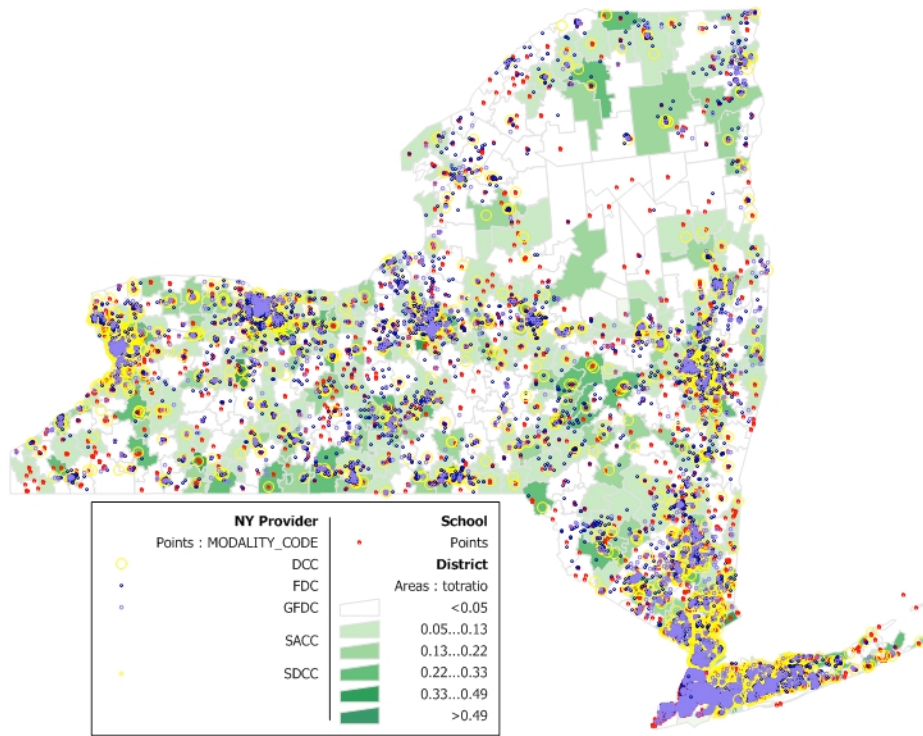


Assessing Capacity: Early Childhood Education in Rural New York State¹



Submitted to the *Rural Education Advisory Committee* (REAC)

John W. Sipple, Ph.D.
Associate Professor
Department of Education

Lisa A. McCabe, Ph.D.
Extension Associate
Department of Human Development

Judith Ross-Bernstein
Senior Lecturer
Department of Human Development

Cornell University

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Introduction

This study answers questions posed by the New York State Rural Education Advisory Committee (REAC; see Appendix A for more information about REAC). Specifically, the following set of questions about early care and education for children under age five in rural communities of New York State are addressed:

- *What is the incidence of early childhood learning program slots for children under age 5 in New York State rural counties and school districts?*
- *How do the number of early learning program slots relate to the number of age-eligible children in rural and non-rural settings?*
- *What factors (e.g. geography, wealth, education level) may be related to patterns of early learning programs in rural versus non-rural communities in New York State?*

The data that form the basis for the following analyses are drawn from three sources: 1) NY State Education Department; 2) NYS Office of Children and Family Services; and 3) the U.S. Census. By using multiple sources of data, this report will be among the first to provide a comprehensive look at the complex early care and education system in New York State with a special emphasis on rural communities. Key segments of the early care and education community, including child care centers, home-based family child care, state-funded pre-kindergarten, and Head Start are all included in order to provide the most complete picture possible (see Appendix B for more information about early care and education systems and programs in NYS).

Early care and education terminology used in this report:

- Center-based child care (including Head Start) includes settings for three age groups of children: **Infants** (0- to 18-months), **Toddlers** (18 months to 3 years); and **Preschoolers** (3- to 4-year olds). Individual programs may include slots for all three age groups or may specialize in only one or two. School age care (for children over age 5) is not considered in this report.
- **Pre-kindergarten** includes state-funded programming for 4-year-old children. Until the 2007-2008 school year, pre-kindergarten in New York State included two state-wide programs: Targeted and Universal Pre-kindergarten. Data for this report includes 4-year-old children in either program. As these programs have since merged, future waves of data will reflect one, unified pre-kindergarten program.
- **Family child care** refers to care for children under age 5 in home-based, registered settings. Legally exempt home-based programs (providers caring for fewer than 3 unrelated children) are not included in the state data base and therefore are not considered in this report.

The report begins with a review of what is known about early care and education programs in rural settings internationally, across the US, and within New York State. Next we briefly describe the research methods and data sources used in the analyses, including issues related to the varied units of analysis (e.g., facility, school district, county, state). In the findings section, we highlight key findings at the state, county, and school district units of analysis and explore questions relating to the relative importance of the fiscal and demographic context of the communities in which the analyses take place. Finally, we summarize our findings, describe the limitations of the current study, and lay out our plans for the continued study of these complicated and important issues.

In reading this report, the reader may gain a sense of the challenges faced in preparing such a study. The data come from an array of sources, each with their own language, unit of analysis, and data collection procedures. To answer the questions put

forth by REAC, it was necessary to access, manipulate, and merge multiple sources of data from the NY State Education Department (SED), the NY State Office of Children and Family Services (OCFS), and the United State Census Bureau.² It is important to make clear that the regulatory environment for the provision of early childcare is done through the 62 counties across the state. State regulations are set by OCFS, state dollars often flow to the counties, and then to service providers in the form of subsidies. Head Start programming also uses counties as the organizing framework for its funding mechanism and the provision of service. The source of most data on individual income, education, workforce preparation, and, of course, population is collected in census tracts by the US Census Bureau that align nicely with counties. In contrast, school district data is parsed by the 700 school district boundaries across the state and has little in common with county lines. School district boundaries frequently cross county boundaries and for many districts include land areas in multiple counties.

Another challenge for this work comes in looking at capacity for early care and education facilities. Estimates of capacity will necessarily be different from actual enrollments. Given the regulatory purpose of OCFS and the daunting challenge of monitoring nearly 20,000 facilities, enrollment data do not exist at the state level. There is much churning (closing and opening) of centers, particularly family child care facilities. As a consequence, the monitoring of enrollment is a unique challenge and beyond the responsibility of OCFS. The public pre-kindergarten system, however, is

² We offer a special thanks to the following people who made this data gathering possible and productive: Deborah Cunningham, Curt Miller, and Darlene Tegza from the SED, Sage Ruckterstuhl from the NYS Child Care Coordinating Council, Suzanne Sennett from the OCFS, Warren Brown from Cornell's Institute for Social and Economic Research, Noni Korf Vidal from Cornell Information Technology, Keith Jenkins the GIS expert at Mann Library at Cornell University, and Travis Durfee, a graduate student at Cornell and a former fiscal data analyst for the Chair of the Senate Education Committee, State Senator Stephen Saland.

more closely tied to enrollment in that each slot is driven by state funding. Hence, the funding of slots is closely related to the actual number of children served in pre-kindergarten programs. This being said, there is state regulation mandating that at least 10% of the pre-kindergarten slots must be served outside the school buildings in a separate community-based facility. This is important to note because when we estimate school-based pre-kindergarten enrollment, the number overestimates the actual school-based enrollment by at least 10% with no indicator of what percent of children are actually served outside the school buildings.

Taken together, these issues are a challenge, but not insurmountable. This study is a first of its kind to link together the more than 17,000 child care and preschool facilities, nearly 700 school districts, 62 counties, and census estimates at both the county and school district level across New York State. This study is also unique in its focus on the capacity of rural communities to serve their young children. In particular, this study emphasizes the 33 rural counties rural in New York State. These counties have 50% or more of the population noted as "rural populations" by the 2000 US Census.

Several common themes permeate our findings. We note these here and further elucidate each throughout the report.

- 1) Center-based care for infants, toddlers, and preschoolers are more prevalent in areas populated by a wealthier, more educated populous, and in school districts that have higher test scores.
- 2) State regulated family-based child care and state-sponsored pre-kindergarten programs are more prevalent in areas populated by a poorer and less well educated populous and in school districts with lower test scores.

- 3) Above and beyond the effect of school district size on the offering of pre-kindergarten programs, rural school districts serving poorer populations of students who have less space per student are less likely to offer state funded pre-kindergarten.

The International and National Landscape of Early Care and Education

In recent years, the provision of quality early childhood care and education has been a focus of government agendas both in the United States and abroad. In a review of twelve countries in 2001, and a follow-up review with eight of those countries in 2006, the OECD Education Committee identified how policies, services, families and communities can support young children's early development and learning (OECD, 2001; OECD 2006). Among their observations and recommendations are a need for strong and equal partnerships between the early childhood and primary education systems in order to provide a more unified approach to learning (OECD 2006). Such an approach helps to address the transitional challenges children may face as they enter school and increases the possibility that they arrive “ready to learn”. Furthermore, this review of early care and education policy in many countries suggests a trend toward expanding early education services to 3-year-old (or younger) children, a need for improving the quality of education services for younger children, and the importance of policy and service integration in order to promote coherence and best meet the needs of young children and their families (OECD, 2001). The fact that these issues are identified in a multi-national report suggests the universal importance of addressing the education and care needs of young children.

