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The Department of Early Education and Care

State of Massachusetts
Strategic Action Plan
2020-2025

Executive Summary

About the Department of Early Education and Care

The Massachusetts Department of Early Education and Care (EEC) was formed in 2005 when two separate state agencies merged their early childhood offices - the Office of Childcare Services (formerly at Department of Children and Family Services) and Early Learning Services Office (formerly at the Department of Elementary and Secondary Education). The first state in the country to focus a department's work wholly on early education and care, Massachusetts was pioneering in its commitment to equitable access to high quality services for its youngest residents.

While the Department historically emphasized the importance of childcare as a workforce support and early learning as a way to advance quality early education outcomes, it has evolved over the years into an agency that works to improve outcomes for children, youth and families who need out of home care and early learning interventions of all kinds. Through licensing of a variety of programs for children and youth, investments in family support at the community level, provider training, qualifying educators, and direct financial assistance to families, the Department seeks to ensure that high quality care and education programs are available so that Massachusetts children, youth, and families can access opportunities to learn and thrive.

The majority of this work is directed toward meeting the needs of children living with their families, but it is important to note that the Department also monitors programs and collaborates with other state agencies that serve children and youth across the state who live outside of their family homes.

Last year, investment in EEC constituted nearly $680 million, primarily from federal and state public funding streams. The department employs over 200 people across one central and five regional offices, which work collaboratively with public and private partners to ensure the safety and quality of a variety of early education and care programs, including family and center-based childcare, preschools, family support, residential (e.g. group homes, residential schools) and placement (e.g. foster and adoption).

EEC provides support to children, youth, and families through multiple avenues:

1. Financial assistance for families to help them afford quality education and care for their children. In FY19, $572 million was dedicated to financial subsidies to underwrite the cost of attending programs for approximately 78,121 children ages 0-12 in families who needed it most.
2. Licensing and oversight to approximately 8,700 public and private organizations serving children through the early years, before and after school, and through residential and placement services. Each of these entities requires annual licensing visits, monitoring, support, and technical assistance provided by the Department.
3. Program supports like a quality rating system in which 5,000 early education and care programs participate. EEC assists those entities with training, support, and additional resources to advance their quality.

4. Targeted initiatives for programs to focus on family engagement at the community-level, partnerships with local school districts, and efforts to build the early education and care support infrastructure required at the local level for families to thrive.
5. Support to thousands of teachers through professional development requirements and activities, credential and competency standards, background record checks, and system-level partnerships with higher education institutions, with whom it provides scholarships to support degree attainment.

About this Plan

This action plan articulates a vision for a system of equitable access to high quality early education and care, with strategies that will be prioritized for action through 2025.

The process to develop this plan began in October 2019 and was timed with the appointment of the state's 5th Commissioner of the department. The Board of Early Education and Care charged the new Commissioner with developing a strategic action plan that would direct the Department's leadership for the state for the next five years.

Planning was deeply grounded in community engagement, including the following core activities:

- A series of two 'listening tours'; the first of these drew over 500 providers, educators, partners, and families. The second drew hundreds of returning participants as well as new constituents eager to hear about the direction of the agency.
- A survey and listening tour focused exclusively on Residential and Placement programs licensed by EEC
- A far-reaching survey - with responses from over 700 participants, representing 11,000 voices
- A 'cost of quality' survey and webinars with over 300 center based early childhood, out of school time programs, and family childcare homes
- Workshops with higher education stakeholders and expert advisors to build an operational plan for EEC's new vision for quality
- Engagement with the Massachusetts Partnership for Infants and Toddlers (MPIT) to hear directly from families and communities
- Invitation to the public to submit any type of document for consideration in planning; subsequent review of over 100 documents

Community input was paired with internal and external research to articulate current needs, opportunities, best practices, and lessons learned from past efforts.

We understand the landscape is continually changing in ways hard to predict. We view this action plan as a living document - one that we will all shape, together, in the coming years. It is intended to serve as a road map whose navigation will be conducted collectively by all of the stakeholders engaged in this work across the Commonwealth.

To all of the constituents who have attended sessions, written us, or responded to surveys - your partnership has resulted in a plan that truly belongs to all of us. We could not have built this vision without you.

Thank you for helping us activate these strategies in way that is reflective of your expertise, and in dedication to our shared vision on behalf of children, youth, and families.

The Case for Early Education and Care

Early education and care fuels social, academic, and economic opportunity for children and their families.

With the benefit of a quality early education, children's lifelong potential is improved, as well as that of their families.

There are decades of research in early education, human services, psychology, neuroscience, biology, and related fields regarding healthy child development, what can derail it, and what we can do to promote or restore it. According to a synthesis done by the Harvard University Center on the Developing Child (2016), the scientific story of child development research can be boiled down to three core concepts:

1. Relationships with caring, responsive adults and early positive experiences build strong brain architecture for children
2. Significant stress from ongoing hardship or threat (e.g., exposure to violence, extreme poverty, or maltreatment) disrupts the biological foundations of learning, behavior, and health, with lifelong consequences
3. Providing the right ingredients for healthy development, including protective factors that can counterbalance the effects of adversity *from the start* produces better outcomes than trying to fix problems later (pp. 7-12)

The positive impacts of quality early care and education among children are broad, driving success in school and in life (The Heckman Equation, 2020). A large body of social science research shows that high quality early childhood programs improve children's academic and social skills, including documented positive effects on cognitive test scores and school readiness, as well as on attentiveness, motivation, self-control, and sociability. (Cunha et al, 2006; Almond & Currie, 2011; Duncan & Magnuson, 2013; Elango et al, 2016; Heckman et al, 2016; Havnes & Mogstad, 2011; Campbell et al, 2014).

Consequently, when children participate in high-quality early childhood programs in the critical ages from birth to five when their brains are developing, they are more able to use and convert the knowledge they gain into longer-term success.

Children who demonstrate developmental delays—either as a result of disability or exposure to early "toxic stressors" like extreme poverty, abuse, neglect, and parental mental illness or addictions—risk lifelong problems in learning, behavior, and physical and mental health. Yet reaching these children at the youngest possible ages holds great promise in countering negative effects – Early Intervention within quality early childhood programs for children at risk of developmental delays positively impact outcomes across developmental domains, including health, language and communication, cognitive development, and social/ emotional development (National Early Childhood Technical Assistance Center, 2011).

Child impact is compounded by positive impact to the family.

Accessible early education and care also ties directly to increased *family* income through educational attainment, skill-building, and workforce participation.

Many families need or want to accommodate two full time work schedules. Some regions in North America – those with supportive public policies - have seen 10-14% increases in mothers' ability to find and keep a job outside the home when they have access to care[1] (Baker, Gruber, & Milligan, 2015 and Malik, 2018).

Research confirms that families who can access early education and care supports benefit from substantially increased household income. This economic boost holds true not just during children's early years, but throughout their lives (Garcia, Heckman, Leaf & Prados, 2016).

If early care and education costs were capped at 10% of a family's income, making it more accessible for all families, then US GDP would likely increase by $210 billion thanks to families working more (Bivens, Garcia, Gould, Weiss, & Wilson, 2016).

In turn, increased family income creates positive social, academic, and future economic returns in the lives of children from those households. This cycle of positive benefits appears to be enacted through parents' increased ability to invest in a home learning environment as well as a reduction in the negative stressors associated with poverty (Centre for Analysis of Social Exclusion, 2017).

Employers also reap the rewards:

- Access to talent: Compared to those other developed countries, the US labor force participation of women has lagged by 2% to 14% (Savage, 2019), meaning there is a vast untapped supply of talent absent from the US workforce.
- Higher productivity in current workforce: Right now, childcare 'breakdowns' result in distraction at, or absenteeism from, work. The estimated economic impact of lost earnings, productivity, and revenue resulting from childcare crises is $57 billion *annually* in the US. (Ready Nation, 2019).
- Building the workforce of tomorrow: Employers need a workforce that is well educated, highly skilled, and equipped with 21st century skills, including social-emotional competencies. An early education lays the foundation for the workforce of tomorrow - and ensures the US continues to compete in the global marketplace.

For these reasons, MA has made significant investments to support families through a robust early education and care system...yet demand exceeds the existing resources available.

Despite impressive total investments, the early education and care system is fragile and in need of urgent intervention.

Providers struggle to sustain their business model against rising operational and personnel costs, challenges recruiting and maintaining a qualified workforce, and difficulties meeting the complexities of family needs. These, among other factors, have strained program stability,

[1]Implementation of universal full-day preschool in Washington DC resulted in a 10% increase in maternal labor force participation, as well as growth to full-time from part-time work for women. In Quebec, the implementation of a "$5 per day childcare program" resulted in a 14.5% increase in the labor force participation of mothers.

sometimes past its breaking point. In the last fiscal year, there were 755 licensed providers that closed in the state (Massachusetts EECe, 2020).

