

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<sup>61</sup> New Jersey State Employment and Training Commission, *Ready for the Job: Building Skills and Alliances to Meet Demand in New Jersey's Labor Market*, <http://www.njnextstop.org>, accessed September 17, 2004.

<sup>62</sup> New Jersey State Employment and Training Commission, *A Summary Report of the Occupational and Skill Demand Project* (Trenton, NJ, 2004).

themselves. Childcare pressures make this preparation more difficult.

Job sector forecasts bear these trends out as well. Figure 15 shows the projected occupational growth in Middlesex County through 2010, split by level of education/training required. While jobs classified with low training requirements will retain the largest share, the fastest growing category are those jobs requiring high training time — this sector is projected to be up 20%. Other occupational projections from the New Jersey Department of Labor show that of the top 10 fastest growing jobs in Middlesex County through 2010, all come from either the information technology or healthcare fields, both sectors requiring significant training investments.<sup>63</sup>

## The Social Investment Case for Childcare

Early childhood intervention also brings long-term social benefits beyond the productivity increases to businesses. For example, the Carolina Abecedarian study took two groups of infants from low-income families and provided one group with high-quality, full-time childcare from infancy until age five. Following completion of the program, the study participants were periodically surveyed in an effort to capture the long-term outcomes of quality preschool childcare. The results have been positive, with participation associated with higher intelligence, reading, and math test scores at each examined age

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<sup>63</sup> <http://www.wnjpin.net/OneStopCareerCenter/LaborMarketInformation/lmio4/mid/midpergrowcc.htm>.

through age 21. The schooling outcomes are also significant — participants were twice as likely to still be in school at age 21 (40% versus 20% for those who did not receive preschool care). About 35% of the adults who had received early childcare had either graduated from or were currently attending a four-year university or college compared to only 14% from the non-treatment group. Participants also were more likely to be employed at age 21, and had an older average age for when their first child was born.<sup>64</sup>

Additionally, the Minneapolis Federal Reserve analyzed childcare investments, concluding that the public can expect a 16% internal rate of return on these investments, the significant majority of which accrues directly to the public.<sup>65</sup> That is, adults who received quality childcare were much less likely to struggle in school or commit crimes than those who did not receive such care. This analysis was based on findings from the High/Scope study of the Perry preschool experiment conducted in Michigan during the 1960s.

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<sup>64</sup> The Carolina Abecedarian Project, *Early Learning, Later Success: The Abecedarian Study, Executive Summary*, [http://www.fpg.unc.edu/%7Eabc/executive\\_summary.htm](http://www.fpg.unc.edu/%7Eabc/executive_summary.htm), accessed September 23, 2004.

<sup>65</sup> A. Rolnick and R. Grunewald, “Early Childhood Development: Economic Development with a High Public Return,” *Fedgazette*, <http://minneapolisfed.org/pubs/fedgaz/03-03/earlychild.cfm>.

**Figure 15: Projected Occupational Growth in Middlesex County by Level of Training Required, 2000-2010**

Occupation	2000		2010		Change: 2000-2010	
	Number	Percent	Number	Percent	Number	Percent
<b>Total, All Occupations</b>	456,700		512,550		55,850	<b>12.2%</b>
<b>Total High Requirements</b> Includes jobs requiring a professional, doctoral, Master's, Bachelor's, or Associate's degree, plus those jobs requiring work experience in addition to a bachelor's degree.	123,950	27.1%	149,400	29.2%	25,450	<b>19.7%</b>
<b>Total Moderate Requirements</b> Jobs requiring postsecondary vocational training, work experience in a related occupation, or long-term on-the-job training.	73,400	16.1%	78,450	15.3%	5,050	<b>6.9%</b>
<b>Total Low Requirements</b> Jobs requiring either moderate or short on-the-job training.	259,350	56.8%	284,650	55.5%	25,350	<b>9.8%</b>

## Skills of Childcare Workers

Research has established an important link between the skills of childcare workers and the quality of the centers in which they work. For example, several studies of childcare centers found that the percentage of staff with high levels of training was the strongest predictor of sustainable center quality.<sup>66</sup> Also, a survey of several

quality-focused studies concluded that there is a direct connection between academic training in child development and top-quality childcare workers.<sup>67</sup> Further, maintaining a stable staff has been connected to a center's ability to preserve quality over a period of time. This consistent level of quality implies improved developmental outcomes for

