Child Care and Early Childhood Education in Virginia

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Executive Summary

Virginia's current early childhood education and childcare statutes are limited to ensuring compliance with safety regulations and do not support the development of affordable, high-quality childcare or preschool programs across the state. The history of education in Virginia shows us how inequality and discrimination are masked behind public-private partnerships. Statistical analysis of kindergarten readiness in Virginia along racial and economic lines demonstrates the clear need for publicly funded preschool in the state. This is further supported by scholarship in the fields of early childhood education, psychology, and public policy, all of which demonstrate the positive impact of universal preschool on children's success.

History of Early Childhood Education in Virginia

Virginia's first inclusive public schools were opened after the Civil War, first under the auspices of the Freedman's Bureau and American Missionary Association and then by local school boards. These early schools included students whose parents thought they were ready for schooling, with no minimum age. Children under the normal school age of four or five years old were cared for at home by family members, including parents, grandparents or older siblings or children, left unattended, or accompanied their mothers to their jobs in domestic service or agricultural labor. The impact of the Progressive movement was minimal in most of Virginia due to its predominately rural population, so changing ideas about childcare did not penetrate outside urban areas. Even those progressive era institutions that did facilitate early education programs for children, like the Hampton Institute Kindergarten, focused mainly on teaching domestic skills rather than preparing children for their educational careers. Families continued to cobble together childcare until white women's employment outside the home rose in the mid-twentieth century. During World War II, with more white women working outside the home, infant schools were formed to care for children who were weaned but still too young for formal schooling. The Infant Schools were initially cooperative drop-in centers which allowed working mothers to leave their children in the care of other women in their community. With the end of the war and the pressure for women to leave their jobs, the infant schools closed. It is important to note that infant schools were racially segregated and generally only available to white families.[1]

Virginia families, like those in the rest of the nation, relied upon a patchwork of options through the second half of the 20th century. Black Virginians struggled to find adequate care for

[1] Barbara Beatty, *Preschool Education in America : The Culture of Young Children from the Colonial Era to the Present* (New Haven: Yale University Press, 1995); Andrew Karch, *Early Start: Preschool Politics in the United States* (Ann Arbor: University of Michigan Press, 2013), https://www.jstor.org/stable/j.ctt1qv5ng7; Elizabeth Rose, *The Promise of Preschool : From Head Start to Universal Pre-Kindergarten* (New York: Oxford University Press, 2010); Maris A. Vinovskis, *The Birth of Head Start : Preschool Education Policies in the Kennedy and Johnson Administrations* (Chicago: University of Chicago Press, 2005); Charles Ford and Jeffrey L. Littlejohn, *Elusive Equality: Desegregation and Resegregation in Norfolk's Public Schools* (Charlottesville: University of Virginia Press, 2012).

their children while they worked, and most Virginians were forced to abandon their own educations when they had children, both through custom and necessity, as childcare was expensive. In the 1950s, with the decision of *Brown v. Board of Education*, black families found themselves with even fewer options for childcare and education as public schools shut down across the state rather than integrate. White families and previously all white schools reorganized into private schools and banned black students from attending. Many of these new private schools were funded as public-private partnerships and used state and local funds to provide segregated education for white children. Massive resistance and the resulting white flight from Virginia's urban areas resulted in greater inequality amongst Virginia's children. Shrinking tax bases in cities, redlining and community-reinforced segregation meant that most black children attended schools that were just as underfunded as they were before *Brown*.[2]

During the Johnson administration of the 1960s, federal welfare reform included the formation of the Head Start program, which targeted children from families that struggled economically. The programs were deeply rooted in working class communities and encouraged parental involvement, community engagement, and helped train mothers to work in childcare and preschool programs. Head Start was wildly successful and the results that showed that preschool programs helped black and impoverished children overcome the achievement gap.[3] The Civil Rights movement also embraced the community centered childcare model, with groups as disparate as the Black Panthers, black churches and civic organizations forming day cares, preschools, and tutoring centers for children. While these programs were essential for providing services and support to black families, because they were able to access sustainable funding and were often interfered with by law enforcement and white supremacists, they sometimes closed with little notice to parents.[4]

