

# How a Study of Pre-k Access and Enrollment in One Large District Informs Questions of Equity

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## Abstract

### **Background:**

A growing body of research shows that attending school-based pre-k results in more positive outcomes than does preschool participation in other settings, particularly for the most disadvantaged students (e.g., Weiland & Yoshikawa, 2013; Winsler et al., 2008). Although there has been a substantial expansion of school-based pre-k (Barnett et al., 2017), there is little evidence about whether high-risk students actually enroll in school-based programs, and whether these expansion efforts help reduce early achievement gaps. Nor do we understand how district policies may constrain or facilitate pre-k enrollment for families from different backgrounds and in different neighborhoods.

Ample research points to high-quality preschool education as a critical mechanism for promoting students' academic and social-emotional development (e.g., Child Trends, 2010; Keys et al., 2013; Weiland & Yoshikawa, 2013). Minority and economically disadvantaged students, who are most at-risk for ongoing academic struggles, benefit the most (e.g., Yoshikawa et al., 2013), indicating that high-quality preschool has the potential to reduce early income-, race-, and language-based early achievement gaps (e.g., Denton & West, 2002; Puma, Bell, Cook, & Heid, 2010). However research has shown that racial and linguistic minorities and more economically disadvantaged students are less likely to enroll in high-quality programs (e.g., McCoy, Connors, Morris, Yoshikawa, & Friedman-Krauss, 2015).

The changing landscape of pre-k has required districts to implement policies regarding pre-k application and enrollment with little evidence on which to base these decisions. One policy shift being made across the country in recent years is the centralization (district-oversight) of the application and enrollment process. Districts face critical questions about how to (1) manage the application process, including the placement of physical "application centers," and (2) distribute school-based pre-k opportunities across neighborhoods so they are in close proximity to disadvantaged students. Both sets of decisions have the potential to improve the *accessibility* of school-based pre-k, which in turn may play a key role in who enrolls, where they enroll, and ultimately their achievement (e.g., Connors, Morris, Yoshikawa, McCoy, & Gomez, 2014).

### **Purpose:**

This study aims to understand the ways in which pre-k access (defined in terms of the proximity of application centers and school based pre-k options to a student's home) is related to enrollment in school-based pre-k and whether this access is differentially related to enrollment based on student and neighborhood characteristics. This project then explores how access to school-based pre-k and pre-k application sites are related to enrollment under decentralized and centralized enrollment policy contexts. We do this work in partnership with our local district to

help inform ongoing policy and practice efforts, understanding that the role of access in supporting beneficial and equitable patterns of enrollment at the first possible entry point into the school system (pre-k) may also be critical for students' longer-term academic success.

### **Setting:**

This project was conducted using data from a single school district in Chicago, Chicago Public Schools (CPS), where there is a great deal of choice among formal preschool settings for families at all income levels. During the focal years of this study, CPS implemented changes to their preschool application and enrollment process in an effort to increase access to students identified with the highest need (high-poverty, English learners). These changes included centralizing the pre-k application process to a single application in which parents indicate their top school choices, and provide proof of the child's age, residence, and current family income at an application center.

### **Population and Data:**

This project utilizes enrollment data and student background data on six cohorts of kindergarten students from 2011-12 to 2016-17 (~30,000 students each) which were made available by CPS. Over 80% of these students are Black or of Hispanic descent, at least 85% are eligible for free or reduced-price lunch, and over 25% have limited English proficiency. Using data from the American Community Survey (U.S. Census Bureau, 2016) we defined neighborhoods at the census tract level, categorizing these neighborhoods into one of five clusters using a latent profile analysis.

### **Research Design:**

In this project we use secondary data to explore patterns of school-based pre-k enrollment across student subgroups from 2010-11 through 2015-16. Our six cohorts include three years of student data before and after the district's shift to a centralized preschool application and enrollment process. We use descriptive analyses and multilevel logistic and linear regressions to examine how accessibility of application centers and school-based pre-k sites, along with student neighborhoods, are related to pre-k enrollment (including high-quality and full-day pre-k options). We then explore whether these relationships differ under the centralized versus decentralized district policy context.

### **Findings/Results:**

There are substantial differences in the rates of enrollment into district-based pre-k based on students' background characteristics. Black students are far less likely to enroll in a high-quality school with pre-k than white students, although their rates increase over time. Similarly, while Latino students have the highest rates of any school based pre-k enrollment, they are the least likely subgroup to attend full-day pre-k. At the neighborhood level, students living in predominantly white neighborhoods with low levels of poverty and high human capital have lower likelihoods of attending any school-based pre-k, but higher likelihoods of attending high quality school based pre-k. Preliminary results show that after centralization policies were put in place, students living near (within .5 miles) an application center were significantly more likely than their peers to attend any school based pre-k, although living near an application center did not appear to significantly affect enrollment in high quality schools.

## Conclusions:

This work contributes significantly to the field's knowledge of how enrollment policies relate to the pre-k enrollment of students who are most likely to benefit from high-quality pre-k. We continue to regularly engage with district staff about interpretations and the ways in which our findings can inform ongoing pre-k policy and practice efforts. This will better support the full education system, informing how to best support the needs of all families and enroll our high-needs children in the highest-quality pre-k options.

## References:

- Barnett, W.S., Friedman-Krauss, A. H., Weisenfeld, G. G., Horowitz, M., Kasmin, B. A., & Squires, J.H. (2017). *The state of preschool 2016: State preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.
- Child Trends. (2010). A review of school readiness practices in the states: Early learning guidelines and assessments. *Early Childhood Highlights, 1*(3).
- Denton, K., and West, J. (2002). *Children's reading and mathematics achievement in kindergarten and first grade*. National Center for Education Statistics (NCES 2002-125). US Dept. of Education, Institute of Education Sciences, National Center for Education Statistics.
- Keys, T. D., Farkas, G., Burchinal, M. R., Duncan, G. J., Vandell, D. L., Li, W., ... & Howes, C. (2013). Preschool center quality and school readiness: Quality effects and variation by demographic and child characteristics. *Child Development, 84*(4), 1171-1190.
- McCoy, D. C., Connors, M. C., Morris, P. A., Yoshikawa, H., & Friedman-Krauss, A. H. (2015). Neighborhood economic disadvantage and children's cognitive and social-emotional development: Exploring Head Start classroom quality as a mediating mechanism. *Early Childhood Research Quarterly, 32*, 150-159.
- Puma, M., Bell, S., Cook, R., & Heid, C. (2010). *Head Start Impact Study. Final report*. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families.
- Weiland, C., & Yoshikawa, H. (2013). Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function, and emotional skills. *Child Development, 84*(6), 2112-2130.
- Winsler, A., Tran, H., Hartman, S. C., Madigan, A. L., Manfra, L., & Bleiker, C. (2008). School readiness gains made by ethnically diverse children in poverty attending center-based childcare and public school pre-kindergarten programs. *Early Childhood Research Quarterly, 23*(3), 314-329.
- Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M. R., Espinosa, L. M., Gormley, W. T., ... Zaslow, M. (2013). *Investing in our future: The evidence base on preschool education*. Ann Arbor, MI: Society for Research in Child Development and Foundation for Child Development.

