The Illinois Early Childhood Asset Map Project:
Planning Phase Final Report

Creating an Interactive, Web-based, Data-Sharing Tool
to Support Early Childhood Policy and Program Development in Illinois
# Table of Contents

1. Introduction..................................................................................................................................1

2. Major Issues Considered during the Planning Phase.................................................................2
   - Task 2.a. How will IECAM be similar to, or different from, the resources currently available? .........................................................................................................................2
   - Task 2.b. Data questions: What data are needed (i.e., Should IECAM provide enrollment numbers or capacity numbers of early childhood services?)? What is the quality of the data? Where will it come from? Are agencies willing to supply the data? How will IECAM avoid duplication counts? What demographic data will IECAM include? How will IECAM be updated with new data? .............................................................................4
   - Task 2.c. Audiences: Who are the primary audiences for IECAM? For whom will the site be developed? .....................................................................................................................................9
   - Task 2.d. Nature of the Web tool: Should IECAM offer interactive or static maps? .................................................................................................................................................10
   - Task 2.e. Geographic coverage of the state: Will all parts of the state be included in Phase 1? Phase 2? .................................................................................................................................13
   - Task 2.f. Geographic levels: At what geographic levels will data be categorized? ...........................................................................................................................................................................13
   - Task 2.g. Definitions: What terms will need to be defined? Can the various agencies use the same definitions?..................................................................................................................13
   - Task 2.h. Eligibility: How will eligibility criteria for early childhood programs and services be incorporated into IECAM? .........................................................................................................14
   - Task 2.i. Need/demand: How will IECAM project the need and demand for early childhood services? .............................................................................................................................14
   - Task 2.j. How will IECAM tap the various kinds of expertise needed to carry out the project? ................................................................................................................................................14

3. IECAM Interim Data Collection ................................................................................................15

4. Public Awareness Plan for IECAM: Phase 1 ..........................................................................15

5. User Support Plan: Phase 1 .......................................................................................................17

6. IECAM as an Ongoing Decision-Making Tool .........................................................................18

7. Funding ......................................................................................................................................19

8. Summary of Recommendations for IECAM Development ......................................................19

9. Conclusion .................................................................................................................................21
Appendices

Appendix A: Data Framework Work Group Statement (June 2005) from the Early Learning Council ................................................................. 2

Appendix B: Advisory Committee ........................................................................................................ 4

Appendix C: Additional Web Sites Consulted .................................................................................. 6

Appendix D: Interviews and User Reactions to Test Pages ............................................................. 7

Appendix E: Bibliography of Sources on Need and Demand for Child Care from the National Child Care Information Center ................................................................. 11

Appendix F: Interim Data Collection ............................................................................................... 21
The Illinois Early Childhood Asset Map Project: Planning Phase Report

Creating an Interactive, Web-based, Data-Sharing Tool to Support Early Childhood Policy and Program Development in Illinois

1. Introduction

In 2005, the Illinois Early Learning Council began discussing the need for an online, easy-to-use, interactive tool that would assist policy makers, state agency personnel, community planners, administrators and educators, advocates, and researchers in understanding the complex landscape of early childhood services in the state of Illinois. Such a tool would have a variety of uses, including assisting in the allocation of funds for expanding Preschool for All. The Illinois Early Childhood Asset Map (IECAM), as this tool would be called, could help state agencies and other funders assure access to needed preschool services in every part of the state for preschoolers at-risk and in low-income families.

As the Early Learning Council recommended (see the recommendations from the Early Learning Council (June 2005) in Appendix A.), IECAM will be managed by the University of Illinois at Urbana-Champaign, a neutral party that will be able to present the data objectively.

As the state moves toward universal state-funded preschool for 3- and 4-year-olds, a broad view of accessibility to these programs will be important for allocating resources. IECAM will offer a visual “landscape” view that will show program capacity, availability, and accessibility in all areas of the state against a backdrop of population, family income/poverty, and language(s) spoken at home. Tabular displays of the same data will also be available for those who want or need specific data for planning and policy purposes.

During the Planning Phase, IECAM developed the following mission statement:

To enable Illinois decision makers to allocate resources effectively to early care and education by providing an accurate, trusted, and easily accessible source of data that integrates information about existing services with demographic data on Illinois families.

Based on the need expressed by the Early Learning Council, and using funds granted by the Harris and Spencer Foundations and the University of Illinois, the tasks related to the Planning Phase for IECAM were undertaken by Chicago Metropolis 2020 and the University of Illinois’ Early Childhood and Parenting (ECAP) Collaborative from October 2005 through May 2006. The work of these two organizations was informed by an Advisory Committee with broad representation from public agencies and private organizations (Appendix B).

This report summarizes the results of the Planning Phase. In addition to describing the work that has been completed, the report lays out recommendations and a general plan for the development of IECAM over the next year, and beyond.
2. Major Issues Considered during the Planning Phase

Early in the Planning Phase, staff developed a list of questions that IECAM would need to answer in order to proceed with Phases 1 (FY07) and 2 (FY08). Developing the answers to these questions became the major tasks of the Planning Phase. These questions and the IECAM response are detailed below.

Task 2.a. How will IECAM be similar to, or different from, the resources currently available?

A primary task during the Planning Phase involved examining and learning from Web-based projects with goals similar to IECAM’s in Illinois and elsewhere.

A number of organizations in Illinois have created Web sites containing information related to early childhood services and are particularly relevant to the IECAM project. These organizations include the Chapin Hall Center for Children at the University of Chicago (under contract from the Chicago Department of Children and Youth Services), the Birth to Five Project (managed by the Ounce of Prevention Fund), the Illinois Facilities Fund, and the Illinois Head Start Association.

IECAM will build on the work of these organizations but will also differ in significant ways. The table below summarizes our findings based on examination of their Web sites. (A brief listing of additional Web sites consulted, with annotations about features relevant to the IECAM project, is presented as Appendix C.)

<table>
<thead>
<tr>
<th>Description</th>
<th>Notable features</th>
<th>How IECAM will differ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presents information about early care and education programs and child care needs of low-income children in the City of Chicago.</td>
<td>A map with center locations plotted allows users to grasp visually the density of services in a neighborhood. Chapin Hall tracks usage of early care and education services. In the “Search by Indicators” section, users can search on a number of child care indicators (e.g., number of children 3-5 eligible for Head Start). This search results in the presentation of a pre-computed thematic map that plots the indicator across the various neighborhoods of the city. The Community Area Profiles section allows users to examine data on 3 early</td>
<td>IECAM will be interactive, allowing users to view data about a variety of parameters, including but not limited to eligibility for Head Start, the Child Care Assistance Program, Preschool for All, and IDHS and ISBE 0-to-3 programs. IECAM will (1) focus on all areas of the state of Illinois, excluding Chicago, in Phase 1; (2) include child care and early education information for all children; (3) include birth-to-3 program data; and (4) offer</td>
</tr>
</tbody>
</table>
The site calculates population estimates for 2005.

### Ounce of Prevention
**The Birth to Five Project Web Site**
[http://map1.gismap.us/chicago/](http://map1.gismap.us/chicago/)

<table>
<thead>
<tr>
<th>Description</th>
<th>Notable features</th>
<th>How IECAM will differ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides information on early childhood programs and community demographic data.</td>
<td>The site includes Geographic Information System (GIS) features. Users can select parameters related either to demographics (e.g., number of children under 5 years of age) or to early childhood services enrollment (e.g., number of children receiving early intervention services); they can select geographic areas of county, municipality in Cook County, or community in Chicago. Alternate tabular presentations are also provided. The site provides information in both interactive map and table format. The site was updated in 2005, and there is no plan for further maintenance or updates.</td>
<td>IECAM will provide in Phase 1 (1) data on licensed and license-exempt child care centers and on state-funded PreK classrooms; (2) data on specific child population cohorts (e.g., age 1, age 2, etc.); (3) data related to languages spoken at home; and (4) additional geographic levels (e.g., township—in project Phase 1 or 2); (5) additional search options for tabular presentation of data; and (6) an easy-to-use interface.</td>
</tr>
</tbody>
</table>

### Illinois Facilities Fund (IFF)
**Moving Towards a System: Statewide Early Childhood Needs Assessment**
[http://www.iff.org/content.cfm?contentid=41](http://www.iff.org/content.cfm?contentid=41)

<table>
<thead>
<tr>
<th>Description</th>
<th>Notable features</th>
<th>How IECAM will differ</th>
</tr>
</thead>
<tbody>
<tr>
<td>The purpose of <em>Moving Towards a System</em> is to analyze the need for 3 government-funded programs: subsidized child care, Head Start, and state-funded PreK.</td>
<td>This publication presents information about early-childhood-related needs in Illinois counties and municipalities in PDF pages. (It does not include a mapping feature or an interactive database.) The publication presents a formula for calculating need for early childhood services and ranks communities by need.</td>
<td>IECAM will differ from the IFF site in its interactive presentation of data. IECAM will offer IFF’s need formula as one way to calculate need for early childhood services.</td>
</tr>
</tbody>
</table>
Map of Illinois Head Start Grantees
http://www.ilheadstart.org/map.html

<table>
<thead>
<tr>
<th>Description</th>
<th>Notable features</th>
<th>How IECAM will differ</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ILHSA Web site provides Illinois Head Start Grantee profiles, including 2002 program, child, and family data.</td>
<td>The ILHSA presents its data in concise tables.</td>
<td>IECAM will differ from the ILHSA site in its interactive presentation of data and in its inclusion of data on other kinds of early childhood services.</td>
</tr>
</tbody>
</table>

**Task 2.b. Data Questions:** What data are needed (i.e., Should IECAM provide enrollment numbers or capacity numbers of early childhood services?)? What is the quality of the data? Where will it come from? Are agencies willing to supply the data? How will IECAM avoid duplicating counts? What demographic data will IECAM include? How will IECAM be updated with new data?

As part of the effort to gather and understand data related to the availability and use of early childhood services in Illinois, IECAM staff participated in meetings and teleconferences with data management personnel at agencies and organizations in Illinois who are potential providers of data to IECAM. These include:

- Illinois Network of Child Care Resource and Referral Agencies (INCCRRRA)
- Champaign County Child Care Resource Service (CCRS) sponsored by the University of Illinois Extension
- Illinois Department of Human Services (IDHS)
- Illinois State Board of Education (ISBE)
- Head Start Illinois and Indiana Team (part of Region V of the Administration for Children and Families, U.S. Department of Health and Human Services)
- Illinois Head Start Association (ILHSA)

Based on these meetings and teleconferences, IECAM requested and received relevant data from some of these agencies. These data cover four early childhood services types:

1. ISBE PreK
2. Head Start and Migrant Head Start
3. Licensed child care centers (license-exempt centers will be added in Phase 1)
4. ISBE 0-3 programs (Prevention Initiative 0-3 and Parental Training 0-3)

IECAM is also working with some of these organizations and agencies to acquire data related to additional programs:

5. Early Head Start
6. IDHS Early Intervention programs (Parents Too Soon and Healthy Families Illinois)

Depending on their availability and format, data on these programs will be added during Phase 1 of the project.
The following tables highlight the relevant data related to these early childhood services types.

