

**The Effect of Race on Family Involvement in Head Start “Family Fun Time Activities” -
How Family Involvement is Related to the Racial Achievement Gap**

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SOC 345: Social Research and Program Evaluation

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November 20, 2023

Abstract

A large body of research supports the idea that family involvement in children's education leads to academic success, and that a lack of family involvement prevents students from succeeding academically (Anthony & Ogg, 2019; Currie & Thomas, 1995; Epstien, 1995). This study's purpose is to further examine how race is related to family involvement by analyzing low-income Virginia families' participation in Head Start "Family Fun Time Activities" (FFTAs). This mixed-methods study uses qualitative (open-ended) and quantitative (close-ended) survey questions. Family involvement in Head Start FFTAs is higher in families of color than in white families, which builds upon existing evidence that family involvement differs by race. The results of this study show that low-income families of color are equally or more likely to be involved in their children's education than low-income white families. This study provides evidence that factors beyond family involvement contribute to the racial achievement gap in American schools.

Introduction

A gap exists in sociological and educational research pertaining to the accurate measurement of family involvement by race. Filling this gap is important because some Americans hold a stereotypical belief that low-income families of color do not prioritize their children's education to the same degree as white families (Harper & Davis, 2012). In reality, structural racism is most directly responsible for creating the racial achievement gap in the United States, not family involvement (2012). However, prior research has been insufficient in demonstrating this fact.

The framework that is most commonly cited as the foundation of modern understandings of family involvement (Epstien, 1995) fails to consider the impacts that structural racism may have on family involvement and academic success. Additionally, while federal programs such as Head Start have been created to help prepare low-income children (many of whom are children of color) for school, research has demonstrated that regardless of family involvement, the benefits of participation in Head Start programs do not have the same long-term effects for children of color as they do for white children (Currie & Thomas, 1995).

The purpose of this study is to further examine how race is related to family involvement with data from parents who participate in a Head Start program in rural Virginia. Our study helps shift popular beliefs about parent involvement and race away from meritocratic and essentialist perspectives, and progresses a more comprehensive understanding of the connection between the two. This study demonstrates that people of color participate in their children's education at an equal or greater level than white parents, and therefore, a lack of family involvement cannot be pinned by as the sole creator of the racial achievement gap.

Literature Review

Family Involvement, Head Start, and Academic Success

Prior research on family involvement indicates that frequent interactions between schools, families, and communities are likely to lead to children's reception of consistent messages about the importance of education, hard work, creativity, being helpful to others, and remaining in school, which increases the likelihood for academic success (Anthony & Ogg, 2019; Currie & Thomas, 1995; Epstein, 1995). The Head Start program is a federally funded program that seeks to increase family participation in education for low-income families, and it has been proven to be effective in helping to prepare low-income children and their families for academic success (Anthony & Ogg, 2019; Currie & Thomas, 1995; Epstein, 1995; Haralampoudis et. al, 2021; Yeh & Wodtke, 2023). The current study focuses on defining how race is related to a 3-5 year-old family's involvement in Head Start "Family Fun Time Activities".

In 1995, social scientist Joyce Epstein developed a framework to organize and measure the different types of family involvement. She recognized six overarching categories of family involvement: parenting, communication (between home/school and vice-versa,) volunteering (recruiting and organizing parent help and support in school activities,) learning at home, decision making (including parents in school decisions,) and collaboration with the community. Epstein (1995) claimed that by incorporating aspects of all six categories into parent/student/teacher relationships, parents would be more involved in their child(ren)'s education and students would be more successful. Epstein's (1995) dimensions of communication and learning at home are aspects of family involvement that are deeply entrenched in the Head Start mission (Ansari & Gershoff, 2016; Fantuzzo et al., 2004).

