

# Preparing the Early Education and Care Workforce: A Guide to Conducting a Study of the Capacity of Higher Education Institutions



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2006



Funding for the Massachusetts Capacity Study provided by the National Institute for Early Education Research, with additional funding from Strategies for Children, the A.L. Mailman Family Foundation, United Way of Massachusetts Bay, and The Boston Foundation. The A.L. Mailman Family Foundation provided funding for preparation of this Guide.

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## WHY CONDUCT A CAPACITY STUDY?

National research on early education and care programs provides strong evidence of the importance of professional development to program quality, and to young children's school readiness. We know that early education and care programs are important preparation for young children, and that well-trained, qualified teachers and providers are necessary for programs to promote children's development. In an extensive review of the state-of-the-field, the National Research Council (1998, pg 316) found that "both formal education levels and recent, specialized training in child development have been found quite consistently to be associated with high-quality interactions and children's development in center-based, family day care and even in in-home sitter arrangements."

To meet this goal, many states have created professional development systems to support the ongoing and increased education and training needs of early care and education professionals. A comprehensive professional development system requires several key elements, including a career ladder or lattice, access to the professional development system, core competencies, recognition and rewards, and systematic planning to integrate all elements of the system.<sup>1</sup> Institutions of higher education (IHEs) are central to any professional development system. This guide describes lessons learned in Massachusetts about conducting a study of the capacity of IHEs to prepare the early education and care workforce. Information about the Massachusetts Capacity Study, including reports, can be found at [wcwonline.org/earlycare/index.html](http://wcwonline.org/earlycare/index.html).

## COMPONENTS OF A CAPACITY STUDY

Effective Capacity Studies require several key elements:

- An understanding of the early education and care (EEC) system in the state, including the ages of children served and types of settings, as well as who the key stakeholders are, the funding streams and the regulatory environment.
- A description of the current early education and care workforce, including educational qualifications, wages, benefits, tenure and workplace settings.
- A survey of the capacity of the State's higher educational system to prepare a qualified workforce in early education and care.

## UNDERSTANDING THE EEC SYSTEM AND WORKFORCE

The first step in developing a Capacity Study is to define and understand the early care and education system being studied. Several questions need to be addressed in order to frame the study. For example, what care settings will be included: center-based, public school-based,

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<sup>1</sup> In *Making a Career of It*, Morgan and colleagues (1993) outlined five elements of a professional development system, based on their review of best practices around the country. Others have provided similar reviews and recommendations – e.g., *Strategies for Children's Quality Early Educators are Essential: Investing in the Early Childhood Workforce* (2004) and National Child Care Information Center, Child Care Bureau, *Elements of a Professional Development System for Early Care and Education: A Simplified Framework* (accessed 9/29/05).

Head Start, Family Child Care, licensed or regulated programs only, or kith and kin as well? Which child age ranges will be included: infant, toddler, preschoolers, school-age children? What is the current capacity of these programs? Also, what are the licensing regulations that govern the system, such as staff qualifications, child-to-staff ratios, maximum group sizes, etc.? Will the study be statewide, county-wide, or encompass some other geographic area? Are there regional differences that need to be considered? Who are the key stakeholders in the county or state?

### **DESCRIBING THE WORKFORCE**

Once the early education and care system is fully understood, one can begin to compile a picture of the current workforce, by reviewing published research reports, publicly available data sets, and/or state statistics. After an extensive review of the research, the National Research Council (*Neurons to Neighborhoods*, 2000) found that: “Critical to sustaining high-quality [early education and care] for young children are the provider’s ...education, specialized training, and attitudes about their work and the children in their care, and the features of [early education and care] that enable them to excel in their work and remain in their jobs, notably small ratios, small groups, and adequate compensation.”

Other studies of the EEC workforce have found that these factors are reflected in turnover rates and length of tenure of staff, and have argued for the importance of race/ethnic diversity of the workforce.

### **Data sources**

Data on the workforce can come from several types of sources, including program data, federal data, local or state studies, and studies conducted by research centers.

