Report Outline

- DRIVE: An Introduction
- Five Years of DRIVE: FY14-18 Data Overview
- Zooming in on FY18 Data
- FY18 ASQ-3 Data Deep Dive
- FY18 ASQ:SE-2 Data Deep Dive
- DRIVE FY18 Key Findings & What’s Next
Data and Resources Investing in Vital Early Education (DRIVE): An Introduction
Enter school ready to learn
• Develop critical social and academic skills
• Get support outside of school to stay in school, and graduate

Financial Opportunity
• Safe housing, healthy food, and quality child care
• Job training and placement
• Access to financial advice
Data and Resources Investing in Vital Early Education (DRIVE)

United Way of Massachusetts Bay & Merrimack Valley’s early education initiative focuses on developmental screening for young children with the Ages and Stages Questionnaire (ASQ) and Ages and Stages Questionnaire: Social Emotional (ASQ:SE) through partnerships with child care centers, community agencies, school departments and state agencies.

Goals

- **Support Children & Families**
  - Build community capacity to screen children early for potential developmental concerns, and use screening as an opportunity for family engagement, education, and referral to services.

- **Inform Policy & Systems Change**
  - Build infrastructure to better understand the developmental progress of young children.
    - Work with communities to leverage early childhood data for children entering kindergarten.
    - Inform state-level conversations through data.
DRIVE: Addressing the Early Education Data Gap

- After children leave the hospital at birth, there is limited systematic and comprehensive assessment data about their development until they enter kindergarten.

- On average, only 60% of children ages 3-5 in MA have access to early education & care programs.

- Only 55% of children ages 0-5 receive developmental screening through their health care provider.

- Massachusetts cities have high rates of Special Education, including Boston (almost 20%), Springfield (almost 20%) and Lynn (16%).
At kindergarten entry, only 63% of BPS kindergarteners have a high probability (80%) of achieving later reading goals.

37% of BPS kindergarteners will need additional instructional support to reach these goals.

*Information obtained from Boston Public Schools*
The Gears of DRIVE Support the Early Education Community

- **Strong Partnerships with Child Care Centers & Community Agencies**
- **Access to ASQ & ASQSE Screening Materials**
- **Collaboration with State Agencies**
- **Training on ASQ & ASQSE**
- **Access to Timely Aggregate Data**
- **Triannual Communities of Practice**
- **Parent Screener Model**
Why the ASQ and ASQSE?

- Promote parent involvement: Parent-led screening tool, focused on family engagement and parent/caregiver as child’s first teacher

- Developmental screening appropriate for age group: Covers 5 areas of development for ages 1 month to 5 ½ years (Communication, Gross Motor, Fine Motor, Problem Solving, Personal Social)

- Reliable and valid: Normed based on parent responses compared to other validated screening tools

- Supplemental tools: ASQ and ASQSE are created by the same publisher and intended for use together

*Supported by research completed by the Early Literacy Expert Panel
DRIVE Partners Use Data to Support Children and Engage Families

Data is used to support programs in addressing child needs and engaging families in their child’s early learning

- 33% of partners report Early Intervention as their most common referral following developmental screening
- 33% of partners report using DRIVE data for family engagement

*Information provided through DRIVE Partner end of year survey

"This is our first year using the DRIVE data. [It’s] much easier to track data on children [and] easier to communicate information with both parents and the child’s teachers." – DRIVE Partner

“We have had a number of successes in connecting families to EI [Early Intervention]. And when a referral was not needed, [there were] good conversations about the development of the child and ways to support their growth." – DRIVE Partner

“We have begun working with families more to understand what ASQ is, why it is important, and how they can use the information to influence activities and conversations at home.” – DRIVE Partner
DRIVE Partners Use Data to Enhance Developmental Screening Work

Data is used to evolve developmental screening work in programs and support program growth.

- 33% of DRIVE partners report adding the ASQ:SE-2 to program practice in FY18
- Almost 33% of DRIVE partners report screening children more frequently in FY18

“We applied for additional funding to support the ASQ team…With additional funding we looked back and contacted families with children who screened in the low grey (almost black) and offered a follow up screen.” – DRIVE Partner

“We have begun screening children using ASQ:SE-2 when their scores on the ASQ-3 indicate we should.” – DRIVE Partner

“We have increase[d] the amount of ASQ[s] we have done this year compare[d] to last year. We are also using the ASQ:SE-2 and doing a lot more Re-Screen[s] than last year.” – DRIVE Partner

*Information provided through DRIVE Partner end of year survey
DRIVE Partners Use Data to Improve Programming

Data is used to inform program decisions such as classroom materials and curriculum.

