United Way's

DRiVE

INITIATIVE

Screen to Succeed

FY18 ANNUAL DATA REPORT

Created September 2018

United Way of Massachusetts Bay and Merrimack Valley

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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

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Data and Resources Investing in Vital Early Education (DRIVE):
An Introduction

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

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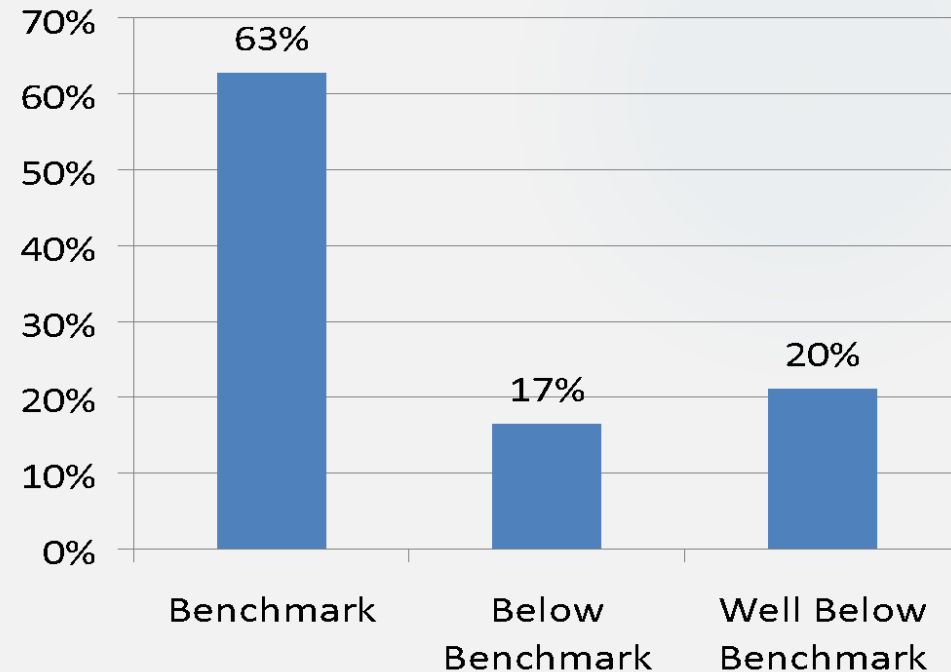United Way

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%)**

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DRIVE: Targeting School Readiness

▶ 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

BPS 5 year old Kindergarten DIBELS assessment results (Fall 2013, n=3,909)

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The Gears of DRIVE Support the Early Education Community

Training on ASQ & ASQSE

Strong Partnerships with Child Care Centers & Community Agencies

Access to ASQ & ASQSE Screening Materials

Collaboration with State Agencies

Access to Timely Aggregate Data

Triannual Communities of Practice

Parent Screener Model

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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

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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

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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

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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

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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

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Five Years of DRIVE
FY14-18 Data Overview

DRIVE Has Grown Exponentially Over the Last Five Years
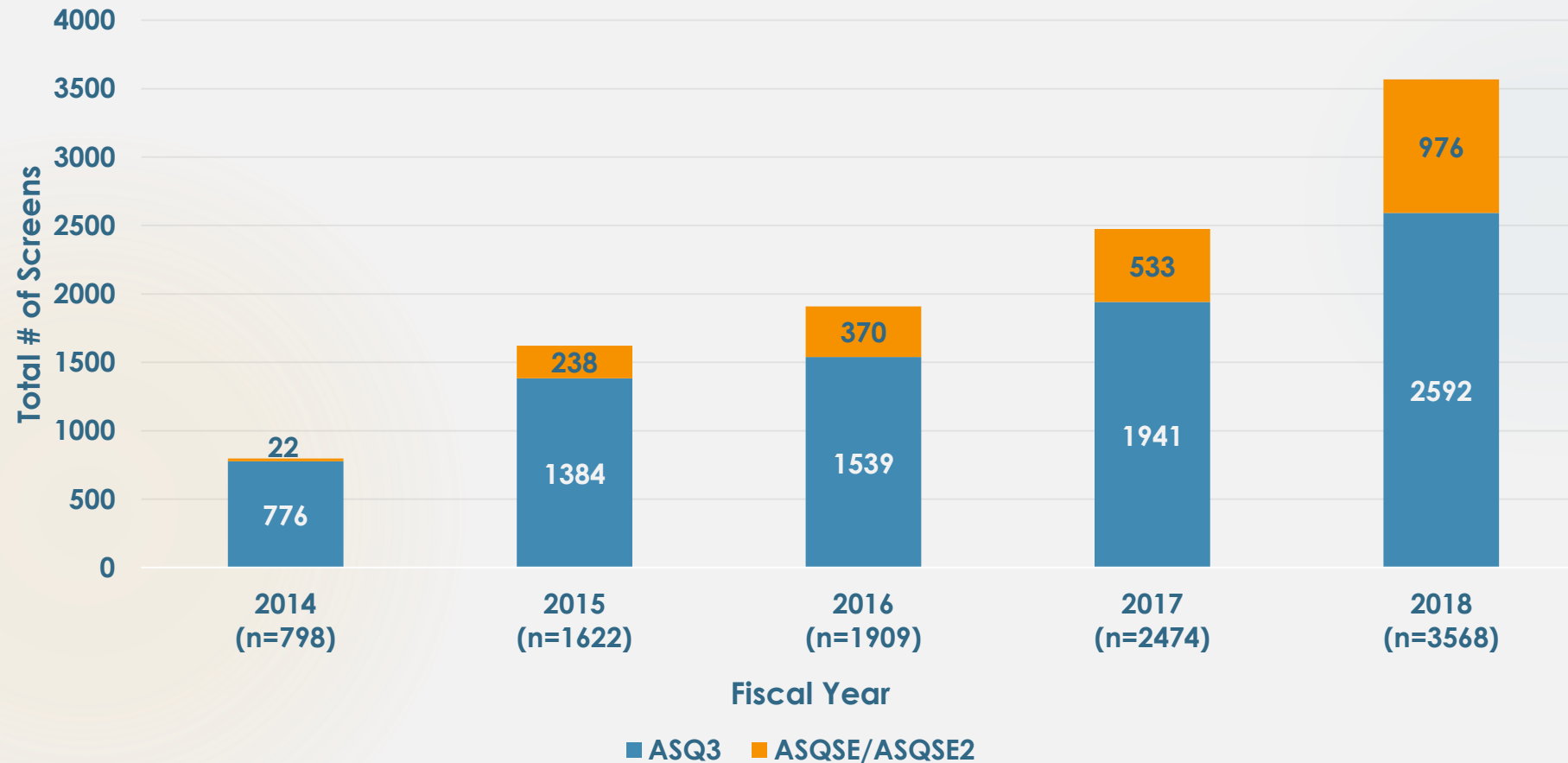
The Last Five Years At a Glance

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

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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

Map Key:
Red = FY14
Blue = FY15
Grey = FY16
Purple = FY17
Green = FY18

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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)

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DRIVE is Most Concentrated in Boston with Increased Presence in Other Communities
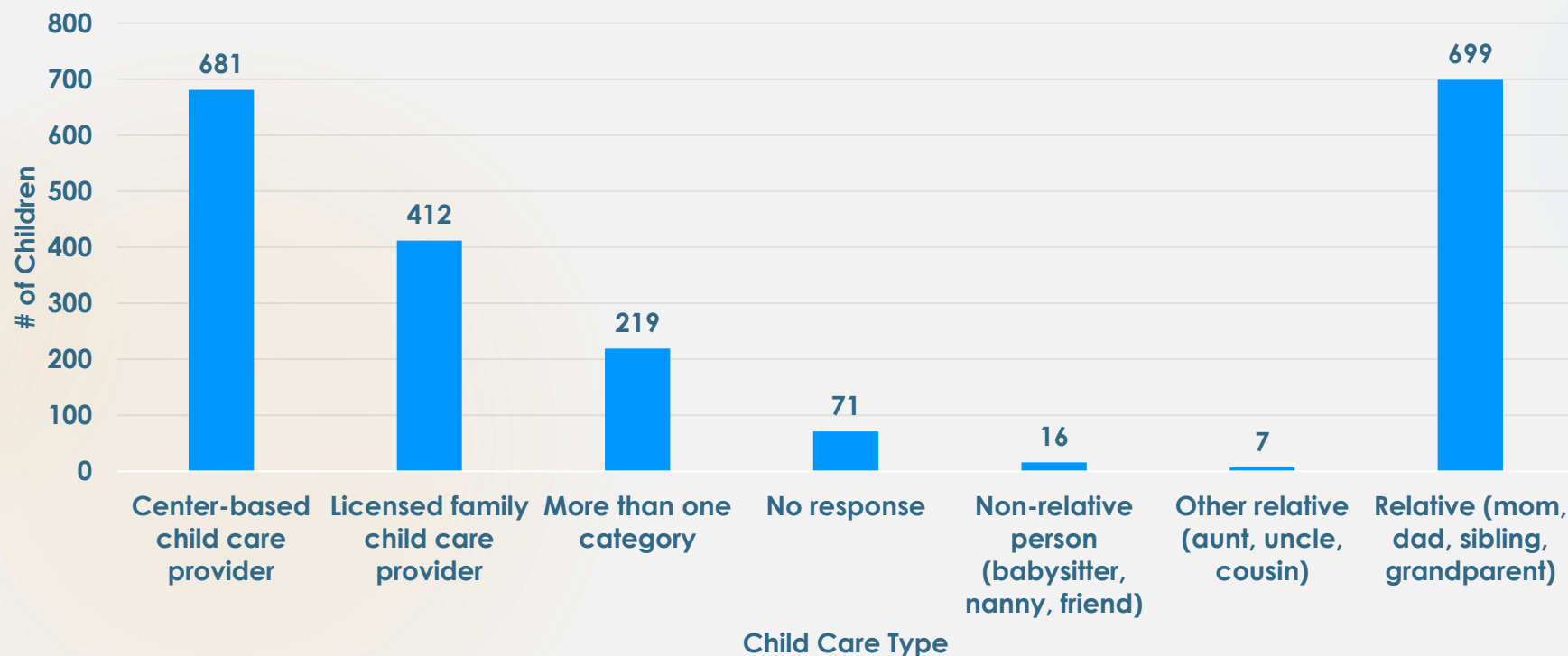
DRIVE by Region FY18 (n=2327)
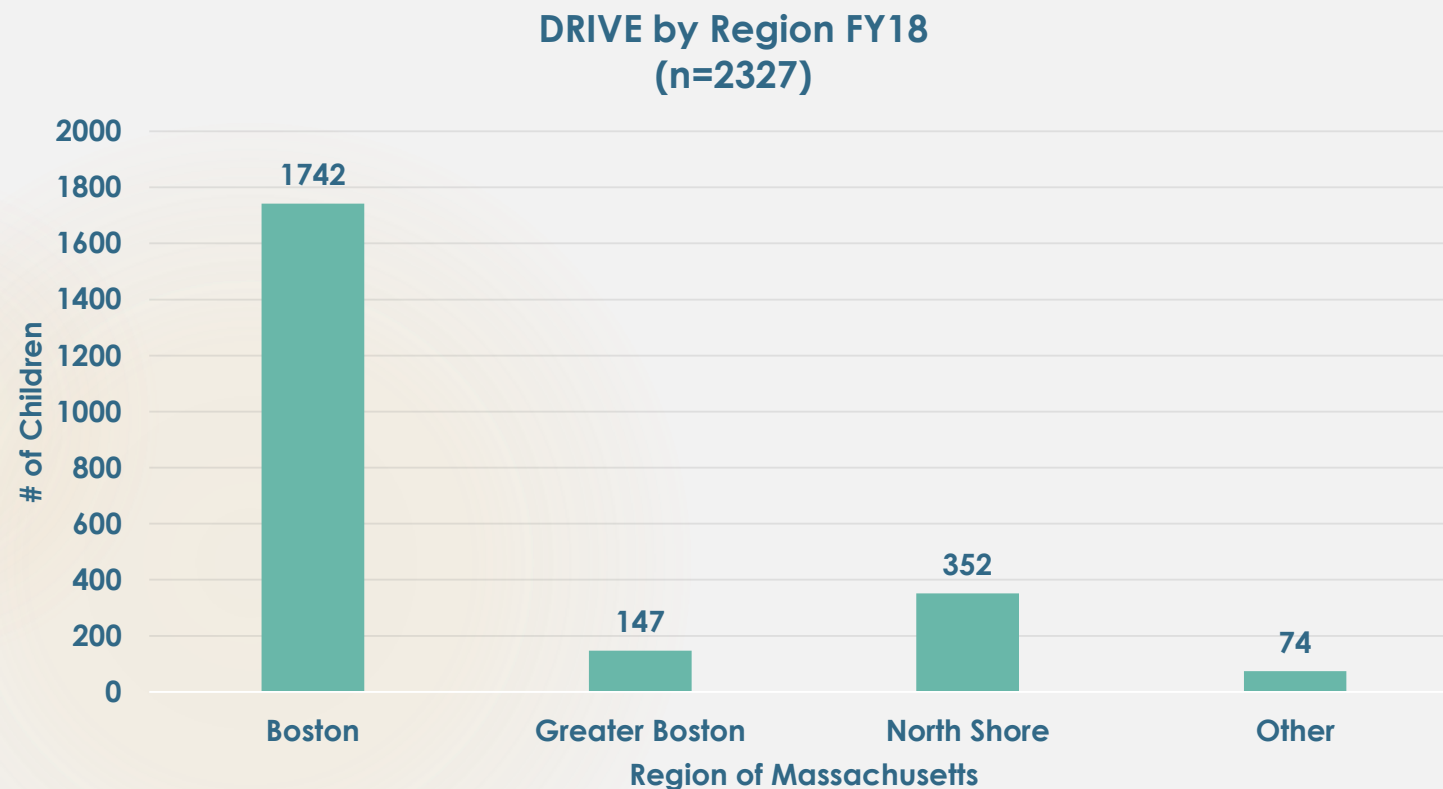
75% of children screened are in Boston