In 1971, the United State Congress passed the Comprehensive Child Development Act, which would have mandated nation-wide preschool programs, expanded nutritional support programs like WIC, provided medical coverage and other vital services for young children and funded them. Despite bipartisan support for the bill, President Nixon vetoed the legislation, and threw the issue to the states. Historians believe that Nixon was convinced to veto the bill despite bipartisan support by a coalition of evangelical Christian, Mormon and other religious groups that saw nationwide public preschool as a threat to early religious education.[5] As a result, Virginia and most of the nation continues to rely on a patchwork of public and private childcare and early childhood education options, with tax breaks, pre-tax savings plans and vouchers available to only a portion of American families. Increasingly, large chain childcare companies proliferated in urban and suburban areas, charging families substantial fees for childcare and preschool. Only two states, Vermont and Florida, and the District of Columbia have universal pre-k, and seven states have nearly universal pre-k programs excluding only a few counties within their borders.[6] Although Virginia provides some state funding for pre-kindergarten education, it is not universally available.

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[2] Ford and Littlejohn, *Elusive Equality: Desegregation and Resegregation in Norfolk's Public Schools*.
[3] Rose, *Promise of Preschool*; Vinovskis, *Birth of Head Start*.
[4] Beatty, *Preschool Education in America*.
[5] Karch, *Early Start*.
[6] Emily Parker, Louisa Diffey, and Bruce Atchison, "How States Fund Pre-K: A Primer for Policymakers" (Education Commission of the States, February 2018), 5, https://www.ecs.org/wp-content/uploads/How-States-Fund-Pre-K_A-Primer-for-Policymakers.pdf.

Virginia's Current Statutes

Virginia's current statute dictates that the early childcare and education system be a public-private partnership with quality assessment systems only required for programs that accept state tuition vouchers.[7] A substantial percentage of childcare and early childhood education programs do not accept state funding and therefore are not required to participate in the state's quality program.[8] The required reporting for childcare facilities focuses more on record keeping and basic safety measures such as child to adult ratios, adherence to nutritional guidelines and schedules than to enhancing curriculum and training for teachers. Home-based childcare centers are subject to even fewer regulations by the state, and many are unlicensed. The only publicly provided preschool mandated by the Commonwealth are half-day programs for three- to five-year-olds who need more services than Head Start can provide. These programs often provide a few seats for children who don't qualify for additional services in order to fill classrooms and help children develop social and emotional skills, but school districts must apply for funding to support preschool programs or can request a waiver to be excused from the guidelines for classroom size, student-to-teacher ratios.[9] These programs are often inadequate for children who are on the cusp of needing additional support, leaving many families with no choice but to spend a substantial amount of money on private childcare and preschool to ensure their children have appropriate care and education to be ready for kindergarten.

Although Virginia's early childhood education laws are not racially biased in their actual language, they perpetuate racial disparities that have existed since the founding of Virginia's public education system. Public-private partnerships have a long history of being screens for racial discrimination. This was the model used in the 1950s through the 1970s as part of massive resistance to integrating public K-12 schools and more recently with the development of charter schools. The lingering residue of racial discrimination in Virginia's educational systems have been challenged on the federal level. Since preschool is not federally mandated, the current system has not been challenged through the courts. This does not mean that it is not a source of inequality in our state. Access to high quality early childhood education is tied directly to the financial stability and geographic location of a child's family. This means that economically disadvantaged children are much less likely to attend a high-quality preschool program and are much less likely to be ready for kindergarten according to state assessments. Childcare programs are often de-facto segregated spaces. It is time for Virginia to finish the process of desegregating and improving our education system by expanding equal opportunity to all Virginia families to access high quality early education programs.

Assessment of Virginia's Current Early Childhood Education and Childcare Systems: Kindergarten Readiness, Race and Poverty

As part of our research, we did some statistical analysis of the state-wide kindergarten readiness assessments at the county level and compared readiness to racial and economic demographics. The information about kindergarten readiness comes from the 2019 Virginia Kindergarten Readiness Program (VKRP) results of surveys of kindergarten teachers about their

[7] "Code of Virginia," Chapter 14.1 Early Childhood Care and Education 22.1 Education § 22.1-289.03 (2020).
[8] Code of Virginia§ 22.1-289.05.
[9] Code of Virginia§ 22.1-289.09.

student's literacy, self-regulation and emotional skills, and early math skills.[10] The demographic data is from the 2020 US Census. Although the 2020 county data for kindergarten readiness are not yet available, indications from VKRP are that the pandemic has worsened readiness levels substantially.[11] Using this data, we examined whether or not race and economic factors impacted the kindergarten readiness of children. The results are clear.