In the United States, recent changes in policy related to the early care and education system have seen dramatic shifts and growth. Currently, 38 states fund preschool programs (Barnett, Hustedt, Hawkinson, & Robin, 2006). These programs serve 20% of US 4-year-old children, up from just 14% in the 2001-2002 school year. Many of these preschool and Head Start early childhood educational programs operate within public elementary school buildings. In addition, we know that nearly half of pre-school children with employed mothers are in full-time care (35 hrs or more per week) in settings as diverse as child care centers, family child care programs, or relative care (Capizzano & Main, 2005). Finally, long-term research evidence suggests the potential positive impact that comprehensive early education programs can have on children's future successes in school, employment, as well as significant economic savings to the broader community (Schweinhart, Montie, Xiang, Barnett, Belfield, & Nores, 2005). Taken together, these facts highlight the importance of early care and education as important tools for child development and preparing young children for entry into the formal, primary school system.

Rural Early Education and Care in the United States

Sixty million people live in rural communities throughout the United States, communities that encompass 97 percent of the U.S land mass (The University of Montana Rural Institute, 2005). Moreover, rural communities educate 8.8 million students, nearly twenty-one percent of the school-aged population (NCES, 2003). Despite the prevalence of rural settings in the US and overwhelming evidence about the importance of early care and education to young children's development and school success, little is known about early care and education settings in rural areas of the United

States. Although a number of large-scale, national studies have looked at early care and education issues (e.g., the NICHD Study of Early Child Care), a lack of comprehensive data on rural populations currently exists because either data confidentiality prevents identifying children's locale or residence, or rural children are under represented in the samples being drawn for study (Capizzano & Fiorillo, 2004). The Early Childhood Longitudinal Study (which is based on a nationally representative sample of children starting at Kindergarten age) is the first exception to the lack of national data on rural children. In this study, rural was defined as fewer than 2,500 people or small towns of 25,000 or fewer residents: a common definition used by the National Center for Education Statistics. Findings from this study indicate that rural children are more likely, than their urban counterparts, to live in poverty (21% vs 18%; Grace et al, 2006). With regard to child care, rural children are two thirds as likely as non-rural children to be in center-based care (other than Head Start). Instead, rural children are often cared for by relatives, typically in homes that are not part of any regulated system (in what is termed "informal" child care in New York State). Rural children are also almost twice as likely as non-rural children to attend Head Start. Smaller studies of rural families further illuminate the importance of informal child care arrangements (typically the maternal grandmother) as a "private safety net" that helps families balance work and family demands (Kratas, Auiker, & Bauer, 2004; Reschke, Manoogian, Richards, Walker, & Seiling, 2006).

Recent research also provides evidence that rural life confers benefits to young children (e.g., better housing, better English speaking ability, parents rate children as more socially competent, parents are also more likely to say they live in a safe

neighborhood when compared to their urban counterparts), however, rural children are worse off on many other measures. Most importantly for this research, one key area rural children fare worse in is educational outcomes. Specifically, rural children are 60% more likely to be placed in special education in Kindergarten than are non-rural children. They are also less likely to be proficient in letter recognition and identifying the beginning sounds of words upon Kindergarten entry when compared to non-rural children (Grace et al, 2006).

Limited research also suggests some challenges with child care in rural communities. One of the biggest challenges is that a smaller, dispersed population of people tends to limit the child care options for many people. Not only are there fewer providers and programs (especially centers) to choose from, there are also problems with transportation due to the longer distances between home, child care setting, and workplace (Colker & Dewees, 2000). Moreover, rural families are likely to work non-standard hours. In conjunction with transportation challenges, working hours other than 9 to 5 also helps to limit child care choices to those programs/providers serving families for longer hours and during non-standard work hours (often at greater expense for the families; Colker & Dewees, 2000). Finally, the quality of providers in rural settings tends to be unknown (as in the case of license-exempt, informal family child care) or, in some cases, documented to be of less quality than those providers in urban settings because rural providers tend to be less educated and less trained than their urban neighbors (Rural Policy Research Institute, 1999).

Rural Early Care and Education in New York State

From state-wide data, we know that NY serves a little more than one in four (29%) 4 year olds in pre-kindergarten and another 10 percent in Head Start (Barnett et al., 2006). More than 60,000 4-year-old children were attending pre-kindergarten in NYS in 2006 (60% of them in non-public school settings; Holcolmb, 2006). Universal Pre-Kindergarten has been successfully implemented in at least one rural community involving a partnership between the local school district and community based child care programs (Watamura, 2004). However, state-wide early care and education data have not yet been broken down by rural versus non-rural locales. Specifically, state-wide child care and educational data bases (e.g., New York State Education Department, and Office of Children and Family Services child care program data) have not been examined to document the incidence of quality early childhood programs in rural areas for children under age five. In fact, very little is known about rural early care and education in New York State. Even the one national data set that includes information about rural children (the ECLS data presented in the previous section) focuses primarily on rural Black children in the south and rural American Indian or Alaskan Native children in the Midwest or West.

We also know very little about how rural schools may be linked to early care and education services for children and families. Yet, these linkages are a critical part of the New York State early care and education system for a number of reasons. First, New York's Universal Pre-Kindergarten (pre-kindergarten) legislation is unique in that although funding flows through school districts, it *requires* that at least 10% of those funds be subcontracted to local, community-based organizations. This legislative mandate has encouraged the development of partnerships between school districts and the

child care community (e.g., child care centers, Head Start programs). Second, research from rural communities (mostly outside New York State) suggests several advantages to school-based provision of early care and education programming. Since schools are often already a central point of services in rural communities, housing child care within schools makes sense. Also, in some communities it might be possible for parents to ride the school bus to the school and this helps to address transportation challenges so commonly found in rural settings (Colker & Dewees, 2000). In addition, another benefit to offering child care in schools is that it connects families to schools when children are younger. Recent evidence from pre-kindergarten programs, implemented in school settings in a rural New York community suggests that children who attend preschool in a school setting may be more prepared for Kindergarten (Watamura, 2004).

The current policy landscape in NYS suggests that an increase in pre-kindergarten programming is likely given the recent influx of state dollars into this program. After years of flat funding the state universal pre-kindergarten program, Governor Spitzer has made pre-kindergarten a priority by adding an additional \$50 M in funds for pre-kindergarten. Pre-kindergarten funding is now available to virtually all school districts in the state (with the exception of ineligible high school and special act districts). Head Start reauthorization, which is currently under debate at the Federal level, also suggests possible future changes including a greater emphasis on services to infants, toddlers, and three-year-olds. At the national level, The First School initiative offers a new vision for early schooling of 3- to 8-year-old children and aims to develop a framework for communities to use to guide them toward providing a successful early school experience for all children and families (see <http://www.fpg.unc.edu/~firstschool/index.cfm>).

Recommendations have been made that systematic attention to data collection and monitoring needs to happen in order for policy to be well informed and realistic (OECD, 2006). With these changes as a backdrop, this research seeks to address some of the critical gaps in our knowledge base about rural early care and education in New York State. Specifically, this report addresses the following research questions:

- *What is the incidence of early childhood learning program slots for children under age 5 in New York State rural counties and school districts?*
- *How does the number of early learning program slots relate to the number of age-eligible children in rural and non-rural settings?*
- *What factors (e.g. geography, wealth, education level) may be related to patterns of early learning programs in rural versus non-rural communities in New York State?*

Data and Methods

The purpose of this study was to identify, explore, and examine existing data on the provision of early childcare and preschool education. In doing so, we drew on data from the following sources:

- NYSED – Chapter 655 Report. Annual report to the State Legislature on the status of the public schools. These data include aggregate school district test scores, enrollment, district classification, and some financial data.
- NYSED – Annual Financial Reports – Annual reports submitted by school districts reporting revenues and expenditures.

- NYSED – Square footage of all school district facilities in NY state. This data was pared down by eliminating non-school building data (e.g., central administrative offices, athletic facilities, and storage).
- NYSED – Direct from the SED data office, we received pre-kindergarten enrollment data for every school district in NY state.
- NYSED – Listing of names and street addresses for every school building in NYS. We subsequently geocoded these addresses for GIS purposes.
- OCFS – Data populating the publicly available “Day Care Facility Search” website (http://www.ocfs.state.ny.us/ccfs_facilitysearch/). These include all the registered childcare and preschool facilities in NY State. Specifically, the data include the facility id number, street address, and the number of regulated slots for the multiple modalities and age groups. This includes data on the number of slots for infants, toddlers, preschoolers as well as the number of regulated slots for family-based childcare arrangements –both single family and multiple family facilities. In addition to using this data to measure capacity, we also geocoded each address for GIS mapping purposes.
- NYSCCCC – The Council provided us with county level tabulations of regulated slots by age, and modality, including “informals” (centers that are open for less than three hours a day, but include subsidized children).
- U.S Census Bureau – Decennial census data for every county in NYS. These data include education level, workforce participation, per-capita income, and population at various ages, including 0-4 years. We use the decennial census estimates rather than the American Community Survey (ACS) due to the

focus of this study on rural counties, and particularly rural school districts. In future years, the rolling sample for the ACS may be sufficient, but at this point in time, the decennial census is argued to be more accurate (e.g., smaller standard errors).

- National Center for Education Statistics – NCES prepares census estimates for every school district in the nation (see <http://nces.ed.gov>). These data include education level, workforce participation, per-capita income, and population at various ages.

