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Research Article

Mother Education and Father Presence: Minorities' Diminished Returns

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ABSTRACT

Background: Typically, higher maternal education aligns with higher paternal education and greater paternal presence, reinforcing family-level advantages that contribute to youth well-being. However, the theory of Minorities' Diminished Returns (MDRs) posits that the intergenerational benefits of socioeconomic resources are smaller for Black families than for White families. However, less is known about whether maternal education equally translates into paternal characteristics—such as education and residential presence—across racial groups. **Objective:** This study examined racial differences in how maternal education predicts paternal education and paternal residential presence among U.S. adolescents. We hypothesized that maternal education would more strongly predict father education and presence among White families than among Black families. Methods: Data came from the 2023 Monitoring the Future study, a nationally representative survey of 8th- and 10th-grade students. The analytic sample included non-Latino Black and non-Latino White adolescents. **Results:** Maternal and paternal education were positively correlated to a similar degree among Black and White families. However, higher maternal education was a significantly stronger predictor of father presence for White adolescents than for Black adolescents. In White families, father presence was a function of maternal education, whereas in Black families, many highly educated mothers did not have a father present in the household. **Conclusions:** Translation of maternal educational attainment into paternal presence is weaker among Black families. Thus, Black mothers' educational achievements do not yield comparable family structural advantages. This indicates that increases in maternal education translated into higher paternal co-residence primarily among White families, consistent with the MDRs pattern.

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1. Introduction

Parental education and residential status are among the most important social determinants shaping children's and adolescents' development and well-being [1]. Decades of research have shown that parents with higher educational attainment tend to provide more stable, resource-rich, and developmentally supportive environments for their children [2-4]. Similarly, the presence of both parents in the home is generally associated with greater financial stability, supervision, and social support [5]. These family resources—education and residential stability—often co-occur, reinforcing one another to shape youth trajectories in health, behavior, and educational achievement [6]. Yet, the strength of these associations may differ across racial groups, reflecting broader social inequalities that constrain how family advantages are transmitted and accumulated [7].

A growing body of evidence, guided by the theory of Minorities' Diminished Returns (MDRs) [8,9], suggests that socioeconomic resources such as parental education generate weaker effects on health and developmental outcomes for Black families than for White families [10]. For example, higher maternal education predicts lower levels of depression [11], obesity [12], school problem [13], and substance use [14,15] more strongly for White than for Black youth. These patterns imply that even when Black parents achieve high educational attainment, their children do not experience the same degree of protection against adverse outcomes as their White counterparts [16]. While most MDRs studies focus on direct associations between maternal education and child outcomes [17], much less attention has been given to the intermediate family processes through which these diminished returns may arise.

One possible mechanism underlying the weaker effects of maternal education on youth outcomes is a reduced translation of maternal resources into paternal resources in Black compared to White families [18]. According to family systems theory and prior research, mothers' educational and residential characteristics often align with those of fathers, creating a network of interconnected advantages that collectively support children's development [19-21]. Higher maternal education, for example, is commonly associated with higher paternal education, and mothers who reside with their children are typically partnered with residential fathers [22]. These patterns, however, depend on structural and social contexts that shape partnership formation, economic opportunities, and residential stability [23-25]. For Black families, the translation of maternal advantages into paternal characteristics may be weakened by structural racism, labor market discrimination, and mass incarceration, all of which disproportionately limit the educational and residential stability of Black men [26,27].

Because educational attainment is a key factor in partner selection and assortative mating, mothers with higher education are typically expected to have partners with similarly high educational levels [23,28]. This pattern reflects the social reproduction of capital within families, where educational, economic, and social resources align and reinforce one another [29]. When the slope of this association between maternal and paternal education is weaker—meaning that mothers' higher education is less strongly mirrored by fathers' education—it suggests that one of the primary mechanisms through which socioeconomic capital operates has been disrupted [30,31]. Such a disruption may help explain why educational advantages among Black mothers yield smaller cumulative family benefits compared to their White counterparts [32].