<sup>66</sup> M. Whitebook, L. Sakai, E. Gerber, and C. Howes, *Then and Now: Changes in Childcare Staffing, 1994-2000* (Washington, D.C., Center for the Childcare Workforce, 2001). D. Phillips, D. Mekos, D. Scarr, K. McCartney, and M. Abbott-Shim, "Within and Beyond the Classroom Door: Assessing Quality in Childcare Centers," *Early Childhood Research Quarterly*, 15(4): 475-496. D. Bellm, A. Burton, M.

Whitebook, L. Broatch, and M. Young, *Inside the Pre-K Classroom: A Study of Staffing and Stability in State-Funded Pre-Kindergarten Programs* (Washington, D.C., Center for the Childcare Workforce, 2002).

<sup>67</sup> M. Whitebook, *Bachelor's Degrees are Best: Higher Qualifications for Pre-Kindergarten Teachers Lead to Better Learning Environments for Children*, a review of the research prepared for the Trust for Early Education, 2003.

the children under the center's care.<sup>68</sup> Thus, improving the quality of childcare offerings in New Jersey depends heavily on developing and retaining high-quality childcare workers.

While many states have, within the past five years, conducted statewide surveys of childcare workers' qualifications, benefits, and turnover rates, there is no such known statewide survey for New Jersey.<sup>69</sup> Wage levels can be used to provide a rough picture of the educational attainment and skills of childcare workers. For example, while New Jersey ranked 7th nationally in 2003 among mean wages for kindergarten teachers, the state's median childcare worker wage placed it 16th.<sup>70</sup> This lower ranking suggests that childcare workers are relatively undervalued in the current New Jersey market and may not have the best skills for creating educationally safe environments for the state's youngest residents.

Strengthening the skills of teachers, administrators, and staff is being done by other states. For example, New York requires all workers in licensed and

registered childcare facilities to complete at least 15 hours of professional development each year.<sup>71</sup> The New York Office of Children and Family Services also maintains Earlychildhood.org, a web resource that provides information about careers in childcare, including ways for current childcare workers to advance their careers and for directors to improve the quality of their programs.<sup>72</sup> Pennsylvania's Department of Public Welfare developed the Pennsylvania Pathways Program to provide similar services (e.g., free and low-cost training for childcare workers).<sup>73</sup>

Attracting and retaining individuals with greater education and skills to the childcare sector will depend on raising wages in the sector. One approach is to have strong educational and training requirements. New Jersey's licensed centers already have minimum standards on the levels of education and experience that senior staff must possess. All licensed centers must meet these standards, and the requirements depend on the number of children under the center's care.

The state's licensing guidelines require preschool centers to employ one "head teacher" and one "group teacher" for roughly every 120 children in the center. These teachers must have some combination of educational attainment and childcare experience. For example, the head teacher requirements range from a Master's degree plus limited

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<sup>68</sup> E. Peisner-Feinberg, M. Burchinal, R. Clifford, M. Culkin, C. Howes, S. Kagan, N. Yazejian, P. Byler, J. Rustici, and J. Zelazo, *The Children of the Cost, Quality, and Outcomes Study Go to School: Executive Summary* (Chapel Hill, NC, University of North Carolina at Chapel Hill, Frank Porter Graham Child Development Center, 1999).

<sup>69</sup> Center for the Childcare Workforce, *Current Data on the Salaries and Benefits of the U.S. Early Education Childcare Workforce* (Washington, D.C., 2004).

<sup>70</sup> U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Employment Statistics Program*, November 2003, <http://www.bls.gov/oes/home.htm>.

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<sup>71</sup> New York State Office of Children and Family Services, <http://www.ocfs.state.ny.us/main/beccs/training.asp#e>, accessed January 14, 2005.

<sup>72</sup> <http://www.earlychildhood.org/>.