The preliminary examinations of the data indicated that a linear regression could demonstrate a relationship between these variables. Cursory examination of the data (see figures 1 and 2) indicated that a linear relationship was likely. In order to ensure that any relationship was of sufficient size to be detected by the test in question, a power analysis was also run.[12]

Upon examining the comparison by counties, a clear relationship emerges between poverty, the percent of nonwhite residents, and failure of pre-kindergarten assessment. Using failure as our dependent variable in an ordinary least squares regression, we find a relationship that is consistently positive between it and our independent variables. Specifically, for every 1% increase in the proportion of nonwhite residents, we see a 0.09% increase in the failure rate of students in this assessment. While that may seem small, 25% increase in nonwhite residents corresponds to a 2.3% increase in failure rates, and we can expect up to a 4% difference across the range of the data. The relationship, while noisy, may be getting thrown by some of the outliers in the data, as seen in the appropriate figure. However, this relationship is clear, and the probability of getting such a slope coefficient when the underlying relationship is nonexistent given the data can be rejected at the 0.05 level of certainty (see Figure 1). The greater the size of the nonwhite community, the greater the failure rate of students in that community.

In addition to the size of the nonwhite community, the relationship between poverty rates and the failure rate is also linearly connected, and the effect is stronger based on the coefficient size. In this instance, for every 1% increase in residents below the poverty line for a community, we see a 0.34% increase in the failure rate of this assessment. For a 25% increase in families below the poverty line, the failure rate is predicted to increase by 8.55%. As with the previous variable, the relationship may also be weakened by outliers in the data, such as the point in the bottom left of the second figure. But the linear relationship is present, and the possibility it arose without such an underlying relationship given the data can be rejected at the 0.01 level of certainty (see Figure 2). Greater levels in poverty lead to greater levels in failure of pre-kindergarten assessments, as demonstrated by the results of the regression.

And when we combine these two variables into a multiple regression, we continue to see the relationships as when they were analyzed singularly, with some decrease in coefficient size. Holding the percent of residents below the poverty line constant, there is still an increase of 0.077% failure for each one percent increase in non-white residents. Similarly holding percent of non-white residents constant, it is still possible to see how the failure rate increases with poverty, with a 1% increase in poverty leading to a 0.305% increase in failure. These effects correspond to each other, but the variance explained increases even with the addition of both of them, as evidenced by the increase in the adjusted R squared. Similarly, the idea each relationship arose from a world where the true slope coefficient is 0 given the data can be rejected at the 0.05 level

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[10] "Virginia Kindergarten Readiness Data by Locality" (The Annie E. Casey Foundation Kids Count, 202 2019), https://datacenter.kidscount.org/data/map/10734-virginia-kindergarten-readiness-program-locality-level?loc=48&loct=2#5/any/false/false/1975/any/20561/Orange/.

[11] "Understanding Implications of the COVID-19 Pandemic on Virginia Kindergarten Readiness Skills" (Virginia Kindergarten Readiness Program, Spring 2021), https://vkrponline.org/wp-content/uploads/sites/3/2021/08/VKRP_2pager.pdf.

[12] Jacob Cohen, *Statistical Power Analysis for the Behavioral Sciences* (Cambridge, MA: Academic Press, 1988).

in each of these cases. Combining the two variables may have led to a decrease in their coefficient size (likely due to multicollinearity), but the relationships and significance both hold, demonstrating how these two qualities affect a county's failure rate (see Figure 3).

But even with significance, which held despite the multiple regression, the possibility that any effect might be of insufficient size to be detected remained. For this reason, a statistical power analysis, a test designed to determine the probability of type 2 error, was enacted upon the results. [13] The power analysis, performed at the statistically acceptable power of 0.8, indicated that for the multiple linear regression, at least 97 degrees of freedom would be necessary to detect effects of the sizes seen in the regression. Fortunately, the regression's sample size exceeded this, indicating that the likelihood of an incorrect failure to reject a false null hypothesis, commonly known as a type 2 error was within acceptable tolerances.[14] The power analysis indicated that in addition to finding effects of the direction that the hypotheses indicated, the sample size provided enough power that the size of those effects could be described as substantively significant.