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

15% of children screened are in the North Shore

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DRIVE Includes Formal and Informal Child Care Settings

Number of Children by Child Care Setting (n=2327)

Bar chart — # of Children (y-axis) by Child Care Type (x-axis):
- Center-based child care provider: 681
- Licensed family child care provider: 412
- More than one category: 219
- No response: 71
- Non-relative person (babysitter, nanny, friend): 16
- Other relative (aunt, uncle, cousin): 7
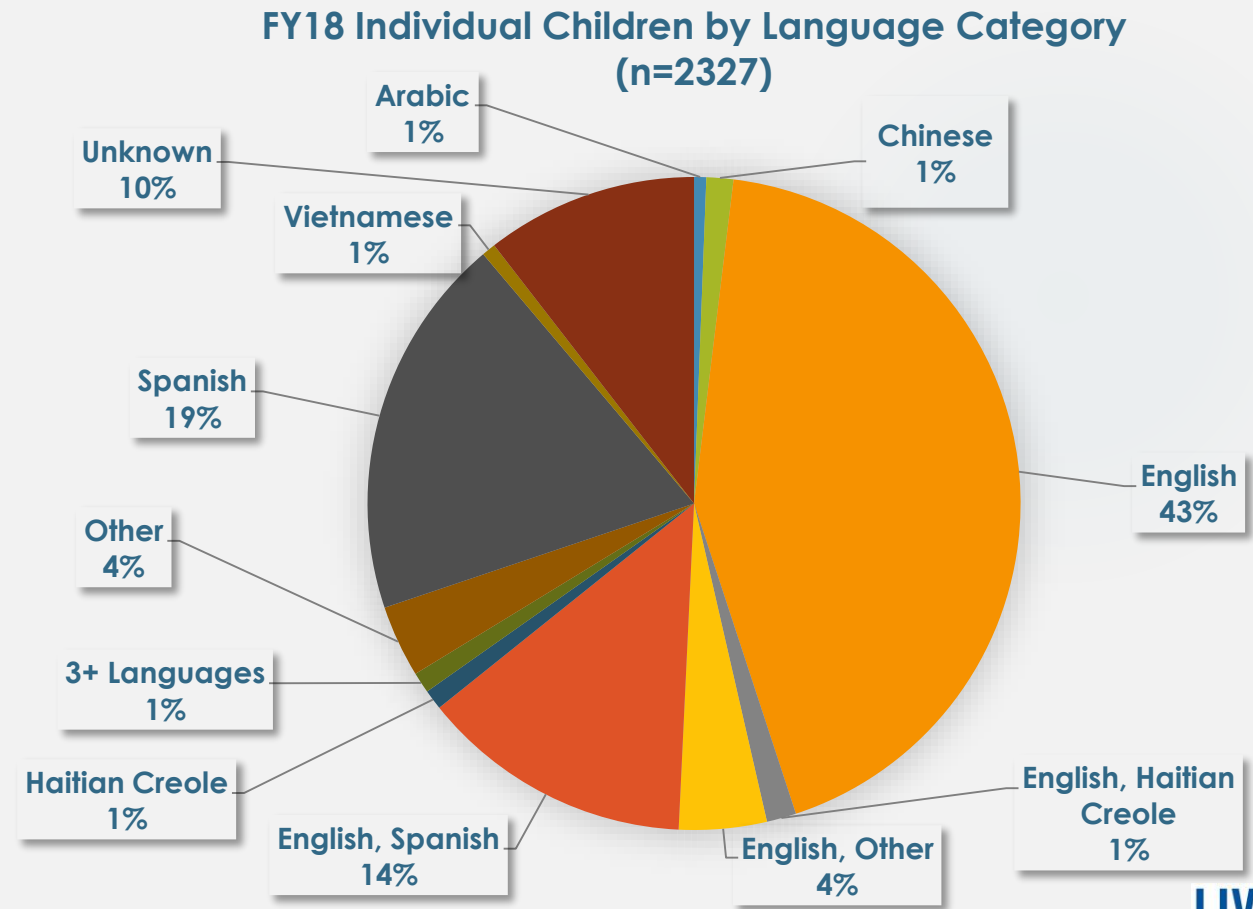- Relative (mom, dad, sibling, grandparent): 699

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

24% of children are in a formal center-based child care

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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

FY18 Individual Children by Language Category (n=2327)

- Arabic 1%
- Chinese 1%
- Unknown 10%
- Vietnamese 1%
- Spanish 19%
- English 43%
- Other 4%
- 3+ Languages 1%
- Haitian Creole 1%
- English, Spanish 14%
- English, Other 4%
- English, Haitian Creole 1%
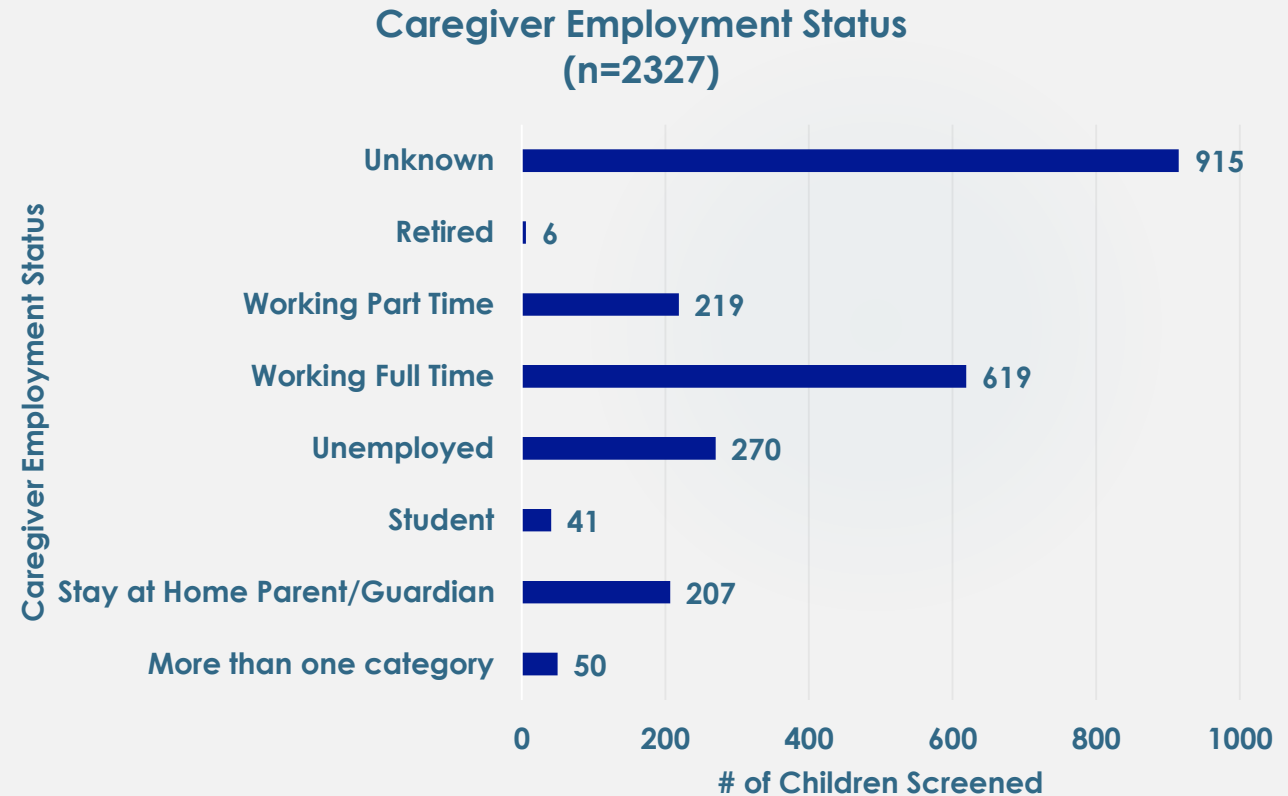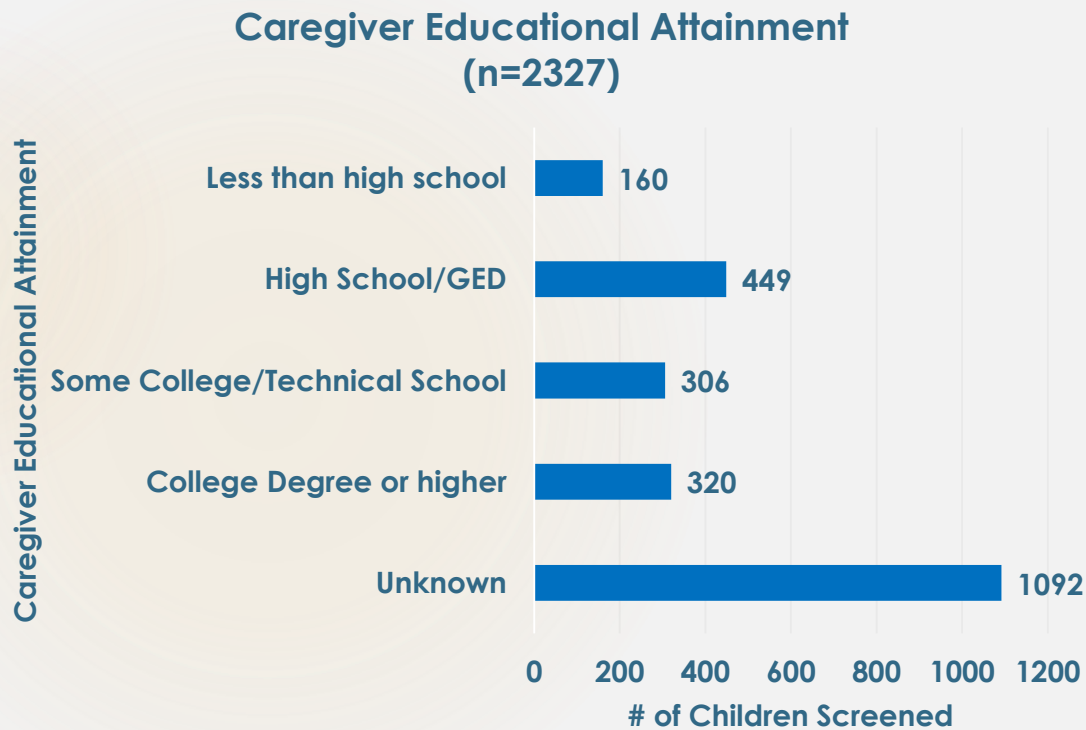
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DRIVE Zooms in on Racial and Ethnic Minority Populations

