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# Space to Learn and Grow: Assessing the Capacity of a Regional Early Care and Education System

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# Space to learn and grow:
# Assessing the capacity of a regional early care and education system

## Introduction

When driving the streets in Cleveland, Ohio and throughout Cuyahoga County, it is impossible not to notice a recurring and hopeful part of the landscape – child care centers. Such is the case in many urban metro areas. Called variously preschool, nursery, Head Start, daycare, and child care, these many programs provide essential care and early learning opportunities for our youngest children. With names that include words like beginning, play, learning, bright, enrichment, discovery, steps, and future, these facilities all seek to improve the lives and futures of our community's children. Along with an array of home-based care, they comprise the early care and education system in Cuyahoga County.

In order to best plan and prepare for the pursuit of increased early care access (and ultimately UPK), a crucial first step was to understand the current and projected status of the early care system in the County. To this end, IIC asked the Case evaluation team to plan and conduct an early care and education capacity study. The present study seeks to provide a detailed assessment of the County's early care system in regard to its current and projected capacity, the current and projected use/demand, and the projected gap between the two that would need to be filled if the system is to meet the needs of all children and their families. The focus of the study is on regulated care, which includes care at facilities that are either licensed by the Ohio Department of Education or Ohio Department of Job & Family Services or certified by Cuyahoga Employment & Family Services. Unregulated care, which is excluded from the analysis, involves care available through a category of limited home providers (parent provider inspected or PPI).

Summary of Relevant Research

The capacity of early care and education systems in a given geography is a widespread consideration in communities across the United States. Full-fledged studies of such capacity and/or needs assessments, however, are far fewer. Identified examples from local communities engaged in such studies are rare, but good illustrations are available from California (Cuthbertson, Burr, Fuller, & Hirshberg, 2000; Hoepke, Cho, & Owen, 2001) and New York (Citizens' Committee for Children, 2001; Wyatt, 2001), though some state-wide analyses have also presented county-level data (e.g., Oregon Child Care Research Partnership, 2003).

The commonality of these studies is a focus on assessing some measure of the supply of child care as well as a measure of the demand or need for child care (Smith, 2004). Data on the supply of care routinely come either from a local child care resource and referral agency or from a state or county child care licensing division (Jacobson, Hirsberg, Malaske-Samu, Cuthbertson, & Burr, 2001), but these sources may not provide comparable estimates. Measures of demand for child care can be separated into expressed demand and potential demand. Expressed demand is the demand for care by families under existing parameters (e.g., accessibility, cost, quality, family factors) and is observable from measures of how much of the current capacity is in use by families. Potential demand, however, gets at the demand for care that could exist under different scenarios or using varying criteria for need. For example, data on family structure and work patterns might suggest the relative need for care by a given family. Alternatively, the policy context might dictate that all families or all families in a given category are to have access to care (i.e., UPK alternatives). Data on demand for care may come from the Census or other administrative records or may be extracted from community surveys that address this topic. A

key consideration for both the estimates of supply and demand is that they relate to the specific geography of interest and be comparable in regard to the time-frame to which they refer. In addition, given the impact of public policy and funding decisions on capacity of care, the role of these factors should be considered in the interpretation of any specific data findings (Cochi Ficano, 2006).

The discussion of supply and demand for care is helpful in many respects. However, it should be noted that for the purposes of proactively meeting community need for care, as demand approaches current supply levels, actions are required to address the tightening of the market. As such, the local child care resource and referral agency (Starting Point) has adopted benchmarks for monitoring the availability of care. Specifically, when the ratio of enrollment to capacity reaches 70% in a given geography, this results in the area being examined more closely to ensure that sufficient care will be available in the future. In addition, when the ratio of enrollment to capacity reaches 85% this triggers a more concerted effort to actively develop new care providers and/or expanded capacity. Later in this report, areas at 70% enrollment or higher are identified as in a "watch" status and areas at or exceeding 85% enrollment are identified as in "warning" status.

The discussion of child care capacity is naturally and inherently linked to considerations of program quality. Much research is available on the relative quality of care as well as criteria by which to judge quality (Henry, Gordon, & Rickman, 2006; Ramey & Ramey, 2004). Summaries of available evidence on early care and education show a range of return on investment from early care, with the highest quality programs showing the greatest returns (Gilliam & Zigler, 2000; Karoly, Kilburn, Cannon, Bigelow, & Christina, 2005; U.S. Department of Health and Human Services, 2003). Further, studies of the link between early care quality and

later cognitive and social development among children continue to emerge and many are ongoing (Gormley, Gayer, Phillips, & Dawson, 2005).