- Almost 33% of DRIVE partners report using DRIVE data for curriculum development or program improvement

- Other partners report new classroom materials, new equipment, or use of consultation

*Information provided through DRIVE Partner end of year survey

"Having access to the online DRIVE data allow[s] our limited staff to best plan for all children[‘s] daily activities." – DRIVE Partner

"Looking at the collective information in a[n] overall group dynamic helps us to inform staff and families as to the needs of the groups." – DRIVE Partner

"[Added] additional sensory materials to enhance children[‘s] play for social emotional support." – DRIVE Partner
DRIVE Has a Strong Presence in the Early Education Community

- Utilized DRIVE learnings to inform state conversations about early childhood
- Contributed to conversations within the Birth to 8 Collaborative in Boston
- Presented to various communities of practice in national EC-LINC learning community
- Supported St. Louis in replication of DRIVE
Five Years of DRIVE
FY14-18 Data Overview
DRIVE Has Grown Exponentially Over the Last Five Years

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Total # of Screens</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 (n=798)</td>
<td>22 776</td>
</tr>
<tr>
<td>2015 (n=1622)</td>
<td>1384 238</td>
</tr>
<tr>
<td>2016 (n=1909)</td>
<td>1539 370</td>
</tr>
<tr>
<td>2017 (n=2474)</td>
<td>1941 533</td>
</tr>
<tr>
<td>2018 (n=3568)</td>
<td>2592 976</td>
</tr>
</tbody>
</table>
The Last Five Years At a Glance

8,232 ASQ-3 Screens + 2,140 ASQSE/ASQ:SE-2 Screens = 10,372 Total Screens

6,261 individual children have been screened through DRIVE

1,506 individual children have been screened with both ASQ-3 and ASQSE/ASQ:SE-2
New Communities and Programs are Participating in DRIVE This Year

DRIVE partners are concentrated most heavily in Lynn, Chelsea, and Boston.

Data is also included for individual programs in Lawrence, Malden, Peabody, and Somerville.

DRIVE partners range from starting in FY14 to new partners this year in FY18.
Zooming in on FY18 Data
DRIVE in FY18 At a Glance

- **3,568** Total Screens
- **2,327** Individual Children Screened (either ASQ-3 or ASQ:SE-2)
- **725** Individual Children Screened with both ASQ-3 and ASQ:SE-2
- **477** Re-screens Completed (either ASQ-3 or ASQ:SE-2)
DRIVE is Most Concentrated in Boston with Increased Presence in Other Communities

75% of children screened are in Boston

Of Boston (75%), Dorchester (33%), East Boston (14%), Roxbury (14%) have the largest representation

15% of children screened are in the North Shore
DRIVE Includes Formal and Informal Child Care Settings

<table>
<thead>
<tr>
<th>Child Care Type</th>
<th>Number of Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center-based child care provider</td>
<td>681</td>
</tr>
<tr>
<td>Licensed family child care provider</td>
<td>412</td>
</tr>
<tr>
<td>More than one category</td>
<td>219</td>
</tr>
<tr>
<td>No response</td>
<td>71</td>
</tr>
<tr>
<td>Non-relative person (babysitter, nanny, friend)</td>
<td>16</td>
</tr>
<tr>
<td>Other relative (aunt, uncle, cousin)</td>
<td>7</td>
</tr>
<tr>
<td>Relative (mom, dad, sibling, grandparent)</td>
<td>699</td>
</tr>
</tbody>
</table>

29% of children are in informal child care with a relative

24% of children are in a formal center-based child care
At Least 25% of Children Screened Do Not Speak English at Home

23% of children screened are in bilingual or multilingual homes

Spanish (36%) is the most common language spoken at home other than English
DRIVE Zooms in on Racial and Ethnic Minority Populations

<table>
<thead>
<tr>
<th>Race or Ethnicity Category</th>
<th>DRIVE Representation of Race or Ethnicity Category*</th>
<th>2017 US Census Representation of Race or Ethnicity Category - MA</th>
<th>2017 US Census Representation of Race or Ethnicity Category - Boston</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>6%</td>
<td>6.9%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>32%</td>
<td>8.8%</td>
<td>25.4%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>32%</td>
<td>11.9%</td>
<td>19%</td>
</tr>
<tr>
<td>Two or more races</td>
<td>6%</td>
<td>2.4%</td>
<td>4.9%</td>
</tr>
<tr>
<td>White</td>
<td>26%</td>
<td>72.2%</td>
<td>45.3%</td>
</tr>
</tbody>
</table>

*Data does not represent all children screened through DRIVE, due to demographic information left blank.

