



Postsecondary Pathways for ECE Educators:

Supporting Adult English Language Learners' Access and Success in Higher Education



December 2015

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I. Purpose and Methodology

As part of Massachusetts’s Race to the Top Early Learning Challenge (RTT-ELC) grant award, the Department of Early Education and Care (EEC) has funded several initiatives to support the professional growth of the early care and education (ECE) workforce and the quality of early education settings for all children in the Commonwealth. In an effort to strengthen the capacity of Massachusetts’s culturally and linguistically diverse ECE educators working with children ages 0-5 in early education settings, EEC initiated the Higher Education for English Language Learners RTT-ELC grant project. The goals of the project are clear—create viable pathways for current ECE educators who are English language learners (ELLs) to access and persist in postsecondary education through bachelor’s degree completion.¹

The CAYL Institute has engaged in cross-sector research exploring program models and strategies to support multi-lingual ECE educators as they navigate postsecondary education. This report draws broadly from the current literature on workforce development, early education and care, adult learners and ELLs in higher education, and postsecondary access and persistence among nontraditional students. The majority of the studies consulted for this report are descriptive, but when available experimental evaluations of initiatives to improve postsecondary transitions and success for adult learners were identified and incorporated into the analysis to highlight programmatic strategies that have some empirical evidence of effectiveness.

The literature on model pathway programs is both complex and limited. It encompasses a wide variety of education and workforce development initiatives under a variety of public and private auspices with differing objectives and goals. These efforts vary depending upon whether they address a specific local or regional need or more broadly seek to influence systemic change at the state- or federal-levels. Programs to improve transitions to postsecondary education, moreover, vary in the intensity of the supports and interventions for adult learners and how closely they are contextualized to a specific career or educational pathway. While some programs are part of national initiatives implemented through multi-year public and private grants, many more are smaller, targeted programs that rely heavily on inconsistent funding and serve small numbers of learners. Consequently, questions concerning scale, sustainability, and long-term impact are pervasive in the literature.

There have been few empirical studies of the strategies that have produced positive outcomes in degree attainment or career success for adult ELLs. Because these programs are often structured to

¹ According to data compiled by the Migration Policy Institute, about 13% of Massachusetts’s ECE educators are limited English proficient (approximately 6000 educators statewide). This presents a potential opportunity to build on the current workforce’s language assets through postsecondary education and specific training that deepens their skills and knowledge.

serve nontraditional students—working adults, low socio-economic status, ELLs, immigrants—broadly, identifying strategies specific to adult ELLs is difficult to extract from discussions. Moreover, there have been few studies of smaller innovative programs that are “learning by doing” and embedding knowledge within their staff, institutions, and professional networks. Larger, well-funded programs are more likely to include evaluations and share the lessons they have learned through national conferences, media, and publications. Perhaps most significant given the policy climate for ECE educators, model programs, and initiatives currently target education and training for middle-skilled jobs, those that require more than a high school degree, but less than a bachelor’s degree.

As part of this project the CAYL Institute convened a series of nine focus groups in three different regions across the Commonwealth (Central, Northeast, and Metro Boston). Participants included representatives from institutions of higher education (IHEs), early care and education practitioners, and community-based organizations engaged in early education workforce development. CAYL also held two Higher Education Leadership Institutes—one in Greater Boston and one in central Massachusetts—to bring together key stakeholders in higher education and state policymakers to discuss the challenges and opportunities in moving ECE educators who are ELLs through postsecondary education. Key themes, challenges, and recommendations from these meetings are incorporated into the report’s findings and recommendations.

Across the literature and among practitioners in the early education field, there is a fairly consistent understanding of the challenges and barriers at the personal, institutional, community, and system levels that face nontraditional and adult ELL students who want to enter postsecondary education with the goal of attaining associate or bachelor degrees. There is also growing consensus of the types of academic and nonacademic supports that have been shown to be effective in moving learners along a chosen educational pathway. Effective implementation of these initiatives, however, is dependent on building capacity across the Commonwealth’s complex educational and workforce development sectors for multi-level, multi-system change, and effective public policy. Without meaningful systemic change and innovative program development there are few resources and options available to current ELL educators that support their access and persistence in higher education.

This project focuses on the needs of early childhood educators in Massachusetts currently working in family-, center- or school-based programs. Research supports the contention that building a professional workforce that is both culturally and linguistically competent is critical to ensure that all children have access to high-quality ECE programs that support success in school and life. Policy interventions that support systems change, compensation parity with comparable education jobs, and innovations in educator preparation and development will help ensure all ECE educators—regardless of their English literacy level—have the knowledge and skills to support positive child outcomes.

I.I Definitions

Early care and education educators (ECE educators)	Individuals who work with children aged 0-5 in family-, center-, and school-based early education settings; also referred to as the ECE workforce
English language learners (ELLs)	Individuals who have either been assessed or have self-identified as limited English proficiency; these individuals often come from non-English speaking homes and backgrounds, but can be both native born or immigrant; for the purpose of this study, ELL is used synonymously with limited English proficient (LEP) which is often used in the literature to distinguish adult ELLs from school age ELLs
Postsecondary Education	Formal education offered after high school (secondary) that can lead to specific degrees or credentials; also referred to as higher education
Dual language learners (DLLs)	Young children (aged 0-5) in early education settings who come from non-English speaking homes and backgrounds and are in the process of developing literacy and fluency in both their primary language and English
Nontraditional student	Students engaged in adult basic education or higher education who have various characteristics—adult, minority, low socio-economic status, working head of households, ELLs, etc.—and face systemic and personal barriers in accessing and persisting in postsecondary education
Adult basic education (ABE)	System of continuing educational services for adults offering basic vocational, technical, and life skills below the postsecondary level; includes a variety of programs in English literacy (ESL classes), numeracy, GED preparation, adult diploma programs, pre-college preparation, and occupational training
English as a Second Language (ESL)	Any class or program designed to build the English literacy skills of ELLs offered in both academic and community-based settings; for this report ESL is used synonymously with ESOL (English for Students of Other Languages) programs
General Educational Development (GED)	A system of tests that measure proficiency in math, science, social studies, and English for the purpose of assessing an individual’s ability to earn a high school equivalency credential; GED preparation refers to classes and programs designed to prepare individuals to take the GED tests
Institutions of Higher Education (IHEs)	Two- and 4-year public and private colleges and universities offering a broad range of educational credentials, including workforce certificates and academic or applied associate’s, bachelor’s, and post-baccalaureate degrees
Hispanic-Serving Institutions (HSIs)	Officially recognized by the U.S. Department of Education in 1992, HSIs are IHEs whose total enrollment is comprised of at least 25% Hispanic students; HSIs are entitled to additional funding under Title V of the Higher Education Act
Childcare Development Associate (CDA)TM	A nationally recognized credential in early childhood education offered in multiple languages and based on competency standards that guide ECE educators as they work toward becoming qualified teachers of young children

Community-based organizations (CBOs)	A public or private nonprofit organization that is representative of a community or significant segment of a community; provides educational, health or related human and social services to individuals in the community
Basic interpersonal communication skills (BICS)	Often referred to as conversational language skills, BICS are informal, context-specific social language skills aided by nonverbal cues and not dependent on precise vocabulary or standard grammatical features; Research suggests that BICS take at least 2-3 years to master
Cognitive academic language proficiency (CALP)	Formal, classroom-level proficiency required for postsecondary academic work, including listening skills, academic reading, note taking, and academic writing; Research suggests that CALP skills require at least 5-7 years to master

II. Immigrants, English Language Learners and the ECE Workforce

Current demands for a highly educated workforce capable of thriving in a 21st century global economy has illuminated significant gaps in educational attainment across the U.S. labor market. According to some projections, 63% of all jobs will require a postsecondary education by 2018, while only 55% of working age adults have at least some college education (Foster, 2012). Moreover, the fastest growing segments of the workforce—immigrant workers and their children—have lower levels of overall educational attainment than their native-born peers (Hayutin, Beals, and Borges, 2013; Jenkins, 2008; Wilson, 2014). This presents a significant challenge for the country given President Obama’s goal to have every adult complete at least one year of postsecondary education by 2020 (State of the Union Address, 2009).

The potential benefits of this goal to both individual workers and to society as a whole are compelling. Data suggests that individuals who attain postsecondary degrees will have more opportunities to advance within their careers and secure jobs with family-sustaining wages and benefits. More broadly, the nation will benefit from a more productive workforce, increased tax revenue, and fewer demands on public services (U.S. Department of Education, 2010). However, significant barriers at the individual, institutional, community, policy level are inhibiting progress in moving low-skilled adult workers into postsecondary education and ensuring their persistence through degree completion (Alamprese, 2006; Jenkins, 2008; U.S. Department of Education, 2010).

Over the past twenty years, policymakers at both the state and federal levels have initiated education and workforce development reforms designed to address what some call a “skills gap” in the U.S. labor force (Albrecht, 2011; McNamara, 2009). Multi-agency initiatives to improve the nation’s workforce development system are designed specifically to create career pathways for low-skilled adults, improve access and completion rates for adults pursuing a postsecondary degree or credential, and to overhaul the existing adult education system to better meet the needs of a 21st century economy (Foster, 2012). These efforts are changing the goals and accountability metrics of state systems of adult basic education and shifting the focus from the attainment of basic literacy skills, vocational training, or GED credentials, to ensuring successful transition into postsecondary education (Alamprese, 2006; Engle, Yeado, Brusi, and Cruz, 2012; Foster, Strawn, & Duke-Benfield, 2011; Foster, 2012).

II.I Diversity and Inclusion: Trends in the U.S. Labor Force

Over the next 35 years, the population of the United States is projected to reach 400 million people, an increase of over 90 million people from 2010 numbers. The share of people over age 65 is expected to increase from 13% to over 20% of the total U.S. population. The number of working age Americans (age 20-64) will also increase, but they will comprise a smaller share of the total population. These demographic changes—which have long term impact on the nation’s social security and Medicare

systems—are more pronounced across New England where the population is older and slower growing than any other region in the U.S. (Francese, 2014).

By 2020, the United States labor force is expected to grow to more than 164 million people, a nearly 6% increase from 2012 numbers (Burns, Barton, & Kerby, 2012). As a whole, the workforce is becoming both older and more diverse. Due primarily to the aging of the overall population and longer work horizons, workers over 55 will comprise 25% of the total U.S. workforce by 2020 (Hayutin et al., 2013). In 2010, immigrants accounted for over 16% of the U.S. workforce and only 13% of the total population. Despite recent declines in the immigration rate, projections indicate that by 2043 the U.S. will no longer have an ethnic or racial majority, and over the next 35 years 80% of the growth in the working age population will come from new immigrants and their children (Burns et al., 2012; Hayutin et al., 2013; Little & Triest, 2001; Singer, 2012; Wilson, 2014).

Greater participation among women and minorities, increases in the number of foreign-born workers and increasing number of older workers are fundamentally altering the nature of the workforce in America. Diversity and inclusion in the labor market will be the key drivers of economic growth in the coming decades forcing employers to address the impact of these changes on the available labor pool. Given the need for a more highly-educated workforce, efforts to create viable pathways for immigrant workers and their children, many of who are ELLs, to access and persist in postsecondary education is critical for long-term economic competitiveness (Unruh & Bergson-Shilcock, 2015; Wilson, 2014).

II.II Immigrants, English Language Learners and Economic Opportunity

The adult immigrant population in America is diverse, with varied educational backgrounds, goals and expectations, employment histories, and language proficiency. These differences affect their readiness for postsecondary education and the various pathways in which they enter postsecondary education (Erisman & Looney, 2007; Mathews-Aydinli, 2006). Collectively, nearly 30% of immigrants lack a high school diploma compared to about 7% of native-born Americans. This distinction is most pronounced among lower-skilled immigrants who tend to cluster in certain sectors of the economy characterized by low-pay, low-skill, and high instability (Singer, 2012). Conversely, among the increasing numbers of higher-skilled foreign-born workers in the U.S., educational attainment between immigrants and natives is similar (Clayton-Matthews & Watanabe, 2012).

English language proficiency and overall economic standing. Research shows that English language proficiency is a strong indicator of overall economic standing among immigrant workers in the U.S. regardless of educational attainment. English proficient immigrant workers earn 25%-40% more than those who are English language learners (ELLs). Overall, they are less likely to be unemployed, have greater civic involvement and social connections within their communities, and raise children with

greater academic and economic success (Gross, 2015; Huang & Nisbet, 2014; Krogstad, & Lopez, 2014; Wilson, 2014).

Even among highly-skilled immigrant workers with postsecondary degrees, those with limited English proficiency are twice as likely to work in low-skilled jobs as those who are proficient in English (Gross, 2015). Nationally, nearly 10% of working-age adults (over 19 million individuals) are ELLs, two-thirds of who speak Spanish (Wilson, 2014). Of the total working age ELL population, 13% are native born and 87% are foreign born (Krogstad & Lopez, 2014; Wilson, 2012). Research suggests that English proficiency among immigrants is dependent upon a number of factors, including educational attainment, length of time in the country, age at the time of arrival in the U.S. and whether an individual is a first or second generation immigrant in the U.S. (Center for Applied Linguistics, 2010).

Significantly, educational attainment and English proficiency are highly correlated among all working age adults regardless of nativity. Recent analyses from the Brookings Institute found that only 5% of college graduates and about 8% of high school graduates are considered ELLs, while 40% of working age adults without a high school diploma are ELLs (Wilson, 2014). Among adults with limited English proficiency, 60% are high school graduates and 15% hold a college degree, compared to 93% of the English proficient working age population who hold high school degrees and the 32% who have a college degree (Wilson, 2014).

English proficiency also influences earnings across a worker's lifetime. Regardless of level of educational attainment, English proficient workers median earnings are nearly 40% higher than ELL workers. Research shows that adult workers who successfully transition from ELL status to higher levels of English proficiency gain incremental increases in earnings as their proficiency improves. In short, among low-skilled workers, English proficiency has a greater economic value to the individual than educational attainment (Wilson, 2014).

Massachusetts's immigrants face similar challenges. Based on 2012 state immigration data profiles from the Migration Policy Institute, 15% of Massachusetts's total population and 18% of its labor force are foreign born (Gross, 2015). Over 65% of Massachusetts's immigrant population has been here for over 10 years and the largest proportions originated in Latin America (34.8%), Asia (27.6%), and Europe (26.1%). Immigrant workers in the Commonwealth are much more likely to be younger than natives, comprising a disproportionate share of the 25-44 year old age bracket. Recent immigrants (those in the U.S. less than 10 years) trend even younger and are much less likely to be over 45 than native workers (Clayton-Mathews & Watanabe, 2012).

Immigrant households comprise nearly 16% of the total number of households in the Commonwealth and they tend to be larger than native headed households (2.82 persons/immigrant headed household compared to 2.36 persons/native headed household). Thirty percent of immigrant households have at least one child enrolled in K-12 public schools in Massachusetts compared to 21% of native headed households. In 2009, there were 188,000 students from immigrant headed households in Massachusetts's K-12 schools, or nearly 20% of the total enrollment (Clayton-Mathews & Watanabe, 2012). Among all children under 6 years old, 30% live in immigrant-headed households (Park, McHugh, Zong, & Batalova, 2015). Based on current (2014-2015) enrollment data, 18.5% of students attending public schools in Massachusetts did not speak English as their primary language and 8.5% (over 80,000 students) are classified as ELLs (Massachusetts DESE state profiles).

Of all residents five years old and over, 9% (560,701) are classified as ELLs and over 250,000 (about 4% of the total population) are adults. Between 2000 and 2015, the ELL population in Massachusetts increased by 20% (Gross, 2015; Park et al., 2015). Less than 47% of immigrants who have lived in Massachusetts less than 10 years speak English well or very well and nearly 30% do not speak English well or at all. One-quarter of all immigrants live in linguistically-isolated households, but among recent immigrants this number increases to over 34% (Clayton-Mathews & Watanabe, 2012). Among all ELLs in Massachusetts, about 72% are in the labor force, 65% are currently employed and about 24% have median annual earnings below the federal poverty line (Gross, 2015).

Mirroring trends nationally, the greatest growth in foreign-born residents in the Commonwealth is occurring in metropolitan areas. Immigrant household in Boston, for instance, account for over 26% of the total number of households (Clayton-Mathews & Watanabe, 2012). In Greater Boston and Worcester, the ELL population grew by 26% and 32%, respectively, between 2000 and 2012 (Gross, 2015; Wilson, 2014). Such clustering can strain the ability of local municipalities to address issues of poverty and provide services needed in communities, but can also allow for more targeted interventions best suited to local needs.

ELL workers in Massachusetts, particularly those with less than a high school degree (54% of adult ELLs in MA lack a high school degree), generally have a higher level of participation in the workforce than English proficient adults who lack a high school degree. While there are variations across urban areas in the Commonwealth, the majority of these workers are concentrated in five occupational categories recognized by the U.S. Census (Accommodations and Food Service; Health and Social Services; Manufacturing; Administrative and Waste Management Services; and Retail Trade). These are generally low-skill, low-pay occupations and industries that are expected to grow significantly in the coming decades (Gross, 2015; Singer, 2012; Wilson, 2014). While not considered one of the top-five occupations for ELL workers, the early care and education (ECE) workforce has traditionally shared

many of the same characteristics as these sectors, including low-skill, low-pay and high turnover (Bassok, Fitzpatrick, Loeb, & Paglayan, 2013; Zaslow, Tout, Halle, Whittaker, & Lavelle, 2010).

National trends in the ECE workforce. National data on the ECE workforce is scarce, particularly in understanding trends in educational attainment over time. A 2005 study by the Economic Policy Institute explores changes in the educational qualifications of the ECE workforce between 1979-2004 using Current Population Survey (CPS) census data (Herzenberg, Price, & Bradley, 2005). The study found that from the late 1980s to the early 2000s, the share of center-based teachers with a 4-year degree declined from 43% to 30%, while the share with only a high school degree increased. Education levels among the ECE workforce had fallen, despite positive trends for the U.S. workforce as a whole. Across program types, home-based educators had the lowest levels of educational attainment with one-in-nine possessing a college degree and less than half with any education beyond high school. Significantly, the percentage of younger workers with a 4-year degree declined most dramatically in the early 2000s, indicating the field’s difficulty attracting and retaining more educated workers (Herzenberg et al., 2005).

Bassok et al. (2013) analyzed a national sample (2.2 million) of ECE workers across home-, center- and school-based programs. Similar to Herzenberg et al. (2005), the study draws from CPS data but across a different time frame—1990 to 2010. Based on the analysis of 2010 data, 40% of ECE workers had at most a high school diploma, and about one-third had completed some college credit but did not have a bachelor’s degree. Moreover, 25% of the sample left the field between 2009 and 2010, with new entrants coming primarily from occupations with a lower level of education and earnings than 60% of the entire U.S. labor force (Bassock et al., 2013).

Looking at trends over time, the study found that between 1990 and 2010 the share of workers with some college credit increased from 47% to 62%; mean annual income increased by 51%; and annual turnover rates declined from 32.9% to 23.6% (Bassock et al., 2013). While acknowledging the limits of their analysis, the authors postulate that these improvements were due, in part, to the shift to more formal center-based programs and the expansion of statewide pre-Kindergarten. It is also possible that that the economic recession that began in 2008 resulted in less turnover and higher skilled adults pursuing jobs in early education.

Table 1: Characteristics of the ECE workforce nationally

Program Type	% workers (n=2.2 million)	% workers with at most a HS degree	Median annual income	Turnover rate 2009-2010
Home	26	50.7	\$12,415	28.5%
Center	56	39.8	\$14,567	24.2%
School	18	17	\$27,014	13.6%

(From 2010 CPS Census data based on analysis by Bassock et al., 2013)

A 2015 study from the Migration Policy Institute also found that as a field, ECE offers a low premium on educational attainment and few incentives for workers to increase their qualifications, particularly among the growing immigrant segment of the workforce. Nationally, immigrant workers account for nearly 20% of the overall ECE workforce and they are more likely concentrated in the lower-skilled and lower paying segments of the field. According to MPI data, 80% of immigrant ECE workers are employed in home or family-based child care settings and native-born workers are more than twice as likely to be employed as preschool teachers or program directors (Park et al., 2015). In a field where 55% of all workers have a high school diploma or less and 63% hold less than an associate's degree, immigrant workers are five times more likely to have less than a high school diploma. Among immigrant workers—54% of who are considered limited English proficient—English literacy is identified as a key barrier to educational attainment and career advancement (Park et al., 2015).

Over the past 25 years, the ECE workforce in Massachusetts is estimated to have grown by about two-thirds, from a total of 27,000 to 45,000 workers, with nearly 40% of the growth coming from immigrant workers. Based on pooled ACS data from 2011-2013, the immigrant share of the ECE workforce nearly tripled from 1990 numbers, reaching about 9,200 educators, or 20% of the total ECE workforce (Park, et al., 2015). Among immigrant ECE educators, the majority are women (97%), Hispanic (48%), and over age 40. Across all ECE educators in the Commonwealth, 13% are considered ELLs, while among immigrant ECE educators 55% are ELLs (2% of native-born workers are also ELLs). Spanish represents the primary home language of these workers, representing 47% of all ELLs in the ECE workforce, followed by Portuguese (8%), Haitian Creole (7%), and Chinese (6%) (Gross, 2015).

For Massachusetts's immigrant ECE educators over the age of 25 (8,400), 14% lack a high school diploma, 37% have a high school degree or GED, 17% have some college credit, 12% have associate degrees, and 21% have bachelor degrees or higher. Immigrant workers are three times more likely to lack a high school degree and about twice as likely to lack a BA or higher than their native-born peers. Over 55% of immigrant ECE educators are in family-based or private home-based programs compared to 29% of native-born ECE educators. Nearly one-half of these immigrant ECE educators live below 200% of the federal poverty line compared to less than 25% of native-born ECE educators (Gross, 2015; Park et al., 2015). In short, the cultural and linguistic diversity of the ECE workforce in Massachusetts mirrors the diversity of Massachusetts's families and children (Marshall, Dennehy, Starr, & Robeson, 2005; Park et al., 2015).

While data on the ECE workforce is limited at best, studies of national and state trends highlight a number of challenges for the field—including, low compensation levels, low educational attainment,

and high turnover. As expectations for early education programs and educators rise, creating a more robust pipeline of workers who have the skills and knowledge to support positive outcomes for young children will require that policymakers, institutions of higher education (IHEs) and employers strengthen policies and initiate programs to recruit, develop, and retain quality educators. Given the current demographic trends and educational challenges facing the country, moreover, early education must find new ways to engage, educate, and empower the growing number of diverse families and children it serves. As the National Task Force on the Early Education of Hispanic Children (2005) noted:

At all levels of early childhood education, there is a shortage of . . . teachers who are experts in strategies for helping students master a second language. Developing effective approaches for addressing these teacher supply problems is an increasingly pressing matter. (p. 2)

II.III Diverse Children and Families

There is little debate that new immigrants and their children are playing an increasingly important role in our nation's economic, cultural, and social development. Given our aging population and declining fertility rates among native-born citizens, new immigrants and their children are the primary drivers of growth in the labor force. Since 2000, 57% of the total population growth in the U.S. took place among immigrants or the children of immigrants (Bipartisan Policy Center, 2014). Consequently, the U.S. population as a whole will grow at a higher rate than other industrialized countries, mitigating the substantive costs associated with an aging population. Tapping the potential of this segment of the population and fully integrating them into the fabric of American life is a key strategic challenge facing the country (Burns et al., 2012; Hayutin et al., 2013).

Immigrant youth—children under 18 who are either foreign born or born to immigrant parents—accounted for 25% of the nation's 75 million children in 2009 and they are projected to account for nearly 35% by 2050. While data on young English language learners (ELLs) is difficult to obtain, in 2009 there were 5.3 million ELLs enrolled in public Pre-K-12 schools in the U.S., nearly 2 million more than were enrolled in 1999 (Flores, Batalova, & Fix, 2012). Twenty-seven percent of young children under age six have at least one parent who speaks a language other than English (Hernandez, Denton, & Macartney, 2008; Matthews, 2011). Hispanic children comprise the largest share of this group, representing over 20% of total number of children eight years old and younger.

The largest proportion of immigrant children are under six years of age (6.2 million), with the 6-11 year old and 12-17 year old cohorts each containing an equivalent number of about 5.5 million. Among these children there is variation in both generational and legal status: 60% are U.S. born to legal immigrant parents; 24% are U.S. born to unauthorized parents; 10% are first generation legal immigrants; and 6% are unauthorized immigrants (Brown & Patten, 2014; Passel, 2011; Velasco & Dockterman, 2010). As Passel (2011) observed,

Within about twenty-five years, immigrant youth will represent about one-third of an even larger number of children. Because of their numbers and the challenges facing the country, immigrant youth will play an important role in the future of the United States. (p. 35)

Cultural and linguistic diversity challenges education and social services. Compared to native-born White families, immigrant families have lower parental education levels, higher child poverty rates, greater share of single parent homes, lower overall socio-economic status (SES), and lower rates of English language proficiency (Hernandez et al., 2008; National Task Force on Early Childhood Education for Hispanics, 2007). These factors have a significant negative impact on educational, health, and social outcomes. By almost all measures—school readiness, academic achievement, graduation rates, and dropout rates—Hispanic children have lower levels of educational achievement compared to non-Hispanic Whites or Asian Americans (Flores et al., 2012; Garcia, Jenson, & Scribner, 2009; Portes, 2005).

While the literature supports early education as an effective strategy to address gaps in educational achievement and developmental supports, poor and minority children have limited access to high-quality early education. Immigrant families are less likely to receive child care benefits due to a variety of legal restrictions, confusion over eligibility requirements, and fear of engagement with public systems (Matthews & Jang, 2007). A 2006 study by the Government Accounting Office found that children of parents who are limited English proficient are about half as likely to receive child care financial assistance (Firgens & Matthews, 2012). State and federal programs to expand access, funded primarily through the Child Care and Development Block Grants (CCDBG), are not keeping pace with the growing demand for quality early education (Mancilla-Martinez & Lesaux, 2014; National Task Force on Early Childhood Education for Hispanics, 2007; Whitebook & Ryan, 2011; Zaslow et al., 2010).²

As public funding has increased, state and local stakeholders have pushed efforts to improve the quality of early education settings through various competency-based workforce development and curriculum standards, Quality Rating and Improvement Systems (QRIS), career ladders, accreditation systems, and programs to recruit, reward, and retain a professional workforce (Holas-Huggins, 2010; Marshall et al., 2005; Strategies for Children, 2010; Taj, 2013). Providing opportunities for culturally and linguistically competent educators continue their education in a postsecondary degree program is a core strategy of current quality improvement efforts. It is a strategy with a strong basis in research

² Children of immigrant families who were born in the U.S. are eligible for benefits under the CCDBG program, but they are denied benefits under TANF-funded programs for the first 5-years that they are in the U.S. CCDBG funding supports expansion of childcare voucher programs, Universal Pre-K initiatives and the federal Head Start program, as well as community outreach through multilingual caseworkers and multilingual resources (Firgens & Matthews, 2012).

and support among practitioners who are calling for a greater emphasis on dual language education programs and bilingual teachers in early education settings (Cheung, 2005; Garcia et al., 2007; Green, 1998; Matthews & Jang, 2007; Rolstad, Mahoney, & Glass, 2005; Wallstrom, 2009).