This situation is not unique to Massachusetts. Across the US, chronic under-funding of early education and care programs "is compromising the well-being of educators and the children they teach and threatening the economic security of millions of families in the United States" (Gould & Blair, 2020).

Nationally, families spend approximately $4 on early education and care for every $2 spent by the federal government, and every $1 spent by states (Gould & Blair, 2020).

Resulting gaps in access threaten positive child and family outcomes.

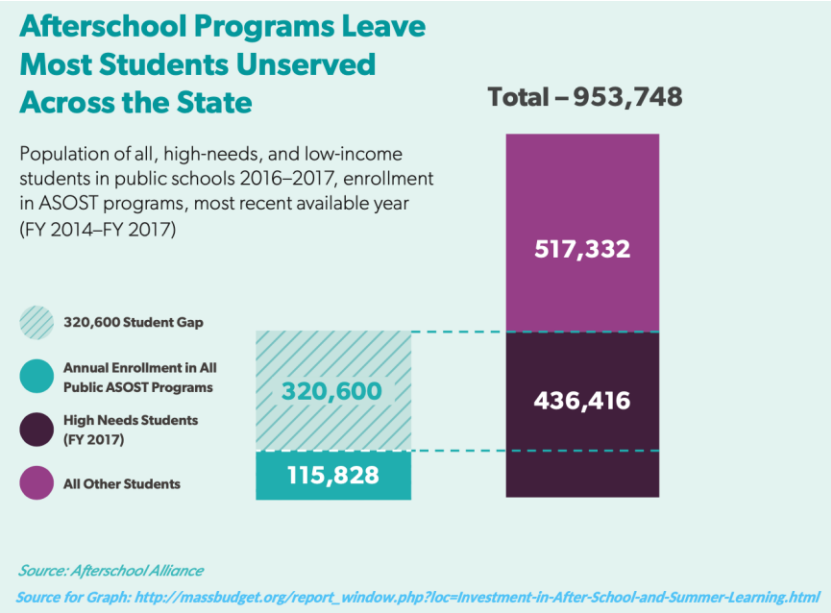
The result is a demonstrable shortage in the availability of early education and care compared to the need.

In more than three quarters of households in Massachusetts, all available parents are working - this is higher than national averages (Whitebook, McLean, Austin, & Edwards, 2018). However, the current early education and care system has licensing capacity for only *one quarter* of the total children 0-12 in the state (Massachusetts EECa, 2019 and USDHHS, 2018).

Though we can't assume the families of all 1 million children in the state need or want licensed early education and care options - the fact remains that there is a large divide between the number of children in working families and the capacity in our current system.

The shortage applies across age groups:

> Over 200,000 infants and toddlers potentially need early education and care - yet there is licensed program capacity for only 53,000 of them.
>
> While there are far more available settings for preschool aged children, there is still a 30% gap between available capacity and the children who need it (Hardy, 2019).
>
> During the school aged years, most students lack after-school programs, with 362,000 students whose families indicate they *would* enroll them in public after school programs *if* they were available, and 214,000 children whose families say they are unsupervised during the after-school hours (Afterschool Alliance, 2020).



School Aged Need, Capacity, and Gap Estimates (Afterschool Alliance, 2020)

The access gap is even worse for vulnerable populations.

Massachusetts families, on average, enjoy a high quality of life and comparatively higher incomes than national peers. But in other ways, the state is closer to national norms - particularly when it comes to disparities experienced by children living in low-income households and children of color.

Approximately 400,000 Massachusetts children live in low-income households. Children of color live in or near poverty at much higher rates than their peers; 54% of black children and 63% of Latinx children live in or near poverty, compared to 18% of white children (National Center for Children in Poverty, 2018).

For these children, the gap between early education and care capacity and family need is even more striking than the gap for their higher income peers.

Over half of MA residents live in a childcare "desert," where there are three or more times the number of children as there are licensed 'slots' in a program. Latinx families and children in low-income households live in childcare deserts at higher rates; 62% of children who qualify as low-income also live in a desert (Malik, Hamm, Schochet, Novoa, Workman, & Jessen-Howard, 2018).

'Low-income' households are those with incomes less than twice the federal poverty threshold. For example, since the federal poverty threshold for a family of four is $26,200 in 2020, then a household would be designated as "low-income" if the annual income is below $52,400 annually (US DHHS ASPE, 2020).

Children who need access to special services like Early Intervention experience increased barriers. The research base related to the positive effects of Early Intervention is clear – yet only 9% of children who have delays that would make them eligible end up receiving Early Intervention services, and at two years of age, only 12% of children who would be eligible

receive services.

This is worse for black children, with those would be eligible at 24 months of age up to five times *less likely* to receive services than white children. (Feinberg, Silverstein, Donahue & Bliss, 2011).

Even though young children experiencing homelessness are more likely to have lower birth weights than other children, learning disabilities, developmental delays, emotional problems and behavior issues, they are greatly underrepresented in early childhood programs (U.S. Department of Education, 2006). This means they are far less likely to receive Early Intervention or to benefit from the positive effects of an early childhood education.

Gaps in access in the early years create increasing opportunity gaps in later years.

While Massachusetts leads the nation in 4th grade reading and math indicators, there are striking disparities in outcomes when the data is disaggregated by race/ethnicity and income level. For students in low-income households, Black students, and Latinx students, the divide is as wide as 20-30 percentage points by fourth grade - and deepens even further by eighth.

Without concentrated efforts to disrupt the achievement gap early, over seventy percent of students of color and those from low-income households may find that the opportunities following from school achievement are not fully within their reach.

Likewise, the state fails to benefit from the talent, innovation, and ideas of entire segments of its population, whose future potential is compromised by basic or below-basic reading and math skills today.

NAEP 4th & 8th Grade - At or Above Proficiency for Reading and Math Assessment Results - 2019 (Massachusetts DESEb, 2019)							
	All MA Students	Free/Reduced Lunch Eligible	Not Free/Reduced Lunch Eligible	White	African American/ Black	Hispanic	Asian/Pacific Islander
4th Reading	45%	26%	55%	54%	29%	25%	55%
8th Reading	45%	24%	53%	51%	26%	22%	67%
4th math	55%	28%	62%	59%	28%	30%	77%
8th Math	47%	25%	56%	55%	21%	24%	78%

These disparities are even more deeply felt among students with disabilities and English Language Learners - for whom the proficiency divide is more than 30 percentage points (students with disabilities) and more than 40 percentage points (English Language Learners) by 4th grade (Massachusetts DESEb, 2019).

These opportunity gaps are compounded by intersecting issues that create additional barriers to child and family potential.

Families living in low-income households simultaneously face significant barriers to economic

mobility, including (National Center for Children in Poverty-a, 2018):

- Unemployment or underemployment - only 37% of children in low-income households have at least one parent who is employed full time (compared to almost 90% of children in above-low income households)
- Single parent household or no parent in the home - 62% of children
- More rental, less ownership - only 26% of children in low-income households whose families own their home
- In January of 2018, there were approximately 3,624 families with children (or pregnant women) experiencing homelessness and staying in shelters. This number did not include those families who were doubling up, living in unsafe conditions, or sleeping in their cars (Massachusetts Coalition for the Homeless, 2018).

Residential and placement programs operated by EEC serve some of our state's most vulnerable populations:

> In the most recent publicly available report (2017), the Massachusetts Department of Children and Families recorded 9,598 children who required out-of-home residential and placement care, with the greatest shares of those children in foster care (81%) and congregate care (14%) (MDCF, 2017). We consistently hear from stakeholders and other state agencies that the 441 residential programs and placement agencies licensed by EEC across the Commonwealth are not adequate to meet the need.
>
> Nationally, the number of children in foster care has grown by 10% over the last decade, with 20% more children waiting for adoption than there were ten years ago. Yet adoption rates have not kept pace - and have only increased by 5% (USHHS ACF, 2018). Massachusetts mirrors these national trends - with an average of 3,500 children waiting for adoption at any given time over the last three years, and 16,600 children in care each year (Massachusetts EEC, 2019). Ensuring that the programs working with these vulnerable populations are supported in providing high-quality care for these vulnerable children and youth is a vital part of our mandate as a state.

Call to *Action*

Massachusetts truly leads the way in education – with progressive funding formulas, high achieving students, on average, and a relatively high overall quality of life.

But we have to move farther upstream to build a better future for all children, youth, and families who currently face so many barriers to school achievement and economic opportunity. Can we build on our strengths as the highest achieving state in the nation to also become the most *equitable* state in the nation by supporting all families?

