Assessing Risk

Descriptive Data Related to Risk Factors Experienced by Young Children and their Families in Illinois

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ILLINOIS EARLY CHILDHOOD ASSET MAP AND CHAPIN HALL
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Technical Report 2 is the culmination of a collaboration between IECAM at the University of Illinois and Chapin Hall at the University of Chicago. Staff from both universities worked together to consolidate risk data related to young children (birth to 8) and their families living in Illinois. The needs assessment was made possible through the financial support of the Office of Early Childhood Development in the Governor’s Office. We would like to thank Kim Collins for her continued encouragement and support throughout the endeavor.

To all of the University of Illinois and University of Chicago staff who worked on this project, we would like to say thank you.

Mapping Illinois

For space considerations, maps throughout this report appear in smaller form, which prevents including readable names for the state’s 102 counties. The above map is provided as a convenience for readers who want to find the names of the counties that appear in different categories throughout the report. Also, numbers that appear in parenthesis in the legends below the maps indicate the number of counties that fall within that group.
INTRODUCTION

Illinois faces the challenge of connecting data from disparate systems that contain demographic data and information related to young children and their families to help assess the needs of Illinois families. Staff from the Illinois Early Childhood Asset Map (IECAM) at the University of Illinois at Urbana-Champaign recently partnered with Chapin Hall at the University of Chicago to consolidate data relevant to young children (birth to age 8) and their families in the state. The compilation of these data allows a needs assessment by the Office of Early Childhood Development (OECDD) in the Governor’s Office based on the most current data available (related to select risk factors for academic failure). In addition to this final report, a Web page (http://iecam.illinois.edu/riskdata/) with all of the raw data has been made public.

Overview of Findings

When we consider the data gathered for this needs assessment, the findings are both motivating and humbling. From 2009 to 2010, the percentage of children under 5 living in poverty increased 1.5% nationwide and 1.2% in Illinois. Further challenging early care and education in Illinois are the growing number of children with English as a second language. More than half of Illinois counties “have seen their immigrant populations at least double in the past 20 years” (Thomas, Fowler, Cesarone, & Rothenberg, 2011, p. 15). Hall and Lubotsky (2011) argue that “the immigrant population in Illinois is larger, in absolute terms, today than at any point in the state’s history” (p. 1).

Illinois families face life stressors that threaten the fabric of their lives. These may range from issues related to poverty, race discrimination, linguistic isolation, and family composition to a lack of access to early childhood opportunities. These challenges may also include medical issues such as low birth weight or adverse pregnancy outcomes. At a time when both the numbers and needs of families are increasing, Illinois is experiencing a decrease in services in Preschool for All. Although local communities may define such families differently, similar challenges are common across many of them—poverty, linguistic isolation, employment issues, or teen parents. These families are among those who are represented by the data in this needs assessment.

The demographic and early childhood data compiled for this needs assessment come with certain limitations. First, the demographic data are available at differing geographic levels or entities (e.g., counties, municipalities). As such, it is essential to understand that no single specific geographic division is best suited to describe data throughout the state given the range of urban, suburban, and rural communities in Illinois. Decisions for Cook County may be better made by examining census tracts or legislative districts versus county level data. Similarly, it may not be necessary to examine census-tract-level data in a sparsely populated rural county in downstate Illinois. Clearly, the type of geographic unit chosen can have a direct effect on service planning as well as resource allocation.

Second, throughout the report, we have differentiated between examining data by percentage and by number. It is important to recognize that the overall picture presented by the data may look somewhat different depending on the way in which the data are analyzed and discussed. Population density is an important factor in a state as diverse and populous as Illinois; it should be taken into consideration whenever demo-
Data indicate that 20.5% of children birth through age 5 years, or 219,601 children, were living in families whose annual income in 2009 was below 100% of the poverty level.

Data Sources and Considerations

All of the data collected are from the most recent available. For instance, demographic data are from the 2010 Census or the 2009 American Community Survey (ACS). The administrative data from state agencies are raw data that were used to calculate counts and rates by county or previously aggregated data with variable geographic levels. There is some variability in time points for which data were available, ranging from 2008 to 2010. Data were gathered from the following sources:

- U.S. Census (Population Estimates Program, American Community Survey, 2010 Census)
- IECAM and Chapin Hall estimates based on the U.S. Census
- University of Minnesota (Integrated Public Use Microdata Series: Version 5.0)
- Bureau of Labor Statistics
- Illinois Network of Child Care Resource & Referral Association (INCCRRA)
- Illinois Department of Human Services (IDHS)
- Illinois State Board of Education (ISBE)
- Head Start Collaboration Office
- Illinois Department of Public Health (IDPH)
- Ounce of Prevention Fund
- Illinois Interactive Report Card
- Illinois Department of Child and Family Services (IDCFS)
- Illinois Healthcare and Family Services (HFS)
- Illinois Department of Corrections (IDOC)
- Illinois Department of Juvenile Justice (IDJJ)

The demographic data compiled for this needs assessment may be subdivided by political boundaries, geographic regions, or other units. Some of the data are avail-
This report has three guiding questions:

“What are the demographics of children and their families in Illinois?”

“What services are young children receiving?”

“What do we know about the quality and effectiveness of programs?”

able by multiple sets of political boundaries (e.g., counties, townships, municipalities), while other data are available only by PUMA (Public Use Microdata Area) region, which may be a larger area sometimes comprising multiple rural counties or, in the case of urban Chicago, multiple neighborhoods.¹

Data available are reported here by state and county, with some data reported also by township and municipality. It is critical to understand, however, that some geographic or political units might be more appropriate to describe different parts of the state than others. For instance, examining county-level data for Cook County will not yield the same type of useful results as examining county-level data for a rural, sparsely populated county in southern Illinois. The type of unit chosen directly affects service planning because urban and rural areas have inherent differences, particularly but not limited to population density. The goal for communities that use this information should be to identify appropriate units that maximize the efficiency of service planning and implementation.