<table>
<thead>
<tr>
<th>ISBE PreK</th>
<th>Data parameters</th>
<th>Source of data</th>
<th>Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• number of sites</td>
<td>INCCRRA (number and capacity)</td>
<td>By county</td>
</tr>
<tr>
<td></td>
<td>• total capacity</td>
<td>ISBE (grantees)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• total capacity across sessions</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• grantees</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Head Start</th>
<th>Data parameters</th>
<th>Source of data</th>
<th>Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• funded enrollment</td>
<td>ACF Region V (funded enrollment)</td>
<td>By county</td>
</tr>
<tr>
<td></td>
<td>• grantees</td>
<td>ILHSA (grantees)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Early Head Start</th>
<th>Data parameters</th>
<th>Source of data</th>
<th>Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• funded enrollment</td>
<td>ACF Region V (funded enrollment)</td>
<td>By county</td>
</tr>
<tr>
<td></td>
<td>• grantees</td>
<td>ILHSA (grantees)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Migrant and Seasonal Head Start</th>
<th>Data parameters</th>
<th>Source of data</th>
<th>Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• funded enrollment</td>
<td>IDHS Head Start State Collaboration Office</td>
<td>By county</td>
</tr>
<tr>
<td></td>
<td>• grantees</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Licensed Child Care Centers</th>
<th>Data parameters</th>
<th>Source of data</th>
<th>Geography</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• number of licensed and license-exempt sites</td>
<td>INCCRRRA</td>
<td>By county</td>
</tr>
<tr>
<td></td>
<td>• total licensed and license-exempt capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• total capacity across sessions 0-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• total capacity across sessions 3-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ISBE 0-3 Programs</th>
<th>Data parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Prevention Initiative children served</td>
</tr>
<tr>
<td></td>
<td>• Prevention Initiative grantees</td>
</tr>
<tr>
<td></td>
<td>• Parental Training children served</td>
</tr>
</tbody>
</table>
Some observations and concerns related to the data listed in the tables above are explained in the following paragraphs.

**Data updates.** IECAM staff determined that we require at least an annual update of the data in the IECAM database. All of the data sources that we contacted update their information at least once a year. Therefore, timeliness of updates to the IECAM database should not pose significant problems. Various parts of INCCRRA’s data are updated at different parts of the fiscal year (ISBE PreK, Head Start, and licensed child care centers), but all data are updated at least annually. Similarly, ISBE’s data on its 0-3 programs are updated annually, typically in August for the previous school year. For example, data for the 2004-2005 school year were compiled in August 2005. ISBE also compiles its grantee list for PreK, Prevention Initiative 0-3, and Parental Training 0-3 annually.

**RECOMMENDATION:** IECAM will update its database at least annually, and more often if updated data are available.

**Head Start and Migrant and Seasonal Head Start.** IECAM staff received data on Head Start funded enrollment from the ACF Region V office, and grantee contact information from ILHSA. The funded enrollment data were provided by county.

Because the Migrant and Seasonal Head Start (MSHS) program is operated separately from regular Head Start (although it provides similar services), we have separated the data related to MSHS from Head Start data. The MSHS data were obtained from the IDHS Head Start State Collaboration Office. The data include number of children served and grantee contact information. The data are provided by county. However, because grantees operate in only nine counties in the state, data are provided only for those nine counties. The MSHS data do not separate out participants by age, that is, the age range reported is 0-5 rather than 0-3 and 3-5. In the non-migrant population, children in the 0-3 range would normally be served by Early Head Start rather than by Head Start.

**Incomplete data.** The INCCRRA data management personnel noted that IECAM should be aware of possible incompleteness in their data, particularly with regard to ISBE PreK and Head Start (less so with licensed child care centers). This problem is related to the fact that the NACCRRAware database (in which INCCRRA stores its data) is intended primarily to provide referrals of child care centers to parents. The CCR&Rs (who collect the data on behalf of
INCCRRA) provide a referral service and training for child care centers. Although referrals and training are incentives for many child care centers to include their information in INCCRRA’s database, these incentives are not always needed by ISBE-funded PreK and Head Start centers. Thus, ISBE PreK centers are not necessarily motivated to provide data to the CCR&Rs for inclusion in NACCRRAware.

In future phases of the project, IECAM will work with agencies and organizations (ISBE, IDHS, INCCRRA, and DCFS) to ensure that complete data related to capacity (total and by shift) are collected, rather than relying on volunteer provision of the data. In the meantime, IECAM staff will work with INCCRRA to construct a note explaining the potential incompleteness of the data on the IECAM Web site.

**Total capacity versus capacity by shift.** As noted in the tables above, IECAM will report capacity data both as total capacity and as capacity across shifts or sessions. A concern relates to the way INCCRRA’s NACCRRAware database divides services into shifts. Total capacity (or total licensed capacity when referring to licensed centers) is reported for each child care center or site. This figure is the total number of children that the site is permitted to serve at any one time. However, if a center has half-day shifts or sessions, the reported total capacity by shift will be greater than the total capacity at any one time. These calculations have implications for avoiding duplication in counts.

The NACCRRAware database is capable of providing data for only three shifts. If a center has more than three shifts, any additional information is included in a note field. Thus, the information that is reported by shift will tend to be under-reported.

**Capacity versus children served.** Participants in our usability studies indicated a desire to know the number of children served in various settings, as well as center capacity. However, the IECAM team has decided to present data related only to child care center capacity in Phase 1, because of the absence or inaccuracy of data regarding children served (or enrollment) and the dynamic nature of these data. The data on licensed child care centers, for example, do include enrollment data, but providing these data is optional and its accuracy is insufficient to include in the IECAM database. The number of children receiving child care assistance, however, is known and could be added, but it will be important to note that this number represents only a portion of the children served in a center that also includes private-pay clients. During Phase 1, IECAM staff will work with agencies to try to develop a reliable means to determine the number of children served.

Note that these concerns do not apply to programs such as ISBE’s Prevention Initiative 0-3, Parental Training 0-3, and Head Start, for which data are reported primarily by number of children served.

**RECOMMENDATION:** Dealing with potential duplication issues will be a major focus in Phase 1.

**Duplicated counts.** A major related concern for IECAM has been the issue of potentially duplicating counts in

---

1 For example, a licensed center may have a total licensed capacity of 80. Perhaps they have a full-day shift with a capacity of 40 and both a morning and afternoon shift, each with a capacity of 40. Thus, although the total licensed capacity is 80, the potential total number of children served is 120.
capacity and numbers of children served in early care and education programs. Dealing with duplication issues will be a major focus in Phase 1. Duplication in counts is most significant when counting enrollment or number of children served, but it can also occur in calculating capacity. In Phase 1, we will work with the agencies involved to develop ways to accurately represent Preschool for All classroom capacity and child care center capacity and enrollment.

*Demographic data.* During interviews and conversations about the project, three kinds of demographic data—on population, income, and language spoken at home—emerged as of most interest to potential IECAM users.

The following table explains the demographic data obtained in the Planning Phase.

<table>
<thead>
<tr>
<th>Type of data</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Number of children who are below 1 year of age; and number of children who are 1, 2, 3, 4, and 5 years of age</td>
</tr>
<tr>
<td>Geography</td>
<td>By county</td>
</tr>
<tr>
<td>Eligibility</td>
<td>Many programs are geared toward children’s age levels. Especially, some programs serve children 0-3 years (for example, ISBE Prevention Initiative 0-3), and some serve children 3 and 4 years of age (for example, ISBE PreK)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of data</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Number of families with incomes below 185% Federal Poverty Level (FPL) with children under 5 years old</td>
</tr>
<tr>
<td>Source</td>
<td>Census 2000 Summary File 4 (SF 4) - Sample Data. PCT162. RATIO OF INCOME IN 1999 TO POVERTY LEVEL OF FAMILIES BY FAMILY TYPE BY PRESENCE OF RELATED CHILDREN UNDER 18 YEARS BY AGE OF RELATED CHILDREN [81] - Universe: Families</td>
</tr>
<tr>
<td>Geography</td>
<td>By county</td>
</tr>
<tr>
<td>Eligibility</td>
<td>Several programs (for example, ISBE PreK) use income as one factor in a range of factors in determining eligibility.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of data</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Number of children in families below 185% FPL, and below 100% FPL</td>
</tr>
<tr>
<td>Geography</td>
<td>By county</td>
</tr>
<tr>
<td>Eligibility</td>
<td>Several programs (for example, ISBE PreK) use income as one factor in a range of factors in determining eligibility.</td>
</tr>
</tbody>
</table>
### Table

<table>
<thead>
<tr>
<th>Type of data</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Number of linguistically isolated households speaking Spanish at home, and speaking other non-English languages at home&lt;sup&gt;2&lt;/sup&gt;</td>
</tr>
<tr>
<td>Source</td>
<td>Census 2000 Summary File 4 (SF 4) - Sample Data. PCT42. HOUSEHOLD LANGUAGE BY LINGUISTIC ISOLATION [14] - Universe: Households</td>
</tr>
<tr>
<td>Geography</td>
<td>By county</td>
</tr>
<tr>
<td>Eligibility connection</td>
<td>Several programs (for example, ISBE PreK) use limited English proficiency as one factor in a range of factors in determining eligibility.</td>
</tr>
</tbody>
</table>

According to the Preschool for All legislation, newly funded program priority will be given to “at-risk” children, and secondary priority will be given to children with a family income of less than 4 times the Federal Poverty Level according to HHS definitions.

The census does not calculate or count household, family, or individual poverty at 4 times the FPL. Therefore, we have requested a cost and time estimate to create a special tabulation from the Poverty Division of the U.S. Census for use during Phase 1. We will work with agencies and the IECAM Advisory Committee to ensure that the appropriate data are integrated into IECAM.

During our interviews, some participants also expressed interest in having data related to family/parental employment. We will add this information, depending on census availability, late in Phase 1 of the project.

Census data from 2000 was used for the Planning Phase.<sup>3</sup> As early as possible in Phase 1 of the project, IECAM staff will work with demographers to prepare estimates of data for 2005 and projections of data for 2006 and beyond. During the Planning Phase, IECAM staff consulted several demographers and made preliminary plans to add a demographer to the staff to work on the demographic tasks to be undertaken during Phase 1.

### Task 2.c. Audiences: Who are the primary audiences for IECAM? For whom will the site be developed?

Because of the Early Learning Council’s mandate to create IECAM to support policy and program development, IECAM will be designed during Phase 1 to serve several audiences with similar policy and program information needs. We anticipate four initial user groups: (1) state and

**RECOMMENDATION:**

IECAM will be designed to serve four primary audiences with similar information needs during Phase 1: (1) state and local agencies, (2) legislators and their staff, (3) early childhood advocates and policy-oriented foundations, and (4) school district, child care, and Head Start administrators.

---

<sup>2</sup> The Census Bureau defines a linguistically isolated household as one in which no member 14 years old and over (1) speaks only English or (2) speaks a non-English language and speaks English "very well." In other words, all members 14 years old and over have at least some difficulty with English.

<sup>3</sup> For data on the relation to FPL and language spoken at home, the estimated data (for 2004 or 2005) provided by the Census Bureau addresses only 9 counties, and IECAM requires data for all 102 counties in the state. Therefore, it is necessary to obtain data from 2000 Summary File 4 for these variables.
local agencies, (2) legislators and their staff, (3) early childhood advocates and policy-oriented foundations, and (4) school district, child care, and Head Start administrators.

Because these audiences have similar information needs, IECAM can be optimally designed to serve these groups. (Section 4. Public Awareness Plan contains additional details about how each audience will be served.)

Web resources are inevitably used by audiences broader than those for whom they are designed. For example, the media will undoubtedly be a strong secondary user group, and although IECAM will not be designed with the media’s needs in mind, its ease-of-use features and user support plan will enable media representatives to use the site successfully. Parents are expected to constitute another secondary user group that will find its way to the IECAM Web site in large numbers. In order to accommodate parents, IECAM will include prominently placed links to already existing resources that are better suited to parents’ needs than are IECAM’s policy-related resources. For example, to help parents find high-quality child care and early education services, we will include links to Child Care Resource & Referral agencies (CCR&Rs), Child & Family Connections, the Chicago Early Childhood Locator, and other similar resources.