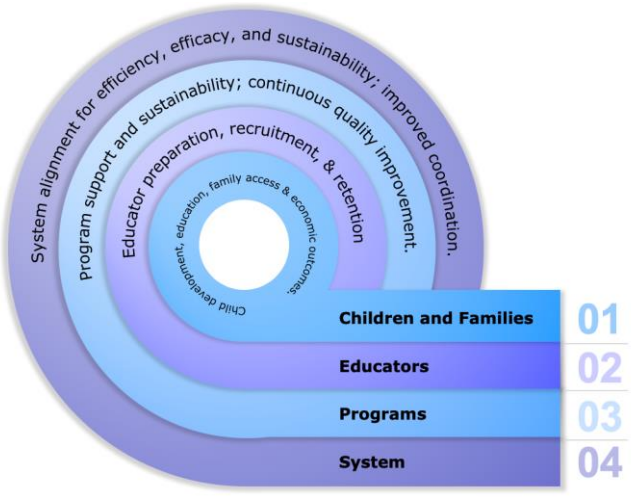
We have a very real, increasingly urgent opportunity to break the cycle of poverty - and power increased opportunity for children, mothers, families, businesses, and communities. These strategies - to stabilize our system today, in parallel with some strategic innovations to build a better tomorrow - are our starting point and road map forward.

Strategic Direction: Systemic Solutions for Families, Educators, and Programs

The Department, in collaboration with the Board of Early Education and Care, offer the following strategic action plan to guide the work.

Our Vision— the world we would like to see	**EEC's vision is that children, youth, and families reach their full potential now and in the future.**
Mission— the role we play in achieving the vision	The Massachusetts Department of Early Education and Care (EEC) creates the conditions for children, youth, and families to thrive socially, academically, and economically. We do this by: • Working across organizations and sectors to build an equitable **system** of safe, affordable, high quality early education and care • Supporting residential, placement, out of school and after school, and early education and care **programs** and **educators** in their essential work with children and youth • Increasing opportunities for **families** to support their children and attain economic mobility

EEC is a system - as a government agency, we support an interconnected web of constituents, including collaborating agencies and federal partners, programs we license and those we support through grants and regulations, educators and professionals we qualify, certify, and support through professional development, and families, children, and youth who are supported by our investments.



If just one of these constituent groups is out of sync or left behind in our work, the system becomes more fragile and our vision is jeopardized.

Therefore, to create lasting change, we have to build strategies that are tailored for each constituent group's unique assets and needs – but also bridge across audiences in a mutually reinforcing way.

Only then can we strengthen our system as a whole and keep us all directionally aligned – marching together towards a bold new vision.

Innovative Strategies for Transformative Change

The urgency of family, educator, and program needs across all program types requires us to act quickly now, aligned around the change we want to create.

Our innovative strategies for transformative change occur at the family, educator, and program levels:

1. **Increase Family Affordability and Access**:
    a. Grow and transform subsidy investments to ensure they drive increased affordability and access to high quality programs for families
    b. Build capacity among communities to help families identify quality programs, access resources that support child development, and act as their children's first and most important teachers
    c. Ensure our collective capacity to support children towards 3rd grade success using a developmentally appropriate, shared measurement system

2. **Grow the Number of Highly Skilled Educators**: An Educator Credentialing Framework that translates across settings and geographies and validates increasing expertise through stackable qualifications

3. **Build a Backbone for Program Quality to Drive Investment**: A unified and universal approach to quality for each program model that prioritizes investments in program improvement and wraparound services, ensuring program sustainability and capacity building

As a pre-requisite to transformation, there are system-level requirements that lay the foundation for a more seamless, streamlined, and supportive experience for families, educators, and programs. These include a re-organization of our regulations and policies, technology systems, and staffing structures to reduce burden among, and better support, constituents – as well as to advance our shared vision and goals. These requirements will be immediately addressed in keeping with the urgency of the need in our system and the degree to which the success of the entire plan relies on their successful foundational execution.

Each of these innovations is outlined in more detail in the sections below – but taken together, they tell a story of a system that is more stable, effective, and capable– and a state that is ready to lead the nation in outcomes for children, youth, and families.

1. Children, Youth, and Families

Our **goal** is that children are on track for success in school and to reach their full potential. Their families are empowered to work, build their skills, and attain economic mobility while supporting their children's education and development.

To achieve this goal, we will address those concerns heard throughout this process, including affordability of care, barriers to access, and a lack of measurable results that can be tracked and shared across systems and constituents.

Our **strategies** are to:

A. Increase access to early education and care by addressing accessibility and affordability, while building community capacity to support families
B. Build a system to measure children's path to being on track to 3rd grade success that accounts for the child's developmental context and available community supports

1A Address Affordability and Build Community Capacity

The Opportunity

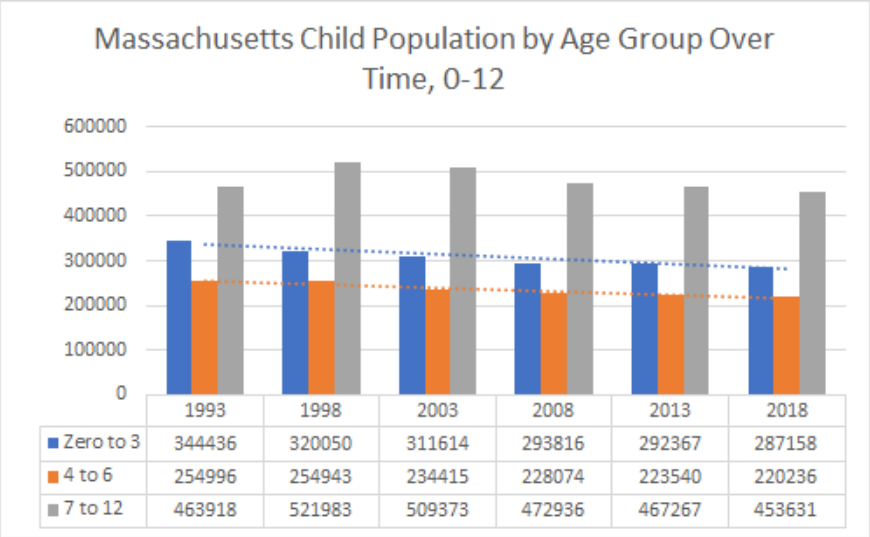
Affordability: Massachusetts has the second highest cost of childcare in the US, next to DC; the average annual cost of infant care is $20,913 and the average cost of caring for a 4 year-old is $15,095.

To care for one infant in MA would require 22% of a median family's income, 84% of earnings for a minimum wage worker, and 76% of a childcare worker's salary (Economic Policy Institute, 2016).

The cost issue is compounded for infants and toddlers. In a 2019 survey conducted by the Massachusetts Partnership for Infants and Toddlers (MPIT), over 60% of families with infants and toddlers cited education as an area of top interest and concern. This data point is not surprising, given that the estimated share of all families in the Commonwealth who can afford infant care is only 5.4% (Economic Policy Institute, 2016).

Birth rates nationally are at a 30 year low - the population in Massachusetts mirrors that trend. A national poll found that economic factors were among the top 4 of 5 responses given for young adults' decision not to have more children - with childcare cost as the most commonly cited concern (Miller, 2018).

Bridging the divide between the cost of programs and families' ability to pay is a leading strategy to increase equitable access.



Support for Access and Resources to Support Child Development: While affordability is a leading challenge, families and providers across the state cited additional challenges (Massachusetts EECb, 2019):

- Geographic areas that lack early education and care providers at a level that can address the need
- Desire for more flexibility in the hours and days that early education and care is offered to accommodate work schedules of many different types, including gig and shift work
- The need for more consistent, affordable, and reliable transportation to and from programs – and more coordination between state agencies to ensure transportation is not a barrier
- Confusion related to EEC processes including waitlists, appeal, and subsidies
- Wish for high-quality options closer to the places where families live and work
- Misfit between the cultural and linguistic diversity of teachers and families
- Need for community level support to engage families as their children's first and most important teachers (efforts like Coordinated Family and Community Engagement and home visiting models cited often as effective and worth expansion)
- Increasing challenges at the program level with coordination of services, as families face poverty, housing insecurity, under and unemployment, substance abuse, violence, trauma, and mental health challenges – among others
- Access to resources for all families to build social networks, learn about child development, and navigate community-level programs that address their specific needs

> "There are not enough specialists to go around – and they are never on site when you need them." -Early Education and Care Provider, Southeast MA Cape Listening Session

Our Strategies

Address Affordability:

- Restructure and grow public investment to improve affordability and increase licensed capacity to address access gaps within the system overall
- Create incentives in the subsidy system for high quality programs to serve the most vulnerable families by tiering investments, thereby driving toward equitable outcomes

Build Community Capacity to Increase Support:

- Invest in community referral infrastructure to help families identify high quality programs that match their needs through Community Resource and Referral Agencies
- Invest in community level collaborations as a connective tissue to ensure comprehensive and wraparound supports for child development and family opportunity through Coordinated Family and Community Engagement; work across health, mental health, education, child development, youth development, and child and family welfare domains to meet the holistic needs of children, youth, and families
- Leverage the Family Engagement Framework in partnership with the Department of Public Health, Department of Elementary and Secondary Education, and the Children's Trust
- Identify successful strategies at the community-level of building a robust birth-to-third grade support system and identify mechanisms to foster scaling

1B On Track to 3rd Grade Success

The Opportunity

We know interventions in the early years and grades result in positive outcomes for children later in life - and in Massachusetts, there is clear room to grow the extent to which children transition through key educational milestones (The Annie E. Casey Foundation, 2019):

- 40% of children ages 3-4 do not attend a preschool
- Almost half of 4th graders are not proficient at reading
- 50% of 8th graders are not proficient in math

The task of understanding preparedness among children is complicated by the lack of clearly agreed upon measures for interim success.