II.IV Dual Language Educators and Program Quality

For young children (pre-school to grade 3), the term dual language learner (DLL) is often preferred to ELL because these children are still in the process of developing proficiency in their first language. Nationally, estimates put the number of DLLs enrolled in early education settings at about 4 million (Goldenberg, Hicks, & Lit, 2013). Massachusetts is one of the top 10 states for immigrant children, with approximately one-quarter of the population of young people under 18 classified as immigrants (Park, et al., 2015; Passel, 2011). Thirty percent of children under six live in households that speak a language other than English (Park et al., 2015). Based on 2009 numbers, 10% of children ages 3 to 5 in Massachusetts were identified as DLL or ELL, but data are scarce (Zacarian, Finlayson, Lisseck, & LoIacono, 2010).

Identification and assessment of ELLs in Massachusetts's early care and education programs has been hampered by the Commonwealth's English-only education policies and is largely dependent on program-initiated parental interviews and observational data. Resource constraints and staff experience and training limit the ability of programs to adequately assess their students (Zacarian et al., 2010).

In 2002, Massachusetts voters approved English-only education in public schools which became law under Chapter 71A of the Massachusetts General Laws. Citing the failure of previous native language programs, the law recognizes "a moral and constitutional duty to provide all of Massachusetts's children, regardless of their ethnicity or national origins, with the skills necessary to become productive members of our society. Of these skills, literacy in English language is among the most important" (Chapter 71A, Section 1). Implementation of the law provided additional funding for the expansion of community-based adult English language instruction to build the capacity of families to acquire English language, but these funds did not adequately address the expanding demand for ESL classes (Chapter 71A, Section 8, Massachusetts General Laws).

The current system, known as Sheltered English Immersion, has been widely criticized for its inability to improve educational outcomes for ELLs. In 2012, the State Board of Education adopted new regulations to improve the identification, assessment, tracking and support for ELL students to address gaps in achievement, graduation rates, and college and career readiness (Massachusetts DESE, 2013). Responding to a "critical" shortage of licensed ESL teachers in the Commonwealth, the Department of Elementary and Secondary Education (DESE) initiated the Rethinking Equity and Teaching for English Language Learners (RETELL) to strengthen licensing requirements and improve teachers' practice working with ELLs. In 2013, Massachusetts Senate and House leaders submitted two bills to revamp

dual-language education in the Commonwealth—providing greater flexibility for schools and professional development for teachers—arguing that the current system is largely based on xenophobia rather than educational best practices.³

What is the value of dual language education? While the research on the efficacy of specific dual language education strategies is limited, studies show DLLs gain in language proficiency, academic learning, and school readiness as measured by assessments of English literacy and math skills, when teachers are proficient in both English and the native language of their students. Dual language education programs have also been linked to social and psychological benefits for young children, including children with learning and language disabilities. These outcomes, however, are dependent upon multiple factors, including how an educator’s language skills are used in classroom instruction, early monitoring for learning problems, extensive vocabulary instruction and peer-assisted learning opportunities (Ackerman & Tazi, 2015; August & Shanahan, 2006; Cheung, 2005; Garcia & Jenson, 2007; Gersten, Baker, Shanahan, Linan-Thompson, Collins, & Scarcella, 2007; Rolstad et al., 2005).

Research suggests that when students experience disconnects between home and school language practices it negatively impacts their educational experience and long-term perceptions of school (Ackerman & Tazi, 2015; Rich & Davis, 2007). A 2007 University of North Carolina study of Spanish-speaking pre-K programs found that DLL students are less likely to experience social isolation or bullying from peers and build stronger relationships with teachers. Both of these effects are strong predictors of later academic success (Hagan, 2011; Wallstrum, 2009).

Bilingual teachers in dual language classrooms rate their students more positively in terms of frustration tolerance, assertiveness, and peer-to-peer social skills (Goldenberg et al., 2013). Linguistically and culturally competent teachers and staff also create more culturally aware, engaged learning environments for parents who may be limited in their English proficiency. Survey data suggests that parents favor bilingual instruction for its ability to strengthen bilingual-bicultural identity, boost language aptitude and promote career-related advantages later in life (Ramos, 2007; Wallstrum, 2009).

The value of dual language instruction in improving literacy in both English and a student’s home language is also supported by what we know about the social, economic, and cognitive benefits of bilingualism. Bilingual education is a global standard, and it has been argued that U.S. monolingual requirements in schools put American students at a competitive disadvantage internationally. According to Marian and Shook (2012), recent research in brain science is providing strong evidence

³ These bills are currently being reviewed by the Joint Committee on Education and it is unclear if there is support to move the bills forward (Massachusetts State Legislature).

that bilingual brains have better attention and task-switching capacity and higher levels of executive functioning. These have important impacts on learning, including a greater ability to process information in the environment and learn new vocabulary (Bhattacharjee, 2012). According to some researchers (Marian & Shook, 2012), “This suggests that even for very young children, navigating a multilingual environment imparts advantages that transfer beyond language” (n.p.).

Recognizing the value of building language proficiency in both a child’s home language and English, practitioners have been advocating for more multi-lingual educators who are from the communities they serve (Figuerido, 2012; Lim, Maxwell, Able-Boone, & Zimmer, 2009; Villegas, 2007; Zaslow et al., 2010). Language skill is increasingly being seen as an important core competency in the skills and knowledge an ECE educator brings to programs (Chang, 2006; Daniel & Friedman, 2005; Goldenberg et al., 2013; Hagan, 2011; National Task Force on Early Childhood Education for Hispanics, 2007). Given the current demographics of the ECE workforce in MA—13% of who identify as ELLs—there is an opportunity to support these workers as they enter postsecondary education to develop the pedagogical skills and professional practices that have been shown to promote language proficiency among young DLLs.

Nationally, over 80% of all Early Head Start/Head Start programs (EHS/HS) serve dual language learning families. Although these families are diverse, Latino children from Spanish speaking homes represent the largest share. Across all EHS/HS programs, over one-third of children are Latino and almost 25% come from families that primarily speak Spanish (Goldenberg et al., 2013; Mancilla-Martinez & Lesaux, 2014). As a result, policies at the state and federal levels are working to promote the recruitment and retention of bilingual educators to improve instruction for DLLs and to foster positive relationships with families (NAEYC, 2009). In fact, more research is supporting the belief that given efforts to expand access to early education, particularly for low-SES and minority children, staff diversity is a key measure of program quality (Matthews & Jang, 2007). As a recent report argues:

A high quality early care and education workforce could not be defined narrowly by traditional early education competencies, but must include cultural and linguistic diversity and skills, and the ability to offer culturally and linguistically appropriate services. (Chang, 2006, p.1)

Policymakers and practitioners at the state and local levels are increasingly aware of the opportunity to build the quality of the early care and education workforce. Creating new pathways for culturally and linguistically diverse adults to access and obtain postsecondary degrees can both strengthen their individual economic and social futures while providing them with the skills and knowledge to improve educational and developmental outcomes for all children in the Commonwealth. Staff diversity and programmatic competencies in serving diverse children and families are recognized as quality standard

within the Massachusetts QRIS (Taj, 2013). As the Department of Early Education and Care outlined in its 3-year strategic plan adopted in 2009, the focus is on “creating a workforce system that maintains worker diversity and provides resources, supports, expectations and core competencies that lead to the outcomes we want for children” (LaChance, Hawes, & Simpson, 2010, p.2).

II.V Rationale for Early Education and Care

Current efforts to improve the quality of ECE workforce through multiple professionalization pathways, including more effective and consistent professional development, strengthened credential programs and postsecondary degree programs, are being driven by three realities:

1. Greater understanding of the role of high quality programs in improving educational and developmental outcomes for children, particularly low income and culturally and linguistically diverse students
2. The role of educators’ skills and knowledge in fostering program quality through effective classroom management, developmentally-appropriate interactions and content instruction
3. The economic and social value of investing in children and families

Quality early education and positive outcomes for children. There is a substantive body of research that shows high quality early education, from infant/toddler to kindergarten, can contribute to higher levels of school readiness and educational achievement among low SES students (Chang, 2006; National Task Force on Early Childhood Education for Hispanics, 2007; Portes, 2005). Some studies suggest that dual language learners experience greater academic gains than English speaking students in high quality early education settings (Goldenberg et al., 2013; Matthews & Jang, 2007). Benefits, moreover, seem to extend into adulthood, resulting in lower incarceration rates, lower welfare costs, and higher earnings and taxes (Hertzberg et al., 2005; Lynch, 2005).

Longitudinal studies of model early education programs that control for child participation and socioeconomic status—the Perry Preschool Project (Ypsilanti, MI), the Prenatal/Early Infancy Project (Elmira, NY), the Abecedarian Early Childhood Intervention (North Carolina), the Abbott Preschool Program (New Jersey) and the Chicago Child-Parent Center Program (Chicago, IL)—found significant positive child outcomes for program participants. These include, higher scores on math and reading achievement tests, greater language ability, less grade retention, fewer special education placements, lower dropout rates, and higher graduation rates for program participants (Barnett, Jung, Youn, & Frede, 2013; Chang, 2006; Lynch, 2004 & 2005; National Task Force on Early Childhood Education for Hispanics, 2007).

Research over the past 40 years, moreover, has demonstrated the impact of early brain development on long-term outcomes for children. We know that children are born ready to learn and that exposure

to learning environments that are nurturing and relational-based, rich with language, and highly-interactive have significant impact on their social and emotional development (Center on the Developing Child, 2007; Edie, 2009; Zaslow et al., 2010).

Given these benefits, it is a key challenge for the field that family background remains a central factor in participation. Children from low income families, particularly culturally and linguistically diverse families who could benefit most from high quality programming, are less likely to have access to high quality early education (Chang, 2006; Farrie & Weber, 2010; Kelly & Camilli, 2007). Children from immigrant families, moreover, are often under-enrolled in center-based programs due to cultural norms that favor relatives or family-based care, affordability, unavailability in immigrant communities, strict eligibility requirements, and inadequate language access (Matthews & Jang, 2007).

Model programs and other high-quality early education settings share similar characteristics, including well educated and trained staff, lower child to teacher ratios, developmentally appropriate activities, intentional curricula, and positive teacher/student relationships (Bowman, Donovan, & Burns, 2000; Edie, 2009; Marshall et al., 2005). As a field there is wide agreement on what constitutes quality early care and education programming, but the systems and policies to ensure access to quality programs are still developing. The field as a whole continues to lack adequate resources, consistent standards, and specific requirements for professional preparation. Consequently, low levels of education and only minimal specialized training among ECE educators are the norm (Barnett et al., 2013; Saluja, Early, & Clifford, 2002; Zaslow et al., 2010). As Hertzberg (2005) observed:

If the United States wants children to receive high-quality early childhood education that provides a foundation for success in school and life, it must reverse the decline in qualifications of early childhood teachers. For the children and families who depend on ECE, and for the United States as a whole, this investment will pay dividends in the generations ahead. (p. 2)

Postsecondary education for ECE educators. It is widely accepted that delivering high-quality early education requires high levels of skill, ability, and knowledge. An understanding of how children develop socially and cognitively and an ability to translate that knowledge into effective classroom practices are vital (Sheridan, Edwards, Marvin, & Knoche, 2009). Increasingly, state and federal policies are pushing the field to incorporate ECE educator degree attainment as a core quality improvement strategy. Providing pathways to postsecondary education for the existing workforce have the potential to improve outcomes for all children in early education settings. Improving the capacity of the workforce may also strengthen partnerships between programs and diverse communities (Sakai, Kipnis, Whitebook, & Schaack, 2014).

State and federal mandates outlining minimal education requirements are increasingly prevalent for programs receiving public funding. As a recent report from Strategies for Children outlines, as of 2010 20 states require lead teachers to possess a bachelor's degree with training or certificate in ECE to work in state funded pre-K programs; the National Association for the Education of Young Children (NAEYC) includes a bachelor's requirement in their accreditation standards by 2020; reauthorization of the federal Head Start programs requires 50% of teachers to hold a bachelor's degree; and over 25 states, including Massachusetts, have implemented QRIS and career ladder programs that outline core competencies and new educational requirements for educators (Bassok et al., 2013; Strategies for Children, 2010; Taj, 2013).

Research supports the value of teacher education and specialized training to improve educator practices, program quality, and child outcomes. A National Research Council study (2000) found that teacher's overall education levels and training specific to early care and education was related to positive outcomes for children (Bowman, Donovan, & Burns, 2000). Other studies have found ECE educators with bachelor degrees have a better understanding of appropriate classroom practices and create developmentally appropriate interactions that facilitate language development and social and cognitive skills (Honig & Hirallal, 1998; McMullen & Alat, 2002). Researchers have also identified positive practices when an educator with a bachelor's degree holds a specialized credential in early childhood education (Ackerman, 2005; Barnett et al., 2013).

There is growing acceptance among policymakers and practitioners for the belief that, "more knowledge in early childhood education does appear to influence beliefs, attitudes, and practices of teachers" (Vartuli, 1999, p. 510). There is also a growing body of research on the efficacy of specific professional development approaches associated with positive outcomes on educator practices (Zaslow et al., 2010). Research suggest that specialized training provided through early education certification programs, such as the Child Development Associate (CDA) Credential™, has a positive impact on how well educators engage in interactions and activities that facilitate language development, cognition, and social skills (Ackerman, 2005; File & Gullo, 2002; Honig & Hirallal, 1998). Much of this research is descriptive, however, and does not meet the methodological criteria recognized by the Institute for Education Sciences' (IES) What Works Clearinghouse (WWC). Moreover, across the field there is little follow-up with pre-service educators as they enter the workforce and few clear measures of how specific education and training impacts teacher competence and classroom practice (Horn, Hyson, & Winton, 2013).

Given the current state of research, some have argued that ECE educator policies are outpacing the research on the efficacy of such programs, particularly for a field that has relied primarily on informal apprenticeships and alternative, informal educational opportunities (Sheridan et al., 2009; Washington,

2015). Research by Whitebook and Ryan (2011) and Chang (2006), while supportive of increasing education levels for ECE workers, acknowledge the lack of empirical data to support degree-based mandates. Research is inconclusive regarding the relative value of a bachelor's degree vs. an associate's degree or other types of credential or experienced-based competencies. Much of the research does not distinguish between degree attainment and actual teacher classroom behaviors and practices, and other program variables that influence quality. A recent report commissioned by the U.S. Department of Education found, "little indication of stronger observed classroom quality or larger gain scores on children's academic achievement when early educators had completed a higher education degree" (Zaslow et al., 2010, p. xiv).

Arguing that too much attention is paid to base-line qualifications, researchers are calling for a greater focus on the capacity and quality of early care and education degree programs at both 2- and 4-year institutions of higher education, ongoing learning supports for educators, and the current mismatch between the expectations placed on ECE educators and the availability of quality preparation programs. There is also concern with degree mandates given current levels of compensation and benefits that don't reward educational attainment, and their potential impact on the existing workforce, many of who face significant language, cultural, and systemic barriers accessing and persisting in higher education (Chang, 2006; Dukakis & Bellm, 2006; Dukakis, Bellm, Seer, & Lee, 2007; Sakai et al., 2014; Whitebook and Ryan, 2011). As the National Task Force on Early Childhood Education for Hispanics (2007) observed:

Many people have concluded from research on early childhood program effectiveness that pre-K teachers should have bachelor's degrees and be very knowledgeable about child development. At the same time, there is not an evidence-based consensus on what the specifics of their bachelor's degree programs should be. (p. 31)

More research is needed that goes beyond formal markers of educational attainment to consider in more depth the characteristics of the educator, the quality and content of higher education programs, and the context into which educators go to work with children. The limited studies of bachelor's degree-granting preparation programs for ECE educators that do exist, for instance, have found that less than half required coursework in working with diverse families and only one-in-ten required coursework in working with dual language learners (Chang, 2006). Moreover, there are currently no agreed upon standards for ECE teacher preparation and there are wide variations among programs that receive public money to educate the ECE workforce (Whitebook, Austin, Ryan, Kipnis, Almaraz, & Sakai, 2012). Accreditation of ECE degree programs is voluntary with limited state or national oversight for quality assurance. Finally, there are currently no systems in place to ensure the use of evidence-based approaches to educator preparation (Horm et al., 2013).

Economic and social value of investing in children and families. According to the Annie E. Casey Foundation Kids Count Data Center, in 2013 25% of all children under six years old were living in poverty. In Massachusetts, that number is 18% or 77,000 children (<http://datacenter.kidscount.org/>). The immediate costs of ameliorating some of the effects of poverty through access to high quality early education has proven to be a significant barrier to progress despite the overwhelming evidence of long-term benefit to individuals, families, and society as a whole. This has been particularly true across New England where an aging population, increasing health care costs, and a strong culture of local control over municipal government (particularly public education) has created a perception that investing in children is a burden on local tax payers rather than a long-term economic and social benefit to the community (Francese, 2014).

Over the past 20 years, economists have worked to quantify the value of investments in early education using cost-benefit analysis. Leading economists, including former Federal Reserve Chairman Ben Bernanke and Nobel Laureate James Heckman, have supported investments in early education for its ability to create a return in improved educational, health and social outcomes, and reduce social welfare costs. Heckman, in fact, has argued that investments in early education results in a 10% to 16% return, much higher than the average annual rate of return of 6.3% for the U.S. stock market between 1871 and 1998. Cost-benefit analyses of the model early education programs referenced above found that return on investments varied from a minimum of \$3.78 for every \$1 spent, to over \$17 for every \$1 spent (Edie, 2009; Lynch, 2004 & 2005; Strategies for Children, 2010). Despite the imperfect nature of such analyses, the evidence for investment has motivated many organizations, the influential Committee for Economic Development (2002), to call for greater resource allocation for early education:

Over a decade ago, CED urged the nation to view education as an investment, not an expense, and to develop a comprehensive and coordinated strategy of human investment. Such a strategy should redefine education as a process that begins at birth and encompasses all aspects of children's early development, including their physical, social, emotional, and cognitive growth. In the intervening years, the evidence has grown even stronger that investments in early education can have long-term benefits for both children and society. (p. x)

While the benefits of investment in high quality early education transfer directly to children and families who participate, the indirect benefits of non-participants accrue at an even higher rate over time. Investments in early education benefit taxpayers and generate revenue at the local, state and federal levels in four key ways:

1. Public education expenditures decline as students spend less time in school, use fewer remedial services and are less likely to be referred to special education
2. Lower crime and incarceration rates will reduce cost of the criminal justice system
3. Higher wages earned by participants and their families will increase tax revenue
4. Reduction of public welfare expenditures (Lynch, 2004 & 2005)

Despite the evidence of economic and social value associated with investments in early education, it is not a panacea. As we have seen, poor children still attend lower quality programs at a higher rate than their middle-class peers. Due to persistent problems of low compensation, low status, and limited career opportunities, early education programs remain an economic entry point for many low skill workers (Boyd, 2013). This is also a lack of consensus on what outcomes we want to see for children and what educator practices lead to positive child outcomes. ECE educators are increasingly being asked to promote school readiness, narrow the achievement gap, promote healthy social and emotional development, and provide instruction in math, literacy, and science. As the Committee on Early Childhood Pedagogy (2001) observed, “there is a serious mismatch between the preparation (and compensation) of the average early childhood professional and the growing expectations of parents and policy makers” (Zaslow et al., 2010, p. ix).

Realizing the economic and social benefits of providing all children with high quality early education will require that these educators engage in considerable formal education and professional development. It will also require significant coordination across local, state, and federal agencies, systems of higher education, and practitioners and researchers in the field to ensure that nontraditional adult learners can access and persist in postsecondary education. Providing pathways for Massachusetts’s culturally and linguistically diverse early education workforce to access higher education to improve their knowledge and skills is about improving outcomes for all children. It will also help address long-term workforce needs and strengthen the capacity of the field to support increasingly diverse children and families. Promoting educational attainment among a traditionally underserved and increasingly important population, moreover, has long-term benefits for communities and society as a whole.

III. Too Early for Progress? Barriers to Postsecondary Education

If the country is going to meet President Obama’s goal of having the highest rate of postsecondary degree completion by 2020, a concerted effort to better serve immigrants and adult ELLs is necessary given their projected growth as a percentage of the population. Without intentional coordination among state systems of adult basic education (ABE), higher education, workforce development, and human services efforts will not produce desired outcomes in degree attainment.

III.I Immigrants, ELLs and Postsecondary Education

Participation in postsecondary education is growing and institutions of higher education (IHEs) are becoming more diverse. Between 2000 and 2008, enrollment across all 2- and 4-year IHEs increased by 24%, with females accounting for the largest share of students (57% in 2008 and increasing) (Ross, Kena, Rathbun, KewalRamani, Zhang, Kristapovich, & Manning, 2012). College is also becoming more expensive and for many adult learners returning to college the costs of postsecondary education are more complex than tuition and books. The opportunity costs associated with lost income, childcare expenses, transportation, and time away from families are real and significant barriers to postsecondary access and persistence (Alamprese, 2006; MPR Associates, 2007; Reddy, 2012; U.S. Department of Education, 2010).

While enrollment has increased across all segments of the population, minority and economically disadvantaged students—often referred to as “nontraditional” students—have disproportionately low college completion rates (Aud, Hussar, Planty, Snyder, Bianco, Fox, Frohlich, Kemp, and Drake, 2010; Ross et al., 2012). First year attrition rates for these students at 4-year colleges are 28% and increase to 44% for students enrolled in community colleges. These numbers are significant given that nontraditional students, particularly ELLs and first generation college attendees, enroll in community college at a higher rate than more traditional students. Overall, undergraduate students who attend 4-year colleges or universities are more likely to graduate with a bachelor’s degree than students who begin in community colleges with the intent of transferring to a 4-year institution (Jones, 2014; Tulloch, 2013).

Variation within immigrant and ELL populations limits our ability to make generalized statements regarding enrollment and persistence in postsecondary education. Region of origin, age when immigrated, and whether or not an immigrant is a naturalized citizen are all significant predictors of educational attainment (Batalova & Fix, 2011). Among naturalized citizens, for instance, 47% of young people (18-24) enroll in college, while only 22% of non-citizens were enrolled in college. This suggests that there is a relationship between citizenship and educational attainment, but this relationship is not fully understood (Baun & Flores, 2011; Erisman & Looney, 2005). Particularly challenging for both students and IHEs, two-thirds of low skilled foreign-born immigrants aged 16-26 report speaking English “not well” or “not at all” (Batalova & Fix, 2011).

As Table 2 shows, while there has been some change in educational attainment depending upon generational status among adult immigrants and adult children of immigrants (aged 25-34) between 1999 and 2009, this change has been relatively minor.

Table 2: Educational attainment of immigrant adults (aged 25-34) by generation for 1999 and 2009, by percent

Generation	1999				2009			
	< High School	High School	Some College or Associates	BA or higher	< High School	High School	Some College or Associates	BA or higher
First	30	24	19	27	29	25	17	29
Second	9	25	32	34	10	25	31	34
Third +	8	33	30	29	7	29	31	33

(From Baum & Flores, 2011, p. 173 – Source: U.S. Bureau of Census, Current Population Survey)

Looking across race, the share of first generation Hispanics immigrants aged 25-34 who have a bachelor’s degree is 9%, much lower than first generation immigrants who are non-Hispanic Black (30%), Asian (63%), or White (54%). Educational attainment for second generation immigrants aged 25-34 increases across all racial groups except Asian and White. Among all second generation immigrants aged 25-34 with a bachelor’s or higher 19% are Hispanic, 42% are non-Hispanic Black, 57% are Asian, and 48% White (Baum & Flores, 2011; Jones, 2014; Santiago, 2009).

Improved outcomes in educational attainment and language proficiency among second generation immigrants are significant given that these individuals now represent a larger share of the immigrant population than first generation immigrants (Batalova & Fix, 2011). Due to new policies to expand access among low-income immigrant groups at the state and federal levels—including the expansion of the Hispanic Scholarship Fund and Pell Grants—both Hispanic enrollment and degree attainment in postsecondary education have reached historically high levels (Fry, 2002 & 2011). Despite these positive outcomes, progress has not been adequate to support the economic competitiveness of the country.

While educational attainment is closely linked to long-term economic benefits for immigrant workers, the economic value of postsecondary degrees varies widely depending upon level attained. Across all immigrant groups the economic value of some college is only slightly higher than a high school degree and attaining an associate’s degree has only slightly higher economic value than completing some college. In comparison, attaining a bachelor’s degree provides substantial long-term economic value for an individual compared to an associate’s degree in terms of lifetime wages and higher rates of employer-provided health care and pension plans. Research suggests that attaining a bachelor’s degree is critical to achieve family-sustaining wages and long-term economic security for immigrant families (Batalova & Fix, 2011).

Studies are clear that being an immigrant is itself not a barrier to postsecondary access and persistence. In fact, research that controls for race and socio-economic status find that Hispanic and non-Hispanic Black immigrants to the U.S. are as likely or more likely to enroll in college and experience success as

their native born peers (Baum & Flores, 2011; Flores et al., 2012; Fry, 2002; Ross et al., 2012). The primary determinants of persistence and success in postsecondary education are related to other factors such as delayed entry into higher education, lack of preparation for college-level work, limited English proficiency, parental educational level, part-time status, financial needs and the ability to balance work, life, and school responsibilities (Bergman, Jacob, Berry, & Shuck, 2014; Erisman & Looney, 2007; Fry 2002).

The challenge of non-traditional students. Much of the literature on access and persistence in postsecondary education makes a distinction between students considered traditional and those who are nontraditional. Traditional college going students are more likely to enter college immediately after high school (18-24) and more often enter 4-year institutions with the goal of completing a bachelor's degree and potentially continuing to post-baccalaureate studies. Most traditional students are native-born with parents who have also completed a bachelor's degree or some level of college work. These students are less likely to be from a low-income family and are generally better prepared to maneuver through transition to higher education (Cooper, 2010; Ross et al., 2012).

Nontraditional students are often older, deciding to delay enrollment in postsecondary studies due to work and family responsibilities. They are much more likely than their peers to attend college part time, support dependents and be of lower socio-economic status resulting in higher unmet financial needs. Many of these students are also the first-generation in their families to attend college and often find themselves academically and culturally unprepared for college level work. Studies of student persistence suggest that these factors shape students' identities and how they see their role in postsecondary education. Reddy (2012), Kazis, Callahan, Davidson, McLeod, Bosworth, Choitz, and Hoops (2007), and Harkins (2009), argue that persistence and success in college is often related to multi-leveled aspects of college readiness: academic preparation; knowledge of college structures, processes, and culture; and a conception of self as a student rather than a worker.