21% of children in DRIVE reported as “Other” category for race demographic

28% of children in “Other” category for Race demographic were identified elsewhere in demographic information as Hispanic/Latino
Families in DRIVE are diverse in educational attainment & employment status.
Of Families Receiving Public Assistance, Almost Half Receive More than One Resource

392 children received more than two resources

*Charts to do not represent all children screened through DRIVE, due to demographic information left blank.
Three and Four Year Olds are the Most Screened Age Group in DRIVE

<table>
<thead>
<tr>
<th>ASQ-3 Age Interval</th>
<th># of Individual Children Screened (n=2143)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 month</td>
<td>50</td>
</tr>
<tr>
<td>4 month</td>
<td>60</td>
</tr>
<tr>
<td>6 month</td>
<td>70</td>
</tr>
<tr>
<td>8 month</td>
<td>50</td>
</tr>
<tr>
<td>9 month</td>
<td>217</td>
</tr>
<tr>
<td>10 month</td>
<td>209</td>
</tr>
<tr>
<td>12 month</td>
<td>294</td>
</tr>
<tr>
<td>14 month</td>
<td>281</td>
</tr>
<tr>
<td>16 month</td>
<td>209</td>
</tr>
<tr>
<td>18 month</td>
<td>209</td>
</tr>
<tr>
<td>20 month</td>
<td>209</td>
</tr>
<tr>
<td>22 month</td>
<td>209</td>
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<tr>
<td>24 month</td>
<td>209</td>
</tr>
<tr>
<td>26 month</td>
<td>209</td>
</tr>
<tr>
<td>28 month</td>
<td>209</td>
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<tr>
<td>30 month</td>
<td>209</td>
</tr>
<tr>
<td>32 month</td>
<td>209</td>
</tr>
<tr>
<td>34 month</td>
<td>209</td>
</tr>
<tr>
<td>36 month</td>
<td>209</td>
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<tr>
<td>38 month</td>
<td>209</td>
</tr>
<tr>
<td>40 month</td>
<td>209</td>
</tr>
<tr>
<td>42 month</td>
<td>209</td>
</tr>
<tr>
<td>44 month</td>
<td>209</td>
</tr>
<tr>
<td>46 month</td>
<td>209</td>
</tr>
<tr>
<td>48 month</td>
<td>209</td>
</tr>
<tr>
<td>50 month</td>
<td>209</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASQ:SE-2 Age Interval</th>
<th># of Individual Children Screened (n=911)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 month</td>
<td>307</td>
</tr>
<tr>
<td>6 month</td>
<td>217</td>
</tr>
<tr>
<td>12 month</td>
<td>48</td>
</tr>
<tr>
<td>18 month</td>
<td>48</td>
</tr>
<tr>
<td>24 month</td>
<td>48</td>
</tr>
<tr>
<td>30 month</td>
<td>48</td>
</tr>
<tr>
<td>36 month</td>
<td>307</td>
</tr>
<tr>
<td>42 month</td>
<td>217</td>
</tr>
<tr>
<td>48 month</td>
<td>217</td>
</tr>
<tr>
<td>54 month</td>
<td>48</td>
</tr>
</tbody>
</table>

36 month, 42 month and 48 month ASQ-3s were 37% of ASQ-3 screens (individual children)

36 month and 42 month ASQ:SE-2s were 58% of ASQ:SE-2 screens (individual children)
FY18 ASQ-3 Data Deep Dive
ASQ-3 Basic Principles

ASQ-3: Ages and Stages Questionnaire, 3rd Edition (Brookes Publishing Company) – Screening tool that covers five areas of child development

