

Children's Academic Achievement and Foster Care

Lawrence Berger
Maria Cancian
Eunhee Han
Jennifer Noyes
Vanessa Rios-Salas

Milwaukee Child Welfare Partnership
Health and Education Committee
June 10, 2015



Acknowledgements

This research was conducted as part of a research agreement between the Wisconsin Department of Children and Families (DCF) and the Institute for Research on Poverty (IRP) at the University of Wisconsin–Madison. It is one component of the “Wisconsin Educational Collaboration for Youth in Foster Care” project, funded under the U.S. Department of Health and Human Services Child Welfare – Education Collaborations to Increase Educational Stability grant program.

We thank Jared Knowles, Wisconsin Department of Public Instruction, for facilitating our access to and understanding of the educational data; Jane Smith and Pat Brown, IRP, for their expert advice and assistance in constructing the data file; Devan Carlson and Kyong Kang for developing a DPI data codebook; John Elliot, Wendy Henderson, Laura Christian, and others, in DCF, as well as Hilary Shager, now at the UW, for their expert advice and support of this project; and Deborah Johnson and Dawn Duren of IRP for their editorial assistance.



Motivation

- Children in out-of-home placement (OHP) are at increased risk of adverse school outcomes relative to the general population of children.
- The implication of this depends critically on the role that placement in care, *per se*, plays in determining school achievement.
 - If children who enter care have a prior history of low achievement, then a continued achievement gap may simply demonstrate that placement does not (fully) compensate for past disadvantage.
 - If the disruption associated with OHP significantly compromises school achievement, this unintended negative consequence would have important implications for policy and practice.



Research Description

- We analyzed the relation between out-of-home placement, per se, and academic achievement, focusing on reading and mathematics achievement in grades 3 through 8.
- Our data consisted of linked MSPF and DPI records comprising 529,597 child-year observations for 222,049 children who experienced out-of-home placement or were in a comparison group.
- We provide a range of estimates using multiple statistical approaches and comparison groups.



Background

- Research over the past 50 years has established that, on average, individuals in an OHP or having experienced OHP as a consequence of CPS involvement exhibit poorer average developmental outcomes in both childhood and adulthood than individuals who have never experienced OHP.
- But, children who experience OHP also experience a host of risk factors, including child maltreatment, poverty, parental substance (ab)use, and mental health problems, that are likely to jeopardize their development independent of OHP.
- Research has not established whether poor developmental outcomes are the result of OHP or whether the association between OHP and adverse outcomes is spuriously driven by other factors.



How might OHP influence academic achievement?

- Achievement may be adversely affected by separation from primary caregiver, siblings, etc., and associated stress.
 - may be greater with move to a new school.
- OHP may directly affect achievement due to changes in home and school environments.
 - Moving from a chaotic or abusive home environment to a high-quality placement may improve achievement, especially after an initial transition period.
 - OHP may result in a decline in support for educational achievement; however, child welfare policy and expectations of substitute care providers should help limit this possibility.
- Changing schools as a result of placement may have further implications for achievement.
 - New school may be of higher or lower quality; better or worse match.
 - Effects may differ over time.



Data

- Longitudinal linked administrative data DPI and the 2011 MSPF (includes CARES, KIDS, WiSACWIS); the DPI data include information on academic performance, attendance and behavior, and basic demographics for all children in Wisconsin public schools from the 2005–2006 through 2011–2012.
- The statewide Wisconsin Knowledge and Concepts Examinations (WKCE) measures student achievement and is administered to students in WI public schools during the fall of each year. Reading and mathematics tests are administered in grades 3 through 8, as well as 10. We focus on reading and mathematics test scores for students in grades 3 through 8 in order to examine test scores across contiguous years.
- Our analytic sample comprises 529,597 child-year observations for 222,049 children who experienced OHP or were in a comparison group, had non-missing math or reading test score data, and for whom we had information on days suspended from school (we use mean imputation to replace missing values on all other covariates).