In 2004, Fantuzzo et. al. expanded upon Epstein's theoretical framework by developing a three-pronged multidimensional scale with which to group the existing forms of family involvement into their own respective categories. By using national quantitative data received from the FIQ (the Family Involvement Questionnaire) and applying it to Epstein's (1995) framework, Fantuzzo et. al (2004) identified three main branches of family involvement that involvement behaviors could fall under: Home-Based Involvement (HBI), School-Based Involvement (SBI), and Home-School Communication (HSC) (2004).

Epstein (1995) and Fantuzzo et. al's (2004) frameworks are cited in literature regarding family involvement in Head Start as theoretical foundations (Ansari & Gershoff, 2016). It has been found that Home-Based Involvement, the type of family involvement in education that takes place within the child's home, is the branch of involvement that's most predictive of positive classroom competencies ("foundational approaches to learning, classroom conduct, and receptive vocabulary,") and fewer behavioral issues for students of all races: both important factors for academic success (Fantuzzo et al., 2004).

Participation in HBI practices can positively influence parent/child relationships regardless of race, and healthy bonds between parents and children are associated with academic success across racial lines (Anasri & Gershoff, 2015; Bierman et. al, 2015; Haralampoudis et. al, 2021; Yeh & Wodtke, 2023). A longitudinal study conducted over a one-year period found that regular parent involvement in Head Start predicted improvements in parenting behavior for racially disparate parents over time, and these improvements were predictive of increases in their children's cognitive development (Anasri & Gershoff, 2019). This research is important because it suggests that participation in Head Start HBI efforts may be more likely to support a child's academic success through the resulting improvement of parenting behavior and parent/child

relationships than through involvement in the efforts themselves (Anasri & Gershoff, 2019). Research shows that these improvements can surmount parent/child relationship barriers such as non-residence. Haralampoudis et. al (2021), found that Head Start participation was associated with increased levels of nonresident fathers' contact and engagement with children- but engagement levels differed based on race. This study found that non-resident Black fathers were more likely to participate in Head Start programs than non-resident White fathers (2021). When non-resident fathers participate in Head Start programs with their young children, fathers' involvement in engaging their children in developmentally enriching activities increases, which supports their child's academic performance (2021).

Family Involvement and Race

Studies have shown that the degree to which each kind of family involvement impacts a child's academic success varies based on race (Desimone, 1999, and Day & Dotterer, 2018). For example, a 2018 study found that even if academic socialization and home-based involvement are high for Black students, it is difficult to buffer the negative effects for GPA if school-based involvement is low (Day & Dotterer). The same study found that high levels of home-based involvement were associated with less educational attainment for white students. These findings suggest that factors outside of parent involvement, such as the environment in which a child lives and the culture of a child's family, may also impact a child's academic success (Day & Dotterer, 2018).

Studies have also shown that the retention of academic benefits accrued from family involvement and child participation in Head Start during the preschool years are different depending on the race of the child (Currie & Thomas, 1995). While the test scores of both

African-American and white children have been proven to increase with participation in Head Start, gains are quickly lost by African-American students once they graduate from the program (1995). This suggests that family involvement in Head Start has racially disparate effects long-term, but that all children benefit from family involvement with the program while they are enrolled (1995). Further research needs to be conducted on the structural barriers that exist for African American children and, more broadly, for families of color that prevent continuing benefits from participation in Head Start.

Racial Achievement Gap

One possible explanation for reduced benefits from Head Start participation for families of color is the fact that in the U.S, structural racism creates a racial achievement gap for students of all ages (Merolla & Jackson, 2019). A study done in 2015 found that 44% of White, 16% of Black, and 21% of Hispanic students in America scored at or above basic skill levels in reading (NCES, 2017). Additionally, a 2017 study found that while 10.1% of adult White Americans held graduate degrees, only 5.5% of Black Americans and 3% of Hispanic Americans held graduate degrees (2017). Significant disparities also exist in the average Grade Point Average (GPA) for students of color and for white students in America (NAEP, 2009).