So why does this matter? Studies have shown that kindergarten readiness is a reliable predictor of academic success up to age fifteen. Students who are prepared for kindergarten do better throughout their educational careers and that high quality childcare programs and preschool, particularly for black children and children raised in poverty, can break the cycle of lower academic achievement and behavioral issues escalating to judicial involvement, and raise student's eventual earning potential.

Positive Outcomes of Universal Public Preschool

Outcomes for Children

Research supports that quality early childhood education benefits children, parents, communities, and society. Beyond what may sound cliché, children are the future thus an investment in them benefits us all. Formal preschool experiences provide our youngest citizens with a safe space to practice life skills, to develop, and to grow with their peers. All children deserve to benefit from a strong start during the critical period of early childhood.

Early childhood marks a time in which the brain is especially sensitive to environmental stimulation and enrichment. Early experiences in children's life contexts interact with their genes to shape their brains in ways that support a range of early critical skills such as cognitive skills, social skills, and skills related to self-regulation and executive function.[15] The potential for intergroup variance in cognitive development begins as early as 9 months of age. These developmental differences have been linked to early learning experiences, which vary, based on socioeconomic and related contextual factors.[16] While researchers note that family income-based gaps in cognitive skills are already large when children enter school, the gaps do not grow substantially as students matriculate.[17]

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[13] Cohen; Alex Reinhart, *Statistics Done Wrong: The Woefully Complete Guide* (San Francisco: No Starch Press, 2015).

[14] David Lane, *Online Statistics Education: A Multimedia Course of Study.* (Waynesville, NC: Associate for the Advancement of Computing in Education, 2013).

[15] Hirokazu Yoshikawa, Christina Weiland, and Jeanne Brooks-Gunn, "When Does Preschool Matter?," *The Future of Children* 26, no. 2 (2016): 21–35, https://doi.org/10.1353/foc.2016.0010.

[16] Beth Meloy, Madelyn Gardner, and Linda Darling-Hammond, "Untangling the Evidence on Preschool Effectiveness: Insights for Policy Makers," Learning Policy Institute (Learning Policy Institute, n.d.), https://tpcref.org/wp-content/uploads/Untangling_Evidence_Preschool_Effectiveness_BRIEF_2019.pdf.

[17] Yoshikawa, Weiland, and Brooks-Gunn, "When Does Preschool Matter?"

It is suggested that observed gaps in development between children of low-income households and those from more affluent homes continue to grow through elementary and secondary school unless "other learning opportunities intervene."[18] As such, several states have invested in quality accessible preschool programs for their youngest citizens to narrow achievement gaps, boost early academic skills, and support children's long-term academic success. Thus, universal preschool programs may be viewed as a step toward equity and an investment in the children's futures.

Universal public preschool provides the opportunity for all of its learners to become 'school ready' by granting access to a quality pre-school experience. This may increase the likelihood of access to a "free and appropriate education" for all learners. Early access to a formal, quality learning experience allows for varied adults and professionals in a child's life to monitor and assess their development in ways that allow for the early identification of individual strengths and possible developmental delays. This allows the young learners to benefit from identification, prevention and or intervention early in their formal learning experience, which may help to prevent the types of adverse learning encounters that arise when different learning abilities and or exceptionalities go undetected.

Researchers report that well-implemented quality preschool programs support early learning gains and can have lasting impacts throughout school.[19] Results of a multiple decade meta-analysis found that one year of preschool education had an average impact on cognitive skills that represented three months of additional learning beyond the levels of skill acquisition typically occurring among four-year-olds without access to preschool.[20] Many of the large-scale programs were found to benefit children's early academic skills in reading and math and these positive effects were observed for children across the socioeconomic spectrum. Education researchers have found that pre-k alumni middle school students who participated in a universal preschool program continued to perform relatively well in key subjects such as math.[21] This is remarkable to note because middle school math scores have been used to predict later academic success. These students were also more likely to be enrolled in honors courses and fared better with grade promotion in middle school as compared to other peers.