We constructed a relational database for all the data elements to reduce the chances of error when working with multiple units of analysis and to allow for easy importing as future years of data become available. Data was then queried and exported from the database and analyzed in statistical software packages (e.g., Stata and SPSS). Analyses began with univariate analyses of distribution followed by bivariate analyses of relation (correlations) and mean difference (anova). We conducted analyses at two different units of analysis: county and school district levels. All facility-level data (n=17,798) were aggregated to the district level (n=644) and then to the county level (n=57; 62 counties in NY State minus NYC and its five counties). After the bivariate analyses, we ran a single logistic regression model, estimating the correlates of districts with and without pre-kindergarten programming. Finally, we mapped relevant variables in an attempt to highlight the visual power of spatial data.

In doing this work, we had to estimate of how many age-eligible children from birth to age four are in each school district and county. There is no source for the annual count of infants, toddlers, and pre-school-aged children in each county or school district.

What is available are the number of slots (a measure of capacity) in each registered provider facility, decennial census data, and elementary and secondary school enrollments. Given the available data, we estimated the count of infants, toddlers, and pre-school-aged children in three ways.

- 1) Using census data, we simply divided the number of 0-4 year olds by five to achieve a static estimate of the number of children of each age (i.e., 0, 1, 2, 3, 4). Of course, this estimate calculates exactly the same number infants as 4 year olds and is constant each year.
- 2) Using school district enrollment data, we divided the K-12 population by thirteen. The advantage of this estimate is that we are able to lag the enrollment and estimate the specific age population (e.g., 4 year olds) in 2000 by calculating the number of enrolled public school students in 2004. This is admittedly not a perfect estimate, but better than the static census estimate.
- 3) However, given the importance of pre-school aged populations to this study, we cannot rely solely on the public school enrollment figures to estimate the number of children younger than school age. We account for public and private school enrollment by measuring school-age populations using a pupil count used in state funding for textbooks. Public school districts are asked to provide a count for all public and non-public (including home-schooled) children within their attendance boundary. The state then provides textbook aid to every district for all age-eligible children, without regard to the children being enrolled in public or private school. The local school district then

purchases textbooks and provides them to private and home-schooled children in addition to using them in the public schools.

We calculated the three estimates resulting in three similar numbers for each district. The estimates are most accurate for larger districts and in districts that are not experiencing a significant increase or decrease in enrollments. In this study we use the third estimate.

Finally, in trying to measure the incidence of childcare and preschool provision across counties with very different populations, it can be misleading to simply report the number of slots available in each county or school district for infants, toddlers, preschoolers, pre-kindergarten, and family child care providers. For this reason, we calculate two sets of ratios.

- 1) **Proportion of Registered Slots** - We calculate the proportion of slots in a given modality (e.g., infant care, toddler care, preschool, family childcare) in relation to the total number of registered slots for all modalities. To do this we divide the number of registered slots by the total number of slots across all modalities. For instance, if there are 10 infant slots, 20 toddler slots, 30 preschool slots, 20 pre-kindergarten slots, and 50 family childcare slots, we then calculate the infant ratio by dividing 10 by 130 for a ratio of 13%.
- 2) **Proportion of Age-Eligible Children** - The second set of ratios are designed to estimate the maximum proportion of age-eligible children that could be served in a specific modality. For instance, it is important to this study to identify the proportion of regulated slots for infants in a given area (i.e., county or school district) as it relates to the total number of infants in the area. For example, imagine that there are 10 infant slots identified in the OCFS data

for a given area and our calculated population of children in the same area is 100 children per year (100 one-year-olds, 100 two-year-olds, etc.). We multiply 100 by 1.5 to account for all infants age 0 to 18 months. Finally, we divide the 10 slots by the estimate of 150 zero- to 18-month-old infants in the area to result in a ratio of .067. In other words, we estimate that the capacity of infant slots is able to serve 6.7% of the infant population.

Findings

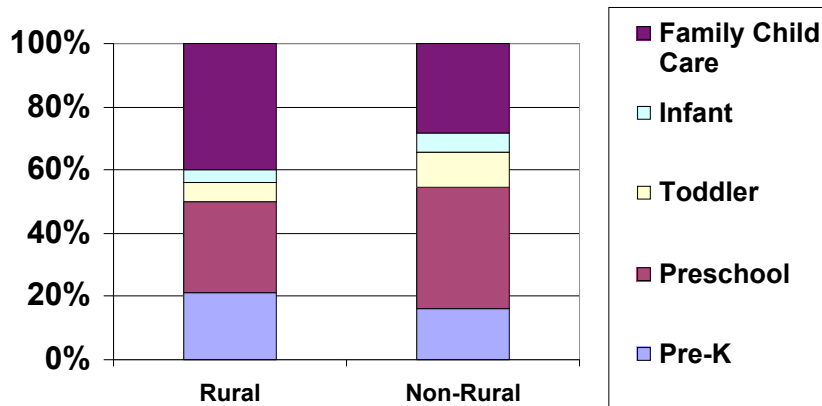
County Level Analyses

The following charts depict how early care and education slots are distributed in rural and urban settings. Figure 1 focuses on slots as a function of total county slots for both rural and non-rural counties³ (See Appendix C for individual, rural county distribution of early care and education slots). Figure 2 highlights pre-kindergarten enrollment (2006-2007 school year) for each rural county in New York State. Figure 3 shows slots as a function of all age-eligible children.

³ All analyses exclude New York City counties as City regulations and policies differ from those of the rest of New York State.

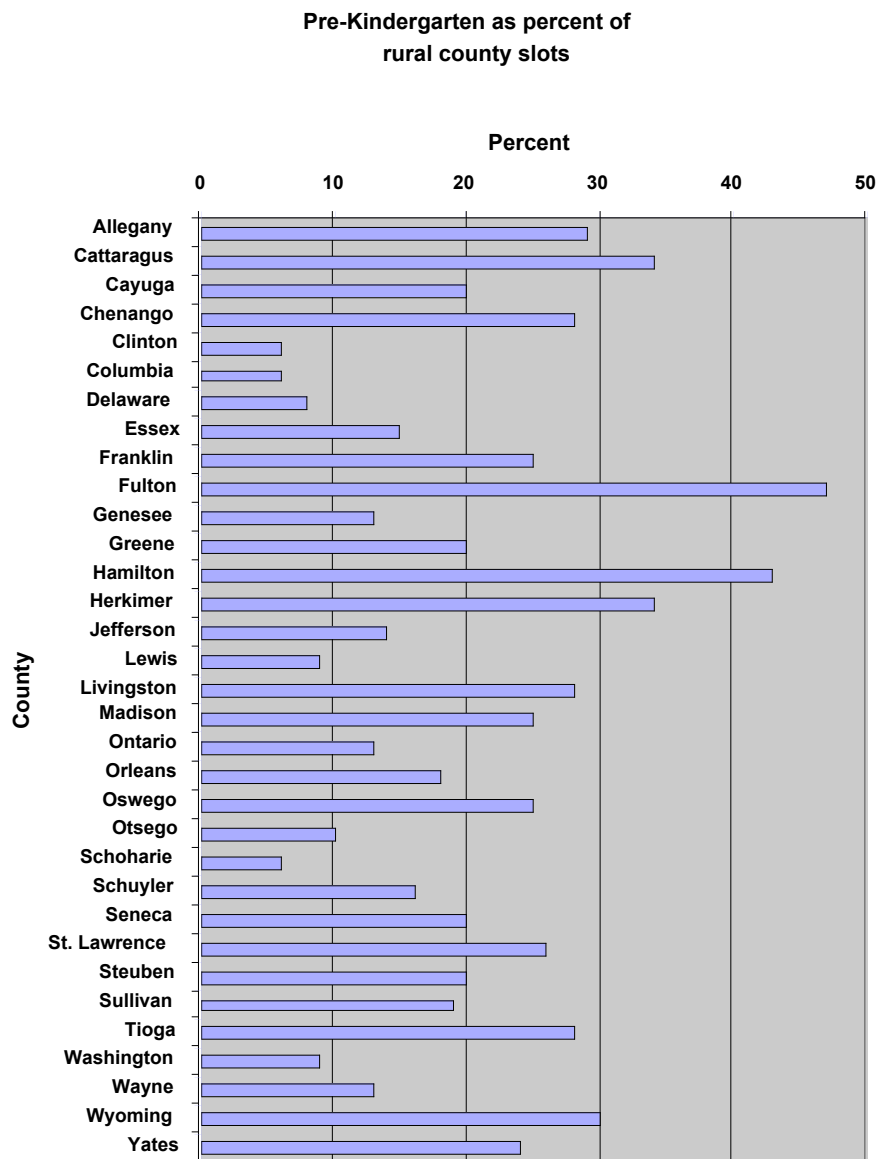
Figure 1

Slot distribution in rural and non-rural counties



Key Findings for Slots in Rural and Non-rural Counties

1. Overall, the distribution of slots as a proportion of total county slots is similar for both rural and non-rural counties. However, family child care and public pre-kindergarten are slightly more represented in rural counties while slots for infant, toddler, and preschool center care are more represented in non-rural counties.