Certainly *testing* children in the early years is inappropriate, given the nature of this developmental stage – and it is not our desire to introduce increased accountability mechanisms that have a punitive nature or unintended consequences for children. In fact, many of the most impactful interventions in the early years focus on investments in *adult capacities*, such as family support around promoting child development.

We do know there are key factors in the early years that have demonstrated ties to later educational outcomes. As one example, 3rd grade literacy is dramatically impacted by the number of words to which children are exposed in early childhood, the extent to which they are talked to, read to, sung to, and how many books are in the family home.

These are direct factors, but there are also social and contextual indicators that can indicate a child is on track for school success – including preschool participation, attendance rates, expulsion, suspension, and other punitive actions, if present, and kindergarten readiness.

There are family indicators, including positive ones, like family engagement in their children's learning, family educational attainment, the extent to which families have social capital, economic assets, and protective factors – as well as negative indicators, like the presence of adverse childhood experiences (ACES), like abuse, neglect, and violence – among others.

We do not yet know which indicators will be most useful or give us the best sense of how to help our youngest children – but we do know we need a starting point. A comprehensive and meaningful measurement system that accounts for educational, social, and contextual factors in the birth to third grade continuum will enable us to understand children's 'on track' rates throughout early childhood, rather than waiting until 3rd grade to know the degree to which we are meeting our goals in the education and care of young children.

Our Strategies

Build a measurement system to ensure children are on track to 3rd grade success:

- Work with communities to identify current practices that can be elevated and relevant indicators that can be tracked across environments to understand meaningful contributors to 3rd grade success
- Collaborate with public health and elementary partners to assemble a comprehensive set of indicators that can be monitored across data systems and shared populations
- Align measurements with EEC's quality work in early childhood and out of school time programs so administrators can tie their quality efforts to child and youth outcomes

2. Educators and Professionals

Our **goal** is that the early childhood and out-of-school time workforce is professionally prepared, well supported, adequately compensated, and culturally and linguistically representative of the population it serves.

To achieve this goal, we will address concerns surfaced in the research and by constituents related to a lack of training and education pathways – with accompanying difficulties recruiting, retaining, and compensating qualified educators who are linguistically and culturally reflective of the populations they serve.

Our **strategies** are to:

A. Develop an Educator Credentialing Framework, grounded in teaching competencies, that drives degree and credential attainment for the workforce
B. Use the Credentialing Framework to direct content, access, and investments among Higher Education and other professional development partners – with a goal of reduced barriers to entry, increased retention, and a more linguistically and culturally representative teaching force

2A Develop an Educator Credentialing Framework

The Opportunity

The adults who care for children and youth play a leading role in their educational, social, and emotional development. In fact, the science of early childhood brain development and learning requires a sophisticated set of knowledge and competencies on par with those required for teaching in the elementary grades (Institute of Medicine and National Research Council, 2015). For youth ages 6-17, the presence of a caring, committed adult has been shown to correlate with positive well-being and developmental outcomes (Scales, P. C., & Leffert, N., 1999).

The importance of the early education and care professionals in driving program quality and positive child and youth outcomes requires that we focus substantial efforts on their recruitment, retention, and development of these professionals.

Yet, much of the workforce, even those with college degrees, receive wages that are unlivable, and fall far short of the $15/hour minimum wage threshold approved by the state for adoption by 2023 (Whitebook, McLean, Austin, & Edwards, 2018)

Nearly 1 in 5 early educators in the US fall below the national poverty line (Whitebook, McLean, Austin, & Edwards, 2018).

In a typical labor market, increasing degrees and credentials are a pathway to increasing responsibilities and compensation. In Massachusetts Early Childhood Centers, it costs an additional $4,600 annually to hire a Lead Teacher with a Bachelor's degree rather than an Associate's degree. Within school-aged programs, a Site Leader will earn $8,400 more with a Bachelor's than a Site Leader with less than a high school education. Family Childcare Directors/ Owners with a graduate degree earn on average $18,000 more per year than their counterparts who did not graduate from high school (Massachusetts EECc, 2018 and Massachusetts EECd, 2020).

However, the challenge with limited budgets in many programs is that pay-scales and degree requirements are inconsistent across provider or program setting, so that these gains are not universally held.

According to the Early Childhood Workforce Index of 2018, MA has 'stalled' in its progress to improve early childhood educator compensation through qualifications and educational supports (Whitebook, McLean, Austin, & Edwards, 2018).

This lack of clarity across the mixed delivery system can discourage educators from pursuing a degree – and can deter them from entering or staying in the early education and care field at all.

The lack of a road map to delineate what degrees and credentials are worth in the field at what level of responsibility has compounded compensation issues with a lack of meaningful transferability across settings—providing no consistent baseline for comparability. Varied qualification, education and training requirements across providers create navigation challenges and fail to communicate what priorities the state holds around professional competencies for educators, coaches, and leaders in this field.

We need a clearly defined lattice of credentialing to help educators enter, progress through, and exit the field – so they can achieve educational milestones and compete more effectively for better compensation in the marketplace.

But the approach must be flexible to encompass the *many* pathways that lead to quality teaching and learning so we can open the field to qualified professionals who are desperately needed in classrooms and homes, today – while still enabling us to raise the bar on the professionalism and quality of our teaching environments, directly improving learning outcomes for children.

Our Strategies

Build an Educator Credentialing Framework:

- Standardize a set of stackable, transferable and nationally aligned competencies that can be gathered through education, training, and experience in the field; build EEC verification systems for individual educators to achieve credentialing levels
- Accredit institutions, training, and professional development programs that support educators to provide credentials as part of the EEC Educator Credentialing Framework
- Identify how specialization by setting, age group, and role will interact with competencies to complete a comprehensive approach to credentialing for the field
- Crosswalk credentialing with licensing conducted by the Department of Elementary and Secondary Education to ensure alignment across workforce recruitment and retainment strategies

2B Diversify and Grow the Workforce

The Opportunity

Across the state, providers communicated that their struggle to recruit and sustain a high quality teaching force is a key barrier to their ability to increase access for families. Similarly, they shared that the cultural and linguistic diversity of its workforce matters deeply to families - and still needs work.

Ensuring that a community's early education and care workforce is reflective of its population, both culturally and linguistically, will be a key area of growth for MA as it considers how to attract, retain, and compensate educators. (Massachusetts EECb, 2019).

There are barriers for English Language Learners to build their competencies as educators and professionals or access traditional higher education programs. Additional barriers like geography, cost, and relevance can form challenges to entry and retention on higher education pathways.

We have to leverage the Educator Credentialing Framework to drive investments through Higher Education and other professional development programs in ways that create equitable access for communities to grow their workforce to be reflective of the children they serve.

Our Strategies

Leverage the Educator Credentialing Framework to direct recruitment and reduce barriers in support of an increased educator pipeline::

- Target financial incentives to support more culturally and linguistically representative candidates to enter and move through Credentialing Framework levels
- Partner with Higher Education to ensure training and education pathways are aligned to the needs of the field, reduce barriers to entry, and build skills and competencies outlined in the framework
- Build the capacity of local and regional partners to provide credential- aligned programming for all educators to grow their competencies

3. Programs

Our **goal** is that programs will increase their sustainability, engage in continuous quality improvement, and promote high-quality education and healthy development among children and youth.

To achieve this goal, we will focus our work on the most pressing needs expressed by constituents and identified in the research, including program stability and custom supports, technical assistance and wraparound services, and meaningful supports for quality improvement.

Our primary **strategies** to fulfill our goals are to:

A. Build a backbone for quality to drive investment: implement a universal quality improvement system that prioritizes program supports like job embedded professional and leadership development and investments in continuous quality improvements
B. Grow the network of comprehensive supports available for providers in addressing the increasing complexity of family needs

3A Build a Backbone for Quality to Drive Investment

The Opportunity

The starting point for quality is sustainability. Unless programs are able to support their day to day operations in a way that enables their focus on the structural and human factors that build effective early care and education, it will be challenging to engage in continuous quality improvement towards positive child and youth outcomes.