What Are the Demographics of Children and Their Families in Illinois?

Putting the Data in Context: State-Level Data

State-level data are provided for several data types in demographic domains (population/poverty, language, employment) and in the domain of early care and education (ECE) services. The purpose of providing state-level data is to provide a snapshot of risk factors and ECE service levels for the state as a whole. While the complete data set is available at http://iecam.illinois.edu/riskdata/, only selected data are summarized and highlighted in this report. (Please refer to the Web page for more details, maps, and tables.) This summary highlights poverty, parental employment status, race, participation in the Child Care Assistance Program (ccap), and the slot-gap² (a measurement used to identify gaps and areas for improvement) for ECE services for children birth through age 5.

Poverty. As an indicator of poverty, IECAM uses Census Bureau data on the number of individuals living with annual incomes below various percentages of the federal poverty level (FPL).² Table 1 shows the number and percentage of children by age and family poverty level in Illinois in 2009. These numbers are estimates by IECAM demographers and reflect the number of children in the various age groups who reside in families with incomes below a specific poverty level. Data indicate that 20.5% of children birth through age 5 years, or 219,601 children, were living in families whose annual income in 2009 was below 100% of the poverty level for that year. The Census Bureau’s poverty threshold (i.e., poverty level) was $22,113 in 2009 for a family of four (with two children). A family with an income below 100% FPL may be eligible for Head Start services and ccap. An additional 20% (or 40% in all) of children live in families with annual incomes below 185% FPL, making them eligible for Preschool for All (approximately $41,000 income for a family of four). Even more concerning, data in Table 1 also show that almost 10% of children 5 and younger in 2009 in Illinois were living in families with an annual income of less than 50% of the poverty level ($11,057 for a family of four with two children).
Table 1. Illinois children living in poverty (2009)

<table>
<thead>
<tr>
<th>Population or poverty group</th>
<th>Number of children ages 0, 1, 2</th>
<th>Number of children ages 3, 4</th>
<th>Number of children age 5</th>
<th>Number of children 5 and under</th>
<th>Percent of children 5 and under living at this FPL</th>
</tr>
</thead>
<tbody>
<tr>
<td>All children</td>
<td>540,688</td>
<td>353,264</td>
<td>179,302</td>
<td>1,073,254</td>
<td>n/a</td>
</tr>
<tr>
<td>Children living in families with incomes below ...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50% FPL</td>
<td>52,949</td>
<td>34,595</td>
<td>17,559</td>
<td>105,102</td>
<td>9.79%</td>
</tr>
<tr>
<td>100% FPL</td>
<td>110,632</td>
<td>72,282</td>
<td>36,687</td>
<td>219,601</td>
<td>20.46%</td>
</tr>
<tr>
<td>130% FPL</td>
<td>143,697</td>
<td>93,886</td>
<td>47,653</td>
<td>285,237</td>
<td>26.58%</td>
</tr>
<tr>
<td>185% FPL</td>
<td>212,831</td>
<td>139,055</td>
<td>70,579</td>
<td>422,465</td>
<td>39.36%</td>
</tr>
<tr>
<td>200% FPL</td>
<td>226,149</td>
<td>147,757</td>
<td>74,995</td>
<td>448,901</td>
<td>41.83%</td>
</tr>
<tr>
<td>400% FPL</td>
<td>376,900</td>
<td>246,252</td>
<td>124,987</td>
<td>748,139</td>
<td>69.71%</td>
</tr>
</tbody>
</table>

Parental Employment Status. This demographic variable is defined by six different family circumstances. Data indicate that of the 1,023,973 children birth through age 5 living in families in Illinois:

- 65% live in families with two parents in the home
- 39% live in families with both parents working
- 35% live in single-parent families
- 27% live in families with one employed parent
- 8% live in families with one unemployed parent

For more information on family structure (e.g., family marital condition) by poverty in Illinois, please refer to http://iecam.illinois.edu/riskdata/#state_level_data.

Child Care Assistance Program. Table 2 shows the number and percentage of children receiving assistance through CCAP in Illinois in FY2010 (working parents whose income is below 185% FPL are eligible for assistance). CCAP is administered by IDHS and provides financial assistance to the child care programs that enroll eligible children. In FY2010, 60% of enrolled children were under 6 years old.

Early Childhood Services. According to the state preschool yearbook (NIEER, 2011), publicly funded programs (PFA and Head Start) in Illinois serve 41% of 4-year-olds and 29% of 3-year-olds. In FY2010, about 124,000 publicly funded enrollment slots were available through PFA or Head Start to serve children identified as eligible based on income or other risk factors. For the purpose of measuring slot gap, low income (185% FPL) was used as a proxy for all risk factors to determine the gap between available services and potentially eligible children. The use of low income as a proxy, while most convenient, provides a conservative estimate of eligibility. It does not include the actual number of children above that income level who are eligible because of other risk factors (e.g., low birth weight, parents on military duty, home language other than English). The minimum gap between number of enrollment slots and children eligible for services, based on income, was 14,567. Thus, Illinois provides slots to serve at a maximum 89.5% of children based on the risk factor of income alone. This is an underes-
### Table 2. Illinois children receiving CCAP assistance (2010)

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Number of Children</th>
<th>Number Receiving CCAP</th>
<th>Percent Receiving CCAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ages 0, 1, and 2</td>
<td>540,688</td>
<td>41,580</td>
<td>7.69%</td>
</tr>
<tr>
<td>Ages 3 and 4</td>
<td>353,264</td>
<td>35,906</td>
<td>10.16%</td>
</tr>
<tr>
<td>Ages 0 through 5</td>
<td>1,073,254</td>
<td>92,103</td>
<td>8.58%</td>
</tr>
</tbody>
</table>