In addition to supporting, school readiness, high quality early childhood programs have been associated with children's social, emotional, and cognitive development, as well as other positive school outcomes.[22] The early years have also been described as crucial to the development of social skills, which are important to one's adjustment in the formal learning environment. Some preschool programs evidence improvements for children's social-emotional skills and executive function. For example, a review of meta-analytic analysis of preschool research reported reductions in acting out and aggressive behaviors and greater social engagement among children participating in preschool programs. Learners participating in Head Start were found to be more attentive and engaged in the classroom and less timid.[23] Researchers

[18] Meloy, Gardner, and Darling-Hammond, "Untangling the Evidence on Preschool Effectiveness: Insights for Policy Makers."
[19] Meloy, Gardner, and Darling-Hammond.
[20] Yoshikawa, Weiland, and Brooks-Gunn, "When Does Preschool Matter?"
[21] Gormley et al, "The Effects of Tulsa's Pre-k Program on Middle School Student Performance," *Journal of Policy Analysis and Management* 37, no. 1 (2018): 63–87.
[22] Marshall et al., "Subsidized Child Care, Maternal Employment, and Access to Quality, Affordable Child Care," *Early Childhood Research Quarterly* 28, no. 4 (2013): 808–19, https://doi.org/10.1016/j.ecresq.2013.07.008.
[23] Meloy, Gardner, and Darling-Hammond, "Untangling the Evidence on Preschool Effectiveness: Insights for Policy Makers"; Yoshikawa, Weiland, and Brooks-Gunn, "When Does Preschool Matter?"

also found that classroom-based early childhood education programs for children under five could lead to significant and substantial decreases in special education placements and grade retention and increases in high school graduation rates.[24] This supports the notion of the enduring impacts of such programs.

Outcomes for Parents

While parents serve as their children's first teachers, having the support and assistance of trained professionals to guide them in preparing their children for school readiness and life is invaluable. These professional educators can provide parents with developmentally appropriate strategies and techniques that are useful to their children's development. Educators may use scaffolding to guide parents as they help their children to develop essential skills. Additionally, their learners' involvement in a structured preschool program allows parents to become involved in their children's educational process and development early.

Having their children in a safe environment with competent professionals supports parents' and caregivers' ability to maintain employment and to minimize the psychological distress that may be associated with trying to figure out childcare and assuming sole responsibility for school readiness. It also helps to reduce work-family conflict and to relieve role strain experienced by most busy parents, but especially those who have been marginalized, economically disadvantaged and reliant upon inflexible work situations. Additionally, parents who are pursuing higher education or other training are better positioned to complete their studies with such supports.

The cost of childcare is an enormous burden on most Virginia families and many families are forced to balance quality with cost. Universal preschool would shorten the period of time the majority of Virginia families have to pay for childcare by two years, freeing up those funds for college savings, educational advancement for parents and older children, and other family expenses.

Outcomes for Virginia Communities

Quality early childhood education provides opportunities for accessible physical, mental, and behavioral health education, screening, and intervention. It may be used to ground an intentional wellness-focused foundation that promotes quality of life for all through health promotion, strengths-identification and building, early detection of developmental, physical or other limitations, and responsiveness to related needs. A universal preschool program offers a ready entry point for assessment, evaluation, prevention, and intervention to detect and address the needs of the state's children and to promote a healthy start. Early intervention may serve to mitigate the costs of delayed action.

Many families create community through children's involvement in formal educational programs that allow them to extend their practice of developing social and communication skills beyond the learning environment. Peer and parent relationships often evolve in ways that result in an expanded village or system of support. This may serve to foster and or strengthen a sense of community and prosocial engagement that adds value to the quality of life within the community.

[24] McCoy et al, "Impacts of Early Childhood Education on Medium and Long Term Educational Outcomes," *Educational Researcher* 46, no. 8 (2017): 474–87.

A high-quality universal preschool program within the state creates opportunities for individuals, industry, colleges, and universities to contribute to the growth and development of young children while also reaping benefits. The need for skilled and trained educators and other personnel contributes to increased job opportunities within communities and promotes continued interest in critical career fields and essential roles. This is likely to result in more individuals enrolling in training and certification programs and or pursuing degrees in areas of need (e.g., health, nutrition, education, social work, psychology, technology). It creates room for the development of signature programs that focus on the needs of the state's children and families. Such programs may result in collaborations and partnerships between colleges, universities, state agencies and other entities that may promote synergy and broaden the reach of their efforts. The demand for quality in childcare supports the professional development and training of childcare workers serving in various roles. These workers should be compensated commensurately with their training and experience which would likely help to reduce the turnover that adversely impacts quality of care.