In Massachusetts, rising personnel and operational costs, alongside per child funding formulas, squeeze already limited program budgets and limit the ability to invest in quality. As public school districts expand their preschool classrooms, community based providers have an opportunity to expand infant and toddler services, which are typically much more expensive to provide.

To address sustainability concerns, constituents have asked for more custom solutions for each program type, with supports that are designed for the unique assets and needs in each setting (Massachusetts EECb, 2019):

> Family Childcare Homes: frequently small businesses, these providers often face the greatest volatility, but also the greatest isolation. Recent data shows closures of 7,500 Family Childcare Homes since 2010 and 769 in the last two years alone, with more licensed capacity moving into center-based settings.
>
> Early Childhood Center Based Providers: these organizations reported challenges meeting more complex family needs and sustaining strong business models that can hold steady through changes in funding, in the field, and among families.

Before and After School Programs: these providers spoke to the 'revolving door' of staff in their classrooms and desire to work more closely with school districts to ensure mutually reinforcing strategies that lead to positive child outcomes through the school aged years.

Residential and Placement Programs: these organizations cited needs for greater consistency and timeliness of licensing and investigations, improved technology and information sharing that better includes them, as well as significant cross-agency efforts to reform regulations and better coordinate policy development and compliance monitoring so they are able to better navigate the bureaucracy and focus on the children in their care. A dedicated effort to find a set of custom solutions for residential and placement programs is something constituents have asked EEC to explore in collaboration with agency partners.

The tables below demonstrate sustainability challenges for agencies by type with openings and closings of programs, as well as the capacity of those programs.

Family Childcare homes were the hardest hit by closings last year (673 homes) and 366 openings for a net loss of 307 homes in the past year. These losses were offset by gains in large group education and care settings (162), for a net loss across all program types of 205 agencies in FY19.

At the same time, because of the capacity differences between large and small group homes, the overall capacity/slots available grew by 3,729.

However, given that many families turn to Family Childcare for affordability and flexibility of hours, as well as cultural and linguistic relevance, the net loss of 2,137 Family Childcare slots across the Commonwealth demonstrates a need to focus more effort in sustaining these programs.

FY19 EEC Licensed Agency Openings & Closings Across Program Types							
	Family Childcare	Foster Care	Group	Large Group	Small Group	Temporary Shelter	Totals
Openings	366	1	10	162	8	3	550
Closings	673	2	12	62	3	3	755
Net Change	-307	-1	-2	100	5	0	-205
Source: FY19 EEC Administrative Licensing Records							

FY19 EEC Licensed Agency Capacity Gains and Losses Across Program Types							
	Family Childcare	Foster Care	Group	Large Group	Small Group	Temporary Shelter	Totals
Capacity Gains	2280	n/a	164	8494	76	27	11041
Capacity Losses	4417	n/a	139	2693	16	47	7312

Net Change	-2137	n/a	25	5801	60	-20	3729
Source: FY19 EEC Administrative Licensing Records *Foster Care Agencies do not have capacity counts.							

National studies show increased pressure on early childhood providers to improve quality – but *without* the accompanying funding to cover associated costs (Bookman, Crandall, Douglass; & Kelleher, 2018, p. 3). As a result, national efforts to measure quality in programs have not always been followed by the desired improvements over time.

In conversation with the field, providers from every type of early education and care setting in Massachusetts - Family Childcare Homes, large and small center-based programs, before and after school programs, and residential and placement services - all care deeply about quality support for children and their families. The elements of quality – including investments in staff salaries and support, tools for improving instruction and care, and family engagement - were evident in programs across the state (Massachusetts EECb, 2019). However, a focus on urgent needs and compounding financial pressures to maintain basic operations has distracted from the quality focus, especially without a common standard or incentives to achieve it.

Representatives spoke about the returns they see when their quality grows – as a provider from Central Massachusetts said, if we "invest in good quality now – then the whole picture brightens."

Our Strategies

Operationalize a universal quality rating improvement system that prioritizes program investments and supports:

- Launch the early childhood center based QRIS 2.0 first, with Family Child Care and Out of School Time frameworks to be developed specifically for each program type, in partnership with the field
- Validate licensing as part of the continuum for quality. Incorporate licensing processes as part of a more holistic approach to program support, representing the entry point into the continuous quality improvement process
- Equip programs with support for leadership development, including EEC validated Program Development Coaches (PDCs) and Early Childhood Support Organizations (ECSOs), to support systems of job embedded professional development across all levels
- Build a verification system to validate the highest quality level, tied to tiered subsidy reimbursement levels that reflect the true cost of quality; rebid contracts to realign funding to the new approach to quality investment, using them as a mechanism to incentivize quality and bring stability to program budgets

As the EEC licensing role in residential programs and placement agencies is different than other program types, specific program strategies have been developed for this program model to address residential and placement needs:

- Work in partnership with the Education and Health Secretariats to ensure role clarity, alignment, and consistency for this shared program population
- Collaborate in an ongoing way to coordinate policies, procedures, monitoring
- Develop role clarity, aligned professional development supports, and data sharing facilitation across state agencies

3B Ensure Comprehensive Program Supports

The Opportunity

EEC has an existing investment in services like mental health consultation, and trainings, like the Pyramid Model, to support teachers and educators to individualize instruction and organize lessons to address the needs of all learners.

But as family needs have changed, so have the requirements of programs to meet those needs. Licensed programs providing non-parental care cannot be expected to be responsible for meeting all needs of children and families. When programs are not fully supported in this requirement, we face issues like preschool expulsion and vicarious trauma among the workforce.

The shifting landscape of families in MA requires that EEC work more closely with peer agencies to provide a more comprehensive set of options for programs to draw from in meeting health, mental health, education, child development, youth development, and child and family welfare needs.

Educators spoke of difficulties sustaining children through trauma at home and in their communities. Associated behavioral challenges in classrooms require consistent, ongoing specialized support - but may also require an emergency response when crisis occurs.

An increase in the type of support, like trauma informed practices among staff and educators, as well as the level of support, like wraparound services and crisis supports, is clear.

Our Strategies

Grow the network of comprehensive supports available for providers to leverage in support of families:

- Continue to build capacity to implement evidence-based mental and behavioral health supports by addressing program capacity to implement tiered systems of support
- Create a mechanism to address "emergency" situations with providers through a triage model of mental health supports designed for an elevated or crisis situation
- Improve coordination of comprehensive supports for families across state agencies to be leveraged by EEC licensed or funded providers

4. System

Our **goal** is to efficiently and effectively steward public investments in early education and care with utmost integrity, transparency and accountability to the people of Massachusetts.

To achieve this goal, we will work to align all of the initiatives, incentives, functions, and roles that are within our sphere of influence across programs, educators, and children and families – tying them together in a way that keeps all of us moving in a single direction. We will also respond to the urgent concerns expressed by constituents about the largest obstacles they face when interfacing with our people, systems, and technology.

Our **strategy** is to:

A. Lay the foundation for transformative change by ensuring a seamless, simplified, clarified experience for families, educators, and programs as they interact with EEC policies and regulations, staff and offices, technology and software systems, and communication structures

4A Improve Operations

The Opportunity

Fifteen years since becoming a stand-alone agency, EEC has successfully integrated different functions (regulating and licensing; fund allocation; and setting and communicating quality standards) across different program types (early childhood centers and family childcare homes; before and after school programs; residential and placement services). Yet the challenges of uniting different funding streams, functions, and, at times, different philosophical positions, remain.

Participants feel this in several ways:

> *Regulations:* changes at the federal and state levels have been adopted in an iterative fashion, and often applied across program settings, even among those for whom the federal guidelines were not originally intended.
>
> As a result, some regulations are in conflict with each other, or cause unnecessary confusion among constituents. Participants in learning sessions cited navigation challenges as they struggle to apply regulatory mandates while also focusing on supporting quality teaching and learning. They spoke of unnecessary bureaucracy, layers of approval, and a need for EEC to lead the way in reconciling regulations with those of sister agencies and other funding streams.
>
> *Staffing Capacity:* Consistent application of these regulations is a capacity challenge within the EEC staffing structure - and one which was also an area of heavy feedback in listening sessions. Constituents spoke of having to call multiple people across regional and central offices in order to assemble a complete picture of their requirements - and cited conflicting advice as a challenge to reaching full compliance (Massachusetts EECb, 2019).

A 2019 analysis of department staffing capacity supported the feedback heard in the field - and concluded that EEC's constituents frequently communicate with different units at different points in their user experience - sometimes across both central and regional offices. These overly complex structures create great inefficiency in communications, processes, and the constituent experience.

In feedback from the field, it is apparent that the strain of EEC's capacity gaps is experienced most by the educators, programs and families who interact with it each day. Across the state, there were requests for more user-oriented systems and procedures that will make it easier to navigate EEC compliance and support functions. These include technology systems, which participants said must adapt to users of varying capacity, and should allow users to flow more seamlessly through critical compliance and funding processes.