- **Communication**: How children express wants/needs and understand what others tell them
- **Gross Motor**: How children use the big muscles in their bodies to move
- **Fine Motor**: How children use the small muscles in their hands to manipulate objects
- **Problem Solving**: How children learn to understand the world around them
- **Personal Social**: How children interact with others and learn early independence
ASQ-3 in FY18 At a Glance

- **2,592** Total ASQ-3 screens
- **2,143** Individual Children screened
- **414** ASQ-3 Re-screens completed in FY18
- **356** Children screened more than one time in FY18 with ASQ-3
With More Children Screened, Fewer Children are “On Track” This Year

*Statistically significant (p>.05)

**On Track category is “On Track” in all 5 ASQ-3 areas.
Potential Concern is a “Potential Concern” in any one developmental area of the ASQ-3.
Strong Concern is a “Strong Concern” in any one developmental area of the ASQ-3.

Of the new children screened in FY18, approximately 3% fewer were "On Track" as compared to all children screened in FY17.

Nearly 1,000 more individual children were screened this year in more programs and communities.
The Percentage of Children Scoring "On Track" Dropped This Year in Three Domains

Fewer children screened in FY18 are "On Track" than children screened in FY17

Communication, Gross Motor and Personal-Social are notable decreases in "On Track" percentage

*Statistically significant (p>.05)
Females Overall are More “On Track” Than Males

Slightly more Females (50%) than Males (49%) screened in FY18

5% more of Males screened this year showed “Strong Concern” than Males screened last year, and almost 7% fewer are “On Track”

Overall percentages for Females are similar this year

*Statistically significant (p>.05)
Females are More “On Track” than Males in All Areas of ASQ-3

*Statistically significant (p>.05)

Females were more “On Track” than Males in all areas of development for FY18

This is a change from FY17, when Males were more “On Track” for Gross Motor than Females
Some Age Intervals Have Fewer Children “On Track”

"On Track" Results by ASQ-3 Age Interval (n=2143)

ASQ-3 Intervals 16, 20, 24 and 36 months have significantly less children “On Track”

Older age intervals of 48 and 54 months, have a higher percentage of children “On Track”

*Statistically significant (p>.05)

**9 month and 10 month age intervals can both be used for children 9 months.
Informal and Formal Child Care are Similar in Percentage of Children "On Track"

Children in Licensed Family Child Care show the highest percentage of children “On Track”

*Statistically significant (p>.05)
Caregiver Education Attainment Correlates With Child Development

Children with caregivers who have not completed High School demonstrate a lower percentage of "On Track" results and a higher percentage of "Potential Concern" results.

Children with caregivers who have not moved beyond High School demonstrate a lower percentage of "On Track" results.

*Statistically significant (p>.05)
DRIVE Compares Results by Ethnicity & Race

48% of children identified as Hispanic/Latino were “On Track”, which is 7% less than the overall percentage of children “On Track”

36% of children identified as Cape Verdean were “On Track”, which is 19% less than the overall percentage of children “On Track”

No significant differences in results by race

*Statistically significant (p>.05)
Low Percentage of Children with Strong Concern were Re-Screened (FY14-18)

28% of children who scored with a “Strong Concern” were screened again following that result.

“Potential Concern” result yielded the highest re-screen rate.
Children Show Improvement when Re-Screened (FY14-18)

This is true for all five developmental areas.

Change is most significant when re-screened between 2-6 months and 6 months-1 year.

80% of children who were “On Track” remained “On Track” at re-screen.

65% of children who showed “Strong Concern” showed “Potential Concern” or were “On Track” at re-screen.

Do Children Improve When Re-Screened? (FY14-18)
(n=2270)

% of Children “On Track”

<table>
<thead>
<tr>
<th>Time Difference Between Screens</th>
<th>Previous Screen</th>
<th>Re-Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-6mos</td>
<td>52%</td>
<td>65% *</td>
</tr>
<tr>
<td>6mos-1yr</td>
<td>61% *</td>
<td>67% *</td>
</tr>
<tr>
<td>1yr-18mos</td>
<td>59% 58%</td>
<td></td>
</tr>
<tr>
<td>18mos-2yrs</td>
<td>55% 59%</td>
<td></td>
</tr>
<tr>
<td>2yrs-3yrs</td>
<td>48%</td>
<td>60%</td>
</tr>
<tr>
<td>3yrs+</td>
<td>71% 71%</td>
<td></td>
</tr>
</tbody>
</table>

*Statistically significant (p>.05)
Females and Males Both Improve when Re-Screened (FY14-18)

Both genders show most significant change when re-screened within 2-6 months, similar to overall results.