### Table 3. Slot-gap for preschoolers (2010)

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFA Proposed capacity</td>
<td>86,717</td>
</tr>
<tr>
<td>Head Start funded enrollment</td>
<td>37,771</td>
</tr>
<tr>
<td>PFA proposed capacity plus HS funded enrollment</td>
<td>124,488</td>
</tr>
<tr>
<td>Number of children ages 3 and 4 living in families less than 185% FPL</td>
<td>139,055</td>
</tr>
<tr>
<td>Slot-gap</td>
<td>14,567</td>
</tr>
<tr>
<td>Percent that could be served by PFA and Head Start</td>
<td>89.52%</td>
</tr>
</tbody>
</table>

### Table 4. Slot-gap for infants and toddlers

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Head Start funded enrollment</td>
<td>4,405</td>
</tr>
<tr>
<td>Licensed child care total licensed capacity for sessions 0, 1, 2</td>
<td>61,765</td>
</tr>
<tr>
<td>License-exempt child care total reported capacity for sessions 0, 1, 2</td>
<td>1,666</td>
</tr>
<tr>
<td>Family care homes total reported capacity for sessions 0, 1, 2</td>
<td>22,132</td>
</tr>
<tr>
<td>Sum of Early Head Start enrollment and child care capacity</td>
<td>89,968</td>
</tr>
<tr>
<td>Number of children ages 0, 1, and 2</td>
<td>540,688</td>
</tr>
<tr>
<td>Slot-gap</td>
<td>450,720</td>
</tr>
<tr>
<td>Percent served</td>
<td>16.64%</td>
</tr>
</tbody>
</table>

### Table 5. Children served in home-visiting models funded in Illinois

<table>
<thead>
<tr>
<th>Model</th>
<th>Ages 0, 1, 2</th>
<th>Ages 3, 4, 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy Families Illinois</td>
<td>3,744</td>
<td>591</td>
</tr>
<tr>
<td>Parents as Teachers</td>
<td>707</td>
<td>109</td>
</tr>
<tr>
<td>Nurse Family Partnership</td>
<td>92</td>
<td>1</td>
</tr>
<tr>
<td>Sum of all evidence-based models</td>
<td>4,543</td>
<td>701</td>
</tr>
</tbody>
</table>
Fewer enrollment opportunities for infants and toddlers (birth through age 2) are available compared to opportunities for preschoolers. Table 4 clearly shows that, even when the Early Head Start (EHS) enrollment slots are added to the child care capacity numbers, a large number of potentially eligible children are still unserved (slot-gap of 450,720 children). When we consider the fact that some parents choose not to enroll their young children in early care and education programs (for a variety of reasons), the number of funded slots for infants and toddlers still indicate that programs can accommodate less than 17% of all children in that age group.

These numbers do not take into consideration the infant and toddler programs funded under ISBE that offer a small number of enrollment opportunities for families with children birth through age 3 (about 17,000 in 2008). These data are under review by ISBE, with the intention of making them available in the near future.

Additional infant and toddler slots (19,160) are available to eligible children under the IDHS Early Intervention Program, which serves infants and toddlers with diagnosed disabilities, developmental delays, or substantial risk of significant delays. Additionally, three evidence-based home visiting models serve families in Illinois through the Parents Too Soon program. Table 5 shows the distribution of children served in FY2010 through these three programs.

**Individual Risk Factors**

Research has consistently demonstrated that children in families that experience risk factors, such as poverty, unemployment, parents’ low educational attainment, and child abuse, to name just a few, face lifelong challenges. Heckman (2008) asserts that in America, “about half the inequality in the present value of lifetime earnings is due to factors determined by age 18” (p. 49). Similarly, Rolnick and Grunewald (2008) contend that an adult’s quality of life as well as societal contributions can be traced back to the early years of life. Moreover, if children in those earliest years receive developmental support in cognition, language, motor, and adaptive skills, and social-emotional functioning, they are more likely to experience success in education and employment (Erickson & Kurz-Riemer, 1999; Ramey, et al., 2000). In contrast, a child who experiences excessive stress in the early years and does not receive such developmental support is at risk for academic failure and other negative outcomes, such as dropping out of school (National Scientific Council on the Developing Child, 2005).

For many families experiencing life-impacting risk factors, poverty appears to be an aggravating issue, putting young children at risk for early developmental social and emotional problems (Duncan & Brooks-Gunn, 1997; McLoyd, 1990), language and vocabulary challenges (Hart & Risley, 1995), poor academic achievement (Bradley & Corwyn, 2002), and unmet physical...
and mental health problems (Masi & Cooper, 2006).

The level of poverty has been increasing in recent years, both nationwide and in Illinois. A recent Census Bureau Current Population Report in its Consumer Income series compared data related with poverty for 2009 and 2010. For 2009, they report that 23.8% of related children under age 6 live in families with an income below the poverty level in the United States. For 2010, they report 25.3%, for an increase of 1.5%. This represents a numerical increase from approximately 5.98 million to 6.34 million children. That is, there were about 360,000 more children living in poverty in 2010 than in 2009 (DeNavas-Walt, Proctor, & Smith, 2011). According to the Census Bureau’s one-year ACS data, in Illinois the percentage of related children under 6 living in families whose income was below the poverty level was 20.8% in 2009 and 22.0% in 2010, a 1.2% increase.

The first step in conducting the current needs assessment was to organize poverty and other life stressors into broad demographic domains:

- Population, poverty, and living conditions, such as parental employment status
- Language
- Unemployment
- Education (school, teacher, parent)
- Health care and health conditions
- Other social and economic factors
- Early care and education services

Although the individual risk factors facing Illinois families discussed in this needs assessment are not exhaustive, they do represent the most significant risk factors confronting families in the 21st century. The following sections of this report highlight the information and patterns seen in the data through tables, charts, and maps. The complete data set is available at http://iecam.illinois.edu/riskdata/.