Given current demographic and enrollment trends in IHEs, the notion of traditional vs. nontraditional student has become less valid (Dukakis et al., 2007; Ganzglass, 2014). According to Choy (2002), nearly three quarters of all undergraduates during the 1999-2000 school year had one or more characteristics of nontraditional students and over 50% had two or more characteristics (Klein-Collins, Sherman, & Soares, 2010). Immigrant undergraduates are more likely than their native-born peers to have at least three risk factors associated with low persistence (Alamprese, 2006; Burt, Peyton, & Schaezel, 2008; Center for Applied Linguistics, 2010; Choy, 2002; Jones, 2014; U.S. DOE, 2010). According to Erisman and Looney (2007), immigrant undergraduates are 17% more likely to be part time students, with one-third supporting dependents and over one-half who speak a primary language other than English.

Erisman and Looney (2007), Baum and Flores (2011) and other researchers argue that because of the variation among student subgroups, treating nontraditional students as a homogenous group will have limited effectiveness. Rather, targeting supports to address specific needs is a more promising practice that is shown to be more cost effective. Developing such targeted supports presents a variety of implementation challenges given the multiple barriers nontraditional students face, but research suggests that one strategy is to target reforms to the particular education pathways these students take. Because they are often working adults who delay entry into postsecondary education and have limited English proficiency, low SES, and support children and other dependents, nontraditional students often reengage with formal education through state-sponsored adult basic education.

III.II Adult Basic Education Systems and Transitions to Postsecondary Education

ABE and other continuing education programs have long been seen as important vehicles for building essential vocational, technical, and life skills. All states, including Massachusetts, fund a wide range of educational services for adults, including basic literacy (English for Speakers of Other Languages (ESOL) classes), numeracy, General Educational Development (GED) preparation and adult diploma programs (Pusser, Breneman, Gansneder, Kohl, Levin, Milam, & Turner, 2007; Toso, Prins, & Mooney, 2013). These programs are essential for ongoing workforce development efforts to connect individuals to career pathways that are aligned to specific industry standards. Increasingly, ABE is being seen as a bridge to postsecondary education for lower skilled adults, immigrants, ELLs.

Various factors affect participation in ABE classes, including work schedules, family responsibilities, marital status, personal motivation, and the length, frequency and availability of classes. According to research from the Center for Applied Linguistics (2010), adult ELLs comprised 46% of all participants of adult education classes. In 2012, 40% of all participants in federally-funded programs were enrolled in ESL classes and one-third of these participants were in beginning ESL classes and tested at the lowest literacy levels recognized by the National Reporting System (Peyton, Burt, McKay, Schaezel, Terrill, Young, Alamprese, & Nash, 2007; Shaffer, 2014).

According to a national survey of ESL programs, average classes last for less than 10 months and generally meet between 4-6 hours a week. About one-half of classes are provided through Local Education Agencies (LEAs), with 25% offered by community-based organizations and 20% offered at community colleges. Across programs, over 32% of participants do not advance to upper level classes and 27% drop out before completing the course (Moore & Oppenheim, 2010). Given what we know about the difficult and time consuming process of gaining English proficiency, such programs do not have the capacity to provide adequate opportunities for adult ELLs, particularly those who to develop an academic level of proficiency to enter and persist in postsecondary education (Bifuh-Ambe, 2011). Moreover, there is no identified model of ESL that has proven to be consistently effective. Research

shows that language acquisition rates are directly connected to both personal and program-related factors, including availability of classes, learner motivation, attendance, and persistence (Shaffer, 2014).

Being able to bridge the gap between lower levels of English proficiency and college-level proficiency is exceedingly difficult and students entering adult education through ESL classes, particularly adults who lack a high school degree or GED, often have the longest to go to access higher education (Chisman & Spangenberg, 2005). A longitudinal study of 35,000 ABE students in Washington, for instance, found that 35% started in ESL classes. Of these only 13% earned some college credit. Moreover, among ELL students who entered ESL classes with less than a high school diploma, fewer than 1% were able to earn their GED within five years (Seymour, 2009). This is a particularly daunting reality for the current ECE workforce. Nationally, nearly 20% of the immigrant sector of the ECE workforce is both limited English proficient and lack a high school degree (Park et al., 2015).

Federal funding, which accounts for about 30% of spending on ESL instruction, comes primarily from Title II of the Workforce Investment Act of 1998—the Adult Education and Family Literacy Act. A much larger share of the funding (70%) comes directly from states through matching grants. Due to the recent economic recession and its impact on state budgets, infrastructure, and public funding for adult English instruction has not kept pace with growth in the ELL population, resulting in declining numbers of adults served by programs nationwide (Center for Applied Linguistics, 2010; Wilson, 2014).

State and federal policy efforts to expand postsecondary participation are moving ABE to re-structure their programs as pathways to postsecondary education, but they face significant challenges in helping adults transition to higher education (Alamprese, 2006; MPR Associates, 2007). Data on ABE learners who transition to postsecondary education are limited and have only recently been tracked by the Department of Education’s National Reporting System. What we know is that the number of adult learners who make this transition is low (Alamprese, 2006). According to aggregated data on programs receiving federal funds, only 45,000 participants in ABE programs nationally transition to postsecondary education per year. This represents about 2% of the total number of enrollees in ABE (Reddy, 2012).

Among adults who successfully earn their GED, only 30-35% enroll in postsecondary education despite relatively high rates of GED completers who aspire to higher education. Of these students, only 5-10% complete at least one year of school and only 3% complete their associate’s degree (Alamprese, 2006; Pusser et al., 2007; U.S. Department of Education, 2007 & 2010). Moreover, among participants in ESL courses who have an explicit goal of continuing to postsecondary education only about one-half

actually enroll, but there is no data that tracks how many of these students persist to attain degrees or certificates (Shaffer, 2014).

The literature on ABE-to-college transitions highlights a number of challenges in moving nontraditional adult learners into postsecondary education. These challenges generally fall into four categories:

1. Individual student challenges
2. Institutional and programmatic challenges
3. System-level challenges
4. Community-level challenges

Individual student challenges. As outlined above, nontraditional adult learners entering ABE programs with the goal of transitioning to postsecondary education face significant barriers to completion. Many have lower literacy rates, limited college-level skills, limited knowledge of supportive resources in their communities, and difficulty balancing family, work, and school responsibilities (Alamprese, 2006; Burt et al., 2008; Huerta-Macias, 2003; U.S. Department of Education, 2010). Many adult learners, moreover, lack the self-confidence and self-advocacy skills needed to be successful in getting the resources they need to persist in ABE and transition to higher education (Nash & Zafft, 2015). Adults entering ABE with the intent of transitioning to higher education often lack the family support necessary to be successful in balancing life and school responsibilities. As Bergman et al. (2014) found, “educational aspirations, institutional responsiveness, and familial encouragement play significant and positive roles in helping adult students remain enrolled and graduate” (p. 92).

All learners, moreover, have personal epistemologies about education that shape their assumptions about knowledge, skills, and competencies and how they are acquired. Research shows that gender, race, ethnicity, and socio-economic status all have an influence on these assumptions and they influence learners’ expectations, focus, behavior, motivation, and engagement in education programs. These dynamics are particularly challenging for career education programs for immigrants in the U.S. and have influenced the work of groups such as the National Center for the Study of Adult Literacy (NCALL) (Kegan, Broderick, Drago-Severson, Helsing, Popp, & Portnow, 2001; Urman & Roth, 2010). Adult learners and immigrants construct meaning out of their experiences and how they interpret that meaning develops and changes over time as they interact with their environment. As Kegan, et al. (2001) observe,

Learners in adult basic education (ABE) and English for speakers of other languages (ESOL) programs should not presume to construct experience with less complexity than anyone else

and differences in complexity of learners' meaning systems are not highly associated with level of formal education. (p. 2)

Institutional and programmatic challenges. Various studies have found that there is a lack of alignment in mission, instruction, and curriculum between many ABE programs and state systems of higher education. Researchers have shown that ABE programs embedded in community colleges are not seen as contributing to an institution's prestige and are often physically and culturally isolated from campus life (MPR Associates, 2007; Reddy, 2007). In 2009, Massachusetts community colleges served 127,000 students in credit programs and 82,000 students in noncredit workforce development programs (Alssid et al., 2011). ABE programs located in community settings are commonly disconnected from the context of higher education. Studies have identified differences among participants who enroll in ABE at community colleges and those who enroll in community-based programs and a greater focus among community college programs to move participants to GED completion and transition to college (Liebowitz, 2004). Resource constraints across all ABE programs, moreover, have limited the development of curriculum standards and the professional development of faculty and staff (Seymour, 2009).

Lack of alignment between curriculum and organizational culture between ABE and higher education, moreover, has a negative impact on the overall preparation of adult participants. GED programs, often considered the upper-level of ABE instruction, are not designed to prepare students for college level work or to measure college readiness. Many individuals who have successfully obtained a GED, for instance, require additional coursework to pass various placement test administered to enrollees of community colleges (e.g. ACCUPLACER, COMPASS). These tests often determine placement in developmental classes which increase the time and cost of competing a postsecondary degree (Alamprese, 2006; Jenkins, 2008; Rance-Roney, 1995; Shaffer, 2015; Sperling, 2009; Zafft, Kallenbach & Spohn, 2006). There is also limited agreement on baseline benchmarks and the proper assessments for English literacy for ELLs who want to transition to a postsecondary program.

Research by the Council for Advancement of Adult Literacy (CAAL) has found that non-credit ESL courses—even at the highest levels—do not impart English language skills needed to succeed in higher education. These classes rarely teach the special vocabulary, grammar, listening skills or other skills required for college-level coursework. Community colleges that do offer “credit ESL” courses are geared more toward teaching college-level English and related study skills, but these programs vary in how and if they award credit for course completion (Chisman, 2008). Issues with the quality and structure of these classes is a critical issue given that some studies have found that 8% of adults in ESL classes transition to postsecondary education of any kind, but students who do transition are found to be as successful as native speaking students (Chisman, 2008).

A number of studies that focus on ELL students' perceptions of ABE career and technical education have identified dissatisfaction with teacher quality and language skills, culturally-responsive classrooms and contextual coursework that relates to a learners career and educational goals. Positive learning communities that are perceived as nurturing, caring, and motivational are also perceived as important to adult learners and ELLs (Booth, Cooper, Karandjeff, Purnell, Schiorring, & Willet, 2013; Center for Community College Student Engagement, 2010; Huerta-Macias, 2003; McClenney & Marti, 2006; Peyton et al., 2007). Programmatic and institutional initiatives to address non-academic and academic factors, engage learners as members of the college community, and create a culture of support across all departments of an organization engaged in ABE have been identified as promising in the literature (Mathews-Aydinli, 2006).

Voices from the Field – Transition Barriers

Participants in CAYL's focus groups identified various barriers and challenges facing ECE educators who are adult learners and ELLs in transitioning to postsecondary education in Massachusetts's IHEs. The challenges identified were consistent with the literature. Among the common findings across all focus groups include:

- Focus group participants identified a number of individual challenges facing ECE educators transitioning to college, such as the lack of academic preparation, low English literacy skills, low literacy skills in their native languages, and difficulty balancing competing work, family, and academic responsibilities. Many nontraditional students, moreover, struggle with cumbersome paperwork and other administrative requirements associated with postsecondary education.
- Institutional challenges identified by focus group participants include the lack of diverse faculty and staff and expertise serving ELLs, informational offices (including registrars and financial aid) that are not open in evenings and weekends, limited investment in ECE programs, increasing costs, and lack of ESL classes. IHEs, moreover, are held accountable for time-specific graduation rates that do not reflect the longer educational time horizons for nontraditional students.
- Placement tests, such as ACCUPLACER are particularly difficult for ELLs. Assessments are too long and linguistically challenging, and may not reflect a learner's ability to succeed in higher education. Participants also noted that many adult learners and ELLs do not have the technology skills to take computer based tests and often give up if they do not perform well on assessments.
- Faculty and staff in Massachusetts's IHEs currently do not have any agreed upon assessments of English literacy or standard benchmarks to determine a student's readiness to transition to college-level work.
- Many programs that have some evidence of effectiveness supporting nontraditional students, including mentors, translators, and career coaches, are cost prohibitive for most IHEs.
- There is a lack of coordination between departments in IHEs to effectively serve ELLs.

System-level challenges. Across the literature, the most common system and policy barriers include limited financial aid, state postsecondary funding formulas that benefit enrollment rather than completion, and a lack of alignment between higher education and workforce development systems (Alssid, Goldberg, & Schneider, 2011; U.S. Department of Education, 2010). State systems have been slow to address the lack of alignment in coursework and student assessments between ABE, 2-year and 4-year colleges and universities, and there remains a lack of clarity on articulation agreements between institutions that ensure credits for college-level work transfer with students as they continue through their education (Ackerman, 2005; Alamprese, 2006 & 2010). Many of the standardized tests used to assess student proficiency—including tests of English language ability or GED exams—are widely considered inadequate to predict a learner’s ability to progress along a chosen education pathway (Chisman et al., 2010).

Most state data systems do not adequately track the performance of adult learners as they transition through ABE coursework to 2-year and 4-year institutions of higher education, making it difficult to identify transition barriers and the specific needs of students (Jenkins, 2008). According to a U.S. Department of Education study, Massachusetts only collects enrollment data in noncredit coursework and does not collect data on student outcomes or certificate attainment (Sykes, Szuplat, & Decker, 2014). Such data are widely considered essential for building commitment among stakeholders and implementing policies for institutional and programmatic improvement in delivering education and support service for low-skilled adults (Price & Roberts, 2011).

Policy initiatives and programs across statewide systems have generally focused on supporting the pipeline of students from high school to higher education and have only recently begun to focus on adult learners transitioning to college (Reddy, 2012). Participants in an ABE-to-college transition symposium sponsored by the Department of Education, moreover, argued that the lack of understanding of the complexity of challenges facing adult learners makes it difficult for policymakers to develop and implement system-wide solutions (MPR Associates, 2007). As a result, current policy efforts to transition more adults to higher education is moving more quickly than our understanding of the systemic change that is needed to fully engage and support adult learners.

Community-level challenges. Research is scarce on the impact of community level barriers to adult transitions to postsecondary education or even in defining what community-level factors are most relevant for future study. We know that access to ESL coursework in community settings is limited, as is the capacity of community organizations to provide high quality instruction at times and locations that meet the needs of adult learners interested in continuing education. Under new standards and guidelines for community learning centers in Massachusetts, for instance, organizations providing ESL courses must plan for adequate space for classes, childcare, and transportation options for students

and transportation for teachers (Massachusetts DESE, 2013). Studies have also shown that employer support for ABE programs geared toward their employees is mixed and can often be a significant barrier for adult learners trying to balance work and life responsibilities (Alamprese, 2006; MPR Associates, 2007; Reddy, 2012).

Voices from the Field – Community Leadership Challenges

In CAYL’s engagement with the field, leadership emerged as a key challenge facing the field in moving adult learners and ELLs to postsecondary programs in early education. Community-based early education programs often do not have the resources and/or capacity to provide staff the support and guidance needed to engage in long-term career planning and identify viable pathways to postsecondary credentials and degrees. ECE educators often select professional development options based on the needs of programs to fulfill licensing requirements. A more effective system would help support educators along an education pathway that can lead to credit-bearing coursework and the opportunity to earn an associate’s and bachelor’s degree to advance within the field. Practitioners in the field are calling for EEC-sponsored initiatives to build the capacity of community programs to mentor, supervise, and provide peer support and outreach for educators to continually progress along a career pathway.

Many states, including Massachusetts, have been working to address systemic challenges through a range of initiatives to reform ABE curricula, learning standards, and data collection. The goal is to ensure alignment with requirements of college credit courses or technical training and improve professional development for teachers (Massachusetts DESE, 2013; Zafft et al., 2005). Stakeholders are also working to develop new resources to ensure that adult learners have access to information on available programs and employers support these efforts.

III.III Massachusetts Strategic Framework for Adult Education

In Massachusetts, federal and state ABE grants are administered through the Department of Elementary and Secondary Education’s Adult and Community Learning Services (ACLS) program, and fund a network of providers and programs through local school districts, community-based organizations, community colleges, libraries, volunteer organizations, and correctional facilities (Massachusetts Department of Elementary and Secondary website). In FY 2009 and 2010, Massachusetts spent just over \$29 million to support adult basic education (National Center for Educational Statistics, 2010).

In 2007-2009, Massachusetts convened the Adult Basic Education Advisory Council to outline a strategy to scale up the Commonwealth’s ABE programs and improve coordination between state agencies, IHEs, and community partners. A central focus of the strategic plan is to ensure that the existing ABE system can take adults with the lowest levels of literacy through high school equivalency and into higher education. The strategic framework outlined in Table 3 encompasses three strategic goals:

Table 3: Goals and objectives of Massachusetts’s strategic framework for adult basic education

Strategic Goal	Objectives
Ensure that adults needing basis education can access services	<ul style="list-style-type: none"> • Increase available services through service intensity and/or additional student seats. • Support programs that successfully address challenges in reaching diverse populations. • Expand multiple service delivery options.
Increase the effectiveness and quality of the system	<ul style="list-style-type: none"> • Build a standards-based ABE system. <ul style="list-style-type: none"> ○ Funding supports ○ Aligned content standards ○ Performance measures ○ Align professional standards to curriculum frameworks ○ Strengthen teaching and learning • Increase regulatory flexibility to enable programs to better meet local and regional needs. • Seek opportunities to support programmatic innovation in order to more effectively serve students.
Prepare students for success in their next steps—college and future training at work and in the community	<ul style="list-style-type: none"> • Provide leadership and support to strengthen and contextualize student-centered curricula. • Expand student access to support services. • Ensure that students gain the academic skills needed to be successful in their next steps.

(From the *Massachusetts Strategic Framework for Adult Basic Education*, MA DESE, 2008, p. 4)

Access is a particular problem for the ABE system in Massachusetts where demand for services far exceeds the supply. Every year, for instance, 24,000 adults enroll in ABE classes to improve their English literacy skills, while 23,000 adults are placed on waitlists. Expanding access through a variety of service delivery options and targeted programs in diverse communities is a central component of the plan. There is also an understanding that in order to adequately prepare students for postsecondary education, these programs must have content standards aligned with college-level work, data systems to track participant outcomes, well-trained faculty and support services for nontraditional students (Massachusetts DESE, 2008 & 2010). Moreover, participants who do successfully transition to higher education will face additional challenges at the postsecondary level.

III.IV Capacity of Higher Education to Serve Nontraditional Students

Given shifting demographics and enrollment trends, rising costs, changing outcome standards, the growing awareness of the importance of postsecondary education to the social and economic future of that nation, higher education has reached a crossroads. Systems built primarily around the needs of more traditional college-going students will need to adjust their practices to better serve all students. As efforts to increase access to postsecondary education move forward, the capacity to serve nontraditional students through degree attainment will increasingly differentiate high-performing and low-performing IHEs.

Nontraditional students and institutional selection. Nontraditional students are more likely to attend higher education on the basis of cost, location, and open enrollment policies (Baum & Flores, 2011; Fry, 2002). For the majority of nontraditional students this means entering postsecondary education through 2-year community colleges. Community colleges enroll a higher percentage of immigrant, adult, low-income, and ELL students than 4-year institutions (Fry, 2011; Morris, 2014; Ross et al., 2012; Santiago, 2009). Adult learners over 24, for instance, enroll in 2-year institutions at a higher rate (55%) than undergraduates who are 18-24 years old (44%). According to recent studies, adult learners with dependent children comprise 30% of students at community colleges (Cooper, 2010). Despite high enrollments, nearly 50% of nontraditional students do not attain a degree or transfer to a 4-year institution within six years (Center for Community College Student Engagement, 2010; Cooper, 2010). Among adult learners working full time, 62% do not complete a certificate or degree and were no longer enrolled after six years, compared to 39% of all working students (Kazis et al., 2007; Reddy, 2012).

In 2012, 516,331 students were enrolled in undergraduate and graduate programs in Massachusetts's public and private IHEs. Among all undergraduate students, 28% were enrolled in 2-year community colleges. Of these, 97% were enrolled in public community colleges, nearly 60% were part-time students, and 20% were considered first-time college students seeking a specific degree or certificate (New England Board of Higher Education, 2012). Among recent high school ELLs who graduate from Massachusetts public schools (2013-2014), 61% enroll in postsecondary education. Of these enrollees, 64% attend public 2-year community colleges, 19% enroll in public 4-year IHEs, and 16% enroll in private 4-year IHEs (MA DESE statewide data profiles). Across all community colleges in the Commonwealth, the majority of students are over 25, more than one-third are ethnic minorities, nearly one-fifth are Pell Grant recipients, and overall graduation rates are lower than the national average (Alssid et al., 2011).

In 2010, the Massachusetts Board of Higher Education initiated the Vision Project, a long-term strategic plan with the goal of building a world-class higher education system in the Commonwealth.

The project is focused on three key strategies—boosting college completion rates, closing achievement gaps, and attracting and graduating more students from underserved populations. Recognizing the central role that higher education plays in the economic vitality of Massachusetts, the initiative has a particular focus on better alignment of educational pathways and workforce development, particularly in high-growth sectors of the economy, including healthcare and technology. Due in part to persistent underfunding since 2000, the Board of Higher Education acknowledges that the system is not meeting current workforce needs across the state, in terms of enrollment, retention, and graduation rates (Massachusetts Department of Higher Education, 2014). As a report from the Higher Education Finance Commission (2014) argues:

Massachusetts is at a crossroads. The intellectual, economic, social, and civic prosperity of our state is highly dependent upon the existence and expansion of a highly educated citizenry and an excellent system of higher education that will provide our citizens with transformative educational opportunities and also serve as the anchor of a robust workforce development system. But we do not yet have the system that we need to accomplish these goals. (p. 1)

Studies suggest that centralized state-run community college systems are more effective in building strong workforce and economic development. Such systems tend to have greater coordination across programs to serve adult learners and improved advocacy for supportive policy development. Significantly, Massachusetts has a strong decentralized system with governance shared across a Secretary of Education responsible for overall coordination and policy development for all public education and a Commissioner of Higher Education who answers to the Massachusetts Board of Higher Education. Both positions are appointed by the Governor. Each community college has an independent Board of Trustees responsible for overall management and general business. The Commonwealth’s workforce development system, moreover, is fragmented between multiple statewide and regional entities. As Alssid et al. (2011) observed, “With so many interests represented, achieving consensus about how to develop policy, let alone implement it, is extremely hard to accomplish” (p. 15).

As a result of this fragmented, decentralized system of higher education and workforce development, achieving alignment for more effective system coordination is difficult. Consequently, there is no clear process of credit transferability between institutions, course-numbers, and database maintenance is confusing and fragmented, information sharing between IHEs is lacking, and community colleges and community-based organizations often compete for the same resources. As a recent study of Massachusetts’s community colleges noted, “while several pilot and campus-based projects have attempted to improve educational and career outcomes for community college graduates, systemic reform targeted specifically at the state’s community colleges remains elusive” (Alssid et al., 2011, p.

28). Early education, moreover, is at a particular disadvantage in tapping workforce development funding because it does not offer a livable wage for workers and is not considered a sector of the economy that can drive large-scale growth and viable economic mobility for low-skilled, low-income workers.

Developmental education and weak articulation agreements present a significant barrier. Research suggests that placement in developmental education classes and weak articulation agreements are significant barriers to student persistence and bachelor’s degree attainment. Nationally, about 30% of all entering freshman and as many as 60% of students entering community colleges are required to take developmental courses due to assessments of their academic proficiency. These classes are paid for by students and are designed to build basic skills, but their credits do not count toward degree or certificate requirements (Hayward & Willett, 2014; Hern, 2012; Pretlow & Wathington, 2012).

While nearly all community colleges offer developmental education programs, among 4-year IHEs 80% of public and 59% of private institutions offer developmental courses (Pretlow & Wathington, 2012). Significantly, students who complete their schedule of developmental courses do as well as students who enter college-ready, but less than 10% of community college students referred to developmental education complete any credential within four years. Among the approximately 20% of students seeking a bachelor’s degree who require remediation, only 32% graduate with a degree within six years (Parker, 2012; Pretlow & Wathington, 2012). A study of remedial education in California, moreover, found that only 7% of students taking remedial math and 19% of students requiring remedial English complete their sequence of courses and enroll in a 2-year program (Hayward & Willett, 2014).

According to the literature, many of the issues with developmental education are structural. Placement tests assess all students based on their prior knowledge, regardless of their intended educational pathway or outcome goals, creating large numbers of students considered “not college ready.” Consequently, developmental education curricula are often based on long-term review of foundational concepts and basic skill building that is disconnected from real college-level work. Students who are placed in developmental courses are more likely to be tracked into additional developmental courses, increasing both the time and cost required to complete a degree. Requiring students to enroll, complete, and re-enroll in multiple noncredit-bearing courses creates numerous “exit points” for students to leave (Hayward & Willett, 2014; Hern, 2012). This is particularly problematic for working adults who are highly mobile learners and more likely to view education in terms of its relevance to long-term employment goals.

Over 60% of Massachusetts students enrolled in 2-year institutions are required to take at least one developmental course. Of those students, only about 12% graduate or transfer to a 4-year college

within three years, and about 50% withdraw or fail the course and do not continue their education into their second semester (Sperling, 2009). A recent audit of developmental education in Massachusetts's community colleges found that successful completion depended largely on students entering school proficient in college-level math. Students who failed to pass developmental math during their first semester had a 75% chance of not passing again during their second semester, putting them at a high risk to drop out (Sperling, 2009). Limited English proficient adult learners who are entering colleges and universities, moreover, are required to take the Test of English as a Foreign Language (TOEFL), which tracks students into ESL classes that lengthen the time and increase the cost of earning a degree (Erisman & Looney, 2012).

The lack of clear articulation agreements between ABE coursework and 2-year institutions and between 2- and 4-year institutions is particularly vexing for nontraditional students. As Pusser et al. (2007) outlines, credit is the key component of credentials, but institutions lack the capacity to document adult learners' pattern of enrollment in both credit-bearing or non-credit bearing work or to provide credit for learning that occurs outside of the IHE (Klein-Collins, et al., 2010). Credit requirements for both associate and bachelor degrees have been increasing beyond the standard 60 and 120 credit hour standards established by accreditation bodies, further increasing the time and cost of degree completion. A national survey of community colleges, for instance, found that ECE programs are in the high-credit hour group, often requiring between 64 and 66 credit hours to attain an associate's degree (Johnson, Reidy, Droll, & LeMon, 2012). Moreover, 2- and 4-year IHEs lack formal policies that outline which courses and programs of study are fully transferable through a state's system of higher education. Such policies are seen as critical to ensure that mobile learners receive full credit for course completion and reduce the time and financial burden of postsecondary education (Batalova & Fix, 2011).

The capacity to serve nontraditional students in institutions of higher education. Many of the factors affecting persistence and success of adult learners in postsecondary education have been noted above, including student characteristics, placement in developmental education, and inconsistent articulation agreements between institutions. Studies of nontraditional students have found that they are more likely to emphasize their roles as workers rather than students and thus more likely to leave postsecondary education without a degree, often during their first year, regardless of their long term educational goals (Harkins, 2009; Kazis et al., 2007; Reddy, 2012; Zafft et al., 2006). Adult students, moreover, often struggle with basic student responsibilities, such as understanding faculty expectations and how to effectively demonstrate knowledge (Reddy, 2012).