## Geographic Context

The local geographic context for this study is Cuyahoga County, Ohio, the most populous county in Ohio. The County comprises 458 square miles, and contains a total of 36 neighborhoods (within the City of Cleveland) and 58 suburban municipalities. Cuyahoga County is located in northeastern Ohio and is bordered on the north by Lake Erie. Based on 2005 American Community Survey data from the U.S. Census Bureau, Cuyahoga County has 1,305,166 residents. Between 2000 and 2005, the County experienced a 6.4% decline in its total population, a 7.6% decrease in the child population under age 18, and a 6.1% decrease in the child population under age six (i.e., the IIC target population). The racial profile of the County is 64% non-Hispanic White, 29% African American, 2% Asian, <1% Native American, and 3% other races. The proportion of persons reporting Hispanic or Latino origin is 4%. Among the family households with children under 6, 64% are married-couple families and 28% are female-headed families. The median household income is $39,752, lower than the median household income for the State and the nation, $43,493 and $46,242, respectively. One out of every seven families in Cuyahoga County lives in poverty. Twenty-eight percent of children under age six live below 100% of the federal poverty standard. Among children under age six, 67% reside with a parent (or both parents) in the labor force.

## Methodology

The study is organized around three central research questions:

1. What is the number of children enrolled in regulated child care in Cuyahoga County by age, community, provider type, and hours of operation?
2. What is the number of child care slots in Cuyahoga County in regulated child care settings by type of care, hours of operation, and location?
3. What is the projected number of child care slots needed in Cuyahoga County if universal pre-kindergarten (UPK) programs are to be offered (by location and provider type)?

The study draws chiefly on two existing data sources:

1. Database on Regulated Care as of November 2005

Data on existing center-based and home-based child care slots in Cuyahoga County are maintained by Starting Point, the County's child care resource and referral agency. The child care slots in this database are exclusively regulated child care, which is likely to be an underestimate of the actual number of slots available because of the amount of unregulated care in the community. Part-time and full-time slots are included in the data set. Information on each child care slot in the database includes location of regulated child care slot, age of children served, and number of children served. Center-based programs are designated in one of four categories: (a) public preschool, (b) private preschool, (c) Head Start, and (d) private child care. Public preschool is defined as programs that are located at a public school, are funded by the Ohio Department of Education (ODE), and accept children with special needs. Private preschool is defined as programs that though not funded by ODE may be licensed by ODE and are uniformly part-day programs. Head Start programs are those either directly operated or contracted by the Head Start delegate agency operating in Cuyahoga County (Council for Economic Opportunities of Greater Cleveland). Private child care is defined as all programs not

covered under the other center categories and must offer full-day care. Family child care programs are divided into two categories: (a) Type A homes which are licensed by the Ohio Department of Job & Family Services and can accommodate up to 20 children, and (b) Type B homes which are certified by Cuyahoga Employment and Family Services and can generally serve no more than 6 children. A third category of homes, Limited Providers or Parent-Provider Inspected (PPI) homes, are excluded from this study because they are considered unregulated and can only serve the children of a single family at any point in time.

2. *2000 U.S. Census Data for Cuyahoga County*

County-level Census data are along with Public-Use Microdata Sample (PUMS) data containing detailed information from a 5% random sample of the population in Cuyahoga County in 2000. The PUMS data allow for the analysis of the numbers of working families who might benefit from UPK-type services. In addition, population estimates and projections were prepared by researchers at the Northern Ohio Data & Information Service at Cleveland State University. For the purposes of calculating numbers of children in 2005 and forward to 2010, "estimate" refers to a population calculation for a period up to the current year, whereas "projection" refers to a calculation for a future period.

Analytic methods

The methods used in the analysis differ depending on the age group of the children under consideration, with the most detailed techniques being applied to the preschool age population. Essentially three methods are used for assessing/estimating demand for care:

First, demand is assessed by examining the current enrollment of children in early care and education relative to the existing capacity. Using data from Starting Point, the numbers of child care slots in Cuyahoga County were examined along several dimensions (e.g., provider

type, care type, community). Data on these dimensions were tabulated for a specific index quarter (i.e., July-September 2005). This approach seeks to estimate the current and projected slot "gap" for early care among families in Cuyahoga County. The gap is computed in two ways. First, the difference between current slot capacity and slot use is computed (Equation 1). See **Figure 1**. This value reflects the number of vacant slots that currently exist, since in all cases the number of slots available exceeds the number of slots in use. This calculation shows the amount of excess capacity the system currently contains. The second value (Equation 2) computes the difference between a projected need for slots and the existing capacity of slots. The projected slot gap value can be positive or negative and depends on the method used to estimate need for care slots.

