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LOSING GROUND IN MASSACHUSETTS EARLY CHILDHOOD EDUCATION Declining Workforce Qualifications in an Expanding Industry, 1980-2004

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Introduction

“Parents can’t afford to pay, teachers can’t afford to stay, there’s got to be a better way” goes the lament of professionals in the field of early childhood education (ECE). This issue brief shows that the Massachusetts industry has indeed struggled to attract and hold onto a qualified workforce since the 1980s.

The qualifications of early childhood educators matter because, first, high-quality ECE improves long-term academic outcomes for children and delivers benefits to the community that far outweigh the costs;¹ and, second, high-quality ECE programs require educated and experienced teachers (Bowman, Donovan, and Burns 2000).

This issue brief relies on new data sets that track the center-based portion of ECE outside public schools for a 25-year period (see **Note on the Data**). For home-based early childhood education, consistent data are available for 2000-04.

Main findings

A lower share of center-based early childhood educators has a four-year college degree than in the early 1980s. In center-based ECE programs the share of Massachusetts early childhood educators (teachers, directors, assistant teachers, and teacher aides) with a four-year college degree declined from as much as 45% in the 1980s to 26% today.

NOTE ON THE DATA

The data analyzed in this briefing paper come from the 1983-2004 Current Population Survey (CPS), a monthly survey of 60,000 U.S. households, and the 1980, 1990, and 2000 decennial U.S. Census. While the national companion report relies exclusively on the CPS, state-level reports rely more on the Census because the Census contains more data for each state. The center-based industry on which this report focuses excludes school-based, pre-kindergarten programs and is over 90% private sector. It includes for-profit and not-for-profit child-care centers, Head Start programs, and stand-alone preschools and nursery schools. The report looks at trends for two different groups of center-based staff. “Early childhood educators” includes all occupations with primary responsibility for children, such as center directors (also called administrators), teachers, assistant teachers, and teacher aides. The second group includes just teachers plus administrators. (The report pools all early childhood educators to increase sample size and combines teachers with administrators for the same reason.)

A higher share of center-based early childhood educators has a high school degree or less. Between the early 1980s and 2000-04, the share of Massachusetts center-based early childhood educators with a high school education or less doubled from 16% to 34%.

In the year 2000, only a third of center-based early childhood educators in Boston and Worcester had a college degree. In Springfield-Holyoke-Chicopee, Lowell, and the Massachusetts portion of Providence-Fall River-Pawtucket, fewer than a quarter of these educators had a college degree.

Education and compensation levels are lower still in home-based early childhood education. In Massachusetts home-based ECE in 2000, 20% of the workforce had a college degree or more; 42% had a high school degree or less.

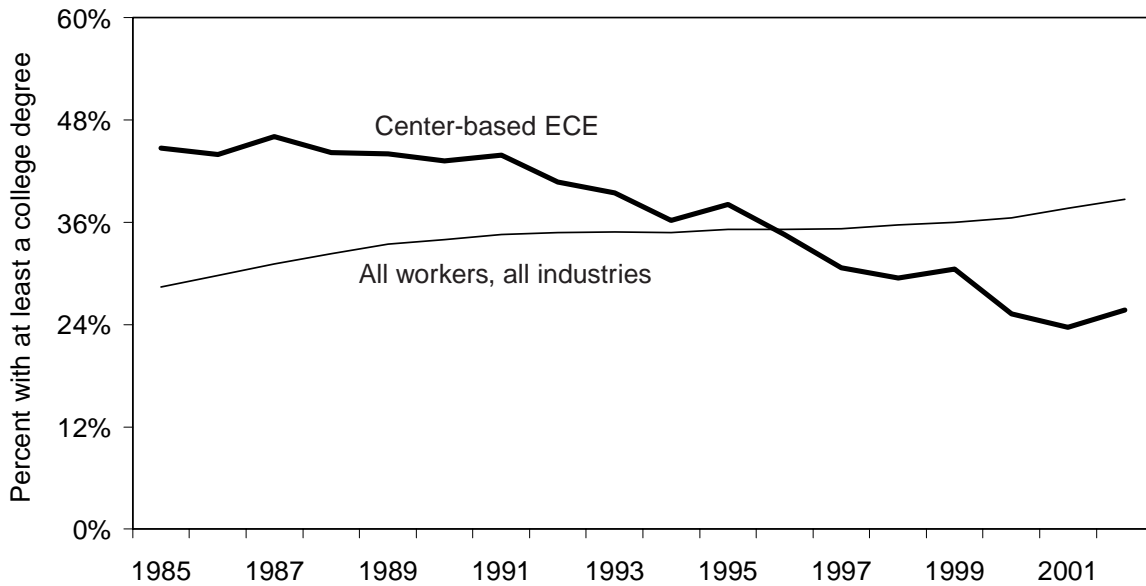
Low wages and benefits help explain ECE education levels. The decline in the education levels of center-based early childhood educators is related to a lack of health care and pension benefits and to median pay that has fallen from 76% of the wages of all Massachusetts workers to 66%. In 2000-04, early childhood educators earned about \$10.50 per hour—some \$22,000 per year for a full-time worker.