<sup>73</sup> <http://www.papathways.org/>.

childcare experience to a teaching certificate plus at least four years of childcare experience. Beyond these teaching positions, the remainder of a center's staff must pass a standard criminal background check but are not required to meet any education or experience minimums.<sup>74</sup>

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<sup>74</sup> The complete staffing requirements for licensed centers are available through New Jersey's Department of Human Services at <http://www.state.nj.us/humanservices/dyfs/DCIndex.htm>. The most recent set of requirements and guidelines took effect in February 2004 and expire in February 2009.



## Section IV: Recommendations for Businesses, Government, and the Childcare Industry

This report's major findings suggest several key areas for action, including, but not limited to:

- The high cost of care and the insufficient nature of the currently available subsidies;
- The untapped productivity gains for employers when their employees have stable care;
- Collaboration among employers, allowing small and moderately sized employers to pool their resources to support employees' care needs; and
- The shortage of infant and toddler slots.

The following recommendations outline how businesses, government, and the childcare industry can make progress toward these and other economic development goals.

### Recommendations for Businesses

- Subsidize employees' childcare costs directly, similar to how many employers currently subsidize employee health insurance and pension plans.
- Establish common childcare centers within industrial parks or other commerce centers with a high

number of employees. Employer contributions could establish a Heller Park-style system, or individual employers could buy slots in a common center. Bright Horizons, the company that runs centers for Johnson & Johnson and Bristol-Myers Squibb, offers an industrial park package. Bright Horizons provides a cooperative option where employers can pool their resources and establish a shared center. In this way, a series of small employers located in a central region can create the same sort of scale efficiency natural to the big hospitals and pharmaceutical companies.

- Encourage the use of corporate donations and community investments for nonprofit childcare quality initiatives, such as projects undertaken by Catholic Charities, the state resource and referral agency, or large nonprofit providers such as the YMCA.
- Offer pre-tax flexible spending accounts that include childcare as an option for employees. The federal tax code currently allows for up to \$5,000 in pre-tax income to be allocated to childcare costs. Employers could also advocate for the federal government to raise this cap.
- Partner with Catholic Charities to assist parent-employees in locating quality childcare and education and understanding the elements and effects of quality programs.

- Obtain greater federal childcare funding, such as the expansion of the Childcare Development Fund block grant that currently funds the New Jersey Cares for Kids “working poor” subsidy.

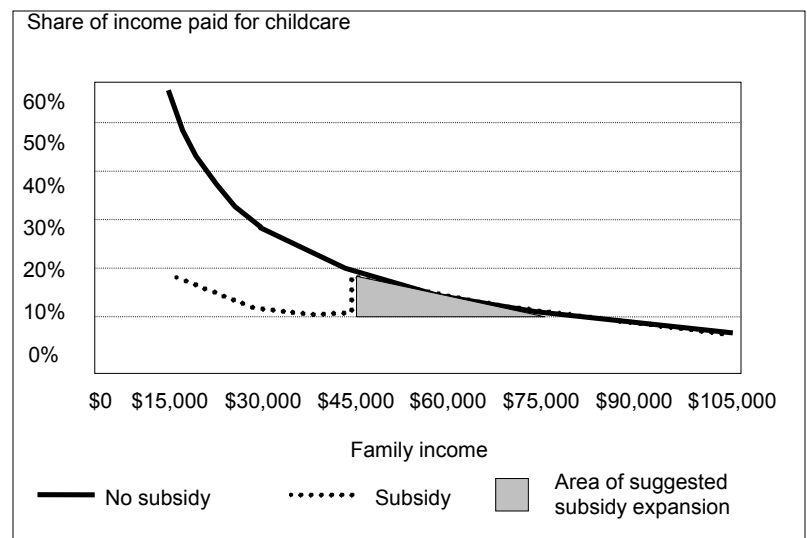
## Recommendations for Government

### State Government

- Adopt a program similar to the Childcare Executive Partnership currently operating in Florida. Under this program, the state matches an employer’s contributions to employees’ childcare costs as long as the employee qualifies for a state subsidy. This type of partnership would contribute to the movement toward fully funding the current childcare subsidy system, supporting parents’ completion of high school as well as their efforts to find a job, training, and continue with higher education.
- Implement policies to upgrade the qualifications of childcare workers (e.g., adding childcare workers to the list of occupations participating in the state apprenticeship program). Improving the quality of childcare workers should lead to greater educational development of the children under their care.
- Work toward fully funding the current childcare subsidy system to support parents’ completion of high school as well as their efforts to find a job, training, and continue with higher education.

