

RESEARCH BRIEF

Northside Achievement Zone Services & Educational Success in North Minneapolis

PURPOSE OF THE STUDY

The Northside Achievement Zone (NAZ) provides supports that target the economic and educational disparities disproportionately affecting low-income children of color in North Minneapolis. In this study we examined the sociodemographic profile of children served by NAZ, including a subset of children who received rental assistance. We also examined how patterns of NAZ service engagement were associated with school attendance.

BACKGROUND & PURPOSE

The mission of the Northside Achievement Zone (NAZ) is to end generational poverty and build a culture of achievement especially for low-income children of color (NAZ *What We Do*, 2022). NAZ serves families in North Minneapolis and combats the stark economic and educational disparities that arise in communities where poverty, policies, and interrelated laws systematically disadvantage children of color (Trent et al., 2019). NAZ services were designed to span multiple systems to enhance community connectedness, academic achievement, and family support. This design is based on research indicating that change at multiple levels of the environment holds promise for population-level impact (McGowan et al., 2021; Slopen & Williams, 2021; Taylor et al., 2008).



NAZ SERVICES WERE DESIGNED TO SPAN MULTIPLE SYSTEMS TO ENHANCE COMMUNITY CONNECTEDNESS, ACADEMIC ACHIEVEMENT, AND FAMILY SUPPORT. THIS DESIGN IS BASED ON RESEARCH INDICATING THAT CHANGE AT MULTIPLE LEVELS OF THE ENVIRONMENT HOLDS PROMISE FOR POPULATION-LEVEL IMPACT.

NAZ builds evidence-based supports through data driven decisions. In alignment with this goal, de-identified information about NAZ services were integrated with administrative data from multiple systems for research at Minn-LInK conducted by the Homework Starts with Home (HSWH) Research Partnership. This collaboration created an opportunity to better understand the families served by NAZ, including recipients of a state-funded rental assistance program, and to analyze the effects of NAZ engagement overtime compared to children with less NAZ engagement.

Research Questions:

1. *What is the sociodemographic profile of children served by NAZ and how do they compare to other students who attend schools in North Minneapolis and Hennepin County?*
2. *Within NAZ, what is the sociodemographic profile of children who received rental assistance compared to NAZ-connected children who did not receive rental assistance through the state-funded Homework Starts with Home (HSWH) pilot programs between 2014 and 2016.*
3. *Within NAZ, what are the patterns of services based on length of engagement in NAZ?*
4. *Is longer engagement in NAZ services associated with better school attendance?*



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METHODS

Using data integrated through Minn-LInK, we created several groups of children with different lengths of NAZ engagement and compared their sociodemographic profile. Among NAZ-connected children, we evaluated the patterns of NAZ services for different lengths of engagement. Regression analyses examined the effects of NAZ engagement with school attendance from 2014-2019.

FINDINGS

NAZ serves children with very high sociodemographic risk. Within NAZ, the recipients of state rental assistance had even greater risk for school attendance and homelessness. Despite such risk, families who were able to engage more thoroughly with NAZ such as through a connector or coach received more NAZ services. On average, children with the longest NAZ engagement maintained higher attendance.

Through Minn-LInK, we identified 579 children aged 6-8 who participated in NAZ from 2014-2017. Groups were created based on years of engagement with NAZ (<1 year [n = 206], 1 year [n = 207], 2 years [n = 166]). The fourth group were children aged 6-8 who attended one of two NAZ Anchor Schools in the 2014-2015 school year (n = 190). Anchor schools integrate NAZ's evidence-based practices, but these children were not otherwise engaged with NAZ services.

Descriptive statistics were used to examine the sociodemographic profile of children across these four groups in addition to a group of children aged 6-8 in Hennepin County (n = 47,859) during the 2014-2015 school year (Table 1). Within NAZ, we compared the sociodemographic profile of children who received the rental assistance (n = 151 all ages; n = 36 aged 6-8) to NAZ-connected children who did not receive rental assistance (n = 1786 all ages; n = 547 aged 6-8) (see Table 2). Chi-square analyses examined patterns of engagement with NAZ based on length of NAZ engagement. Linear mixed effect models were used to examine whether length of NAZ engagement was associated with school attendance over time.