The story that emerges from the data is that the position of center-based ECE in the Massachusetts labor market has changed for the worse since the 1980s. As the field has expanded from less than 10,000 workers in the early 1980s to nearly 30,000, female college graduates have enjoyed expanding career opportunities in other fields, and in some families, greater economic need. As a result, center directors often find that they must hire individuals with low education levels and no specialized training in early childhood development.

Massachusetts and the nation need a new approach to preparing early childhood staff who can help children succeed. The new approach must establish high standards for all teaching staff and increase compensation to

FIGURE A

The decline since the 1980s in the four-year college degree attainment of Massachusetts center-based ECE



Note: The difference between the share of center-based early childhood educators with a college degree or more in 1983-87 and 2000-04 is significant at the 5% level.

Figures are five-year averages; e.g., figures for 2002 are averages produced after pooling data for the years 2000, 2001, 2002, 2003, and 2004.

Source: KRC analysis of the CPS Basic Monthly Survey.

attract and retain teachers who can meet high standards.

This issue brief is a companion to *Losing Ground in Early Childhood Education*, a companion study that looks at national trends and which is available on the Web sites of the Economic Policy Institute (www.epi.org), the Foundation for Child Development (www.fcd-us.org) and the Keystone Research Center (www.keystoneresearch.org).

Educational attainment in ECE has declined since the 1980s

In Massachusetts as in the United States, the CPS reveals a substantial reduction in the share of center-based early childhood staff with a college degree.

- The share of early childhood educators with a four-year college degree fell from about 45% in the mid-1980s to 26% today (**Figure A**). This compares with a national decline from 27% to 18% in the same period. Almost all of the Massachusetts decline took place in the long 1990s economic expansion, whereas the decline nation-

ally began a decade earlier.² (Figure A and other analysis for Massachusetts using the CPS in this issue brief rely on five-year moving averages to increase sample size and the reliability of estimates.)

- The share of center-based early childhood educators with a high school education or less doubled from 16% in 1983-87 to 34% in 2000-04. This compares with a national rise from 41% to 46%. Two-thirds of the Massachusetts increase took place by 1989-93 and the last third since 1997-2000.

The educational attainment of Massachusetts early childhood educators has dropped even more sharply in relative terms, compared to the workforce as a whole (Figure A).

- Two decades ago, early childhood educators were nearly twice as likely to have a bachelor's degree as workers on average. Today, just over one in four early childhood educators has a college degree compared to 39% of workers in all industries.

College degree attainment also lower among center-based teachers and administrators

Narrowing the focus from all center-based early childhood educators to just teachers and administrators still shows similar trends in educational attainment.

- According to the Census, the share of teachers and administrators with a college degree declined from 51% in 1980 to 41% in 2000 (**Figure B**).³ The 2000 figure is still well above the national level of 30%. (Estimates of Massachusetts ECE teacher and administrator educational attainment based on the 2000 Census are very similar to those reported in a recent Wellesley study.⁴
- The share of center-based teachers and administrators with an associate's degree increased from 13% to 16% between the 1990 and 2000 Census. Thus, in 2000, 57% of Massachusetts teachers and administrators had at least a two-year degree.