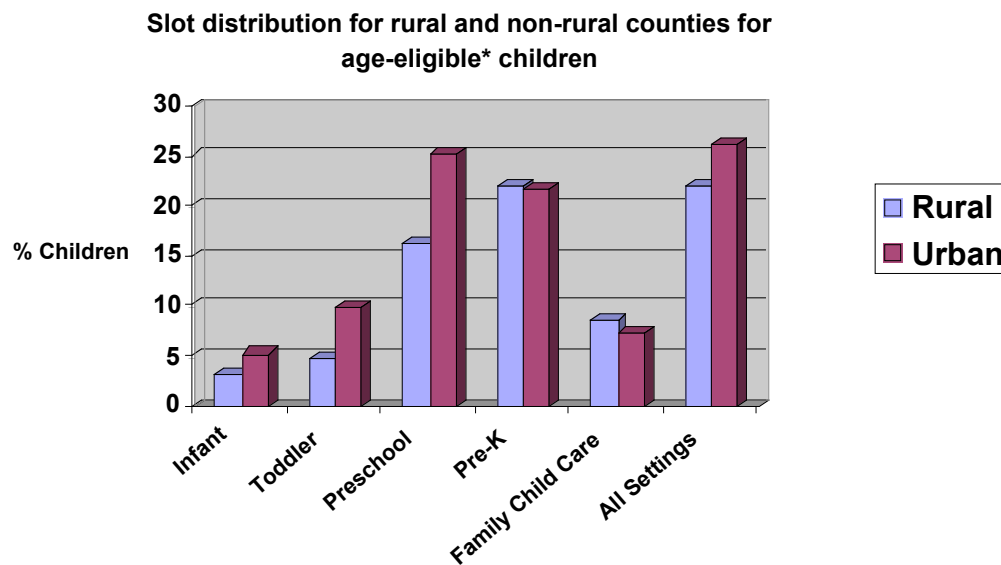
Figure 2

Key Findings for proportion of pre-kindergarten slots to total rural county slots

1. All rural counties have at least some pre-kindergarten programming. However, the proportion of slots that are pre-kindergarten in each county varies tremendously. Although the average is 21%, the percentage ranges from 6% (Clinton, Columbia, and Schoharie) to 47% (Fulton).

2. In some cases, the individual county proportion is high because there are a small number of slots in the county (e.g., 21 total in Hamilton county) and if pre-kindergarten is offered at all, it then makes up a disproportionate (compared to other counties) percentage of the total slots.

Figure 3



*Figure Note: “Age eligible” is defined as the following: Infant = 0- to 18-months; Toddler = 19-months to 3-years; Preschool = 3- to 4-years; Pre-K = 4-years; Family Child Care = 0- to 4-years

Key Findings for slot distribution for rural and non-rural counties for age-eligible children.

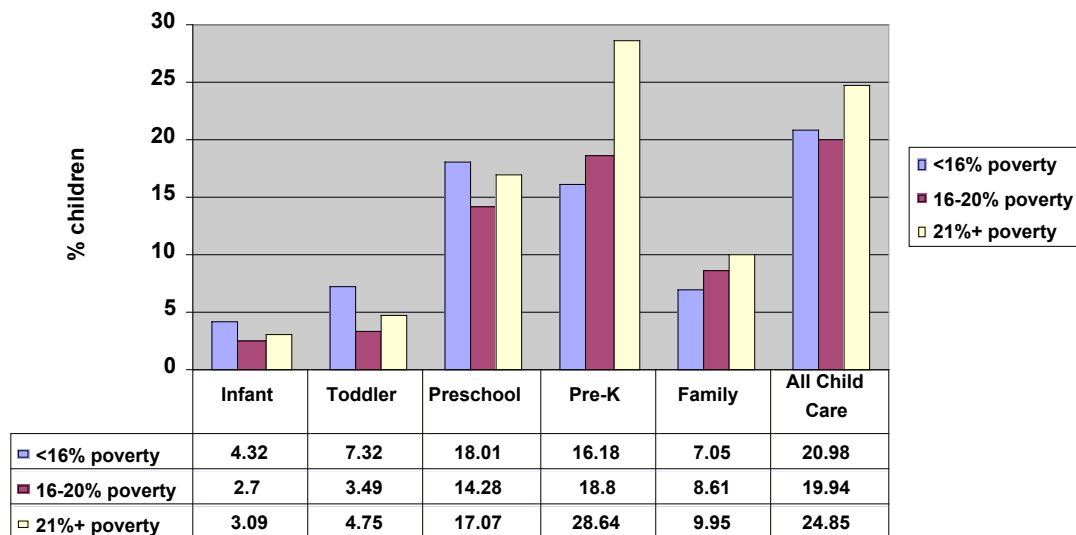
1. Rural and non-rural counties are serving similar proportions of age-eligible children in home-based, family child care settings and in pre-kindergarten. However, note that out of all the children in a county, rural counties have lower proportions of children in infant, toddler and preschool centers.
2. In both rural and non-rural counties, the number of slots available does not come close to matching the number of children eligible to participate in these programs.

In rural counties, slots only cover 22% (about 1 in 5) of all eligible children. In non-rural counties this percentage is 26% (about 1 in 4).

These next two figures (4 & 5) examine slot distribution again by total slots and age-eligible children, but also take into account county poverty levels (as measured by the percentage of children under age 5 living below the federal poverty line).

Figure 4

Rural county slot distribution for age-eligible* children by percent children under 5 in poverty

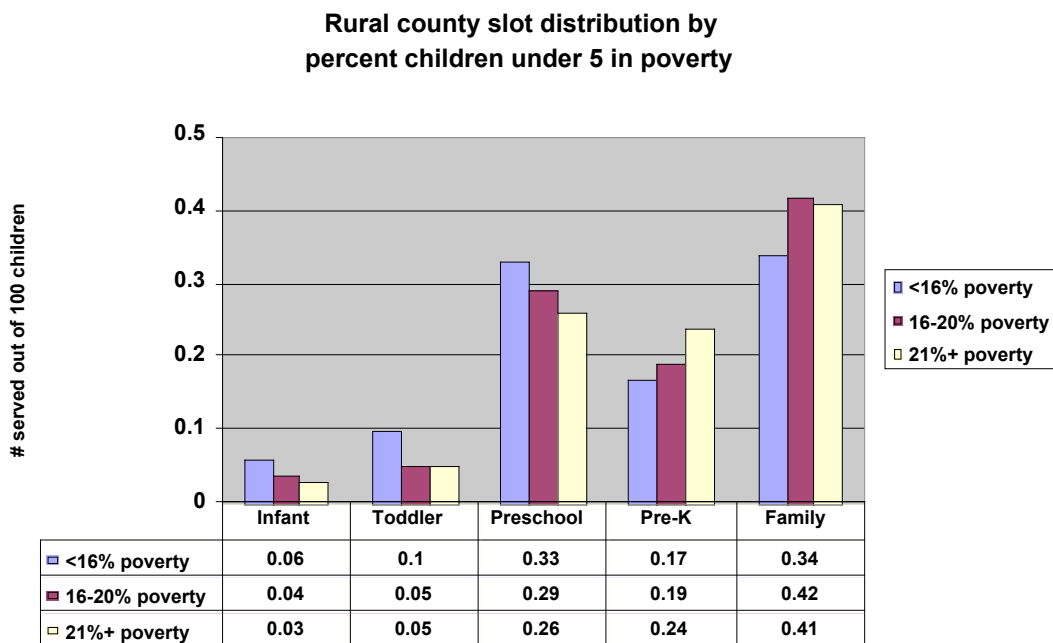


*Figure Note: “Age eligible” is defined as the following: Infant = 0- to 18-months; Toddler = 19-months to 3-years; Preschool = 3- to 4-years; Pre-K = 4-years; Family Child Care = 0- to 4-years

Key Findings for rural county slot distribution by total age-eligible children and poverty status

1. In rural counties with fewer children living below the poverty line (less than 16% of children in poverty; blue bars), a greater proportion of age-eligible children are

- being served in group child care settings that are not home based. This finding is true for infants, toddlers and preschoolers⁴.
- Public pre-kindergarten and family child care programs are serving greater proportions of age-eligible children in rural counties with higher rates of children living in poverty (red and yellow bars).

Figure 5

Key findings for rural county slot distribution by poverty status

- In rural counties with fewer children living in poverty (blue bars), a greater proportion of county slots are for center-based care, especially for the youngest children (infants and toddlers).

⁴ These findings are similar for all counties (including non-rural counties) across New York State. See Appendix D for figure with rural and non-rural counties combined.

2. In rural counties with more children living in poverty (red and yellow bars) a greater percentage of the early care and education slots are for family child care and public pre-kindergarten.

School District Level Analyses

NYS currently has 700 school districts located in 62 counties. This study excludes the NY City public schools as the inclusion of NYC data often comes from different sources and such inclusion is beyond the scope of this study. This study also excludes other districts that do not have financial, 4th grade test score, space, or pre-k data. The set of districts for this study totals 645 school districts from 57 counties.

Table 1 includes three parts. The top portion includes all districts in the study broken out by the NYSED defined *Needs-to-Resource Capacity* (N/RC) categories. We use these NRC categories for the remainder of the analyses in this section because the state commonly reports data on school districts using the N/RC categories. Beneath the table of the state data, is a breakdown of districts in rural vs. non-rural counties. We include a range of school district and census data to orient the reader to the qualities of the districts within the various NRC categories.

Key Findings

1) It is important to note the difference in the prevalence of pre-kindergarten. The first table in this section displays descriptive statistics for the study sample. All of the Big Four school districts (Buffalo, Rochester, Syracuse, and Yonkers) offer pre-kindergarten, followed by 91% of the other high need urban (excluding NYC) and suburban districts. This is in contrast to only 63% of the high need rural and average need districts. The

smallest proportion of districts offering pre-kindergarten are the low need districts, or districts serving the wealthiest communities.

Definitions for key variables used in this report:

% College Degree – An estimate (from the US Census) of the proportion of adults residing within the school district boundaries that have participated in college at some point.