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INSERT FIGURE 1

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Second, the need for care was projected using Census information about the work status of parents. Based on Census 2000, families with young children were categorized according to the family structure (single or two-parent) and the parental work status. Each parent was categorized as either employed, in school, unemployed, or not in the labor force (NILF). Working with program operators a determination was developed in regard to the likely need for care for twelve different household types. These were then grouped into four categories: (1) married couple households needing a full-day slot, (2) single parent households needing a full-day slot, (3) married couple households needing a part-day slot, and (4) single parent households needing a part-day slot. Under this approach, all families with children are presumed to need at least a part-day slot.

Subsequently, the proportions of children residing in each household type were computed based on the 2000 Census and the relative proportions were applied to population projections going forward to 2010. For example, in 2000 33% of 3-5 year olds lived in a married couple household needing a full-day slot, 28% lived in single parent household needing a full-day slot, 27% lived in a married couple household needing a part-day slot, and 12% lived in a single parent household needing a part-day slot. By applying these proportions to years beyond 2000, the presumption is that the proportions from 2000 approximate the actual proportions over the subsequent ten years.

Though the data on regulated slots can be geocoded into any geography (e.g., at the neighborhood level), the data on Census-derived need is limited to Census level areas called Public-Use Microdata Areas (PUMAs). For these areas, of which there are 12 in Cuyahoga County (including 4 in the City of Cleveland), the magnitude of the slot gap can be reliably estimated, but this is not the case for smaller geographies. The analysis generates numbers of families at varying income levels where there appears to be a need for care. This offers a measure of the overall potential demand for care slots in the County (Smith, 2004). Using 2000 as the base year, annual projections are made going forward to the year 2010. Estimates of overall demand will be most precise at the County level, with more variability for estimates at smaller units of geography.

A third analytic method was used for the preschool age group. The need for care was also projected based on the experience of other communities that have undertaken UPK. Specifically, a review of available research shows varying take-up (participation) rates by eligible families after the launch of UPK. These rates vary from a low of 55% in Georgia to 63% in Oklahoma to a high of 73% in certain districts in New Jersey.

Population estimate methodology

The Northern Ohio Data and Information Service (NODIS) of Cleveland State University provided single age population estimates and projections for individuals age 0 to 19 for each Cuyahoga County municipality and Cleveland neighborhood. A cohort component model, which takes into account births, deaths, and net migration, was used to determine the population estimates and projections.

Since data were provided for single ages, i.e. age 0, 1, 2, 3, etc., the 1 year-old age group needed to be split between the infant and toddler category. The 1 year-old age group was divided by two, with half of the age category (age 12-17 months) being attributed to the infants (overall age of 0-17 months) and half of the age category (age 18-23 months) being attributed to the toddlers (overall age of 18-35 months). Without more detailed age information, the assumption was made that the 12-23 month old population was evenly distributed within the 1 year-old age category.

Another single year age category that needed to be divided was the 5 year-old population. Starting Point was interested in the 5 year-olds who were enrolled in school and those who were not. Census 2000 data provides information about the number of 5 year-olds and separate information about children enrolled in school. To determine the 5 year-olds enrolled in school, the cross-tabulated data came from the Public Use Microdata Sample (PUMS), with data available at the census-level PUMAs. For each PUMA, then, the proportion of 5 year-olds enrolled in school and the proportion of 5 year-olds not enrolled in school was determined. In addition to reporting the population projections for each of the 12 PUMAs, the data were also reported for Cleveland neighborhoods and Cuyahoga County municipalities. The assumption

was made that the proportion for each PUMA would be applied to each neighborhood and/or municipality within that PUMA.

In 2000, an estimated 15.35% of Cuyahoga County's 5 year-old population was not enrolled in school. However, within Cuyahoga County, the percent of 5 year-olds not enrolled in school ranged from a low of 5.65% in PUMA 612 (far eastern suburbs) to a high of 27.93% in PUMA 606 (Cleveland near west side). These population projections through November 2010 can be used to help determine the potential number of children who might need early care and education programs in Cuyahoga County.

In some cases, analyses focus on the actual number of slots of a given type (e.g., part-day morning slots in Head Start programs or the number of full-day slots in private child care). In other cases, however, a method was needed to combine data on full and part-day slots to provide a sense of the overall magnitude of supply. To accomplish this, numbers of "full-day equivalents" or FDEs were computed by summing the number of full-day slots and (the number of part-day slots /2). This artificially treats part-day slots as if they could be readily converted into full-day slots. The report presents as much detail on all slot types and in FDE units in order to provide multiple manners of understanding the available data.