The 2019 department analysis noted that EEC maintains 10 separate technology systems, creating challenges for EEC staff and the field, and limiting the department's ability to assemble a complete data picture of field sustainability and access or foster data-driven decision making. Time spent supporting constituents to navigate these systems detracts from the department's ability to focus on operational improvements and excellence.

In addition to improved supports from EEC, there were resounding calls for better coordination across state agencies. The goals of coordination focused on reducing confusion, minimizing conflicting guidance, and decreasing the burden on constituents to 'figure it out" or rely on staff to perform functions on the provider's behalf.

Our Strategies

EEC will conduct a comprehensive regulatory review:

- Adopt principles of simplicity, coherence, alignment across regulatory bodies, reduced bureaucratic burden, custom approaches by program, flexibility where required
- Review and revise in partnership and dialogue with the field, specific to each program model and stakeholder group, as appropriate
- Consider implications for equity, access, quality, and safety in each decision point, while taking into account the needed innovation to support the future needs of the state

We will also re-orient our staffing structures around the constituent experience:

- Organize our work around families, educators, and programs, so the burden of piecing together the full picture is with EEC, not with the individuals and entities with whom it interacts
- Engage in a culture shift towards understanding equity, access, quality, and safety as embedded in all of our work, and a part of everything we do
- Focus increased staff capacity on reducing wait times for investigations, background record checks, and other key procedures that are pain points for users – as well as on the strategies for the strategic plan

We will conduct a technology assessment and plan:

- Consider the user experience in technology and software systems
- Ensure data collection and sharing across systems is a priority
- Establish a comprehensive, multi-year data plan for integration and implementation

What's Next: Ongoing Engagement

This plan was co-developed with over 11,000 residents of Massachusetts – their ideas, feedback, concerns, and expertise led directly to each strategy we will undertake. That process does not end here.

In this plan, we commit to an ongoing process of community engagement to activate these strategies together. This includes ongoing feedback loops with communities that are:

- Regular and systematized, so constituents know when and where to provide feedback on the issues they care about most, in a way that is timely and relevant to each strategy's implementation
- Led by dedicated facilitation experts who can engage with EEC content experts to create meaningful avenues for constituents to help shape and refine our work
- Offered in an easy-to-follow cycle – including early engagement, mid-phase response, and late phase reporting to ensure constituents can follow an initiative, issue, or decision from beginning to end
- Conducted in partnership with peer agencies in a coordinated fashion to ensure connectivity across shared audiences, especially with public schools and public health
- Intentional about building from community systems on the ground and strengthening the feedback loops they have already built in partnership with communities – grounded deeply in existing eco-systems

This plan was given life by the people of Massachusetts – the vision is yours, the mission is ours, and together we can bring forth a better future for children, youth, and families.

References

Afterschool Alliance (2020, January). *This is Afterschool in Massachusetts Fact Sheet.* Retrieved at: http://www.afterschoolalliance.org/documents/MA-afterschool-facts.pdf

Almond, D. and J. Currie (2011). Killing me softly: The fetal origins hypothesis. Journal of Economic Perspectives 25 (3), 153–172.

Baker, M., Gruber, J. & Milligan, K. (2015). *Universal Childcare, Maternal Labor Supply and Family Well-Being.* Working Paper 11832. National Bureau of Economic Research. Available at: https://www.nber.org/papers/w11832.pdf (Accessed 1.30.20)

Bivens, J., Garcia, E., Gould, E., Weiss, E., & Wilson, V. (2016). It's Time for an Ambitious National Investment in American's Children: Investments in Early Childhood Care and Education Would Have Enormous Benefits for Children, Families, Society, and the Economy. Economic Policy Institute. Available at: https://www.epi.org/publication/its-time-for-an-ambitious-national-investment-in-americas-children/ (Accessed 1.30.20).

Bookman, A.; Crandall, S.; Douglass; A.; Kelleher, C. (2018). The Massachusetts Early Care and Education Workforce Study: Final Report Relevant to Survey Design. Boston: University of Massachusetts Boston. Retrieved from: https://www.umb.edu/editor_uploads/images/early_education_leadership/UMB_ECE_Workforce_Study_Phase_I_Full_Report_2018.pdf(quotation from P3)

Campbell, F. A., G. Conti, J. J. Heckman, S. H. Moon, R. Pinto, E. P. Pungello, and Y. Pan (2014). Early childhood investments substantially boost adult health. Science 343 (6178), 1478–1485.

Child and Adolescent Health Measurement Initiative (2017-18). 2017-2018 National Survey of Children's Health (NSCH) data query. Data Resource Center for Child and Adolescent Health supported by Cooperative Agreement U59MC27866 from the U.S. Department of Health and Human Services, Health Resources and Services Administration's Maternal and Child Health Bureau (HRSA MCHB). Retrieved [mm/dd/yy] from www.childhealthdata.org. CAHMI: www.cahmi.org.

Centre for Analysis of Social Exclusion (2017). Does Money Affect Children's Outcomes? An Update. Case Paper 203. The London School of Economics and Political Science.

Cruse, L., Holtzman, T., Gault, B., Croom, D., & Polk, P. (2019). Parents in College By the Numbers. Fact Sheet C481. Institute for Women's Policy Research. Available at: https://iwpr.org/publications/parents-college-numbers/. (Accessed 1.30.20).

Cunha, F., J. J. Heckman, L. J. Lochner, and D. V. Masterov (2006). Interpreting the evidence on life cycle skill formation. In E. A. Hanushek and F. Welch (Eds.), Handbook of the Economics of Education, Chapter 12, pp. 697–812. Amsterdam: North-Holland.

Duncan, G. J. and K. Magnuson (2013). Investing in preschool programs. Journal of Economic Perspectives 27 (2), 109–132.

Economic Policy Institute (2016). The Cost of Childcare Massachusetts Fact Sheet. Taken from website on 11.6.19 at: https://www.epi.org/child-care-costs-in-the-united-states/#/MA

Elango, S., J. L. Garcıa, J. J. Heckman, and A. Hojman (2016). Early childhood education. In R. A. Moffitt (Ed.), Economics of Means-Tested Transfer Programs in the United States, Volume 2, Chapter 4, pp. 235–297. Chicago: University of Chicago Press.

Feinberg, E., Silverstein, M., Donahue, S. & Bliss, R. (2011). The impact of race on participation in Part C Early intervention services. Journal of Developmental and Behavioral Pediatrics, 32(4), 1-8.

Garcia, J., Heckman, J., Leaf, D., & Prados, M. (2016). The Life-cycle Benefits of an Influential Early Childhood Program. NBER Working Paper No. 22993. National Bureau of Economic Research. Available at: https://www.nber.org/papers/w22993 (Accessed 1.30.20). Notes: A randomized, controlled study of the Carolina Abecedarian Project and the Carolina Approach to Responsive Education (ABC/CARE), high quality early education programs launched in the 1970s, showed significantly increased maternal employment and income during the families participation in the program but also up through the child's 21st birthday.

Gould, E. & Blair, H. (2020, January 15).*Who's Paying Now? The Explicit and Implicit Costs of the Current Early Care and Education System.*

Center for the Study of Childcare Employment. Available at: https://cscce.berkeley.edu/whos-paying-now-the-explicit-and-implicit-costs-of-the-current-early-care-and-education-system/ (Accessed 1.30.20).

Hardy, B. (2019). *The Geography of Early Education and Care in Massachusetts.* Unpublished Internal Report Prepared for The Massachusetts Department of Early Education and Care.

Havnes, T. and M. Mogstad (2011, May). No child left behind: Subsidized child care and children's long-run outcomes. American Economic Journal: Economic Policy 3 (2), 97–129.

Heckman, J. J., S. H. Moon, R. Pinto, P. A. Savelyev, and A. Q. Yavitz (2010, July). Analyzing social experiments as implemented: A reexamination of the evidence from the HighScope Perry Preschool Program. Quantitative Economics 1 (1), 1–46.

Center on the Developing Child at Harvard University (2016). From Best Practices to Breakthrough Impacts: A Science-Based Approach to Building a More Promising Future for Young Children and Families. Retrieved from www.developingchild.harvard.edu.

Institute of Medicine and National Research Council (2015). *Transforming the Workforce for Children Birth Through Age 8: A Unifying Foundation*. Washington, DC: The National Academies Press.