% Level 3/4 ELA – English Language Arts state exam scores. This represents the proportion of 4th graders in each district that scored at a level 3 or 4 on the state ELA exam. A score of level 3 indicates proficiency on the exam.

% Level 3/4 Math – Mathematics state exam scores. This represents the proportion of 4th graders in each district that scored at a level 3 or 4 on the state mathematics exam. A score of level 3 indicates proficiency on the exam.

% Poor 0-5yrs – An estimate (from the US Census) of the proportion of children ages 0-5 residing within the school district boundaries that are living below the federal poverty line.

% Poor Pop – An estimate (from the US Census) of the proportion of people ages (of any age) residing within the school district boundaries that are living below the federal poverty line.

CWR – Combined Wealth Ratio. This is a NYSED-defined index incorporating both property wealth and household income per pupil. A district with an average level of wealth in the state has a value of one, with numbers smaller than one representing increasingly poor school districts and larger than one representing increasingly wealthy school districts.

Feet²/student – a gross measure of space representing the number of square feet of space in each school district (less any space for central administration or transportation) divided by the total enrollment (K-12) in the district.

FRPL – Federal Free and Reduced Price Lunch program. This represents the proportion of students in each district eligible for FRPL.

Per Capita Income – An estimate (from the US Census) of the per-capita income of all adults living within the school district boundaries.

UPK Offer – A binary variable indicating either that a school district has a state-supported preK program in place or does not.

Table 1. Means on Key Variables													
	# Districts	K12 Enrollment	% offer UPK*	Feet ² / Student	% Level 3/4 ELA #	% Level 3/4 Math #	% Poor 0-5yrs^	FRPL #	% Poor Pop.^	% College Degree^	CWR\$	Per Capita Income^	
NY State (except NYC)													
Big Four	4	29960	100.0%	162	55.9%	73.7%	37.4%	76.2%	26.6%	26.6%	0.55	\$17,137	
HN Urb/Sub	45	5085	91.1%	155	65.7%	82.2%	25.7%	60.8%	36.8%	36.8%	0.63	\$18,164	
HN Rural	150	1141	63.3%	208	66.9%	85.4%	22.2%	49.0%	37.7%	37.7%	0.49	\$16,068	
Ave. Need	331	2555	45.6%	193	75.6%	89.9%	10.5%	27.9%	53.0%	53.0%	0.84	\$21,376	
Low Need	115	3330	22.6%	169	87.9%	95.6%	3.9%	6.5%	69.4%	69.4%	2.20	\$37,976	
State Ave/Tot	645	2711	49.1%	189	75.0%	89.2%	13.2%	31.6%	51.1%	51.1%	0.99	\$22,876	
Non-Rural Counties													
Big Four	4	29960	100.0%	162	55.9%	73.7%	37.4%	76.2%	26.6%	18.1%	0.55	\$17,137	
HN Urb/Sub	37	5639	89.2%	146	65.0%	81.6%	25.5%	63.5%	36.1%	15.3%	0.66	\$18,393	
HN Rural	24	1255	58.3%	197	69.6%	85.3%	20.8%	49.3%	39.4%	11.2%	0.47	\$16,143	
Ave. Need	205	3316	44.9%	176	77.3%	90.7%	8.9%	25.2%	56.4%	22.6%	0.90	\$22,992	
Low Need	113	3385	22.1%	167	87.9%	95.5%	3.5%	5.8%	69.6%	41.7%	2.18	\$38,297	
Total	383	3710	43.9%	172	78.5%	90.7%	9.9%	25.2%	56.9%	26.8%	1.22	\$26,583	
Rural Counties													
Big Four	0												
HN Urb/Sub	8	2523	100.0%	192	69.0%	84.8%	26.3%	48.0%	40.3%	15.3%	0.53	\$17,105	
HN Rural	126	1119	64.3%	210	66.4%	85.5%	22.4%	49.0%	37.4%	12.0%	0.49	\$16,054	
Ave. Need	126	1318	46.8%	219	73.0%	88.5%	13.1%	32.4%	47.5%	16.4%	0.74	\$18,737	
Low Need	2	235	50.0%	308	87.0%	96.3%	23.4%	47.2%	59.7%	20.5%	3.54	\$19,800	
Total	262	1251	56.9%	214	69.8%	87.0%	18.1%	41.0%	42.5%	14.3%	0.64	\$17,410	

Source: *NYSED Chapter 655 Report (2006), ^NCES US Census school district estimates, *NYSED UPK data, ^NYSED Facilities data, \$NYSED Financial Files

Table 2. Pairwise Correlations for Key Variables													
	Infant Ratio	Toddler Ratio	Presch Ratio	Home Ratio	Pre-K Ratio	Have Pre-K	Space	%ELA	%Math	PerCap Income	FRPL	%Poor Children	
Infant Ratio	1.00												
Toddler Ratio	0.96 *	1.00											
PreSch Ratio	0.75 *	0.79 *	1.00										
Home Ratio	0.02	-0.02	0.01	1.00									
UPK Ratio	0.27 *	0.27 *	0.17 *	0.17 *	1.00								
Have UPK	0.06	0.06	0.05	0.14 *	0.76 *	1.00							
K12 Enrollment	0.05	0.09	0.08	-0.02	0.06	0.16 *	1.00						
Space	0.02	-0.03	-0.07	0.06	0.12 *	-0.32 *	0.03	1.00					
%ELA	0.11 *	0.17 *	0.06	-0.31 *	-0.26 *	0.06	-0.24 *	-0.20 *	1.00				
%Math	0.06	0.10	0.06	-0.25 *	-0.29 *	-0.04	-0.27 *	-0.12 *	0.77 *	1.00			
%Poor Children	-0.04	-0.07	0.06	0.33 *	0.39 *	-0.01	0.34 *	0.20 *	-0.59 *	-0.51 *	1.00		
%FRPL	-0.09	-0.12 *	-0.05	0.40 *	0.46 *	0.00	0.42 *	0.15 *	-0.65 *	-0.58 *	0.73 *	1.00	
%Poor Pop	0.01	0.05	0.00	-0.34 *	-0.40 *	0.06	-0.34 *	-0.17 *	0.58 *	0.50 *	-0.75 *	-0.74 *	
% College	0.13 *	0.21 *	0.17 *	-0.34 *	-0.26 *	0.18 *	-0.28 *	-0.22 *	0.60 *	0.44 *	-0.57 *	-0.68 *	
CWR	0.19 *	0.25 *	0.24 *	-0.31 *	-0.07	0.03	-0.14 *	-0.09	0.47 *	0.36 *	-0.37 *	-0.49 *	
PerCap Income	0.07	0.15 *	0.14 *	-0.37 *	-0.25 *	0.14 *	-0.25 *	-0.24 *	0.57 *	0.43 *	-0.55 *	-0.64 *	
TWPU	0.05	0.09	0.08	-0.01	0.06	1.00	0.15 *	-0.33 *	0.05	-0.05	0.00	0.01	

* = p ? .01

In Table 2, we present a table of correlations between key variables used in this portion of the study. Note the very strong relationship between the proportions of registered infant slots and the proportion of toddler slots available (.96). The link between the provision of toddler and preschool slots is also quite strong (.79). Note, however, that there is no relationship between toddler slot capacities and the capacities of family care slots (-.02). This indicates that there is something in common with communities that have a greater proportion of infant, toddler, and preschool slots. Conversely, a different dynamic is in play in communities with greater proportions of registered family or home care facilities. Working down the table, it is abundantly clear that the school districts serving wealthier and more highly educated members of the community, and which have higher elementary test scores, are also related to the higher proportional capacities of infant, toddler, and preschool slots. With regard to pre-kindergarten, the existence of a pre-kindergarten program (*Have Pre-K*) is strongly related to school districts serving a poorer general population and having greater proportions of children eligible for the federal free or reduced price lunch program.

Key findings:

- 1) Wealthier and more highly educated communities are related to having greater capacities of registered infant, toddler, and preschool slots.
- 2) Poorer and less educated communities are related to the greater capacities of registered family care facilities.

- 3) School districts with pre-kindergarten programs serve communities with greater proportions of poor children than do those districts with no pre-kindergarten.