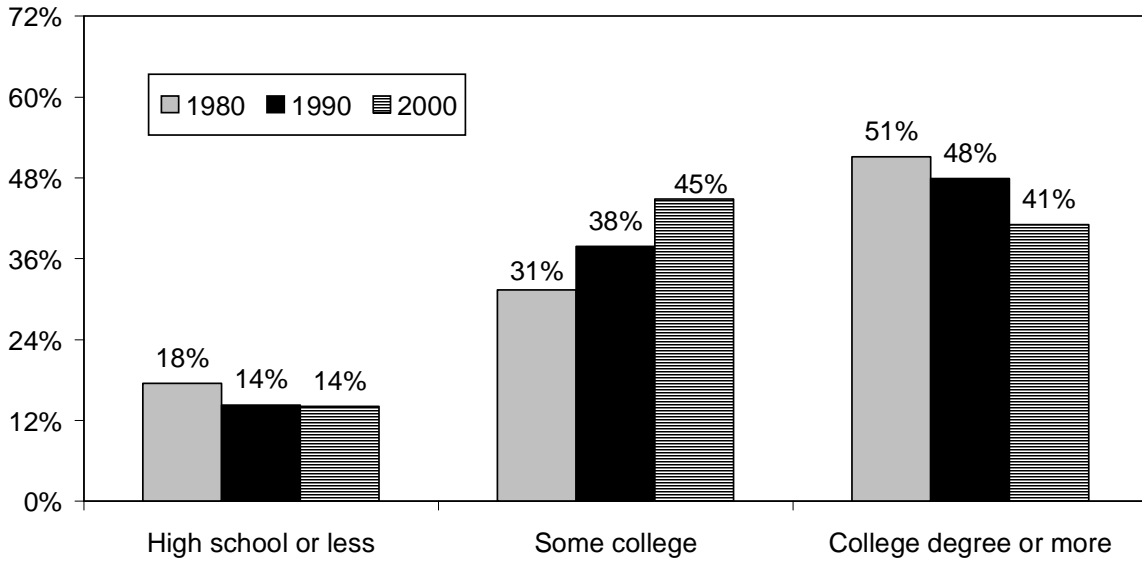
Education levels low in Massachusetts metropolitan areas

Turning to metropolitan data available from the Census:

- The share of center-based early childhood educators in Boston with a four-year college degree declined from 41% in 1990 to 33% in 2000 (**Figure C**).
- In the year 2000, fewer than 20% of educators in Springfield-Holyoke-Chicopee, Lowell, and the Massachusetts portion of Providence-Fall River-Pawtucket had a degree.

FIGURE B

The decline in the share of center-based ECE teachers and administrators with a college degree in Massachusetts and the United States



Note: The difference between the percent with a college degree or more in 1980 and 2000 is significant at the 1% level as is the difference between the share with some college in 1980 and 2000. The difference between 1990 and 2000 in the share with a college degree or more and in the share with some college is significant at the 5% level.

Source: KRC analysis of Census data.

Education levels even lower in home-based early childhood education

Massachusetts education levels are lower in home-based ECE than center-based (**Figure D**). (Since Figure D relies on Census data for 2000, the numbers for center-based ECE differ from those displayed in Figure A based on CPS data. Both the Census and CPS show that Massachusetts had 13,000-14,000 home-based workers in or since 2000.⁵)

- Only 20% of Massachusetts home-based ECE workers has a college degree or more, compared to 28% in center-based ECE.
- Whereas 31% of center-based ECE workers have a high school degree or less, this same share for home-based ECE is 42%.

As with center-based ECE, Massachusetts has higher home-based education levels than the United States overall.

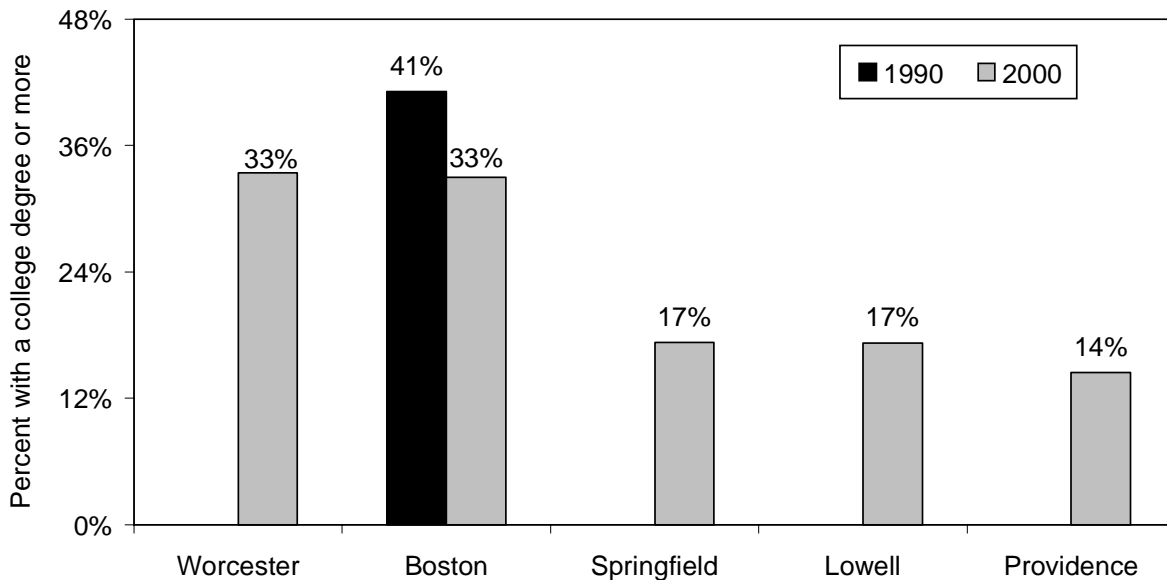
Low wages and benefits help explain educational attainment in ECE