Building on this perspective, the present study tests whether the associations between maternal and paternal resources differ by race among U.S. adolescents. Specifically, we examine whether maternal education and maternal presence (living in the adolescent's home) predict paternal education and paternal presence differently for Black and White adolescents. We hypothesize that while maternal education and maternal presence will be positively associated with paternal education and paternal presence overall, these associations will be weaker for Black families. Such findings would indicate that part of the diminished impact of maternal education on youth outcomes may reflect a lower likelihood that maternal resources translate into comparable paternal resources in Black families.

We analyze data from the 2023 Monitoring the Future (MTF) study [33-41], a nationally representative survey of 8th and 10th graders in the United States. Adolescents reported on the education and residential status of both parents, providing an opportunity to explore the alignment between maternal and paternal characteristics across racial groups. By identifying weaker maternal–paternal linkages among Black families, this study aims to advance understanding of how structural inequities shape family composition and intergenerational resource transmission. Recognizing these differences is critical for explaining why the same level of maternal education may not yield equivalent household advantages across racial groups and for informing policies that support both maternal and paternal engagement in Black families.

2. Methods

This study used data from the 2023 wave of the Monitoring the Future (MTF) study [33-41], a nationally representative, school-based survey of U.S. adolescents in 8th and 10th grades. The MTF collects extensive information on social and behavioral characteristics of youth, including details about family structure and parental education. The 2023 survey provides a valuable opportunity to examine how adolescents' reports of their parents' educational attainment and residential status vary across racial groups. Because the MTF sample is large and diverse, it allows for meaningful comparisons between non-Latino Black and non-Latino White adolescents, the two groups analyzed in this study.

The analytic sample was restricted to respondents who self-identified as either non-Latino Black or non-Latino White and who had valid data on both maternal and paternal education and residential status. Adolescents who did not provide this information or reported uncertain responses were excluded from analysis. The final sample included approximately equal proportions of 8th- and 10th-grade students and both sexes. All analyses used survey weights provided by MTF to ensure national representativeness.

Maternal and paternal education were each measured on a six-point scale, ranging from 1 ("less than high school") to 6 ("graduate or professional school"). These items reflect adolescents' perceptions of their parents' educational attainment, which prior research has shown to correlate closely with parental self-reports. Maternal and paternal residential status were each coded dichotomously, with 1 indicating that the parent lived in the adolescent's home and 0 indicating that the parent did not live in the home. The terms "maternal presence" and "paternal presence" are used to describe these residential relationships, acknowledging that non-residential parents may still be involved in the adolescent's life. Maternal education and maternal presence served as the primary predictors, while paternal education and paternal presence were modeled as the outcomes.

Covariates included adolescents' sex (male or female) and grade level (8th or 10th), as these demographic factors are known to correlate with family structure and reporting accuracy. In additional models, region of residence (Northeast, Midwest, South, or West) was included to account for regional differences in socioeconomic patterns and family composition. Because the focus of the study was on racial differences, analyses were stratified by race and also included interaction terms between race and maternal predictors to formally test for effect modification.

Descriptive analyses compared the distribution of maternal and paternal education and presence by race, presenting n and % overall and for each group. Bivariate associations between maternal and paternal variables were examined using Spearman and Chi square and cross-tabulations to describe overall patterns. Multivariable regression models were then estimated to assess the associations between maternal and paternal characteristics, adjusting for covariates namely age and sex of the child. Linear regression was used when paternal education served as the dependent variable, and logistic regression was applied when paternal presence was the outcome. The primary independent variables were maternal education. To evaluate whether these associations differed between Black and White adolescents, interaction terms between race and maternal education was included in pooled models. Then race-stratified models were estimated to illustrate differences in the strength of associations. All analyses were conducted using SPSS version 29.0. This analytical approach allows for testing the hypothesis that maternal education and maternal presence are less strongly linked to paternal education and

paternal presence among Black adolescents than among White adolescents. By modeling these interparental associations, the study examines a potential family-level mechanism underlying Minorities' Diminished Returns (MDRs) [42], in which maternal socioeconomic resources generate fewer household advantages for Black families despite comparable levels of maternal attainment.

3. Results

Table 1 presents the frequency distribution of demographic, parental, and household variables among adolescents in the 2023 Monitoring the Future study (N = 8,244). The analytic sample included 19.6% Black and 80.4% White adolescents. Approximately 43.9% were in 8th grade and 56.1% in 10th grade, with about one-third of 10th graders aged 16 or older.