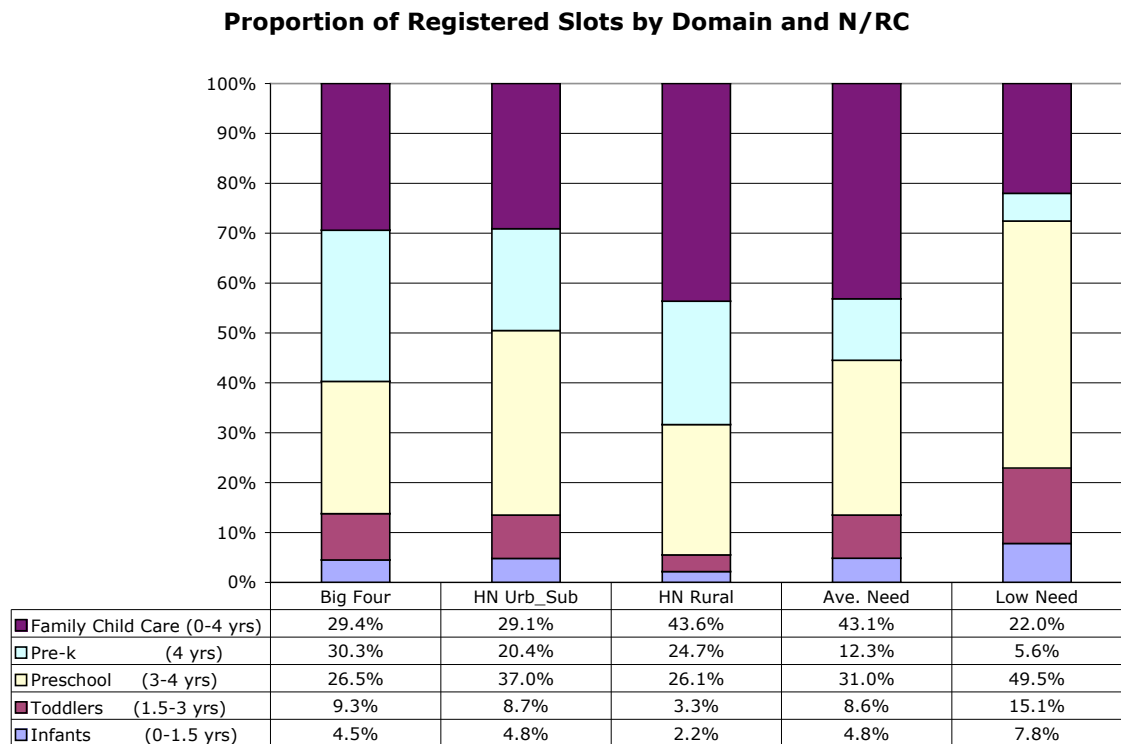
Table 3 displays the ratios of slots by modality and Needs-to-Resources Capacity categories first for the entire state and then divided into those in rural and non-rural counties. Each NRC category sums to 100% across the tables and provides data on the distribution of all registered slots for different types of districts. Figure 6 presents a visual display of the data in Table 3.

<i>Table 3 - Mean Percentage of all Registered Slots by Modality and NRC</i>							
NR/C Categories	# Districts	Infants (0-1.5 yrs)	Toddlers (1.5-3 yrs)	Preschool (3-4 yrs)	Pre-K (4 yrs)	Family Child Care (0-4 yrs)	Total
Entire State (except NYC)							
Big Four	4	4.5%	9.3%	26.5%	30.3%	29.4%	100%
HN Urb_Sub	45	4.8%	8.7%	37.0%	20.4%	29.1%	100%
HN Rural	150	2.2%	3.3%	26.1%	24.7%	43.6%	100%
Ave. Need	331	4.8%	8.6%	31.0%	12.3%	43.1%	100%
Low Need	115	7.8%	15.1%	49.5%	5.6%	22.0%	100%
State Ave.	645	4.8%	8.6%	33.6%	14.7%	38.4%	100%
Non-Rural Counties							
Big Four	4	4.5%	9.3%	26.5%	30.3%	29.4%	100%
HN Urb_Sub	37	4.4%	8.6%	38.6%	20.4%	28.0%	100%
HN Rural	24	2.7%	4.7%	28.3%	29.4%	34.9%	100%
Ave. Need	205	5.8%	10.3%	36.4%	10.9%	36.6%	100%
Low Need	113	8.0%	15.4%	50.4%	5.1%	21.2%	100%
Rural Counties							
Big Four	0						
HN Urb_Sub	8	6.6%	9.0%	29.5%	20.3%	34.6%	100%
HN Rural	126	2.1%	3.1%	25.7%	23.8%	45.3%	100%
Ave. Need	126	3.3%	5.9%	22.3%	14.7%	53.8%	100%
Low Need	2	0.0%	0.0%	0.0%	30.0%	70.0%	100%

Key Findings:

- Infant, toddler, and preschool capacity is least prevalent in the high need rural districts. Specifically, only 2.2% of all registered slots in the high need rural districts are for infants (and 26% for preschool) versus 7.8% in the low need areas (where 50% of all slots are for preschool).

- Family care slots make up the largest proportion (44%) of all registered slots in the high need rural districts. This is in contrast to 29% in the Big Four and only 22% in the low need areas.
- Only 25% of all slots in high need rural areas are for pre-kindergarten, in contrast to 30% in the Big four.

Figure 6

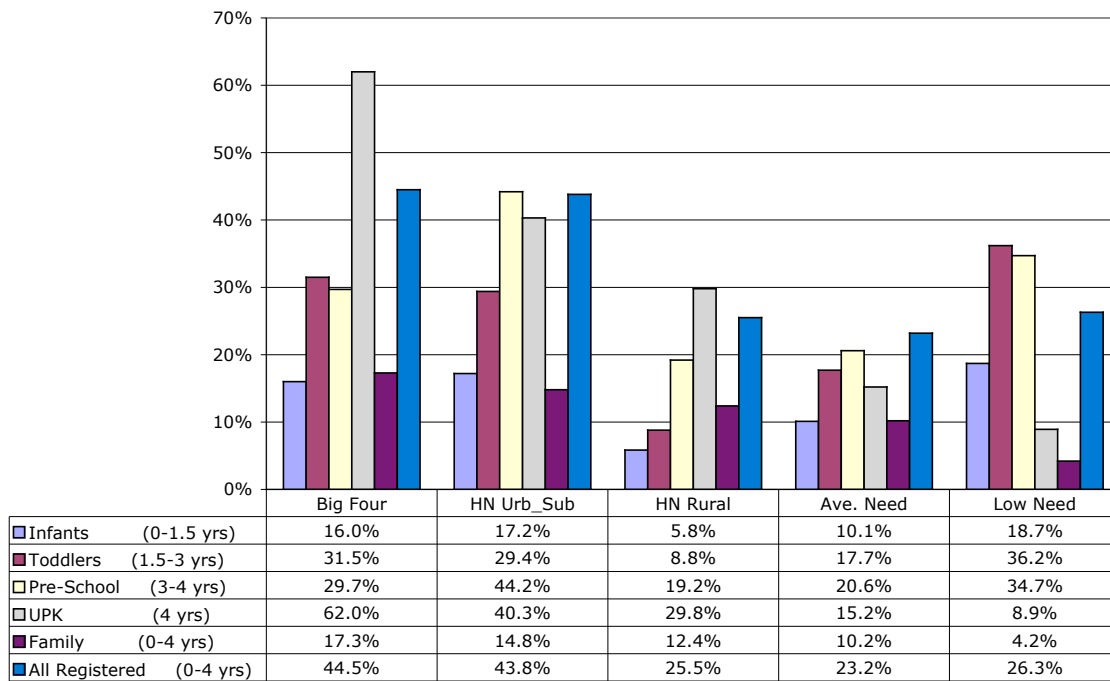
One of the core goals of this study is to document the proportion of children served in various modalities in light of the total age-eligible population. Table 4 displays the proportions of children served by modality and NRC category. Across the state, just over 11% of infants (ages 0-18 months) can be served in center-based infant care. This varies from a low of 5.8 % in high need rural areas to 17.2% in high need urban and

suburban districts and 18.7% in the low need districts. This pattern follows for the toddler and preschool capacities. While difference between the poor rural and the low need districts may be obvious and attributed to resource availability, the comparison between the high need rural and the high need urban and suburban districts is most salient in uncovering the unique effect of rural settings. Across the modalities, there is two to three times as much capacity in the high need urban and suburban areas than in the high need rural areas: Infants (17% to 6%), toddlers (29% to 9%), preschool (44% to 19%), pre-kindergarten (40% to 30%), and even for family care (15% to 13%). Finally, when accounting for all slots in all domains, only 25.5% of all 0- to 4-year-olds in high need rural areas can be served by the available slots. This is in contrast to nearly 45% in the Big Four and the high need urban and suburban areas. Figure 7 provides a visual display of these findings.

Table 4 - Mean Percentage of Age-Eligible Children Served by Registered Domain

	Infants (0-1.5 yrs)	Toddlers (1.5-3 yrs)	Preschool (3-4 yrs)	Pre-K (4 yrs)	Family Child Care (0-4 yrs)	All Registered (0-4 yrs)	Unknown (0-4 yrs)
Entire State (except NYC)							
Big Four	16.0%	31.5%	29.7%	62.0%	17.3%	44.5%	55.5%
HN Urb_Sub	17.2%	29.4%	44.2%	40.3%	14.8%	43.8%	56.2%
HN Rural	5.8%	8.8%	19.2%	29.8%	12.4%	25.5%	74.5%
Ave. Need	10.1%	17.7%	20.6%	15.2%	10.2%	23.2%	76.8%
Low Need	18.7%	36.2%	34.7%	8.9%	4.2%	26.3%	73.7%
State Ave.	11.2%	19.8%	24.5%	19.6%	10.0%	25.8%	74.2%
Non-Rural Counties							
Big Four	16.0%	31.5%	29.7%	62.0%	17.3%	44.5%	55.5%
HN Urb_Sub	15.2%	28.2%	45.8%	40.3%	14.2%	43.5%	56.5%
HN Rural	5.2%	9.7%	15.5%	28.0%	8.6%	20.7%	79.3%
Ave. Need	11.7%	21.6%	23.8%	13.7%	8.5%	23.5%	76.5%
Low Need	19.0%	36.8%	35.3%	7.9%	4.0%	26.4%	73.6%
Total	13.9%	26.2%	28.9%	15.9%	7.8%	26.3%	73.7%
Rural Counties							
Big Four							
HN Urb_Sub	26.0%	34.7%	37.2%	40.4%	17.6%	45.1%	54.9%
HN Rural	6.0%	8.6%	19.9%	30.1%	13.1%	26.4%	73.6%
Ave. Need	7.5%	11.6%	15.5%	17.7%	12.9%	22.6%	77.4%
Low Need	0.0%	0.0%	0.0%	64.3%	13.5%	23.7%	76.3%
Total	7.3%	10.8%	18.2%	24.7%	13.1%	25.1%	74.9%

Figure 7

Proportions of Slot Capacity by Modality and NRC categories**Key Finding:**

- Regions served by high need rural school districts have substantially less capacity in all modalities than do those living in areas served by high need urban and suburban school districts. *The more urban locations have two to three times the capacity for age-eligible infants, toddlers, preschool, and pre-kindergarten participants.*

The final analysis is multi-variate and draws on several important variables to predict in which school districts center-based infant care and pre-kindergarten programs are, or are not, available. To account for the non-normal distributions, we have broken several of the variables into quartiles. In using quartiles in the model, the effects of the various quartiles are always in comparison to the lowest (or 1st) quartile. For the infant analysis, we use a logistic regression model (binary outcome) to assess the relationship of the presence of a infant care program(s) to the Needs-to-Resource Capacity categories, ELA test scores, education level of adults in the communities, the proportion of children eligible for federal free or reduced price lunch, and the K-12 enrollment of the school district as a proxy for the size of the community.