Educational attainment level and GPA are two factors that are commonly used by social scientists to measure long-term academic success (Bowen, Chingos, & McPherson, 2009; Suape & Curs, 2008). Structural racism- a system of social organization that privileges White Americans and disadvantages Americans of color- significantly impacts the racial achievement gap in the U.S (Merolla & Jackson, 2019). Differences in socioeconomic status, family cultural resources, school quality and racial composition, and bias and prejudice in schools are

mechanisms that have all been proven to link race to academic achievement in a significant way (2019). What remains less clear is the degree to which family involvement is connected to the academic success of different races as compared to the connection between structural racism and academic success.

Data and Methodology

Instrument

A survey questionnaire was created by eight members of the Social Research and Program Evaluation Team at Longwood University. The survey consisted of 15 questions- three open-ended questions and 12 close-ended questions. The first question on the survey asked the respondents for informed consent. Any respondents who answered “no” to the informed consent were not able to see any other questions. The survey included questions that measured family involvement, family enjoyment, evaluation of SMART objectives, and demographics. The survey was sent online through the Qualtrics program, so Head Start teachers emailed links to the survey to parents/guardians and children brought home books with a QR code attached.

Sample

The non-probability sample for this study was based on 17 children (ages 3-5) who attend Head Start daycare programs in rural Virginia. Head Start is a federally subsidized preschool for families with economic need. An activity titled “Haunted Runway” was created by the research team. Supplies and instructions for the activity were sent home with Head Start children in paper grocery bags. In this activity, children were challenged to use clothing items from the wardrobes of their family members to create their own Halloween costumes. Children were then encouraged to show their completed costumes to their family members. A children’s book with a QR code that encouraged families to take the online survey after they finished the activity was also sent

home with the children. Teachers sent a reminder email to parents and guardians to complete any outstanding surveys. This resulted in four surveys being completed. Overall, there was a 4% response rate. Therefore, data from previous years (2019 and 2022) on Family Fun Time Activities were added to the analysis. This resulted in 66 completed surveys that were used in analysis (four from 2023, 20 from 2022, and 42 from 2019.)

Quantitative Analysis

Our quantitative analysis of the completed surveys is based on the close-ended questions. For this study, the dependent variable is family involvement. The item from the survey that was used to operationalize this was, “On a scale from 0 (not at all) to 10 (a great amount), how much did this activity encourage your family to work together?” For this study, the independent variable was race. The item from the survey that was used to operationalize this was, “Choose one or more races that you consider yourself to be.” Answers for this question were “White or Caucasian”, “Black or African-American”, “American Indian/Native American or Alaska Native”, “Asian”, “Native Hawaiian or Other Pacific Islander”, “Other”, or “Prefer not to say.” Descriptive statistics were used to analyze these variables.

Qualitative Analysis

Our qualitative analysis of the completed surveys (from 2019, 2022, and 2023) was based on open-ended questions from survey responses. The open-ended questions were, “What did you enjoy about this activity?”, “What are your suggestions for improving this activity?”, and, “Typically, what activities do you do with your child?” Inductive open coding was used to answer the research question, “How is family involvement in Head Start Family Fun Time Activities related to race?”

Qualitative Findings

Family involvement is the degree to which parents and/or guardians participate in and support their child's attainment of education. Family involvement is beneficial to the academic success of all children, but it is particularly important for low-income children who may need additional support to overcome social and economic barriers associated with school.

Federally-funded programs such as Head Start were founded to help meet the needs of low-income students and students-to-be, so that both children and families are prepared for their child(ren's) academic career(s). The current study focuses on parent attitudes regarding the value of participating in Head Start programs. Our findings build upon prior research that supports the idea that parents and guardians view participation in Head Start programs as being beneficial to their parent/child relationship and to their child's social and academic development.