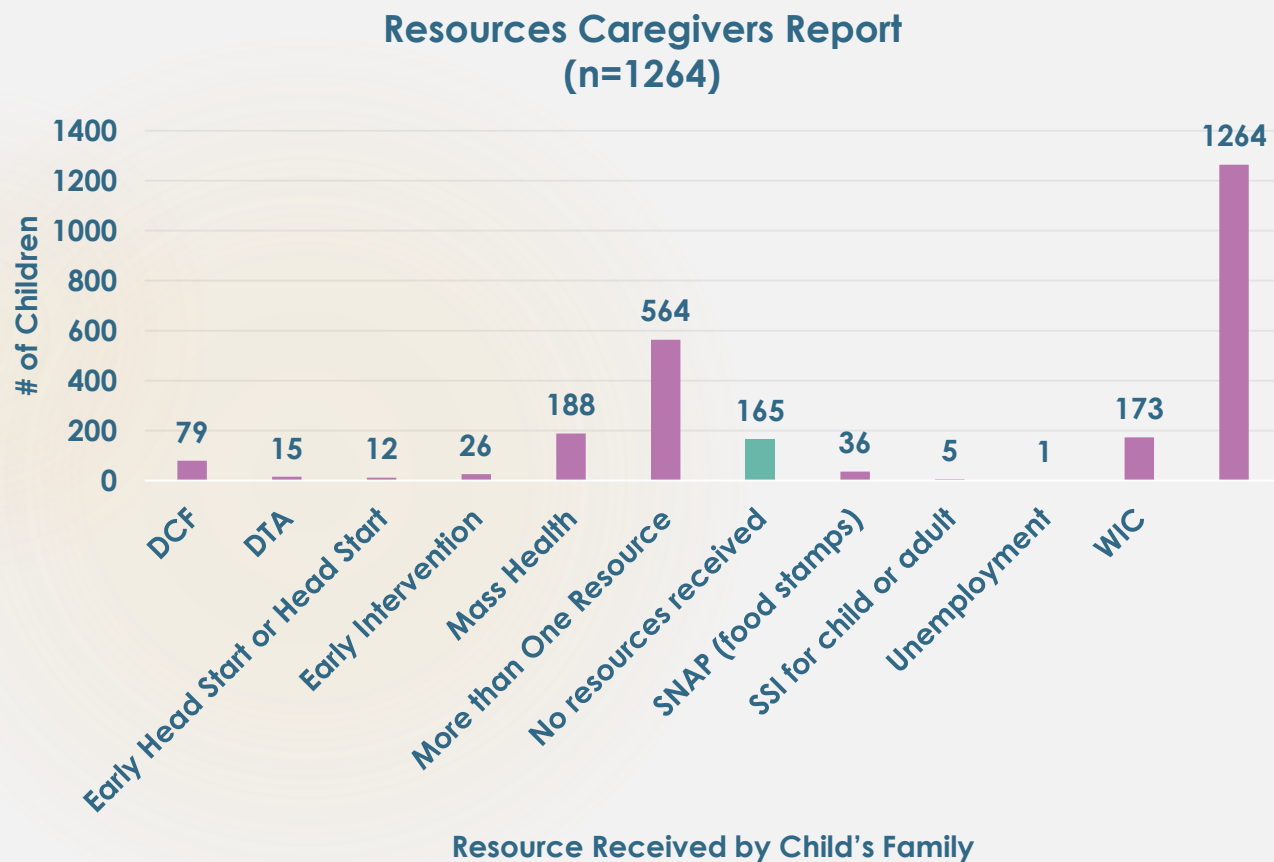| Race or Ethnicity Category	DRIVE Representation of Race or Ethnicity Category*	2017 US Census Representation of Race or Ethnicity Category - MA	2017 US Census Representation of Race or Ethnicity Category - Boston
Asian	6%	6.9%	9.3%
Black or African American	**32%**	8.8%	25.4%
Hispanic/Latino	**32%**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

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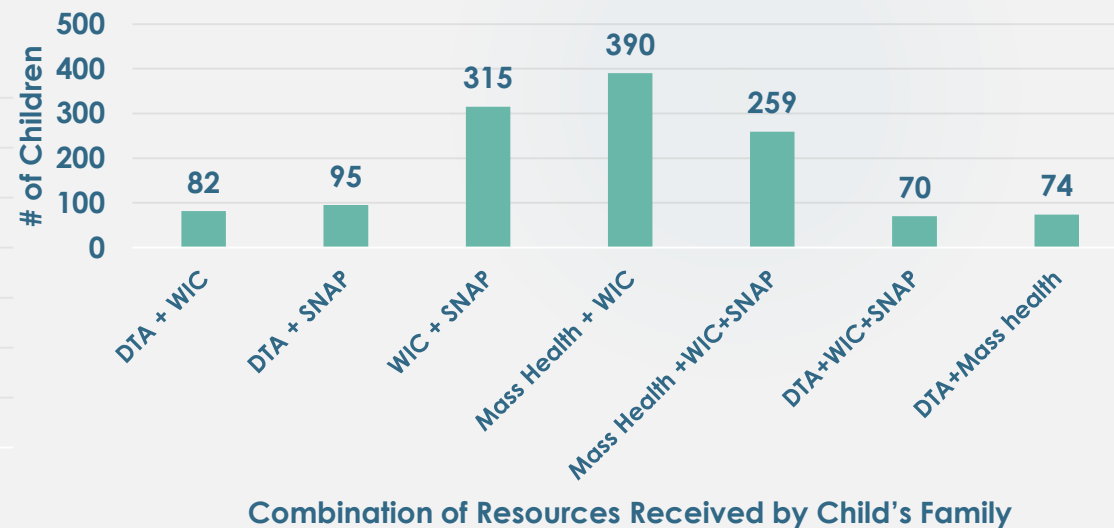
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*Data does not represent all children screened through DRIVE, due to demographic information left blank.

Families in DRIVE are Diverse in Educational Attainment & Employment Status

Caregiver Educational Attainment (n=2327)

(Caregiver Educational Attainment — # of Children Screened)

- Less than high school: 160
- High School/GED: 449
- Some College/Technical School: 306
- College Degree or higher: 320
- Unknown: 1092

Caregiver Employment Status (n=2327)

(Caregiver Employment Status — # of Children Screened)

- Unknown: 915
- Retired: 6
- Working Part Time: 219
- Working Full Time: 619
- Unemployed: 270
- Student: 41
- Stay at Home Parent/Guardian: 207
- More than one category: 50

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Of Families Receiving Public Assistance, Almost Half Receive More than One Resource

Resources Caregivers Report (n=1264)

# of Children

- DCF: 79
- DTA: 15
- Early Head Start or Head Start: 12
- Early Intervention: 26
- Mass Health: 188
- More than One Resource: 564
- No resources received: 165
- SNAP (food stamps): 36
- SSI for child or adult: 5
- Unemployment: 1
- WIC: 173
- : 1264

Resource Received by Child's Family

Most Common Combinations within More than One Resource (n=564)

# of Children

- DTA + WIC: 82
- DTA + SNAP: 95
- WIC + SNAP: 315
- Mass Health + WIC: 390
- Mass Health +WIC+SNAP: 259
- DTA+WIC+SNAP: 70
- DTA+Mass health: 74

Combination of Resources Received by Child's Family

392 children received more than two resources

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

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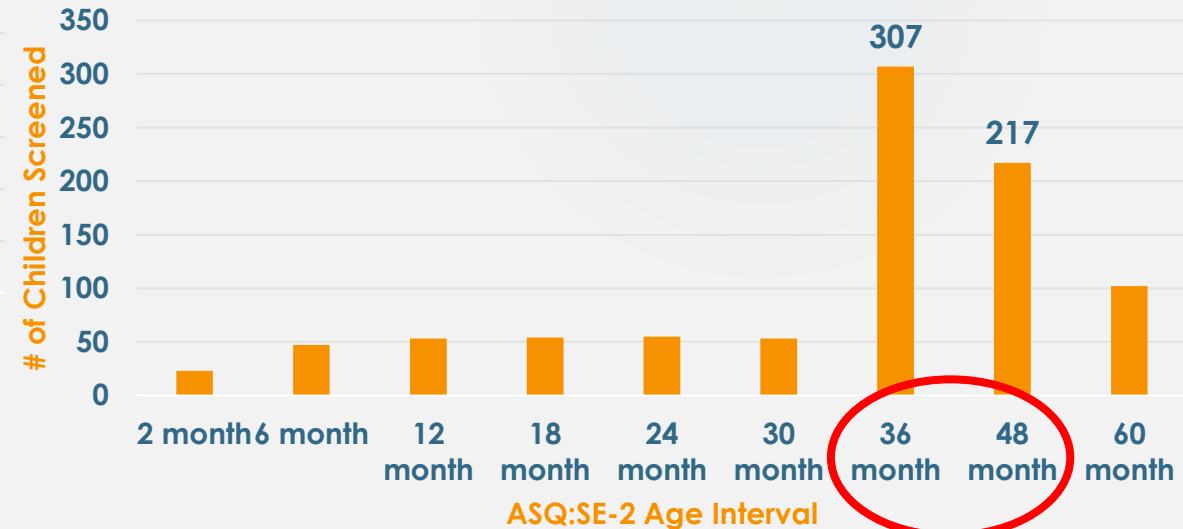# Three and Four Year Olds are the Most Screened Age Group in DRIVE

36 month and 42 month ASQ:SE-2s were 58% of ASQ:SE-2 screens (individual children)

of Individual Children Screened by Age Interval (n=2143)

of Individual Children Screened by ASQ:SE-2 Interval (n=911)
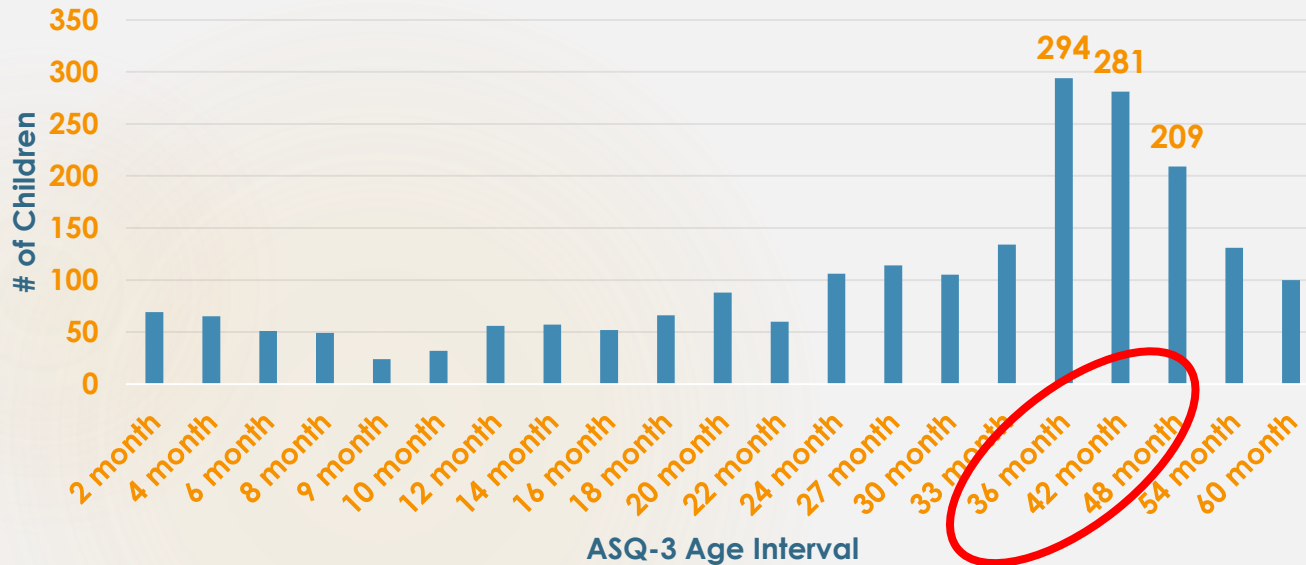
36 month, 42 month and 48 month ASQ-3s were 37% of ASQ-3 screens (individual children)

FY18 ASQ-3 Data Deep Dive
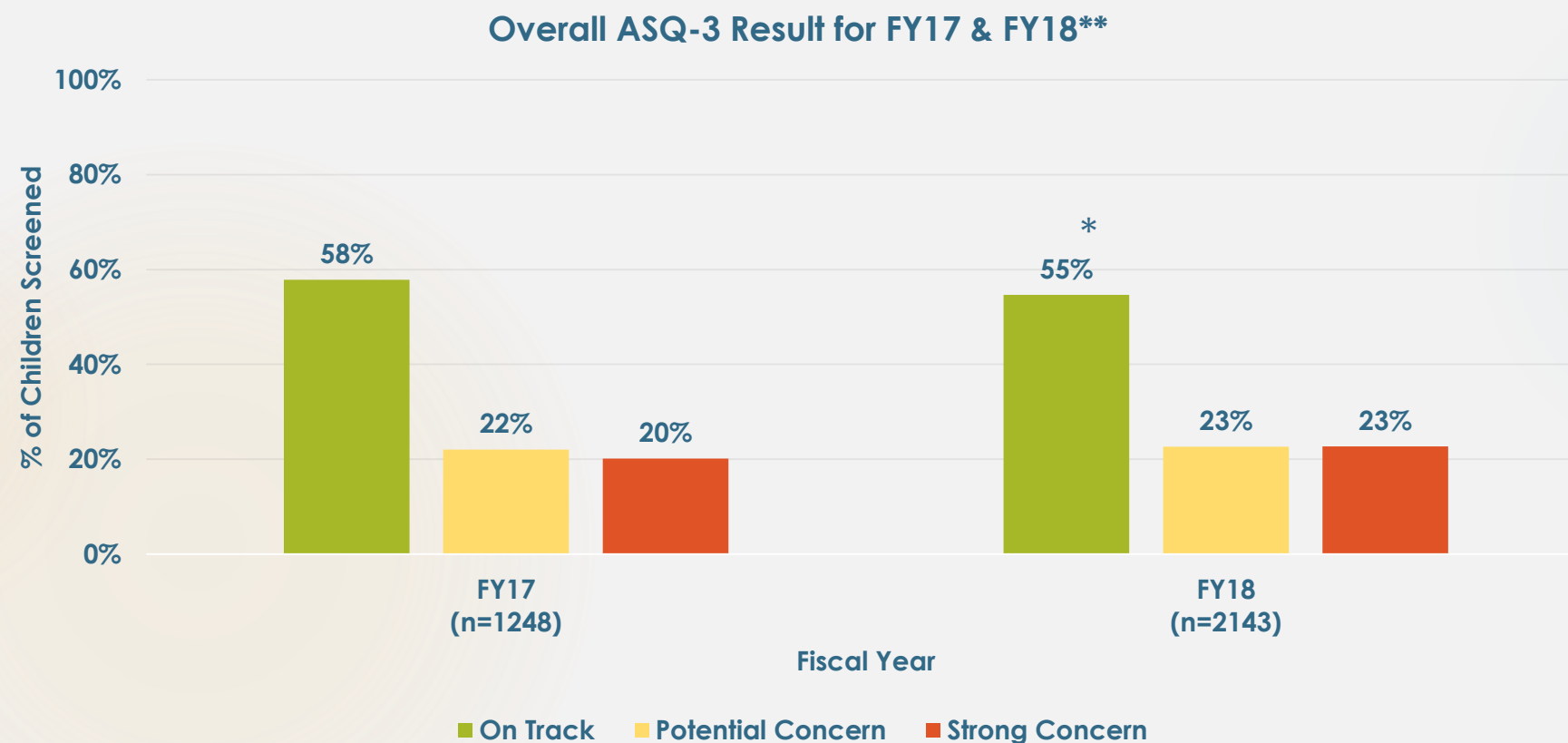
ASQ-3 Basic Principles