- Incrementally raise the income eligibility level to receive the state subsidy. Figure 16 shows the disincentive in the current system of subsidies, where parents with incomes slightly above the threshold pay a significantly higher percentage of their income for childcare than parents just below the threshold. The range of incomes eligible for the subsidy should be increased so that all families near the eligibility threshold pay a similar percentage of their income for care.
- Establish incentives for providers to offer infant care, such as raising the subsidy level.
- Examine the possible need to streamline provider regulations to determine if any parts of the current laws create unnecessary inefficiencies, raising prices higher than they should be.

**Figure 16: Effect of Raising Income Cutoff for Receipt of Public Subsidy**





- Establish a state tax deduction for employers who pay for employees' childcare or run their own center.
- Develop a professional development program to support current childcare workers.
- Expand the current education and experience requirements for teachers in licensed centers so that the requirements apply to all childcare staff.
- Create public service announcements about the important role that childcare workers play in the development of children.

### **County Government**

- Generate new sources of funding for childcare subsidies such as funds related to or targeted at economic development and business recruitment. Ensure that childcare is included among priority funding areas for the county.
- Collect data to track families' costs, eligibility for subsidies, and actual childcare assistance. Some providers, such as the YMCA, already do this.
- Consider childcare needs and information during the local economic development planning process.
- Initiate partnerships between businesses and government to establish funding sources for childcare centers to expand capially, such as low-interest loans. Small

business or entrepreneur-style grants may be available.

- Pursue policies that will help childcare providers retain their employees. Low salaries and the general absence of benefits mean that providers currently have trouble both attracting and retaining the members of the best pool of workers.
- Create special incentives for businesses operating in or wishing to relocate to Middlesex County that provide childcare and work/family benefits.
- Educate other government entities and key private sector stakeholders about the gaps in childcare supports for working families.
- Increase use of surveys to assess the childcare needs of businesses and their employers, including the need for part-time care and childcare during non-traditional work hours.

### **Recommendations for Childcare Providers**

- Place representatives from the childcare industry and relevant state government agencies on economic development and business community planning boards.
- Form partnerships among providers, gaining efficiencies already present with large providers, such as the ability to charge lower fees to low-income parents to help make up the difference between the subsidy and the full price. Providers could also

reduce administrative and marketing costs through collaboration.

- Identify areas where care is currently too scarce, such as infant, after hour, and sick care. These types of care are usually more expensive, so the economies of scale referred to above could be particularly beneficial.

## Appendix A: Methodology for Estimating the Number of Slots in the Regulated Childcare Industry

The number of slots in licensed centers was estimated based on information in the state's licensing database, provided by Catholic Charities. The database tracks for which age groups — zero to two-and-a-half, two-and-a-half to five, or school age — a center is licensed, but does not include explicit capacities by age group. Typical capacity distributions were estimated based on interviews with center administrators and a telephone survey of selected providers. The state also maintains a list of the number of registered family homes caring for preschoolers, but not the spread of ages within them. Catholic Charities estimates that these homes have an average of three children. Licensing guidelines limiting the number of infants and toddlers a registered home can care for at one time suggest a typical distribution of two infants/toddlers and one preschooler per home.<sup>75</sup> Childcare centers receiving Head Start funding must also meet the state's licensing standards, and thus are also listed in the database of centers. The Abbott capacity estimates are taken from the Education Law Center's report, *The Abbott Preschool Program: Fifth Year Report on Enrollment and Budget*.<sup>76</sup>

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<sup>75</sup> New Jersey Division of Youth and Family Services, *Manual of Requirements for Family Day Care Registration*, <http://www.state.nj.us/humanservices/dfd/fdcmanual.pdf>.

<sup>76</sup> E. Applewhite and L. Hirsch, *The Abbott Preschool Program: Fifth Year Report on Enrollment and Budget* (Newark, NJ, Education Law Center, 2003).