The findings for the infant care analysis are found in Table 5. Of note, the proportion of college educated adults living within the school district boundaries, and the size of the community (represented by K-12 enrollment) are both strongly and positively related to the provision of infant care in their community. In other words, the larger and more educated the community, the more likely the community is to have registered infant care. Above and beyond the effect of education and size, is the distinct effect of urbanicity. High need districts in urban and suburban areas are nearly three times as likely to have at least one registered infant care program than high need districts in rural areas.

<i>Table 5 - Odds Ratios for predicting center-based infant care with in school district boundaries</i>						
	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]	
NRC - HN Urb-Sub	2.93	1.60	1.97	0.05	1.00	8.52
NRC - Ave Need	0.88	0.29	-0.38	0.70	0.46	1.68
NRC - Low Need	0.65	0.34	-0.82	0.41	0.23	1.82
4th grade ELA (% lev 3 & 4)	1.00	0.01	0.04	0.97	0.98	1.02
%College 2nd Quartile	1.60	0.45	1.66	0.10	0.92	2.77
%College 3rd Quartile	2.88	0.95	3.20	0.00	1.51	5.51
%College 4th Quartile	2.80	1.21	2.39	0.02	1.20	6.52
% Poor Children	0.74	0.24	-0.94	0.35	0.40	1.38
% Poor Children	0.47	0.17	-2.15	0.03	0.24	0.94
% Poor Children	0.80	0.33	-0.55	0.59	0.35	1.81
Enrollment 2nd Quartile	2.70	0.72	3.71	0.00	1.60	4.57
Enrollment 3rd Quartile	9.21	2.65	7.72	0.00	5.24	16.19
Enrollment 4th Quartile	14.72	4.97	7.96	0.00	7.59	28.53
Dependent Variable = Have Registered Infant Care? (0=no, 1 = yes)						
Pseudo r squared = 25%						
Comparison group for quartiles is 1st (lowest) quartile						

Table 6 reports the findings from the model predicting membership in the group of districts providing pre-kindergarten as of the 2006-2007 school year. This model is slightly different from the infant model in that more school district variables are included. The included variables represent the common correlates found to be of import in previous analyses and represent common perceptions that may influence the decision to offer pre-kindergarten in the district.

The findings highlight the importance of space, student wealth, and enrollment in determining whether districts offer pre-kindergarten or not. While the level of education of adults in the community and the 4th grade ELA scores appear to not matter, the total space (square footage) available per student (K-12) is strongly related. Specifically, districts in the 2nd, 3rd, and 4th quartiles of space are at least 2.5 times as likely to offer pre-kindergarten than the lowest quartile. With regard to the population of poor students served by the school district, the 2nd quartile is four times as likely, and the top half of all districts are more than 11 times as likely, than the first quartile (i.e., the least poor student population) to offer pre-kindergarten. School district enrollment is also strongly related to

the provision of pre-kindergarten, with the largest three quartiles 2, 3.7, and 12 times as likely to offer pre-kindergarten as the districts with the smallest enrollments.

Finally, above and beyond the effects just described, districts classified as high need and suburban or urban by the SED are two and a half times as likely to offer pre-kindergarten than those categorized as high need and rural.

<i>Table 6 - Odds Ratios for predicting presence of Pre-K in school districts.</i>						
	Odds Ratio	Std. Err.	z	P>z	[95% Conf. Interval]	
NRC - HN Urb-Sub	2.69	1.62	1.64	0.10	0.83	8.75
NRC - Ave Need	0.74	0.25	-0.89	0.37	0.38	1.44
NRC - Low Need	0.88	0.49	-0.23	0.82	0.30	2.62
4th grade ELA (% lev 3 & 4)	1.00	0.01	-0.28	0.78	0.98	1.02
%College 2nd Quartile	0.69	0.19	-1.38	0.17	0.41	1.17
%College 3rd Quartile	0.64	0.21	-1.38	0.17	0.34	1.21
%College 4th Quartile	0.74	0.31	-0.72	0.47	0.32	1.69
Sq Feet/Student 2nd Quartile	2.52	0.74	3.14	0.00	1.42	4.50
Sq Feet/Student 3rd Quartile	2.48	0.77	2.92	0.00	1.35	4.57
Sq Feet/Student 4th Quartile	3.42	1.14	3.70	0.00	1.78	6.56
FRPL 2nd Quartile	3.99	1.60	3.46	0.00	1.82	8.74
FRPL 3rd Quartile	12.66	5.77	5.57	0.00	5.18	30.92
FRPL 4th Quartile	11.24	6.12	4.44	0.00	3.86	32.70
Enrollment 2nd Quartile	1.97	0.54	2.48	0.01	1.15	3.38
Enrollment 3rd Quartile	3.71	1.19	4.08	0.00	1.98	6.95
Enrollment 4th Quartile	12.37	4.64	6.71	0.00	5.93	25.80
Dependent Variable = Have UPK? (0=no, 1 = yes)						
Pseudo r squared = 21%						
Comparison group for quartiles is 1st (lowest) quartile						
Comparison group for NRC categories is 'High Need Rural'						

Key Findings:

- 1) Districts in the 2nd, 3rd and 4th quartile for square footage per student are 2-3 times more likely to offer pre-kindergarten than the lowest quartile.
- 2) Districts serving greater proportions of poor children are 4, 12, and 11 times as likely to offer pre-kindergarten than the lowest quartile.
- 3) Districts serving greater numbers of students are 2, 4, and 12 times as likely to offer pre-kindergarten than the smallest enrollment quartile.
- 4) Even after controlling for FRPL, space, education level, and size, the high need urban and suburban school districts are more than two-and-a-half

times as likely to offer pre-kindergarten than their high need rural neighbors.

Snapshot

What follows is a brief description of one county's early learning programs that are tied to Head Start. The information provided here is based on a series of phone conversations with Head Start officials in the county. This description demonstrates the complexity of the early care and education system where programs such as Head Start or Universal Pre-kindergarten operate for less than a full day. Consequently, children participate in multiple programs simultaneously, funding streams are often "blended" or "braided", and program operations are often shared (teachers from Head Start and from pre-kindergarten in the same classroom).

Snapshot: Rural County Provision (2006-07)

Summary: Early care and education is uniquely represented in New York's rural counties. An informal interview allowed us to take a closer look at one county's formats and collaborations. We intend to describe how 260 children, ages 0-5, are served in this sample rural county. The selected information below provides detail regarding the varied contexts, funding streams, service delivery, and staffing in two center-based Head Start sites, four school-based Head Start prekindergarten classrooms and Home-Based Head Start.

Two center-based programs sites

Site 1: serves a total of 74 children (0-5 years old) and their families

50 children (3-5 years old)

24 children (0-3 years old)

Site 1 operates with 100% Head Start funding and includes both infant and preschool programming. This center-based program is housed in a self-contained freestanding building in a larger village of the county. The building is currently owned by the lead agency, but formerly functioned as a personal residence, a nursing home, and a church.

Presently as a Head Start Center, on-site services are provided to preschool, toddlers, and infants. Children receive bus service at no cost to the families, however parents can and are encouraged to transport their children. Most families rely on Head Start to transport their children, as there is little reliable public transportation available. This center operates on the school calendar, 10 months/year for 3-, 4-, and 5-year-old children. The sample county does not provide wrap around care, summer or after-school hour services for preschoolers. However, the infants and toddlers at Site 1 do receive home-based care during the summer months.

Site 1 serves 50 preschoolers (3- to 5-year-olds) in Head Start and 24 Early Head Start children, (0- to 3-year-olds) in the same building. Program participants attend 6 hours per day, four days per week (Monday-Thursday). Pregnant mothers can attend Early Head Start; their children can enter the program when they are between 6-8 weeks old and remain in the program until they are 3. Three year olds typically transition into the Head Start Program.

Site 2: serves a total of 61 children

24 children (0-3 years old)

37 children (3-5 years old)

Site 2 consists of two purpose-built, L shaped buildings that house 61 children (ages 0-5). One building houses 37 Head Start preschoolers (3-5 year olds), the other houses 24 children in Early Head Start (0-3 year olds). The site is located in a very small community surrounded by farmland. Children can look out of their windows and see goats and other livestock. The two buildings share a common playground.

