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## Children with Disabilities Tend to Stay in a Highly-resourced Early Head Start/Head Start Program Longer than Children without Disabilities

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# Children with disabilities tend to stay in a highly-resourced Early Head Start/Head Start program longer than children without disabilities

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## Summary

Using data from 21 Educare schools, we measured the rate at which children from birth to kindergarten-age enter the school and rate at which they exit the school. Educare schools are highly resourced Early Head Start/Head Start programs targeting children at risk, especially children from low-income backgrounds. About 10% of the children have a disability. Results showed that children with a disability tended to stay in the program longer, especially when enrolled in Early Head Start.

## Purpose

To test whether children with disabilities stay in an inclusive high-quality early childhood program at the same rate as children without disabilities.

## Background

The [Educare Learning Network](#) is a partnership between the Ounce of Prevention Fund, the Buffett Early Childhood Fund, other national philanthropies, and public-private partners in more than a dozen states across America. Educare schools form a network of highly resourced data-driven Early Head Start/Head Start programs. Previous research has shown that the earlier and the longer children are exposed to high quality early education, the stronger the benefits (Peisner-Feinberg et al., 2001; Yazejian et al., 2015; 2017; Zaslow et al., 2010). Early Care and Education has been found to be particularly beneficial for children with disabilities (Burchinal et al., 2008; Odom, Buysse, & Soukakou, 2011; Zaslow et al., 2016). We asked how timing of entry into Educare and exit from Educare differed for children with disabilities compared to children without disabilities.



Children from an Educare site  
© Ounce of Prevention

## Methods

We used a statistical technique called *Poisson generalized additive mixed models* to do a *multi-state survival analysis* (analyzing time from birth until entry into Educare, and time from entry into Educare until exit from Educare). With these tools, we measured the entry rate of children to Educare and the exit rate of children from 21 Educare schools over a 15-year period. We focused on how entry rate and exit rate was different for children with disabilities versus children without disabilities. We also asked whether these differences were different for families of different race/ethnicity. We also controlled for primary caregiver's education, number of life events per year, age of birth mother, child's gender, food insecurity, and caregiver depression.

## Sample

- Data from 14,636 children, 1,520 of whom (10%) had an IFSP and/or IEP while enrolled at Educare and included in the analyses.
- The sample was diverse in race/ethnicity (11% White, 44% Black/African-American, 34% Latinx, 12% Other).

## Results

- Timing of Entry into Program
  - On average, children with disabilities entered Educare 2.75 years before kindergarten (when children were 2.75 years old, on average). So did children without disabilities.
  - Children with disabilities tended to enter at different times:
    - The youngest children with disabilities entered Educare at a lower rate than the youngest children without disabilities.
    - Around 3 years before kindergarten (near the transition from Early Head Start to Head Start), children with disabilities entered Educare at a higher rate than children without disabilities.
- Timing of Exit from Program
  - Children with disabilities exited Educare at a lower rate than children without disabilities. This was more prevalent for younger children.
  - On average, children with disabilities exited Educare 0.53 years before kindergarten (an average age of 4.97 years old). In comparison, children without disabilities exited Educare an average of 0.87 years before kindergarten (at an average of 4.63 years old).
- Duration in Program
  - Because children with disabilities on average entered at same age as children without disabilities but exited at older age than children without disabilities, **children with disabilities experienced Educare for 0.34 years longer on average than children without disabilities.**
- Race and ethnicity of children did not seem to play a role in the differences between children with and without disabilities in the timing of program entry and exit.

## Discussion

- In the highly-resourced Educare programs that serve children with and without disabilities, children with disabilities tend to stay in the program longer than children without disabilities.
- If parents of children with disabilities have particular difficulty finding other child care then this may contribute to this finding.
- Given that access to quality child care and early learning has been linked to improved identification, special education referral, and outcomes for children with disabilities (Administration for Children and Families, 2002; Burchinal, 2018; Peterson et al., 2004; Shonkoff & Meisels, 2000), it is a promising finding that children with disabilities are more likely to stay longer and therefore receive a higher dosage of quality programming.