Aim 1. Sociodemographic Risk Profile Between Groups

Demographic characteristics were similar across children in Anchor Schools and NAZ, but there were stark contrasts when compared to the sample of children in Hennepin County (see Table 1). Children in the Anchor Schools and NAZ were disproportionately Black (75.8% - 79.4%) compared to the overall population of children in Hennepin County (18.8%). They also had higher sociodemographic risk as indicated by the prevalence of children qualifying for free school meals (84.2% - 92.4%) and those who experienced homelessness (11.6% - 25.4%) in a given school year compared to Hennepin County (32.9% free lunch; 2.9% homelessness). Children in the Anchor Schools and NAZ also had higher rates of Child Protective Service (CPS) involvement in a given year (9.0%-13.2%) and over the lifetime (36.7%-39.1%) compared to children in Hennepin County (2.2% year; 10.2% lifetime). In addition, children in the Anchor Schools and NAZ had lower attendance (90.2% - 93.1%) and more school moves within a year (average of 1.51-1.94 moves) compared to children in Hennepin County (average of 1.31 moves). Between the NAZ groups, there was a higher percentage of dual-parent households among children with longer NAZ engagement.

Table 1. Child Characteristics by Group

	Hennepin County	Anchor School	NAZ Engagement <1 year	NAZ Engagement 1 year	NAZ Engagement 2 years
Sex (% Female)	48.7%	54.2%	42.1%	49.8%	50.0%
Race and/or Ethnicity					
Native American	1.7%	2.6%	1.5%	2.4%	0.0%
Asian	9.1%	3.7%	8.9%	2.0%	1.3%
Hispanic	10.2%	11.6%	9.9%	14.6%	16.3%
Black	18.8%	75.8%	77.2%	76.6%	79.4%
White	60.2%	6.3%	2.5%	4.4%	3.0%
Caregiver					
Single Mother	--	--	67.7%	58.3%	45.8%
Single Father	--	--	5.3%	2.3%	3.5%
Dual-Parent	--	--	21.7%	34.1%	47.2%
Other Caregiving	--	--	5.3%	5.3%	3.5%
Housing Variables					
Homeless/Highly Mobile	2.9%	11.6%	25.4%	14.9%	13.1%
Income Variable					
Full Pay	61.2%	11.6%	5.9%	4.5%	8.5%
Reduced Price Lunch	5.9%	4.2%	1.7%	3.5%	0.0%
Free Lunch	32.9%	84.2%	92.4%	92.0%	91.5%
Education Variables					
Attendance	95.1%	93.1%	90.2%	92.6%	93.0%
School Moves*	1.31	1.51	1.76	1.73	1.94
CPS Involvement					
Year 2014-2015	2.2%	13.2%	10.2%	10.1%	9.0%
Lifetime - 2015	10.2%	37.4%	36.9%	39.1%	36.7%

Note. Descriptive statistics represent the available data within the 2014-2015 school year. *Average number of school moves in 2014-2015.

Aim 2. Sociodemographic Risk Profile of NAZ-connected Children with and without the HSWH Rental Subsidy

Among NAZ-connected children, sociodemographic profiles differed between those who received the state-funded HSWH rental assistance and those who did not (see Table 2). The findings were consistent within the whole sample and among the subset of children aged 6-8. NAZ-connected children who received the state-funded HSWH rental assistance had a higher prevalence of homelessness in a given school year and were more likely to be eligible for free school lunch. Their attendance was also lower compared to NAZ-connected children who did not receive the state-funded HSWH rental assistance. In addition, NAZ-connected children who received the state-funded HSWH rental assistance had higher CPS involvement in a given year and lifetime compared to NAZ-connected children who did not receive the subsidy.