**Program data.** Regulatory bodies often collect data on the numbers of programs and numbers of children served. They may also have workforce data. For example, data on Head Start programs can be obtained from Xtria, which maintains the Head Start Program Information Reporting (PIR) system, which contains data on individuals employed in Head Start programs during given Program Years. The Massachusetts Capacity Study was able to use state-level program data on family child care providers collected and analyzed by the Massachusetts Child Care Resource and Referral Network, as well as the *Massachusetts Child Care Center & School Age Program Salary and Benefits Report*, (2000), also

### **ROLE OF AN ADVISORY BOARD**

Enlisting a broad-based and informed Advisory Board will help ensure the success of the study. Advisory Boards can:

**Provide essential information.** Members have various perspectives on the EEC system, workforce, and IHEs all of which should be considered when undertaking such a broad study. Massachusetts Members helped devise the surveys and provided invaluable feedback on draft versions of surveys, reports, and presentations.

**Garner support.** public interest, financial, political, and resources of many kinds. In Massachusetts, members of the Advisory Board, through their various professional and personal contacts, reached out to IHEs to encourage their completion of surveys and participation in the study.

**Enhance the legitimacy and influence of the study.** Members can help spread the word and work of the study during its development stages, data collection, and the presentation of findings. Advisory Members were essential in spreading the word and excitement about the Massachusetts Capacity Study.

prepared by the Massachusetts Child Care Resource and Referral Network for the Massachusetts Office of Child Care Services.

**Federal data.** U.S. Census data can provide information on the population of children. For example, the US Census Bureau, Census 2000 Summary File 1 (SF 1) 100-Percent Data, can be downloaded from <http://factfinder.census.gov>. The Statistical Abstract of the United States 2004-05 can be accessed at <http://www.census.gov/prod/www/statistical-abstract-04.html>. The Bureau of Labor Statistics (BLS) provides data on the workforce. The *Latest BLS Employee Turnover Rates* - Released Nov 9, 2004 by the Nobscot Corporation – can be accessed at <http://www.nobscot.com/survey/index.cfm>

**Local or state studies.** In addition to basic program data that may be maintained by regulatory bodies, workforce descriptions are aided by the use of data collected for local or state studies of early education and care. In Massachusetts, we were fortunate to be able to rely on abundant workforce data available from recent studies. These studies included:

- *The Massachusetts' Cost and Quality Studies*, a series of studies conducted at the Wellesley Centers for Women, by N. Marshall and colleagues.
- Massachusetts Department of Education Community Partnerships for Children (CPC) Community Profile Surveys of Center/Head Start programs, Public Preschool, and Family Child Care Homes.
- *The Massachusetts Early Care and Education Staff Recruitment and Retention Research and Recommendations*, a report prepared by Mills & Pardee, Inc., for the Recruitment and Retention Task Force of the Massachusetts Office of Child Care Services. (2001).
- *Pathways to Success for Youth: What Counts in After-School* - The Massachusetts After school Research Study (MARS), a study conducted by Intercultural Center for Research on Education and the National Institute on Out-of-School Time (2005).

**Studies conducted by national research centers.** There are several research centers that have prepared reports on the workforce in one or more states that may be useful. The Center for the Child Care Workforce, a project of the American Federation of Teachers Educational Foundation (<http://www.ccw.org>) has prepared multiple reports on the EEC workforce (e.g., *Current Data on the Salaries and Benefits of the U.S. Early Childhood Education Workforce, 2004*; *Estimating the Size and the Components of the U.S. Child Care Workforce and Caregiving Population, 2002*). The Keystone Research Center has developed a website, <http://www.earlychildhoodworkforce.com> which discusses the results of their study, *Losing Ground In Early Childhood Education*. The Institute for Women's Policy Research, Early Care and Education Research Technical and Assistance Project ([http://www.iwpr.org/Work/Research\\_work.htm#childcare](http://www.iwpr.org/Work/Research_work.htm#childcare)), prepares reports on early care and education in various states, such as *Building a Stronger Child Care Workforce: A Review of Studies of the Effectiveness of Public Compensation Initiatives (2002)*.

### **Reconciling Data Sources**

In order to develop a comprehensive understanding of the current workforce, the various reports and data need to be reconciled. For example, the above Massachusetts studies were conducted in a variety of years, and using various methods (mailed survey, structured interview,

state reporting requirements, etc.). Studies can also vary in the representativeness of their samples – do they reflect data from one county, or from the whole state, do they have low response rates? It is important to evaluate each study and develop as accurate a picture of the workforce as possible. Key stakeholders may be helpful in this evaluation process. This process will also help one to identify gaps in knowledge, and areas that may need further research.

### **Describing the Workforce: the Need for More Education**

Based on the description of the workforce and the understanding of the current EEC system, it is possible to describe the need for professional development for the EEC workforce.