Task 2.d. Nature of the Web tool: Should IECAM offer interactive or static maps?

Static maps or interactive maps. IECAM could choose to create static maps that are made *a priori* and that will answer questions that can be anticipated from the users of the system. The creation of static maps is a straightforward process that requires fewer computing resources than creating an interactive system. The design of an intuitive and easy-to-use interface is simpler for static maps, and access time may also be slightly faster because database computations are not required. Primary disadvantages are that a limited number of scenarios can be delivered from the final system, unanticipated complex questions cannot be easily accommodated, and as new data are added to the system or data are updated, all new maps need to be created.

The other choice is to create an interactive site that allows users to query the underlying database according to various parameters and to be presented with a map that displays those parameters. The advantage is that users can query the interactive system in many more ways than they could query a system of pre-computed maps. Although such a site is more complex to create and may be slightly slower, we believe the advantages of interactivity outweigh the disadvantages.4

From the beginning of the Planning Phase, we found consensus among stakeholders and potential users that the IECAM Web system would gain by having a mapping component that could provide a geographic view of the underlying data. In general, maps provide a useful way to provide an overall qualitative “feel” for what the underlying data indicate.5

---

4 It should be noted that static and interactive map presentations are not mutually exclusive. IECAM can provide static maps to present data that users commonly query, while also providing options to create interactive maps so that less common queries can be answered.

5 Two types of maps are commonly presented in this kind of system—thematic and point maps. A thematic map presents a geographic area subdivided into smaller areas (i.e., a state subdivided into counties), in which the smaller areas are coded in some way, usually by color, according to some selected parameter (for example, IECAM could present a thematic map that uses color to highlight family income levels in the state of Illinois; red might indicate counties with low income, yellow with middle income, and tan with high income). Thematic maps can be produced...
A common mapping software product is ArcGIS, a Geographic Information System product line created by a company called ESRI. The ArcGIS suite of software allows users to create and view maps, query data, and analyze spatial relationships. ArcIMS (Internet Map Server) is another product that is used to deliver dynamic maps (such as those created in ArcGIS) and data via the Web. The combination of ArcGIS and ArcIMS is widely used by many GIS Web sites. The software is quite mature (each software product is currently in version 9), and there is considerable expertise in ArcGIS and ArcIMS available on the University of Illinois at Urbana-Champaign campus. The ArcGIS and ArcIMS combination has been chosen for use in this project.

**RECOMMENDATION:**
The data will be presented to the user in either graphical (map and/or other visual representations) or tabular format as appropriate and/or requested by the user.

Maps and tables: Quantitative data. Maps are useful for presenting a visual comparison among geographic areas or specific locations. But it is often important to have access to exact numbers (e.g., population or total licensed capacity). IECAM will provide a view of the data underlying the maps in a table format, including a feature that allows users to sort the data based on any of the data types. For example, in a table that presents data on population by county, the default table will list counties alphabetically, but users will be able to re-sort the table by descending population. Users will also be allowed to switch between map and table displays of data. (A brief statement will be provided that explains why users might want to choose map or tabular views.)

An interactive system requires a delicate trade-off between opportunities offered to the user and ease of use. For that reason, we have already devoted much energy to creating an easy-to-use interface that will enable users to ask and receive answers to complex questions, and we will continue to do so in Phase 1. The test interface created for the Planning Phase of this project has undergone usability testing by the National Center for Supercomputing Applications (NCSA) for a multitude of indicators such as total licensed capacity for licensed child care centers, population, income level, or home language. The purpose of such a map is to see where the smaller geographic areas (e.g., counties) fall in the parameter selected, or to see how different areas of the state compare with one another. This type of map does not provide exact numbers.

The second type of map, a point map, presents information related to specific locations (for example, the location of Head Start centers or classrooms and the location of state-funded preschool classrooms might be plotted on a map). This type of presentation might be useful to identify the location of a Head Start center in relation to a proposed state-funded preschool classroom in the same neighborhood. It would probably be most useful at small geographic levels, such as school districts or neighborhoods. The IECAM map of Illinois will have a “zoom in” feature that allows users to focus on a small part of the state to see where individual centers or classrooms are located and find out selected characteristics of that center (i.e, whether it is accredited by the National Association for the Education of Young Children).

Frequently, point maps are superimposed on thematic maps to illustrate, for example, the locations of state-funded preK centers or classrooms on a thematic map that shows income levels, to determine which low-income counties in the state have the fewest state-funded Preschool for All classrooms.

**RECOMMENDATION:**
The user interface of the system should continue to undergo rigorous testing and refinement throughout Phase 1. The addition of quick links, context-sensitive help, and wizards that aid with particular tasks will assist users through the site.
usability team and has been demonstrated in person or by telephone conference with many stakeholders and potential users of the system. (See Appendix D for detailed information about user reaction to the test pages.)

By gathering potential users’ input and integrating their insights into the test pages, the team has already learned a great deal about the features that are likely to be important to IECAM users. We have optimized the design to create easy methods to answer the most common questions while including strategies that will make it possible to answer new questions that may not be anticipated at the beginning of the project. For questions that are asked often by many users, the team will implement *shortcuts* to maps and/or data that answer frequently asked questions.

Throughout the site, helpful hints and links will appear at strategic places. For example, when there is a choice to be made about data, a quick link to definitions of data types, source, currency, and the confidence level regarding data accuracy will be offered. The development team is currently experimenting with context-sensitive help and *wizards* (step-by-step guides) that will help the user navigate through different types of options or problems.

**Updates and maintenance.** For this site to be useful, a cohesive, rigorous plan for updating and maintaining the site must be put into place in Phase 1. Both policy and technical issues will need to be considered for the updating plan.

It is critically important that all data suppliers be committed to providing updated data as frequently as the data are collected. The IECAM team has learned a great deal about the data that are currently available and will work with each agency data source as appropriate to make the data suitable for use on this site. For Phase 1, the plan is that each agency will provide updated data to IECAM personnel who will add that data to the database. This strategy will reduce the burden on the data suppliers and allow IECAM personnel to continuously monitor the data being added to the system. IECAM staff will also note trends in the data and ensure that the data and the definitions for that data match on the IECAM site.6

Because the agencies that provide data may operate on different data collection cycles, it is essential that IECAM stay continuously informed about recent updates through ongoing contact with the agencies involved.

**Usage monitoring.** Usage statistics from the monthly Web server logs will be examined. These statistics will report the number of total file accesses to the Web site, accesses to the home page, page views, and visitor sessions. The number of accesses from various domains, such as .edu and il.gov will be counted. However, it should be noted that these statistics will provide only a rough

---

6 An alternative would be to provide a set of Web-based forms to allow data suppliers to update their own data; toward the end of Phase 2, this option will be considered.
estimate of the accesses from state agencies, schools, universities, and nonprofit organizations, given that individuals working in these organizations may also access the site from home computers, and that some educational and government computers may have specialized .org addresses, etc. Of greatest use will be the tracking of the searches requested by users. IECAM staff can determine which searches are most popular and make those searches easier.

**Task 2.e. Geographic coverage of the state:**
**Will all parts of the state be included in Phase 1? In Phase 2?**

Given the existence of several high-quality resources that already provide information on the City of Chicago, including Chapin Hall’s Early Childhood Programs Supply and Demand Web site and the CYS Chicago Early Childhood Program Locator, the IECAM development team has made the decision to exclude Chicago data during Phase 1. However, during the design of the underlying database and the ArcGIS application, we will include any fields/features likely to be needed to incorporate data about the City of Chicago in Phase 2.

**RECOMMENDATION:**
Because high-quality resources already exist that describe the early childhood landscape in Chicago, the IECAM Development Team recommends concentrating efforts on areas of the state other than the City of Chicago during Phase 1.

**Task 2.f. Geographic levels: At what geographic levels will data be categorized?**

Interviewees and potential users made many suggestions concerning the geographic levels that would be most useful for dividing the data, including: zip code, county, township, municipality, census tract, elementary/unit school district, Illinois Senate and House legislative district, ISBE region, IDHS region, and CCR&R region. After discussions with the state agencies involved and after making initial decisions about the primary audiences for the IECAM Web site, we decided to concentrate on the following geographic entities most relevant to those audiences targeted for Phase 1: county, elementary/unit school district, Illinois Senate and House legislative district, ISBE region, and IDHS region. We will continue to solicit user feedback during Phase 1 on additional geographic levels that will be useful and that can be added in Phase 2.

**RECOMMENDATION:**
Use geographic levels most useful to IECAM primary audiences in Phase 1: counties, elementary/unit school districts, Illinois Senate and House legislative districts, ISBE regions, and IDHS regions.

**Task 2.g. Definitions: What terms will need to be defined? Can the various agencies use the same definitions?**

The interviews and discussions during the Planning Phase revealed an intense interest on the part of potential users in how various terms would be defined for the IECAM project. Because separate agencies use different definitions, and some of those definitions are included in the relevant statutes, it is unlikely that IECAM will be able to find common definitions, at

**RECOMMENDATION:**
“Map” or align existing agency definitions to definitions that are clear and acceptable to all data contributors for use on the IECAM Web site in Phase 1.
least in the short term. Therefore, in Phase 1, IECAM will work toward “mapping,” or aligning, existing agency definitions (i.e., creating a definition acceptable to all parties, and one that refers to existing agency definitions) to a definition acceptable to all data contributors for use on the IECAM Web site. We anticipate being able to collaborate with Head Start, IDHS, and ISBE in creating these definitions. An interim set of definitions is already part of the IECAM Interim Data Collection on the IECAM Web site.

**Task 2.h. Eligibility: How will eligibility criteria for early childhood programs and services be incorporated into IECAM?**

*RECOMMENDATION:*
Include in the IECAM database eligibility criteria for which usable statewide data are available.

Early in Phase 1, IECAM staff will complete its list of the various criteria that programs use to determine eligibility of children and families for various early childhood programs. IECAM will then determine which criteria have usable statewide data (e.g., family income below 185% Federal Poverty Level, which is available from the U.S. Census Bureau). Depending on consultations with the appropriate agencies, and upon further Web site usability testing, IECAM staff will work with its demographer to determine which of these data would be appropriate for addition to the database.

**Task 2.i. Need/Demand: How will IECAM predict the need and demand for early childhood services?**

Calculating *need* and *demand* for early care and education services is a complex activity that requires much definition and analysis. (Appendix E contains a bibliography of sources from the National Child Care Information Center that discuss the complexities of determining need and demand for child care obtained.) Such calculations depend on determining what constitutes adequate services and what constitutes “saturation” of a particular market area, predicting the changing demand for services among targeted populations, changing eligibility requirements, and other difficult issues. After much consideration of the strategies used by various groups to determine need and demand for early care and education services, the IECAM team has decided that at least in Phase 1 we will present the data we collect and suggest various strategies for determining need and demand that the user may want to employ to arrive at his or her own conclusions.

*RECOMMENDATION:*
Rather than suggesting any single formula or strategy, IECAM will suggest various strategies and allow users to employ them to determine need and demand for early care and education services in Illinois based on data collected.

**Task 2.j. How will IECAM tap the various kinds of expertise needed to carry out the project?**

Early in the Planning Phase, IECAM established a Work Group to advise on issues related to the project. As the Planning Phase proceeded, demographers and other individuals who had access to information needed by the project, including relevant data, were added to the Work Group. By
the end of the Planning Phase, the Work Group had become an Advisory Committee that will be an important asset to the project. (See Appendix B for a list of Advisory Committee members.)