Investment in universal early childhood programs is notably beneficial to populations placed at risk due to marginalization and intergenerational disadvantage. As previously mentioned, research supports that universal preschool programs have contributed to gains in cognitive, academic, and social skills. Such early access to structured, high quality educational experiences creates the opportunity to disrupt restrictive access to foundational knowledge, skill development and resources, as well as behavioral patterns that have often sabotaged the learning experience of marginalized groups. Positive early learning experiences may contribute to positive attitudes about learning and school—helping young people to connect to and value the process and to feel at home within it. Preschool may serve as a pathway for social mobility for populations placed at risk. However, universal access to effective and quality early education benefits society as a whole. Proactive and intentional engagement with our youngest citizens may result in a reduction of more costly prevention, intervention, and compensatory costs.

Summary and Recommendations

Virginia's existing legislation for early childhood care and education, while not openly racially biased, perpetuates racial and economic inequalities through its structure and origins. Public-private education partnerships have a long history of masking and legalizing segregation and discrimination in the state, going back to the antebellum era and continuing through Massive Resistance in the 1950s and the charter school movement of the late twentieth century. The statistics show that Virginia's reliance on public-private partnerships disproportionately disadvantages black children and children living below the poverty level in the state. Therefore, we argue that high-quality public early childhood education is a key component in ending racial and economic inequalities in Virginia's educational system and communities. The benefits of free universal preschool to children, families and our communities are potentially life-altering for children who are underserved by the current patchwork system.

Virginia should invest in universal full-day preschool for 3- and 4-year-olds. The investment will yield a high return in kindergarten readiness, child welfare, and economic growth. In order for this to succeed, the state must commit to hiring and appropriately compensating highly qualified pre-k teachers and support staff for these programs. Once preschools have been opened to all three- and four-year-olds in the state, Virginia should explore expanding publicly funded preschool for children 1-2 years of age.

Although we do not have any recommendations for how to fund these new classrooms, we expect that in the long run, the development of a universal preschool program in Virginia will result in economic growth as families no longer need to spend a substantial sum each month on childcare. This will allow families to begin saving for college earlier, to access higher education opportunities for parents or to improve their family finances and opportunities in other ways. Universal preschool will also create jobs for highly qualified educators, support staff and administrators to teach, support and manage the expanded preschool offerings in the state, creating new opportunities for a workforce that is currently underpaid.

Figures and Appendices

Figure 1: Graph of Kindergarten Readiness data by County compared to Percentage of non-white residents