## Appendix B: Methodology for Estimating the Employment and Income for the Regulated Childcare Industry

### Employment

In order to estimate total employment within the regulated sector, the New Jersey Association of Childcare Resource and Referral Agency's 2003 wage and benefit survey was used to identify the types of jobs present within licensed centers.<sup>77</sup> Based on this report, discussions with center administrators, and the state's staff-to-child required ratios,<sup>78</sup> the following staffing pattern was assumed for licensed centers:

<b>Job Title</b>	<b>Employment Assumption</b>	<b>Age Groups for Test Criteria</b>
Director	1, if enrollment is greater than 60	All ages
Assistant Director	1, if enrollment is greater than 100	All ages
Head Teacher	At least 1, 2 if enrollment is greater than 180	Infant/toddler and preschool only
Group Teacher	0 if enrollment is 60 or less, 1 if enrollment is between 61 and 180, 2 if enrollment is greater than 180	Infant/toddler and preschool only
General Staff	1 for every 12 preschoolers enrolled, 1 for every 4 infant/toddlers enrolled	Infant/toddler and preschool only
Aides	1 full-time equivalent spot for every 100 enrolled	Infant/toddler and preschool only
Secretary	1 full-time equivalent spot for every 120 enrolled	Infant/toddler and preschool only
Cook	1, if enrollment is greater than 80	All ages

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<sup>77</sup> New Jersey Association of Childcare Resource and Referral Agencies, *Child Care Wage and Benefit Survey and Child Care Market Rates* (Trenton, NJ, 2003).

<sup>78</sup> New Jersey Division of Youth and Family Services, *Manual of Requirements for Childcare Centers* [http://www.state.nj.us/humanservices/dyfs/child\\_care\\_manual\\_toc.html](http://www.state.nj.us/humanservices/dyfs/child_care_manual_toc.html).

The *Abbott* and Head Start programs are subject to different teacher:child ratio requirements.<sup>79</sup> Thus, the following assumptions were used to calculate employment for these programs:

Abbott Teacher	1 teacher per room of 15 children
Abbott Aide	1 aide per room of 15 children
Abbott Master Teacher	1 for every 250 Abbott children in district
Abbott Family Workers	1 for every 40 families (estimate 45 children)
Head Start	2 teachers per room of 15-20 children

The 197 registered family day care homes in Middlesex County were each assumed to have the equivalent of one full-time employee.

## Income

Total income for the regulated childcare industry was calculated by multiplying the average wage for each type of job by the estimated number of people working in the job. The average wage estimates for licensed center employees were based on the New Jersey Association of Childcare Resource and Referral Agencies' 2003 wage and benefit survey and converted to 2004 dollars using the consumer price index.<sup>80</sup> Teachers in Abbott programs were assumed to earn a salary equivalent to an entry-level elementary school teacher, Abbott "master teachers" were assumed to earn the median elementary school teacher's salary, and Abbott "family workers" were assumed to earn the median wage for a social worker. Each of these wage figures was pulled from the New Jersey Department of Labor and Workforce Development's 2004 Occupational Employment Statistics Wage Survey.<sup>81</sup> The Head Start teacher wage estimate was based on figures from the National Institute for Early Education Research at Rutgers University.<sup>82</sup> Registered family day care home workers and Abbott program aides were each assumed to earn wages equivalent to a general staff member in a licensed center.<sup>83</sup>

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<sup>79</sup> New Jersey Department of Education, Office of Early Childhood Education, *End of the Year Report: 2003-2004* (Trenton, NJ, 2004). U.S. Department of Health and Human Services, Administration for Children and Families, *Head Start Program Fact Sheet, Fiscal Year 2003*, <http://www.acf.hhs.gov/programs/hsb/research/2004.htm>.

<sup>80</sup> New Jersey Association of Childcare Resource and Referral Agencies, *Child Care Wage and Benefit Survey and Child Care Market Rates* (Trenton, NJ, 2003).

<sup>81</sup> New Jersey Department of Labor and Workforce Development, *Occupational Employment Statistics Wage Survey* (Trenton, NJ, 2004).

<sup>82</sup> National Institute for Early Education Research, *Fact Sheet on Head Start Teachers*, <http://nieer.org/resources/facts/index.php?FastFactID=12> (New Brunswick, NJ, 2003).

<sup>83</sup> New Jersey Association of Childcare Resource and Referral Agencies, *Child Care Wage and Benefit Survey and Child Care Market Rates* (Trenton, NJ, 2003).