In terms of sex, nearly half of participants identified as male (48.8%) and female (46.3%), while a small percentage identified as other (1.5%) or preferred not to answer (3.3%).

Parental education levels varied widely. For fathers, 33.1% were reported as college graduates and 18.4% as having graduate-level education. For mothers, 39.6% were college graduates and 25.2% held graduate degrees, suggesting a slightly higher educational attainment among mothers than fathers overall. Only small proportions of parents were reported as having less than a high school education (≤6% for both mothers and fathers).

Regarding household composition, most adolescents reported living with their mother (94.5%) and a substantial majority also lived with their father (82.2%). Father absence was more common than mother absence (17.8% vs. 5.5%), consistent with national trends showing higher rates of nonresidential fatherhood.

Both mothers and fathers were less educated in Black than in White families, consistent with longstanding educational disparities in the United States. However, the most pronounced racial difference emerged in father residence. As shown in Table 1, only about 61 percent of Black adolescents lived with a resident father, compared with 87 percent of White adolescents. In contrast, nearly all adolescents in both groups resided with their mothers (>94 percent). Thus, while educational gaps were modest, the disparity in paternal residential presence was striking—suggesting that family structure, more than parental schooling, represents the key source of racial difference in the intergenerational transmission of family resources.

Table 1. Frequency Distribution of Key Study Variables by Race (Monitoring the Future, 2023)

Variable / Category	All		White		Black	
	Frequency	Valid %	Frequency	Valid %	Frequency	Valid %
Race/Ethnicity (R01 RACE—B/W/H)						
Black (1)	1,613	19.6	—	—	—	—
White (2)	6,631	80.4	—	—	—	—
Total	8,244	100.0	—	—	—	—
Grade (G80501)						
8th Grade (8)	3,615	43.9	2,824	42.6	791	49.0
10th Grade (10)	4,629	56.1	3,807	57.4	822	51.0
Total	8,244	100.0	6,631	100.0	1,613	100.0
Age ≥16 (10th Grade Only)						
<16 Years (1)	1,872	40.5	1,512	39.8	360	43.8
16 or Older (2)	2,749	59.5	2,287	60.2	462	56.2
Valid Total	4,621	100.0	3,799	100.0	822	100.0
Respondent Sex (R01 R'S SEX)						
Male (1)	4,023	48.8	3,231	48.8	792	49.1
Female (2)	3,817	46.3	3,076	46.4	741	46.0
Other (3)	124	1.5	99	1.5	25	1.6
Prefer Not to Answer (4)	273	3.3	219	3.3	54	3.3
Valid Total	8,237	100.0	6,625	100.0	1,612	100.0
Father's Education (R02 FATHR EDUC LEVEL)						

Variable / Category	All Frequency	Valid %	White Frequency	Valid %	Black Frequency	Valid %
Grade School (1)	147	2.2	96	1.7	51	4.4
Some High School (2)	543	8.2	404	7.3	139	12.0
High School Graduate (3)	1,709	25.7	1,368	24.9	341	29.4
Some College (4)	836	12.6	672	12.2	164	14.2
College Graduate (5)	2,202	33.1	1,926	35.0	276	23.8
Graduate School (6)	1,223	18.4	1,036	18.8	187	16.1
Valid Total	6,660	100.0	5,502	100.0	1,158	100.0
Mother's Education (R02 MOTHR EDUC LEVEL)						
Grade School (1)	106	1.5	67	1.2	39	2.9
Some High School (2)	280	3.9	220	3.8	60	4.4
High School Graduate (3)	1,119	15.6	878	15.1	241	17.8
Some College (4)	1,017	14.2	764	13.2	253	18.7
College Graduate (5)	2,833	39.6	2,438	42.0	395	29.2
Graduate School (6)	1,804	25.2	1,441	24.8	363	26.9
Valid Total	7,159	100.0	5,808	100.0	1,351	100.0
Father Present in Household (R03 HSHLD FATHER)						
Not Marked (0)	1,418	17.8	835	12.9	583	38.7
Marked (1)	6,538	82.2	5,616	87.1	922	61.3
Valid Total	7,956	100.0	6,451	100.0	1,505	100.0
Mother Present in Household (R03 HSHLD MOTHER)						
Not Marked (0)	440	5.5	353	5.5	87	5.8
Marked (1)	7,516	94.5	6,098	94.5	1,418	94.2
Valid Total	7,956	100.0	6,451	100.0	1,505	100.0