3. IECAM Interim Data Collection

The need for information to assist in making funding decisions for the FY07 round of Preschool for All Children proposals led to the decision to create an interim data collection of the data gathered so far by IECAM. The IECAM Web site already provides information about the project and links to data and census resources on early childhood services in Illinois to assist those organizations writing proposals for these funds.

The IECAM Interim Data Collection will be available in mid-July 2006. It will provide data on early childhood services types, including FY06 ISBE-funded PreK, Head Start, licensed child care centers, and birth-to-3 programs. Also provided will be demographic data about the state, including data related to population, Federal Poverty Level, and language spoken at home.

The data in the interim collection are stored in a MySQL database on the IECAM Web server. Users will be able to select a county or counties from a scrolling list, make a selection of any number of the various early childhood services types and demographic groupings, or select “all.” Alternately, users may click on a county on a map of Illinois and retrieve information on all of the service types and demographic groupings for that one county. Definitions will be provided for all data parameters.

After executing a search, users will be presented with a table of the data that they have selected. In this tabular display, county names will be listed in one axis, and the various early childhood and demographic data parameters will be listed on the other axis. The default order of the table will be alphabetical by county. A feature will be provided for users to view the data in some other order. For example, if they want to view the data by order of population, they can click on the “sort” link next to the “total number of persons” parameter.

Additional elements of the planning phase interim data collection are summarized in Appendix F. The IECAM interim data collection will be linked (in mid-July) from the IECAM home page at http://iecam.crc.uiuc.edu/.

4. Public Awareness Plan for IECAM: Phase 1

To be successful, IECAM will need to attract those who are in a position to influence the distribution of public dollars for early care and education around the state, and then to accommodate and meet their information needs. For that reason, it is essential that we raise awareness and encourage use among, in Phase 1, four specific user groups: (1) state and local agencies, (2) legislators and their staff, (3) early childhood advocates and policy-oriented foundations, and (4) school district, child care, and Head Start administrators. Online, print, and person-to-person outreach strategies will be employed to connect with these potential IECAM users.
A strong online presence. IECAM will create a strong presence in the daily online environment of potential users by employing the following strategies to reach each targeted group:

- Negotiating links from all major Illinois early childhood Web sites to the IECAM Web site. The Early Childhood and Parenting (ECAP) Collaborative maintains listings of all Illinois organizations and initiatives related to young children and their families on its Illinois Early Learning (IEL) Web site at [http://www.illinoisearlylearning.org/orgs.htm](http://www.illinoisearlylearning.org/orgs.htm) and [http://www.illinoisearlylearning.org/initiatives.htm](http://www.illinoisearlylearning.org/initiatives.htm) respectively; these lists will provide us with a starting point for raising awareness about IECAM by urging these groups to link to IECAM’s Web site and adding representatives of these organizations and initiatives to the IECAM online newsletter mailing list (see next item).
- Sending periodic online notices and news items about IECAM (an IECAM electronic newsletter) to individuals in the targeted audiences at least once a month.
- Preparing short blurbs about IECAM for existing online newsletters, such as the Ounce of Prevention’s Early Edition and Gateways to Opportunity’s Insider newsletter; and for the “News” sections of Web sites, such as on the Gateways, IEL, and ECAP home pages.

Targeted efforts will also be part of the online awareness strategy:

- Reaching legislators and their staffs through targeted electronic mailings.
- Sending electronic mail and the IECAM online newsletter to staff at relevant state agencies, such as ISBE and IDHS.
- Sending electronic mail and the online newsletter to school administrators (e.g., elementary school principals) and to early care and education professionals.
- Offering an introduction to IECAM via PowerPoint presentations hosted on the site tailored to the information interests and needs of each target group.
- Working with ISBE to let those applying for grants for state-funded PreK funds know that IECAM is available to help them prepare the statements of need required in the RFP (for the FY07 proposal process, ISBE is planning to refer applicants to IECAM’s Interim Portal, which links to existing early childhood data sources in the state).
- Posting notices about IECAM features and activities to the ECEFACTULY-L listserv operated by INCCRRA for discussions among early childhood faculty in Illinois community and four-year colleges.

IECAM will work to create and maintain a visible print presence through several specific efforts.

For target groups. Materials about IECAM written specifically for the four target groups will be prepared and distributed in Phase 1: (1) state and local agencies, (2) legislators and their staff, (3) early childhood advocates and policy-oriented foundations, and (4) school district, child care, and Head Start administrators. These materials will provide examples of how and why IECAM might be used by each group. A brochure describing IECAM and how it can be used by those in the early care and education community will be developed and distributed at appropriate education conferences, early childhood conferences and meetings, and policy/legislative meetings.

RECOMMENDATION:
A brochure describing IECAM and how it can be used by those in the early care and education community will be developed and distributed at appropriate education conferences, early childhood conferences and meetings, and policy/legislative meetings.
For libraries. ECAP is an associate member of the Lincoln Trail Libraries Regional Library System and will take advantage of its relationship with the other regional library systems to see that all academic and public libraries in the state are informed about IECAM and have information in their files about the project.

For the professional literature. Early in Phase 1, IECAM will find out what newsletters, magazines, and journals members of each of the target groups are likely to read. We will work to place articles about IECAM in those publications.

For the media. The media are likely to be users of IECAM (see p. 10 for a discussion of the media as a secondary audience for IECAM), and we will work to let all major newspapers in the state know that IECAM staff are available to respond to their data questions about early care and education services. We will prepare a one-page guide to IECAM for the press and distribute it to newspapers in the state.

IECAM will also employ a number of person-to-person strategies to build awareness about IECAM among the professionals who would benefit from using it.

Conferences and meetings. In addition to online and print awareness strategies, IECAM will work to establish a visible presence in the field of early care and education in Illinois. As we have for the past several years, ECAP staff on the Illinois Early Learning project will exhibit and/or present at all major early childhood conferences and meetings around the state in FY07. Over the past year, we incorporated information on the Illinois Gateways to Opportunity (http://ilgateways.com) statewide professional development system and the IllinoisParents.org Web site (http://illinoisparents.org) into our IEL presentations and exhibits; it will be a natural extension in the future to include information on IECAM as well.

RECOMMENDATION:
IECAM staff will distribute information and present about IECAM at all major early childhood conferences and meetings around the state in FY07.

5. User Support Plan: Phase 1

Research suggests that information use by most individuals is situational—i.e., it takes place primarily when the information seeker is highly motivated to find information in response to a specific problem or question. It follows that offering detailed training about a particular resource before or after that resource is needed is likely to be mostly ineffective. Instead, short demonstrations of IECAM at conferences and meetings, rather than detailed training sessions, will be useful as introductions and in raising awareness generally about this new online tool. Web sites serve their users well by offering online examples of use, brief tutorials, extensive contextual help, online support, and live, real-time technical assistance as needed. ECAP is experienced in providing all of these kinds of support for Web-based projects.

RECOMMENDATION:
IECAM staff will be available during business hours via a toll-free telephone number to assist users in using IECAM.
**Online and telephone support for users.** IECAM will employ a variety of strategies to support users, with the expectation that successful IECAM users will let others know about their positive experiences with this online tool and its user support component. IECAM staff will develop online tutorials, software “wizards” that will assist users in finding the information they want, and online help screens. In addition, IECAM staff will be available during business hours via a toll-free telephone number to assist users in using the IECAM tool. Upon request, staff will provide customized searches of IECAM tailored to specific user needs (to accommodate those who need the information but are not interested in doing the searching themselves—always a significant subset of users). IECAM will learn from these interactions and use them to improve the Web site. We will also add a section of Frequently Asked Questions (FAQs) to the Web site.

In addition, in order to continuously improve the site in response to users’ needs, IECAM will incorporate into the search page a request for users to tell us what user group they belong to. On the search results page, users will have an opportunity to tell us whether they found what they were looking for and to ask for additional assistance, if necessary. The information gained from these responses will also feed into a cycle of continuous improvement for the Web site.

**RECOMMENDATION:**
IECAM will incorporate questions into the search page and the search results page that will allow us to learn more about IECAM user groups.

### 6. IECAM as an Ongoing Decision-Making Tool

The Early Learning Council’s original report regarding the IECAM project identified the following desired results for the system (among others):

- That “transparent” decision-making frameworks for awarding new funding involving program administrators across agencies could be instituted, with the goals of using resources as efficiently as possible and creating a comprehensive early childhood system.

- That data on early childhood (birth to 5) programs and community needs are used consistently by federal, state, and local government agencies to inform resource allocation processes in Illinois.

In order to reach these desired results, IECAM must meet the following criteria:

- Achieve mutually agreed-upon definitions: Definitions must be based on agreed-upon definitions that are compatible with the eligibility and other requirements of various programs.

- Offer data that have integrity and transparency: The data must be provided by trusted and respected sources, and to the extent possible, from the administering agencies themselves.

- Promote use of IECAM data on multiple levels: The same data should be used, for example, in grant applications as in decision making. IECAM should be referenced as a source in all data submission requirements in grant applications.

- Provide regular updating and expansion: IECAM should be updated as soon as possible after the contributing agency updates its data, older data should still be available (by
year) for research and historical purposes, and IECAM should continue to expand to meet the needs of decision makers.

The IECAM team initiated discussions about these goals with the Early Learning Council’s Linkage and Integration Committee and state agencies during the Planning Phase. In order to ensure that the system meets these goals, Phase 1 will include meetings with state decision makers who will use IECAM data in resource allocation. IECAM will also continue to rely on its Advisory Committee, which represents multiple stakeholders and experts.

In addition, the IECAM team will seek collaborative agreements to assure the flow of data and work toward achieving funding for development, maintenance, and expansion of the system.

The following steps have been identified:
- Meet periodically with the Good Start, Grow Smart team, which consists of IDHS, ISBE, and Head Start
- Meet with IDCFS
- Present IECAM to the appropriate committee of ISBE (suggested by State Superintendent of Education Randy Dunn)
- Recommend ongoing funding in the ISBE budget hearings
- Develop appropriate collaborative agreements for data sharing with IDHS, ISBE, Head Start, and INCCARRA

7. Funding

IECAM has been conceptualized as a publicly funded tool housed at the University of Illinois at Urbana-Champaign. Private foundations have generously contributed to the Planning Phase and to Phase 1. Additional funds have been committed by the Illinois State Board of Education and the Illinois Department of Human Services for Phase 1. The IECAM team will:
- Seek additional private funds for Phase 1.
- Seek public funds for development, maintenance, and implementation of Phase 2 and future phases.

8. Summary of Recommendations for IECAM Development

Phase 1, which will be completed during FY07, will be driven by a scope of work that is derived from the following recommendations:

- **Data sources:** IECAM will establish collaborative agreements with data providers that clearly set out the expectations for data updates. When possible and appropriate, the IECAM team will influence the procedures of the data suppliers to ensure that the data they are collecting is sufficient and appropriate for the IECAM purposes.
- **Data presentation:** The data will be presented to the user in either graphical (map and/or other visual representations) or tabular format as appropriate and/or requested by the user.
• **Updating:** IECAM will update its database at least annually, and more often if updated data are available. IECAM will build in an update cycle based on data collection cycles of agencies and appropriate intervals for demographic updates.

• **Duplicated counts:** Dealing with duplication issues will be a major focus in Phase 1.

• **Demographics:** IECAM will include a demographer on staff.