Malik, R. (2018, September 26). *The Effects of Universal Preschool in Washington, D.C: Children's Learning and Mothers' Earnings.* Center for American Progress. Retrieved from: https://www.americanprogress.org/issues/early-childhood/reports/2018/09/26/458208/effects-universal-preschool-washington-d-c/

Malik, R., Hamm, K., Schochet, L., Novoa, C., Workman, S., & Jessen-Howard, S. (December 2018). America's Childcare Deserts in 2018. Retrieved at: https://www.americanprogress.org/issues/early-childhood/reports/2018/12/06/461643/americas-child-care-deserts-2018/

Massachusetts Coalition for the Homeless (2018). Family Homelessness. Retrieved from website at: https://www.mahomeless.org/advocacy/family-homelessnes

Massachusetts Department of Children and Families (MDCF, 2017) Quarterly Profile FY'2018 Quarter 1 (July 1, 2017 - September 30, 2017). Retrieved from website at: https://www.mass.gov/files/documents/2018/02/01/Quarterly%20Report%20FY2018%20Q1%20%282%29.pdf

Massachusetts Department of Early Education and Care Administrative Records (Massachusetts EECa, 2019). Childcare subsidy recipient count and demographics.

Massachusetts Department of Early Education and Care Regional Listening Tours (Massachusetts EECb, 2019). Unpublished report from meetings held November 2019, with 500 participants from across the state, and January/February, 2020, with Residential & Placement Programs.

Massachusetts Department of Early Education & Care (Massachusetts EECc, 2018). Market Rate Survey Results Unpublished.

Massachusetts Department of Early Education & Care (Massachusetts EECd, 2020). Cost of Quality Survey Unpublished.

Massachusetts Department of Early Education & Care Administrative Records (Massachusetts EECe, 2020). Licensed agency count.
Massachusetts Department of Elementary and Secondary Education Website (Massachusetts DESEa, 2019). 2019 Next Generation MCAS Results by Subgroup by Grade and Subject found at:
http://profiles.doe.mass.edu/mcas/subgroups2.aspx?linkid=25&orgcode=00000000&fycode=2019&orgtypecode=0&

Massachusetts Department of Elementary and Secondary Education (Massachusetts DESEb, 2019). 2019 NAEP Reading and Mathematics: Summary of State Results. Retrieved at: http://www.doe.mass.edu/mcas/natl-intl/naep/results/

Massachusetts Department of Public Health (MDPH, 2017) Early Intervention FY 2017 Part C State Performance Plan (SPP)/Annual Performance Report (APR). Retrieved at: https://www.mass.gov/lists/public-reporting-for-early-intervention#part-c-state-performance-plan-(spp)-annual-performance-report-(apr)-

Miller, C.C. (2018, July 5). Americans Are Having Fewer Babies. They Told Us Why., The New York Times. Retrieved at: https://www.nytimes.com/2018/07/05/upshot/americans-are-having-fewer-babies-they-told-us-why.html

National Center for Children in Poverty-a (November 2018). Massachusetts Demographics of Low-Income Children. Retrieved at: http://www.nccp.org/profiles/MA_profile_6.html Note: They use this definition for Low income = 200% of FPL or $48,678 for a family of 4 in 2016.

National Center for Children in Poverty (National Center for Children in Poverty-b, 2018) 50-State Data Generator. Retrieved from: http://www.nccp.org/tools/demographics/

National Early Childhood Technical Assistance Center (2011). The Importance of Early Intervention for Infants and Toddlers with Disabilities and their Families. Retrieved at: https://ectacenter.org/~pdfs/pubs/importanceofearlyintervention.pdf

Ready Nation (2019). *Want to Grow the Economy? Fix the Childcare Crisis*. Council for a Strong America and ReadyNation. Available at: https://www.strongnation.org/articles/780-want-to-grow-the-economy-fix-the-child-care-crisis. (Accessed 2.18.20).

Savage, S. (2019). *High-Quality Early Childcare: A Critical Piece of the Workforce Infrastructure.* Federal Reserve Bank of Boston Available at: https://www.bostonfed.org/publications/one-time-pubs/high-quality-early-child-care.aspx. (Accessed 11.20.19).

Scales, P. C., & Leffert, N. (1999). Developmental assets: A synthesis of the scientific research on adolescent development. Minneapolis: Search Institute. Rhodes, J., Ebert, L., & Fischer, K. (1992). Natural mentors: An overlooked resource in the social networks of young, African American mothers. American Journal of Community Psychology, 20(4), 445-461.

Shellenback, K.(2004). Childcare & Parent Productivity: Making the Business Case. Ithaca, NY: Cornell University, Department of City and Regional Planning. Available at:

http://s3.amazonaws.com/mildredwarner.org/attachments/000/000/074/original/154-21008542.pdf (Accessed 1.30.20).

The Annie E. Casey Foundation (2019). 2019 Kids Count Profile: Massachusetts. Retrieved from https://www.aecf.org/m/databook/2019KC_profile_MA.pdf

The Heckman Equation (2020, January 30).13% ROI Research Toolkit. Retrieved from: https://heckmanequation.org/resource/13-roi-toolbox/

U.S. Census Bureau (2017), 2013-2017 American Community Survey 5-Year Estimates

U.S. Department of Education. (2006). Report to the President and Congress on the implementation of the Education or Homeless Children and Youth Program under the McKinneyVento Homeless Assistance Act. http://www.ed.gov/programs/homeless/rpt2006.doc

United States Department of Health and Human Services (USDHHS- 2018): Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Bridged-Race Population Estimates, United States July 1st resident population by state, county, age, sex, bridged-race, and Hispanic origin. Compiled from 1990-1999 bridged-race intercensal population estimates (released by NCHS on 7/26/2004); revised bridged-race 2000-2009 intercensal population estimates (released by NCHS on 10/26/2012); and bridged-race Vintage 2018 (2010-2018) postcensal population estimates (released by NCHS on 6/25/2019). Available on CDC WONDER Online Database: http://wonder.cdc.gov/bridged-race-v2018.html

U.S. Department of Health and Human Services Office of the Administration for Children and Families Children's Bureau (USHHS ACF, 2018). Adoption Foster Care Analysis Reporting System (AFCARS). FY 2009- 2018. Retrieved at: https://www.acf.hhs.gov/cb/resource/trends-in-foster-care-and-adoption

U.S. Department of Health and Human Services Office of the Assistant Secretary for Planning & Evaluation (USHHS ASPE, January 2020). U.S. Federal Poverty Guidelines Used to Determine Eligibility for Certain Federal Programs. Retrieved at: https://aspe.hhs.gov/poverty-guidelines

Whitebook, M., McLean, C., Austin, L.J.E., & Edwards, B. (2018). Early Childhood Workforce Index – 2018. Berkeley, CA: Center for the Study of Childcare Employment, University of California, Berkeley. Retrieved from http://cscce.berkeley.edu/topic/early-childhood-workforce-index/2018/.

Appendix A: Metrics

Through the implementation of this plan and subsequent work, the Department of Early Education and Care seeks over time to achieve positive child development and educational outcomes, as well as promote increased family economic opportunity. In order to track progress toward those overarching intended impacts, the Department plans to monitor progress on 5 measurable outcomes by tracking 11 leading indicators, as summarized in the table below. At the same time, the Department will track progress toward the accomplishment of 10 additional indicators (included under the last outcome below) to monitor progress on important process

activities needed to enhance its operations and work across departments to best serve children and families.

We will track progress on these outcomes statewide, but because of our focus on equity, wherever possible EEC will disaggregate the data in accordance with key demographics or geographies to understand whether our strategies are also improving outcomes for vulnerable populations. (See Tables A-E following the Impact Framework for baseline conditions by region or population, where available.) But altogether, our hope is that they capture our ability to build a better system, one that is in service of, and in partnership with, children and families.

2020-2025 EEC Impact Framework		
Outcomes	**Leading Indicators[2]**	**Baseline**
1. Programs are stabilized and increase their sustainability	a) Growth in licensed capacity (slots) by region, program type b) Growth in licensed agencies by region, program type c) Decrease in program closings Source: EEC Administrative Records	• FY19: 236,237 licensed EEC slots available for children and youth across MA • FY19: 8,699 there were licensed EEC organizations providing early care and education services across MA • In FY19, there were 755 EEC program closings across program types in MA (See Table A)
2. Families gain equitable access to needed supports	a) Increase in licensed capacity in areas of greatest need[3] b) Increase in #/% of children in low-income families receiving childcare subsidies c) Increase in #/% of infants and toddlers in low-income households receiving childcare subsidies d) Increase in children ages 9-35 months receiving developmental screening with parent-completed tool like ASQ Sources: EEC Administrative Records, 2013-2017 American Community Survey 5-Year Estimates- Age by Ratio of Income to Poverty in the Past 12 Months, 2017-2018 National Survey of Children's Health, Child and Adolescent Health Measurement Initiative)	• In 2019, there is an estimated EEC capacity gap 45,901 slots for ages 0-4 in 'childcare deserts' across the state (See Table B) • FY19: 48,025 or ~36% of all low-income children[4] aged 0-5 received childcare subsidies • FY19: 19,198 or 24.6% of all subsidies were for infants and toddlers • In 2017-18, 37% of parents completed a developmental screen for their children

[2] NOTE: indicators of program quality and 'on track to third grade' child indicators will be developed and put into practice within the first two years of the plan – when baseline data is in place for these indicators, we will incorporate them into the evaluation framework for the plan.