Opportunity for Teamwork and Collaboration

Several parents who have participated in Head Start's "Family Fun Time Activities" (FFTA) have voiced that doing so provided their families with an opportunity to work together as a team- in total, the research team found nine codes related to this concept in survey data from 2019, 2021, and 2022. A respondent who was surveyed in 2019 stated that "[Participating in FFTAs] provided us with family time. We gained experience in following directions and working together." Another respondent from 2019 reported that their family, "... Gained [the knowledge] that we can work together and have fun" by participating in FFTAs. A different respondent from the same year said that "Everyone [in our family] wanted to participate and help" with the FFTAs that were sent home with their child. Reports of familial collaboration during participation in Family Fun Time Activities are related to family involvement because parent/child participation in the activities resulted in parents and children working together to

accomplish the shared goal of completing the activity. Additionally, parents and children got to spend valuable “family time” with one another while completing the activities together, and both parents and children practiced communication and teamwork skills during the activity process.

Prioritization of Family Time

Another commonly cited benefit of participation in FFTAs was that they encouraged parents, guardians, and other family members to prioritize setting aside time to be together with their children. In some cases, participating in FFTAs encouraged family members to prioritize family time more than usual. The research team identified 10 codes related to this idea from the three years of data that were considered. One respondent from 2022 stated, “Our family really enjoyed how simple the activities were and how much our child enjoyed them, [and our child] even [completed] some with their siblings.” This report suggests that participating in FFTAs encouraged this child and their siblings to spend time together in a way that they normally might not. Another respondent who was surveyed in 2019 said that, “We were together doing these activities: my brother, me, and my son. We don’t usually do these kinds of things together...” A different respondent from 2019 also stated that participating in FFTAs was “...Something that we made time for- we don’t always get the chance.” Reports that FFTAs encourage parents and other family members to prioritize “family time” are related to family involvement because families who are involved in their child(ren)’s education intentionally set aside time to interact with their child(ren) and support them in their academic career(s). Thus, pre-planned activities that motivate families to make time for their children result in family involvement.

Academic Development

Parents and guardians who were surveyed about their experiences with Family Fun Time Activities reported that participating in said activities helped support their child's academic development, particularly in terms of their child's ability to correctly identify shapes, colors, letters, and numbers. The research team identified seven codes that correspond to this idea. A respondent from 2022 stated that their child "learned letters, numbers, and how to take turns, also a little bit of reading" while participating in a FFTA. Another respondent from 2019 reported that the FFTAs sent home with their child were "... Very informative and super interactive." A different respondent from 2019 said that "The [FFTA involving] sugar was my favorite because it helped [child's name] with writing her name." Parents and guardians believe that participating in FFTAs with their child supports their child's academic development is related to family involvement because the act of completing an FFTA with one's child is, in itself, family involvement. Parents interacted with their children in an active, educational manner when completing the FFTA, and thus, parents were able to support their child's learning through involvement.

Development of Fine Motor Skills

Parents and guardians who participated in Family Fun Time Activities reported that these activities supported the development of their child's fine motor skills. The research team identified three codes related to this concept. A respondent from 2022 stated their child was able to "practice cutting with scissors." A different respondent from the same year echoed this statement, reporting that their child was able to "learn how to cut, glue, and trace better." Another respondent, also surveyed in 2022, stated that their child "loved cutting and gluing, [and] loved making stuff [during the activity]...". Parents and guardians believe that participating

in FFTAs with their child supports the development of their child's fine motor skills relates to family involvement because this belief shows that a) parents were paying close attention to their child during the process of completing the FFTa together, and b) parents were invested and interested in observing and supporting their child's development of new skills and strengthening of existing ones.

Development of Social and Emotional Learning Skills (SEL)

Another benefit that parents and guardians cited from participating in FFTAs with their children was that these activities supported the development and strengthening of their child's social and emotional learning skills. The research team identified 10 codes that correspond to this idea from the three years of surveys that were analyzed. A respondent from 2019 said, "My family gained quality time and [completing the FFTa] helped my child understand things about his feelings and what to be thankful for." Similarly, a respondent from 2022 stated that the thing that they enjoyed most about completing FFTAs with their child was that they "helped with [my] child's mood and taught them to be patient." Another participant from 2022 reported that by completing FFTAs with their daughter, "my child learned patience. Not giving up if something doesn't go the way or look how she expected it to". The development and strengthening of social and emotional learning skills as a result of participation in FFTAs is related to family involvement because SEL skills are taught and valued in educational settings. The employment of SEL skills such as patience, emotion management, turn-taking, and gratitude are required of students of all ages in order to be successful in an academic environment. Thus, when families engaged in the development of their children's SEL skills by completing Head Start's FFTAs with them, parents and guardians demonstrated involvement in their child's academic growth.