## Analysis and Findings

The foundation of the study is the creation of two data streams – one reflecting the supply of slots and one reflecting the demand for slots in Cuyahoga County. These data are now presented in sequence. Slot capacity is defined as the quantity of regulated child care slots in existence as documented in the Starting Point database. Slots are identified in one of three session types: (i) full-day slots, (ii) part-day (morning/afternoon) slots, and (iii) school-age

programs. In addition, the number of slots by the age of the children is also provided. Enrollment figures reflect the self-reported enrollment by providers as of November 2005 via a routine provider survey conducted by Starting Point.

Throughout the report projections of early care supply are held static at 2005 levels. Given the responsiveness of child care supply (i.e., number of providers and slots) to changes in public policy related to child care, as well as to other market forces, future supply could vary markedly from these levels (Cochi Ficano, 2006).

Preschoolers (age 3-5 years, not in school)

Population trend

The population trend for preschoolers in Cuyahoga County mirrors the decline in the general population. The total population of preschoolers shows an overall decline from 37,225 in 2005 to 33,755 in 2010 (9.3% decline). The segments of the bars show the relative contribution to the total by the regions of the County (grouped PUMAs). **Table 1** shows these same data along with the projected percentage population change by region from 2005 to 2010.

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INSERT TABLE 1

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Capacity and enrollment

**Figure 2** shows the location of all the early care and education programs serving preschoolers in Cuyahoga County. In total, 1,912 programs have capacity to serve this age

cohort, including 340 private child care centers, 131 private preschools, 64 public preschools, 53 Head Starts, 15 Type A family homes and 1,309 Type B family homes.

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INESRT FIGURE 2

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**Table 2** shows the slot capacity and enrollment for preschoolers in full-day slots, part-day slots and nontraditional slots. First, in regard to full-day slots, collectively programs had a county-wide licensed capacity of 19,739 slots for preschoolers of which 13,892 slots were filled. Second, in regard to part-day slots, collectively licensed capacity included 8,510 morning slots for preschoolers and 5,691 afternoon slots and enrollment data showed that 7,496 morning and 4,648 afternoon preschooler slots were filled. Last, in regard to nontraditional slots, licensed capacity included 3,026 evening slots and 445 overnight slots for preschoolers; enrollment stood at 879 preschoolers in evening slots and 39 in overnight slots.

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INSERT TABLE 2

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INSERT FIGURE 3

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**Figure 3** shows the relative contribution of slot capacity for preschoolers across the five setting types. Full-day enrollment and unused slots relate to slots that are full-day in length. FDE slots are part-day slots that have been converted into full-day equivalents (FDEs), by dividing the number of part-day slots by two. Approximately 81% of the full-day slots for preschoolers are in

private child care centers, 11% are in Head Start programs, and 8% are in family home settings. Among part-day slots for preschoolers, 63% are in private preschools, 19% in public preschools, and 17% in Head Start programs.

Assessment of Need

The approach to evaluating the existing need for preschooler care relative to the available capacity has three aspects. First, the ratio of current demand to current supply is examined. As previously discussed, areas in which this ratio exceeds 70% are considered to be at risk of reaching capacity and are put on a watch list by local child care authorities. When an area's enrollment consistently exceeds 85% of existing capacity the area is considered to be in need of immediate slot capacity development.

**Figure 4** shows a thematic map representing enrollment of preschoolers as a share of the existing full-day slots for preschoolers across all settings. The map shows that the demand for full-day preschool care exceeds 85% in 12 neighborhoods and municipalities and is between 70-84% in an additional 34 areas. It should be noted that this presentation focuses exclusively on full-day care slots and reflects demand for those slots given existing cost and quality parameters.

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INSERT FIGURE 4

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Neighborhoods and municipalities were then categorized according to the ratio of enrollment to capacity for preschoolers using the criteria of 70% and 85% enrollment to distinguish between areas. The table shows areas according to the rates for enrollment in full-day slots (columns) and part-day slots (rows). Areas are categorized as having no care available if no

slots exist for preschoolers or if there are fewer than ten licensed slots available in the area (regardless of whether the slots are filled or not). Areas with 1-9 slots available are shown with an asterisk. City of Cleveland neighborhoods are shown in italics.

Twelve areas are categorized as having greater than 84% enrollment in full-day slots for toddlers (eight of which also exceed 84% in part-day enrollment as well). Twelve other areas are identified as exceeding 84% enrollment in full-day care and 34 areas have enrollment between 70-84% (16 of which have part-day enrollment exceeding 84% and seven of which have part-day enrollment between 70-84%). In addition, 34 areas have full-day enrollment between 70-84%, and of these 16 have part-day enrollment exceeding 84%. An additional 15 areas show part-day enrollment exceeding 84% but full-day enrollment under 70%.