**Demographics of Population, Poverty, and Living Conditions**

The population of young children in Illinois is quite diverse in terms of race, ethnicity, language, and other characteristics. This report details the diversity by municipality, county, and PUMA group.7

**Demographics of poverty.** Gaining a comprehensive picture of what poverty looks like is a complex process. While poverty is only one risk factor, it is an important issue with at-risk families. One way poverty is measured is by Gross Annual Income categories and the size of the family. Although federal and state agencies use different cut-off points based on levels of poverty to judge eligibility for various programs, the primary percentages used are 50% FPL, 100% FPL, 130% FPL, 185% FPL, 200% FPL, and 400% FPL.

To determine the eligibility criteria for publicly funded ECE programs, Head Start uses 100% FPL and ccap uses 185% FPL. Preschool for All (PFA)
does not specifically use 185% FPL as an eligibility criterion but rather uses a weighted list of criteria that includes poverty level. IECAM uses 185% FPL as a proxy for poverty. Map 1A shows the percentage of children birth through age 5 living in families with incomes below 185% FPL. Note that 14 counties indicate that more than 60% of their children in this age group live in poverty. Eleven of those 14 counties are in southern Illinois. As shown in Map 1B, the picture changes when we look at numbers, rather than percentages. Now the high levels of poverty in urban areas are apparent (e.g., East St. Louis, Springfield, Champaign-Urbana, Bloomington, and, of course, Chicago and the collar counties).

Note that state numbers/percentages are included at the bottom of the legend of each map. Additionally, note that Map 1B shows Cook County in gray. Because the number of children experiencing poverty in Cook County is so much greater than the number in the next highest ranked county, Cook County was separated from the standard four-step color ramp shown in the legend so that the relative risk in the other counties could be more clearly displayed.

**Demographics of race.** Illinois has a diverse population, although Maps 2A, 2B, 2C, 2D, 2E, and 2F indicate that pockets of homogeneous populations can be found across the state. Maps 2A and 2B
show the percentage and number (respectively) of children through age 5 who are white. If we consider only percentages, Map 2A shows that 18 counties in the southern half of the state have populations of white individuals at a percentage greater than 95%.

Maps 2C and 2D show the percentage and number of black children, birth through 5 years. As you can see by looking at Map 2C, 18 counties have percentages greater than 10% of the total population of children birth through 5. Alexander County, at the southern tip of the state, has the highest percentage of black children (birth through 5) in the state, at 51.28%. St. Clair, Pulaski, Peoria, and Cook counties follow with percentages all greater than 25%. If we consider size (number) alone, Cook and St. Clair counties have the highest populations, with Cook County far outnumbering St. Clair County by a rate of 12 to 1 (86,189 black children in Cook County and 6,692 in St. Clair County). Note, however, that whether percentage or number is considered, the maps show there is a sizable black population in several counties.

If we consider only the percentage of Hispanic children across the state, we find (see Map 2E) that two-thirds of the 22 counties where more than 10% of the total population of children birth through
Higher numbers of children (ages 5–17) in linguistically isolated households reside in Chicago and the northeast part of the state in general.

However, counties in the south and east central part of Illinois do have large groups of people speaking languages other than English.

5 are Hispanic are in northern Illinois, including Cook County, Kane County, and the greater Chicago metropolitan collar counties. Only four counties (Iroquois, Warren, Cass, and Union) in downstate Illinois show percentages of Hispanic children birth through 5 at greater than 10%. When we consider the number of Hispanic children birth through 5 in a county, with the exception of several southern Illinois counties, the pattern is much the same (see Map 2F).

The demographic data discussed above on population, poverty, and living conditions represent large groups of individuals and families. Although we have highlighted the presentation of these data in this report, additional data and trends regarding living conditions (including adults never married, number of households of children birth to 5 living with unmarried parents, and grandchildren birth to 5 living in grandparent-headed households) can be found at http://iecam.illinois.edu/riskdata/#Demog_Pop.

Demographics of Language

Linguistically isolated households. The U.S. Census Bureau defines linguistically isolated households as those in which all members of the household 14 years and older have some difficulty speaking English. It is important to note that these data from the Census Bureau do not specify which languages, except for Spanish, are spoken in the home. Using several estimates from the Census Bureau, IECAM demographers indicate that Kane County has the highest percentage of households defined as “linguistically isolated speaking Spanish” at 8.28%, with Cook County having the second highest percentage at 4.19%. The number of linguistically isolated households, however, reverses that standing, with Cook County outnumbering Kane County by a ratio of 6 to 1. For those linguistically isolated households speaking languages other than Spanish, whether we consider percentage or number, Cook County leads all other Illinois counties with 4.38% of households, for a total of 85,062 households, that are linguistically isolated and that speak a language other than English or Spanish.

In an effort to elicit more pertinent information from the U.S. Census about children, IECAM demographers looked at children ages 5 through 17 living in linguistically isolated households. The patterns were strikingly similar to that of the broader category described above. Higher numbers of children (5 through 17) in linguistically isolated households reside in Chicago and the northeast part of the state in general. However, counties in the south and east central part of Illinois do have large groups of people speaking languages other than English. If we consider percentage alone, several downstate counties (e.g., Cass, Crawford, and Douglas counties) have higher percentages of children in this age group living in households considered linguistically isolated when compared with the rest of the state.

Young children and language. Using IPUMS (Integrated Public Use Microdata Series) data, IECAM demographers were able to provide data for approximately 65 languages (or language groups). These data are based on responses to two questions in the American Community Survey (“Does this person speak a language other than English at home?” and “What is this language?”). The response is provided by one member of a household on behalf of all members of the household. For the language of children age 5, IECAM demographers use the respondents’ answer to the question in reference to the 5-year-olds’ language. Because the American Community Survey's
language-related questions do not apply to children under age 5, for the language of those children, IECAM demographers use the respondents’ answer to the question in reference to the language of the mother, father, or head of household (in order of preference if present in the household).

In Maps 3A, 3B, and 3C, the state is divided into PUMA groups. Although the maps provide a general picture across Illinois, striking population patterns are evident as they relate to families speaking languages other than English. Note that these data are by number only, and although some of the numbers of families, particularly in the rural parts of Illinois, are low, it is important to remember that resources available to such families may also be few in number.