Table 2. Characteristics of NAZ-connected Children

	Full Sample		Ages 6-8	
	NAZ (n=1,786)	NAZ & Subsidy (n=151)	NAZ (n=547)	NAZ & Subsidy (n=36)
Sex (% Female)	49.0%	42.4%	46.6%	41.7%
Race and/or Ethnicity				
Native American	1.2%	0%	1.5%	0%
Asian	4.1%	0%	4.5%	0%
Hispanic	11.8%	1.3%	14.2%	0%
Black	79.9%	96.7%	76.3%	100%
White	3.0%	2.0%	3.5%	0%
Housing Variables				
Homeless/Highly Mobile	16.1%	27.4%	16.8%	22.2%
Income Variable:				
Full Pay	12.5%	10.4%	6.5%	0%
Reduced Price Lunch	2.3%	0%	2.0%	0%
Free Lunch	85.2%	89.6%	91.5%	100%
Education Variables				
Attendance	91.0%	88.5%	92.1%	89.8%
School Moves ^a	1.64	1.63	1.81	1.58
CPS Involvement				
Year 2014-2015	8.4%	13.9%	9.0%	25.0%
Lifetime - 2015	38.6%	53.0%	35.8%	72.0%

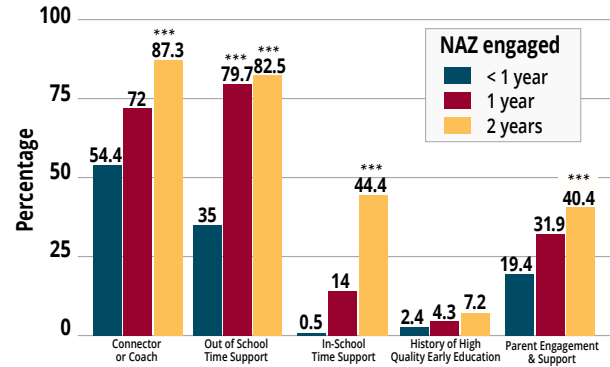
Note. Descriptive statistics represent the available data within the 2014-2015 school year.
^a Average number of school moves in 2014-2015.

Aim 3. NAZ Services by Length of Engagement

Consistent with NAZ's program design, children engaged in NAZ through connector/coach—someone who works one-on-one with parents and their children to support success—had longer engagement in NAZ services compared to those who became engaged only through out of school time supports ($\chi^2 (2) = 48.26, p < .001$). As shown in Figure 1, children who engaged in NAZ longer were more likely to receive services. Children who had two years of engagement from 2015-2017 were more likely to work with a connector or coach ($\chi^2 (2) = 48.23, p < .001$), participate in in-school time supports ($\chi^2 (2) = 122.03, p < .001$) and had parents who were more likely to receive parent engagement and support services ($\chi^2 (2) = 19.86, p < .001$) compared to children

with less than two years of engagement. Children with one or two years of NAZ engagement were significantly more likely to participate in out of school time supports ($\chi^2 (2) = 123.18, p < .001$) compared to those with less than one year of engagement.

Figure 1. NAZ Services (2014-2017)

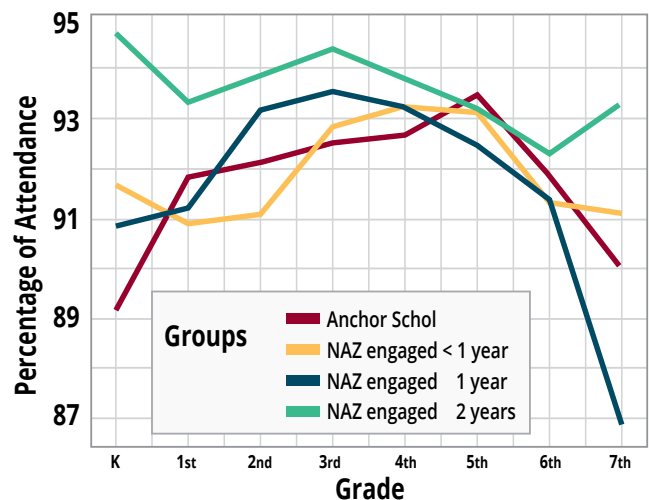


Note. The percentages represent children who received each service at least once from 2014-2017.
^{***} $p < .001$

Aim 4. NAZ Engagement in Association with School Attendance

To examine whether NAZ engagement was associated with indicators of educational success, attendance between the four groups described in the methods section were examined longitudinally from 2013/2014 – 2018/2019 and encompassed Kindergarten to 7th grade. Eighth grade was not included due to small numbers in some subgroups. Attendance patterns were not linear (see Figure 2) and the quadratic shape of attendance over time improved model fit ($\chi^2 (4) = 69.94, p < .001$).

