



Summary Brief

Exploring Relationships Between Ohio ECE Programs and Children's K-3 School Outcomes

Review conducted through Ohio PDG Needs Assessment project

Our analyses capitalize on Ohio's state-of-the-art capacity to link administrative data on B-5 program usage to K-12 education records in Ohio's Education Management Information System (EMIS). We matched children across four birth-to-five (B-5) programs and their K-12 education records using their unique Statewide Student Identification (SSID) number. While the specific sample of the analysis differs by research question, in general the analyses focus on the sample of children whom we observe entering kindergarten in Ohio between the 2019/2020 and 2023/2024 school years.

B-5 Programs

- 1 Early Intervention (EI) provides identification and support for infants and toddlers with disabilities or developmental delays
- 2 Preschool Special Education (PSE) program provides tailored preschool education to children with disabilities aged three to five
- 3 Publicly Funded Child Care (PFCC) program increases access to high-quality child care by subsidizing care for children from low-income families
- 4 Early Childhood Education (ECE) Grant program increases access to and affordability of high-quality preschool education for Ohio's three-to-five year olds

Linkage Reliability

How reliable is the link between B-5 program data and EMIS records?

- Over 80% of PSE and ECE users can be linked to their K-12 records in EMIS
- Only 65-70% of PFCC and EI participants are successfully linked in any K-12 records in EMIS
- Among PFCC children, Black and Hispanic children are less likely to be matched to a K-12 record in EMIS

Program Usage

What are the patterns of program usage across Ohio's B-5 public programs?

- More than 1 in 3 Ohio kindergartners use a B-5 program before arriving at kindergarten
- 206,402 (34%) of all children who entered kindergarten between 2019/2020 and 2023/2024 used at least one of the B-5 programs
- Most children who use any B-5 programs only use one program; 43,572 children (~21%) used two or more; 6,539 use three or more programs
- Disability status, Homelessness and Race are positive correlates of B-5 program use: 67% of children designated with a disability K-3; 52% of unhoused children; and 60% of Black students used at least one B-5 program
- Immigrant children are less likely to have used a B-5 program: 12% of immigrants used at least one B-5 program
- Significant variation across school districts in B-5 program usage: in many urban and Appalachian districts, over 50% of entering kindergarten students used a B-5 program

Program Outcomes



What is the relationship between usage of Ohio's B-5 public programs and outcomes in elementary school?

Preschool Special Education

Children with disabilities who used PSE are more kindergarten ready and fare better on K-3 outcomes than those who used no B-5 programs

- ▶ 20% of PSE users vs. 14 % of non-users demonstrate kindergarten readiness
- ▶ 33% of PSE students are on-track in Language and Literacy skills, compared to 25% of non-users
- ▶ 13% of PSE only children missed more than 15% of kindergarten, compared to 11% among children who used no programs
- ▶ 50% PSE users were less likely to have a disciplinary incident in kindergarten (2% vs. 3%)
- ▶ About 4% of PSE participants repeated kindergarten, compared to 9% of non-users
- ▶ 40% of PSE users were not on-track in literacy at some point between kindergarten and 3rd grade vs. over 60% of disabled children who used no B-5 programs

Early Intervention

Among children with a disability, those who used EI are slightly more kindergarten ready, have lower rates of disciplinary incidents in kindergarten, and below level reading in K-3 than comparable children who used no B-5 program.

- ▶ 17% of those who used EI alone, and 19% of those who used PSE and EI, demonstrated kindergarten readiness (vs. 14% non-users)
- ▶ About 30% were on-track in Language and Literacy vs. 25% of comparable non-users
- ▶ About 5.5% (vs. 8%) of EI users repeated kindergarten
- ▶ About 40% (vs. 60%) of EI users were not on track in reading by the third grade

Early Childhood Education Grant

Economically disadvantaged students that use ECE have better KRA scores and fare better on several K-3 outcomes than comparable children who are also economically disadvantaged.

- ▶ 27% of ECE users demonstrated kindergarten readiness (vs. 22% of non-users)
- ▶ Only 36% of ECE users had KRA scores that were emerging, compared to 44% non-program users
- ▶ ECE users were less likely to repeat kindergarten than comparable non-users (5% vs. 7%)
- ▶ ECE users were more likely to be on-track for literacy by 3rd grade (39% vs. 49%)
- ▶ Rates of absenteeism and kindergarten disciplinary incidents were comparable

Publicly Funded Child Care

Among economically disadvantaged children, those who use PFCC have minimally better kindergarten readiness and do not have better K-3 outcomes than children who used no programs. Children funded through PFCC who attend higher-rated child care providers have higher KRA scores.

- ▶ About 40% of PFCC children had KRA scores in the lowest category ("emerging"), compared to 44% of non-users
- ▶ 34% PFCC users are on-track in Language and Literacy (vs. 30% of non-users)
- ▶ 34% of those who attend a 1-star provider had emerging kindergarten skills, vs. 31% of those who attended a 5-star provider
- ▶ PFCC use has worse outcomes for kindergarten absenteeism (26% vs. 24%) and kindergarten disciplinary incidents (4% vs. 2%)
- ▶ For kindergarten repetition and on-track reading skills, PFCC users had similar outcomes to comparable children who used no programs
- ▶ Similar outcomes for kindergarten repetition and on-track reading skills



Program Reach

Which students are under-served by Ohio's B-5 public programs?

1/2

About 50% of children who are not kindergarten ready use a B-5 program



Program use among at-risk children varies significantly by race/ethnicity; 19% of Asian students, 40% of White students, and 62% of Black students with low KRA scores accessed a B-5 program; about 80% of Hispanic students scored below 270 on their KRA but only about 60% accessed a B-5 program



Most children with a disability who had low KRA scores used a B-5 program (74%), whereas most immigrant students, ELL students, and unhoused students with low KRA scores did not access B-5 programs (14%, 29% and 46%, respectively)



Boys were more likely than girls to score below standard on the KRA (67% vs. 58%), but a higher share of low-scoring girls did not access any B-5 programs (62% vs. 56%)



Ohio's B-5 programming reaches at-risk children in most of Ohio's school districts; only 10-30% of low KRA-scoring children in rural districts outside of Appalachia accessed B-5 programs but rates of program use in most school districts were similar, or better, among low-scoring children than among the general population