Females improvement is also significant between 6 months–1 year.

*Statistically significant (p>.05)
FY18 ASQ:SE-2 Data Deep Dive
ASQ:SE-2 Basic Principles

ASQSE/ASQ:SE-2: Ages and Stages Questionnaire: Social Emotional, 2nd Edition (Brookes Publishing Company) – Screening tool focused on social emotional development of children that builds upon Personal Social section of ASQ-3 and covers seven areas of social/emotional health

*Adapted from Brookes Publishing Company*
ASQ:SE-2 in FY18 At a Glance

- **976** Total ASQ:SE-2 screens
- **910** Individual children screened
- **63** ASQ:SE-2 Re-screens in FY18

ASQ:SE/ASQ:SE-2 Growth over Five Years

45% Increase
With More Children Screened, Fewer Children are “On Track” This Year

Of children screened in FY18, 4% less were "On Track" than children screened in FY17.
Females and Males Screened in FY18 were Less "On Track" Than Those Screened Last Year

Slightly more Females (51%) than Males (49%) screened in FY18.

Males screened in FY18 show higher percentage of “Strong Concern” results than Males in FY17 and than Females either year.

Females and Males screened in FY18 both show slight increase in percentage of “Potential Concern” results.

*Statistically significant (p>.05)
Two-Year Olds Show Most Concern on ASQ:SE-2

Children in the 24 month age interval had the lowest percentage of “On Track” results, and the highest percentage of “Strong Concern”

Children in the 12 month age interval also showed a higher percentage of “Strong Concern”

*Statistically significant (p>.05)
Children who Speak Spanish at Home Show Stronger Social Emotional Results

More children with a primary home language of Spanish were "on track" than those with other primary home languages.

*Statistically significant (p>.05)
Caregiver Employment Status Correlates with Social Emotional Development

“On Track” ASQ:SE-2 Results by Caregiver Education
(n=756)

<table>
<thead>
<tr>
<th>Caregiver Employment</th>
<th>% of Children “On Track”</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than one category (24)</td>
<td>71%</td>
</tr>
<tr>
<td>Retired (n=4)</td>
<td>100%*</td>
</tr>
<tr>
<td>Stay at Home Parent/Guardian (n=85)</td>
<td>81%</td>
</tr>
<tr>
<td>Student (n=30)</td>
<td>93%*</td>
</tr>
<tr>
<td>Unemployed (n=179)</td>
<td>83%</td>
</tr>
<tr>
<td>Working Full Time (n=318)</td>
<td>76%</td>
</tr>
<tr>
<td>Working Part Time (n=116)</td>
<td>77%</td>
</tr>
</tbody>
</table>

Children whose caregivers reported employment status as Student or Retired demonstrated the highest percentage of “On Track” results.

*Statistically significant (p>.05)
DRIVE FY18 Key Findings & What’s Next
Key Findings

- Fewer children screened in FY18 are "On Track" in the areas of Communication, Gross Motor and Personal-Social on the ASQ-3 and overall on the ASQ:SE-2 than children screened in FY17.

- Less than 33% of children are being screened more than one time BUT when children are being re-screened they are showing improvement.

- Caregiver educational attainment and employment status correlate with child development.
DRIVE Target Areas for FY19 Based on Key Findings

- **Strive for more children "On Track" in all areas of development next year**
  - Increased focus on resources targeting all areas of development

- **Increase consistency and frequency of re-screening to support child improvement**
  - Emphasis on re-screening for ongoing screening effort within the year

- **Target the whole family when looking at child development**
  - Focus on two generational approaches that support caregivers’ need to access resources and opportunities to growth simultaneously with their children.

- **Continue to highlight the importance of social emotional development of young children**
  - Connect partners to targeted social emotional resources
DRIVE Action Steps for FY19

- New partnerships support expansion into Chelsea, Springfield, Somerville and Gloucester

- Partners tracking referrals and resources provided to families after completing an ASQ-3 or ASQ:SE-2 will allow DRIVE to assess the relationship between referrals and resources provided and change in screening results over time

- Use of Shared Services platform with appropriate partners to address staff turnover (reported by 30% of DRIVE partners to be the biggest challenge in FY17)
Questions?

drive@supportunitedway.org