Recent studies have begun to focus more on the current capacity needs of colleges to better serve these students. A national survey by ACT (2010) of student support systems at community colleges serving at

least 20% Hispanic students found that only 41% of colleges reported having a person on campus responsible for coordinating student retention, and over 60% of colleges reported that they did not have a specific goal for student retention from first year to second year. Less than half of these institutions reported having specific programs for racial or ethnic minorities, only 35% had programs for first-generation students and only 22% had programs specifically to support adult students (ACT, 2010). Many colleges, moreover, report difficulty identifying language-appropriate course materials, and recruiting faculty who can teach culturally and linguistically diverse students (Ackerman, 2006).

Despite these gaps, most colleges surveyed were providing some supports for nontraditional students and were improving their ability to collect data on the effectiveness of various practice models. Among the retention practices that were most common across the schools surveyed by ACT include advising interventions targeted to specific student populations (95% of schools), individual career counseling (95% of schools), tutoring (92% of schools), faculty technology use (92% of schools), and study skill courses, programs or centers (89% of schools). Significantly, schools were more likely to report that student factors, such as preparation for college-level work, study skills, finances, family responsibilities and low socio-economic status have the greatest impact on attrition rates (ACT, 2010).

Research by the Center for Community College Student Engagement (2010) has brought more attention to the value of student engagement as a way to promote persistence. Surveys of students found that nearly 40% spend less than five hours/week preparing for a class, few were asked to do presentations or work collaboratively with peers and few report developing relationships with faculty. In fact, 35% of students reported never discussing grades or projects with teachers. Developmental and ESL classes, moreover, are more often taught by adjunct faculty who are as isolated as their students from the broader institutional resources and the college community. These findings are significant given that low-income, minority and first generation students are more likely to perceive academic expectations and support, teacher relationships, peer networks, collaborative learning, cross-departmental support and academic and career guidance as important to their persistence in college (Booth et al., 2013; McClenney & Marti, 2006; MPR Associates, 2007; Pusser et al., 2007).

Studies such as these are beginning to shift practices in both 2- and 4-year institutions serving nontraditional students. Colleges are focusing more resources on coordinated academic and guidance supports across campus departments, writing centers, career services offices, peer-to-peer mentoring programs, improved teacher professional development and the recruitment of culturally and linguistically diverse faculty and better sharing of data on student outcomes. Change, however, has been slow and as one ABE practitioner observed,

Paradoxically, these vital resources often go unused by many of the very students who need them most—immigrant students working on improving their English in the college’s ESL programs. Isolated as many ESL students are in a separate world of non-credit ESL classes, many are unaware of the campus resources available just steps away from their ESL classrooms that could help speed their progress toward their dream of attending college in the U.S. and landing a better job. (Lowe, 2014, n.p.)

Hispanic-Serving Institutions. Institutions of higher education serving at least 25% Hispanic students have been officially designated as Hispanic-Serving Institutions (HSIs) under Title V of the Higher Education Act since 1992. Since that time, the number of HSIs has nearly doubled from 189 to 370 in 2013, the vast majority located in California and Texas (Hernandez, 2010; Santiago, 2015). There are currently over 200 IHEs that are considered to be emerging HSIs, meaning that their enrollment of Hispanic students is between 12-24%. Of these schools, 44% are community colleges, 36% are private colleges, and 20% are public 4-year institutions (Hernandez, 2010; Morris, 2014). Currently, there are two community colleges in Massachusetts that are HSIs—Urban College Boston and the Lawrence Campus of Northern Essex Community College. HSIs are eligible for federal Title V grants for initiative and programs to serve Hispanic, minority, and low-income students.

The highest performing HSIs lead the nation in both enrollment and degree completion among nontraditional students and see themselves at the forefront of innovations in higher education given the changing demographics of the country. These institutions differ from others in that they view the recruitment and retention of Hispanic students as an asset to the institution and a core part of their mission. Studies of successful HSIs have identified a number of shared practices, including institution-wide data sharing to engage and activate institutional efforts, greater alignment of developmental courses with college-level work, accelerated curricula, summer and winter immersion programs and first year experience courses (Excelencia in Education, 2008; Hernandez, 2010; Santiago, 2008 & 2009). These schools are also reorienting themselves to the communities they serve, building deeper partnerships with community organizations and businesses. Institutional leadership that embraces its mission to serve this segment of their student population has been identified as a critical competency. As Santiago (2009) notes,

Institutional leaders who serve large concentrations of nontraditional students—diverse, low-income, working, first-generation, and/or academically unprepared students—have to balance the traditional offerings of a college with service to a large student population that increasingly defies the traditional profile of students. They also have to balance the increasing pressures of competition and demands for accountability with their focus on access and institutional quality. (p. 5)

Capacity of IHEs to serve ECE educators who are ELLs. According to a typology of nontraditional students developed by Levin (2007), ECE educators who are limited English proficient occupy a place on the periphery of higher education that puts them at “ultra-high risk” for failure in postsecondary education. Beyond having many of the characteristics of nontraditional students, these individuals often participate in non-credit continuing education, including certification programs, work-based training and for-credit continuing education (Pusser et al., 2007). A strong tradition of alternative professional development and experience-based competencies within the field creates a variety of cultural and practice-based barriers between the existing system of early education and postsecondary education (Urman & Roth, 2010; Washington, 2015). Current efforts to increase access and persistence of working ECE educators in postsecondary education will have to address complex challenges across statewide systems of ABE, workforce development and higher education.

The lack of capacity of state systems of higher education to support nontraditional students highlights central concerns of many researchers working on these issues who feel that degree-mandates may have unintended negative consequences. First, there is a concern that efforts may reduce diversity in the field due to the limited capacity of IHEs to support the current workforce. This is a particular concern for 4-year degree granting institutions that are traditionally less successful and experienced serving the needs of these students. Second, low compensation and low quality working environments may push bachelor’s degree-holding educators out of the field. Third, it is widely thought that these efforts will require significant investments to create viable pathways for nontraditional students as resources become scarcer. Finally, there is concern that IHEs would not have the capacity to support the number of students needed, given that only one-third of 2- and 4-year institutions nationally offer ECE degrees and that many of these are not located in communities of highest need (Ackerman, 2005; Chang, 2006; Whitebook & Ryan, 2011; Zaslow et al., 2010). As Dukakis and Bellm (2006) warn:

Infrastructure-related challenges are among the most significant in establishing or expanding programs in ECE, because they pertain to the inherent makeup of college and university institutions, and often involve confronting entrenched policies or rules in order to create change. (p. 24)

Mapping Massachusetts’s postsecondary ECE programs. In 2010, the Massachusetts Department of Early Education and Care and Head Start Collaboration Office initiated a two-phase inventory project to map IHEs across the Commonwealth that provides ECE and related degrees as part of their workforce development systems. The project was designed to better understand the types of degree programs available to ECE educators in different regions of the Commonwealth and the various supports offered in these programs to serve nontraditional students. The study included 28 2- and 4-

year institutions of higher education offering 14 associate’s degree programs, nine bachelor’s degree programs, and 11 master’s programs (LaChance et al., 2010). The project highlights a number of gaps in the capacity of IHEs in Massachusetts to serve the long-term needs of the ECE workforce.

The study found that degree-granting programs are available across the state but the options for ECE educators are limited in terms of the number of programs available and the capacity of those programs to serve additional students, particularly place-bound adult students closely tied to their local communities. Only 15 of the 28 IHEs surveyed offer degrees with an ECE concentration, with elementary education as the most common “related” degree program. There is also a lack of understanding in how individual courses align with EEC’s eight core competency areas. Only 57% of 2-year colleges and 71% of state colleges in the study reported that their programs were aligned with ECE core competencies. Supports for non-traditional and ELL students—including alternative course schedules, multi-lingual classes, mentoring, and guidance—were more common in 2-year institutions than 4-year institutions, but it is unclear from the data the extent to which these supports are coordinated across departments and address the needs of learners (LaChance et al., 2010).

To address issues of prior learning and credit transfer between institutions, a statewide Early Childhood Education Compact was created in 2004 to build on the existing Commonwealth Transfer Compact and the Joint Admissions Agreement. These agreements were put into place to facilitate the transfer credits and guaranteed admissions for students transferring from 2-year colleges to 4-year colleges or universities. Despite these efforts to address credit transfer and clear articulation agreements between institutions, the study found that the compact is being utilized inconsistently across the state. There was a lack of understanding about the compact, misalignment of courses within degree tracts and a sense among respondents that 4-year institutions were not honoring the compact (LaChance et al., 2010; Oldham, Hawes, & Simpson, 2011). These are significant gaps in the capacity of the Commonwealth’s system of higher education to serve ECE educators given the research on student persistence and degree attainment.

Voices from the Field – Gaps in Higher Education

Representatives of IHEs who participated in CAYL’s focus groups and leadership institutes identified numerous gaps in the policies and practices of Massachusetts’s IHEs that inhibit their ability to serve the needs of ECE educators:

- Lack of alignment between current professional development options that provide CEUs and credit-bearing work that can lead to an associate’s or bachelor’s degree. There is currently no agreed upon standard for translating CEUs to meaningful college credit.
- The inability to access funding through the Department of Labor and Workforce Development to support pathway programs for ECE educators due to persistent low wages in the ECE field.
- Lack of agreed upon standards regarding what outcomes we want for children and how to best prepare educators to be effective in the classroom. Limited research on effective educator preparation practices.
- Lack of commitment and engagement among leaders of state agencies and IHEs to develop policies and provide financial support that expand ECE educator preparation programs and programs for ELLs.

Successful implementation of a bachelor’s degree policy that will preserve and build upon the diversity of the current workforce will require attention to the multilevel and interrelated challenges faced by individual ECE educators returning to postsecondary education. Individuals will need access to scholarships and financial aid, flexible course schedules, special advising related to higher education, language-appropriate course materials and instruction, ESL classes, support from their employers and options for childcare and transportation. Cooperation and coordination among state systems of higher education is critical. As Dukakis et al. (2007) have argued, “in order to stem attrition and increase success among nontraditional students, institutions of higher education need to examine and change their own internal structures and policies, rather than focusing only on helping students adjust to current practices” (p. 3).

Over the past 10 years, a wide variety of local, state and national initiatives have begun to address the needs of adult and nontraditional students in higher education. Numerous work-first policies have expanded the use of work-oriented ABE and ESL classes that integrate vocational training with basic skills education (Moore & Oppenheim, 2010). National initiatives focused on addressing broad systemic alignment between ABE, higher education and workforce development are beginning to inform policy debates at the state and federal level. These efforts are widely seen as critical to address structural issues with the U.S. labor force and strengthen the long-term economic prospects of the country. These efforts provide important lessons and best practices for leaders in the ECE field to implement and support a viable and robust career pathway for ECE educators.

IV. Addressing the Gaps in Workforce Development and Postsecondary Transitions

Motivated by broader economic concerns and a greater understanding of the challenges facing low-skilled adults, numerous local, state and national initiatives have been implemented to address gaps in educational attainment within the U.S. labor force. The most common interventions are small-scale support programs that provide academic advising or tutoring integrated with vocational training to build basic skills. Such programs begin to move workers toward an occupational certificate or college enrollment. More comprehensive initiatives, often referred to as bridge or transition programs, provide a range of targeted academic and non-academic supports aimed at helping nontraditional students transition into and through postsecondary education (Alssid, Goldberg, & Klerk, 2011). National policy initiatives have been advocating for a variety of career pathways strategies aimed at building marketable skills among low-skilled adults.

The following section identifies promising national and state models to strengthen workforce development and transitions to postsecondary education for nontraditional students in a variety of disciplines and career pathways. When relevant, programs developed specifically to address the needs of ELLs in postsecondary transitions are highlighted. Understanding how other states are addressing these issues and identifying strategies, program models, and best-practices for supporting adult ELLs access and persistence in postsecondary education that have some evidence of success is critical for the field in Massachusetts.

IV.I Career Pathways and Transition Programs

The career pathways model has been the primary umbrella strategy at the federal, state and local levels to strengthen training and educational opportunities for America's workforce for the last 20 years. Under the Workforce Investment Act of 1998, state and local governments are required to bring together federally funded employment, training and educational programs into a comprehensive workforce system. Career pathways initiatives are coordinated by four federal agencies: Departments of Labor, Education, Health and Human Services, and Housing and Urban Development. With oversight from state Workforce Investment Boards (WIBs), state and local agencies combine multiple streams of federal, state and private funding to support career pathways models and build partnerships between community colleges, public K-12 school systems, workforce and economic development agencies, employers, labor groups and social service providers (Fein, 2012; U.S. Government Accounting Office, 2008; Zafft et al., 2005).

In 2014, President Obama signed the Workforce Innovation and Opportunity Act (WIOA) into law—the first major update to the WIA since it was signed into law in 1998. The WIOA marks an important change in the original law because it has a specific focus on addressing the needs of low-skilled and low-income workers in attaining postsecondary education. Set for implementation in the summer of 2015, the law requires states to prioritize funding and coordinated program development for disadvantaged youth and adults entering the workforce. States are now responsible for supporting

bridge and transition programs to move more nontraditional students into and through postsecondary education (Bird, Foster, & Ganzglass, 2014).

The new law is an important first step in moving the country toward what some researchers and advocates are calling a national opportunity system that is based on “radical, results-oriented thinking about how to reconfigure, augment, and link our present education and training system” (Council for Advancement of Adult Literacy, 2005, p. v). As a national task force of community college and ABE leaders argues:

We urgently need pathways that give all Americans the opportunity to attain much higher levels of education and training than most have attained in the past. In today’s economy, high-opportunity jobs require some form of postsecondary education or other specialized training, and an increasing number require postsecondary academic degrees or certifications. Education at the high school level is no longer enough to meet national workforce needs or to ensure individual well-being. We must build a National Opportunity System that provides seamless paths to postsecondary achievement for all adults who aspire to this goal. (Council for Advancement of Adult Literacy, 2005, p. v)

The career pathways framework. Career pathways are based on step-based approaches to instruction and career development that provides manageable and clearly-articulated sequences of education, training and credentials connected to specific employment opportunities—or pathways. Each step incorporates a mix of academic instruction, vocational training and opportunities for employment experience. Embedded supports help move students through training or college preparation toward a specific occupational credential or postsecondary degree depending upon a student’s long-term goals and aspirations. The framework depends upon a cohesive combination of partnerships, resources and funding, policies, data and shared accountability measures that support the development, quality, scaling and sustainability of career pathway programs (Alssid & Goldberg, 2008; CLASP, 2014; Fein, 2012; U.S. Government Accounting Office, 2008). As the Center for Law and Social Policy (2014) observed:

The career pathway approach focuses on systems change to provide clear transitions, strong supports, and other elements critical to the success of participants. It is not simply a new model; it is a new way of doing business. (p. 7)

The framework is intentionally flexible to allow participants to enter, exit, and re-enter programs at various points along the steps to a credential or degree attainment. Early steps, including pre-college bridge programs and short term certificate programs are designed to prepare lower skilled adults for

college-level training with a specific career focus. Later steps focus on preparing participants for middle-skilled careers that may require professional certification or associate degrees, or higher skilled careers that require a bachelor's degree or higher. Targeted supports are designed to assist individual learners successfully transition from one step along the pathway to the next (Alssid & Goldberg, 2008; CLASP, 2014). Three characteristics tend to shape how career pathway programs are delivered:

1. The organizations involved and their roles
2. The specific needs of a targeted population
3. The occupation, credential or career path addressed (Fein, 2012; U.S. Government Accounting Office, 2008; Zafft et al., 2005)

Over the past 20 years, community colleges have emerged as key partners of career pathways programs and have increasingly redesigned their practices to balance their roles as academic institutions and one-stop workforce development centers. Some states, including North Carolina and Iowa are leveraging these roles by providing all ABE programs through community colleges rather than across multiple agencies and organizations. Studies suggest that states that have embedded ABE and workforce development services in community colleges have gained some economies of scale to more effectively manage costs, share data, engage in strategic planning and cross-training of staff, and coordinate communications to stakeholders (Center for an Urban Future, 2011; Goodwill Industries International, 2014; Seymour, 2009; U.S. Government Accounting Office, 2008; Zafft et al., 2005).

Career pathways models and other transition programs are highly evolving and vary across and within states depending upon their intensity and contextualization to a specific industry or career path, but they generally share five core strategies:

1. Comprehensive assessment of participants' skills and needs
2. Promising and innovative approaches to instruction and training, including accelerated curricula modules, contextualized courses, flexible scheduling and course delivery modes, collaborative learning
3. Academic and non-academic supports, including guidance and advising, tutoring, personal counseling, and financial assistance
4. Connecting students to career track employment opportunities through job-based training, work study programs, and internships
5. Meta-strategies that cut across the core strategies, including course bundling, data-informed decision making, scalability and sustainability (Fein, 2012; Seymour, 2009; Social Policy Research Associates, 2011; Zafft et al., 2005)

In the years immediately following passage of the WIA in 1998, numerous initiatives were launched with private funding to better leverage broad systemic change in workforce development and career pathways initiatives at the state level. These initiatives are focused primarily on improving outcomes for underprepared adults and view community colleges as the gateway to higher education for these workers.

Large foundations, including the Ford Foundation, the Lumina Foundation, the Joyce Foundation, and others invested significant money into large scale, multi-state initiatives to improve state education and workforce development systems through coordinated efforts to shape policy, engage stakeholders, improve data use, facilitate public/private partnerships and seed innovative practices to move adult and nontraditional students through postsecondary education (see Appendix I for a sample listing of large-scale initiatives). In the process, these initiatives helped stimulate a variety of reforms in higher education, particularly at the community college level. As Fein (2012) observed, through these efforts “leading foundations helped to make community colleges laboratories for developing and testing learning communities, enhanced guidance services, strengthened financial incentives, and other innovations”(p. 5).

Using data to foster stakeholder engagement, strategic communication and systemic change. A core strategy of many of these initiatives is using data as a tool to improve the effectiveness of state education and workforce development systems. In 2003, the Ford Foundation established Bridges to Opportunity, a multi-year, multi-state initiative to affect change in state policy and the governance and practices of community colleges to improve the economic and educational outcomes for underprepared adults. The initiative provided organizations in six states—Colorado, Kentucky, Louisiana, Washington, New Mexico and Ohio—with technical assistance and implementation grants over five years. The primary outcome goals were to influence state legislatures to enact supportive public policy and build the capacity of community college leaders to engage in institutional change. The initiative leveraged institutional grants by funding advocacy groups to develop communications strategies to raise awareness of the outcome gaps affecting nontraditional students. Planning grants, moreover, helped fund efforts to train faculty and staff, design curricula, build consensus and align community college programs and services to improve student success (Jenkins, 2008).

Outcomes varied by state depending upon their particular focus or approach. In Washington, for instance, the initial plan focused on identifying barriers preventing low-income adults from succeeding in college, raise awareness of these barriers throughout systems, identify key policy levers to facilitate program development, promote a policy agenda and implement a strategic communication plan. In 2004 the State Board for Community and Technical Colleges piloted the Integrated Basic Education Skills Training (I-BEST) program to improve ESL/ABE instruction through a co-teaching model that

integrates English language instruction with vocational training along a specific career pathway that leads to a marketable credential or transition to an associate's degree program. In 2007, the state legislature voted to support the model by allocating \$4.9 million to scale up the program. The initiative successfully moved the state legislature to support flexible financial aid to help low-income adults complete high demand workforce education programs and performance-based funding that rewards colleges for moving low-income and low-skilled adults through higher education (Bailey, Calcagno, Jenkins, Keinzl, & Leinbach, 2008; Jenkins, 2008).

Washington's I-BEST programs are funded at 1.75 times the normal rate per full-time equivalent student to cover the additional cost of faculty, planning, support and coordination (Bailey & Cho, 2010). Evaluations of I-BEST programs found that they varied in their approach to team teaching and integrated instruction, but all provided highly structured and prescriptive course sequences and comprehensive supports to keep students on track. Despite their high costs, I-BEST programs were found to successfully transition students, particularly adult ELLs, from ABE to college-level coursework and increase the likelihood of earning college-level credits. The program, expanded to all 34 of Washington's Community and Technical Colleges, is a model for other state transition programs and serves as a partner program with Jobs for the Future for the multi-state Accelerating Opportunity initiative (see Table 4) (Brenneman, Callan, Ewell, Finney, Jones, & Zis, 2010; Fein, 2012; McDonnell et al., 2014; U.S. GAO, 2012; Zeidenberg, Cho, & Jenkins, 2010).

A similar effort for state-level system change is the Shifting Gears initiative funded across six Midwestern states by the Joyce Foundation in 2007 (Indiana, Illinois, Michigan, Minnesota, Ohio, and Wisconsin). Shifting Gears provided high-level financial support, leadership and management coaching, technical assistance, formative evaluations and communications support with the goal of strengthening state-level education and workforce development systems. Similar to Breaking Through, the Shifting Gears initiative is grounded in four key strategic activities—data-informed decision-making, state policy change, field engagement and strategic communications—designed to foster greater collaboration and coordination among state agencies (Roberts & Price, 2009).

Primary outcomes for states included improved data systems, such as the Indiana Workforce Intelligence System (IWIS) that links employment records managed by the Department of Workforce Development with educational and workforce participation data systems, enhancing the ability to analyze data to create programs that address specific needs. Data proved central to states' efforts to build engagement among stakeholders and policymakers to establish a variety of career pathways and bridge programs and better align state ABE and higher education systems (Joyce Foundation, 2013; Price & Roberts, 2011; Roberts & Price, 2009).

Minnesota has improved the capacity of its data systems under the Shifting Gears initiative through effort to link data sets from ABE to Supplemental Nutritional Assistance Program Employment and Training data and Family Investment Program data to better understand and track clients across diverse programs. Analyses of this data are improving the state's ability to identify opportunities to develop targeted programs and more effectively advocate for state policy solutions. The effort is also designed to strengthen partnerships among community service providers to scaffold supports for participants that improve their chances of succeeding in postsecondary education (Chisman et al., 2010; Price & Roberts, 2010).

Evaluations of these efforts, while limited, found that their focus on up-front strategic activities helped influence system alignment and stimulate the development of innovative programs (Seymour, 2009; U.S. Department of Education, 2010). Several lessons for local and state organizations engaged in systems change include the importance of having well-defined and clearly articulated goals, collaboration and consensus among stakeholders, proactive coaching of institutional leaders, formative evaluations and ongoing communication between all partners engaged in the work. These efforts highlight the complexity of leveraging federal and state funding streams within existing institutional rules and regulations across multiple agencies (Roberts & Price, 2009). Moreover, by raising awareness of the transformative demographic trends changing the U.S. labor market and the economy, these initiatives were instrumental in seeding numerous innovative bridge and transition programs specifically for adult ELL workers.

Bridging the gap in workforce training and postsecondary access for adult ELLs. In 2009, the Michigan Department of Labor and Economic Growth funded 10 adult learner demonstration programs to improve transitions to postsecondary education. One program, coordinated through a partnership between Grand Rapids Community College and the Literacy Center of Western Michigan, specifically targets adult ELLs to address the emerging educational gap in the state's labor force. The partnership provides flexible locations and schedules to deliver classes and builds upon the capacity of community partners to provide outreach and recruitment for low-skilled adult ELLs. The program is designed to allow participants to enter and exit at specific points depending upon their educational background and career goals. Co-developed curricula and shared staff professional development, moreover, creates greater alignment among partners and program components (Grishkina, 2011).

Pre-enrollment assessments are used to place students in specific ESL and college-preparatory classes within an educational pathway leading to a specific career-related credential or transition to a degree track program. Intake specialists and career counselors work closely with participants to help them understand their learning styles, plan for long-term career goals and determine readiness to continue to the next level of the program. Courses are specifically designed to be less-intimidating and facilitate

the development of supportive learning communities. Support services are provided that target individual student needs, including one-on-one tutoring, life-skills training, referrals to human service organizations, temporary employment and college enrollment assistance (Grishkina, 2011).

Some states, including Minnesota, Indiana and Ohio have developed model bridge programs that are coordinated across multiple community colleges and share funding streams, best-practices and learning networks. Minnesota's FastTRAC adult career pathway and bridge program begins at the lowest levels of ABE and extends through credit-bearing coursework in 15 out of 25 state community colleges. Indiana's ABE education bridge programs integrate basic academic skills with postsecondary occupational education in key industry sectors. The program includes customized instruction, career development and planning, and student transition services (Gittleman, 2005; Joyce Foundation, 2013; Strawn, 2011). These programs are distinguished from smaller scale support programs in that they provide comprehensive supports that address both academic and non-academic needs (U.S. Department of Education, 2010).

Bridge programs have traditionally addressed improving learners' transitions from ABE to community college programs. Given the current push to expand the number of students attaining bachelor's degrees and barriers to degree articulation between 2- and 4-year IHEs, some IHEs are developing partnerships to create bridge programs that help learners transition between 2-year and 4-year colleges. One such partnership is between DePaul University and two City Colleges of Chicago that provides opportunities for community colleges students to begin earning credit toward their bachelor's degree. Classes are co-taught by community college and university faculty and incorporate intensive academic, professional and personal advising. The 16-week program includes 8-weeks of classes at the community colleges and 8 weeks at the DePaul campus, with students paying community college fees while earning DePaul credit (Klein-Collins, et al., 2010).

Career-specific bridge and pathways programs—lessons from health care. Many bridge and career pathways programs specifically target high need sectors of the economy projected to experience labor shortages, such as health care. In 2004, the Illinois Critical Skills Shortage Initiative provided seed money to fund the *Carreras en Salud* (Careers in Health) program in Chicago. Developed through a partnership between the National Council of La Raza and two CBOs in Chicago providing ABE and ESL classes to Latino students, the program was designed to support low-income Latino adults prepare for careers in health care and build the capacity of the health care industry to serve an increasing number of Latino patients. With a core goal to increase the number of culturally-competent workers with Certified Nursing Assistant (CNA) and Licensed Practical Nurse (LPN) credentials, the program provides both basic ESL and intensive vocational ESL courses contextualized for the health care industry (Moore & Oppenheim, 2010).

Building off the pathways model, the program provides opportunities for workers to enter or exit depending upon their existing competencies and skills and their long-term employment goals. Participants completing the CNA or already holding a CNA can move toward LPN programs within community colleges that offer advanced English and math courses contextualized to the health care sector. The success of the program has spurred the development of many similar programs across the country. Between 2005 and 2010, the program served nearly 1200 participants with a 94% completion rate and a 100% placement rate for all graduates of the program (Estada & DuBois, 2010; Fein, 2012; Moore & Oppenheim, 2010).

Studies of similar programs to help nontraditional adult learners, many of whom are immigrants or ELLs, attain a health care credential, found wide variation in the types of services provided and the extent to which these programs built on existing partnerships. Most involved close collaboration with the health care industry to recruit participants, develop course curricula and work study experience, and move participants into the workforce after completing the program. In many cases, moreover, the health care industry provided direct funding and other resources to support program development and implementation. Similar to *Carreras en Salud*, most of these programs provided some form of integrated ESL and vocational courses in a variety of languages depending upon the needs of the local community.