### **THE CAPACITY OF THE STATE'S HIGHER EDUCATIONAL SYSTEM**

Next is a detailed discussion of conducting a survey of Higher Education Institutions including: identifying EEC higher education programs, survey development and distribution, report writing and distributing finding.

### **Identifying Institutions of Higher Education**

First, identify the Institutions of Higher Education in the geographic area being studied, and within these institutions, identify the degree programs that train the early education and care workforce. This will involve an in-depth web-search, and possibly communication with the State Board of Higher Education, State Department of Education and/or individual colleges/universities. Once you have identified all IHEs, you can then identify those colleges and universities (community/technical, public, private) and degree options (e.g. Certificates, Associates degrees, Bachelors, Masters and Advanced degrees) to be included in survey distribution. You will also need to decide which program options will be included. For example, will the sample include programs specific to early education and care only – such as child development or early education – or will other child-related fields of study be included, such as elementary education, child psychology, or family studies?

In Massachusetts, we identified and reviewed 105 institutions of higher education operating in the Commonwealth (using Department of Education lists as well as several online resources, including isleuth.com and the websites of individual IHEs). Within each of the 105 institutions, we identified Early Education and Care programs defined as those programs focused specifically on preparing students for employment in early education and care occupations (both EEC and out-of-school time (OST)), such as teacher, assistant teacher, provider, group leader, assistant group leader, program coordinator, director, administrator, resource and referral specialist, policy analyst, or researcher. We excluded programs whose sole focus was on preparing graduates for employment in elementary or higher levels of education, or in other child-related occupations, such as clinical work with children. We relied on the programs' own descriptions of their mission and/or the career options for graduates.

### **What Questions to Ask**

To address issues of IHE capacity to educate the EEC workforce, the most important questions to include in the survey are: (1) the number of students currently enrolled; (2) the annual number of graduates; and (3) job placement rates after graduation – to determine if graduates are actually entering the EEC field. In Massachusetts, we added additional questions that were of interest to the researchers, funders, and our Advisory Board. We included extensive questions about the coursework requirements for each degree, which allowed us to analyze the

extent to which core competencies were currently reflected in degree requirements. We also included questions about student demographics, student access and supports (i.e. financial aid; weekend, online or off-campus classes; articulation issues, credit for prior learning; and remedial supports; etc.). Finally, we included a series of questions looking at IHE program challenges, including student issues, faculty, institutional and community resources, supports, and/or challenges.

A note of caution, when developing a survey it is often tempting to take the opportunity to ask this population everything you ever wanted to know about it. Researchers and stakeholders will regularly brainstorm many more questions than are reasonable to include in one survey. Brainstormings are useful, but always remember to go back and pare down the list when developing the final survey. Stick to addressing the primary research questions. When adding questions, ask yourself, do I *need* this information or would it just be nice to have it? Consider whether this is the proper person to ask this question of, or could you get this information elsewhere. And always keep in mind the length of the survey and time it will take the respondent to complete it. Response rates will suffer with a burdensome survey.

### **Survey Development**

The survey instruments used in the Massachusetts Study were based on a survey developed by The National Center for Early Development and Learning (NCEDL), Frank Porter Graham Child Development Center of the University of North Carolina at Chapel Hill. NCEDL conducted a national Survey of Early Childhood Teacher Preparation Programs in Post Secondary Institutions, and created the Directory of Early Childhood Teacher Preparation Institutions. The NCEDL survey is available online at [http://www.fpg.unc.edu/~ncedl/PDFs/IHE-teacher\\_prep\\_survey.pdf](http://www.fpg.unc.edu/~ncedl/PDFs/IHE-teacher_prep_survey.pdf).

The NCEDL Survey of Early Childhood Teacher Preparation Programs were completed by Department chairs; each Department was asked to complete one survey for all programs within that department. While some departments had only one program, we found that many departments in Massachusetts IHEs had multiple programs. Therefore, we adapted the survey to be completed about individual programs.

We also created multiple versions of the survey so that each degree option was given its own survey to complete and allowed for multiple programs at the same degree levels to respond individually. For example, the Capacity Study asked departments that offered two Associates-level programs – for example, an *A.S. ECE Career Option*, and an *A.A. ECE Transfer Option* – to complete separate surveys for each program.