Comparison groups

- **Current OHP:** the child was in an OHP at the time of the test;
- **Recent OHP:** the child was in an OHP at some point in the 12 months prior to the test, but in-home at the time of the test (the month of October in a given year);
- **Investigated but placed after test:** the child had been investigated by CPS at some point between 1 and 5 months preceding the test and was not removed from home prior to the test, but was removed from home after the test and within 6 months of the investigation;
- **Investigated and not placed:** the child was investigated by CPS at some point in the 12 months prior to the test, but was not removed from home prior to the test or within 6 months of the investigation (if the investigation occurred between 1 and 5 months prior to the test); and
- **No CPS, but received SNAP:** the child received SNAP in the 12 months prior to the test, but did not experience a CPS investigation or OHP.



Outcome Measures and Covariates

- Academic achievement: children's math and reading scores on the WKCE in grades 3 through 8, standardized by grade and year.
- Covariates: child female; child; household eligible for free school; grade retention during the prior school year; days the child suspended in the year prior to the test; English language proficiency; mother's age; family structure; number of children in the household; total family wages; parental incarceration in the past 15 years; parental incarceration in the year prior to the test; an indicator for school; an indicator for year of observation; and age of the student.

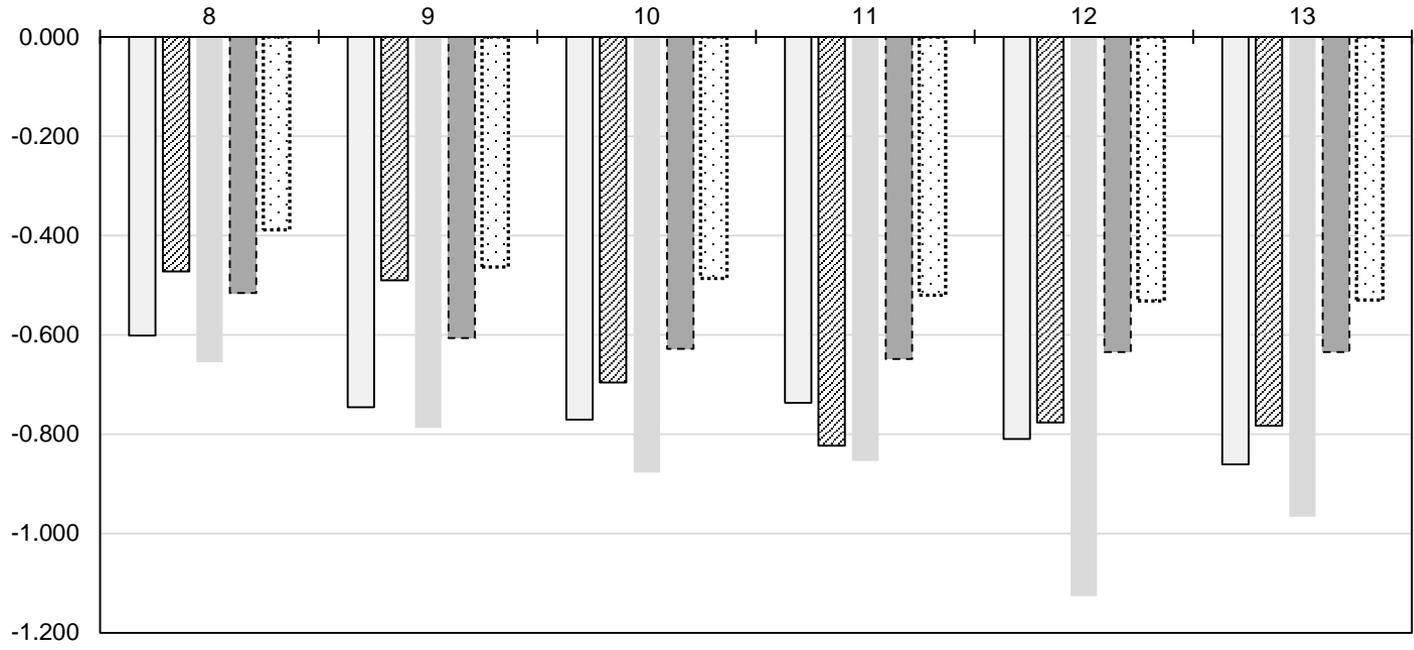


Methods

- We first present bivariate comparisons among our 5 samples of children.
- We then estimate a series of regression models of the relation between OHP and school achievement.
- Each model includes indicators for which OHP status a child experienced in the 12 months prior to a given test.
- The SNAP-only group is the reference group in all models.
- We estimate three models:
 1. a pooled OLS regression that considers placement status and test scores net of the full set of control variables;
 2. an identical model that adds the previous year's test score as an additional control;
 3. a final model that includes child-specific fixed effects.