Time and Cost Efficiency

Parents and guardians who participated in Head Start FFTAs also appreciated the time and cost efficiency of these activities. The research team identified three codes that corresponded to this idea. A respondent from 2022 stated that their family enjoyed the FFTAs their child brought home because they were “a free convenient activity to do as a family, pre-packaged, and [included] easy to follow instructions.” Another respondent from the same year echoed this sentiment by voicing their appreciation that the materials for FFTAs were already provided and that there were a variety of FFTA options to choose from. A respondent from 2019 said that she believed that participating in FFTAs increased the amount of fun time that she got to spend with her family after school “because [being] a busy mom of two, it’s hard to come home and try to think of something to do.” Head Start’s FFTAs, however, removed the task of planning an activity and gathering materials off of this mother’s plate.

Time and cost efficiency are related to family involvement because parents, especially low-income parents who may work long hours or juggle multiple jobs (this is the case for many Head Start parents), are more likely to be capable of being involved with their child’s education if they can do so through a means that is convenient for them and does not add financial or emotional stress to their already stressful lives. Because parents and guardians who participated in FFTAs with their children found the activities to be time and cost efficient for their families to complete, FFTAs could represent an effective, accessible way for parents of all socioeconomic statuses to practice being involved with their child’s educational development.

Intent to Continue to Participate

Another common benefit that was cited by parents and guardians who participated in FFT activities with their children was that they believed their initial positive experiences with FFTAs would motivate them to participate in similar activities in the future and/or find other ways to become involved with their child’s education. The research team identified eight codes that indicated this idea. A respondent from 2019 stated that, “[Participating in Head Start’s FFTAs] opened the door for other simple activities”. Another respondent from the same year said the following after completing an FFTA with their son: “... I want to continue doing things together. My son was happy and it was fun.” Two more participants from 2019 also voiced their intent to continue to engage with their children in activities that promote learning. One said that the FFTA their family completed was a “Fun learning [activity] that we can keep playing in the future.” Another wrote “send more...” when asked how FFTAs could be improved in the future. Parent’s and guardian’s expression of their intent to continue to participate in FFTAs and other similar activities with their children is related to family involvement because these parents expressed interest in continuing to participate in educational activities with their children, and by doing so, they will support their child’s academic growth.

Quantitative Findings

This study used a univariate method of analysis and an interval/ratio level of measurement to analyze the dependent variable, “Family Involvement.” “Family Involvement”, as measured on a scale of 0-10, has a mean of 7.197 and a standard deviation of 2.603. This is demonstrated in Table 1.

Table 1
Mean and Standard Deviation of Family Involvement

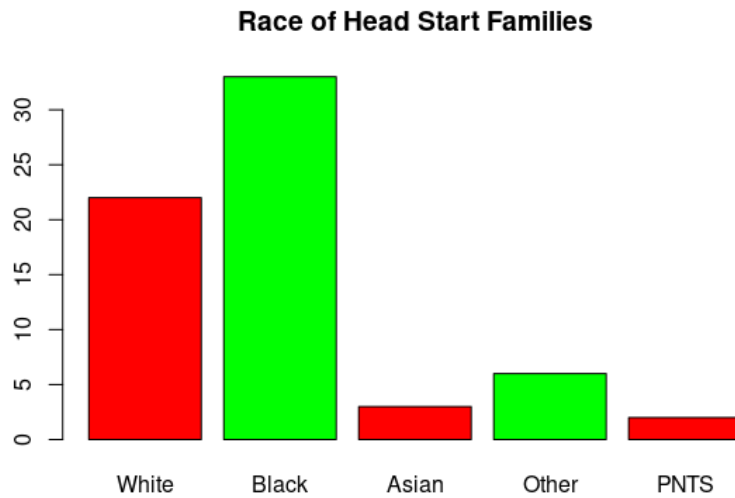
Variable	Mean	Standard Deviation
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Family Involvement	7.197	2.603
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Note. N=66