Although it is not surprising that northeast Illinois is home to a large number of Spanish-speaking children (Map 3A), it may be somewhat surprising for early childhood providers to find there are noteworthy pockets of children who speak Arabic (Map 3B) in a region in Southern Illinois and Vietnamese (Map 3C) in the western part of the state. What the three maps show is that families speaking languages other than English live all over the state. They indicate the necessity of ongoing local conversations to find and serve these families. More information on language by birthplace and citizenship status, as well as by race, is available at http://iecam.illinois.edu/riskdata/#Demog_Lang.
Parental Employment

Children living in various working family conditions. Conditions in which children birth through 5 are living are described by the number of parents in the family and their employment status.

These data are based on several estimates from the U.S. Census Bureau. Highlights follow, although more data are available at http://iecam.illinois.edu/riskdata/#Employment.

Figure 1 shows children from birth through age 5 living in the indicated family condition as a percentage of all children birth through age 5 living in families. Clearly, there exists a wide disparity among counties regarding family circumstances. Were we to look at the numbers of working families in the same conditions, the chart would likely look very different, with the higher population areas, such as Cook County and Winnebago County (with Rockford), with the highest numbers. The percentages, however, allow us to see the contrasts in family working conditions that exist across the state as a whole.

Data about family type (i.e., married couple, male householder with no wife present, female householder with no husband present) for families living on incomes below 100% FPL are available at http://iecam.illinois.edu/riskdata/#Employment.

Data regarding children birth through 5 living in families with annual incomes below 185% FPL that describe particular working conditions for two-parent families (i.e., both parents, one parent, or neither parent employed) and for single-parent families (i.e., parent employed or unemployed) are also available on the Web page. Additional data include information related to wages of early childhood professionals.\(^{10}\)

Unemployment rate. The July 2011 unemployment rate from the Bureau of Labor Statistics is provided in Map 4, which shows the nine counties with the highest level of unemployed individuals.
Health Care and Health

Risk factors related to pregnancy and/or births include adverse pregnancy outcomes, such as birth defects (e.g., central nervous system defects, musculoskeletal defects), fetal alcohol exposure, and blood and immune disorders. Other risk factors include infant mortality rate, low birth weight (and very low birth weight), and teen parenthood. The following sections provide brief descriptions of four—birth defects, adverse pregnancy outcomes, very low birth weight, and blood lead level.

**Birth defects and adverse pregnancy outcomes.** Maps 5A, 5B, and 5C show the cluster of counties that have higher rates of birth defects than other areas in the state (as indicated by the two darker brown clusters). Overall, the incidence of birth defects is lower in the southern part of the state than the state as a whole. Cardiovascular defects are higher in the west-central counties than in other counties, with 9 of the 14 counties with rates greater than 200 per 10,000 infants. Similarly, the rates of genitourinary tract defects are higher in these same counties. The exception is alimentary tract defects, which have higher rates in counties toward the south of the state. Although the data do not permit correlations to be made, the maps do present a snapshot of information that could form the beginning
of more in-depth conversations or research related to the prevalence or incidence of particular medical conditions.

As is the case with birth defects, rates of adverse pregnancy outcomes are generally lower in the southern half of the state. Few patterns are easily discerned in the rate of perinatal death throughout most of the state, but a few counties along the southeastern boundary have relatively lower rates than other counties (fewer than 50 per 10,000 births). The rate of perinatal death is greater than 100 per 10,000 births in approximately half the counties, with the highest rates concentrated in central Illinois. Map 6 illustrates the clustering effect found in central Illinois and Cook County.

**Very low birth weight.** Very low birth weight (vLBW, defined as weighing under 1,500 grams or 3 lbs, 4 oz at birth) has been associated with long-term negative physical and cognitive outcomes. Precursor factors associated with vLBW include socioeconomic factors and maternal health and nutrition. Map 7 shows that counties with the highest rates of infants with vLBW (more than 200 per 10,000 births) are concentrated in central Illinois, the northern border, and Cook County (as indicated by dark brown), and the rates are lowest in the southeastern parts of the state. It is unclear why the southern parts of Illinois have the lowest rates, although this might reflect access to Level 3 Neonatal Units (NICU), none of which are in the southern part of Illinois.
Blood lead level. Elevated blood lead level is defined as greater than 9 micrograms per milliliter and has been known to contribute to learning disabilities and behavioral problems. Counties with the highest concentration of children with elevated blood lead levels, in terms of number and percentage, are scattered throughout central Illinois, with the highest rates prevalent in counties in the west-central region. With a pattern that is similar to that of vLBW, rates are lowest in the southern part of the state (no map shown).

Other Social and Economic Factors

Families in Illinois experience a multitude of social and economic factors that can adversely affect their life circumstances. With regard to these factors, data are provided on child abuse and neglect, homelessness, number of children receiving TANF (Temporary Assistance for Needy Families) and SNAP (Supplemental Nutrition Assistance Program) benefits, and family involvement in multiple social service systems (mental health services, substance abuse treatment services, child welfare, and corrections). For the purpose of brevity, this section will consider only two of these factors — participation in SNAP and child abuse and neglect.

Child abuse and neglect. The pattern across the state looks different depending on whether we
consider the number or percentage of children who are victims of substantiated child abuse and neglect. Counties in the south and west-central parts of the state, which have relatively lower populations of young children, are among counties with higher rates of child abuse and neglect. Maps 8A and 8B show the percentages and numbers in Illinois. Note that Map 8B shows Cook County in gray. Because the number of children experiencing this risk factor in Cook County is so much greater than the number in the next highest ranked county, Cook County was separated from the standard four-step color ramp in the legend so that the relative risk in the other counties could be more clearly displayed.