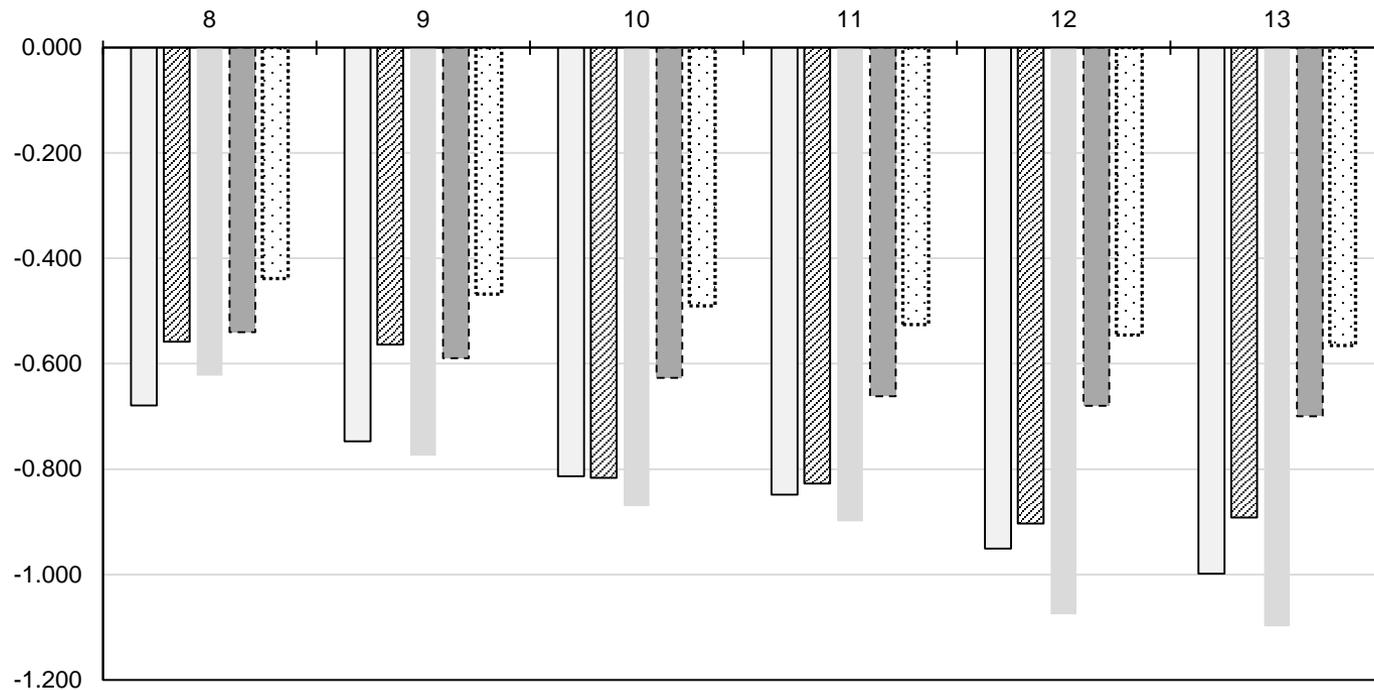
Reading



- OHP, during test
- ▨ OHP, before test
- SI, placed OH later
- SI, but not placed OH
- ⋯ Rest: SNAP



Math



- OHP, during test
- ▨ OHP, before test
- SI, placed OH later
- ▤ SI, but not placed OH
- ▧ Rest: SNAP



Descriptive statistics: Covariates

- Consistent with the descriptive statistics for the achievement measures, the largest differences tend to be between the SNAP-only group and all of the other groups.
- Children who received SNAP, those with any type of CPS involvement tended to be more disadvantaged, and this was particularly true of those experiencing an out-of-home placement, whether before, at the time of, or after the taking the achievement test.
- Those with CPS involvement (in some cases, particularly those experiencing OHP) are disproportionately Black, likely to have been suspended from school and retained in their current grade, not to be fully English language proficient, to be in a single-parent household, to be in a household with a larger number of children, to be in a lower-wage household, to have had an incarcerated parent, to have been homeless, and to have parents who received W-2 (TANF).