• **Audience:** IECAM will be designed to serve four primary audiences with similar information needs during Phase 1: (1) state and local agencies, (2) legislators and their staff, (3) early childhood advocates and policy-oriented foundations, (4) school district, child care, and Head Start administrators.

• **Geography:** IECAM will focus on the following geographic entities for Phase 1: county, elementary/unit school district, Illinois Senate and House legislative districts, ISBE regions, and IDHS regions. Because high-quality resources already exist that describe the early childhood landscape in Chicago, the IECAM Development Team recommends concentrating efforts on areas of the state other than the City of Chicago during Phase 1.

• **Definitions:** IECAM will “map” existing agency definitions to definitions that are clear and acceptable to all data contributors for use on the IECAM Web site in Phase 1.

• **Demographic data:** IECAM will include in its database eligibility criteria for which usable statewide demographic data are available.

• **Determination of need:** Rather than suggesting a single formula or strategy, IECAM will suggest several strategies for determining need and allow users to employ them to determine need for early care and education services in Illinois based on data collected by IECAM.

• **User assistance:** IECAM staff will be available during business hours via a toll-free telephone number to assist users in using IECAM.

• **Continuous improvement/tracking usage:** To continuously improve the site, IECAM will incorporate questions into the search page and the search results page that will allow us to learn more about IECAM user groups. On the search results page, users will have an opportunity to tell us whether they found what they were looking for and to ask for additional assistance, if necessary. The information gained from these responses will feed into a cycle of continuous improvement for the Web site.

• **Links:** IECAM will include easy-to-find links for parents to referral services (INCCRRRA, CFCs, etc.).

• **Historical data:** IECAM will incorporate as much historical data from 2000 forward as possible into Phase 1 so that trends can be noted.

**Creating Public Awareness**

• IECAM will create a strong presence in the daily online environment of potential users through linking, an online newsletter, and announcements in other online newsletters.

• A brochure describing IECAM and how it can be used by those in the early care and education community will be developed and distributed at appropriate education
conferences, early childhood conferences and meetings, and policy/legislative meetings.
- IECAM staff will distribute information and present about IECAM at all major early childhood conferences and meetings around the state in FY07.

IECAM Technical Recommendations for Phase 1:

- Use interactive, automatic map creation using ESRI’s ArcIMS and ArcGIS software, and a database (SQL) as the data warehouse.
- Offer tabular data as an alternative (or in addition to) maps, where appropriate.
- Simplify screens as much as possible for novice/infrequent users.
- Continue to conduct rigorous testing and refine IECAM throughout Phase 1.
- Create short cuts and wizards to frequently requested maps and tables.
- Create context-sensitive help messages and online tutorial(s).

The complete Phase 1 proposal will provide a plan with milestones for carrying out these recommendations and a complete budget.

IECAM Recommendations for Phase 2

Phase 2 is scheduled for FY08. Although it is difficult to forecast exactly which enhancements to the system will be requested or needed, some items for the scope of work are clear, based on our interviews and conversations with stakeholders during the Planning Phase:

- Bring City of Chicago data into the system.
- Consider the issue of additional home languages, beyond Spanish.
- Explore the feasibility of including other kinds of early childhood services, particularly mental health services.
- Make changes to IECAM based on user feedback and usability studies.
- Continue to publicize the IECAM Web site through online, print, and person-to-person strategies.
- Consider the feasibility of offering mechanisms for automatic updates.
- Plan an impact study for Phase 3.

9. Conclusion

Using data to support public policy decision making has been made easier in recent years by the convergence of Web-based interactive tools and the collection of increasingly high-quality administrative data by state agencies and other groups. At the end of the Planning Phase, we can say with some confidence that, by the end of Phase 1, IECAM will include the most current data available, at several geographic levels, on existing state-funded preschool classroom sites, Head Start and Early Head Start centers/classrooms, licensed and license-exempt child care centers, and birth-to-3 programs for the state of Illinois, with the notable exception of the City of Chicago. By the end of Phase 2, Chicago data will have been added to the system, and additional enhancements suggested by user feedback and usability studies will have been incorporated into the IECAM tool.
Appendices
Appendix A:
Data Framework Work Group Statement (June 2005) from the Early Learning Council

DATA FRAMEWORK WORK GROUP
June 14, 2005 – Noon - 2:00
Ounce Office, 122 S. Michigan Avenue, Suite 2050, Training Center, Chicago

PARTICIPANTS
David Alexander, Susan Cahn, Theresa Hawley, Heather Heaviland, Tony Raden, Dianne Rothenberg, Margie Wallen, Joellyn Whitehead, Karen Yarbrough

DESIRED RESULTS

Illinois Early Learning Council recommendation:
Develop a web-based mapping system, built on current efforts, to describe where current 0-5 early childhood services are, the need for services by community (e.g. demographics and other indicators of need), and gaps between services and needs. The desired product should be able to be manipulated by users for a variety of purposes and at a range of geographic levels of analysis.

- Define what the data framework should accomplish and do
- Identify key challenges in the design and development process
- Identify ways we might overcome anticipated obstacles
- Identify key tasks, resources needed, and organizational issues
- Propose a process for determining a potential “home” for the project
- Determine next steps (e.g. should we convene a larger workgroup meeting with key policymakers and technical personnel)

Conducted brief overview of current tools that assess community needs and availability of services for young children in a geographical context

- the Illinois Geographic Information System website that facilitates comparisons of demographic early childhood data to analyze community needs and availability of services (http://map1.gismap.us/chicago/) (Karen Yarbrough)

- the Illinois Facilities Fund’s Moving Towards A System 2002 comprehensive statewide needs assessment of early care and education in Illinois communities. Reports can be downloaded (Susan Cahn) (http://www.iff.org/content.cfm?contentid=41)

- the Chicago Department of Children and Youth Services Early Care and Education Supply and Demand website that presents up-to-date information about early care and education programs for low-income children, as well as community conditions, assets and needs for all Chicago community areas (Tony Raden) (http://dcys-ccsd.chapinhall.org/index.html)
• the Illinois Head Start Association website that provides Illinois Head Start Grantee profiles, including 2002 program, child, and family data (Karen Yarbrough) (http://www.ilheadstart.org/map.html)

**Biggest Challenges**

- Achieving consensus on methods for counting slots (what to count): counting the thousands of children in “collaboration” slots funded by more than one funding source (e.g., Head Start/CC; PreK/CC; HS/PreK/CC)
- Achieving consensus on how to measure community need – very important to have multiple indicators – more than simply funded slots
- Dealing with the reality that there are always going to be winners and losers
- Dealing with data errors from government sources of data (can annotate data discrepancies)
- Identifying geographic units of analysis (e.g., school district, census tract, community areas, counties, etc). Recommend using the most reasonable unit of analysis that covers the whole state and customizing for different users
- Lots of investment in current sites and studies; perhaps there is even too much data
- Need to identify and work on methodological issues as well as prioritizing areas to be developed
- People need navigational help figuring out how to work with data on various websites – need portal to direct users to the data they need for different purposes
- Technical vs. policymaker level of involvement
- Need to state limitations of the data upfront and to educate users about what the data shows

**Next Steps**

1. The U of I volunteered to take the lead in the planning development process as they are an independent entity with no self-interest
   - Need to secure small amount of funding to support planning activities, such as reviewing existing resources and bringing together experts to take a fresh look
   - Process needs to involve decision-makers and advocacy groups. Ask policy-makers what they want and need to make resource allocation decisions.

2. Theresa Hawley will take the lead in trying to establish an internet-based portal to direct users to existing resources (like the CYS/Chapin Hall, Birth to Five Project, U.S. Census, and other websites. This site would link people to resources and help them know how to use them for a variety of purposes (e.g., developing community needs assessments for RFPs). Theresa will circulate via email ideas for the portal.
Appendix B: Advisory Committee

**IECAM Advisory Committee**

*Administration for Children and Families, Region V (Head Start)*
Katie Williams

*Chapin Hall Center for Children, University of Chicago*
Bob Goerge

*Chicago Department of Children and Youth Services*
Tony Raden, Deputy Commissioner for Policy

*Chicago Metropolis 2020*
Adele S. Simmons
Emily Harris

*Hawley Consulting*
Theresa Hawley

*Early Childhood and Parenting (ECAP) Collaborative, University of Illinois at Urbana-Champaign*
Dianne Rothenberg

*Illinois Action for Children*
David Alexander

*Illinois Department of Children and Family Services (DCFS), Day Care and Early Childhood*
(to be determined)

*Illinois Department of Human Services (DHS), Bureau of Child Care and Development*
Linda Saterfield

*Illinois Department of Human Services (DHS), Division of Community Health and Prevention*
Ralph Schubert

*Illinois Department of Public Health, Statistics*
(to be determined)

*Illinois Facilities Fund*
Trinita Logue
Jacques Sandberg

*Illinois Network of Child Care Resource and Referral Agencies (INCCRA)*
Joellyn Whitehead
Jennifer Parker
Illinois State Board of Education (ISBE), Early Childhood Education Division
Kay Henderson

Illinois State Board of Education (ISBE), Data Analysis and Progress Reporting
Kalpana Desai

Ounce of Prevention Fund
Margie Wallen
Karen Yarbrough
### Appendix C: Additional Web Sites Consulted

<table>
<thead>
<tr>
<th>Site</th>
<th>Sponsor</th>
<th>URL</th>
<th>Purpose</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Informatics Resources Center (CIRC)</td>
<td>Rural Policy Institute Resources Center (RUPRI) at the University of Missouri</td>
<td><a href="http://circ.rupri.org/">http://circ.rupri.org/</a></td>
<td>To make policy-relevant public information on many topics available to community-based decision makers.</td>
<td>RUPRI makes three types of maps available on their CIRC Web site. First are archived maps. These are static maps that highlight several geographic areas (e.g., states) and categories (e.g., Rural Health Policy, SIDS Alliance Support), which users can select for viewing. Second are Animated Time Series Maps. These maps show changes over time, for example, changes in poverty level in the states over several decades. By clicking on the map, it automatically sequences through depictions across the decades. Third are interactive Maps. Here users can prepare custom maps by selecting such parameters as geographic area (e.g., state, county) and data types (e.g., population data, economic data, etc.).</td>
</tr>
<tr>
<td>Rural Early Childhood Mapping Initiative and Early Childhood Atlas</td>
<td>Mississippi State University</td>
<td><a href="http://www.ruralec.msstate.edu/initiatives/mapping.htm">http://www.ruralec.msstate.edu/initiatives/mapping.htm</a> <a href="http://earlychildhood.msstate.edu/atlas/">http://earlychildhood.msstate.edu/atlas/</a></td>
<td>To prepare county-level reports of early care and education services and child well-being information.</td>
<td>This site is managed by RUPRI (see note above) and as such presents data in the same way as the RUPRI site. Information can be viewed in static maps or in tables. Prepared maps on specially selected topics are available. Interactive maps can be produced (on the fly) by users who select various parameters (e.g., population data, child well-being data). Information on this site is not limited to Mississippi, but can be obtained for all U.S. states.</td>
</tr>
<tr>
<td>Child and Family Policy Center (CFPC) (Iowa)</td>
<td>Child and Family Policy Center</td>
<td><a href="http://www.cfpciowa.org/">http://www.cfpciowa.org/</a></td>
<td>Conducts research, produces research syntheses, facilitates community and state forums on children's issues, and provides technical assistance to state and community policy makers.</td>
<td>This site presents much information on topics related to children’s well-being (such as school readiness, family support services). The information is presented in print and/or Web publications, most of which are available on the Web site. The site does not include a mapping feature or an interactive database.</td>
</tr>
</tbody>
</table>
Appendix D: Interviews and User Reactions to Test Pages

The initial interview was conducted internally with CM2020 staff Emily Harris and Khan Guven, and with consultant Theresa Hawley. The second interview was conducted with Andy Wadsworth, Web usability expert at the National Center for Supercomputing Applications at the University of Illinois. After these initial interviews, subsequent interviews questioned project stakeholders in the early childhood field. These interviewees were:

- Interview 3. Margie Wallen, Karen Yarbrough, and Deana Durica of the Ounce of Prevention Fund
- Interview 4. Mary Ann Wilson of Success by Six, Champaign County
- Interview 5. Judy Hartley of the Child Care Resource Service (CCRS), Urbana, IL; and Peggy Patten of the Early Childhood and Parenting Collaborative
- Interview 6. Kalpana Desai of the Data Analysis and Progress Reporting Division, Illinois State Board of Education
- Interview 7. Holly Knicker of the Illinois Department of Human Services
- Interview 9. Linda Saterfield of the Illinois Department of Human Services
- Interview 10. Nancy Fishman of the Grand Victoria Foundation

After preliminary discussion with selected stakeholders, IECAM staff prepared a PowerPoint presentation that presented slides from three selected Web sites (Chapin Hall, Birth to 5, and Center for Prevention Research & Development [CPRD]). These Web sites offered data related to that of IECAM in manners of presentation related to our expected manners of presentation.