**Participation in SNAP.** More than 25% of young children receive SNAP benefits in nearly half the counties in Illinois. Map 9 shows the percentage of children birth through age 5 in families receiving food stamps. Among counties where more than 40% of children under age 6 are SNAP recipients, the majority of them are in the far southern section of the state.

**Composite Index**

A composite index is made up of a number of factors that are combined in a standardized way, providing a useful statistical overview. For our composite index, indicators from each domain that could be associated with high need or risk were selected. An indicator was excluded if it (1) was highly correlated with at least one other indicator, (2) did not contribute independently to the magnitude of the total score, or (3) did not have an impact on the variation among the counties. Using these criteria, we identified 10 indicators that make up our composite index:

- Children living in households with an annual income below 185% FPL
- Children of minority (nonwhite) race/ethnicity
- Children living with a single parent
- Children who are victims of abuse/neglect
- Children born with low birth weight
- Children with elevated blood lead levels
- Children ages 3–5 who are homeless
- Children ages 3–5 in Head Start or Preschool for All
- Children living with multisystem families
- Rate of teen births

Each of the rates or percentages for these risk factors was drawn directly from the raw data and transformed into a standardized score; the composite index is the total of those 10 scores. *On this scale, the higher the score, the higher the risk or need.*

The index provides an overview of the concentration of need within an Illinois county and the variability among counties. It likely overlooks smaller areas of high need within the larger regions. For example, Vermillion County is a large, predominantly rural county on the border of Illinois and Indiana.
The county has a composite index score of 10.37, reflecting high risk. What is not known by looking at the map or the index score is whether the risk is for a small area of the county, such as the largest city, Danville, or for larger areas, including the more rural parts of the county. For several indicators that are available for smaller geographic units, such as townships, cities, or even census tracts, high variability may exist within counties, which is not reflected when the data are presented at higher levels of aggregation.

It also should be noted that different indicators can drive a high-risk score, meaning that several counties with a similar composite score could be inherently different from each other depending on which risk factors contributed to that score. This becomes more apparent in counties, such as Cass and Peoria, that appear to have similar composite index scores (7.21 and 9.96, respectively) but have different risk factors that contribute to the overall index score. This can be seen when we look at the difference between counties regarding low birth weight (Cass has a score of 157.6 and Peoria has a score of 240.6) and homelessness (Cass has a percentage of homeless preschoolers of 6.07% and Peoria 0.40%). On the surface, it appears that both counties have similar risks. However, delving more deeply into the actual risk factors reveals that Cass County may have a lower rate of babies with low birth weight compared with Peoria County but has a much higher percentage of homeless preschool children than Peoria. (For more data on the composite index and other social and economic factors, see see http://iecam.illinois.edu/riskdata/#Other/. ) Map 10 displays the composite index score by county in several categories.

In this composite index of relative risk, counties at the extremes—highest and lowest risk—are scattered throughout the state. Moderately high- and low-risk counties are distributed throughout the state, but counties along the boundary of the state are those with relatively higher risk. Of particular interest is that Menard County (west central Illinois), which has among the lowest risk, is surrounded by counties at the higher end of the index.

Families with multiple risks. Clearly, wide disparities exist across Illinois counties; however, several counties appear to have more families at greater risk or with higher need in a variety of domains than other counties. These counties are distributed throughout the state and include rural areas with low population density as well as urban areas. The data presented in this report and on the Web page do not necessarily show correlational relationships. It is important to remember that all of these data on young children and families come from distinct data sources and cannot be compared and contrasted with the purpose of finding relationships. For instance, we cannot determine the extent to which numbers of children in multirisk families are included in the numbers of children living in families with annual incomes below 185% FPL, although some overlap is likely. At the same time, it is fairly obvious that some counties do have higher rates, percentages, and/or numbers of people living with multiple risk factors that adversely affect child development and optimal life circumstances.
Eleven counties across the state appear to have a higher rate of families that experience risk factors in multiple areas (see Map 11). These higher rates are primarily indicated in this report through the use of maps; however, the Web page includes Excel spreadsheets with information from the original data sources, such as the Department of Public Health. While data and maps provide only a brief glimpse of the needs of families in these counties, they do allow the beginning of an ongoing conversation among service agencies, school districts, and other entities providing services to young children and their families. What data and maps do provide is evidence of the need for resources to be directed in an effective and timely manner to counties where families exhibit risk.

**What Services Are Children Receiving?**

It has been well documented that providing high-quality early education opportunities for at-risk young children goes a long way to counteract or offset early adversity (Heckman, 2008). Data from the Ypsilanti Perry Preschool Program (Schweinhart et al., 2005), the Abecedarian Program (Campbell & Ramey, 1995), and the Chicago Child-Parent Centers (Reynolds, Temple, Robertson, & Mann, 2002) demonstrate long-term positive effects of enriched early care and education on development. The inverse, then, is the question of what happens when young children in at-risk environments do not have access to these high-quality early care and education opportunities. Does the lack of ECE further compound individual risk factors, such as poverty, abuse, or parental unemployment? Although this report cannot answer that question, it can provide information on the extent to which enrollment opportunities are available to young children and families.

**Early Care and Education Services**

**Publicly funded preschool.** Data for Preschool for All include the number of PFA sites and proposed capacity in various geographic regions, PFA and block grant expenditures, and family structure for children who are served in PFA. The data for Head Start include the number of sites and funded enrollment in various geographic regions. Many of the data provided in this needs assessment related to homelessness, child abuse and neglect, working family conditions, and/or poverty pertain to families with children who may be enrolled in PFA and Head Start. We have no way to correlate most of the data from different sources other than to state that many at-risk children are served by PFA and Head Start programs.

Initially Illinois legislation set a goal of serving all families below 400% FPL to ensure all families could access quality early childhood education. Maps 12A, 12B, and 12C show the percentage of children served at three poverty levels (185% FPL, 200% FPL, and 400% FPL). At 185% FPL, the state’s capacity to provide enrollment slots to serve eligible children looks adequate; however, when we look at 200% FPL and 400% FPL, a smaller percentage of
Achieving this initial goal remains distant until more enrollment slots are created.