Table 2 displays the cross-classification of educational attainment of fathers and mothers overall and by race. Across the full sample, the modal pattern showed educational homogamy, with most adolescents having parents whose educational levels were similar. The largest concentration appeared among families in which both parents were college graduates or had pursued graduate studies, together accounting for roughly two-thirds of all families.

As shown by this table, parental education was lower and less concordant among Black families, whereas among White families, education was more concentrated at higher levels and more closely matched between mothers and fathers. These differences imply that intergenerational educational capital may be more consistently transmitted and reinforced in White households but more heterogeneous and fragmented among Black households. This divergence in parental education structure provides important context for understanding why the protective effects of maternal education—and its network connectivity with psychosocial and behavioral outcomes—may be weaker among Black adolescents than among their White peers.

Among White adolescents, educational attainment was generally high and strongly correlated across parents. More than two-thirds of White adolescents had both parents who were college graduates or held graduate degrees. Specifically, 22.3 percent of White fathers and 22.3 percent of White mothers were college graduates, while 13.1 percent of fathers and 6.8 percent of mothers had completed graduate studies. Fewer than 5 percent of White parents reported less than a high-school education. The high concentration of cells along the diagonal —particularly in the college and graduate categories—illustrates strong educational matching within couples and a relatively low proportion of mixed-education households.

By contrast, Black adolescents were less likely to have two highly educated parents and displayed greater variation in parental educational pairing. Although 29.9 percent of Black adolescents had college-educated mothers, only 14.2 percent had fathers with some college experience and 12.9 percent had fathers with graduate

degrees. The proportion of families in which both parents had graduate education (27.8 percent of Black fathers vs. 12.9 percent of mothers) was substantially smaller than among White families. A larger share of Black families appeared in the lower and middle categories—particularly combinations of high-school or some-college education—reflecting broader socioeconomic diversity within this group.

Table 2. Father and Mother education overall and by race.

			Father					
			Grade School	Some High school	High School Grad)	Some College`	College Graduate	Graduate Studies	
White									
Grade School		n	27	10	7	4	3	2	53
		%	0.5%	0.2%	0.1%	0.1%	0.1%	0.0%	1.0%
Some High school		n	6	71	68	17	15	3	180
		%	0.1%	1.3%	1.3%	0.3%	0.3%	0.1%	3.4%
High School Grad		n	20	107	404	81	128	39	779
		%	0.4%	2.0%	7.6%	1.5%	2.4%	0.7%	14.7%
Some College		n	11	60	218	157	180	44	670
		%	0.2%	1.1%	4.1%	3.0%	3.4%	0.8%	12.6%
College Graduate		n	16	95	472	267	1187	238	2275
		%	0.3%	1.8%	8.9%	5.0%	22.3%	4.5%	42.8%
Graduate Studies		n	11	36	136	117	363	697	1360
		%	0.2%	0.7%	2.6%	2.2%	6.8%	13.1%	25.6%
Black									
	Grade School	n		2	3	2	2	1	31
		%		0.2%	0.3%	0.2%	0.2%	0.1%	2.8%
	Some High school	n		19	14	5	3	3	50
		%		1.7%	1.3%	0.4%	0.3%	0.3%	4.5%
	High School Grad	n		33	114	18	15	3	187
		%		3.0%	10.3%	1.6%	1.3%	0.3%	16.8%
	Some College	n		30	85	56	23	6	203
		%		2.7%	7.6%	5.0%	2.1%	0.5%	18.3%
	College Graduate	n		19	78	50	158	23	332
		%		1.7%	7.0%	4.5%	14.2%	2.1%	29.9%
	Graduate Studies	n		24	42	30	64	144	309
		%		2.2%	3.8%	2.7%	5.8%	12.9%	27.8%
All									
	Grade School	n		12	10	6	5	3	84
		%		0.2%	0.2%	0.1%	0.1%	0.0%	1.3%
	Some High school	n		90	82	22	18	6	230
		%		1.4%	1.3%	0.3%	0.3%	0.1%	3.6%
	High School Grad	n		140	518	99	143	42	966
		%		2.2%	8.1%	1.5%	2.2%	0.7%	15.0%
	Some College	n		90	303	213	203	50	873
		%		1.4%	4.7%	3.3%	3.2%	0.8%	13.6%
	College Graduate	n		114	550	317	1345	261	2607
		%		1.8%	8.6%	4.9%	20.9%	4.1%	40.6%
	Graduate Studies	n		60	178	147	427	841	1669
		%		0.9%	2.8%	2.3%	6.6%	13.1%	26.0%