The independent variable is the race of the families who participated in the Head Start Family Fun Time Activity that was assessed in this study. Out of the 66 total respondents, 33% of respondents identified as “White or Caucasian (includes Latino/Hispanic)”, 50% of respondents identified as “Black or African American”, 5% of participants identified as “Asian”, 9% of participants identified as “Other”, and 3% of participants preferred not to report their race. Plot 1 shows that a majority of respondents who participated in this study identified as Black or African American.

Figure 1



Based on the findings of the current study, race appears to be related to family involvement. Respondents who identified with categories other than “White or Caucasian” reported higher levels of family involvement, on average. The average mean of family involvement for non-white participants is 7.769; 8% higher than the mean of family involvement for white participants.

Table 2
Bivariate Analysis of Family Involvement by Race

Variable	Mean	Standard Deviation
White or Caucasian	6.682	3.120
Black or African American	7.242	2.305
Asian	8.667	2.309
Other	8.167	2.229
PNTS (Prefer not to say)	7.000	1.414

Note. N=66

The key finding of this study is that non-white parents are more likely to report high levels of family involvement in Head Start FFTAs than white parents. This finding is interesting because it complicates the findings of existing literature which claims that the benefits accrued from Head Start participation are longer-lasting for white students than they are for students of color. However, because family participation in Head Start activities is higher for non-white families, it can be assumed that non-white families are building a stronger foundation of family involvement through their participation in Head Start, and thus, would be more likely to reap long-term benefits from their Head Start experience than white families who did not participate to the same degree. Further research needs to be done on the retention of long-term benefits of Head Start participation for families of all races to clarify what is happening to cause disparities in the retention of Head Start benefits for students of different races.

Conclusion

The purpose of this project was to analyze how race and family involvement are related by using qualitative and quantitative survey data from a sample of parents who participate in the Head Start program based in Farmville, Virginia. These parents were surveyed about their participation in Head Start “Family Fun Time Activities” and about their demographic characteristics. We found that families of color showed higher participation rates in Head Start FFTAs than did white families, overall. This finding enhances the existing body of literature that supports the idea that family involvement varies by race. This study’s findings also contradict the stereotypical, meritocratic American belief that poor people of color do not prioritize involvement in their children’s education.

In reality, family involvement, or a lack thereof, cannot be attributed as the sole catalyst for a child’s academic success or failure. Larger forces beyond individual families, such as

structural racism, have a significant impact on the academic achievement of students in the U.S (Merolla & Jackson, 2019). Our findings demonstrate that families of color are highly involved in their children's education. So who's to blame for the racial achievement gap? It's the American institution of education's prioritization of White student's needs and achievements over those of children of color that creates and reproduces disparities in academic achievement between racially disparate students in America. This study's findings suggest that in terms of involvement, families are not the problem. However, the myriad experiences that students of color have in educational environments outside the home may make or break their academic careers.