A second method for assessing need drew upon Census data to estimate the numbers of preschoolers residing in households that would need full-day or part-day care. The method is based on the work/school status of the primary caregiver(s) only, and does not consider such factors as the availability of alternative caregivers (e.g., grandparent or other relative) and/or the family's ability to pay for alternative care.

In addition, the approach allocates the need for a slot to the neighborhood or municipality where the family resides for analytic purposes. Experience shows, however, that substantial numbers of families utilize early care slots outside their own neighborhood. To examine this issue directly, county-level child care voucher data involving nearly 18,000 children were analyzed for a one month period (September 2005). The physical distance between the residence of the family using a voucher and the location of the provider redeeming a voucher was computed. Overall, 44% of families used care less than one mile from their home, 19% used care 1-2 miles away, 13% used care 2-3 miles way, and 24% used care 3 or more miles from their

home. The median distance traveled did vary by area of the county. For example, for families residing in the City of Cleveland the median distance was 1.4 miles, for families in the inner-ring suburbs the median distance was 1.6 miles, and for families in the outer suburbs the median distance was 2.0 miles. These data suggest that most voucher-using families use vouchers to acquire care very near their home. However, the care provider could easily be nearby yet still located in an adjacent neighborhood or municipality. To the extent that these cross-geography care relationships exist and systematically occur in specific patterns, this could impact the analysis of need by sub-county geographies. Finally, the available evidence relates only to the care use patterns among low-income families and may not generalize well to middle and upper income families in the County.

Using this approach, the projected need for preschooler care (full-day equivalent slots) in 2005 was 29,957 slots countywide. In 2005, the existing capacity for preschoolers in full-day equivalents was 26,840. See **Table 3**. Thus, projected need based on caregiver work/school status was 1.1 times the actual capacity of slots. The need was greatest in the West Cleveland area (2.1 times capacity) and Near West Cleveland area (2.0 times capacity) and least in the Far East Suburbs (0.5 times capacity). The projected changes in demand through 2010 are modest and reflect population declines and an assumption that supply would continue at 2005 levels.

The projected need for preschooler care is nearly equivalent to the actual capacity for this age group county-wide. However, while the aggregate projected need is similar to the existing quantity of care (close to a value of 1.0), there is no way of confirming that the families accessing the slots are the families with the need based on work/school status. It is likely that many families have available and satisfactory alternative care arrangements through informal networks. In addition, in 2005 among existing capacity for preschoolers approximately 5,300

full-time slots were vacant. This suggests that within the current economic context and given other available options, many families choose not to use available licensed care. The county-wide magnitude of need may be useful for planning purposes as are the relative differences by region within the County.

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INSERT TABLE 3

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A third tactic for estimating need was to use take-up rates reported by other locales that have undertaken universal pre-kindergarten (UPK) programming. Reported rates of participation from studies of UPK provide a sense of what levels of participation of families of preschoolers might be expected in Cuyahoga County. In particular, data from state-wide efforts in Georgia, Oklahoma, and New Jersey, offer a range of experiences. For example, state-wide UPK in Georgia and Oklahoma showed take-up rates of 55-63% among eligible 4-year olds (Henry et al, 2003; Love et al., 2005). The study of Georgia's UPK reports that 70% of 4-year olds are in UPK or Head Start. In New Jersey the take-up rate in the thirty highest poverty districts was 73% among 3- and 4-year olds (U.S. Government Accountability Office, 2004). In Florida a state-wide survey of parents of 2- and 3-year olds showed that 67% planned to enroll their child in UPK (Policy Group for Florida's Families and Children, 2004). In addition, data from the National Household Education Survey show that in 2001, 61% of children age 3 and 4 with employed mothers were enrolled in preschool and 87% were enrolled in any regular child care arrangement. Comparatively, 44% of children age 3 and 4 with unemployed mothers were enrolled in preschool and 51% were enrolled in any regular child care arrangement (Barnett & Yarosz, 2004). The variation in take-up rate by the age of the child relates directly to issue of

targeting. Most UPK initiatives either have begun with or exclusively serve 4-year olds. The present analysis includes 3-4 year olds and 5-year olds who are not yet in school.

Another dimension for consideration is the nature of the delivery system used to offer UPK programming. Some states have tended to offer a majority of their state preschool slots through school pre-k settings, while others (notably Georgia and Oklahoma) have offered a majority of slots through community-based pre-k settings (Policy Analysis for California Education, 2005; Schumacher, Ewen, Hart, & Lombardi, 2005).