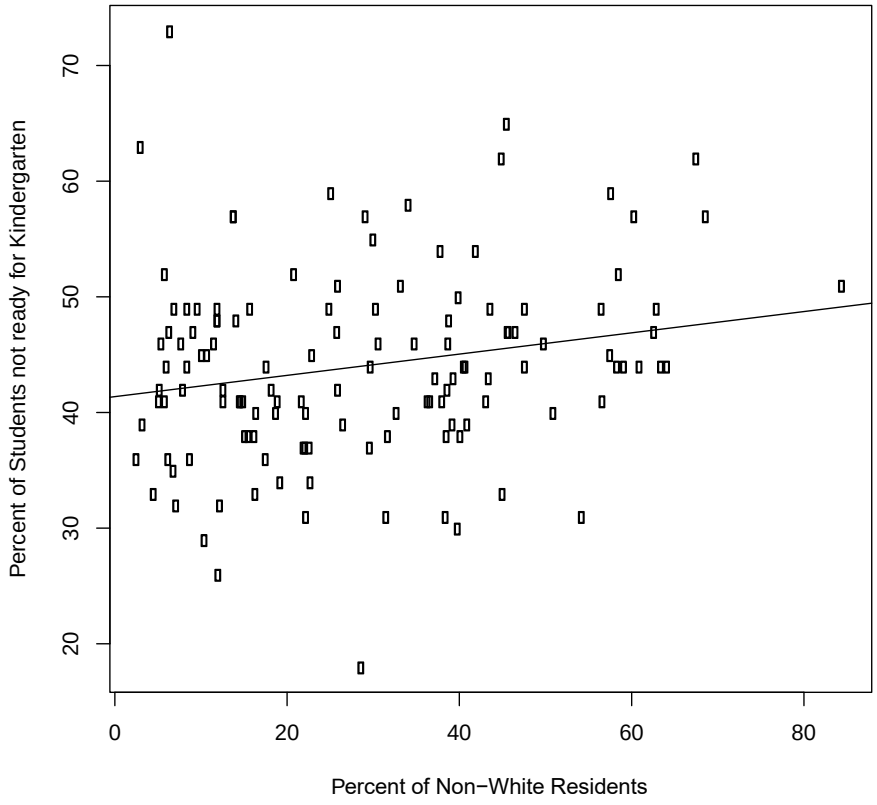

Figure 2: Graph of Kindergarten Readiness Data by County compared to Percentage of Residents Below Poverty Level

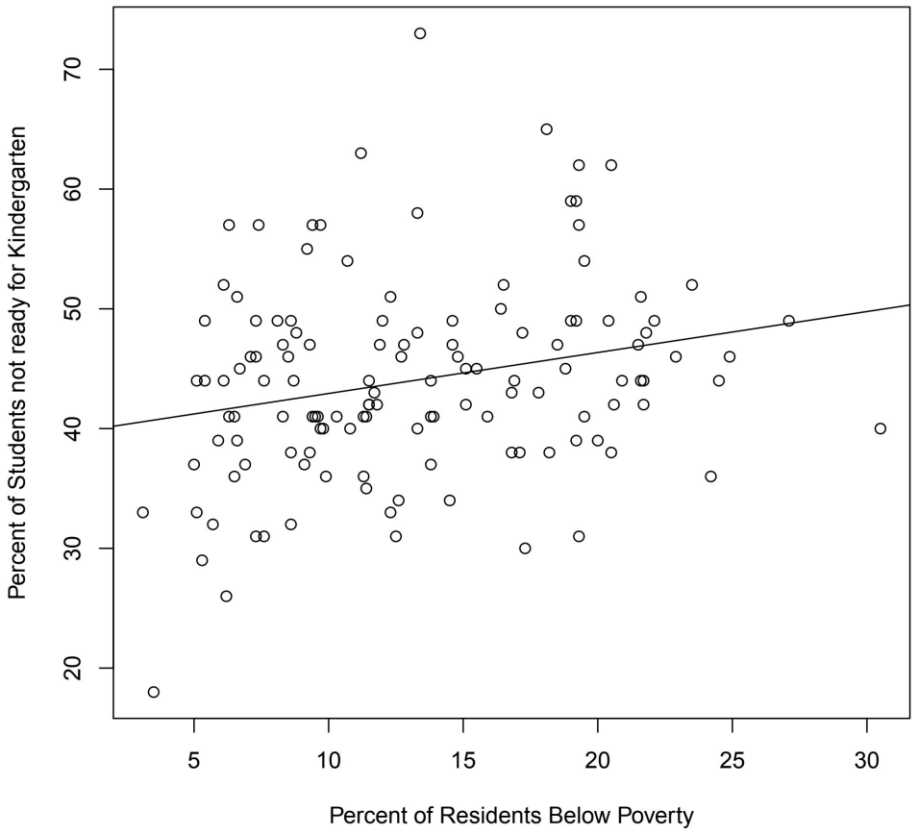

Figure 3: Regression analysis

	M1 Estimate (S.E.)	M2 Estimate (S.E.)	M3 Estimate (S.E.)
(Intercept)	41.373***	39.509***	37.769***
	(1.348)	(1.778)	(1.965)
Percent of Non-White Residents	0.092*	_	0.077*
	(0.039)		(0.039)
Percent of Residents Below Poverty	_	0.342**	0.305*
		(0.123)	(0.123)
N	129	129	129
RMSE	8.211	8.142	8.050
R^2	0.041	0.058	0.086
adj R^2	0.034	0.050	0.071

* p ≤0.05** p ≤0.01*** p ≤0.001

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