Table 3 presents the symmetric association and agreement measures between mother's and father's education for Black and White adolescents. Two statistics are shown: Kendall's tau-b, which assesses the strength and direction of ordinal association between the two variables, and Cohen's Kappa, which measures categorical agreement beyond chance.

For Black families, Kendall's tau-b was .460 (SE = .023, $p < .001$), indicating a moderately strong and statistically significant ordinal association between maternal and paternal education levels—higher maternal education tended to correspond with higher paternal education. The Kappa coefficient was .326 (SE = .018, $p < .001$), also significant, suggesting a moderate level of agreement in exact educational categories between parents beyond what would be expected by chance. For White families, the association was similarly strong. Kendall's tau-b was .443 (SE = .010, $p < .001$), and Kappa was .301 (SE = .009, $p < .001$), both indicating moderate but highly significant concordance between mothers' and fathers' education levels. The difference is small and not substantively meaningful suggesting that both Black and White families show strong educational assortative pairing between parents meaning that in both Black and White families, parents tend to have similar levels of educational attainment.

Table 3. Symmetric Measures of Association Between Mother's and Father's Education by Race.

Race	Measure Type	Statistic	Value	Asymptotic SE[1]	Approx. T[2]	Sig. (p)	N (Valid Cases)
Black (n = 1,112)	Ordinal-by-Ordinal	Kendall's τ-b	0.460	0.023	19.847	< .001	1,112
	Measure of Agreement	Kappa	0.326	0.018	22.610	< .001	
White (n = 5,317)	Ordinal-by-Ordinal	Kendall's τ-b	0.443	0.010	40.986	< .001	5,317
	Measure of Agreement	Kappa	0.301	0.009	40.837	< .001	
All	Ordinal-by-Ordinal	Kendall's tau-b	.449	.009	45.963	<.001	6,429
	Measure of Agreement	Kappa	.308	.008	46.899	<.001	

Not assuming the null hypothesis. [2] Using the asymptotic standard error assuming the null hypothesis.

Table 4 presents the internal consistency of household education, measured by the correlation between maternal and paternal educational attainment. The reliability coefficients were generally moderate across groups, indicating a reasonable degree of concordance between parents' educational levels. Among Black adolescents, the Cronbach's alpha for household education was 0.697, while for White adolescents it was 0.667. When all participants were combined, the overall reliability was 0.675.

Table 4. Reliability of household education based on maternal and paternal education.

Race	Cronbach's Alpha	N of Items
BLACK:(1)	.697	2
WHITE:(2)	.667	2
All	.675	2

Table 5 summarizes logistic regression models predicting father presence as a function of maternal education and its interaction with race. Across all models, higher maternal education was significantly associated with greater odds of father presence, though the magnitude of this relationship varied by race.

In the initial pooled model, both race and maternal education were significant predictors of father presence. Being Black was associated with substantially lower odds of father presence compared to being White (B = −1.440, SE = 0.096, $p < .001$), corresponding to approximately 76% lower odds (Exp(B) = 0.237, 95% CI = 0.196–0.286). Conversely, higher maternal education was positively related to father presence (B = 0.255, SE = 0.036, $p < .001$), with each one-unit increase in maternal education associated with 29% higher odds of living with a father figure (Exp(B) = 1.291, 95% CI = 1.203–1.385).