Wages

In the mid-1980s the hourly wages of Massachusetts center-based early childhood educators were considerably above national levels and much better relative to the wages of other workers than in other states. Since this time,

FIGURE C

The decline in the share of center-based early childhood educators with a college degree in Massachusetts metropolitan areas



Note: The difference between 1990 and 2000 in Boston's share with a college degree or more is significant at the 5% level. Springfield includes Springfield, Holyoke, and Chicopee; Providence includes Providence, Fall River, and Pawtucket.

Source: KRC analysis of Census data.

the Massachusetts absolute and relative wage advantage in ECE has largely disappeared.

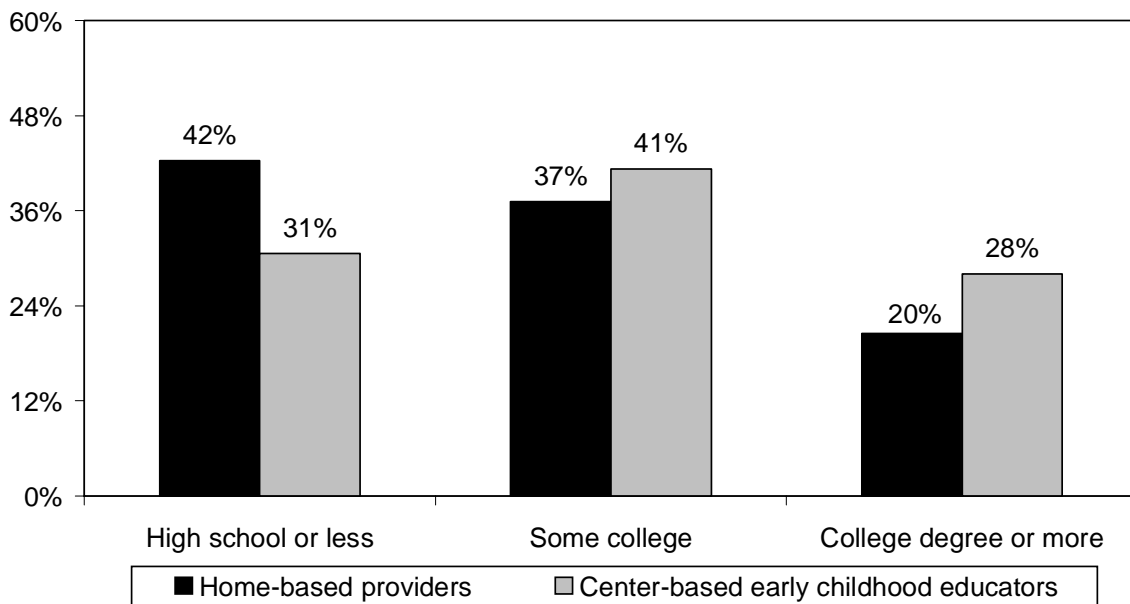
- In the 1983-87 period, early childhood educators in Massachusetts earned 76% of the wages of all Massachusetts workers, a figure that had fallen to just 66% by 2000-04. In 2000-04, early childhood educators earned only \$10.42 compared to \$15.75 for all Massachusetts workers.
- Even early childhood teachers and administrators earned a median wage of only \$12.27 in 2000-04, just 58% of the \$21.34 median wage of all female college graduates.