IECAM staff also prepared a series of test Web pages that incorporated what we thought were some of the good design elements and eliminated some of the problematical design elements of other sites that we reviewed. The PowerPoint and the test Web pages were uploaded to our Web server.

In order to test this preliminary design, we conducted a number of interviews that incorporated some usability questions and other questions related to content with stakeholders. These interviews were conducted between February and late May 2006 in person (in several cases, the interviewees came to our offices) or via teleconference. In the latter case, the interviewee spoke with us while observing the relevant pages on his or her computer at the URL we provided. (The list of interviewees is given above.)

A number of additional interviews were planned but have been postponed (typically due to workload issues). The postponed interviews will be conducted over the next several months. As the Web site develops, IECAM will continue to schedule periodic usability interviews to check potential users’ ability to navigate and use the Web site and associated database.

During the course of the interviews, the interviewees reviewed the design of the Web sites in the PowerPoint presentation and critiqued the design of the IECAM test pages. Some comments presented a point that was so clearly a good idea that we incorporated the change immediately.
Other comments addressed points for which we wanted additional feedback before deciding on implementation, or which would be better addressed at a later stage of the Web site development. These suggestions were noted for possible future implementation. The interviews helped us make initial decisions regarding terminology, definitions, page design, presentation of search results, data presentation in table and map format, and demographics.

The second type of critical comment concerned design elements about which we will seek additional feedback before deciding on implementation. Some of these comments concerned elements that will be considered in future stages of site design. Some of the items that are under consideration are provided in the following list.

- Add a User’s Guide with instructions on how to search the database (possibly with graphics and screen shots).
- Display data by geographic levels other than state and county, possibly including township, elementary/unit school district, state senate district, state representative district, federal representative district, census tract, IDHS region. (NOTE: These displays are contingent upon availability of data by those regions.)
- In zoom views, include streets and highways on maps.
- In zoom views that display location icons, determine what data, if any, should appear when users “mouseover” or click on the icon. (NOTE: This feature may be dependent on privacy issues.)
- In zoom views that display location icons, provide options for selecting and displaying different combinations of icons (for the various early childhood services types).
- In map displays, determine an alternate icon (to the “hand” icon) for moving around the map.

---

7 Some suggestions addressed terminology, such as using “ratio” instead of “rate” or “site” instead of “program.” Interviewees were confused by the term “number,” which we then changed to “slots,” and then changed again to the more precise “total capacity,” “total licensed capacity,” “funded enrollment,” and “number of children served.” Interviewees were sometimes confused by acronyms, and we eliminated them whenever possible (for example, we changed PT and PI to Parental Training and Prevention Initiative).
8 We prepared a page of definitions of all the terms that are used in the various searches. Based on comments from interviewees, we redesigned and moved around the link to this page from the introductory page; and we redesigned the definitions page itself several times.
9 Concerning the page design, the interviewees wanted to see the items on the page brought together for easier reading and less scrolling. Thus we closed spaces between text and search boxes, and highlighted the columns in different colors. In general, with regard to page design, the interviewees noted that the design of the IECAM pages was very clear, especially in comparison to the test sites they had seen in the PowerPoint presentation.
10 When a search result is obtained, they wanted to see the search statement repeated.
11 Another feature that was almost unanimously desired by our interviewees was the ability to switch between displays of data in table format and map format.
12 Instead of (or along with) the demographic income options based on income range (e.g., “$15,000-$24,999), the interviewees preferred to see options that relate to poverty indicators (i.e., income at or below Federal Poverty Level [FPL], 185% FPL, and 50% state median income), because those relative indicators are more closely related to eligibility requirements. Interviewees wanted to see children’s ages tallied by individual years (i.e., less than 1 year, 1 year, 2 years, 3 years, 4 years) instead of, or along with, grouped ages (i.e., 0-3, 3-5). With regard to language demographics, they wanted to see options other than simply “Spanish spoken at home” and we added “non-English spoken at home.” (NOTE: We are somewhat constrained here by census data.)
• In legends that accompany thematic maps, provide an option to change the number of default levels (4) of data display.
• In legends that accompany thematic maps, change the color scheme of the 4-range sequence to change hues between two colors, rather than among several colors.
• In legends that accompany thematic maps, explain the meaning of the 4-range breakdown in the legend.
• In a table of data, provide a feature to click on a particular part of the table to view data for that particular part only (e.g., in a table of data for all counties, click on “Champaign” to view data for Champaign County only).
• In a table of data, provide a feature to select two lines from the table for comparison purposes (e.g., in a table of data for all counties, click on “Champaign” and “Vermilion” to view a comparison of data for those two counties).
• In a table of data, provide a feature whereby users can click on a column to re-order the data in the table by that column (e.g., in a table of counties listed alphabetically, click on “number of children age 3 to view the table ordered by that population figure).
• With search results, provide an option to print the map, search information (i.e., “you searched on …), and legend.
• Next to the demographic choices, add a quick link to related eligibility requirements (i.e., before selecting “185% FPL,” users can learn what eligibility requirement that figure relates to).

In summary of the interview process to date, users made some comments about the IECAM site design to which we immediately responded by adding, changing, or removing the feature commented upon. Other suggestions require further feedback or more technical investigation. Most of these are listed above. In our additional discussions with stakeholders and consultations with designers and programmers, we will address these concerns. Note that not all of these will be implemented, pending those discussions and consultations.

In their comments about the IECAM site design, a number of points specially stood out. Interviewees:

• would like to see presentations in both tabular and map format
• would like to see interactive as well as static presentations (i.e., searching a database as well as looking at prepared maps)
• expressed a need for clear definitions of terms
• felt the IECAM test pages had a very clear design compared to other sites’ pages

Concerning the data itself, interviewees expressed a desire to:

• view data at various geographic levels
• view site locations plotted on a map
• find information on additional program services types (besides those in our planning phase: ISBE-funded PreK, Head Start, licensed child care, ISBE PT, and ISBE PI)
• have data as recent as possible
• find demographic data tied to eligibility requirements (e.g., number of families with income at or below FPL)
• view language data for non-English languages other than Spanish

Besides the review of the Web sites, interviewees also commented on their desire to have the project address the issue of need and demand for child care, and they offered some ideas about how IECAM might determine need. IECAM must address this issue in some way. At this point, we expect to present on the Web site various methods that other organizations have used to determine need, noting that no single method is universally agreed on. We will continue to examine this issue in discussion with our Advisory Committee and relevant stakeholders during Phase 1 of the project.
CHILD CARE SUPPLY and DEMAND

The supply and demand of child care varies within States and local communities. Additionally, the supply of care varies by the type of care needed. For example, the supply tends to be lower for child care for infants and toddlers, school-age care, care for children with special needs, care during nontraditional hours, and care in rural areas. Some States have created incentives, such as a differential reimbursement rate, to encourage the supply of specific types of care. For families receiving subsidies to help afford the cost of care, supply also varies by State and within communities; not all providers accept subsidy payments. In some States, families eligible for the Federal Child Care and Development Fund (CCDF) subsidy are on waiting lists for these funds due to unavailability of funding. Research demonstrates this also can impact the child care choices families make. The following is a sample of national and State resources on child care supply and demand.

NATIONAL RESOURCES

- *Estimating Supply and Demand for Afterschool Programs: A Tool for State and Local Policymakers* (October 2004), prepared by Afterschool Investments, for the Child Care Bureau, Administration for Children and Families, Department of Health and Human Services, provides a framework for estimating after-school program supply and demand by summarizing and highlighting experiences in a number of States. Assessing supply and demand can be accomplished in a variety of ways, all of which require gathering and analyzing data to develop well-informed estimates. The process includes: (1) determining a process that will meet all of the needs, (2) putting together a team, (3) identifying available data, (4) collecting new data, and (5) analyzing and using data. The tool also includes lessons learned from pioneers in the field. A sample provider survey instrument is appended. This resource is available on the Web at [http://nccic.org/afterschool/SupplyDemand.pdf](http://nccic.org/afterschool/SupplyDemand.pdf).

- *Understanding Child Care Supply and Demand in the Community* (2004), by the Enterprise Foundation, provides community-based organizations (CBOs) with tools to measure the demand for and supply of child care in their communities. The manual describes how to identify the community; understand and measure demand; measure supply and document the gaps; and learn how to invest in child care to meet the needs in a particular community. This


- **National Study of Child Care for Low-Income Families: State and Community Substudy Interim Report** (November 2000), by Ann M. Collins, Jean I. Layzer, J. Lee Kreader, Alan Werner, and Fred B. Glantz, presents study findings on issues at the State and community levels. Topics include: legislation and policy changes; child care expenditures in relation to welfare reform and the proportion of funds from Federal vs. State sources, and how the money is spent; child care subsidies (demand for, administration of, and type of care purchased with); the supply of care in relation to the growth of demand; and strategies States are using to improve care for low-income families vs. general improvement. This resource is available on the Web at [http://www.abtassoc.com/reports/NSCCLIF.pdf](http://www.abtassoc.com/reports/NSCCLIF.pdf).

- **Education and Care: Early Childhood Programs and Services for Low-Income Families** (November 1999), by the U.S. General Accounting Office (GAO), provides information about types of care that are difficult to obtain for low-income families, including infant and toddler care, care for children who have special needs (such as children with physical disabilities), and care for children during nonstandard hours (evenings and weekends). This resource is available on the Web at [http://www.gao.gov/new.items/he00011.pdf](http://www.gao.gov/new.items/he00011.pdf).

### State and Local Resources

**California**

- **The California Child Care Portfolio 2003** (2004), by the California Child Care Resource & Referral Network, is a compilation of county-by-county data about child care in California. Data collected for each county include: total number of child care requests to resource and referral agencies and licensed child care supply as well as total number of residents, number of children living with working parents, child care costs, family income, child care salaries, and portion of income needed for child care. For more information, contact the California Child Care Resource and Referral Network at 415-882-0234. This resource is available on the Web at [http://www.rrnetwork.org/rrnet/our_research/2003portfolio.php](http://www.rrnetwork.org/rrnet/our_research/2003portfolio.php).