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

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With More Children Screened, Fewer Children are "On Track" This Year

Overall ASQ-3 Result for FY17 & FY18**

% of Children Screened

- 100%
- 80%
- 60%
- 40%
- 20%
- 0%

FY17
(n=1248)
- On Track: 58%
- Potential Concern: 22%
- Strong Concern: 20%

FY18
(n=2143)
- * On Track: 55%
- Potential Concern: 23%
- Strong Concern: 23%

Fiscal Year

■ **On Track**   ■ **Potential Concern**   ■ **Strong Concern**

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

*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.

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The Percentage of Children Scoring "On Track" Dropped This Year in Three Domains

% of Children "On Track" by Developmental Area: FY17 & FY18 Comparison
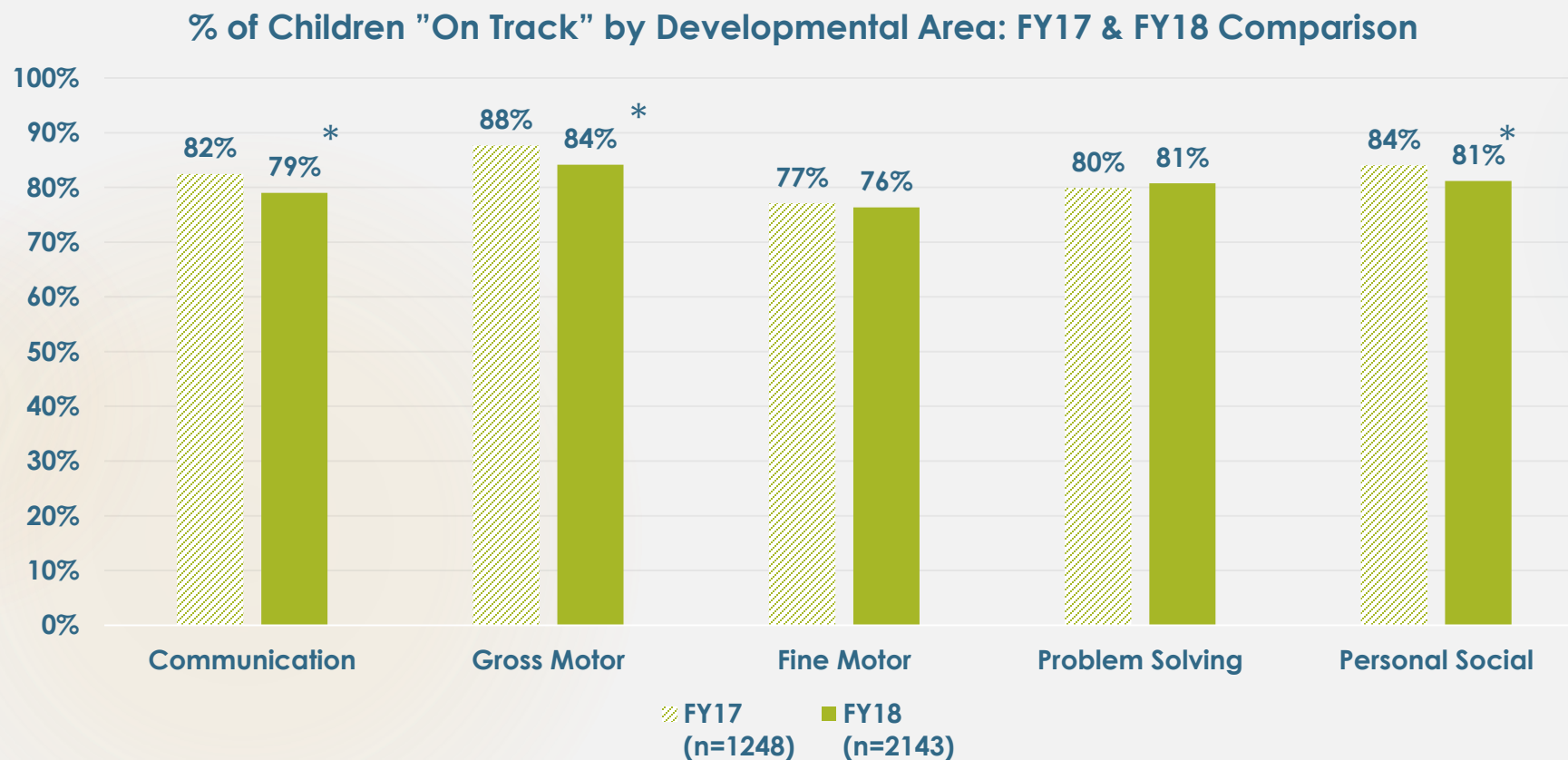
Fewer children screened in FY18 are "On Track" than children screened in FY17

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

FY17 (n=1248)   FY18 (n=2143)

*Statistically significant (p>.05)

Females Overall are More "On Track" Than Males

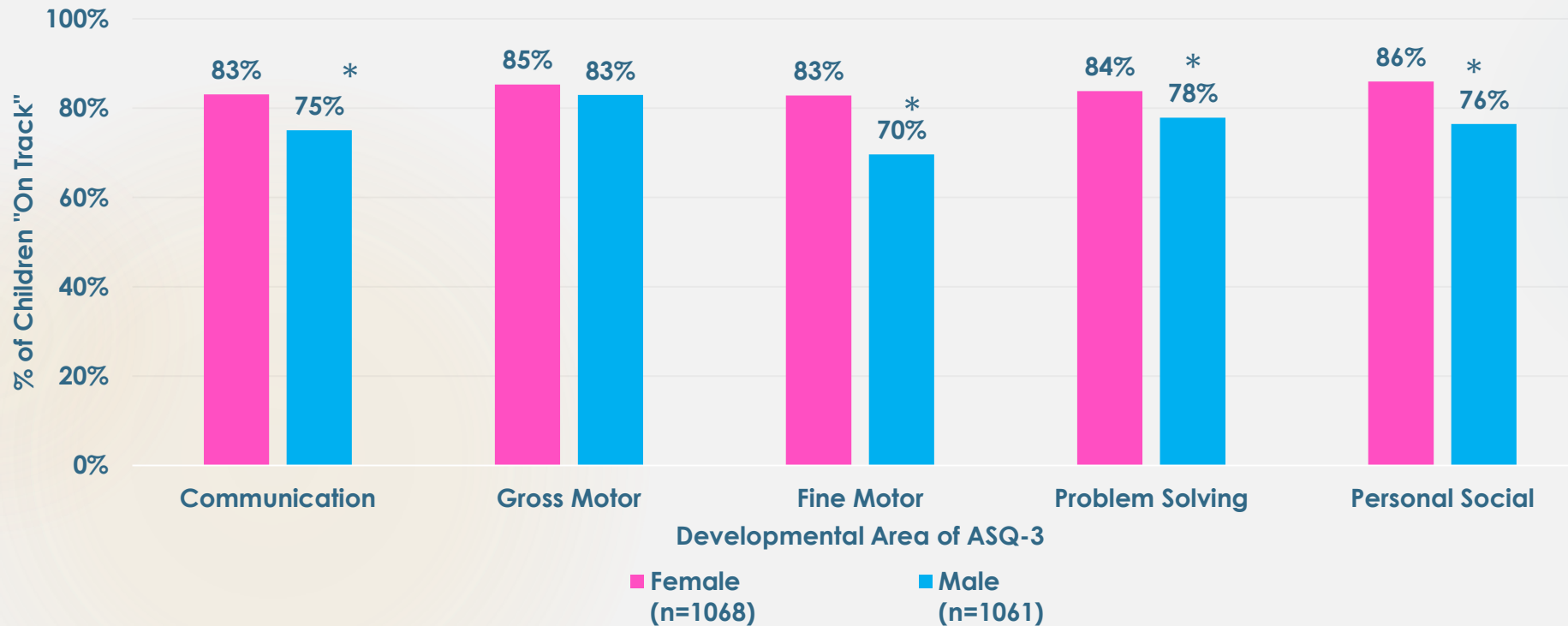**Overall Results by Gender: FY17 and FY18 Comparison**
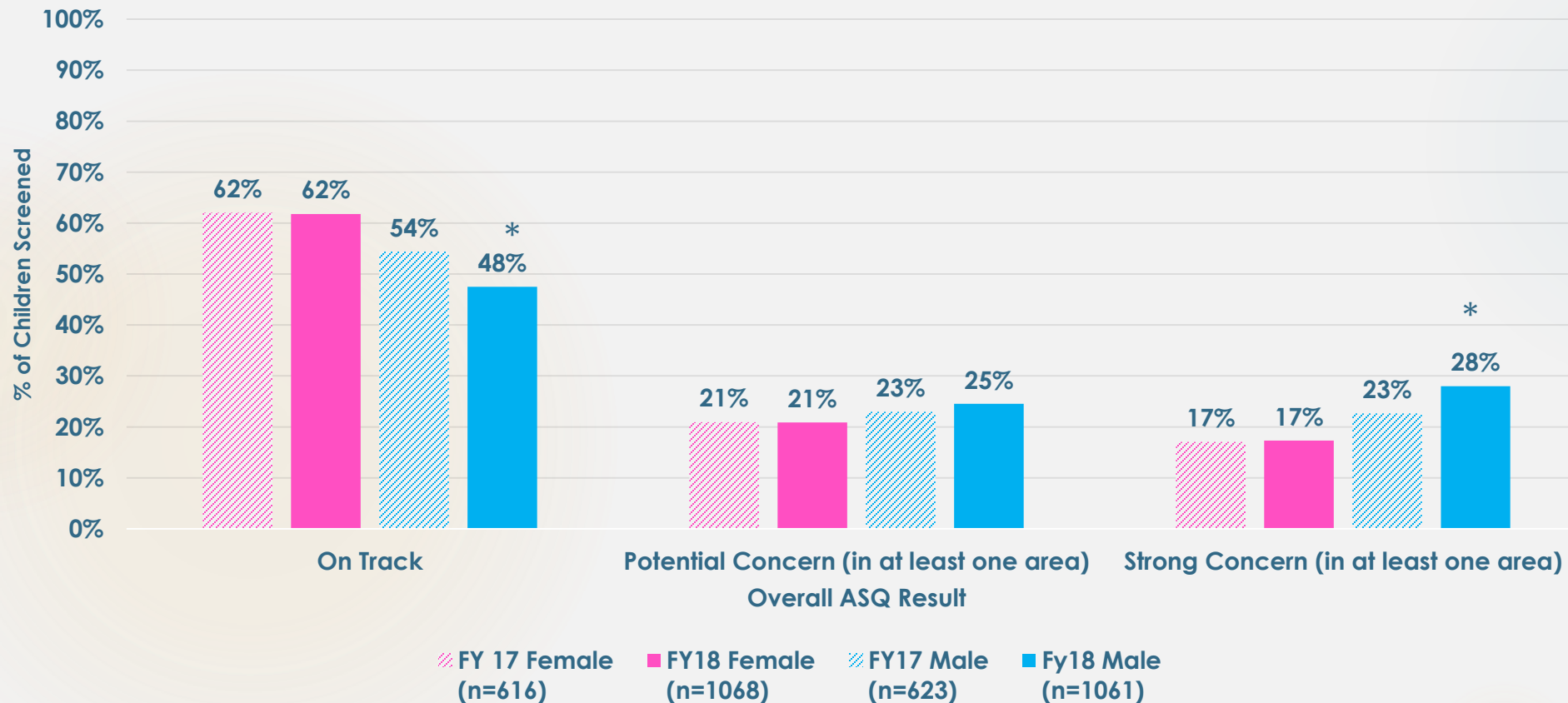
Slightly more Females (50%) than Males (49%) screened in FY18