**Figure 5** shows several options for estimating the potential demand for care for 3-5 year olds over 2006-2010 for the purposes of planning for UPK. For reference, the two flat lines show current levels of capacity and enrollment in full-day equivalents. In addition, three demand lines based applying take-up rates from New Jersey, Oklahoma, and Georgia to the Cuyahoga County population. Lastly, the figure shows demand projections for care based on Census-based data on the work/school status of the primary caregiver(s). These take-up projections are provided for full-time slots only (61.1%) and for full-day equivalents (80.6%), wherein every family is projected to need either a full-day or part-day slot.

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INSERT FIGURE 5

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Beyond the take-up rate assumptions, there are a number of factors that may lower the estimate of supply/slots under a UPK scenario. These include issues of take-up rates among child care programs in the effort, and/or the standards for program participation in UPK. Since some programs will be unable to participate in the short-term (based on structure, staffing, quality or other factors) and some will choose not to participate, these slots will not be accessible to

children and should be excluded from the supply calculations. However, under present conditions there are no data on these parameters, and as such, these factors cannot be taken into consideration.

## Conclusions

The present study demonstrates that the early care and education system in Cuyahoga County, Ohio is diverse and has substantial capacity to meet the care needs of young children both currently and going into the future. The present study assesses, in a quantitative sense, the existing slot capacity of the system and has compared it to the present demand for slots and likely demand in the future. The data support these overall summary conclusions:

- The population of preschool age children specifically (age 3-5, not in kindergarten), the decline over this period is projected to be 9.3% (from 37,225 to 33,755).
- As of the fall of 2005, among the 1,918 programs serving children in Cuyahoga County, 399 were center-based (Head Start, private child care), 195 were school-based (public preschool, private preschool) and 1,324 were home-based (Type A and B homes).
- Across all settings and ages, there were approximately 60,000 slots available in morning care and nearly 50,000 in afternoon care (including full and part day slots in these calculations). Substantially fewer slots were available in the evening and overnight, largely reflecting the relevant demand.
- County-wide, slot use for preschoolers as a proportion of existing capacity as of fall 2005 was 70% of full day slots, 88% of morning-only slots, 86% of afternoon-only slots, 29% of evening slots, and 9% of overnight slots.

- Geographically, there are substantial variations across the County in regard to the ratio of current use of slots to the capacity, depending on the child age group and the type of slot (part vs. full day and by setting type). A standard in the field is that when more than 70% of slots are full is a specific area, additional slot development may be needed in the short-term. General areas of high ratios of slot use to existing capacity in Cuyahoga County are on the western and southern portions of the County and in portions of the eastern side of Cleveland and first-ring eastern suburbs. The current study shows that for preschoolers 57% of neighborhoods offering full-day care exceed 70 percent enrollment and 83% of the neighborhoods offering part-day care exceed this standard.

- Using current slot-use data and Census-based estimates of need for early care slots (using family structure and work/school status of caregiver(s)), the projected slots needed vary substantially. For preschoolers county-wide there are 6,875 slots currently vacant; yet, as many as 2,600 additional slots are projected to be needed based on Census data.

- Using data on take-up rate by parents of universal pre-kindergarten slots in other locales, the projected slot demand among 3-5 year olds county-wide could range from a slot surplus of approximately 300 to a slot gap of approximately 6,300 (assuming that all existing slots for this age group are considered to be eligible for UPK).

Future Directions

In specific regard to UPK planning, the existing capacity to meet the needs of 3-5 year olds (not in kindergarten) could provide slots for approximately 70% of all children. There are two key dimensions to this situation – supply and demand. On the supply side, the discussion of capacity quickly moves to a discussion of the quality of care settings. Certainly not all existing

slots would be eligible for participation in a UPK system, and to the extent that this is the case the availability of slots would shrink accordingly. On the demand side, the parental take-up rate could vary markedly and will shift over time, though most estimates would place the rate around 60-80% participation. The assumptions about child care program participation rates and parental take-up rates, however, greatly influence the projections regarding the need for and availability of slots. Ongoing reassessment and consideration of these factors is merited as UPK planning advances and further evidence from other states and locales emerges.

References

Barnett, W. S., & Yarosz, D. J. (2004). Who goes to preschool and why does it matter? Preschool Policy Matters, 8. New Brunswick, NJ: National Institute for early Education Research.

Citizens' Committee for Children of New York, Inc. (2001). Child Care: The Family Issue in New York City. New York: author.

Cochi Ficano, C. K. (2006). Child-care market mechanisms: Does policy affect the quantity of care? Social Service Review, 80, 453-484.

Cuthbertson, B. B., Burr, E., Fuller, B., & Hirshberg, D. (2000). Los Angeles County Child Care Asessment. Berkeley, CA: Policy Analysis for California Education.