**Child Care.** Early care and education programs take many forms (part-day, full-day, drop-in, weekly, school-year, and year-round) and may be associated with human service agencies, corporations, schools, or homes. These programs may be publicly funded or privately funded through corporate sponsors or parent tuition. Some of these programs also use blended funding from both private and public sources. Because many Head Start and PFA programs are half-day, children attending Head Start and PFA may also enroll in other programs for the remainder of the day to have full-day care.

Child care data on iecam in this needs assessment include the number of sites and capacity (licensed capacity for licensed centers and homes) for children from 6 weeks through 1 year, 2 years, 3 years, 4 years, and 5 years (not yet in kindergarten). Data also include total capacity (licensed capacity for licensed centers and homes) for children, birth through 5 years old (not yet in kindergarten). All child care data are provided by the Illinois Network of Child Care Resource & Referral Association (INCCARRA) and are from FY2010. Tables 6–8 provide information on the number of sites and licensed
Map 13

Number of children age 5 and under receiving child care assistance (FY2010)

10 or fewer (4)
11–100 (45)
101–1,000 (39)
More than 1,000 (14)

Statewide: 92,103

capacity for child care in Illinois.

The Child Care Assistance Program (CCAP) is designed to provide working families of low income (at or below 185% FPL) access to affordable, high-quality child care. The number of children birth through age 5 whose families receive assistance under the CCAP program is 92,103 (FY2010). Cook County has the highest number of children receiving assistance at 50,271. Four counties in downstate Illinois (Brown, Calhoun, Putnam, and Stark counties) have fewer than 10 children receiving assistance.\(^\text{13}\) Map 13 shows an overall picture of the state. It should be noted that the numbers of children receiving CCAP funds tend to be more concentrated in the urban areas of the state (e.g., Chicago, Rockford, Springfield, East St. Louis, and Bloomington).

Limitations to child care data. Most data (e.g., poverty data, health data) provided are aggregated to a region by the particular data source. Some data are aggregated to sites (e.g., PFA, Head Start). Almost no data are provided at the individual child level. The exception is CCAP data, although IECAM does not make public any individual child data from the CCAP database.

It is important to note that data from separate sources cannot be combined to provide new data. For example, although we have data on the number of children in licensed child care and on the number of children living in single-parent families, we are unable to provide the number of children in child care who are living in single-parent homes. Caution must be taken when making decisions based on separate data sets. There may appear to be relationships between the data, but no correlations can be made.

### What Do We Know about the Quality and Effectiveness of Programs?

According to Wesley and Buysse (2010), early care and education in the nation lacks a “universally accepted and applied definition of program quality” (p. 2). Although much is known, and somewhat accepted, about the competencies that enable children to achieve school readiness and even excel academically, there is often wide variability between states regarding early learning standards, making it difficult to develop consistency across states related to alignment with K–12 and the Common Core Standards. Additionally, professional development of teachers and those professionals and paraprofessionals in the field of early childhood remains inconsistent—sometimes woefully inadequate in many areas of the country.

Illinois is a leader in the nation because of its vision for a cohesive and comprehensive professional development program for individuals working in early care and education.\(^\text{14}\) In addition, decision makers in the state are bringing together the seemingly disparate parts that make up the field of early care and education. In 2011, the Kindergarten Readiness Stakeholder Committee recommended the Illinois Kindergarten Individual Development Survey (KIDS) process to ISBE. Distancing itself from the “one-time readiness
A snapshot of children entering kindergarten, the committee recommended a developmentally appropriate assessment process designed to provide data that “can be used at multiple levels and for multiple varying purposes, including guiding decisions regarding classroom instruction, policy making, and resource allocation” (“A New Beginning,” 2011, p. 3). A specific assessment instrument was not chosen; rather, the committee specified a set of goals and priorities to be used by ISBE in the development of an assessment process. Similarly, an ongoing effort exists to align and integrate the early learning standards across preschool and the early grades of elementary school.

Quality Counts, the quality rating system system in Illinois, provides a way for the state to recognize the attainment of particular quality indicators and can result in a quality add-on to the state standard rate for providers who care for children enrolled in CCAP. Although Quality Counts assigns tiered levels only to child care providers who achieve ratings based on various quality criteria, future plans include an expansion to include more early care and education programs rather than only child care programs and providers. The state would then be able to more clearly compare and contrast the quality of early care and education settings. Furthermore, the planned expansion should help solidify an already well-established pathway to professional development for all early childhood professionals and paraprofessionals.

Wesley and Buysse (2010) assert that a foundation to “ensuring high-quality programming across the wide variety of early care and education programs” can be built by the implementation of a quality rating system and early learning standards (p. 69). While that may be true, it does not preclude the invaluable conversations that need to take place in communities of all sizes across the state. This report does not seek to answer the question of whether the early care and education services are of high enough quality to meet the diverse needs of children in Illinois. It does, however, aim to remind read-

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<td>Total capacity sessions (2 years) ............................................................................................................. 1,117</td>
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<td>Total capacity sessions (5 and under not yet in K) ..................................................................................... 36,189</td>
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<td>Total capacity sessions (3, 4, and 5 years not yet in K) ..................................................................... 18,206</td>
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ers that this question is only one part of the ongoing conversation taking place at the local, county, and state levels.

**Next Steps**

The primary purpose of this project was to equip the Governor’s Office of Early Childhood Development, the Early Learning Council, and stakeholders across Illinois with the most up-to-date data related to risk factors that young children and their families are facing today. Data such as those that are highlighted in this report and the raw data detailed (in Excel spreadsheets, charts, graphs, and maps) on the Web page (http://iecam.illinois.edu/riskdata/) represent just a portion of the life stressors experienced by many families. Readers are encouraged to explore the data sets on the Web page to facilitate local conversations and decision making. It is our hope that the information presented in the report and on the Web page draws attention to the ongoing need for accurate and current data for making policy and resource allocation decisions related to early care and education.