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

% of Children Screened

| On Track | Potential Concern (in at least one area) | Strong Concern (in at least one area) |

On Track: 62%, 62%, 54%, 48% *

Potential Concern (in at least one area): 21%, 21%, 23%, 25%

Strong Concern (in at least one area): 17%, 17%, 23%, 28% *

Overall ASQ Result

Legend: FY 17 Female (n=616), FY18 Female (n=1068), FY17 Male (n=623), Fy18 Male (n=1061)

*Statistically significant (p>.05)

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Females are More "On Track" than Males in All Areas of ASQ-3

Gender Comparison by ASQ-3 Developmental Area

% of Children "On Track"

	Communication	Gross Motor	Fine Motor	Problem Solving	Personal Social
Female	83%	85%	83%	84%	86%
Male	75% *	83%	70% *	78% *	76% *

Developmental Area of ASQ-3

■ Female (n=1068)   ■ Male (n=1061)

*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

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Some Age Intervals Have Fewer Children "On Track"

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

% of Children "On Track"
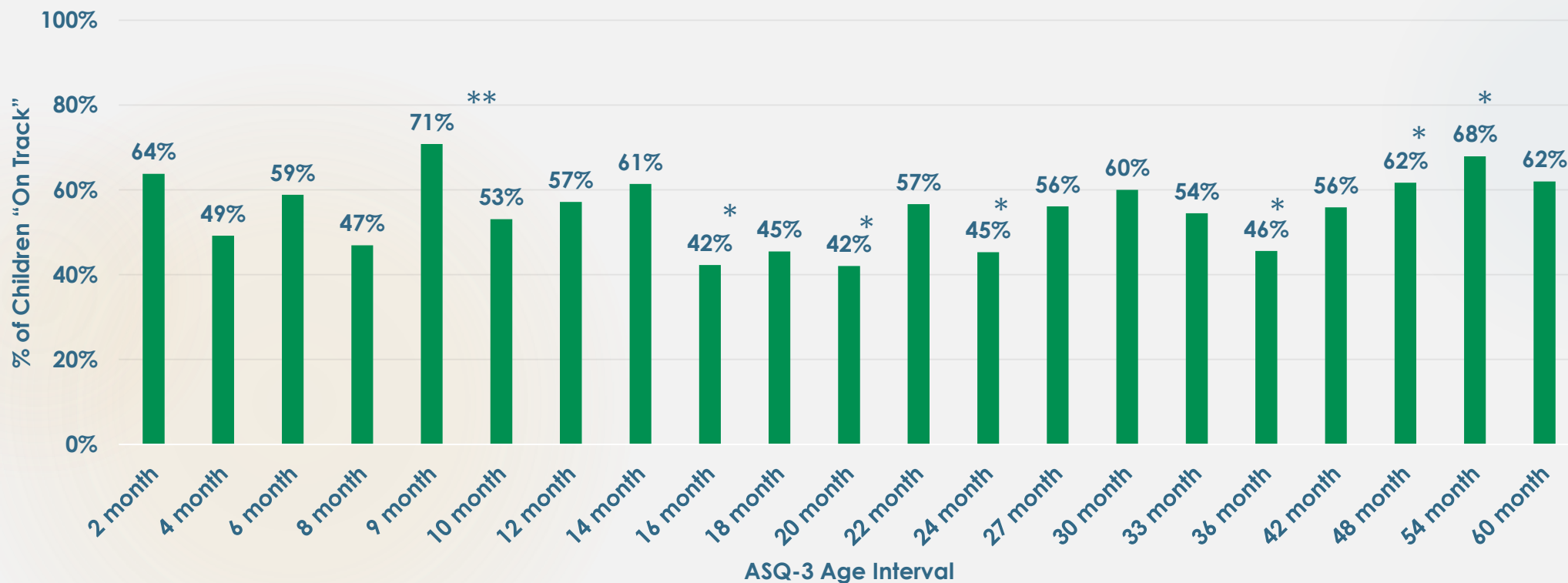
ASQ-3 Age Interval

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.

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Informal and Formal Child Care are Similar in Percentage of Children "On Track

"On Track" Results by Child Care Type (n=1934)
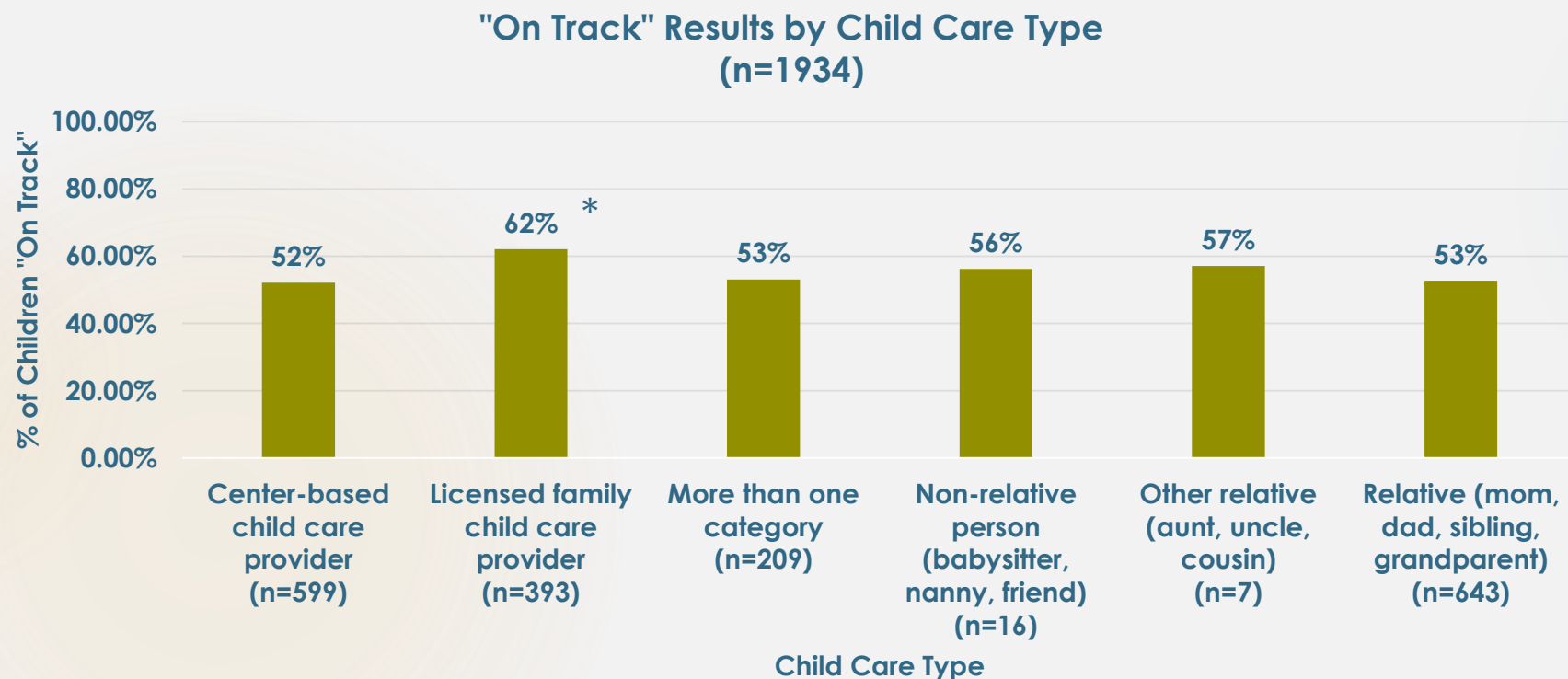
Children in Licensed Family Child Care show the highest percentage of children "On Track"

% of Children "On Track"

Child Care Type	% "On Track"
Center-based child care provider (n=599)	52%
Licensed family child care provider (n=393)	62% *
More than one category (n=209)	53%
Non-relative person (babysitter, nanny, friend) (n=16)	56%
Other relative (aunt, uncle, cousin) (n=7)	57%
Relative (mom, dad, sibling, grandparent) (n=643)	53%

Child Care Type

*Statistically significant (p>.05)

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Caregiver Education Attainment Correlates With Child Development

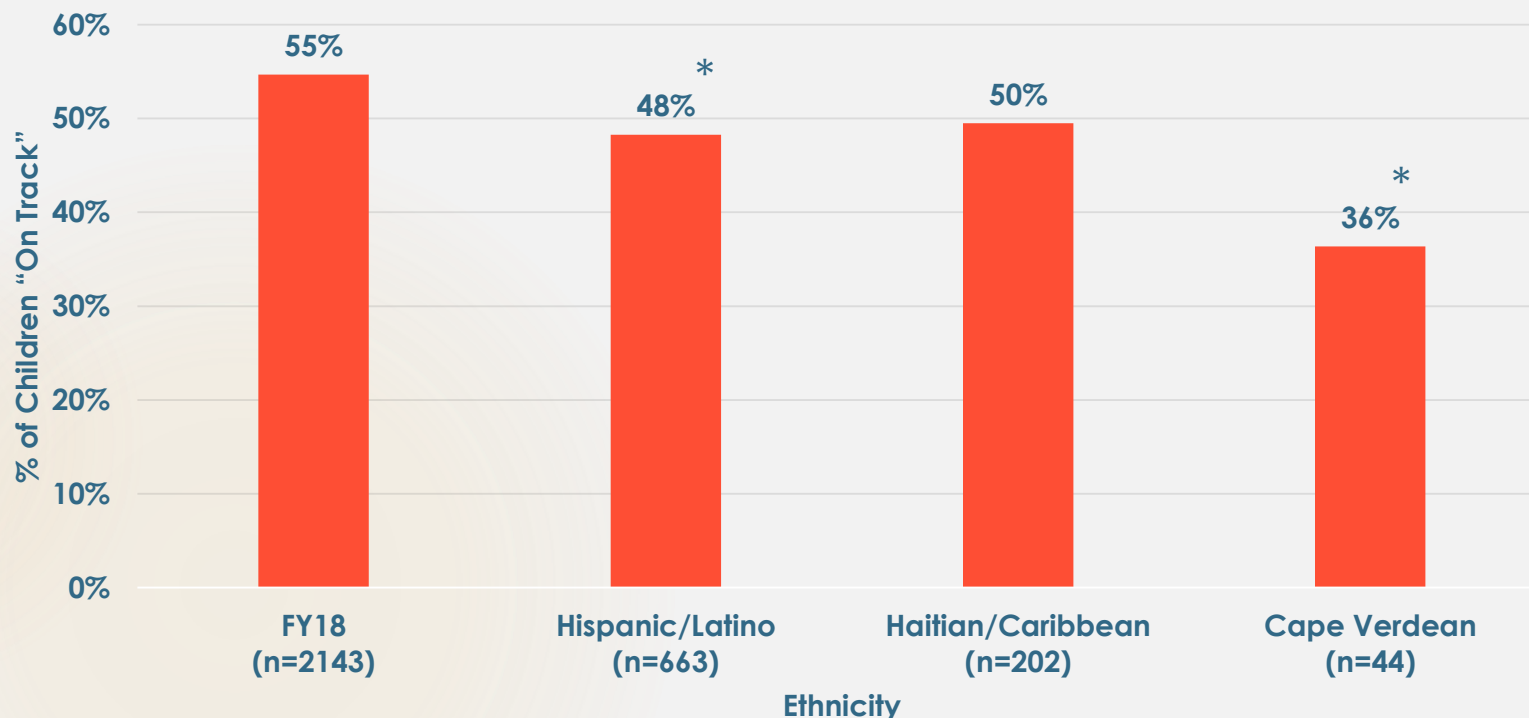## ASQ3 Results by Caregiver Educational Attainment (n=1091)

Legend:
- Less than high school (n=147)
- High School/GED (n=401)
- Some College/Technical School (n=254)
- College degree or higher (n=289)

Chart values:

On Track
- 42% *
- 46% *
- 53%
- 57%

Potential Concern
- 31% *
- 27%
- 23%
- 21%

Strong Concern
- 27%
- 27%
- 24%
- 22%

Y-axis: % of Children Screened (0% – 70%)
X-axis: Caregiver Educational Attainment