While anecdotal evidence suggests that these programs had some success moving adult ELLs to higher levels of training and education, our understanding of day-to-day programmatic operations is limited. Most bridge programs are small and lack funding for data collection or formal evaluations. Much of the knowledge of these initiatives is embedded in the experiences of dedicated staff that often embody a “learning by doing” mentality. Because participants have widely varied education backgrounds and English language proficiency, developing courses and providing supports that adequately address the spectrum of needs is difficult, particularly for the lowest skilled ELLs who lack a high school diploma or GED (Chisman & Spangenberg, 2005; Fein, 2012; Seymour, 2009; Zafft et al., 2005). Looking across multiple state and regional programs, Chisman and Spangenberg (2005) identified core competencies for the institutional auspices of these efforts, whether it is a community-based organization or IHE. They include:

- Institutional commitment and local champions
- Responsiveness to the needs and views of the field
- Capacity to develop and manage high-quality programs
- Willingness to work with multiple agencies
- Commitment to serving disadvantaged people

- Willingness to create and respond to oversight boards and committees of multiple stakeholders

Other examples of career-specific bridge programs for adult ELLs provide much greater levels of proactive support and require more commitment from participants. Located in the Rio Grande Valley of Texas, the Valley Initiative for Development and Advancement (VIDA) is designed to move low-income adults, many of who are ELLs and test at the 10th grade level or lower, through a certificate or associate's degree program in high need fields, such as health care and Information Technology. An intensive 16-week college preparation academy provides needed pre-enrollment skills development for participants who test into the lowest levels of proficiency in math or English (6th grade). Identifying financial aid for students to cover costs of tuition, child support, transportation, testing fees and certificate expenses is a key activity of program staff. The program requires full time enrollment and provides comprehensive support service for two to three years. Supports include counseling with mandatory monthly meetings, progress reviews and life/school balance reviews, and peer support through the grouping of participants into cohorts (Fein, 2012; Santiago, 2008).

VIDA is based on a counseling model developed by Project QUEST, an award winning workforce development system started in San Antonio, Texas, that has become a model for bridge programs across the U.S. Established in 1992, Project QUEST (Quality Employment Through Skills Training) was established to strengthen the local economy by providing skills training, support services and facilitated collaboration to support unemployed and low-income residents entering high demand fields. Funded primarily by local sources, including the City of San Antonio and a consortium of local businesses, Project QUEST occupies a hub position in a collaborative effort between local community colleges, regional businesses, city and state agencies and program participants. In this role, it coordinates efforts to develop course content that meets the needs of employers, structure a tiered approach to education and training, and develop a shared strategy to shape employer hiring behaviors and public policy (Rademacher, Bear, & Conway, 2001).

The program supports participants with individualized wrap-around services through direct counseling and case management to address any school, work, personal or family issues that could present barriers to success. A primary strategy employed by counselors involves regular Vision, Initiative and Perseverance meetings, referred to as VIP sessions. Weekly hour-long VIP sessions are used to provide a range of supports, from communicating basic program information to engaging participants about work performance, work ethics, motivation, self-esteem, financial management, study habits and other "soft skills" training. Up-front efforts to recruit and assess the skills of potential participants and gauge their motivation and commitment to the program are essential to the success of the model. Evaluations of outcomes across the first 6000 participants of the program found a graduation rate of 80%, a job placement rate of 86% and a 90% retention rate. Including both direct and indirect expenses, the

program cost an average of about \$5000 per year per participant with the average participant requiring about 18 months to complete the program (Rademacher et al., 2001).

All of these initiatives are partnership-driven and rely on close coordination of activities between community-based organizations, state agencies and IHEs. Capacity-building across all partners has been a primary objective of these efforts, as have efforts to reform how community colleges support nontraditional students to improve retention and persistence through degree completion.

IV.II IHE Reform for Postsecondary Transitions

Across the literature a number of community college reforms have emerged to improve the retention and persistence of adult and nontraditional students in postsecondary education, including improved student engagement and support, accelerated learning programs, prior learning assessments and competency-based education, stacked credentials, strengthened transfer opportunities between 2- and 4-year IHEs, and performance-based funding models.

Student engagement and comprehensive supports. Student engagement programs and comprehensive academic and non-academic supports are central to most interventions to improve access and persistence for nontraditional students in postsecondary education. Most colleges now include student orientations, college skills courses and various programs to connect students to the broader college community. Student engagement research has identified a number of success factors common among nontraditional students who persist in higher education. They include being:

- *Directed* – successful students set goals and have the knowledge to achieve them
- *Focused* – successful students stay on track and make clear progress toward a goal
- *Nurtured* – successful students feel that faculty and staff within the institution wants and helps them succeed
- *Engaged* – successful students actively participate in class and in extracurricular activities
- *Connected* – successful students feel that they are a part of the larger college community
- *Valued* – successful students are recognized for their skills, talents and abilities, and have opportunities to contribute to campus life (Booth et al., 2013)

Programs to engage and support nontraditional students vary greatly across IHEs. Some programs, such as the Workforce Solutions Unit of Owensboro Community and Technical College in North Carolina utilize what is referred to as “intrusive” supports that employ a full time Success Coach who works with students one-on-one to ensure they stay on track, focus on goals and do not get lost in the system (McDonnell et al., 2014). Professional development for faculty and staff increasingly focus on practices to promote active and engaged learning and stronger personal connections between faculty and students (ACT, 2010; Center for Community College Student Engagement, 2010; Cooper, 2010;

Gittleman, 2005; Nash & Zafft, 2015; Seymour, 2009). Increasingly, colleges and coalitions of colleges are coordinating supports across all departments and engaging faculty in a more proactive way to improve how services are conceptualized and delivered.

Building off their involvement in the Breaking Through and Achieving the Dream initiatives, the Michigan Community College Association created the Center for Student Success to coordinate and align programs across the state's decentralized system of higher education. Developing a statewide student support network provides an opportunity for coalitions of IHEs to create communities of practice, promote a unified research and policy agenda, improve data use and engage in cross-sector communication. The network supports institutional capacity to incubate innovative practices and scale up successful programs to serve more students. Macomb Community College, for instance, restructured their programs to create clear pathways to postsecondary credentials and degrees through a "one college" model. Rather than having separate for-credit and non-credit programs, the college placed noncredit workforce programs within new administrative structures under their relevant for-credit departments. Under this new structure, for instance, Certified Nursing Assistant (CNA) training is now offered within the healthcare department (Schanker & Taylor, 2014).

Academic supports include a wide range of student assessment tools, tutoring and academic advising, cohort learning models and online learning supports. Personalized supports in the form of peer mentoring, counseling, career services and case management are often provided before, during and after transitions into postsecondary education. These services connect adult learners to resources such as financial aid, transportation options, housing assistance and childcare services. Supports are increasingly designed to target the specific needs of subgroups of learners based on their previous educational experiences, level of English proficiency, or other characteristics, and incorporate regular outreach and mandatory check-ins to track progress (Cooper, 2010; Fein, 2012; McDonnell et al., 2014; Schanker & Taylor, 2012; Seymour, 2009).

Accelerating the pace of education. Research suggests that students who get mired in endless course sequences and review that has limited value to their long term goals are more likely to leave school before attaining a credential or degree (Cooper, 2010; Hern, 2012). Many of the initiatives identified above include accelerated learning programs to ensure that all students meet their education goals faster. Programmatic innovations to accelerate transitions include the use of new assessment tools to place students in more appropriate course sequences, restructured curricula, contextualized learning and alternative delivery methods such as online learning. A number of states, including Virginia and Arkansas are making acceleration models the central components of statewide reform efforts to strengthen postsecondary transitions (Anderson, Eyster, Lerman, Clymer, Conway, & Montes, 2014; Gittleman, 2005; Jenkins, 2008; McDonnell, Soricone, & Sheen, 2014; Seymour, 2008).

Given the limited numbers of ELLs who successfully transition from ABE to postsecondary education, accelerating the pace of instruction to reduce the opportunities for these learners to drop out before completing their developmental coursework is a key strategy (Chisman, 2008). Workforce training initiatives have developed high-intensity/short-duration VESL (Vocational ESL) classes that integrate English language instruction with specific occupational training, making classes more relevant to the learning needs and career goals of ELLs (Chisman & Spangenberg, 2005). Efforts to better assess ELLs' literacy levels, evaluate their progress at key points during the year, and use that information to inform instructional practices have been particularly effective (Center for Applied Linguistics, 2010). Integrating language and literacy development with subject matter instruction in a way that is meaningful and relevant help move students through pre-college transition courses more quickly, reducing student attrition (Huerta-Macias, 2003; Mathews-Aydinli, 2006).

In 2009, Miami Dade College in Florida piloted Project ACE (Accelerated Content-based English) with U.S. Department of Education Title V grant funding for Hispanic-serving Institutions (HSIs). The program targets immigrant ELLs who have strong academic backgrounds from their home countries but lack English proficiency to succeed in postsecondary education. Fast-track English for Academic Purposes (EAP) courses integrate English language supports with subject-matter content to improve success rates for participants taking college placement tests. The program utilizes “smart classrooms” with instructional technology, language labs and modular furniture to facilitate collaborative learning. Partnerships with local ESL programs create pipelines of suitable participants to the ACE program. Of the 610 participants in the program, 70% immigrated to the U.S. with a high school degree and nearly 20% had some college or had attained a bachelor's or graduate degree. Across the first 5-years of the program, 98% of participants completed the EAP coursework, 80% continued in postsecondary education. Ninety-seven percent of completers attained a credential or degree (Thomas, 2014).

The California Acceleration Project (CAP) is a similar initiative of the California Community Colleges' Success Network (3CSN) based on the principles of high-challenge, high-support classrooms. The model provides colleges a flexible framework to address student persistence (Center for Community College Student Engagement, 2010). Key innovations include:

- limiting the use of placement tests
- reducing the length of developmental education sequences (just-in-time remediation)
- contextualized developmental coursework aligned with students' educational and career goals (backward design)
- classroom practices that address affective factors with students to ensure they stay on track and have the opportunity to fail without getting derailed (intentional supports) (Hern, 2012)

Evaluations of the program across 16 colleges serving 50,000 students that control for student demographics and academic variables found students were significantly more likely to complete accelerated courses. This was particularly true for developmental math courses that are most closely tied to retention and persistence. Higher outcomes, moreover, cut across diverse student groups—minority, ELLs, and low socio-economic status—and improved outcomes regardless of where a student started academically (Hayward & Willett, 2014; Hern, 2012).

Research suggests that accelerated coursework has some positive outcomes in moving students through developmental education and onto credit-bearing work more quickly. However, it is important to note that there is no evidence that building English language proficiency to a level required for college-level work can be accelerated. As Bifuh-Ambe (2011) observed, “because acquiring a second language is a complex process that usually takes several years, any attempt to shorten the process in the hope that hard work and persistence will triumph over nature is a myth” (p. 16).

Prior learning assessments and competency-based education. Other efforts to help accelerate the progress of students working toward postsecondary degrees are prior learning assessments (PLAs) and competency-based education (CBE) programs. PLAs and CBE programs recognize that learning is not bound to the classroom and takes place through life and work experiences, military experiences and occupational training. Colleges that recognize this learning and create processes to translate learner experiences to college credit have reduced the time and costs involved in degree completion—two key barriers facing adult learners. PLAs provide a process for colleges to evaluate a student’s college-level knowledge and skills gained outside the classroom through a variety of assessment methods: standardized exams (ex., AP, College Level Examination Program (CLEP exams), Excelsior College Exams, and DANTES Subject Standardized Tests); challenge exams developed by faculty; evaluations of non-collegiate instruction (often independently validated by National College Credit Recommendation Service (NCCRS) and the American Council on Education (ACE)); and assessments of student learning portfolios (Brigham et al., 2010; Klein-Collins, 2014).

PLA programs have been linked to a variety of benefits for students, including reduced time and cost of degree completion, and higher levels of perceived motivation and engagement when students see that they have tangible skills and knowledge to persist in college. A national study of over 60,000 students found that those who earned PLA credit had higher graduation rates, better persistence and lower time to degree compared to students without PLA credit (Brigham et al., 2010). Nearly 70% of respondents were over 40 and 48% had been out of school for 10 or more years. Higher graduation rates, moreover, occurred across both 2- and 4-year IHEs and for students regardless of their academic ability or GPA, age, gender, or race/ethnicity. Latino students, for instance, were eight times more

likely to complete a degree when they earned PLA credit. When asked why they pursued PLA credit, the most common responses of learners include wanting to complete their degree faster (90%); avoid taking courses in something they already know (81%); save money (79%); and move to higher level courses more quickly (62%). Finally, when asked about the benefits of developing learning portfolios, 53% noted that the process helped them organize their thoughts and made decisions and over 70% felt the process had long-term benefits to life planning (Klein-Collins, 2010; Klein-Collins, 2014; Zalek, 2013).

Such competency-based education initiatives focus on student learning outcomes rather than the more traditional model of credit accumulation through seat time in postsecondary classrooms. There are legitimate concerns about the academic integrity and quality in assessments of learner outcomes, but there are emerging models and best practices that IHEs are implementing to serve the growing universe of mobile nontraditional learners. New standards for PLAs ensure that credit is provided for learning outcomes and not just the experience, subject matter experts make credit recommendations, fees are charged for assessments only and not the actual credit, and that immigrants have a process to receive credit for credentials and degrees earned in their native countries (Council for Adult and Experiential Learning, 2013; Klein-Collins & Baylor, 2013; Klein-Collins et al., 2010).

Modularized or “stackable” credentials. Stackable credentials are defined by the U.S. Department of Labor as being “part of a sequence of credentials that can be accumulated over time to build up an individual’s qualifications and help them move along a career pathway or up a career ladder to different and potentially higher-paying jobs” (Ganzglass, 2014, p. 2). Stackable credentials are an emerging response to the current system of education and training that includes a widely varying mix of formal education credentials, non-credit certificates, apprentice-related credentials, and licenses to practice awarded by states. Each system operates under its own standards, assessment systems and quality assurance mechanisms and while they provide valuable options for adult learners, they create many dead ends, have uneven value in the marketplace, and provide few opportunities for transition to postsecondary education (Austin, Mellow, Rosin, & Seltzer, 2012; Ganzglass, 2014).

As a field, ECE educators have traditionally relied on informal apprenticeships, in-service trainings and alternative pathways to professional development (Washington, 2015). ECE educators are encouraged to take a wide range of professional development opportunities offered through Child Care Resource and Referral agencies, community colleges and other training providers that can lead to continuing education units (CEUs). While such training opportunities have a role to play in an educator’s continuing development in the field and are often linked to programmatic requirements for ongoing staff professional development, there is increasing concern about their utility given current efforts to establish the bachelor’s degree as the minimum standard for educators. Except for some institution-

specific training programs offered at private IHEs, CEUs do not currently translate to college credit and thus have limited value for educators who want to advance within the field.

The Child Development Associate (CDA) offers a competency-based credential that is nationally recognized, portable to all 50 states, and provides a system for multilingual ECE educators to be assessed in the language of their daily work. The CDA, which requires 120 hours of coursework, professional portfolio development, family feedback, observation from professional development specialist and a CDA exam is recognized by the Massachusetts Department of Early Education and Care, the U.S. military, and many large early education providers as a meaningful professional benchmark for ECE educators (Council for Professional Recognition, n.d.; Department of Early Education and Care website; Washington, 2015). Currently, the CDA credential, unlike other professional development opportunities offering CEUs, provides ECE educators a potential pathway to postsecondary education. Many state community college systems accept the CDA for college credit towards an associate's degree and are embedding the CDA into their ECE curricula so that students earn a marketable credential while working towards their associate degree (Council for Professional Recognition, n.d.; Washington, 2015).

Kentucky, Oregon and Wisconsin are among the growing number of states working to modularize existing associate degree coursework into short-term certificate programs and chunked credit sequences to create manageable stepping stones to career advancement or higher educational attainment. Such programs have particular value to mobile adult learners. As Austin et al., (2012) observed, “stackable credentials also increase the persistence and motivation of the learner by offering smaller, yet recognized subgoals” (p. 7). The movement toward such programmatic innovations that fit into career pathway programs face significant challenges, including: existing culture, governance structures, and institutional policies that create barriers to their creation; cumbersome and lengthy credit approval processes; and federal financial aid rules that are time sensitive and linked to specific credit hour accumulation (Austin et al., 2012; Ganzglass, 2014).

Expanding transfer options through the applied baccalaureate (ABs). Over the past decade, many states have piloted or fully embraced the expansion of applied baccalaureate degrees to address the “terminal” effect of associate's degrees. Applied baccalaureates, also referred to as “workforce” baccalaureates or community college baccalaureates, incorporate applied associate courses with the higher order thinking skills and technical knowledge demanded in today's labor market. They are generally small scale, highly specialized programs aligned with a specific employment need. ABs are being implemented to facilitate credit transferability and provide seamless pathways to higher educational attainment particularly among adult learners and nontraditional “place-bound” students (Bragg & Ruud, 2011; Bragg, Townsend, & Ruud, 2009; Floyd & Walker, 2009; Ruud & Bragg, 2011).

A strong policy basis for the applied baccalaureate is its alignment to current policy agendas linking higher education and workforce development to expand the number of adults holding bachelor's degrees. There is also evidence from some states that the expansion of the AB is beginning to move state policies and IHEs to reform current articulation and credit transfer agreements and strengthen partnerships between 2-year and 4-year IHEs (Bragg et al., 2009). Most AB models are based primarily on competencies, credentials and technical skills and many states have aligned their ABs with career ladders in specific industries, such as engineering and health care. Because they are most often offered through community colleges, moreover, they can better serve the needs of nontraditional students (Bragg et al., 2009; Ruud & Bragg, 2011).

To date, there have been no empirical studies of AB graduates and their experiences entering the workforce and there is scant research on the efficacy of moving students from an associate's degree to an applied baccalaureate. Critics have cited issues with program quality, mission creep between 2- and 4-year IHEs, the value of the AB in the labor market and the rationale of creating another "terminal" degree that can't matriculate to a Master's level. Despite such criticism, 43 states (86%) offer some form of the AB through 2-year community colleges and/or 4-year institutions. Several states, including Florida, Vermont and Washington are now considering strengthening their capacity to expand bachelor's degree attainment by granting 2-year IHEs the authority to offer traditional bachelor's degrees in high need fields such as education, nursing and Information Technology (Bragg & Ruud, 2011). Massachusetts is one of only seven states that do not offer the AB. As Bragg and Ruud (2011) noted,

Several states in the New England region have decided not to implement AB programs, either because of a lack of perceived demand for these degrees or because of resistance to implementing these types of degrees owing to the belief that existing transition options already provide adequate routes of transfer to the baccalaureate. (p. vi)

Performance-based funding models. A common criticism of statewide higher education funding models is that they are based on a poor predictor of institutional performance—enrollment. Performance-based funding models are seen as a core strategy to improve accountability and incentivize institutional behaviors. The model calls for a set percentage of a state's higher education budget be allocated based on formulas linked to specific performance measures, such as course completion, credit attainment and degree completion. Currently, 30 states have implemented some form of performance-based funding and four additional states are transitioning to performance funding (National Conference of State Legislatures, n.d.). State models vary, but they generally utilize formulas that take into account differences in student characteristics between 2- and 4-year IHEs, and

provide specific rewards for progressive gains in outcomes for “at-risk” or nontraditional students (Miao, 2012).

Pennsylvania, which adopted performance-based funding for all its IHEs in 2000, allocates 8% of its total higher education budget for specific performance outcomes, including degree completion, retention and faculty productivity. Since the model was adopted, overall graduation rates increased by 10% and retention rates for Hispanic students increased by 15%. Indiana’s model includes performance benchmarks for degree completion of low-income students and community college transfers to 4-year IHEs. Enrollment metrics are based on end-of-year numbers, moreover, to incentivize student retention across the entire school year. Tennessee allocates 80% of its total higher education budget to performance goals as part of the Complete College Tennessee Act of 2010. Performance measures include year-to-year student retention, completion of remedial courses and degree attainment. A 40% premium in funding is provided for specific performance outcomes for adults and student receiving Pell Grants (Miao, 2012; Washington Higher Education Coordinating Board, 2011).

In 2011, Massachusetts instituted a performance-based funding model for its 15 community colleges based on a 50:50 formula that provides a base funding covering 50% of the operating budget and an additional 50% based on performance metrics. The formula is designed to reward schools for enrolling low-income, at-risk students and ensuring their progression through remedial education, completion of steps toward graduation and transfer to a 4-year institution before graduating (National Conference of State Legislatures, n.d.; Salomon-Fernandez, 2014). Massachusetts’s performance funding model is based on three key variables:

1. *Enrollment* – based on clusters of students across different programs so that the additional costs of running a specific academic program are weighted in the formula.
2. *Completion* – based on student progress, and the success of first-time degree seekers who after six years earn a certificate or associate’s degree, earn a certificate or degree and transfer to a 4-year IHE, transfer to a 4-year IHE before attaining a degree or are retained in the community college with at least 30 credits.
3. *Alignment* – formula includes a multiplier that provides a premium reward for certificate and degree completers who are Pell Grant recipients and for certificates and degrees awarded in high demand fields within the Commonwealth (Salomon-Fernandez, 2014).

Critics of performance-based funding cite a number of potential problems with the model, including its impact on institutional stability and the limits of measures that generally don’t take into account post-graduation success in the workforce. There is also concern among stakeholders, that performance-

based funding incentivizes throughput and progress toward degree completion rather than quality teaching and learning. For states that have adopted the model, a number of recommendations for successful implementation have emerged, including:

- Involve key stakeholders early in process
- Link performance measures to broader public agenda
- Ensure that formulas are based on good data and clear, simple metrics
- Provide enough money to incentivize institutional change
- Protect a base level of funding and provide time for IHEs to adjust practices
- Subject the system to frequent evaluations and make adjustments to formulas and metrics when necessary (Miao, 2012; Washington Higher Education Coordinating Board, 2011)

Efforts to reform the practices of IHEs are complex endeavors that require broad agreement and coordination of stakeholders to change entrenched institutional cultures. Evaluations of national initiatives show that change is often slow and often dependent upon innovative leadership, excellence and commitment among faculty and staff and in-house competency in using data to continually improve practices. Reform efforts for systematic change require a deeper focus on existing practices across all departments and programs, and a realignment of new practices, policies and processes with organizational goals. As Mayer, Cerna, Cullinan, Fong, Rutschow, and Jenkins (2014) observed,

Knowledge about program effectiveness and common drivers for organizational change is growing, but there is still much to learn—especially with respect to institutional change in organizations as complex as community colleges. (p. ES-13)

IV.III Building Capacity for Education and Career Pathways for the ECE Workforce

Efforts to strengthen the ECE workforce through a variety of professional development options have garnered significant public and policy interest over the past 10 years. Research has deepened our understanding of the role of quality early education on a child’s long term educational and social outcomes, particularly for low SES and minority children who often do not have access to high quality programs. An educator’s skills and knowledge in childhood development, early education practices, relational-based classroom management, student and family engagement and the needs of culturally and linguistically diverse students are increasingly understood as key drivers of program quality.

In response to this, states have actively developed and adopted new quality standards for family-, center- and school-based early education programs that focus greater attention on ECE educators’ educational backgrounds. Increasingly, a bachelor’s degree in early education is seen as the baseline qualification for ECE educators to ensure high quality early education settings. Expectations for the ECE workforce are outpacing the capacity of current systems to develop, educate, retain and

compensate workers. This is especially true for ECE educators currently working in family-based programs (Bassock et al., 2013; Strategies for Children, 2010).

In 2008, the National Association for the Education of Young Children (NAEYC) released a report on workforce development, calling for broad and deep systemic change in statewide professional development for ECE educators. The report highlights the need for ongoing supports across an educator's career and opportunities to build new knowledge and skills that connect theory and research to classroom practice. The report advocates for multiple pathways to professional development suited to adult learners, including college-level coursework, in-service training and reflective practices and mentoring guided by experienced practitioners in the field. A central recommendation of the report urges states to unpack their current professional development options to ensure that various components are aligned and linked, and that new systems ensure some parity in compensation to ensure that high quality workers are rewarded and retained as they improve their education and their professional standing within the field (LeMoine, 2008).

Professionalization of the ECE workforce requires substantive development of disparate strategies, including career lattices, advising and mentoring systems, individual professional development planning, improved compensation, professional registries, IHE capacity-building, articulation agreements, financing and integrated data systems for program quality assurance (LeMoine, 2008). Currently, as many as 36 states have developed career lattices that provide a framework for professional growth through a pathway model that outlines levels of responsibility, compensation expectations and the credentials and educational requirements appropriate for each level. Career lattices are generally aligned with a state's core competencies for ECE educators and Quality Rating and Information Systems (QRIS), and provide multiple entry points depending upon a worker's experience, competence and education level. Such systems provide workers with clarity on what credentials, experiences or degrees are needed to move within a career pathway (Burbank & Wiefek, 2001; Fried, 2010; Holas-Huggins, 2010; Strategies for Children, 2010).

For the existing workforce, many of who are ELLs, low-income, low-skilled, working adults with dependent children, accessing a higher education system that is complex, expensive and limited in its ability to serve nontraditional students is difficult. As many researchers point out, the real value of bachelor's degree mandates for ECE educators will only be realized when workers have clear options for professional development and long-term career stability. "Before degree-based mandates for lead teachers are cemented into place, all educators must have access to a system of workforce development that includes multiple pathways to quality teaching and to qualifying for lead teacher positions" (Chang, 2008, p. 7). Chang (2008) argues that creating viable pathways to a system of quality ECE programs will require a scaffold approach that addresses the following elements:

- Establish standards of teacher preparation that reflect empirically-based practices to develop ECE educators who can translate theory into quality classroom instruction that support positive child outcomes
- Redefine core competencies to include effectively addressing the needs of diverse students
- Invest in multiple delivery systems and alternative pathways to workforce development and ensure articulation agreements between non-credit training, 2-year and 4-year IHEs
- Build the capacity of IHEs to serve the early education field
- Provide adequate support and funding for people, particularly nontraditional students, to pursue postsecondary education
- Link the creation of new workforce standards with early education financing and compensation to support recruitment and retention of quality workers
- Implement data systems to monitor and track the efficacy of professionalization programs, both in terms of program quality and the diversity of the workforce

Creating new postsecondary pathways for working and limited English proficient ECE educators.

Building off of the strategies and best-practices emerging out of bridge and career pathway programs in other disciplines, local and state agencies are creating new pathways to postsecondary education for nontraditional students in the ECE workforce. In 2014, New Jersey’s Passaic County Community College established a new certificate and Associate of Applied Science (AAS) degree in early childhood education for ELLs. The program is a partnership between the English Language Studies and Early Childhood Development departments that integrates a pathway to earn an early education credential while continuing their language development into an associate’s track program in early education.