Four school-based Head Start classrooms

Serves 64 children (3-5 years old)

Four Head Start full-day prekindergarten classrooms are housed in a school district elementary school setting. Each classroom enrolls approximately 16 eligible children from around the county. Head Start does not pay rent; space in the school district building is regarded as an in-kind contribution. Head Start personnel staff all but one of the classes. However, in one of the four classrooms, the school district and Head Start combine staffing and assign one district teacher (with New York State teacher certification) and two Head Start aides to the class.

Home-Based Head Start serves a total of 56 children

8 children (0-3 years old)

48 children (3-5 years old)

Infant, toddler and preschool children and their families receive home visits by a Head Start teacher for approximately 1 _ hour per week. Teachers travel to each child's home for delivery of Home-Based Head Start programming. Most of home-based families are located in extremely remote areas. Many of these parents prefer that their children be enrolled in center-based programs, but it is not feasible to send buses to such remote locations.

Home based HS-Teachers travel to children's home for 1 _ hour per week to work with the family and the child. Most of these families are located in extremely remote areas. Many home-based parents prefer that their kids be enrolled in center-based programs, but it is not possible/feasible to send buses to remote locations.

“Caveats” for Current Data and Study

When working across multiple data sets, unique challenges often arise. What follows is a list of some of these issues that should be kept in mind when considering the findings from this report. In some instances, the challenges point to future analyses or areas for further exploration. In others, they are simply factors for which the reader should be aware.

- The years for when data are gathered are different for the different data sets. Census data are from 2000. OCFS data is continually updated with a snap-shot provided to us by OCFS in June of 2007. SED data are from 2006-2007 school year. For purposes of this report, we assume little change in individual variables from year to year. However, in reality, these variables do change over time. Future work can address this issue by using averages across years and making other adjustments to account for year-to-year variations.
- There is a significant issue related to overlap in slots, especially at the preschool age level. State pre-kindergarten and Head Start are less than full day programs so children often participate in more than one program (including community child care programs) to make a full day of early learning. In the full data set used for these analyses, there is likely to be significant overlap between pre-kindergarten slots and preschool slots. Our understanding through examining the data and in discussions with OCFS, is that most Head Start programs are likely included in the preschool data because if they operate more than three hours a day outside of public school buildings, they are regulated by OCFS. Head Start programs that operate in public school buildings may be missing from the current data, or they

may be included in the pre-kindergarten numbers. Because we are unable to tease apart the overlap at this point, the estimates presented here represent an over-estimation. In the future, these overlaps need to be addressed using data from case studies and surveys geared toward better understanding the overlap of program slots to create full day early care and education for young children.

- Early care and education slots do not represent actual program enrollment. Because we look at the total number of slots a program is licensed to operate, and do not yet have information on the actual number of children being served in a program, the numbers presented here are likely an overestimation of the actual number of children in the various settings. Currently, data on enrollment is gathered by individual programs, but not reported to any state agency. Case studies and survey work would need to be completed in order to better understand the relationship between slots and true enrollment.
- Informal child care arrangements (e.g., child cared for by a grandmother) are known to be very common. However, they often take place outside the regulated systems of early care and education. Because of this fact, it is very difficult to gather data on this type of child care. However, if an informal child care provider receives a child care subsidy, then minimal data do exist through OCFS. A preliminary look at these subsidy data do in fact suggest that informal arrangements are numerous and likely cover a significant proportion of the age-eligible children not served in the early care settings used for these analyses. Future research should more completely address this issue.

Conclusions

This is a study of the capacity of communities across New York State to serve the youngest segment of society in state-registered programs. While we are under no false pretense that the programs studied herein represent the totality of offerings available to children and their families, they represent a key set of strategies by which the state of New York both monitors and supports the care and education of young children. Chief among the current policy efforts in NYS is the move towards a truly universal pre-kindergarten program in which all school districts offer the availability for pre-kindergarten to the four-year-old children in their community. Questions have been raised about the impact of this change in rural areas and to assess the current state of state-regulated care and education in rural portions of New York State. This study is our initial attempt to answer these questions.

This report presents considerable evidence of variation in the patterns of early-child care and education between rural and non-rural settings. These differences are at both the county and school district units of analysis with a consistent lag of services provided to the rural communities in comparison to the non-rural areas of NYS. We documented areas of service that are wealth sensitive (e.g., infant and toddler center-based care is strongly related to the wealth and education level of the adults in the community. Conversely, the past policy of making funds available to school districts based on need is also reflected in the finding that school districts serving poorer communities are much more likely to offer pre-kindergarten programming than are their wealthier neighbors.

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Appendices

Appendix A

Rural Education Advisory Committee

Purpose

The REAC is a “stand alone” entity created by the state Legislature to promote rural education pursuant to Chapter 766 of the Laws of 1990 as amended. The Committee is comprised of seven members appointed by the Governor, Legislature and Commissioner of Education to four year terms and who are reflective of the diversity of the state’s rural population, geographic areas and broad-based community interests. The Commissioner of Education or his or her designee serves as chair of the Committee.

Members (2007)

Alan Pole, Chair, District Superintendent, DCMO BOCES, Norwich, NY

Ronald Dougherty, Owego, NY

Edward Engel, Oakfield, NY

Lawrence A. Kiley, Executive Director, Rural Schools Association of New York State, Cornell University, Ithaca NY

Marjorie McCullough, Hammond, NY

Samuel Shevat, Superintendent of Schools, Cobleskill-Richmondville Central School, Cobleskill, NY

Renee Williams, Assistant Superintendent Honeoye Falls-Lima Central School District, Honeoye Falls, NY

Advisors:

Peter Applebee, Assistant Director, NYS Senate Finance Committee, Albany, NY

Ronald Brach, Executive Director, NYS Legislative Commission on Rural Resources, Albany, NY

Deborah Cunningham, Coordinator for Educational Management Services, NYS Education Department, Albany NY

Appendix B Early Learning Programs in New York State

New York State Registered Child Care Program Descriptions

All programs are regulated by the state Office of Children and Family Services and can serve children ages 6 weeks through 12 years and operate more than three hours a day.

Day Care Centers – provide care for more than six children at a time, not in a personal residence.

Small Day Care Centers – provide care for up to six children, not in a personal residence.

Family Day Care Homes – provide care for three to six children at a time in a residence; may add one or two school-age children. The maximum allowable number of children will depend on whether there are and how many infants are in care.

Group Family Day Care Homes - provide care for seven to twelve children at a time in a residence; may add one or two school-age children. The maximum allowable number of children will depend on whether there are and how many infants are in care. A provider must use an assistant when more than six children are present.

Source: New York State Office of Children and Family Services. Available at www.ocfs.state.ny.us/ccfs_facilitysearch/facilityTypeInfo.html

New York State Pre-Kindergarten

State funded Pre-Kindergarten in NYS supports half-day programming (2.5 hours) for four-year-olds for the school year. Funding per pupil ranges from \$2,700-\$5,750. School districts administer the Pre-Kindergarten program (although a minimum of 10% of instructional services must be provided outside public schools.) In recent years, Pre-Kindergarten has included both Universal Pre-Kindergarten and Targeted Pre-Kindergarten programs. However, in the 2007-2008 school year, these programs will be rolled into a single program.

Source and for more information about NYS Pre-Kindergarten, see <http://www.emsc.nysed.gov/nyc/upk.html> or www.winningbeginningny.org

Head Start

Head Start is a national program that promotes school readiness by enhancing the social and cognitive development of children through the provision of educational, health, nutritional, social and other services to enrolled children and families. The Head Start program provides grants to local public and private non-profit and for-profit agencies to provide comprehensive child development services to economically disadvantaged children and families, with a special focus on helping preschoolers develop the early reading and math skills they need to be successful in school. In FY 1995, the Early Head Start program was established to serve children from birth to three years of age in recognition of the mounting evidence that the earliest years matter a great deal to children's growth and development.

Source and for more information:

<http://www.acf.hhs.gov/programs/hsb/>

Appendix B (continued)

Staff/Child Ratios

The following table compares staff-to-child ratios by age range, group size, and standard. See Notes at bottom of page for more information.

[illegible]

Appendix C

Table ***. Early Care and Education Slot Distribution (% of total slots) in Rural Counties

County	Infant	Toddler	Preschool	Pre-K	Family
Allegany	4	8	27	29	32
Cattaraugus	6	9	28	34	23
Cayuga	2	3	26	20	49
Chenango	1	2	16	28	53
Clinton	4	5	34	6	50
Columbia	6	9	34	6	46
Delaware	4	7	30	8	52
Essex	2	3	22	15	58
Franklin	2	4	27	25	42
Fulton	2	6	14	47	30
Genesee	12	15	32	13	28
Greene	0	2	45	20	33
Hamilton	0	0	0	43	57
Herkimer	2	2	23	34	40
Jefferson	4	6	23	14	52
Lewis	4	8	52	9	26
Livingston	4	6	34	28	28
Madison	6	10	35	25	24
Ontario	8	13	37	13	28
Orleans	11	11	34	18	25
Oswego	2	6	20	25	48
Otsego	7	7	49	10	27
Schoharie	4	12	47	6	31
Schuyler	0	0	20	16	64
Seneca	5	6	24	20	45
St. Lawrence	2	3	20	26	49
Steuben	5	8	27	20	39
Sullivan	6	7	33	19	35
Tioga	2	3	28	28	39
Washington	2	4	20	9	65
Wayne	7	12	46	13	23
Wyoming	6	10	20	30	33
Yates	3	5	30	24	38

Appendix D

**Slot distribution for age eligible children by
percent children under 5 in poverty**