When the Education × Black interaction term was added, both main effects remained significant. Maternal education continued to predict greater odds of father presence (B = 0.303, p < .001; Exp(B) = 1.354, 95% CI = 1.245–1.473), but the interaction term was negative and significant (B = −0.155, SE = 0.077, p = .044; Exp(B) = 0.857, 95% CI = 0.737–0.996). This indicates that the positive association between maternal education and father presence was significantly weaker for Black families compared with White families. The main effect of race also remained statistically significant but was attenuated (B = −0.744, SE = 0.359, p = .038; Exp(B) = 0.475, 95% CI = 0.235–0.960), suggesting that part of the racial gap in father presence is explained by differences in how maternal education translates into family structure stability.

Race-stratified analyses further clarify these patterns. Among White adolescents, maternal education showed a strong and consistent association with father presence (B = 0.303, SE = 0.043, p < .001; Exp(B) = 1.353, 95% CI = 1.244–1.472). Among Black adolescents, the effect was smaller in magnitude but still statistically significant (B = 0.153, SE = 0.064, p = .017; Exp(B) = 1.165, 95% CI = 1.028–1.322).

Table 5. Logistic Regression Predicting Father Presence.

Predictor	B	S.E.	Exp(B)	95% CI for Exp (B)	Model / Step	p
All without interaction				Lower	Upper	
black	-1.440	.096	.237	.196	.286	<.001
Mother's Education (continuous)	.255	.036	1.291	1.203	1.385	<.001
Constant	.851	.186	2.341			<.001
All with Interaction						
black	-.744	.359	.475	.235	.960	.038
Mother's Education (continuous)	.303	.043	1.354	1.245	1.473	<.001
Mother's Education (continuous) x black	-.155	.077	.857	.737	.996	.044
Constant	.642	.211	1.900			.002
Mother's Education (continuous)	0.153	0.064	1.165	1.028	1.322	0.017
Constant	−0.210	0.333	0.810	—	—	0.528
White						
Mother's Education (continuous)	0.303	0.043	1.353	1.244	1.472	< 0.001
Constant	0.690	0.218	1.995	—	—	0.002

4. Discussion

This study examined whether maternal resources—measured as educational attainment and residential status—translate equally into paternal education and paternal presence across racial groups among U.S. adolescents. Using nationally representative data from the 2023 Monitoring the Future study, we found that maternal and paternal education were similarly correlated among Black and White families, indicating comparable levels of inter-parental educational alignment. However, the translation of maternal education into father presence was substantially weaker among Black adolescents than among White adolescents. In other words, while mothers' and fathers' education tended to move together across racial groups, increases in maternal education were more predictive of father co-residence in White than in Black families. This suggests that there are more Black families in which the mother is highly educated but the father is not present in the household. In contrast, among White families, lower maternal education was more often associated with father absence. These findings extend the theory of Minorities' Diminished Returns (MDRs) by identifying a family-structural pathway through which maternal advantages yield fewer household-level benefits for Black families.

The weaker predictive role of maternal education for father presence among Black families reflects structural inequities that shape family formation and stability in racially stratified contexts. Highly educated Black women often navigate constrained partnership markets, characterized by a limited availability of equally educated and economically stable Black men. These constraints are not due to individual preferences or

behaviors but are rooted in structural conditions—including educational inequities, labor market discrimination, and the criminal legal system—that have systematically curtailed the educational and residential opportunities of Black men. As a result, even when Black mothers achieve high levels of education, they are more likely to face environments in which the likelihood of co-residing with a similarly educated father is reduced. The present findings empirically capture this asymmetry: among Black families, maternal education does not translate as reliably into the presence of a residential or highly educated father.

Beyond individual or relational dynamics, broader historical and institutional forces have contributed to the educational and residential instability of Black men in the United States. Generations of school segregation and unequal educational funding have concentrated Black students in under-resourced schools, constraining pathways to higher education and stable employment. These educational disadvantages intersect with racially biased policing and sentencing practices that have disproportionately affected Black men, producing high rates of incarceration and criminal records that limit future opportunities for employment and family stability. Consequently, even among highly educated Black mothers, structural barriers constrain access to partners with comparable socioeconomic stability, reducing the likelihood that education translates into shared residential and economic advantages.