[3] Areas of greatest need are defined as:
a) Childcare deserts: those areas of the state that EEC has determined have high gaps between the supply and demand for childcare for children aged 0-2 AND children aged 3-4.See full list of MA Childcare Deserts in Table B that follows.
b) Gateway Cities: 26 MA cities that have been designated as "Gateway Cities" by the legislature, which face "stubborn social and economic challenges" while retaining "many assets with unrealized potential." See Table C for a list of these communities.

[4] Source of low-income children estimate (131,381 children) is the 2013-2017 American Community Survey 5-Year Estimates- Age by Ratio of Income to Poverty in the Past 12 Months. "Low-income" is defined here as families with incomes that are up to 200% of the Federal Poverty Levels.

3. Increased supply of professionally qualified EEC workforce	a) Increase in professionally qualified EEC workforce across MA b) Increase in qualified EEC workforce diversity by race, ethnicity, primary language c) Increase in average compensation by professional category Sources: EEC Professional Qualifications Registry; 2018 Bureau of Labor Statistics State Occupational & Wage Estimates	• In 2019: there were 139,877 qualified professionals registered with EEC across all program types • In 2019: For 16% of all EEC-registered professionals, their primary language was other than English (23 other languages) • EEC is not yet collecting workforce information by race, ethnicity- the PQR system must be revised to collect. • In 2018, the average wage in MA[5] for: - a preschool teacher was $39,180 annually ($18.84/hour) - a preschool administrator was $53,990 ($25.96/hour) - a childcare worker was $30,090 ($14.47/hour)
4. Children are on track to 3rd grade success	a) Increase in 4th grade reading proficiency levels b) Increase in 4th grade math proficiency levels Source: Massachusetts Department of Elementary and Secondary Education	• 2019: 56% of all students and 33% of economically disadvantaged students are meeting or exceeding state proficiency standards for Reading • 2019: 49% of all students and 31% of economically disadvantaged students are meeting/exceeding state proficiency standards for Math Note: See Table E for more detail about educational proficiency levels by sub-groups

Table A: FY19 EEC Licensed Agency Closings Across Program Types by Region

	Family Childcare	Foster Care	Group	Large Group	Small Group	Temporary Shelter	Totals
Central	137	0	1	9	1	1	149
Metro Boston	127	0	0	18	0	0	145
Northeast	166	2	2	12	1	0	183
Southeast & Cape	113	0	4	14	0	0	131
Western	130	0	5	9	1	2	147
Statewide Totals	673	2	12	62	3	3	755

Source: FY19 EEC Administrative Licensing Records

[5] See Table D for breakdown of wage estimates by region across the Commonwealth.

Table B: Massachusetts Childcare Deserts, 2019
Cities/Towns with High Full System Gaps for Ages 0-2 AND Ages 3-4 (n=25)

	Ages 0-2				Ages 3-4			
	Need	Capacity	Gap-N	Gap-%	Need	Capacity	Gap-N	Gap-%
Statewide	212,118	53,239	158,879	75%	150,055	105,029	45,026	30%
Agawam	645	124	521	81%	752	269	483	64%
Attleboro*	1,388	239	1,149	83%	1,198	676	522	44%
Bridgewater	662	43	619	94%	486	244	242	50%
Brockton*	4,000	728	3,272	82%	2,714	1,250	1,464	54%
Chelsea*	1,953	275	1,678	86%	1,704	538	1,166	68%
Chicopee*	1,722	321	1,401	81%	1,182	702	480	41%
Everett*	1,759	256	1,503	85%	1,189	802	387	33%
Fall River*	3,339	397	2,942	88%	2,425	1,236	1,189	49%
Haverhill*	2,847	547	2,300	81%	1,594	841	753	47%
Ludlow	634	70	564	89%	490	264	226	46%
Medford	2,066	359	1,707	83%	1,194	642	552	46%
Medway	588	69	519	88%	360	177	183	51%
Middleboro	611	66	545	89%	451	200	251	56%
New Bedford*	3,504	577	2,927	84%	2,387	1,406	981	41%
Randolph	1,151	204	947	82%	689	326	363	53%
Reading	763	109	654	86%	818	393	425	52%
Revere*	1,756	271	1,485	85%	1,329	461	868	65%
Taunton*	2,169	284	1,885	87%	1,561	764	797	51%
Wareham	725	119	606	84%	479	306	173	36%
Webster	592	84	508	86%	446	236	210	47%
W. Springfield	954	112	842	88%	668	364	304	46%
Westfield*	1,243	226	1,017	82%	1,051	506	545	52%
Weymouth	1,824	224	1,600	88%	1,139	555	584	51%
Winthrop	664	97	567	85%	388	167	221	57%
Yarmouth	744	77	667	90%	366	159	207	57%
Estimated Need for Childcare Deserts	38,303	5,878	32,425	85%	27,060	13,484	13,576	50%

Source of data: Hardy, B. (2019). The Geography of Early Education and Care in Massachusetts. Unpublished Internal Report Prepared for The Massachusetts Department of Early Education and Care. Notes: 1) These cities all had absolute gaps AND percentage gaps that exceed the statewide averages, demonstrating higher than average need int these communities. 2) EEC added “estimated need” by summing the need in the areas highlighted in the report with high gaps for 0-2 and 3-4 age groups. 3. 11 out of 26 of MA-designated Gateway cities are also included in the childcare deserts list above.

Table C: Massachusetts Designated Gateway Cities List, 2019					
1	Attleboro	10	Holyoke	19	Pittsfield
2	Barnstable	11	Lawrence	20	Quincy
3	Brockton	12	Leominster	21	Revere
4	Chelsea	13	Lowell	22	Salem
5	Chicopee	14	Lynn	23	Springfield
6	Everett	15	Malden	24	Taunton
7	Fall River	16	Methuen	25	Westfield
8	Fitchburg	17	New Bedford	26	Worcester
9	Haverhill	18	Peabody		
Source: Massachusetts Institute for a New Commonwealth (MASSINC) website on 2.25.20: https://massinc.org/our-work/policy-center/gateway-cities/about-the-gateway-cities/					

Table D: Massachusetts EEC Workforce Average Compensation by Metropolitan Statistical Area, 2018						
	Preschool Teachers		Preschool Administrators		Childcare Workers	
	Annual	Hourly	Annual	Hourly	Annual	Hourly
Statewide	$39,180	$18.84	$53,990	$25.96	$30,090	$14.47
Barnstable Town, MA	$34,060	$16.38	n/a	n/a	$31,950	$15.36
Boston-Cambridge-Nashua, MA-NH	$39,540	$19.01	n/a	n/a	$30,050	$14.45
Leominster-Gardner, MA	$31,830	$15.30	n/a	n/a	$28,070	$13.68
New Bedford, MA	$32,470	$15.61	n/a	n/a	$28,890	$13.89
Pittsfield, MA	$27,860	$13.40	n/a	n/a	$26,080	$12.54
Providence-Warwick, RI-MA	$32,330	$15.55	n/a	n/a	$27,770	$13.35
Springfield, MA-CT	$39,930	$19.20	n/a	n/a	$28,740	$13.82
Worcester, MA-CT	$40,580	$19.51	n/a	n/a	$29,110	$14.00
Massachusetts nonmetropolitan area	$40,080	$19.27	n/a	n/a	$26,930	$12.95
Source: U.S. Bureau of Labor Statistics May 2018 State Occupational Employment and Wage Estimates Massachusetts.						

Table E: MCAS Tests 2019 Percent of Students at Each Achievement Level for Massachusetts						
	English Language Proficiency			Mathematics Proficiency		
Student Groups	% Exceeding	% Meeting	Total	% Exceeding	% Meeting	Total
All Students	10	46	56	8	41	49
Students w/ Disabilities	1	16	17	2	16	18
English Learners (EL) and Former EL	4	29	33	5	30	35
Economically Disadvantaged	3	30	33	3	28	31
African Amer./Black	3	30	33	2	26	28
Amer. Ind. or Alaska Nat.	6	34	40	5	32	37
Asian	19	51	70	23	53	76
Hispanic/Latino	3	30	33	3	28	31
Multi-Race, Non-Hisp./Lat.	12	45	57	10	42	52
Nat. Haw. or Pacif. Isl.	7	42	49	13	28	41
White	11	48	59	9	47	56
Foster	2	21	23	2	21	23
Homeless	2	19	21	1	18	19
Migrant	5	30	35	5	48	53
Military	7	38	45	5	44	49

Source: 2019 Next Generation MCAS Results by Subgroup by Grade and Subject Massachusetts Department of Elementary and Secondary Education Website on 2.25.20 at: http://profiles.doe.mass.edu/mcas/subgroups2.aspx?linkid=25&orgcode=00000000&fycode=2019&orgtypecode=0&