It is our recommendation that the oecd in the Governor’s Office make it a priority to have this information and data updated on a regular basis. Only then can policy makers in the state have the most accurate and timely data with which to make decisions for the thousands of young children and families that need and want early care and education services in their communities. Future projects could go beyond these initial analyses by expanding the types of data collected, extending the data through additional years, and comparing the data to similar data from other states.

**References**


Notes

1. Some data that are not available at the county level from the U.S. Census Bureau are presented at the level of PUMA (Public Use Microdata Area) or groups of PUMAs. These are geographic areas for which the Census Bureau provides selected extracts of raw data from a small sample of census records. These areas contain about 100,000 people. The Integrated Public Use Microdata Series (IPUMS-USA) consists of samples of the population drawn from various censuses and the American Community Survey. The Minnesota Population Center, University of Minnesota, publishes IPUMS.

2. A principle of slot gap analysis is to identify gaps and areas for improvement to enhance service delivery across a given geographic region. Although care should be given in the use of the term “need” (a political construct), this type of analysis can be an effective way to get a snapshot of the location of early care and education services within a specific region as it relates to the number of eligible children and families residing in that region.

3. Note that poverty thresholds are a statistical measurement used by the U.S. Census Bureau in calculating the number of people in poverty. Poverty guidelines are issued by the U.S. Department of
Health and Human Services and announced in the Federal Register. Poverty guidelines are administrative figures and are used to determine financial eligibility for certain programs. They are very close, but not identical, to the Census Bureau's poverty thresholds. For more detailed information, see http://aspe.hhs.gov/poverty/faq.shtml#differences.


6. Eligibility for PFA is based on locally determined risk factors, such as home language other than English, children's delayed development, homelessness, teen parenthood, school dropout and grade retention/truancy rates in the community, parents on active military duty, parents with low education attainment, unemployment, infant mortality, birth trauma, low birth weight, prematurity, and child abuse and neglect.

7. See endnote 1 for detailed description of PUMAs.

8. While recognizing that many people prefer the term Latina/o, this report uses the term Hispanic when discussing figures from the U.S. Census Bureau, which still uses the term.

9. The U.S. Census does not specify languages other than English and Spanish in its Linguistically Isolated Household data. All other languages (e.g., Polish, Vietnamese) are reported in a category titled "households speaking languages other than English or Spanish."

10. The source for these data is the IDHS publication titled Illinois Salary and Staffing Survey of Licensed Child Care Facilities: FY2009 prepared by the Child Care Resource & Referrel at the University of Illinois. See http://www.dhs.state.il.us/page.aspx?item=49144.


13. For privacy reasons, if there are 10 or fewer children receiving assistance through CCAP in a given area (county, township, etc.), the data are not reported for that area. In rural parts of Illinois, this is the case for some counties and for many townships and municipalities and should be taken into consideration when making decisions.

14. Gateways to Opportunity is the single statewide professional development support system designed to provide guidance, encouragement, and recognition to individuals and programs serving children, youth, and families. Resources and services provided by Gateways to Opportunity include Credentials, Professional Development Advisors, Great START, Gateways to Opportunity Registry, the Illinois Trainers Network, and Gateways to Opportunity Scholarship Program. See http://www.ilgateways.com/.
**Illinois Early Childhood Asset Map**

The Illinois Early Childhood Asset Map (IECAM) is intended (1) to assist policy makers in allocating resources for early care and education programs to areas where they are most needed, (2) to make public resource allocation transparent by showing the changes in funding of services from year to year, and (3) to provide a one-stop source for early care and education data gathered from multiple agencies in Illinois. IECAM accomplishes these goals by providing information on both the capacity of existing services and the demographic characteristics of young children and their families.

IECAM presents data on early care and education services in both table and map format. These services are funded by federal agencies, which fund Head Start and Early Head Start, state agencies, which fund Preschool for All, Early Intervention, and the Child Care Assistance program, and families, which fund child care in centers and family child care homes. IECAM also presents demographic data on the population, poverty level, linguistic isolation, and employment characteristics of families with children ages birth through age 5. Data are presented at various geographic levels (e.g., counties, legislative districts). Thus IECAM provides a quick snapshot of where children live and the capacity of services available to them in those geographical areas.

IECAM is expanding its database to include information on the quality and coordination of early care and education services. IECAM is working toward providing accurate and comprehensive data on the extent to which programs blend funds to serve children or coordinate services for children (e.g., colocation of Head Start and child care). IECAM data are used by policy makers, legislators, advocates, program administrators, businesses, and the general public. IECAM also will serve as a major resource for the coming longitudinal data system for Illinois.

**Chapin Hall**

Since its inception in 1985 as a research and policy center, Chapin Hall at the University of Chicago has focused on a mission of improving the well-being of children and youth, families, and their communities. This is done through policy research—by developing and testing new ideas, generating and analyzing information, and examining policies, programs, and practices across a wide range of service systems and organizations. Chapin Hall takes a broad perspective, embracing an interest in policies that promote the well-being of all children and youth while devoting special attention to those facing significant problems.

The impact of Chapin Hall comes from a distinctive marriage of the most rigorous academic research with innovative partnerships with the public systems, institutions, organizations, and programs that are in a position to best deploy that research. Taken together, this broad perspective and commitment to working in partnership form the cornerstone of its efforts. It is seldom possible to improve our communities or the circumstances of children and families through a single policy or a single system. Policies are nested within systems, and much of the work takes place at the intersection of one or more systems.

Chapin Hall’s research agenda looks within systems, such as child welfare and education, to learn how various policies, programs, and practices are succeeding or struggling. The research agenda also looks across systems to learn how they do and do not work together on behalf of the children and families that they are designed to serve. Finally, it looks beyond systems to the communities in which children, youth, and families live and how they support—or thwart—healthy development (adapted from http://www.chapinhall.org/about).