Figure 2. Longitudinal Attendance Patterns



Children who had the longest engagement with NAZ from 2015 – 2017 had higher average attendance compared to the other groups (93.6%; Anchor School: 92.2%; NAZ engaged < 1 year: 92.0%; NAZ engaged 1 year: 92.3%). A retrospective examination indicated that this group of children had higher attendance when they were in kindergarten (year 2013-2014), which was prior to the data acquired for this study on NAZ services. Attendance declined across groups as

children aged, particularly when many children transitioned to middle school. At the study mid-point when the children were in the third grade, there was no significant difference in attendance between groups.

Across all years, children who were engaged with NAZ for two years from 2015 – 2017 had a slower decline in attendance overtime compared to children who were engaged with NAZ for one year (fixed effect estimate = -.003, $p = <.01$). In addition, children who were engaged in NAZ for

less than one year maintained relatively higher attendance across the study period compared to children who were engaged with NAZ for one year (fixed effect estimate = -.002, $p = <.01$). There was no significant difference in attendance trajectories between the other groups including the Anchor Schools. Together, the model explained 40.7% of the variance in attendance. However, the specific predictors included in the model only accounted for a relatively small proportion of the variance, suggesting there are other important predictors of attendance that were not assessed in this study.

Conclusion

In line with NAZ's mission to connect with families in the greatest need, results showed that NAZ serves a group of children that experiences disproportionately high sociodemographic risk. Furthermore, within NAZ, recipients of HSWH rental assistance had even greater risk for school attendance and homelessness, indicating that state-funded rental assistance reached the intended students. Consistent with the design of NAZ, children who were involved in NAZ through a connector or coach engaged longer and accessed more education and family support services. Additionally, children who had the longest engagement with NAZ had higher average attendance relative to the other groups and was significantly higher than those who were engaged with NAZ for one year across the study period. These findings align with previous research conducted by Wilder Research indicating that "more NAZ is better" (NAZ results summary multigenerational innovation at work, 2020). The results suggest that families who were able to engage longer in NAZ services were more likely to experience its benefits.

A retrospective examination of attendance in kindergarten indicated that children who would go on to have the longest engagement with NAZ already had higher attendance. It is plausible that family-related factors may contribute to the pattern of results; the group of children who had the longest engagement with NAZ also had the highest proportion of children in dual-parent households compared to children in NAZ with fewer years of engagement. Therefore, some families may have greater ease engaging with NAZ. Integrated multisystem data holds promise for a deeper understanding of families served by NAZ, the impact of the services they offer, and the added benefits of state-funded rental assistance. Future research could illuminate longer-term effects of engagement in NAZ and inform their efforts to continue refining their student and family supports through evidence-based practices.

LIMITATIONS

The information on NAZ engagement was only available from 2014-2017. Because this study encompassed years before and after this time window, it is possible that children had additional years of NAZ engagement that we could not account for. In addition, it was not feasible to examine other relevant factors that could influence student attendance. Third, this project focused on one region of Minneapolis, which limits generalizability.

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Suggested citation: Lucke, C. M., & Homework Starts with Home Research Partnership (2022). Northside Achievement Zone services & educational success in North Minneapolis (Minn-LinK Brief No. 54). Center for Advanced Studies in Child Welfare, University of Minnesota. Available at: <https://casw.umn.edu/portfolio/tags/minn-link/>

Funding & Other Acknowledgements: Financial support for this research was provided by the University of Minnesota through the Grand Challenges Research Initiative, Office of the Executive Vice President and Provost.

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