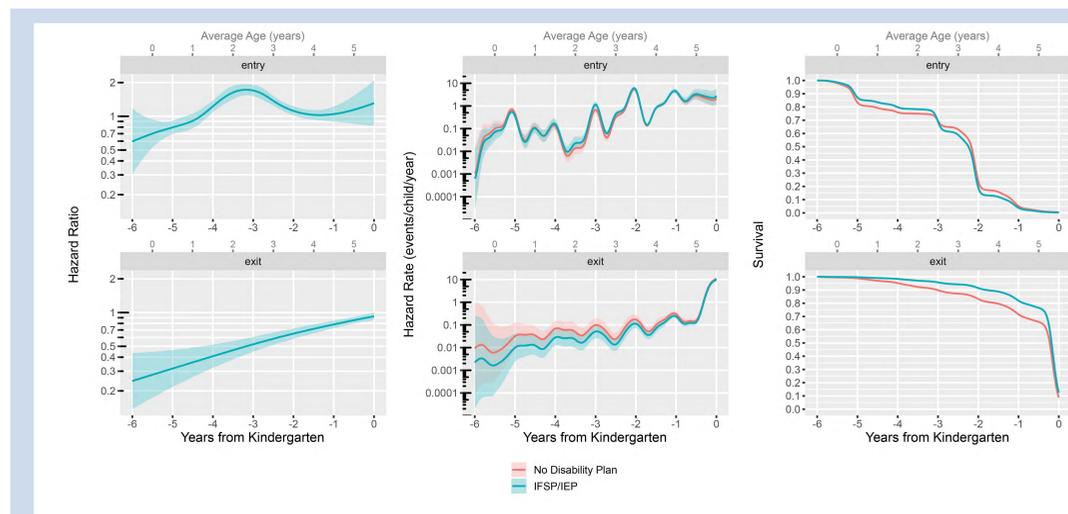


Figure 1. Survival Analysis Results. Top row panels depict timing of entry to Educare. Bottom row panels depict timing of exit from Educare.

**Hazard Ratio** (panels on left) is rate of entry or exit for children with disabilities divided by rate of entry or exit for children without disabilities. When the hazard ratio is less than one, children with disabilities enter or exit at a lower rate. When the hazard ratio is greater than one, children with disabilities enter or exit at a higher rate.

For entry, the hazard ratio is less than 1 at young ages (when children with disabilities enter at a lower rate) and is greater than 1 around 3 years before kindergarten (when children with disabilities enter at a higher rate).

For exit, the hazard ratio is always less than 1, especially at young ages, because children with disabilities always exit at a lower rate (tend to remain in program longer once they're enrolled).

**Hazard Rate** (panels in middle) indicates how fast children enter Educare or exit Educare. The hazard rate for entry is essentially the instantaneous probability that a child enters Educare at a specified time, provided that they haven't already entered; the hazard rate for exit is essentially the instantaneous probability that a child exits Educare at a specified time, provided that they haven't already exited.

In general, hazard rates peak at the end of every summer (change from one academic year to next academic year). Entry rate sometimes peaks mid-year (between semesters).

In program exit (bottom panel in middle column), the hazard rate for children with disabilities is always below the hazard rate for children without disabilities. This indicates that children with disabilities exit Educare at a lower rate (tend to remain in program longer once they're enrolled).

**Survival** (panels on right) indicates the proportion of children who haven't yet made a specific transition (top panel: not yet entered Educare, bottom panel: not yet exited Educare).

For entry (top panel in right column), until three years before kindergarten, survival for children with disabilities is higher than the survival for children without disabilities, because more children with disabilities haven't entered yet. In contrast, starting at three years before kindergarten, survival for children with disabilities is lower than the survival for children without disabilities. This is because so many children with disabilities enter around three years before kindergarten (see peak in hazard ratio in top left panel).

For exit (bottom panel in right column), survival for children with disabilities is always higher than the survival for children without disabilities. This illustrates that, once they're enrolled, children with disabilities exit Educare at a lower rate than children without disabilities.

## Connection to Conference Theme ("Leading Change Together")

The Educare model includes a focus on family engagement, including in local practice and in public policy. Educare family ambassadors (parents of children in Educare) have testified at the state legislature in support of state funding for early childhood programming like Head Start. Parents also attend the national Educare Learning Network conference. To understand how best to serve infants and young children with disabilities through local practice and good public policy, it is important to understand how attendance is associated with disability status.



Figure 2. Parent of a child at an Educare school testifying at state legislature, February 24, 2017. See [youtu.be/a4wpfDu317E](https://youtu.be/a4wpfDu317E)

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