The program consists of four levels of instruction that combine 6-credits of reading and speaking courses with 6-credits of writing and grammar courses. Students who test in the lowest literacy levels are tracked into special bridge courses designed to build basic literacy skills. Coursework is contextualized to ECE content providing students with preparation to move to credential courses upon completion of their English language courses. Students completing their credential coursework can apply credits toward their associate’s degree and are provided ongoing ESL supports while they take their regular academic course sequence (Community College Consortium for Immigrant Education, 2014).

While similar programs at the associate’s level are expanding in many states, moving adult ELLs into baccalaureate degree programs present additional challenges for both individuals and institutions. In 2004, Northern Arizona University began offering an applied baccalaureate in early childhood education, referred to in their catalog as a Bachelor of Applied Science (BAS), through their College of

Education. The program targets working adults who have an associate's degree from an Arizona community college and is available through their Yuma campus and online. Referred to as a "capstone" model, the program accepts 75 hours of transfer credit and requires students take an additional 45 hours of credit (21 credits from core courses, 18-21 credits of specialized courses, and a capstone course) (Bragg & Ruud, 2011).

According to the NAU website (<http://catalog.nau.edu/Catalog/details?&plan=ECBAS>) the BAS degree provides students with the opportunity to build their management, organizational, communication, computer, and quantitative skills while receiving specialized instruction designed specifically for ECE educators. The credential was developed and is marketed to address degree mandates for ECE educators working in school-based early education settings and the growing need for viable pathways to baccalaureate degrees. During the 2009-2010 school year, the program was the largest AB program in the state, enrolling 157 new students and graduating 31 continuing students with a bachelor's of applied science (Bragg & Ruud, 2011).

One of the more unique state-led approaches to address credentialing of ECE educators came out of a 1998 court case in New Jersey. In *Abbott vs. Burke* the New Jersey Supreme Court ordered public school districts serving the state's poorest children to provide all students access to high quality early education opportunities. Quality programs were defined by low child-to-teacher ratios, curriculum standards, facilities standards and new requirements for educators working with young children. In order to create parity between private programs and programs in schools, modifications to the law mandated bachelor's degree and certification requirements for all teachers working in Abbott preschools with equitable compensation between educators based in schools and educators in private center- or family-based programs. Coordination of state-funded early education was consolidated under the Department of Human Services, which took on responsibility for administering staff training and scholarship programs for educators (Farrie & Weber, 2010; Whitebook, Ryan, Kipnis, & Sakai, 2008; Zalkind, 2013).

Program expansion and implementation was dependent upon creating a professional development system that included both a traditional route to degree attainment and credentialing, along with alternative routes to serve existing ECE educators, many of who are nontraditional students. Under the new system, ECE educators are able to access training and education programs that are relevant to their level of qualifications and their current professional level. To support access to bachelor's or master's degree programs, the New Jersey Department of Human Services initiated a variety of public/private scholarship programs, including the New Jersey Early Childhood Scholarship Program that provides \$5000 per year and \$50 per course to cover the cost of tuition, books and other expenses. Between 2000 and 2007, the program provided scholarships totaling over \$21 million to

6,600 ECE educators. Longitudinal studies of the Abbott Preschool Programs, moreover, have found positive child outcomes across all programs and comparable quality across school-based and privately-provided early education (Barnett et al., 2013; Farrie & Weber, 2010; National Association for the Education of Young Children, 2014; Whitebook, Sakai, Kipnis, Almaraz, Suarez, & Bellm, 2008).

The most innovative and well-studied initiatives to support the ECE workforce's transition to postsecondary education have been implemented in California. Many of these initiatives grew out of county-wide efforts to improve the quality of the ECE workforce in Los Angeles, Alameda, Santa Barbara, San Francisco and Santa Clara counties through California's First 5 money.⁴ These initiatives incorporate a two-pronged approach: 1.) address the issues of access and support for ECE educators, many of who share the characteristics of nontraditional students, and 2.) strengthen, align and expand ECE degree programs at 2- and 4-year IHEs. While the initial focus of these initiatives was community colleges, efforts were made to institute clear pathways toward baccalaureate degree attainment. Programs at individual community colleges focused on four activities to support adult learners and ELLs (Dukakis & Bellm, 2006; Dukakis, Bellm, Seer, & Lee, 2007):

1. *Counseling, advising and communication* – There was broad understanding that transitioning ECE educators to postsecondary education requires partnerships between IHEs and CBOs that focus on counseling and guidance to ensure students can navigate college environments. Strategies include:
 - Hire Professional Development Coordinators (PDCs) at community colleges and work closely with referral agencies to create new ECE career advocates
 - Created new college liaisons to assist participants as they navigate the higher education system
 - Created new tool—Professional Development Educational Plan (PDEP)—to help participants set goals, document their educational path, and outline a course of study
2. *Programs for ELLs* – County programs instituted Spanish speaking cohorts, hired bilingual staff, offered coursework in Spanish and offered classes in local communities to better serve the needs of adult ELLs. Strategies include:
 - Contextualized ESL coursework
 - Monthly cohort meetings to provide networking and peer support
 - Homework assistance and tutoring in English writing and speaking
3. *Bachelor's degree options* – Initiatives first step was to prepare a large group of ECE educators prepared to pursue upper-division work. Partnerships in Alameda and Santa Clara counties

⁴ First 5 California was created by voters under Proposition 10 to recognize the importance of children's health and education during their early years of development. Since 1998, First 5 has invested millions of dollars to design and implement comprehensive programs to address the needs of children 0-5 and their families. Initiatives are funded through tobacco tax revenue.

began to foster development of new baccalaureate options at four Bay area colleges (see Table 4). This required significant coordination between departments to develop relevant curricula and educational pathways and close partnerships with community organizations and employers (ECE programs).

4. *Leadership development* – Development of new Master’s level programs, including an interdisciplinary MA in Leadership for Child development at the University of California, Berkeley. The 15 month program designed to serve 10-15 students a year with a focus on adult learning and teacher training or administration and policy.

Table 4: Sample baccalaureate programs in Alameda and Santa Clare counties, California

Institution	Degree	Components
Mills College, Oakland, CA	Child Development B.A. for Working Professionals	<ul style="list-style-type: none"> • Two year pilot began in 2006 targeting culturally and linguistically diverse ECE educators who hold an associate degree • Longer term program (up to 3.5 years) to address realities of working students • Curriculum includes combination of early education and liberal arts classes; includes practicum at college lab school and community partner sites • MOUs with employers for release time for participants • Connected to support services offered in early elementary and nursing programs • Financial aid options
California State University, East Bay	B.A. in Human Development with option in Early Childhood; B.A. in Teacher Education with minor in ECE	<ul style="list-style-type: none"> • Targets ECE educators who completed an associate degree at one of four community colleges • Partnership between Department of Human Development and Department of Teacher Education • Cohort model with dedicated coordinator to help advise students; preparatory summer institute to focus on college orientation; workshops on research writing, technology, study skills, college life, etc.
University of California Berkeley	Interdisciplinary B.A. with minor in Early Childhood Studies	<ul style="list-style-type: none"> • Provides dual track option – generalist track and teacher permit track • Courses taught in child development, teacher education, and psychology • Cohort model – 25 students/year with enhanced advising (Child Development Permit advisor) • Recruit UCB students from various disciplines to learn about ECE career options

		<ul style="list-style-type: none"> • Provides additional financial aid for those who commit to working in ECE field for a set period of time after graduation
San Jose State University	B.A. in Child and Adolescent Development	<ul style="list-style-type: none"> • Partnership with WestEd’s E3 Institute to fund cohort of potential leaders in ECE field; target participants with an associate’s degree or director level credential • Accelerated course format (12-week fall session, followed by 2 10-week sessions) • B.A. completion expected to take up to 3.5 years • E3 funding supported all student expenses and additional program costs, including extra instructor time and advising • Flexible schedules with afternoon and evening classes • Cohort meetings include briefings and discussions of policy and state funding

(Dukakis & Bellm, 2006)

Programs in Alameda and Santa Clara counties were incorporated into a larger, 5-year longitudinal study of cohort-based bachelor’s degree programs serving adult ECE educators in six public and private 4-year IHEs. The mixed method study—undertaken by the Center for the Study of Child Care Employment at University of California, Berkeley—incorporates program outcome data and surveys and interviews of participants and program staff to better understand their perceptions of the efficacy of specific program components. The study is significant because it focuses on programs to promote persistence of nontraditional adult learners to complete a bachelor’s degree in early education. Participants in the six cohort programs were mainly the first generation in their families to attend college and the majority spoke a language other than English at home. Moreover, participants had been working in early education settings for an average of about 16 years (Whitebook et al., 2008).

The study identified a number of supports that were seen as essential to promote persistence in the programs, including targeted service delivery through a cohort model, integrated academic advising and counseling, financial support, skills-building opportunities and access-based supports, such as flexible course schedules and community-based class locations to accommodate working adults (Whitebook et al., 2008). Over time, participants and faculty felt the peer support and peer learning that were part of the cohort model became more important for student success, while certain academic supports became less important as students’ skills improved. Advising remained important to students, but the focus of advising shifted from providing assistance with maneuvering through college systems to helping develop strategies to complete unmet graduation requirements. Family and employer support, including paid time off and schedule flexibility, were important to participants’ success in the program. Many community-based ECE programs, moreover, lack the capacity to provide meaningful

mentoring, supervision and peer support for their educators (Sakai et al., 2014; Whitebook et al., 2008; Whitebook, Sakai, Kipnis, Bellm, & Almaraz, 2010).

The *Learning Together* study shows that with targeted comprehensive supports, nontraditional ECE educators and adult ELLs can successfully complete bachelor's programs. In year 3, the study found that 81% of participants across the six cohort programs completed their degree, twice the rate of typical transfers from 2- to 4-year IHEs. Perhaps most significantly, the majority of graduates felt the program improved their classroom practices and many indicated an interest in pursuing higher levels of formal education. Twenty percent of graduates reported job changes and promotions after graduation and slightly more than one-third reported some pay increase (Whitebook et al., 2008; 2010; Whitebook, Kipnis, Sakai, & Almaraz, 2011).

The *Learning Together* year 4 report included additional research designed to better understand professional competence of 85 of the cohort graduates. While not an experimental evaluation, the findings provide some evidence that graduates of the bachelor's programs were more reflective of their practice and intentional in applying strategies and knowledge gained in the program. Most graduates (85%) reported greater confidence in their understanding of child development and many believed that they were more aware of the importance of dual language learners (DLLs) preserving their home language. However, the study also found that the majority of graduates felt they would have benefitted from additional instruction in several key areas, including state early education policy, working with adults, communicating with colleagues, mentoring peers and conducting meetings. Graduates working in center-based programs, moreover, felt that the characteristics of their workplace—insufficient staffing, low funding, staff turnover, and lack of planning, preparation and effective leadership—negatively impact their classroom practices (Sakai et al., 2014; Whitebook et al., 2012).

A similar initiative implemented in seven community colleges in Los Angeles expanded advising and academic and non-academic support services for ECE educators, many of who were ELLs, to promote associate degree attainment and transition to bachelor's programs. The Los Angeles Universal Preschool's Child Development Workforce Initiative (CDWFI) incorporated similar comprehensive supports, including advising and counseling services, tutoring, mentoring, financial aid and facilitated peer support. Advising within the CDWFI included ongoing check-ins with students to continually reassess goals and progress, and ensure students are connecting with the right supports as they move through the program (Whitebook & Austin, 2015; Whitebook et al., 2013).

Program descriptions outline a number of key finding. Students who developed effective study and time management skills had clear academic goals and actively participated in support services were more successful moving toward degree completion. Stalled and dis-enrolled students were more likely

to arrive at college academically unprepared, were perceived by staff to lack motivation and were less likely to have support from families or their employers. Of the students who completed the program and earned an associate's degree, most expressed an interest in pursuing a bachelor's and felt their experience in the program was personally and professionally transformative. Findings also point to the need for differentiated and personalized supports. This was particularly difficult for IHEs that have a tendency to see all their students through the same framework regardless of individual circumstances. Cooperation and strong partnerships with employers that outline the terms of the program and expectations for leave time and schedule flexibility were seen as critical to positive program outcomes (Whitebook & Austin, 2015; Whitebook et al., 2013).

Collectively, these initiatives highlight the need for improved linkages and coordination between IHEs and employers, and greater alignment of curricula and supports among community colleges and between community colleges and 4-year IHEs. Because of the needs of the population served, IHEs benefit from additional planning time and dedicated faculty with the skills and expertise to work with adult learners who have nontraditional profiles. Many adult ECE educators who lack academic preparation, moreover, need additional assistance to prepare them for the rigors of college-level work. Improved data systems that can accurately track students as they move through coursework to degree completion were also seen as critical for long term systemic change. Finally, because these programs are generally small scale initiatives funded through grant money there is real concern that they won't be sustained by their institutions. Without long-term funding and real market payoffs for students the viability of these programs is tenuous.

As a model for serving adult ELLs, the California initiatives are informative but limited. All of the participants in the bachelor's cohort programs had already completed an associate's degree, so the model did not address the challenge of moving adult learners at the lowest levels of English proficiency through transition to postsecondary education. While nearly half of participants reported speaking a language at home other than English, nearly 90% reported that their English skills were sufficient to complete college-level work. A unique dual-language program included in the San Francisco State cohort was seen as important in recruiting Spanish-speaking participants, and most felt the dual-language approach helped them complete college-level work by allowing them to demonstrate their skills and knowledge in their native language. However, 65% of participants in this program reported the need for additional academic support, particularly in academic writing, to help student manage college level work in two languages. This program, moreover, was not designed specifically for ELLs, but included English-speaking learners who were interested in building their Spanish skills to better serve diverse children and families in their communities (Whitebook et al., 2008; 2010).

IV.IV Supporting ELL Early Educators in Massachusetts

Creating a fully integrated and responsive professional development system for ECE educators in Massachusetts is a critical piece of efforts to improve early education settings. Broadly, there are two key purposes of professional development: 1.) advance the knowledge of educators to better serve children and families; and, 2.) promoting a culture for ongoing professional growth in individuals and systems (Sheridan et al., 2009). EEC launched elements of a new professional development system in 2010, funded through Educator and Provider Support (EPS) grants. The new, largely partner-driven system is based upon a coordinated offering of professional development supports accessible to all ECE educators at various regional “access points.” EPS grants in FY2011 funded regional partnerships to design and deliver multi-level professional development services in six regions across the Commonwealth.

The system is intended to align professional development, QRIS, and EEC Core Competencies, and to engage stakeholders across sectors. The goal of the new system is to support the pathways that lead educators to degree attainment and increased competency and to support providers in attaining and maintaining accreditation and upward movement on QRIS. (Douglass, Heimer, & Hagan, 2011, p. 4).

A year 1 implementation study conducted by faculty and staff at UMass Boston found both promising developments and ongoing challenges in the new system. The study found greater collaboration and alignment between providers within regions and improvements in the design and delivery of professional development options. Regions also improved their ability to communicate effectively, both with EEC and with providers and early education programs locally. Partners strengthened their capacity to share effective strategies, innovate, and engage in network problem-solving. Regional partnerships increased participation in the Professional Qualifications Registry (PQR) and grant programs, such as the Early Childhood Educators Scholarship Program that provide financial support for educators to enroll in associate’s or bachelor’s degree programs. The UMass Boston study also found that regions made significant progress creating collaborative partnerships with IHEs within their regions to increase access for adult workers and provide supports required for degree completion. Particular effort focused on new ESL courses integrated with early education content to serve adult ELLs. Overall, regional partners were committed to the changes but warned of potential burnout efforts were not rewarded with new revenue to support programmatic changes and compensation increases for ECE educators (Douglass et al., 2011).

Among the implementation challenges identified in the study were issues with governance, including building trust and inclusive roles among regional partners, and adjusting to new centralized leadership from EEC. Many stakeholders in regions expressed frustration with the lack of collaborative leadership,

limited sharing of practices across regional networks and a lack of clarity in the roles and responsibilities of regional and state partners. Credit transfer between institutional borders is still problematic and there are growing concerns about the value of professional development CEUs given the current push to move educators through degree programs. There was also confusion in efforts to align professional development services and QRIS, with many stakeholders expressing a lack of understanding of what such an alignment would look like. Lack of data, moreover, limited their ability to track educators' professional growth and monitor how the new systems are working. Finally, while regional partners and IHEs were strengthening programs to serve ELLs, many stakeholders noted the ongoing challenges facing ELLs to both access and succeed in postsecondary education (Douglass et al., 2009).

Supporting adult ELLs working in Massachusetts early education settings. Creating a professional development system that builds upon and supports the existing diversity of the ECE workforce presents significant challenges for IHEs and community partners. We know that existing programs in 4-year IHEs offering baccalaureate and master-level programs in early education report the most difficulty serving adult and ELL learners (Marshall et al., 2005). While community-based workforce development programs are often first to adopt innovative strategies to serve nontraditional learners, including the use of cohorts, counseling and case management strategies, there are a number of model programs embedded in Massachusetts's community colleges that merit additional study (Douglass et al., 2009; Oldham et al., 2010; Strategies for Children, 2010).

In 2008, the Colleges of Worcester Consortium received funding from the Workforce Competitiveness Trust Fund, administered by Commonwealth Corporation on behalf of the Executive Office of Labor and Workforce Development. As part of a larger Central Massachusetts Early Education and Care Professional Advancement Program, the consortium of colleges, comprised of four 4-year IHEs and one community college, was tasked with expanding access and supports for students working toward degree completion (Strategies for Children, 2010). One of the consortium's members, Quinsigamond Community College, developed a dual language program for adult ECE educators working toward an associate's degree. The pilot program provides ECE educators working in family-based settings courses taught in both English and Spanish depending upon the needs of individual learners. Classes are structured to develop learners' understanding of early education content in their native language, while continuing to build their English proficiency.

Building off of their involvement in the Breaking Through initiative, North Shore Community College's innovative Early Childhood Development department developed a career pathway program for Hispanic child care workers in Lynn that provides options for both associate's degrees and transition to bachelor's degree programs. Using a variety of state grants, the Early Childhood

Development department collaborated with the ESL department to create an “on ramp” into for-credit programming for low skilled ELL workers in early education settings (Jobs for the Future, 2010). ESL coursework is contextualized with ECE content and the program embeds comprehensive supports that are coordinated across departments within the college. Students are placed in cohorts to provide peer learning and support, and Achievement Coaches provide proactive advising to students. The Achievement Coach provides a single point of contact for students to better access services within the college, and coaches generally provide an “intrusive” model of support to ensure students stay on track (McDonnell et al., 2014).

The Professional Enrichment Early Childhood Education (PEECE) program, established through a partnership with Head Start, Urban College of Boston, ABCD and Learning Works is another promising model. Funded with Head Start money, the 7-tiered model is designed to help students move from pre-college level work through bachelors and graduate level work. Dual language supports are provided to participants in both Spanish and Chinese. Using the career pathways framework, the program provides a logical pathway for student who can enter at various levels depending upon their prior experience or education, and exit at various levels depending upon the long-term career and educational goals. Students who enter without a GED complete that requirement first before moving to earn a CDA. Students who earn the CDA can matriculate to an associate’s degree program in ECE at Urban College, and articulation agreements with Lesley University allows students to transition to bachelor’s or master’s level programs (Zafft et al., 2005). Urban has also developed training programs for ECE educators that provide CEUs that can transfer to credit at the college if participants continue on a degree tract. Such programs are critical to the development of the field, but currently only exist within individual institutions and are often dependent upon innovative leadership at the local level.

Looking across programs in disparate fields and industry sectors, there is growing agreement in the efficacy of certain strategies to support nontraditional students and recognition of the common challenges facing many adult ELLs who decide to return to college. Empirical research is limited and recent meta-analyses have come to the conclusion that while there is extensive data on the goals, objectives, and challenges of such transition programs, there is insufficient evidence to determine the effectiveness of individual interventions or model programs. Much of the knowledge about what is effective is embedded in the experiences of faculty, staff and participants across diverse programs, departments, institutions, community-based partners and governmental agencies. Recent attention from the research community and current longitudinal studies of programs will hopefully strengthen our understanding of what works and provide a stronger evidence base for needed policy changes (Comings, Soricone, & Santos, 2006; Seymour, 2009; U.S. Department of Education, 2010).

V. Strategies for Supporting English Language Learners in Postsecondary Education

Efforts to strengthen statewide systems to support adult ELLs and other nontraditional students to gain access to and succeed in postsecondary education require extensive multi-level, cross-agency coordination and reform. The following section outlines a number of state, institutional, community, and individual levels strategies that have shown promise in the literature for addressing the barriers facing adult learners and ELLs in higher education.

V.I State Level Strategies for Supporting ELLs in Postsecondary Education

The literature is clear that any strategy at the state level to strengthen postsecondary transitions among underserved students is dependent upon leadership and commitment at the top levels of state government. Senior leaders in departments of education, labor and workforce development, and human services must set priorities for broad systems change and ensure that resources are allocated to support a viable public agenda. Strong centralized efforts are more likely to foster the cross-agency coordination needed to align systems of adult basic education and higher education and seed collaborations between IHEs, businesses and community-based organizations. This is particularly true in Massachusetts with its long tradition of strong, independent private colleges and universities, and largely decentralized system of higher education. With leadership commitment at the state level, innovative strategies are more likely to be codified into existing regulatory and administrative rules and be articulated as a strategic priority for the state (Alamprese, 2006; Comings et al., 2006; Jenkins, 2008; Joyce Foundation, 2013; Roberts & Price, 2009; Zafft et al., 2006).

Many of the state initiatives discussed above began with intentional efforts to build commitment among coalitions of stakeholders by articulating the economic imperative of moving more adult workers, particularly immigrants and ELLs, to higher levels of educational attainment. Data have played an important role in identifying gaps in existing systems, engaging coalitions and developing programs.

Integrated state data systems. One of the more difficult but potentially beneficial state-level strategies for improving outcomes for adult learners is connecting state data sets to enhance the ability of stakeholders to track and analyze educational progress of students through ABE and transitions to postsecondary education. Many states have begun to connect postsecondary data with ABE data and workforce data to create longitudinal data systems to better measure the progress of low-skilled adults through educational pathways and into the labor market (Chisman, et al., 2010; CLASP, 2014). Such systems allow states to better understand gaps in educational and career pipelines and target policies and resources to address those gaps (Price & Roberts, 2010). States that have worked to improve their data systems have found the process instrumental in engaging broad coalitions of stakeholders and

creating a shared commitment to both short- and long-term education and economic goals (Joyce Foundation, 2013; McDonnell et al., 2014).

Strengthening statewide data systems is in many ways a first step that other state strategies can build upon. The literature outlines a variety of outcomes from data improvement efforts, including:

- Creating an evidence-based argument for addressing workforce development and skill gaps to reform existing system structures and institutional practices
- Engaging stakeholders through strategic communication
- Fostering local, regional and state partnerships by focusing on both short- and long-term needs and opportunities and creating shared outcome goals across all partners
- Measuring students' progress and outcomes within higher education, postsecondary transition programs and the labor market
- Establishing new outcome measures that track participants progress through systems over time rather than just year-to-year benchmarks
- Assessing the effectiveness of programs to support adult learners
- Disaggregating data to specifically measure outcomes for nontraditional students
- Providing an evidence-based process for continuous improvement

Align and connect elements of education and workforce development systems. Greater alignment and coordination of services within existing systems of ABE, workforce development and higher education has been a core state-level strategy. Such efforts include expanded access to integrated ESL and ABE courses through multiple delivery pathways, new curricula standards for serving ELLs, professional development for faculty and new skills development programs that include relevant college preparation content. Most researchers in the field argue that state policies must be focused on transitions to ensure that learners are moving through the system and not just accessing one-off courses and leaving. This requires that outcomes related to progress through the system must be measured and linked to specific outcome goals for community-based providers, state agencies and higher education. Specific outcomes for ELLs, moreover, must be integrated into formal outcome goals with adequate resource allocation and incentives to achieve those goals (CLASP, 2014; Chisman, et al., 2010; MPI Associates, 2007; Zafft et al., 2006). Expanding programs for ELLs to enter postsecondary education and engage in workforce development programs will potentially have broad economic impact on the Commonwealth including the support of diverse industries, including health care, technology and education.

The most successful states understand that creating a pathway is distinct from creating programs or a series of programs. Building career pathways is a process that involved both backward and forward

mapping to think simultaneously about state labor market needs, the role of higher education in addressing those needs and the supports required to successfully serve diverse learners. Stakeholders, regardless of what position they occupy, must think systemically about the challenges and potential solutions across multiple institutions and agencies rather than just operate within a particular silo or organizational perspective (Comings et al., 2006; MPI Associates, 2007; Pusser et al., 2007; Texas Higher Education Coordinating Committee, 2014; Zafft et al., 2006).

Policy development and resource allocation. Ultimately, state-level strategies are dependent upon policies that foster cross-agency collaboration, create systemic mechanisms to address barriers facing nontraditional students and identify existing and new resources to invest in postsecondary transition models. Efforts to ensure that both public and private funding are aligned in outcome goals and reporting requirements have been shown to reduce grant management burdens for grantees running transition programs (Chisman & Spangenberg, 2005). As Pusser et al. (2007) notes, “policymakers need to work with institutional leaders, state workforce development authorities, and the business community to coordinate effective policies for workforce development and adult learner education” (p. 16). Policies and competitive grant programs can incentivize broader regional partnerships and require specific strategies to help create stronger transition programs through accountability processes (Alamprese, 2006; Zafft et al., 2006). Such partnerships between industry and community organizations can lead to credit-bearing pre-baccalaureate programs that offer specific labor market preparation and credit toward future degree attainment.

A key strategy for state-level policy development involves linking educational opportunity to economic development. As Jenkins (2008) points out, “state policies governing adult and postsecondary education, workforce and economic development, and social and human services are typically designed and implemented in isolation from one another” (p. 31). Consequently, most states have a disconnected system of competing governance structures, funding formulas that benefit enrollment over completion and outcome goals that do not serve individuals or society. For students with the highest risk factors, such as nontraditional adult ELLs, such disconnects often result in insurmountable barriers to long-term economic security. Recognizing that the increased education of all adults is essential to the economic well-being of a state and the country as a whole is the first step in coordinating systemic change. The costs of creating such a system, moreover, must be measured against the costs of ineffective solutions that do not provide the long-term benefits to individual workers that could strengthen the capacity of the U.S. economy to address current demographic and economic trends (MPI Associates, 2007; Wilson, 2014).

For many states, there is a much greater urgency in their efforts to scale transition programs at IHEs to support the participation, integration and completion of nontraditional adult education students in

career and technical education certificate and degree programs. Many states are increasing their share of matching funds for federal Adult Education and Literacy programs beyond the minimum 25% requirement. For instance, In FY2011, states with large numbers of immigrant and ELL residents including Florida and New York provided non-federal matching funds at 84% and 65%, respectively. The Texas Higher Education Coordinating Board (2014) released a statewide coordinating plan that calls for significant state investments in adult education and literacy programs. Citing the success of its “evidence-based models” of skills training and postsecondary transitions for underprepared adult workers, the plan addresses common weaknesses of many transition programs—small scale, limited funding and tenuous sustainability. As the strategic plan argues, “with a proven model and interagency support and commitment, Texas only lacks increased investments to expand models that promise to make meaningful impacts on the skills shortages facing Texas” (P. i).