*Statistically significant (p>.05)
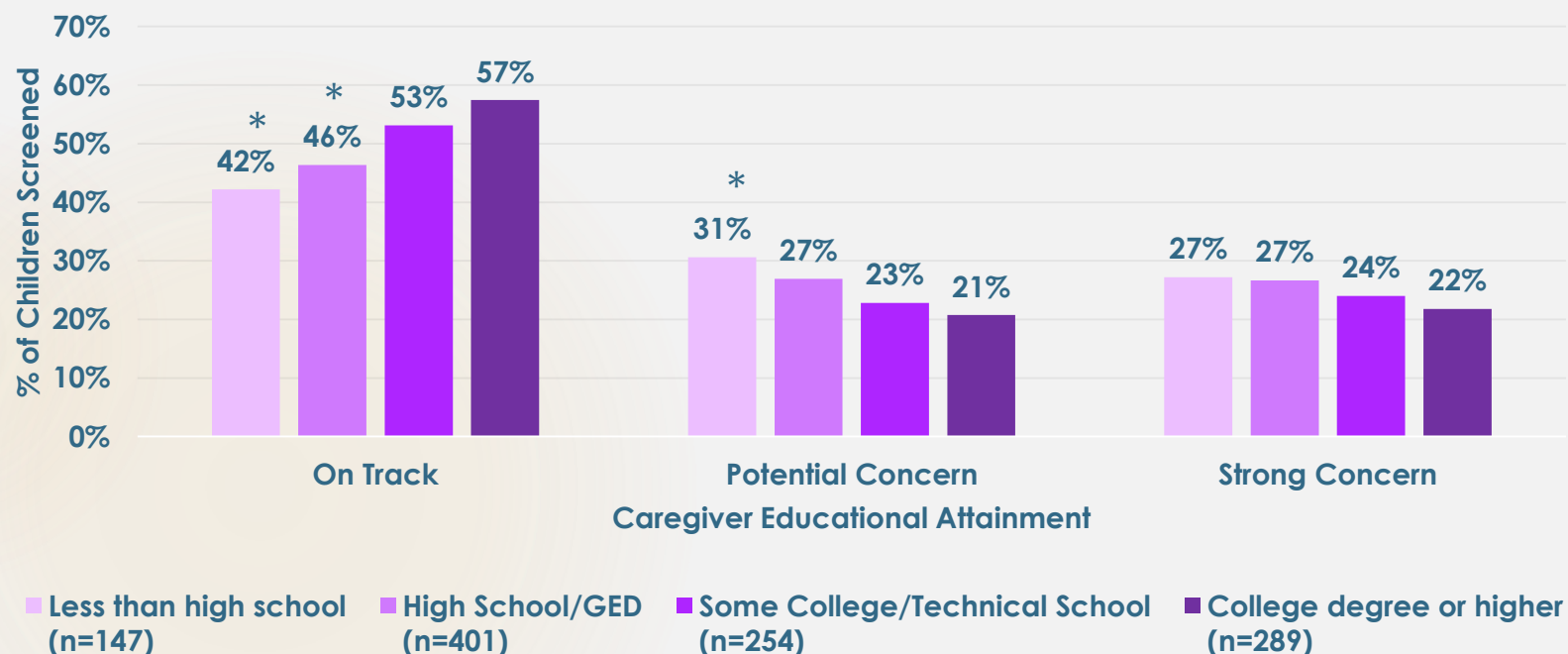
Children with caregivers who have not completed High School demonstrate a lower percentage of "On Track" results and a higher percentage of "Potential Concern" results

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

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DRIVE Compares Results by Ethnicity & Race

"On Track" ASQ Result Compared by Ethnicity

% of Children "On Track"

| Ethnicity	% On Track
FY18 (n=2143)	55%
Hispanic/Latino (n=663)	48% *
Haitian/Caribbean (n=202)	50%
Cape Verdean (n=44)	36% *

Ethnicity

*Statistically significant (p>.05)

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

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Low Percentage of Children with Strong Concern were Re-Screened (FY14-18)

Are Children Being Re-Screened? (FY14-18)
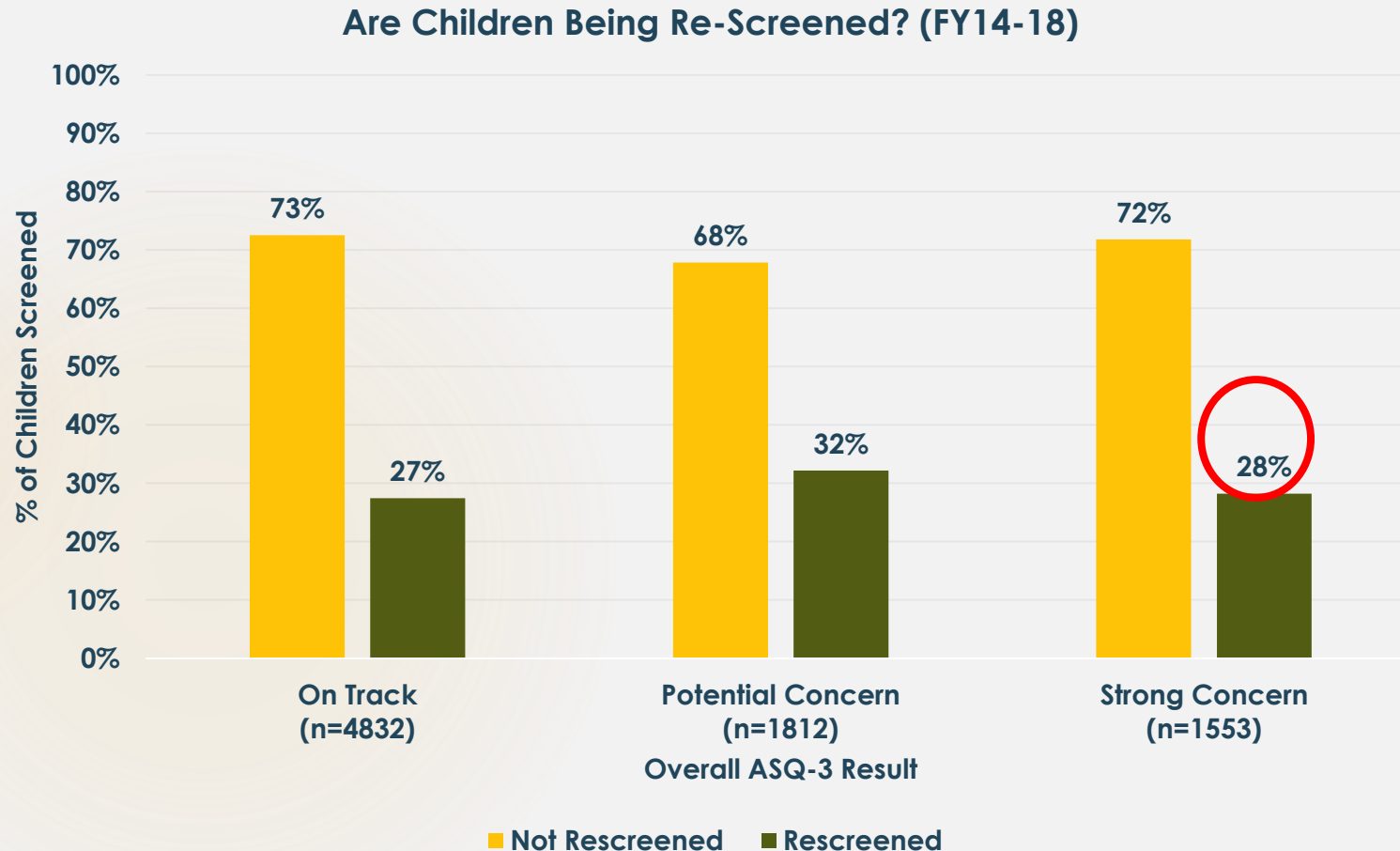
28% of children who scored with a "Strong Concern" were screened again following that result

"Potential Concern" result yielded the highest re-screen rate

Females and Males Both Improve when Re-Screened (FY14-18)

Improvements in Re-Screens by Gender Comparison (FY14-18)
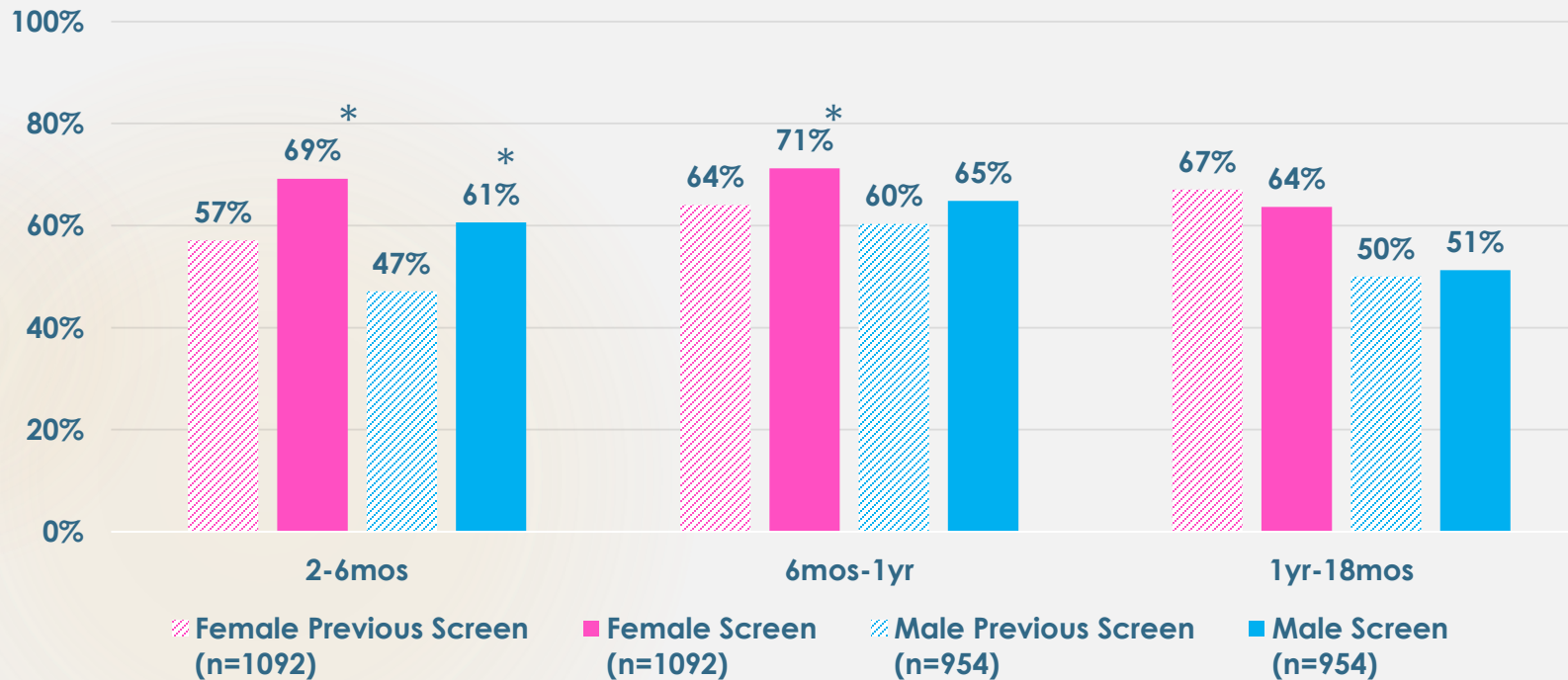
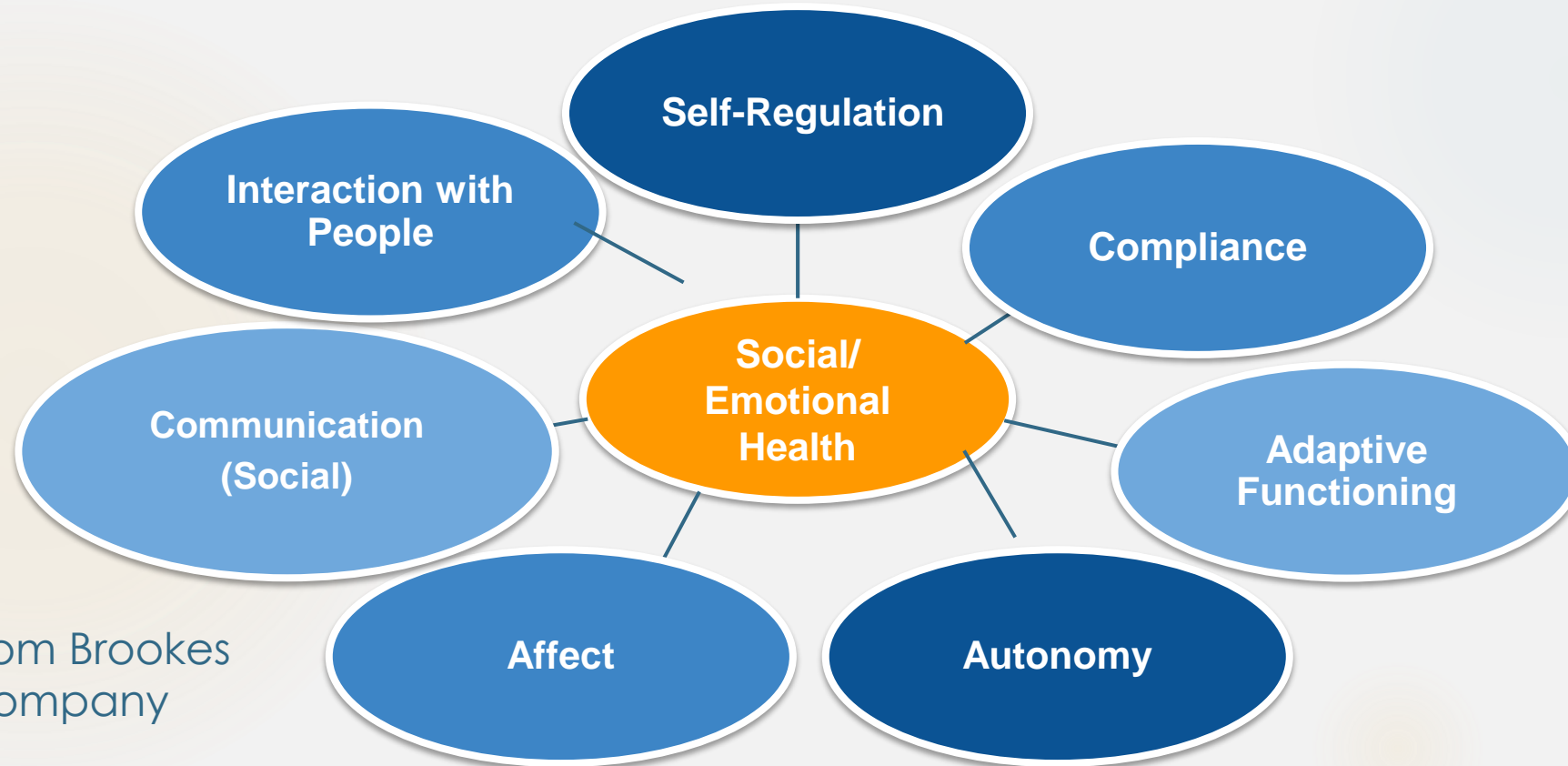Both genders show most significant change when re-screened within 2-6 months, similar to overall results