Table 2. Estimations on Standardized Reading and Math Test Scores (Main explanatory variables)

	Reading			Math		
	Pooled OLS	Pooled OLS Controlling for Previous Test Score	Child FE	Pooled OLS	Pooled OLS Controlling for Previous Test Score	Child FE
Base = Only SNAP in the Previous Year						
OHP, during test	-0.154 [0.018]***	-0.029 [0.011]**	-0.008 [0.020]	-0.202 [0.017]***	-0.053 [0.011]***	-0.017 [0.019]
OHP, before test	-0.124 [0.017]***	-0.039 [0.015]**	-0.004 [0.019]	-0.185 [0.017]***	-0.088 [0.015]***	-0.048 [0.018]***
SI, placed OH later	-0.33^{ab} [0.043]***	-0.16^{ab} [0.038]***	-0.086 [0.043]**	-0.326^{ab} [0.039]***	-0.163^a [0.036]***	-0.063 [0.038]
SI, but not placed OH later	-0.18^{bc} [0.007]***	-0.06^{ac} [0.005]***	-0.011 [0.006]*	-0.172^c [0.006]***	-0.056^{bc} [0.005]***	-0.012 [0.006]**
Previous test score		0.712 [0.002]***			0.736 [0.002]***	
N	526,102	348,430	526,102	528,810	350,536	528,810
N. clusters (mothers)	114,796	93,611	114,796	115,161	93,913	115,161

^aDiffers significantly from “OHP, during test” at $p < 0.05$.

^bDiffers significantly from “OHP, before test” at $p < 0.05$.

^cDiffers significantly from “SI, placed OH later” at $p < 0.05$.



Results of Additional Analyses

- Some suggestive evidence that children perform slightly worse in the early stages of placement or during short placements than after being in care for a longer period. Thus, future research should consider a longer observation period, and explicitly consider changes in placement settings (i.e., moves from one care provider to another), and changes in schools attended.
- Our analyses included only children who took the standard Wisconsin achievement test and not those who took alternative tests. The association between a child's prior test score and whether the child subsequently took the standard achievement test does not differ by placement status. We find no evidence that those children who would have experienced the largest decline in achievement as a result of OHP are disproportionately likely to be missing from our achievement score analyses.



Conclusion

- Bivariate evidence that children experiencing OHP have poorer achievement than the general population of children and those receiving SNAP. But, economic disadvantage appears to explain more than half of the gap between OHP children and other children.
- Few differences between OHP children and other CPS-involved children.
 - All CPS-involved children perform worse on the WKCE; OHP not particularly salient.
- Multivariate results confirm that OHP, itself, is not significantly related to school achievement.
- Whereas we find no evidence of a causal relationship between OHP and achievement, we do find consistent evidence of low average math and reading achievement among children involved with CPS.
- Practice and policy would be well served by focusing on the need to support achievement among all socioeconomically vulnerable children, and all CPS-involved children, rather than focusing specifically on the consequences of out-of-home care for school achievement.



Next Steps

- Incorporate additional educational outcomes such as progress toward graduation (credits completed in a year), graduation, being “held back” a grade, and summer school attendance.
- Analyze achievement by characteristics of placements: (a) nonrelative foster care, group home, formal kinship care, informal kinship care; (b) whether placement involved a change in school (requires additional data that we believe is available from DPI); and (c) stability of placement (i.e., for a given period of OHP, how does achievement vary by number of moves of placement and/or school?)
- Incorporate indicators of school quality and analyzing the relative strength of the relationship between school quality versus stability and educational outcomes.
- Analyze the extent to which children in out-of-home care are most likely to switch from standard achievement tests to alternative tests or to forgoing taking achievement tests altogether.