V.II Strategies for Supporting ELLs in Higher Education

Over the past 10 years, efforts to improve access and persistence of nontraditional student, including adult ELLs, have elevated a number of promising strategies for institutions of higher education. These strategies include practices related to institutional leadership and commitment; data-informed decision making; student engagement and comprehensive supports; and innovations in teaching and learning.

Leadership and institutional commitment. Studies of IHEs that have been successful in expanding access and persistence among nontraditional students have highlighted the importance of institutional leadership. School leaders who articulate clear goals and make serving nontraditional students central to the mission of their colleges are more effective changing institutional culture and building commitment across all departments (Engle et al., 2012; MPI Associates, 2007). Research suggests that faculty and staff within IHEs often have deeply-rooted perceptions of low-skilled adult students that often inhibit institutional change. IHEs with strong leadership are more likely to leverage existing institutional governance structures to address the needs of specific subgroups of students, such as removing barriers embedded in developmental education, credit articulation between programs within a school and across IHEs, or providing credit toward degrees for demonstrated prior learning (CLASP, 2014; Klein-Collins, et al., 2010; Excelencia in Education, 2010).

Without strong support from leadership, the processes of building meaningful partnerships with local businesses and community-based organizations to break down the silos between ABE and credit-bearing coursework are difficult to initiate and sustain. Committed leadership, moreover, is critical to the long-term sustainability of innovative practices and programs that are often supported by “soft money” and the dedication of individual faculty or staff (Alamprese, 2006; Jobs for the Future, 2010; Schanker & Taylor, 2012; U.S. Government Accounting Office, 2008).

Studies of leaders of successful HSIs serving large numbers of Hispanic, ELL, and immigrant students are clear that IHEs must know who they serve. Given the increasing numbers of nontraditional student enrolling in colleges and universities, leaders are responsible for understanding and embracing nontraditional approaches to serving students. Successful leaders ensure that educational programs and services are tailored to the needs of their communities and engage faculty and staff at all levels and across all departments to align strategic priorities (Ackerman, 2005; Erisman & Looney, 2007; Santiago, 2009). Moreover, these leaders articulate a vision for their schools that recruitment and retention of nontraditional students is an asset to their institutions rather than a potential detriment,- and back this vision with strategic financial and operational planning that support efforts to better serve nontraditional students (Hernandez, 2010). *Excelencia in Education* (2008) identified the following successful practices for IHEs serving large numbers of Latino students:

- Create a culture of evidence by sharing disaggregated data with faculty, staff and students to invest the entire college in serving nontraditional students
- Use short term measures of academic progress to guide improvements in curricula, instruction and support
- Share data between community colleges and baccalaureate-granting institutions
- Provide holistic approach to serving Latino students within the institution by integrating academic and student life programs
- Partner with other educational organizations in the community to align regional resources
- Seek external sources of funding to develop and test innovative practices while adding proven practices to the institutional budget
- Apply lessons learned in improving services to Latino students to improve services for all students (*Excelencia in Education*, 2008)

Data-informed decision making. IHEs that embrace a culture of evidence and use disaggregated data to better understand how nontraditional students are doing are found to be more effective in serving these students (Santiago, 2008). Successful IHEs use short-term measures of academic progress to guide improvements in curricula, instruction and supports, and share data across all faculty and staff within their institutions so there is broad understanding of how the school is serving its student body. Many innovative community colleges, moreover, are building closer relationships with 4-year IHEs and sharing disaggregated data to facilitate student transitions between associate’s and bachelor’s degree-granting programs (*Excelencia in Education*, 2008). Ultimately, using data effectively has been found to establish intentionality in how schools approach programs for nontraditional students, engage faculty, and build institutional capacity (Comings et al., 2006; Santiago, 2008; 2015; U.S. Government Accounting Office, 2008).

New data systems are being designed that not only track overall enrollment and completion rates, but include progress measures for many students who are often missing in national higher education data sets, such as the Integrated Postsecondary Educational Data System (IPEDS). Progress data has been critical in developing leading indicator initiatives that recognize student success milestones in their first year on campus, such as credit accumulation and gateway course completion. Such measures have been found to help students build the momentum necessary to ensure retention from year one to year two. Leading indicators also allow schools to monitor the education and career pathways of students who are not meeting their goals to create early warning systems that trigger specific academic and personal interventions. Having the right data, moreover, strengthens the capacity of IHEs to strategically align their finances to support short- and long-term operational goals (Engle et al., 2012; Jenkins, 2008; Miao, 2012).

Student engagement. Practitioners and researchers working with nontraditional adult learners and ELLs have identified a number of promising practices to engage learners and provide them with both academic and non-academic supports to be successful. A validation study by the Community College Leadership Program at the University of Texas exploring the relationship between student engagement and student outcomes found that supports for learners, active and collaborative learning and positive student-faculty interactions were the strongest predictors of persistence to degree attainment. The study is significant in that its data is drawn from surveys primarily from HSIs and over 25% of the more than 3000 students surveyed were ELLs (McClenney & Marti, 2006).

Another study of first generation African-American and Latino students attending college in California identified a number of themes from students' responses to questions about their experiences in higher education. Findings revealed that students want to be recognized as the key agents in their educational success but understand that they need help to succeed. Students require assistance with educational planning and ongoing monitoring of their progress toward degree completion, open access to services provided within the college and meaningful connections with peer networks in the college community. Students also linked their motivation directly to efforts of faculty and staff to help them see the relationships between long-term career goals and their educational experience. Students were more likely to persist when colleges explicitly taught them how to succeed through intentional engagement, relationship-building, student success courses and skill-building opportunities coordinated across the entire college community. Nontraditional students were more likely to cite the lack of academic supports, insufficient financial aid and the absence of someone on campus who cared about their success as the primary factors inhibiting their persistence toward degree completion (Booth et al., 2013; Collins, 2011).

Student engagement practices that provide some evidence of effectiveness begin before students are on campus and continue through their entire time in school. Pre-enrollment orientations and campus tours have been found to be effective in raising awareness about academic programs, college readiness, admissions processes and available services to support nontraditional learners. Student success courses designed to build students' skills in managing time, studying, engaging with faculty, and balancing life and school responsibilities are helpful for adult learners who have been out of school for many years (Collins, 2011; Cooper, 2010; Seymour, 2009; Zafft et al., 2005). Other efforts to improve persistence through teaching students to be strong self-advocates to navigate the college environment, such as the Right Questions Project, have also proven to be effective in promoting transitions and persistence in higher education (Nash & Zafft, 2015).

Intentional integration of engagement activities and services into existing ESL classes has been found to be particularly beneficial to ELL students (Lowe, 2014). The Community College Consortium for Immigrant Education, based at Westchester Community College in Valhalla, New York has identified a number of promising practices for engaging ELL learners enrolled in ESL classes at community college and connecting them to supportive resources. They include:

1. *Integrating ELLs into the wider campus from the day they register for an ESL class* – South Texas College reinforces to all ESL students that they are part of the campus and have access to all services provided by the college, including the library, learning centers, advising, and counseling.
2. *Providing campus tours for ESL students* – Westchester Community College ESL instructors have partnered with student life and admissions offices to provide special tours for students enrolled in ESL classes. Other colleges, including Pima Community College in Tucson, AZ, require that ESL instructors provide tours and provide extra credit for students who use campus resources.
3. *Developing special orientations workshops for immigrant ELL students* – Programs such as one at Palm Beach State College in Lake Worth, FL, offers integration workshops for current and prospective ESL students to learn about academic programs, career services, and U.S. culture.
4. *Library tours for ESL students* – Many colleges, including Austin Community College in South Austin, TX, provide specialized tours of campus libraries tailored to the needs of ELLs. The college librarians created a handout of questions for ESL students to answer as they learn about the library system.
5. *Inviting guest speakers from the college into ESL classrooms* – Colleges have had some success integrating speakers from college support services to speak to ESL classes. These presentations are generally geared to the literacy level of the class.
6. *Encouraging ESL students to join clubs or take courses outside of the ESL sequences* – Actively encouraging ESL students to become more engaged in campus life has been particularly

effective at the University of Hawaii, where ESL students are encouraged to enroll in courses outside of ESL that are less linguistically challenging, such as chorus and studio art classes.

7. *Establishing welcome center programs specifically for ELLs* – Faculty at Prince George’s Community College donate an hour of their office hours every week to help staff an International Welcome Center to connect students with mentors and help answer students’ personal and academic questions (Lowe, 2014; Rodriguez, Burt, Peyton, & Ueland, 2009).

Academic and non-academic supports. Research suggests that bridge programs effective in moving nontraditional students into higher education and academic programs incorporate ongoing, multilevel and interrelated supports (U.S. Department of Education, 2010; Seymour, 2009). Programs that implement one intervention at a time, such as expanded scholarships to improve access or academic advising to help students address specific deficiencies in academic preparation are generally not effective in fulfilling outcome goals (Ackerman, 2005; Pleasants, Soricone, & Sheen, 2014). Programs to provide enhanced student services that are coordinated and integrated into existing campus-wide reform strategies and sustained across a student’s entire college career have been found to have a positive effect improving students’ academic and social integration into higher education (Cooper, 2010). The following academic and non-academic supports are identified in the literature for improving outcomes for adult ELLs in postsecondary education:

- **Cohort models** – Research suggests that adult ELLs are more likely to persist and succeed in postsecondary education when they share their educational experience with others who have a similar learning profile and educational goals. Cohorts can benefit learners in three profound ways: 1.) providing support to adult learners challenged by academic learning; 2.) serving as context for learners to provide each other emotional and psychological support; and 3.) challenging adult learners to broaden their perspectives (Kegan, et al., 2001). Such models can also streamline supports through targeted interventions—such as linguistically-appropriate coursework and materials—that address shared needs across a group of learners (Engle et al., 2012; Engstrom & Tinto, 2008; Reddy, 2012; Villegas & Davis, 2007; Zaslow et al., 2010).

Studies of ELL ECE educators in bachelor’s degree cohorts found that 95% of participants perceived the cohort to be important to their persistence and success, and over time, that importance increases as participants become a community of learners. Cohorts were important in fostering both personal support to address the challenges of balancing family, work and school and academic support through collaborative learning opportunities. There is also evidence that participation in cohorts can strengthen peer networks in communities after graduation, potentially strengthening regional supports and learning across ECE programs

(Kipnis, Whitebook, Almaraz, Sakai, & Austin, 2012; Sakai et al., 2014; Whitebook et al., 2008; 2010; 2013).

Erisman and Looney (2007) and others have argued that supports for nontraditional students must be localized and targeted to specific participant and workforce needs. Regional cohorts of students provide IHEs with an opportunity to develop educational programs that are highly contextualized to the needs of a local community. However, cohorts are limited in their ability to provide an individualized learning experience and many researchers argue that cohort models must be flexible to allow for more personalized supports (Chisman & Spangenberg, 2005). Identifying effective strategies to provide personalized supports within a cohort model is an important area for further study.

- **Academic advising** – The literature consistently cites the lack of academic preparation as one of the most difficult barriers for nontraditional student to access and persist in higher education. Among HSIs that took part in a national survey of student engagement, level of preparation for college-level work is the attrition factor with the highest mean (ACT, 2010). Programs to support higher education transitions have integrated a variety of models of academic advising, from helping students adjust to the demands of college work to providing direct tutoring in content-specific coursework or academic writing. Effective academic advising often combines long-term educational planning to engage students as active participants in their education lives, with courses or workshops to build students skills in time management, studying and accessing basic services (Alamprese, 2005; Fein, 2012; Mathews-Aydinli, 2006; McClenney & Marti, 2006; Rance-Roney, 1995; Seymour, 2009; U.S. Government Accounting Office, 2008).

The following strategies have been identified as effective in addressing the academic needs of adult learners in higher education who are limited English proficient (Burt et al., 2008):

- Build on and develop learner motivation
- Build on learners' knowledge and experience
- Provide real-world context for literacy activities in class
- Teach specific strategies for approaching and understanding a passage
- Teach word recognition skills and alphabetic literacy
- Build vocabulary
- Create opportunities for peer-to-peer communication about written texts
- Involve learners' family members in literacy activities

Adult ECE educators who return to postsecondary education benefit from a greater alignment between their course of study and their work and career aspirations. This provides a powerful opportunity for academic advisors to motivate students to address academic issues (Dukakis & Bellm, 2006; Dukakis et al., 2007). Studies by Whitebook et al. (2008; 2010) found that adult ECE educators entering bachelor's programs have particular challenges addressing academic skills (writing, reading, math, and English) and school success skills (studying, presentations, technology). Addressing these challenges directly through advising and tutoring services were extremely important during students' first couple years in college. The nature of advising and academic tutoring changes over time and individual students build their skills, but as Whitebook et al., (2010) observed, "while the overall demand for academic tutoring may decline over time, a subset of students will likely continue to rely on its availability" (p. 11).

- **Career and personal counseling** – Adult and linguistically-isolated students often lack knowledge about college systems and do not know how to access the resources that are available to help them, whether it is how to access financial aid, transportation, or child care supports. Studies of nontraditional students, including adult learners and ELLs, have found that they are more likely to persist in higher education when they feel that there is someone on campus who is invested in their success and genuinely cares about their experiences (Booth et al., 2013; Erisman & Looney, 2007; Mathews-Aydinli, 2006; Mayer et al., 2014; McClenney & Marti, 2006; Seymour, 2009; U.S. Department of Education, 2010). Intrusive counseling and mentoring models based on proactive outreach and regular check-ins have been found to be particularly effective with high-need students, as are supports provided by bilingual staff (Chisman & Spangenberg, 2005; Gittleman, 2005; Jenkins, 2008).

Counseling, mentoring and peer networks have all been found to positively influence student persistence. While there is limited empirical research on the specific aspects of counseling that are effective with nontraditional students, orientations, student success courses, college tours and workshops and regular opportunities to check in with students across the school year have all been identified as promising practices (Comings et al., 2006; Seymour, 2009; Zafft et al., 2005). Long-term planning that connects education and career goals has also been identified as a key strategy to serve nontraditional students. As Cooper (2010) observed, "research suggests that requiring students to begin planning in these key areas—degree/credential completion, transfer, and/or career preparation—as early as the first semester, can improve chances of persistence and completion" (p. 23).

Studies of bachelor's programs for adult ECE educators in California highlight the role of counseling in student persistence and the importance of guidance that extends from the IHE to

the communities where students live and work. Programs were explicitly designed with an understanding that strengthening the ECE workforce requires a focus on counseling and guidance to assure student success in navigating the college environment. This included funding new positions at IHEs, developing partnerships with community-based organizations and new career guidance courses. Professional Development Coordinators at community colleges worked with community based referral agencies to train community-based ECE career advocates. New college liaisons were also trained to help students navigate higher education systems, and a new tool—Professional Development Educational Plan (PDEP)—was created to help participants set goals, document their educational progress and outline a course of study leading to degree attainment (Dukakis & Bellm, 2006; Dukakis et al., 2007; Kipnis et al., 2012; Sakai et al., 2014).

- **Flexibility and financial aid** – The year 4 report of the *Learning Together* study includes some significant findings on the importance of individual supports over time as participants attain their degrees and reenter the workforce. Across their entire involvement in various cohort programs, a majority of participants viewed the program’s structural features, including financial aid, flexible class schedules, and accessible class locations as very important to their educational success. Over time, these supports were perceived as more important to participants than academic tutoring, computer assistance, academic counseling, and supports for ELLs (Kipnis et al., 2013). This is significant because it suggests that participants were able to address the academic challenges they faced entering school unprepared for college-level work. Still, supports specifically designed to address life issues associated with working adults remain important for participant success. As a result of financial aid, moreover, participants who completed the program and attained their bachelor’s degree incurred less educational debt than graduates of other California private and public IHEs (Kipnis et al., 2013).

Other studies of student persistence underscore the importance of financial aid on student success in higher education, including supplemental support for books and fees, transportation costs, and childcare (Collins, 2011; Cooper, 2010; Fein, 2012; Seymour, 2009; Zafft et al., 2005). Participants in Washington’s I-BEST program, for instance, are eligible for opportunity grants covering the cost of tuition plus up to \$1000/year for incidental fees and costs associated with participation (Jenkins, 2008). Flexible course schedules and locations have long been seen as an important component of education and training programs for working adults, many of whom lack transportation and are more connected to their local communities. Increasingly, flexible delivery options, including online courses, are being targeted for working adult who are often more likely to pursue and embrace alternative pathways to education located in their communities (Chisman, 2008; Pusser et al., 2007).

Teaching and learning. The research on effective instructional strategies for adult ELLs is limited, but classroom practices that build on and support learner motivation, focus on language accuracy, include extensive reading and genre-based writing, vocabulary building, and development of conceptual and critical thinking skills have proven to be effective (Bifuh-Ambe, 2011; Burt et al., 2008; Karanthanos & Mena, 2014; Mathews-Aydinli, 2006). Dual language instruction is also shown to improve student outcomes by promoting engagement and learner self-efficacy (Whitebook et al., 2008). While there are various models of bilingual education, adult learners have specific characteristics. Adults have more transferable skills to draw upon and more lived experience to help them make sense of concepts and printed texts. Allowing students to move between their native language and English facilitates the exploration of more complex concepts and critical thinking. Faculty teaching adult ELLs can use these assets to create classroom discussions, role play and scenarios that utilize both English and the native language to improve teaching and learning (Center for Community College Student Engagement, 2010; Huerta-Macias, 2003).

Research suggests that for ELLs to be successful in postsecondary education they need to have highly developed English language proficiency that allows them to perform basic academic tasks, including active listening, note taking, reading academic texts, and writing academic papers. Language specialists often distinguish between basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP). BICS are more informal, social language skills that can often be mastered in two to three years, while CALP is a more formal, classroom-based language skill that usually takes between five and seven years to master (Bifhu-Ambe, 2011; Karanthanos & Mena, 2014). Findings of a review of the literature relevant to career and technical education for ELLs identified the following strategies for teaching adult ELLs (Huerta-Macias, 2003):

- *Integration of language and literacy development with subject matter instruction.* Language and literacy development occur when students use language authentically. Focus instruction on content that is meaningful and relevant (Rance-Roney, 1995; Rivera, 1999).
- *Bilingual and biliterate instructional staff.* Faculty and staff who speak the language are critical for program quality. Educators should be required to pass a language proficiency test (Bifuh-Ambe, 2011).
- *Nurturing, caring, and motivational environment.* Positive social climate for classroom and the learning community. Affective factors have been shown to be important to adult learners with low levels of prior schooling (Collins, 2011; Cooper, 2010).
- *Culturally responsive classrooms.* Value students' life experiences and their cultural and linguistic knowledge. These experiences provide a bridge to teach new concepts.

- *Active and collaborative learning.* Studies of adult ELLs in postsecondary education have found that students are more likely to persist when fully engaged in active and collaborative learning in high expectation settings (McClenney & Marti, 2006).
- *Ongoing professional development for faculty of Adult ELL students.* Peyton et al., (2006) also found that faculty and staff serving ELLs benefit from opportunities to meet, debrief, discuss strategies and instructional practices and engage in peer-to-peer networks.

Instructional practices, moreover, must address adult learners’ personal epistemologies about education that create tacit assumptions about knowledge, skills, competencies and how they are acquired. Such assumptions not only influence the expectations, focus and behaviors of students, but also the assumptions of instructors and administrators, and the opinions of policymakers. Education and training programs must understand that individuals will construct meaning out of their experiences and how they interpret meaning will continue to develop and change as they interact with their environment. As Urman & Roth (2010) argue, “students needed to be encouraged to construct meaning in collaboration, to relate their knowledge to their own experiences, and to see themselves as capable of finding and interpreting meaning” (p. 18). Adult learners, including immigrants and ELLs, have multiple and complex ways of knowing shaped by multiple factors, including gender, race, ethnicity and socio-economic status. As Kegan, et al. (2001) observed:

Learners in adult basic education (ABE) and English for speakers of other languages (ESOL) programs should not be presumed to construct experience with less complexity than anyone else and differences in complexity of learners’ meaning systems are not highly associated with level of formal education. (p.2)

V.III Community Level Strategies for Supporting ELLs in Postsecondary Transitions

As we have noted, adult ECE educators, particularly ELLs, share the characteristics of nontraditional students and are more likely to enter alternative, community-based educational programs than to engage more formal education pathways (Flores et al., 2012). Opportunities to improve skills through ESL classes, GED preparations, basic skills programs and other adult basic education continue to be delivered and consumed at the community level. These programs are often the first and most important step in getting adult learners to return to school.

Community-based providers of ABE and vocational training are increasingly expected to build their capacity to collaborate within networks of providers, partner with IHEs, recruit, train and retain high quality staff, build relationships with local businesses and industry sectors, integrate new instructional technologies, and improve programs to transition adult learners to postsecondary education. An aligned system of education and workforce development that serves all people begins at the community level and requires committed organizational leaders who are adept at working within broader

coalitions (Burt et al., 2008; Center for Applied Linguistics, 2010; Chisman, 2008; Chisman & Spangenberg, 2005; Estrada & DuBois, 2010; Mathews-Aydinli, 2006; Moore & Oppenheim, 2010). As Dukakis and Bellm (2006) argue:

Taking stock of what currently exists in the community, and taking the opportunity to make existing resources more responsive to the higher education needs of the ECE workforce, will create a more efficient system overall. (p. 21)

The literature has identified a number of strategies to build the capacity of community-based providers. Successful programs are reassessing their curricula and adopting common standards to ensure their offerings are aligned with statewide system goals. New processes and tools to assess participants' skills and education and career goals are proving valuable in placing students in the right classes and providing them a pathway toward additional training or educational opportunities. Successful community-based programs are beginning to connect more deeply with businesses to provide students with real world experience, job placement services and content that is relevant to high-demand vocational opportunities (Burt et al., 2008; Center for Applied Linguistics, 2010; Chisman, 2008; Chisman & Spangenberg, 2005; Mathews-Aydinli, 2006; Moore & Oppenheim, 2010). Innovative CBOs are building their expertise in the specific needs of adult workers in the community and the demands of its local economy. Using this expertise to advocate for supportive public policy is an important strategy for strengthening both systems and individual organizations (Rodriquez et al., 2009).

Successful community-based providers of ABE are flexible in course schedules and class locations to be responsive to the needs of students. Instructional practices and expectations for students must be realistic given the challenges many adult learners face in managing their time. Similar to IHEs, community level providers are more successful when they integrate supports to build motivation and engagement among participants and ensure that they have the right information to connect with other resources in the community (Burt et al., 2008; Center for Applied Linguistics, 2010; Chisman, 2008; Estrada & DuBois, 2010; Moore & Oppenheim, 2010). By building their internal capacity to provide comprehensive services for participants, community organizations are more likely to keep participants on track.

Strengthening community capacity to support adult ELLs and other nontraditional students build basic skills and transition to higher education will require diversified funding strategies (Rodriquez et al., 2009). Relying on patchwork funding from multiple public and private sources is challenging. Each source comes with its own set of requirements, restrictions and expected outcomes and each grant has a specific cost and benefit to the organization that must be understood and balanced in a way that

supports strategic goals. To effectively tap these funding streams, organizations have to build their capacity to collect data, articulate community impact, engage in strategic partnerships, engage in networked learning communities and market and promote their organizations (Burt et al., 2008; Center for Applied Linguistics, 2010; Estrada & DuBois, 2010; Moore & Oppenheim, 2010).

Voices from the Field – Strategies to Support Adult Learners and ELLs

Leaders in the ECE field in Massachusetts, including representatives from IHEs, who participated in CAYL focus groups identified the following strategies to better support adult learners and ELLs to access and persist in postsecondary education:

- ELLs and adult learners not only need academic supports to succeed in higher education, but emotional supports based on strong relationships and connection to the broader community, with mentors and advisors following a case management model.
- Build and strengthen the capacity of leaders in community programs to mentor and guide educators toward a career pathway, as well as provide outreach to ELLs and their families about career opportunities.
- Align ABE and ESL coursework with ECE content. Building competencies in quality ECE practices must occur as individuals are building their proficiency in English.
- Bridge gaps between CEUs, certification programs and degree programs to create a more transparent and sequenced process to advance along a career pathway.
- Develop a statewide system to translate foreign transcripts into credits leading to an associate’s or bachelor’s degree.
- Provide mechanisms for translating prior learning (including CEUs, demonstrated competencies and learning portfolios) into college credit.
- Develop statewide articulation and credit transfer policies.
- Develop welcome centers and workforce training centers at IHEs to coordinate supports for immigrant and ELL learners. These programs should provide translation services to assist students with admissions and financial aid.

V.IV Personal Strategies to Support Postsecondary Success

Adult ELLs entering postsecondary education are diverse, with varying educational backgrounds and goals and expectations for their education. Such differences affect their readiness for post-secondary coursework and the varying pathways in which they enter postsecondary education (Mathews-Aydinli, 2006). Diverse adult learners also bring with them identities that can play a significant role in their educational trajectory and ability to persist in postsecondary education (Reddy, 2012). Rodriguez et al. (2009) observe that, “adult English language learners bring to programs complex identities and skill sets that are based on a number of factors, including age, gender, ethnicity, cultural background, sociopolitical position, language and literacy, desire to learn English, and opportunities to use English outside of class” (p. 2). To be successful as students in postsecondary education, adult learners have to redefine their identities as workers, parents and caregivers, and develop a new identity as a student within a new social/educational setting (Reddy, 2012).

Research on persistence of nontraditional students is fairly consistent in findings on the importance of learner motivation, self-efficacy and engagement to success in higher education. Nontraditional students are much more likely to feel isolated and detached from the broader college community and thus more likely to leave college when they experience failure or self-doubt. Lack of academic preparation and gaps in education are key factors affecting learner confidence and among the most significant barriers facing working adults returning to school. Moreover, adult learners who do not feel supported by their families or their employers face even greater hurdles in managing the stress of being a student (Collins, 2011; Cooper, 2010; Reddy, 2012; Whitebook et al., 2013). As Bergman et al., (2014) observed, “Educational aspirations, institutional responsiveness, and familial encouragement play significant and positive roles in helping adult students remain enrolled and graduate” (p. 93).

As we have seen, IHEs have responded to these challenges by integrating a variety of supports in instructional practices that provide adult students with needed services and build their motivation and engagement as learners. However, it is clear that many situational and financial barriers facing individual students can only be addressed outside the sphere of education. Nontraditional adult students who integrate a strong goal oriented identity—work ethic, determination, focus—with a strong academic identity—metacognition, critical and analytical thinking, learning strategies—will be more successful and better prepared to maneuver through the challenges of postsecondary education (Cooper et al., 2014; Moore & Oppenheim, 2010; Reddy, 2012). It is not surprising, then, that most programs designed to help nontraditional adult learners transition to higher education have relied on pre-enrollment assessments to determine participants’ social, emotional and academic readiness to enter college (Rademacher et al., 2001).