Health and pension benefits

- Only 36% of Massachusetts center-based early childhood educators obtain health insurance through their job compared to 58% of all workers and a little over 62% of female college graduates (**Figure E**).
- Eleven percent of center-based early childhood educators had no health insurance coverage versus 6% of female college graduates.
- Only 23% of Massachusetts center-based early childhood educators participate in any kind of pension plan versus 50% for all workers and 60% for female college graduates.

FIGURE D

Education levels even lower in home-based ECE in Massachusetts, 2000-04



Note: The differences between the shares of center-based early childhood educators and home-based providers with a high school education or less and between the share with a college degree or more are significant at the 1% level. The difference between the shares with some college is significant at the 10% level.

Source: KRC analysis of Census data.

Share of workers below a basic necessity income

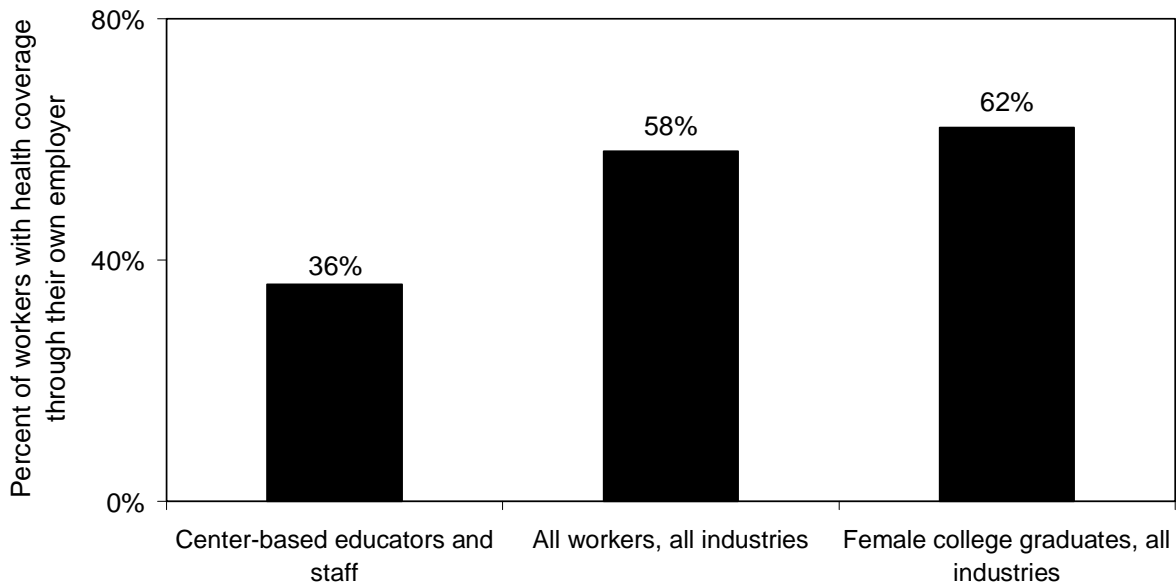
- In 2000, 27% of all center- and home-based early childhood educators lived below 200% of the poverty threshold compared to 14% of all workers in all industries (**Figure F**). Two hundred percent of the poverty line is considered roughly equivalent to a minimally adequate basic income high enough to cover the cost of basic necessities without public assistance.
- Nearly 21% of ECE teachers and administrators in Massachusetts live below 200% of the poverty threshold compared to 7% of female college graduates.

New policies needed

National data reveal that the most educated cohort in ECE today is in its fifties, having entered the industry in the 1960s and 1970s. With opportunities for educated women expanding, and more families highly dependent on women’s earnings, it has become harder to attract qualified teachers into ECE. As many of the better-educated early childhood women retire, the difficulty of maintaining an adequately qualified ECE staff will grow that much more difficult. Industry demographics make it imperative that state and national policymakers act now to ensure

FIGURE E

A smaller share of Massachusetts center-based early childhood educators receive health insurance through their own employer than other workers, 2000-04



Note: The differences in the share of center-based educators and staff with health coverage through their own employer and the same shares for all workers and for all female graduates are significant at the 5% and 1% level, respectively.

Source: KRC analysis of the March CPS.