Females improvement is also significant between 6 months–1 year

*Statistically significant (p>.05)

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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
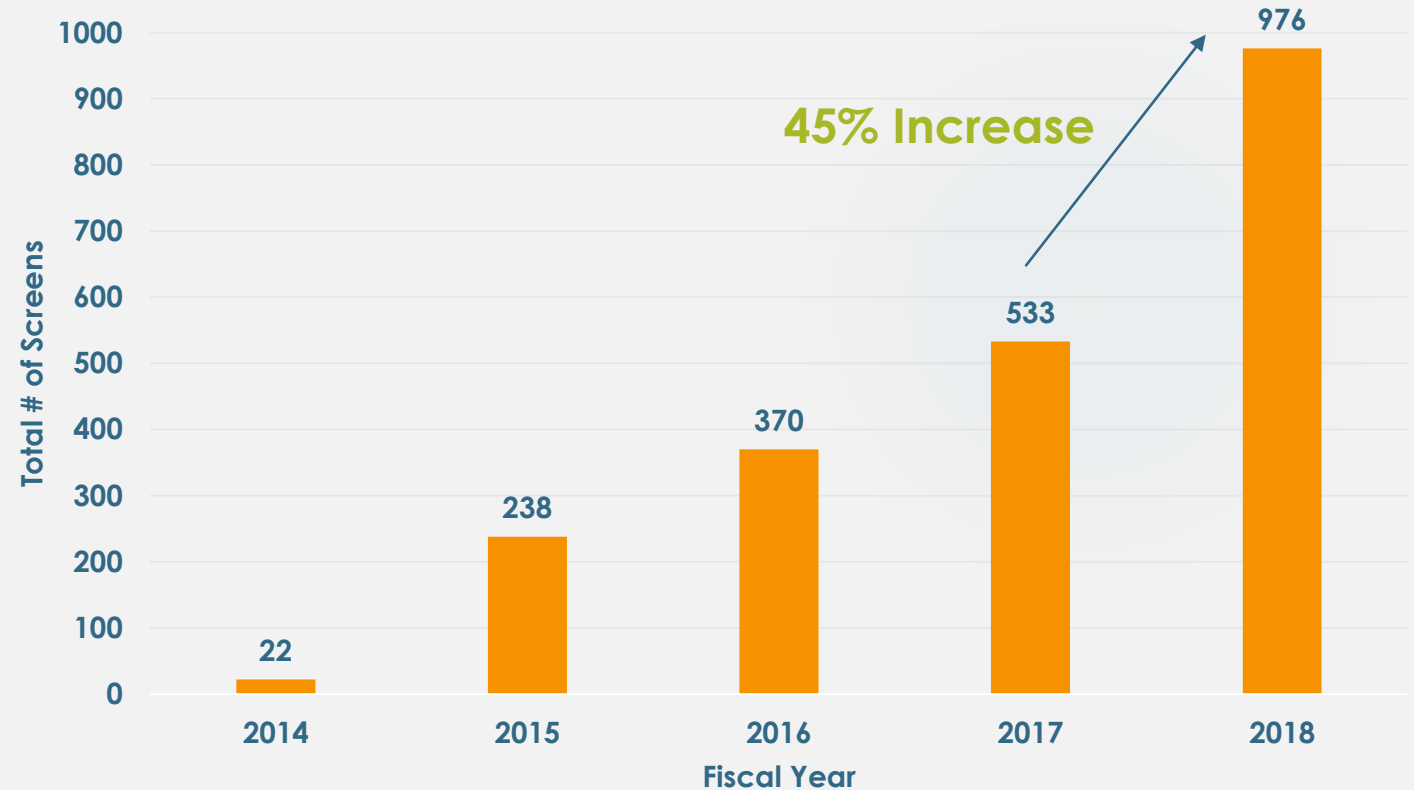

- Self-Regulation
- Interaction with People
- Compliance
- Social/ Emotional Health
- Communication (Social)
- Adaptive Functioning
- Affect
- Autonomy

*Adapted from Brookes Publishing Company

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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

Total # of Screens

Fiscal Year	Total # of Screens
2014	22
2015	238
2016	370
2017	533
2018	976

Fiscal Year

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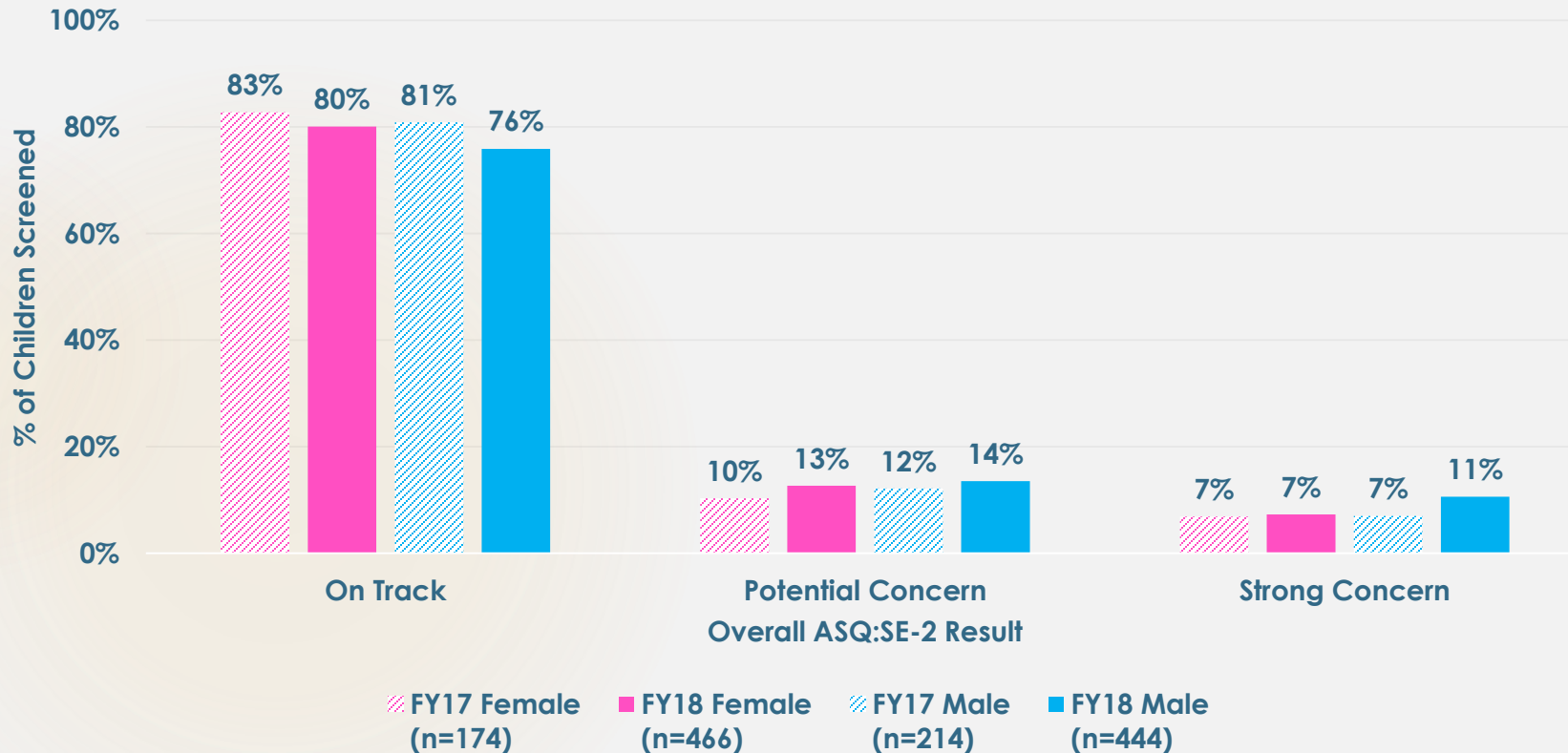# With More Children Screened, Fewer Children are "On Track" This Year

Overall ASQ:SE-2 Results: FY17 & FY18 Compared
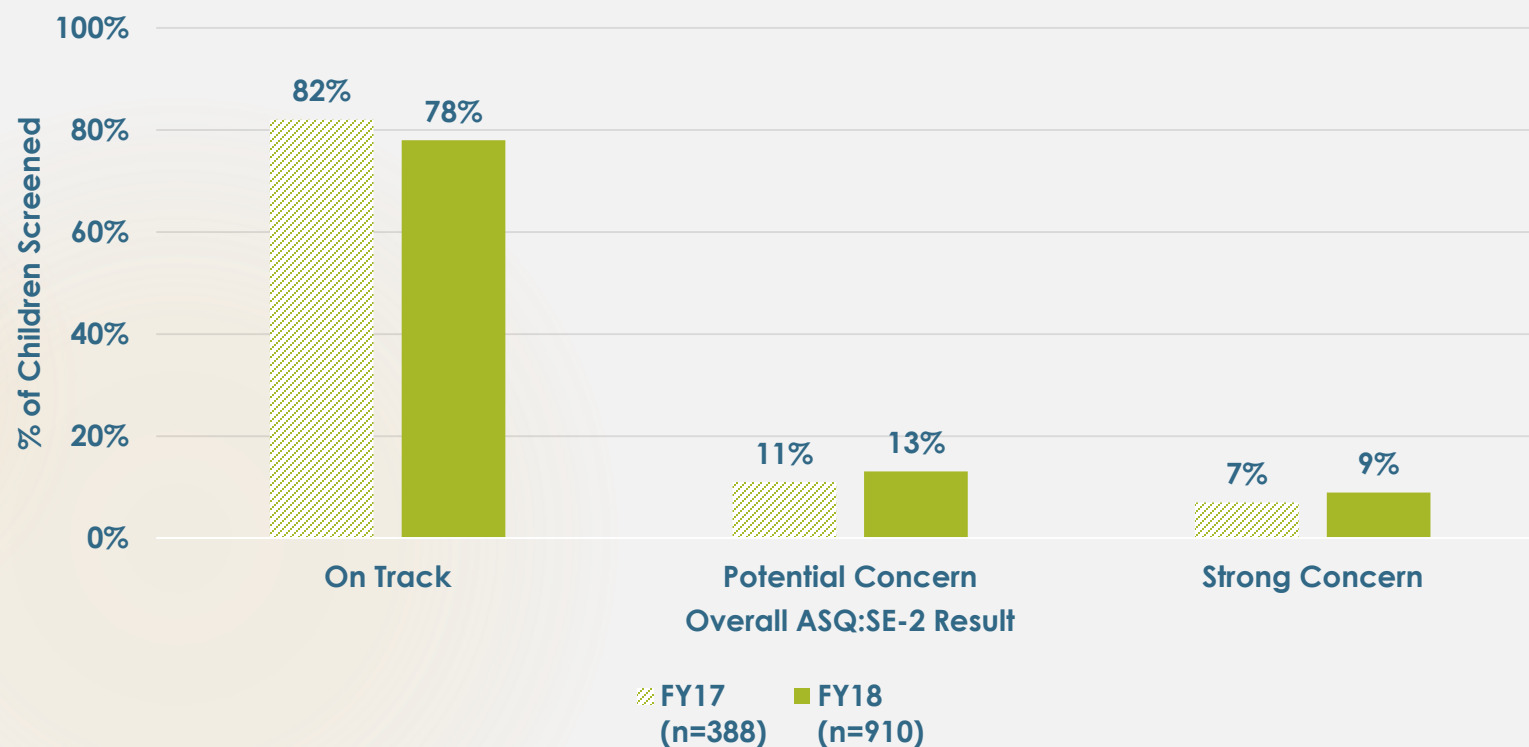
Of children screened in FY18, 4% less were "On Track" than children screened in FY17