Adult ELLs who take the step to engage in adult basic education to build their skills to enter college with the goal of attaining a degree to improve their long-term economic standing are following the lead of prevailing policy messages—work hard, aspire to a profession, and go to college. These messages, however, tend to ignore the challenges these individuals face. Adults who have to delay entry to college or take classes intermittently to balance family, work and life responsibilities have a much more difficult time developing the learned behaviors necessary for sustained success in higher education. As many researchers have pointed out, the metaphor of a seamless pathway to postsecondary education is somewhat of a myth and more difficult to achieve in practice given the often disjointed education and work experiences of many working adults. Understanding those experiences and incorporating the voice of adult students in policy debates is vital in any efforts to create inclusive, open, and supportive educational opportunities.

V.V Successful Strategies – A Synthesis

Across the varied literature on career pathways and postsecondary transitions, there is significant consistency in the strategies and practices implemented to improve retention and persistence of

nontraditional adult students, including ELLs, in higher education. While the empirical evidence of the effectiveness of these interventions is limited, descriptive evaluations of program components, participant and faculty perceptions of program efficacy, and positive program outcomes are elevating certain practices and program models. When possible, strategies and practices must be implemented comprehensively rather than piecemeal to ensure that there are sufficient wrap-around supports for learners at all levels across statewide education and workforce development systems. Based on the literature reviewed for this study, building the capacity for systemic change requires the following strategic activities and best-practices:

Table 5: Building capacity for systemic change

Leadership Commitment	Institutional and organizational change is dependent upon strong commitment from leaders at all levels of statewide education and workforce development systems. Committed leaders are more likely to foster the cross-agency/interdepartmental coordination needed to align systems of adult basic education and higher education. Leadership at both the state and IHE level is required to implement policies that are effective in moving more adult learners and ELLs through degree completion, including transparent articulation and transfer agreements, credit for prior learning and competency-based education initiatives. Research is clear that building commitment among all stakeholders is essential for strategic resource allocation and public policy development.
Partner-driven initiatives	Effective programs to support adult ELLs enter and persist in higher education are partner-driven and supported by broad coalitions of community-based organizations, businesses, government agencies and institutions of higher education. Specific outcomes for ELLs must be integrated into the formal outcome goals of individual partners with adequate resource allocation and incentives to achieve those goals.
Improved data use	Data analysis provides the foundation for identifying gaps in existing education and workforce development systems and tracking the progress of students through occupational training or academic programs. Research is beginning to build a strong evidence base for supporting longitudinal data systems that track participants over time through workforce development and education systems and into the workforce. Such data are essential for building commitment, engaging stakeholders, targeting scarce resources and continuous program improvement.
Student engagement	Research suggests that nontraditional students, including adults and ELLs, entering postsecondary education often struggle adjusting to college life. Research suggests that these students are most successful when they feel connected to a school community, valued for their contributions and supported in their development as students. Career educators must focus on both cognitive development and emotional response. Focusing on learners' emotional response toward education legitimizes how a learner understands themselves, their world and the relationships between them. Engaging adult learners in a holistic way is more likely to build on their intrinsic motivations to persist through degree attainment.
Comprehensive supports	To address the institutional and individual challenges facing nontraditional students in higher education, comprehensive academic and non-academic supports must be targeted to address the specific needs of individual learners. Supports include:

	<ul style="list-style-type: none"> • cohort programs and peer learning networks • counseling - career, academic and life planning • academic advising and tutoring • flexible options - alternative class schedules, locations and delivery methods • financial assistances – direct aid for tuition and expenses, grants and work study
Teaching and learning	<p>Research supports instructional practices that build on students’ inherent motivations and life experiences to improve academic outcomes for adult ELLs, including:</p> <ul style="list-style-type: none"> • dual language and native language education programs • bilingual faculty • curricula relevant to students’ long term career and life goals • prior learning assessments and individualized learning portfolios • competency-based education • high expectations • culturally-responsive classrooms • active and collaborative learning

VI. Recommendations

Informed by the research findings presented in this report, the following considerations are offered for stakeholders and policymakers engaged in efforts to improve the quality of the ECE workforce and expand postsecondary opportunities for adult ELLs and other nontraditional students.

1. Link educational opportunity to economic development. It is clear that economic development is increasingly depended upon educational opportunity and attainment for all adults who are in or trying to enter the labor force or who are in the labor force and stuck in low-skilled, low-paid positions. Most projections suggest that within a few year over 60% of all jobs will require a postsecondary degree, but among those workers who will shape the U.S. labor force—nontraditional and immigrant adults—educational attainment is low (Foster, 2012). Leaders across the spectrum from the President down to the community-level are articulating a vision of opportunity that removes deep seated barriers to higher education for all adults (Byrd et al., 2014). Such reforms will benefit the U.S. labor force broadly and are not limited to early education.

The potential benefits of this goal to both individual workers and to society as a whole are compelling. Data suggests that individuals who attain postsecondary degrees will have more opportunities to advance within their careers and secure jobs with family-sustaining wages and benefits. More broadly, the nation will benefit from a more productive workforce, increased tax revenue, and fewer demands on public services (U.S. Department of Education, 2010).

The ECE workforce is a significant economic driver for the Commonwealth with an estimated 45,000 workers who provide direct care to young children. Since 1990 this segment of the workforce grew by

nearly 70% and given the current push to expand early education opportunities for all children projections point to continued growth (Park et al, 2014). When we consider that these numbers do not include faculty and staff at ECE programs at IHEs, professionals engaged in policy or professional development, state EEC workers and staff of community-based organizations that support early education programs, the actual size and economic impact of the field is much greater. A career pathway for the field must acknowledge the real opportunities for career advancement beyond working directly with children.

2. Support compensation parity for ECE educators. It is increasingly clear that the broader goals for professionalization of the ECE workforce will not be met without compensation reform. It is also clear that compensation reform will not happen without policy interventions at both the federal-and state-levels. This is particularly true for educators working in center- and family-based ECE programs serving the Commonwealth’s low income and diverse children and families. With the growing demand for an educated workforce, those workers with advanced degrees—particularly bilingual workers—will have more opportunities to progress within the education field and across other occupations. If early education programs want to retain high quality educators they will need to provide living wages that are comparable to other fields that require advanced degrees. It is telling that IHEs running educator preparation programs cannot access workforce development funds through the Department of Labor and Workforce Development because the ECE field does not support living wages for its workforce. Addressing compensation in the field is essential to any effort to professionalize the field.

3. Use local and state data to inform improvements in policy and practice. Studies of effective bridge and transition programs highlight the importance of data-informed decision making in building consensus, targeting supports to the specific needs of adult learners and engaging in continuous program improvement. Innovative programs use data on a participant level to more effectively place students in classes and target supports to improving participants’ success transitioning to postsecondary education. Aggregated program data help staff identify gaps to more effectively move participants to higher levels of training and education. When programmatic data are integrated into larger statewide workforce development and education data sets that track student transitions across multiple programs, moreover, larger trends, and needs on a regional and statewide level can be identified and addressed (Chisman et al., 2010; Engle et al., 2012; Joyce Foundation, 2013; McDonnell et al., 2014; Price & Roberts, 2010).

Understanding local and regional needs and being able to target resources more effectively is critical given current limits of state budgets. As Wilson (2014) notes:

While the need for more funding is clear, existing, and future approaches must be wisely targeted to make the most of limited resources. By taking into account the characteristics of an area's LEP population, interventions can be tailored to the specific needs and assets of a region's LEP workforce. (p. 27)

Accountability metrics must be based on outcome data that tracks progress along a specific career pathway over time. Given the broader goal to move participants through to degree attainment, outcome measures that only focus on year-to-year benchmarks are limited in value. Longitudinal data collection must shape how limited resources are invested to scale existing programs, create new programs and improve the practices of faculty and staff who work with nontraditional adult learners (Chisman et al., 2010; CLASP, 2014). Effective sharing of data between community partners, IHEs and state agencies, moreover, is critical in strategic communications that engage stakeholders in collaborative work. Without more robust data sets it will be difficult to assess the current needs and demands for services, or to make the case for how much additional funding is required or how it should be used (Price & Roberts, 2010; Toso et al., 2013).

4. Engage stakeholders in collaborative work. One of the more consistent findings across the literature on postsecondary transitions and success for nontraditional adult students is the need for strong collaborative work across all stakeholders engaged in a field. Alignment across ABE and higher education to ensure consistent content standards, transition services, and pathways to educational opportunities that help adult workers achieve long-term career goals are dependent upon partnerships and collaborative effort across all levels. As we have seen in the literature, state policymakers, and private funders have some leverage to incentivize partnerships through requirements placed on public and private funding. Often, effective collaboration that results in innovative program designs emerges from the efforts of local champions and leadership commitment to a specific goal. To the extent possible, state, and regional institutions should begin to scaffold supports around these champions (Chisman & Spangenberg, 2005; Comings et al., 2006; Engle et al., 2012; MPI Associates, 2007; Pusser et al., 2007; Zafft et al., 2006).

Moving more ECE educators to postsecondary education at the bachelor's level will require close collaborations between IHEs, state agencies, and the field to recruit program participants, develop curricula, relevant practicum experiences and, ultimately, labor market payoffs in terms of higher compensation and opportunities for career growth. Early education providers, in particular, will need to work closely with IHEs to support workers who want to pursue higher education through flexible work schedules, financial assistance, and active supervision. Research suggests that such partnership-driven efforts improve quality, strengthen the capacity of regional education and workforce development systems and built trust (Engle et al., 2012; Jenkins, 2008; Miao, 2012).

5. Make addressing the needs of nontraditional, adult ELLs students a priority. State education and workforce development systems must focus their strategic efforts on supporting working adults who are ELLs. Fully realizing the benefits that this population can provide to our economic, social, and political life is largely dependent on how fully they are integrated into American life. For the country's growing immigrant population, English proficiency is considered to be a leading indicator of integration, educational attainment, employment and earnings, and the academic success of children. A recent report from the National Skills Coalition makes it clear that addressing skill gaps must be a core piece of any immigrant policy. As a result, it is calling on state and federal leaders to increase the capacity of educational and workforce development systems to address the demands of adult ELLs and local employers to expand bridge programs and strengthen partnerships with local community-based immigrant organizations that work with and understand local communities (Unruh & Bergson-Shilcock, 2015).

6. Build on existing policy initiatives to strengthen education and workforce development. Given current funding constraints, stakeholders engage in efforts to support degree completion for ECE educators will have to creatively address gaps through existing policy initiatives. Practitioners in the early education field must be engaged in ongoing statewide efforts to reform ABE and transition programs designed to create pathways to higher education to ensure there are viable options for the ECE workforce. Advocates engaged in pushing systemic change should explore various options for increasing funding and incentivizing IHEs to create more programs for adult ELLs. Options include changes to performance-based funding models to include serving ELLs and ECE educators as a high-need sector and thus eligible for premium funding. Policymakers should explore how existing funding streams, including the Workforce Training Fund Program supported by a surcharge on unemployment insurance tax, can be better targeted to support ELLs working toward employment-related degree programs. Currently, the program raises about \$20 million a year that is used to support ABE and ESL programs.

There may be opportunities to leverage existing policy initiatives through the recently formed Workforce Skills Cabinet. The cabinet, comprised of the secretaries of Labor and Workforce Development, Education and Housing and Economic Development, was established by Governor Baker on February 26, 2015 to align education, jobs, and workforce training. With a specific focus on building a coalition of advocates, businesses, government agencies, and community groups to address the gaps between labor market needs and the skills of working adults, the cabinet is well positioned to move the Commonwealth toward a more coordinated effort and scale existing programs that are working for adult learners (Schoenberg, 2015). The ability to influence the work of a cabinet that is just beginning to set an agenda is an important opportunity for the field.

7. Support innovation and strong networks between 2-year and 4-year IHEs. A key challenge to the creation of viable pathways to baccalaureate degrees is Massachusetts’s decentralized higher education system. Massachusetts’s higher education system continues to struggle to create strong networks between 2- and 4-year IHEs and improve transitions of community college students to bachelor track programs in 4-year institutions. Moreover, despite increasing enrollment of adult and nontraditional students, including ELLs, Massachusetts’s IHEs continue to struggle in ensuring all students persist through degree completion. Recent studies of the capacity of IHEs to serve ECE educators, moreover, found significant gaps in credit transfer between institutions despite articulation agreements and misalignment between content taught in preparation programs and EEC core competencies (LaChance et al., 2010; Oldham et al., 2011).

Meaningful progress in creating seamless pathways for ECE educators to move from CDA to associate’s degrees to baccalaureate degrees to address the professional needs of the workforce requires greater collaboration between all IHEs in the Commonwealth. Statewide leadership is required if Massachusetts is to move forward with the following strategies critical to viable career pathways:

- Transparent statewide articulation and credit transfer agreements
- Viable system of prior learning assessments—based on validated evidence of learning—that lead to college credits portable across institutional borders
- Competency-based models of education and training that reflects ECE education as an occupation based in practice
- Stackable credential and degree programs that provide clear and meaningful steps toward a postsecondary degree
- Comprehensive bridge programs that support nontraditional students’ transition to 2-year IHEs and between 2-year and 4-year IHE programs

8. Scale existing programs that have some evidence of effectiveness. Current programs to support adult ELL ECE educators’ transition to postsecondary education and attain higher education degrees are providing strong evidence that support models can work in Massachusetts’s IHEs. The Massachusetts Department of Higher Education initiated the Bridge to College program to target academic and social service supports for low-income and low skilled adult workers to transition to postsecondary education. One program run by Jewish Vocational Services and MassBay Community college has a 90% completion rate, with 88% of participants enrolling in college (Massachusetts Department of Higher Education, 2014).

Successful programs serving ECE educators in higher education struggle to sustain themselves through patchwork funding and are often dependent upon dedicated faculty and staff. Across the

Commonwealth, small college programs are providing ECE educators supports in the form of mentors, advisors, dual language classes, and peer supports to improve persistence toward credentials and degrees. Efforts should be made to scale these programs to serve more students and strengthen networks so that the institutional knowledge generated by these programs is captured and shared broadly to influence replication. Public and private funding can be targeted to address regional demand for programs and, when possible alternative funding sources, such as Title V funding for HSIs, should be identified.

9. Explore options for creating a Birth-to-Eight (B8) licensure system for ECE educators. Given the limited capacity of Massachusetts’s IHEs to serve the growing demand of ECE educators to attain associates or bachelor’s degrees in early education, coalitions of IHEs, ECE providers, and regional EPS networks have been pushing for a Birth-to-Eight licensure system to create credential pathway at the associate, baccalaureate, and graduate level. The idea is for a B8 system to create a clear pathway to licensure that builds on new bachelor’s programs developed over the past 10 years that align more closely with EEC core competencies.

Advocates argue that a more structured system would incentivize IHEs to create B8 programs to address bottlenecks at the associate’s level and provide clear transfer options to a bachelor’s degree program. By linking EC scholarship dollars to a B8 system, EEC would be able to ensure greater quality in preparation programs by excluding IHEs without adequately trained, full-time faculty. A B8 system, moreover, could streamline data collection on ECE educators as they move through a degree-bearing professional development system (Six Reasons to Bring Together EEC & a Birth to Age Eight Licensure System, 2014).

10. Articulate and pilot a career pathways program specific to existing ECE educators. Given the needs of the field for a viable system to move existing ECE educators to higher levels of education, it is time for stakeholders and policymakers to articulate and pilot a career pathways program that addresses needs of the diverse workforce. There is emerging consensus in the literature on the design elements and key features that need to be part of a viable career pathway to move adult ELLs through to degree completion (CLASP, 2014).⁵ Such pathways models have worked in other field, such as healthcare and manufacturing, that have successfully moved its lowest skilled and lowest paid workers—many of who are immigrant and ELL workers—to professional certificates and postsecondary degrees. Significantly, these programs often align their education and training efforts to existing industry career ladders, providing workers a clearly articulated pathway to educational attainment that has payoffs in

⁵ Massachusetts is one of ten states that are contributing members of the *Alliance for Quality Career Pathways*, a partner-drive initiative coordinated by the Center for Law and Social Policy (CLASP) and funded by the Joyce Foundation, the James Irvine Foundation and the United Way.

terms of career advancement and higher salaries (Chisman & Spangenberg, 2005; CLASP, 2014; Estrada & DuBois, 2010; Jenkins & Spence, 2006; Moore & Oppenheim, 2010; Sakai et al., 2014).

VII. Conclusion

New immigrants and their children are playing an increasingly important role in our nation's economic, cultural and social development. Given the nation's aging population and declining fertility rates, new immigrants and their children will be the primary drivers of economic growth in the coming decades. As a recent report by the Bipartisan Policy Center (2014) notes, "immigration will remain critical to economic prosperity and integral to our national security. The nations that most effectively harness the energies of young, productive, and creative workers will emerge as the world's most powerful and influential states" (p. iv). Diverse families and their children are changing our educational systems across the continuum from early education to higher education. For these individuals, English proficiency, and educational attainment are essential stepping stones to greater economic opportunity and civic engagement.

These realities are shaping efforts to support the professional growth of the ECE workforce and the quality of early education for all children in the Commonwealth. Building a professional workforce that is both culturally and linguistically competent is critical to ensure that all children have access to high-quality early education that support success in school and life. Current estimates place the number of ECE educators in the Commonwealth who are ELLs at 13% of the total workforce, and many suggest this number may be higher due to the lack of data on workers in family-based settings. Research supports the contention that multi-lingual proficiency is an asset for ECE educators, particularly for improving educational and social outcomes of dual language learners and their families. Providing opportunities for the current workforce—many of who come from the communities where they work and share the cultural and linguistic competencies of the children and families they serve—to continue their education in a postsecondary degree program can leverage assets and competencies that already exists in the workforce.

Creating robust and sustainable pathways for Massachusetts's culturally and linguistically diverse early education workforce to access higher education to improve their knowledge and skills is about improving outcomes for all children in the Commonwealth. It will also help address long-term workforce needs and strengthen the capacity of the field to support increasingly diverse children and families. Moving more underrepresented adult workers, particularly immigrant and ELLs, toward higher levels of education is an investment in the future of America. The benefits will accrue to both individual workers and society as a whole. ECE educators, in particular, occupy an important societal

role in their work with the youngest children and deserve broad supports within workforce development and higher education systems.

Efforts to engage stakeholders around a shared goal, strengthen and align ABE options, and transitions to postsecondary education, build regional partnerships and better support nontraditional students in Massachusetts's IHEs are beginning. Studies have shown that there are significant gaps in the ability of our higher education system to support the expansion of new programs to serve the ECE workforce. Advocates engaged in systemic change should explore various options for increasing funding and incentivizing IHEs to create more programs for adult ELLs. As the Commonwealth moves forward with efforts to strengthen educational requirements for the workforce it is critical that new programs to support these workers emphasize access, throughput, and quality. Ultimately, ensuring ECE educators have higher education credentials will not improve outcomes for young children unless preparation programs provide quality instruction and meaningful field experiences that build off of the assets embedded in the existing workforce.

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Appendix I: Multi-state initiatives to improve career pathways and postsecondary transitions

Initiative	Scope	Components
<p>New England ABE-to-College Transition Program – Launched in 2000</p>	<p>6 New England States</p> <p>Includes 25 transition programs partnering with over 40 IHEs</p>	<p>Nellie Mae Educational Foundation demonstration project with the goal to help adult learners who have obtained their GED to enroll and succeed in college. Established partnership with the New England Literacy Resource Center.</p> <p>Participants were mainly working adults, female, English speaking, white, low income, and high school graduates on public assistance.</p> <p>Key interventions: Comprehensive college transition model – bridge the gap between levels of academic work required to obtain a GED and skills required for postsecondary education. Supports included academic skill building (math, writing, and computer skills); career exploration counseling; college advising; and study and life skills development.</p> <p>Core strategies: 16 week college prep program; cohort model; mentoring; collaborative relationships within IHEs to effectively advocate for and deliver services; strong partnerships between ABE and colleges; knowledgeable and resourceful staff.</p> <p>Outcomes: Longitudinal study of participants found 2/3 of participants enrolled in higher education after transition program; transition program completers more likely to enroll in college than non-completers; higher Accuplacer scores among participants; participants who engaged more fully in support programs had more positive overall outcomes; 30% of program dropouts were ELLs.</p>
<p>Bridges to Opportunity – Launched in 2003</p>	<p>Multi-state: CO, KY, LA, NM, WA, OH</p>	<p>Multiyear effort by the Ford Foundation to change state policies to improve educational and employment outcomes for economically and educationally disadvantaged adults. Initiative focused on influencing state education and career pathways policies.</p> <p>Key Interventions: States received 100K planning grants then 100-200K/year for 5 years; Ford also leveraged investments by supporting the work of advocacy organizations in states to promote initiatives; expansion of career pathways programs in participating states.</p> <p>Outcomes: States implemented a variety of career pathway programs to improve access/quality of postsecondary education; stakeholder engagement and coalition-building; many states reported higher levels of college enrollment and completion among transition program participants; some states, such as WA, reported higher earnings among program completers; expanded financial aid for students in</p>

		participating states.
Achieving the Dream – Launched in 2004	National Includes 200 IHEs across 35 states	<p>National initiative started by the Lumina Foundation and founding partners—American Association of Community Colleges, Community College Leadership Program at the University of Texas, Community College Research Center at Columbia University, JBL Associates, Inc., Jobs for the Future, MDC, MDRC, and Public Agenda.</p> <p>National Reform Network including 200 IHEs in 35 states broadly focused on multi-level comprehensive reform to improve student success in community colleges. State initiatives focused on issues of college readiness, community engagement, student centered supports, institutional leadership, technology and workforce development.</p> <p>Key interventions: Changing culture of IHEs to understand and use data more effectively, particularly in relation to certain subgroups of students. Most common support strategies for students across schools include, tutoring, supplemental instruction, advising, success courses and learning communities.</p> <p>Outcomes: Outcomes varied by state, but included improvements in how community colleges use data and systemic changes to programs, services and instructional practices; overall outcomes for students remained unchanged, with modest improvements in course completion; most programs implemented remained small in scale. Successful schools had similar characteristics: focus on specific student subgroups, institutional learning, and targeted professional development for faculty and staff.</p>
Breaking Through – Launched in 2004	Multi-state: KY, MI, NC, TX, and Native American Tribal colleges in 5 states. Expanded to 22 states	<p>Initiative started with Charles Steward Mott Foundation grant to fund partnership between Jobs for the Future and the National Council for Workforce Education.</p> <p>Developed to promote and strengthen the efforts of community colleges to move low-skilled adults learners prepare for, persist and succeed in degree completion. Initiative designed to “break through” the barriers where adult learners get stuck in ABE, remedial education and college readiness.</p> <p>Core strategies: Accelerated learning (innovative use of assessment tools, restructured curricula, targeted instruction, contextualized coursework, and alternative delivery methods); comprehensive support services (easily accessible academic, financial, and social supports targeted to address risk factors); labor market payoffs (restructure curricula and learning to align with workforce needs); alignment of programs for low skilled adults (reorganize college programs and connect to external ABE programs).</p> <p>Outcomes: Overall outcomes included greater alignment of state</p>

		<p>systems, expanded supports for students, deeper partnerships between IHEs and businesses, and greater capacity for policy development. Limited evaluations of state programs found nearly 80% of participants completed their programs and entered career pathway; among unemployed students, 78% found employment after program; nearly 50% of participants who started in 2006 earned a certificate, 14% earned associates degree; 97% of participants working in career that was part of their pathway program.</p>
<p>Shifting Gears – Launched in 2007</p>	<p>Multistate: IN, IL, MI, MN, OH, WI</p>	<p>Launched by the Joyce Foundation, the initiative provides financial support, leadership and management coaching, technical assistance, formative evaluations, communications support.</p> <p>Core strategies: Using data; pursuing policy change; stakeholder engagement; strategic communication.</p> <p>Collaboration and coordination among state agencies and stakeholders is a key element of the initiative. Many of these states leveraged their engagement in Shifting Gears to support their career pathways programs.</p> <p>Outcomes: Improvements in statewide data systems; greater engagement of stakeholders, including policymakers; strengthened capacity for statewide policy development.</p>
<p>Access to Success – Launched in 2007</p>	<p>22 state higher education systems</p> <p>Includes 312 IHEs serving 3.5 million students; 20% of all students attending public IHEs</p>	<p>Launched by the Education Trust’s National Association of System Heads (NASH) to increase the number of college graduates and ensure higher rates among nontraditional students.</p> <p>Focus on data collection and progress monitoring, particularly for students formerly not included in postsecondary data sets. Given connection with NASH, initiative focused on institutional leaders and their role in ensuring cross-institutional support and culture change.</p> <p>Core strategies: Networking and cross-system collaboration; developmental education reform; leading indicators project; delta cost project; goal mapping.</p> <p>Key interventions: Localized in-system networks and reform (sharing of best practices, peer-to-peer coaching, transfer mapping, and acceleration programs); comprehensive supports (cohort models; small classes; advisors & guidance; tutoring; early warning systems; course redesigns; learning communities; orientation classes, etc.).</p> <p>Outcomes: Midterm reports found enrollment and degrees conferred increased, primarily among African-American, Latino, Native American, and low-income students; access gaps among 2-year IHEs eliminated and cut in half among 4-year IHEs; improvements in graduation rates greater among 4-year IHEs than 2-year IHEs, but</p>

		gaps still exist.
Accelerating Opportunity – Launched in 2011	Multi-state: AR, GA, KY, KS, IL, MS, LA \$15 million initiative	<p>Launched through a collaborative effort between Jobs for the Future, Washington State Board for Community and Technical Colleges, the National Council for Workforce Education, and the National College Transition Network to change how ABE is delivered within states. Initiative designed to connect the pieces of the current system—ABE, developmental education, and postsecondary education—to ensure alignment and acceleration through systems.</p> <p>Initiative builds on the success of Breaking Through and Washington’s I-BEST program. Goal is to accelerate the movement of low-skilled adults into higher wage jobs by combining ABE and career and technical training into an integrated pathway with comprehensive supports.</p> <p>Core Strategies: Include integrated pathways; scale and sustainability of successful programs; institutional culture change; comprehensive student supports; stakeholder engagement; professional development for faculty and staff; state and technical assistance to college; policy development and advocacy; leadership and staff commitment.</p> <p>Key Interventions: Academic advising (assessment and placement, tutoring, and online learning); non-academic advising (engagement, connectedness, self-confidence, self-advocacy, and orientations); career services (career goal assessment and planning, work readiness, and job placement); financial services (aid services and resources); social service and counseling (personal counseling, child care resources, transportation, and housing assistance).</p> <p>Outcomes: Initial evaluations found 42 colleges in 5 states began intensive efforts to implement AO model; colleges experienced challenges in aligning pathways programs to labor market needs and student interest; most successful programs build off of partnerships with workforce agencies and CBOs; improved support for policy development.</p>

(Table developed from descriptions on initiative websites and Engle et al., 2012; Gittleman, 2005; Jenkins, 2008; Jobs for the Future, 2010; Joyce Foundation, 2013; Mayer et al., 2014; McDonnell et al., 2014; Price & Roberts, 2011; Roberts & Price, 2009; Schanker & Taylor, 2012).



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