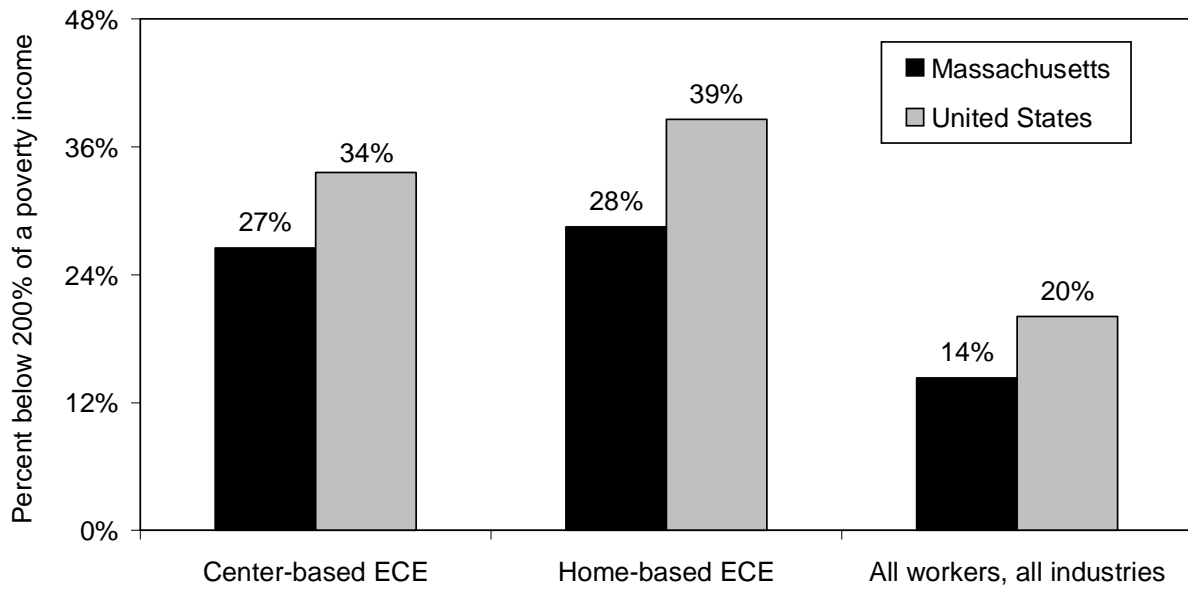
the high teacher standards essential to long-term benefits from ECE programs.

A pragmatic and systemic approach to raising staff qualifications should not only mandate higher standards, but also include phase-in periods and research and evaluation that deepen our understanding of the long-term benefits of different approaches to teacher education and professional development.⁶

Any approach to improving staff standards in ECE will fail unless it also raises compensation to keep more qualified people in the field. The present reality will persist, with many ECE staff having low education levels, no meaningful training in early childhood development, and no opportunities to learn from experienced and qualified peers. It is well past time to recognize that society can't afford not to pay more for ECE teachers. Only with public investment can the community as a whole reap the long-term benefits of high-quality early childhood education.

FIGURE F

A large share of the early childhood workforce lives below the 200% poverty threshold



Note: The differences between the share of all workers living below 200% of the poverty threshold and the shares of center-based ECE and home-based ECE living below the threshold is significant at the 1% level.

Source: KRC analysis of Census data.

Endnotes

1. These benefits include lower costs for subsequent education, increased taxes paid once children mature and enter the workforce, and reduced social costs (Lynch 2004).
 2. The Census shows a decline from 38% in 1980 to 28% in 2000. National data also suggest that center-based education levels were higher in the early-to-mid-1980s than in 1980. If this was also true in Massachusetts, then that helps explain the smaller drop in center-based education levels according to the Census compared to the CPS.
 3. Although the CPS has a rather small sample size for teachers and administrators alone, it follows the same basic trend. The college-degree share ranged from an average of 57% from 1983 through 1993, to 41% in 1997-2002, to 35% in 2000-04.
 4. The most directly comparable statistic in the Wellesley report comes from a 2000 study that found that 41.5% of center teachers, lead teachers, and administrators have a college degree (calculated from Marshall et. al. (2005), p. 9, Table 1). This is virtually identical to the 41% of teachers and administrators with a college degree according to the 2000 Census. Most other statistics in the Wellesley report identify the share of teachers with a four-year degree in early childhood education or related field and so are not directly comparable with the statistics here.
 5. Industry experts believe that both the Census and CPS likely undercount home-based employment because they miss some unlicensed and unregulated providers.
 6. See the national companion report, *Losing Ground in Early Childhood Education*, for elaboration of this recommendation, available online at www.earlychildhoodworkforce.com.
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