% of Children Screened

- On Track: FY17 82%, FY18 78%
- Potential Concern: FY17 11%, FY18 13%
- Strong Concern: FY17 7%, FY18 9%

Overall ASQ:SE-2 Result

FY17 (n=388)　FY18 (n=910)

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Females and Males Screened in FY18 were Less "On Track" Than Those Screened Last Year

ASQ:SE-2 Overall Results: Gender Comparison (FY17&FY18)

% of Children Screened

On Track	Potential Concern	Strong Concern
83% 80% 81% 76%	10% 13% 12% 14%	7% 7% 7% 11%

Overall ASQ:SE-2 Result

Legend:
- FY17 Female (n=174)
- FY18 Female (n=466)
- FY17 Male (n=214)
- FY18 Male (n=444)

*Statistically significant (p>.05)

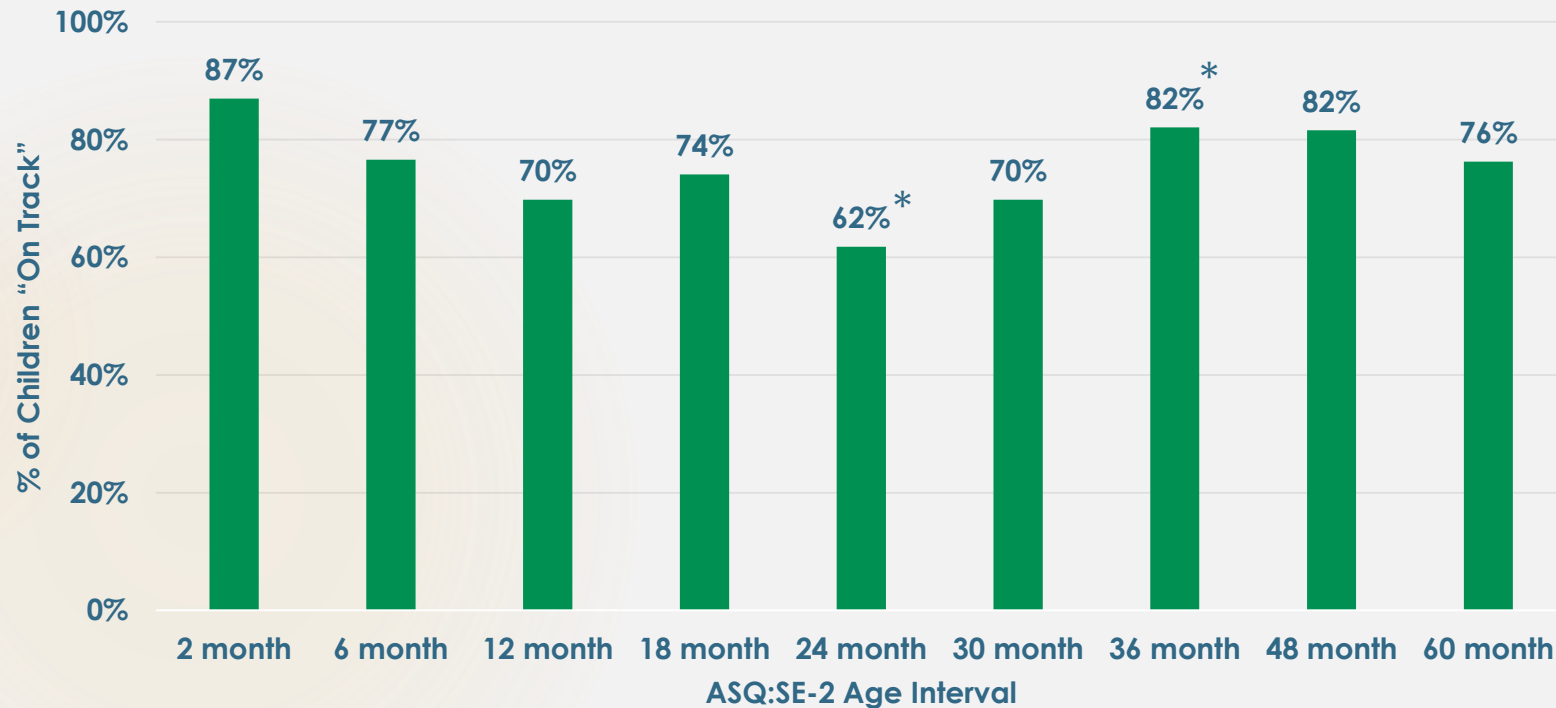**Slightly more Females (51%) than Males (49%) screened in FY18**

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

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Two-Year Olds Show Most Concern on ASQ:SE-2

"On Track" Results by Age Interval (n=910)

% of Children "On Track"

Age Interval	Percentage
2 month	87%
6 month	77%
12 month	70%
18 month	74%
24 month	62% *
30 month	70%
36 month	82% *
48 month	82%
60 month	76%

**ASQ:SE-2 Age Interval**

*Statistically significant (p>.05)

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"

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Children who Speak Spanish at Home Show Stronger Social Emotional Results

ASQ:SE-2 "On Track" by Primary Language
(n=841)

*Statistically significant (p>.05)
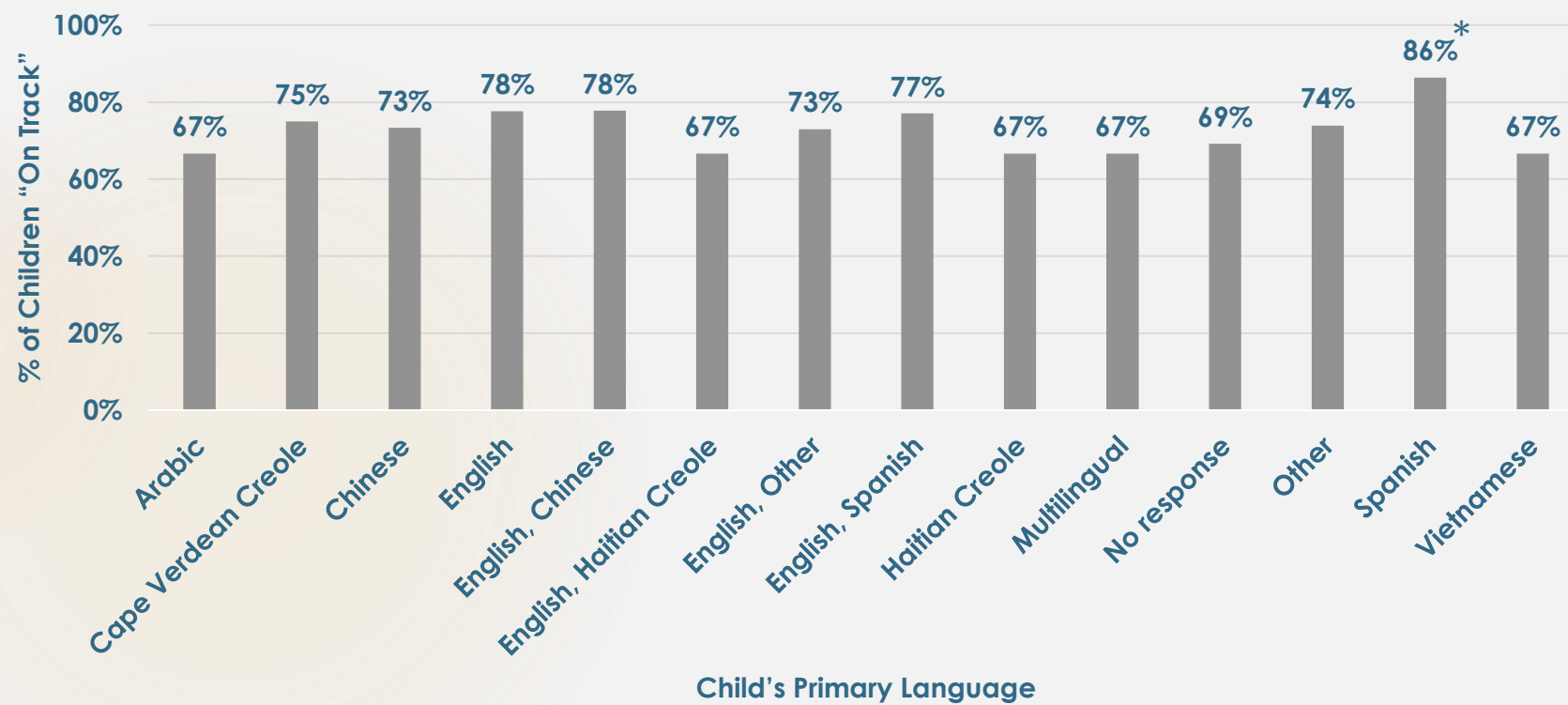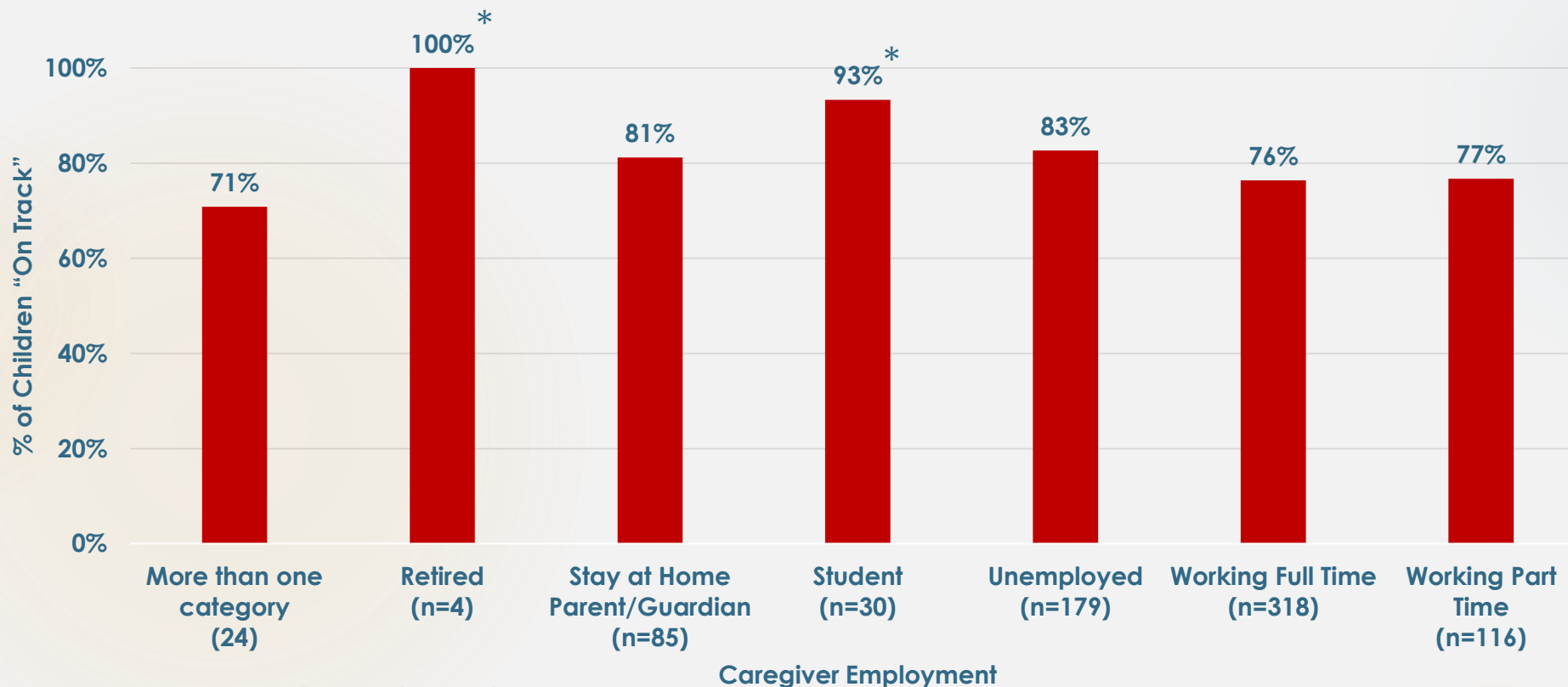
More children with a primary home language of Spanish were "on track" than those with other primary home languages

Caregiver Employment Status Correlates with Social Emotional Development

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

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

*Statistically significant (p>.05)

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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

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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*

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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)

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Questions?

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United Way of Massachusetts Bay and Merrimack Valley