While we began with the NCEDL Survey, we adapted it for the Massachusetts context and added questions of interest to the Advisory Board. Specifically, we used all of the same NCEDL questions regarding early care and education coursework, and program challenges. We added additional questions about challenges faced by IHEs in Massachusetts, so that 40% of the questions on challenges in our IHE Survey were written specifically for Massachusetts. We also added a section of detailed questions on student supports.

We developed separate surveys for early childhood programs (ECE) and for Out-of-School Time (OST) higher education programs. For the OST survey, the same survey format was used as in the survey of ECE higher education programs. However, content was modified with input

from Achieve Boston<sup>2</sup> to better reflect the OST field, needs, and interests. The OST IHE survey was also reviewed by the Higher Education Roundtable hosted by the Program in After School Education and Research, Harvard University. Copies of these surveys are available from the Massachusetts Capacity Study.

### **Data Collection**

**Survey Distribution.** Surveys can be mailed, emailed, faxed, conducted on the web, or hand delivered (i.e. interview). The best distribution method depends on cost effectiveness, including: (1) the number of potential respondents, (2) the length of the survey, (3) geographic area to be covered, and (4) timeframe. Web-based surveys have become increasingly popular in recent years. An additional consideration when thinking about web-based research is whether the population being studied has easy access to computers and the internet.

Timing of a survey can be particularly crucial and can greatly influence return rates. Consider the population being studied and what might be happening in their lives at the same time. For example, do not plan a survey of IHEs during the summer months, as many faculty and/or program administrators may be unavailable.

After much consideration, we decided to distribute a traditional mailed survey with self-addressed stamped envelope. One of the biggest factors that helped determine this approach was the length of our survey and its readability on the web. We were able to format the survey much more effectively with a Word processing program than any web-based approach. In the spring of 2005, the surveys were mailed to contact people at identified programs in Massachusetts with a cover letter explaining the purpose of the survey. We followed up with telephone calls to program directors. After the end of the spring term, members of the Advisory Board also contacted specific programs to further encourage participation. The Massachusetts Board of Higher Education, and members of the Higher Education Roundtable also helped to contact potential survey respondents to stress the importance of the survey and encourage participation.

As an incentive to further encourage participation, we promised all survey respondents that their programs would be included in a directory of IHE EEC programs that would be made available on the internet to help potential students find information on higher education in the EEC field.

**Response Rates.** Through all of our efforts we surveyed 143 EEC programs at 59 IHEs; 104 programs responded, for an initial response rate of 72.7%. In addition, we included partial surveys from 13 programs at six IHEs. Through cooperation with The National Center for Early Development and Learning (NCEDL), Frank Porter Graham Child Development Center of the University of North Carolina at Chapel Hill, we were able to supplement our data set with data from 15 programs at seven IHEs that participated in NCEDL's Survey of Early Childhood Teacher Preparation Programs in Post Secondary Institutions. Through all of these efforts, 92% of EEC higher education programs (132 programs) at 59 colleges participated in the Massachusetts study.

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<sup>2</sup> Achieve Boston is a collaborative effort to help after-school and youth workers develop their professional skills and knowledge, advance their careers, and ultimately better serve children, youth, and families. Achieve Boston offers after-school and youth workers a locally based and easy-to-access training system. Achieve Boston is an Initiative of Boston Afterschool & Beyond and is a partnership of BEST Initiative/The Medical Foundation • Boys & Girls Clubs of Boston • Massachusetts School-Age Coalition • National Institute on Out-of-School Time • Parents United for Child Care • Program in After School Education and Research, Harvard University • YMCA of Greater Boston.

We identified 26 programs at 14 IHEs with OST-specific certificate or degree programs. Two programs were found to no longer exist or to have been incorrectly identified. Therefore, we surveyed 24 programs at 13 schools. All of the 24 programs returned their surveys, for a response rate of 100%.

### **Analysis and Writing**

**Audience.** In analyzing data and reporting on findings, the most important decision to be made is who the primary audience for this information is and what are their needs. The audience for an IHE Capacity Study could be narrowly defined as the IHEs themselves or as broadly as the statewide EEC network. And with a multifaceted study like a IHE Capacity Study (which includes EEC system and workforce information, as well as IHE survey findings) the issues of comprehensiveness and readability also become a concern. Researchers and writers will need to balance presenting the wealth of information in an easily digestible format and language that addresses the needs of the audience.