Fischer, R. L., Nelson, L., Mikelbank, K., & Coulton, C. (2006). Cuyahoga County early care and education capacity report. Cleveland, OH: Mandel School of Applied Social Sciences, Case Western Reserve University. October.

Gilliam, W. S., & Zigler, E. F. (2000). A critical meta-analysis of all evaluations of state-funded preschool from 1977 to 1998: Implications for policy, service delivery and program evaluation. Early Childhood Research Quarterly, 15(4), 441-473.

Gormley, W. T., Gayer, T., Phillips, D., & Dawson, B. (2005). The effects of universal pre-k on cognitive development. Developmental Psychology, 41(6), 872-884.

Henry, G. T., Gordon, C. S., & Rickman, D. K. (2006). Early education policy alternatives: Comparing quality and outcomes of Head Start and state prekindergarten. Educational Evaluation and Policy Analysis, 28(1), 77-99.

Henry, G. T., Henderson, L. W., Ponder, B. D., Gordon, C. S., Mashburn, A. J., & Rickman, D. K. (2003). Report on the Findings from the Early Childhood Study: 2001-02. Atlanta: Andrew Young School of Policy Studies, Georgia State University.

Hoepke, K., Cho, V., & Owen, S. M. (2001). Child Care Needs Assessment, 1999-2000, San Mateo County. Redwood City, CA: The Child Care Coordinating Council of San Mateo County, Inc.

Jacobson, L., Hirshberg, D., Malaske-Samu, K., Cuthbertson, B. B., & Burr, E. (2001). Understanding child care demand and supply issues: New lessons from Los Angeles. PACE Policy Brief 01-2. Berkeley, CA: University of California.

Karoly, L. A., Kilburn, M. R., Cannon, J. S., Bigelow, J. H., & Christina, R. (2005). Many happy returns: Early childhood programs entail costs, but the paybacks could be substantial. RAND Review, 29(3), 10-17.

Love, J. M., Kisker, E. E., Ross, C., Constantine, J., Boller, K. et al. (2005). The effectiveness of Early Head Start for 3-year-old children and their parents: Lessons for policy and programs. Developmental Psychology, 41(6), 885-901.

Oregon Child Care Research Partnership. (2003). Child Care and Edcuation in Oregon and Its Counties: 2000. Corvallis, OR: Oregon State University.

Policy Analysis for California Education. (2005). How to expand and improve preschool in California: Ideas, evidence, and policy options. Working Paper 05-1. University of California, Berkeley.

The Policy Group for Florida's Families and Children (2004, December). The cost of voluntary universal prekindergarten – working papers: An update. Available at www.policygroup.org

Ramey, C. T., & Ramey, S. L. (2004). Early learning and school readiness: Can early intervention make a difference? Merrill-Palmer Quarterly, 50(4), 471-491.

Schumacher, R., Ewen, D., Hart, K., & Lombardi, J. (2005). All together now: State experiences in using community-based child care to provide pre-kindergarten. Washington: Center for Law and Social Policy.

Smith, E. C. (2004). Understanding Child Care Supply and Demand in the Community. Columbia, MD: The Enterprise Foundation.

U.S. Department of Health and Human Services. (2003, December). State-Funded Pre-Kindergarten: What the Evidence Shows.

U.S. Government Accountability Office. (2004, September). Prekindergarten: Four Selected States Expanded Access by relying on Schools and Existing Providers of Early Education and Care to Provide Services. GAO-04-852.

Wyatt, A. (2001). Child care needs assessment and profile of child care in Tompkins County, May 2001. Ithaca, NY: Day Care and Child Development Council of Tompkins County, Inc.

## Table 1: Population of Children Age 3-5 Years (not in Kindergarten) by Region

**Population of Children Age 3-5 (not in Kindergarten) in Cuyahoga County by Region, 2000 and 2005-2010 (projected)**

| | Age 3-5, 2000 | Age 3-5, 2005 | Age 3-5, 2006 | Age 3-5, 2007 | Age 3-5, 2008 | Age 3-5, 2009 | Age 3-5, 2010 | % Change 2005-2010 |
|---|---|---|---|---|---|---|---|---|
| Cleveland East Side | 9,789 | 8,936 | 8,524 | 8,392 | 8,367 | 8,343 | 8,359 | -6.5% |
| Cleveland West Side | 7,140 | 7,244 | 6,957 | 6,772 | 6,647 | 6,522 | 6,410 | -11.5% |
| Eastern Suburbs | 10,916 | 10,185 | 9,946 | 9,742 | 9,606 | 9,494 | 9,384 | -7.9% |
| Western Suburbs | 5,812 | 5,494 | 5,358 | 5,200 | 5,099 | 5,025 | 4,947 | -10.0% |
| South Side Suburbs | 6,350 | 5,366 | 5,153 | 4,945 | 4,809 | 4,722 | 4,655 | -13.2% |