- “Child Care Demand and Supply under CalWORKs: The Early Impacts of Welfare Reform for California’s Children, 1998-2000” (October 2002), a *Working Paper Series 02-3*, by
Diane Hirshberg, Policy Analysis for California Education (PACE), provides an overview of how new welfare-to-work and child-care capacity building were affecting supply and demand in the child-care system. Regarding the supply of child care, the report states:

Expansion in the supply of licensed child care is barely keeping pace with growth in population of children, age 0–5. It appears that in centers much of the growth may be in newly created slots in existing facilities, rather than resulting from development of new centers.

The distribution of licensed centers is not equitable across communities. A greater supply of center-based care is found both in affluent neighborhoods and in communities where the average educational attainment of parents is higher. (page 2)

This resource is available on the Web at http://pace.berkeley.edu/wp_02-3.pdf.

“A Stark Plateau – California Families See Little Growth in Child Care Centers” (July 2002), a Policy Brief 02-2, by Bruce Fuller, Shelley Waters Boots, Emilio Castilla, and Diane Hirshberg, Policy Analysis for California Education (PACE), looks at the increase in funding for child care in California and whether access to quality child care also has increased. The report states:

MAJOR FINDINGS:
Child Development Projects

- Despite higher state and federal spending the number of center and preschool enrollment slots rose from just 13 to 14 per 100 children, age 0-5, statewide between 1996 and 2000.

- Some counties experienced almost no discernible growth in center and preschool availability, including Los Angeles and Riverside counties.

- The availability of centers remains unequal among counties: supply is considerably lower in the Central Valley and the Inland Empire region. (page 1)

This resource is available on the Web at http://pace.berkeley.edu/policy_brief_02-2.pdf.

“Understanding Child Care Demand and Supply Issues: New Lessons from Los Angeles” (June 2001), a Policy Brief, by Linda Jacobson, Diane Hirshberg, Kathleen Malaske-Samu, Brenda Ball Cuthbertson, and Elizabeth Burr, Policy Analysis for California Education (PACE), provides an overview of options facing policy-makers as they grapple with keeping family demand for child care from outpacing supply and how best to target resources in neighborhoods most in need. The brief states:
A number of factors impede efforts by state and local planners to understand how much licensed child care is available to parents. Among these are differing data on the actual supply of licensed care, and differences between how many children a provider is licensed to care for and how many they prefer to have. (page 2)

Calculating the number of spaces available in child-care homes is further complicated by the fact that a variety of combinations of infants, toddlers, preschoolers and school-age children are possible in one family child-care home. (page 3)

This resource is available on the Web at http://www-gse.berkeley.edu/research/PACE/policy_brief.01-2.pdf.

■ Lasting Returns: Strengthening California’s Child Care and Development System (May 2001), by the California Budget Project (CBP), discusses the importance of reliable and safe child care to millions of California families as well as the diversity of the child care system in California. The report provides an overview of child care in California and examines the State’s subsidized system in detail. This resource is available on the Web at http://www.cbp.org/2001/r0105cc.htm.

■ Los Angeles County Child Care Needs Assessment (March 2000), by the Policy Analysis for California Education (PACE), is a study of the licensed child care supply for all children in Los Angeles County. Based on a survey of over 2,000 child care providers in the county, this resource discusses how supply of licensed child care varies across the county; whether vacancy rates are lower or higher in certain communities; how supply of child care varies across low-income communities with high concentrations of welfare recipients; and whether there are shortages in special types of care, such as non-traditional hours care, subsidized care, ill child care, and care for children with special needs. This resource is available on the Web at http://childcare.co.la.ca.us/pace_report/final_los_angeles_report_for_web.cfm.

Connecticut

■ The Status of Child Care in Connecticut (January 2004), by the Connecticut Department of Social Services, is a report that highlights the major activities in child care undertaken by the Department of Social Services in the State fiscal year 2001-2002. It also features the issue of supply and demand in the State. The report is in both English and Spanish. This resource is available on the Web at http://www.dss.state.ct.us/pubs/CCAnnReport03.pdf.

■ All Children Ready for School: The Case for Early Care and Education (February 2003), by Janice M Gruendel, Margaret Oliveira, and Shelley Geballe for Connecticut Voices for Children, suggests that access to high quality, affordable early care and education is a challenge for many families in Connecticut. At the same time that demand for early care is increasing in Connecticut and across America, the early care and education industry is highly unstable. In Connecticut, the child care industry continues to compensate employees with wages barely above the Federal poverty level and well below Connecticut’s self-sufficiency standard. Based on U.S. Census Bureau projections, it is estimated that the number of Connecticut children who
will need access to early care and education will grow to at least 147,000 in 2015 and 158,000 in 2025. Ensuring that parents are assisted in the early care of their youngest children and that all children enter kindergarten truly ready for school success are achievable goals. Meeting these basic goals will require an expanded allocation of resources. Early care and education goals for Connecticut are listed, along with suggested action steps to meet these goals. Ten principles for improving Connecticut’s early childhood education service system are also listed. This resource is available on the Web at http://www.ctkidslink.org/pub_detail_49.html.

**Georgia**

- *Child Care: Georgia and the Region* (2002), by the Georgia Health Policy Center, discusses how Georgia leads the southeastern region in population growth and economic development, but lags behind other States in supporting child care for families whose children are at highest risk of poor outcomes, and in setting standards that could improve the quality of child care services. The brief also provides information on supply and demand for child care in Georgia. This resource is available on the Web at http://www.gsu.edu/~wwwghp/publications/children/childpolbrf/cpbgaregion0102.pdf.

- *Regional Child Care Trends: Comparing Georgia to its Neighbors* (September 28, 2001), by the Georgia Health Policy Center, examines child care in the State of Georgia as compared to surrounding States. Among the issues discussed are supply and demand. The sections titled “The Growing Need for Child Care” (pages 7–13) and “Conditions of State Child Care Systems” (pages 14–19) speak to the issues of supply and demand. This resource is available on the Web at http://www.gsu.edu/~wwwghp/publications/children/childcaretrends.pdf.

**Illinois**

- *Elements of Child Care Supply and Demand 2003* (March 2004), prepared by the Research Department of Action for Children (formerly the Day Care Action Council of Illinois), discusses the demand for and supply of child care in Cook County. It presents data on children and poverty; the number of child care providers and their capacity; average child care rates; and the type of care sought by parents using Action for Children’s Resource and Referral service. This resource is available on the Web at http://www.daycareaction.org/_uploads/documents/live/Elements_of_Child_Care_Supply_and_Demand_2003.pdf.

- *Child Care Supply and Demand in Chicago*, by Chapin Hall, in partnership with the Chicago Department of Human Services, is a Web database designed to present information on the availability and need for early education and center-based care for low-income children in Chicago. This new data resource provides information on the city as a whole and profiles 44 communities in greater depth. It includes maps displaying key trends and indicators affecting child care demand, as well as a summary of recent surveys and what they reveal about Chicago families’ child care needs and preferences. For additional information contact Chapin Hall at 773-256-5212 or on the Web at http://www.chapinhall.org/.
We Need More Day Care Centers (June 2003), by Illinois Facilities Fund, examines how lower-income Latina mothers view child care options and their child care preferences. Many of the suggestions for improving child care for Latino families revolve around increasing the availability of quality child care centers and making child care centers more affordable. The lower-income Latino community lacks critical information about child care options, including information on Illinois’ Child Care Subsidy Program. Latina mothers are largely unaware of the availability of child care subsidies. They make their child care decisions based on word-of-mouth and have little access to outside information about child care options. This resource is available on the Web at http://www.iff.org/resources/content/3/6/documents/iff_latino_study.pdf.

2002 Report on Illinois Child Care (2003), by Illinois Department of Human Services, discusses the status of an income-based, child care assistance program for working families in Illinois (i.e., the Child Care Assistance Program). The report traces trends in family needs for child care and the system capacity to respond to those needs. Information about child care services and caregiver characteristics is presented. Data demonstrate that the number and percentage of child care providers registered with Child Care Resource and Referrals (CCR&Rs) who are willing to accept subsidy has substantially increased over the last 5 years. Data offer an incomplete but encouraging picture of the efforts of the Illinois Department of Human Services (DHS) and the Illinois Network of CCR&Rs to promote accessible and affordable quality child care in Illinois. The Child Care Assistance Program increases the State’s investment in initiatives to enhance quality through expanded collaborations and additional funding. Initiatives and programs to increase the number of children receiving assistance and to expand the supply and enhance the quality of child care services are listed. This resource is available on the Web at http://www.ilchildcare.org/parentsandpublic/data/FY02%20Ann%20Rep.pdf.

Illinois and Maryland

Scant Increases After Welfare Reform: Regulated Child Care Supply in Illinois and Maryland, 1996-1998 (June 2000), by the National Center for Children in Poverty, describes changes in the supply of regulated child care in two States since the implementation of welfare reform, especially in communities with high concentrations of low-income families. The report uses child care and referral data to assess changes in regulated centers and family child care homes, Head Start, and prekindergarten programs, including changes in distribution across zip codes, hours of operation, opening/closing of facilities, and slots. This resource is available on the Web at http://www.ncep.org/media/CCR00c-text.pdf.

Maryland

Child Care Demographics 2005: Maryland Report (2005), by Maryland Child Care Resource Network, is a statistical analysis of child care in Maryland. Charts review costs of child care, demographic information, supply of regulated early childhood programs, and past and anticipated growth patterns of child care providers. This resource is available on the Web at http://mdchildcare.org/mdcfc/pdfs/demographics.pdf.

Trends in Child Care 2004 (2004), by the Maryland Committee for Children, presents a summary of the trends in the critical components of child care (demand, supply, and cost) from
2000 to 2009. The analysis is based on the data collected by LOCATE: Child Care of the Maryland Committee for Children and the Maryland Child Care Resource Network. Results of the analysis are presented through a combination of graphs, charts, and text descriptions that summarize the data and interpret the trends. This resource is available on the Web at http://www.mdchildcare.org/mdefc/pdfs/Trends.pdf.

New York

Child Care: The Family Life Issue in New York City (May 2000), by the Citizens’ Committee for Children of New York, Inc., with support from the United Way of New York City, discusses how funding was made available to carry out an in-depth needs assessment in New York City’s child care system in order to determine the availability of child care slots and calculate estimates of need for child care. This resource is available on the Web at http://www.kfny.org/publications/Childcare.pdf.


North Carolina

Summary of Statewide Findings: NC Early Childhood Needs and Resources Assessment, Preliminary Report, Spring 2003 (2003), by Frank Porter Graham Child Development Institute, presents a summary of the key findings from the Statewide data of the 2003 Needs and Resources Assessment in North Carolina. There is wide variation in the needs and resources across communities. North Carolina’s population of children less than 6 years of age has increased by 4.9% since the last Needs and Resources Assessment in 1999 (representing an additional 30,389 children). Over one-fifth of children (birth through age 5) live in single-parent families. Fifty-eight percent of young children (birth through age 5) live in families where all parents in the household are employed. North Carolina has 3,964 regulated child care centers, serving 147,090 young children. An additional 5,062 regulated family child care homes serve 16,158 young children. Sixty-three percent of regulated child care centers in North Carolina are quality centers with a rated license of three-stars or more. In January 2003, families of 66,747 children (birth through age 5) were receiving child care subsidies to help cover the costs of child care. For additional information contact the Frank Porter Graham Child Development Institute at 919-966-0857 or on the web at http://www.fpg.unc.edu/.