**Organizing Findings.** Surveys generate copious data, often more than one can use efficiently in any one report. One could easily get bogged down with the amount of data offered by a Capacity Study. Researchers need to determine which findings are most relevant to answering their research questions and interesting to present; they also need to determine which cross-tabulations (tables) and relationships to explore and include in the report.

In presenting the findings from the Massachusetts IHE surveys, we focused on our primary research questions. We first described (1) the number of IHE programs available to EEC staff, (2) the number of students currently enrolled; and (3) the annual number of graduates. We presented this information by degree type (certificate, Associates, Bachelors, and Masters degrees), and by EEC sector (infant/toddler concentration, preschool, OST). Further, drawing from the workforce characteristics data, we considered enrollment and graduation figures in relationship to the current education level of staff.

To provide an illustration of the current capacity of IHEs, we estimated how long it would take for the workforce to meet specific education standards, given current needs and capacity. Of particular interest in Massachusetts is the question: if licensing regulations were updated to reflect the research showing higher educated staff provides higher quality care, could the IHE produce more EEC graduates? To answer this question, we first calculated the number of teachers “needing education” (re. lacking an Associates or Bachelors degree). Next, we calculated how long it would take for one teacher per classroom not currently holding a degree to attain one. These calculations became a focal point of our findings, and greatly influenced our recommendations for professional development supports for the EEC workforce.

To understand better the full IHE picture in Massachusetts, the Capacity Study report also covered the following in-depth topics:

- Mapping the core competency skills necessary for EEC and OST staff identified as providing high quality care compared to the college course offerings and requirements.
- The needs and challenges of adult learners, and the supports offered by the IHEs to educate this adult workforce, such as articulation issues, weekend and evening course offerings, practicum requirements, academic supports, financial aid.



- The challenges that IHEs face in providing EEC and OST programs and their plans for the future.

**Including Recommendations.** The decision to include recommendations or not will depend primarily on the audience for the report and their needs. Does the audience want the researchers to draw conclusions for them, or would they prefer to shape their own advocacy message from the research findings? Researchers may also need to consider restrictions placed on them by funders or other parties; and will have to balance the desire to remain a non-partisan researcher versus an advocate for the field, or a particular portion of the field. Given the impetus for the Massachusetts Capacity Study, our reports included recommendations based on our findings with the explicit purpose of informing the Department of Early Education and Care and the Legislature on the needs for and components of a professional development system that supports the EEC workforce and the children they serve.

**Final Reports.** To meet the needs of our primary audience, in Massachusetts, we decided to write three research briefs, a full technical report, an executive summary, and a Directory of IHE EEC programs. The three research briefs allowed us to tackle each sector's workforce – infant/toddler, preschool, and OST– individually. We then combined the IHE survey findings with condensed workforce characteristics that were most relevant to the IHE survey report. This approach allowed us to fully explore the differences among each sector (infant/toddler, preschool, and school-age child care) without confusing and overburdening the reader. This approach also had the added benefit of building interest and support for the study and anticipation for our final full report. We produced an Executive Summary as a companion to our full technical report. The Executive Summary highlighted the findings and recommendations in an easily digestible size and format particularly useful to policymakers. And finally, we produced a directory of IHE early education and OST programs, to help potential students find information on higher education in the EEC field.

### GETTING THE MESSAGE OUT

An IHE Capacity Study is particularly useful in pulling together relevant EEC system and workforce statistics with EEC higher education opportunities. It can highlight the strengths of all systems and uncover the areas in need of improvement. However, to be truly effective the research findings need to get into the hands of the EEC community and stakeholders who can use it to inform and improve policy and practice.

Published reports are often the primary vehicles for getting research findings into the public arena. However, they are not the only way, and again, depending on the audience, might not be the most effective way. Research or policy briefs are other options used to share research findings, and brief one- to two-page fact sheets can also be very effective. Reports, briefs, etc. can be printed, or distributed electronically, or both. If finances are tight, one could print only the smaller, more economical, Executive Summary and direct readers to a website for the full reports. Journal and newspaper articles can also be utilized. Researchers should also plan time for presentations to various audiences, writing letters to the editor, public service announcements (PSAs), and working with advocacy groups and other stakeholders to help spread the message. Finally, the Advisory Board can play a key role in distributing reports and disseminating the results of the Study at various meetings.

A well-designed and -executed study of the capacity of higher education institutions to prepare the early education and care workforce has the potential to provide policymakers and advocates with the research base that is useful to effective policy and practice.