References

- Athnothy, C. & Ogg, J. (2019). *Parent involvement, approaches to learning, and student achievement: Examining longitudinal mediation*. *School Psychology Quarterly*. 34(4), 376-385. DOI:[10.1037/spq0000282](https://doi.org/10.1037/spq0000282)
- Ansari, A. & Gershoff, E. (2017). *Parent Involvement in Head Start and Children's Development: Indirect Effects Through Parenting*. *Journal of Marriage and Family*. 78(2), 562-579. <https://doi.org/10.1111/jomf.12266>
- Bierman, K., Welsh, J., Heinrichs, B., Nix, R., & Mathis, E. (2015). *Helping Head Start Parents Promote Their Children's Kindergarten Adjustment: The Research-Based Developmentally Informed Parent Program*. *Journal of Child Development*. 86(6), 1877-1891. <http://www.jstor.org/stable/24698582>

Bowen, W., Chingos, M., & McPherson, M. (2009). Educational Attainment: Overall Trends, Disparities, and the Public Universities We Study. *Crossing the Finish Line: Completing College at America's Public Universities*. (pp. 1-19). Princeton University Press.

<https://www.jstor.org/stable/j.ctt7rp39>

Currie, J., & Thomas, D. (1995). *Does Head Start Make a Difference?* The American Economic Review. 85(3), 341-364. <https://www.jstor.org/stable/2118178>

Dhaliwal, T., Chin, M., Lovison, V., & Quinn, D. (2020, July 20). *Educator bias is associated with racial disparities in student achievement and discipline*. The Brookings Institution.

<https://www.brookings.edu/articles/educator-bias-is-associated-with-racial-disparities-in-student-achievement-and-discipline/>

Day, E., & Dotterer, A. M. (2018) *Parental Involvement and Adolescent Academic Outcomes: Exploring Differences in Beneficial Strategies across Racial/Ethnic Groups*. Journal of Youth and Adolescence. 47(1), 1332-1349. <https://doi.org/10.1007/s10964-018-0853-2>

Desimone, L. (1999). *Linking Parent Involvement With Student Achievement: Do Race and Income Matter?* The Journal of Educational Research. 93(1), 11-30.

<https://www.jstor.org/stable/27542243>

Digest of Education Statistics. (2017). *Table 104.20. Percentage of persons 25 to 29 years old with selected levels of educational attainment, by race/ethnicity and sex: Selected years, 1920 through 2017*. National Center for Education Statistics.

https://nces.ed.gov/programs/digest/d17/tables/dt17_104.20.asp?current=yes

Epstien, J. (1995). *School/Family/ Community/ Partnerships: Caring for the Children We Share*. Phi Delta Kappan. 76(9), 701-712. DOI:10.1177/003172171009200326

Fantuzzo, J., McWayne, C., Perry, M. A., & Childs, S. (2004) *Multiple Dimensions of Family Involvement and Their Relations to Behavioral and Learning Competencies for Urban, Low-Income Children*. School Psychology Review. 33(4), 467-480.

DOI:10.1080/02796015.2004.12086262

Haralampoudis, A., Nepomnyaschy, L., & Donnelly, L. (2021) *Head Start and Nonresident Fathers' Involvement with Children*. Journal of Marriage and the Family. 83(3). 699-716.

DOI:10.1111/jomf.12756

Harper, S., & Davis, C. I. I. I. (2012) *They (Don't) Care about Education: A Counternarrative on Black Male Students' Responses to Inequitable Schooling*. Educational Foundations.

26(1-2). 103-120. <https://files.eric.ed.gov/fulltext/EJ968820.pdf>

Merolla, D., & Jackson, O. (2019). *Structural racism as the fundamental cause of the academic achievement gap*. Sociology Compass. 13(6). 1-14. <https://doi.org/10.1111/soc4.12696>

Nation's Report Card. (2009). *Trend in GPA course types, by race/ethnicity: 1990-2009*. U.S

Department of Education.

https://www.nationsreportcard.gov/hsts_2009/race_gpa.aspx?tab_id=tab2&subtab_id=Tab_1

Saupe, J., & Curs, R. (2008) *Deriving Enrollment Management Scores From ACT Data*. IR

Applications. 16. 1-17. <http://hdl.handle.net/10355/8837>

Yeh, C., & Wodtke, G. (2023). *The Effects of Head Start on Low-Income Mothers*. *Socius*. 9,

1-15. <https://doi-org.proxy.longwood.edu/10.1177/23780231231192392>