Oklahoma

The Oklahoma Child Care Portfolio 2003 (2003), by the Oklahoma Child Care Resource and Referral Association, Inc. is a compilation of data and information that provides an overview
of how Oklahoma is caring for its young children. The portfolio provides an easily accessible, comprehensive resource for families, child care providers, businesses, community leaders, and policy-makers. Information addresses the challenge of making quality, affordable care available to Oklahoma’s children. Topics include: need for child care, affordability of child care, quality of child care, and providing child care in Oklahoma. Profiles are presented for each county in Oklahoma. In Oklahoma, for every slot in a licensed child care facility, there are almost 3 children needing care. Almost half of all child care facilities have waiting lists. Seven of 10 child care facilities accept children whose care is paid by subsidy. About half of licensed child care facilities meet only minimum licensing standards. More than half of Oklahoma’s child care providers quit their jobs each year. It is crucial that young children receive safe, nurturing care, which includes stimulating and age-appropriate activities provided by caring adults. This resource is available on the Web at http://www.oklahomachildcare.org/OCCRRA2003Portfolio.pdf.

Oregon

■ Child Care and Education in Oregon and its Counties: 2000 (February 2003), by Bobbie Weber of the Oregon Child Care Research Partnership, Oregon State University, and Becky Vorpagel of Information Architecture, consultant to the Oregon Child Care Resource and Referral Network, for the Oregon Child Care Research Partnership, states:

Every two years the Child Care Research Partnership takes a snapshot of how Oregon’s child care and education system is doing. Child Care and Education in Oregon and Its Counties describes how the system is working through state and county profiles. The report links study findings to Oregon’s principal child care benchmarks: affordability, availability and quality.

- Affordability emerges as the major issue. In most of the state the price of child care exceeds public college tuition. This is especially an issue for families earning under $25,000 who spend 22% of their household income on child care.

- Availability of infant/toddler care and care for children with special needs is an issue throughout the state. Problems with availability of care are greatest in rural counties.

- Low wages and an absence of benefits result in a crisis-level shortage of persons willing to work in the child care industry. Low levels of training and high staff turnover threaten the quality of care available. (page 2)

This resource is available on the Web at http://www.hhs.oregonstate.edu/familypolicy/ocerp/publications/2003-ChildCare-Oregon-and-Counties.pdf.

■ Data for Community Planning: 1998 Oregon Population Estimates and Survey Findings (May 2000), by the Oregon Childhood Care and Education Data Project, discusses factors that
drive child care demand and supply as well as population estimates, use of paid child care, the cost of child care, and affordability of child care. This resource is available on the Web at http://www.hhs.oregonstate.edu/familiypolicy/occrp/publications/1998-Data-Community-Planning.pdf.

### Vermont

- **Child Care Programs in Vermont: A Survey of Market Rates and Capacity** (January 2003), by Learning Partners, Inc, presents the results of a survey of market rates and capacity among 1,061 Vermont child care programs. The survey provides the Child Care Services Division of the Vermont Social and Rehabilitation Services with current information about the market rates charged to consumers of child care and education services. The survey also explores the availability of child care for part time, full time, evening, and weekend usage, and how the supply of child care meets demand. This resource is available on the Web at http://www.state.vt.us/srs/childcare/research/marketstudy.htm.

### Washington

- **Needs Assessment: Quality Care for Latino Children: Findings and Recommendations** (May 10, 2002), by Latino Child Care Task Force (LCCTF), City of Seattle, used a participatory action research model that was modeled after the needs assessment conducted by the African American Child Care Task Force. It developed an interview tool, conducted interviews, held a community summit, and determined an action agenda for addressing needs identified. This resource is available on the Web at http://www.metrokc.gov/dchs/csd/ChildCare/LatinoNeedsEG.htm. For additional information, contact the LCCTF at 206-386-1020.

- **Child Care Then and Now: Child Care in King County: 1990-2000** (June 2000), by Child Care Resources, discusses the issue of child care supply and demand in King County between 1990 and 2000. This resource is available on the Web at http://www.childcare.org/community/child-care-king-county-19990-2000-report.pdf.

- **Non-Standard Work Hour Child Care Project** (February 2000), by the Washington State Child Care Resource and Referral Network, prepared for the U.S. Department of Labor Women’s Bureau, Region X, and the Governor’s Head Start State Collaboration Project of Washington State, provides information to a wide range of organizations, parents, caregivers, and policy-makers interested in the issue of nonstandard work hours child care. It reflects the complexities of the topic. Chapter 4 summarizes some of the gaps between the need for child care during nonstandard hours and its availability. For more information, contact the Washington State Child Care Resource and Referral Network at 253-383-1735 or e-mail childcarenet@childcarenet.org. The Executive Summary and additional information also is available on the Web at http://www.childcarenet.org/Non_Standard.htm.

### ADDITIONAL RESOURCES
The 2004 Child Care Center Licensing Study (2004), by the Children’s Foundation and the National Association for Regulatory Administration (NARA), reflects data provided by the regulatory offices in the 50 states, District of Columbia, Puerto Rico and Virgin Islands. Topics include: number and definition of regulated programs; requirements; regulations; training; policies; and parental contacts. The 2004 Study shows a 26% increase from 1991 in the number of regulated centers nationwide. Information about how to order the licensing studies is available from NARA at http://www.nara-licensing.org/ or at 770-388-7771.

The 2004 Family Child Care Licensing Study (2004), by the Children’s Foundation and the National Association for Regulatory Administration (NARA), indicates there are 290,530 regulated family child care homes in the 50 states, District of Columbia, Puerto Rico and the Virgin Islands. Of this number, 34,793 homes are considered group or large family child care homes. Information about how to order the licensing studies is available from NARA at http://www.nara-licensing.org/ or at 770-388-7771.

What is the Need for School-Age Care? Lessons From Two Communities (April 2003), by Children’s Action Alliance, is designed to augment the “School-Age Care Tool Kit: A Guide for Measuring Needs in Your Community,” by providing case studies of the pilot projects in Tucson, and Scottsdale, Arizona. The lessons learned in these 2 pilot projects include: (1) build on existing efforts, (2) obtain support of school districts and school principals, (3) engage the community, (4) identify advantageous timing, (5) pilot test the survey instrument, (6) secure adequate resources, (7) target survey resources, (8) secure technical assistance, and (9) link to broader efforts. Appendices include: (1) “Parent Survey on School-Age Child Care in Vail,” (2) “Inventory of Out-Of-School Opportunities In Vail/Rita Ranch,” (3) “Summary of Vail Survey Results,” (4) “Newspaper Articles on Vail After-School Project August, 2002,” (5) “Brochure on After-School Activities in Vail/Rita Ranch,” and (6) “Draft Parent Survey on After-School Needs in Scottsdale.” This resource is available on the Web at http://www.azchildren.org/caa/mainpages/publications/school_age_care.pdf.

“Key Research Issues and Questions: Supply of Child Care” (May 1997), in Using Research to Improve Child Care for Low-Income Families, by An-Me Chung and Louise Stoney, for the Child Care Bureau, Administration for Children and Families, U.S. Department of Health and Human Services, discusses the question: “When, where, and how should public funds be spent to encourage the supply of child care and/or to make child care more accessible to families?” Examples of existing research are discussed, including data from child care research and referral agencies, State regulatory agencies, State studies, and National studies. Other topics discussed in this resource include: projecting the cost of child care, parental payments and demands for child care, child care quality, and child care as an investment. This resource is available on the Web at http://www.nccic.org/pubs/usingres/supply.html.

The National Child Care Information Center does not endorse any organization, publication, or resource.

October 2005
Appendix F: Interim Data Collection

Data. The IECAM Interim Data Collection will provide data related to early childhood services and to demography. The early childhood data relate to the following program types:

- **ISBE-funded PreK**
  Data related to ISBE-funded PreK include (1) number of sites, (2) total capacity, (3) total capacity across sessions, and (4) contact information for grantees. Except for the grantee list, the data derive from INCCRRA. The grantee list was obtained from ISBE.

- **Head Start**
  Data related to Head Start include (1) funded enrollment, and (2) contact information for grantees. The funded enrollment data were obtained from the ACF Region V office. The grantee list was obtained from ILHSA.

- **Migrant and Seasonal Head Start**
  Data related to Migrant and Seasonal Head Start include (1) number of children served, and (2) contact information for grantees. The data were obtained from the IDHS Head Start State Collaboration Office.

- **Licensed child care**
  Data related to licensed child care centers include (1) number of sites, (2) total licensed capacity, (3) total licensed capacity across sessions 0-3 years, and (4) total licensed capacity across sessions 3-4 years & 5-K. These data were derived from INCCRRA.

- **Other ISBE 0-3 Programs**
  Besides ISBE’s PreK program, there are two other programs that serve children birth to 3 years of age that will be included in the IECAM data, namely, Prevention Initiative 0-3 and Parental Training 0-3. For each of these programs, data include the number of children served and the list of grantees. These data were obtained from ISBE.

- **IDHS Early Intervention Programs**
  Data for IDHS Early Intervention Programs will not be included in the interim data collection. They will be available in a database update during summer 2006. The data will include information on the Healthy Families Illinois program to be obtained from Illinois DHS, and information on the Parents Too Soon program to be obtained from the Ounce of Prevention Fund.

Except for the “Other ISBE 0-3 Programs,” these data will be presented by county. The PI and PT data are available at the state level only. For the data that are obtained from the Illinois Network of Child Care Resource and Referral Agencies (INCCRRA), a disclaimer will be included to indicate that the accuracy or completeness of this data is not guaranteed for reasons beyond INCCRRA’s control. The disclaimer will note that there may be some classrooms, centers, or sites for which data are incomplete; that total capacity is not the same as number of children served; and that INCCRRA collects this data for purposes of parental referral, rather than for the policy-informing purposes of IECAM. An additional disclaimer will be appended to relevant data definitions (e.g., for total capacity of ISBE PreK classrooms), noting that blended funding in some classrooms or sites may result in incorrect numbers of children.

The demographic data are taken from the 2000 Census and relate to the following three categories:
• Population
The population data include (1) total number of persons, (2) number of children under 1 year of age, (3) number of children 1 year of age, (4) number of children 2 years of age, (5) number of children 3 years of age, (6) number of children 4 years of age, and (7) number of children 5 years of age.

• Poverty Level
These data are the (1) number of families with children under 5 below 185% federal poverty level, (2) number of children 5 and under 5 below 185% of the Poverty Level in 1999, and (3) number of children 5 and under 5 below 100% of the Poverty Level in 1999.

• Language Spoken at Home
The language data include (1) number of households linguistically isolated speaking Spanish and (2) number of households linguistically isolated speaking another non-English language (i.e., besides Spanish).

Search Feature. The data described above will be stored in a MySQL database on the ECAP Web server. A search page will be provided so that users can access the data from the IECAM Web site. On the search page, the users will be able to select a county or counties from a scroll list. After selecting a county, users may make a selection of any number of the various early childhood services types (listed above) and demographic groupings (listed above). They may also select all of the services types and all of the demographic groupings.

Alternately, users may click on a county within a county map of Illinois. In this case, they will be searching on all of the services types and demographic groupings for that one county.

On the search page, the names of each of the data parameters will be a hyperlink. If users click on this link, a new window will appear that presents the definition of that parameter.

Data Presentation. After executing a search, users will be presented with a table of the data that they have selected. In this tabular display, county names will be listed in one axis, and the various early childhood and demographic data parameters will be listed on the other axis.

As on the search page, if users click on the name of the data parameter in the results table, a new window will appear that presents the definition of that parameter. Also, a link will be provided for each data parameter for users to re-sort the table on that parameter. For example, while the default presentation of the table will be alphabetical by county, if users want to view the data in order of population, they can click on the “sort” link next to the “total number of persons” parameter. Alternate clicking of this link toggles between “ascending” and “descending” order.