Source: Population projections by the Northern Ohio Data and Information Service, Cleveland State University
Analysis by: Center on Urban Poverty and Social Change, MSASS, Case Western Reserve University

# Table 2: Capacity and Enrollment for Preschoolers, by Type of Care and Setting

**Full-time child care by provider type and age group, November, 2005**
**(Session 1 and Full day Head Start)**

| | Private Child Care Centers | Type B Family | Type A Family | Head Start | Total |
|---|---|---|---|---|---|
| Number of centers | 340 | 1,225 | 15 | 37 | **1,617** |
| Licensed capacity | 15,591 | 1,939 | 60 | 2,149 | **19,739** |
| Desired capacity | 15,118 | 1,939 | 60 | 2,085 | **19,202** |
| Enrollment | 11,259 | 1,050 | 47 | 1,536 | **13,892** |
| Full-time vacancies | 3,871 | 889 | 13 | 548 | **5,321** |

**Part-time child care by provider type and age group, November, 2005**

| | Private preschool | Public preschool | Head Start | AM Total | Private preschool | Public preschool | Head Start | PM total |
|---|---|---|---|---|---|---|---|---|
| | AM | AM | AM | | PM | PM | PM | |
| Number of centers | 131 | 64 | 39 | **234** | 82 | 36 | 39 | **157** |
| Licensed capacity | 5,470 | 1,821 | 1,219 | **8,510** | 3,546 | 926 | 1,219 | **5,691** |
| Desired capacity | 5,318 | 1,752 | 1,219 | **8,289** | 3,333 | 824 | 1,219 | **5,376** |
| Enrollment | 4,786 | 1,555 | 1,155 | **7,496** | 2,807 | 676 | 1,165 | **4,648** |
| Full-time vacancies | 0 | 0 | 0 | **0** | 0 | 0 | 0 | **0** |
| Part-time vacancies | 682 | 188 | 64 | **934** | 552 | 159 | 54 | **765** |

**Nontraditional child care by provider type and age group, November, 2005**

| | Private child care centers | Type B family homes | Type A family homes | Evening total | Private child care centers | Type B family homes | Type A family homes | Overnight total |
|---|---|---|---|---|---|---|---|---|
| | Evening (6:31 pm - 12:00 am) | | | | Overnight (12:01 am - 5:59 am) | | | |
| Number of centers | 46 | 1,027 | 12 | **1,085** | 7 | 142 | 9 | **158** |
| Licensed capacity | 1,585 | 1,413 | 28 | **3,026** | 199 | 219 | 27 | **445** |
| Desired capacity | 1,587 | 1,413 | 28 | **3,028** | 199 | 219 | 27 | **445** |
| Enrollment | 467 | 406 | 6 | **879** | 7 | 31 | 1 | **39** |
| Full-time vacancies | 1,109 | 1,001 | 22 | **2,132** | 192 | 183 | 26 | **401** |
| Part-time vacancies | 0 | 6 | 0 | **6** | 0 | 5 | 0 | **5** |

Source: Starting Point Child Care Resource and Referral System: (Received November 7, 2005)

Analysis by: Center on Urban Poverty and Social Change, MSASS, Case Western Reserve University

**TABLE 3: Ratio of Projected Need for Preschooler Slots to 2005 Capacity**

| | 2005 Slots | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|
| Far West Suburbs | 2,425 | 0.9 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 |
| Near West Suburbs | 2,150 | 1.1 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 |
| West Cleveland | 1,403 | 2.1 | 2.0 | 2.0 | 2.0 | 1.9 | 1.9 |
| Parma-Brooklyn | 1,746 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| Far South Suburbs | 1,722 | 1.2 | 1.1 | 1.1 | 1.0 | 1.0 | 1.0 |
| Near West Cleveland | 1,343 | 2.0 | 1.9 | 1.8 | 1.8 | 1.7 | 1.7 |
| North East Cleveland | 4,405 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| South East Cleveland | 3,044 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| South East Suburbs | 1,885 | 1.2 | 1.2 | 1.2 | 1.2 | 1.1 | 1.1 |
| East Cleveland-Heights | 2,461 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| North East Suburbs | 1,296 | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 |
| Far East Suburbs | 2,962 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 |
| Total County | 26,840 | 1.1 | 1.1 | 1.1 | 1.0 | 1.0 | 1.0 |

Source: Enrollment data provided by Starting Point analysis by the Center on Urban Poverty and Social Change, MSASS, Case Western Reserve University.