Historical policy environments have further reinforced these disparities. Mid-20th-century welfare policies such as Aid to Families with Dependent Children (AFDC) often included provisions—such as the "man-in-the-house" rule—that penalized fathers' co-residence within low-income households. These policies, which disproportionately affected Black families, effectively disincentivized father presence by threatening benefit eligibility if a male partner was present. Although these policies were formally repealed decades ago, their institutional and economic legacies persist through systems that continue to treat father presence as a potential financial liability. Combined with structural inequities in employment, housing, and criminal justice, these policies have left a lasting imprint on the social organization of Black family life, weakening the link between maternal resources and paternal co-residence.

Our findings refine the MDRs framework by suggesting that diminished returns of maternal education may emerge not only in child outcomes but also within the family system itself. Much of the existing MDRs literature has focused on parent-to-child pathways—showing that maternal education and income confer smaller benefits to Black youth's academic or health outcomes than to White youth. The present study suggests that MDRs may begin even earlier, at the inter-parental level, where maternal resources fail to produce equivalent alignment in paternal resources or presence. When maternal education does not correspond to similar paternal characteristics, the total socioeconomic capital accessible to the family is diminished, reducing the overall potential for maternal achievements to translate into developmental advantages for children.

Relatively speaking, Black families are more likely to include highly educated mothers who are the sole parent, whereas among White families, higher maternal education is strongly associated with father presence. This pattern suggests that policies and programs should support highly educated Black mothers in securing greater paternal involvement. It also highlights that family composition is shaped not only by race or education alone, but by their interaction—placing highly educated Black mothers and their children at a distinct disadvantage.

Several mechanisms likely contribute to this within-family attenuation. Structural racism has historically limited educational and occupational opportunities for Black men, increasing the probability of educational and economic mismatches within couples. Racialized economic precarity and discriminatory housing systems have also contributed to residential instability, making paternal co-residence less likely even when fathers remain involved. Furthermore, cultural and institutional biases in social services and family surveillance may discourage co-residence or misclassify fathers' involvement. Together, these mechanisms create conditions under which maternal educational success does not yield the same structural or familial stability for Black families as it does for White families.

The implications of these findings are both theoretical and practical. Theoretically, they broaden the scope of MDRs from a parent–child framework to an intra-family framework, showing how structural inequality operates between parents as well as across generations. Practically, the results underscore that policies focused solely on increasing maternal education will not fully eliminate racial gaps in family or child outcomes. Interventions must also address the structural barriers that undermine the educational, economic, and residential stability of Black fathers. Efforts that expand access to education, reduce employment discrimination, reform punitive criminal justice policies, and strengthen reentry and family-support programs could enhance the capacity of maternal resources to translate into full-family benefits.

These findings also emphasize that racial inequalities in family well-being stem not only from differences in socioeconomic attainment but also from differences in the social conversion of those attainments into relational and residential outcomes. The diminished ability of maternal education to predict father presence among Black families represents an early point in the reproduction of inequality—before youth outcomes emerge. Addressing this translation gap is critical for promoting equity in family stability, economic security, and intergenerational opportunity.

Several limitations warrant consideration. The data are cross-sectional, preventing causal inference or conclusions about temporal sequencing. Parental education and residence were reported by adolescents, which may introduce reporting error, though adolescent reports have been shown to be generally reliable in large national surveys. The measure of father presence captures only residential status, not quality or frequency of paternal involvement. Additionally, the analyses were limited to non-Latino Black and non-Latino White adolescents, and patterns may differ in other racial or ethnic groups.

5. Conclusion

Despite these limitations, this study provides novel evidence of a family-level form of Minorities' Diminished Returns: while maternal and paternal education are similarly aligned across racial groups, increases in maternal education are more likely to coincide with father presence in White families than in Black families. These findings highlight that the social value of maternal education is contingent on structural opportunity, not individual merit. Addressing the unequal structural conditions that limit paternal stability in Black families is essential to ensuring that maternal educational achievements yield equitable household and child benefits across racial groups.

Authors' Contribution

Resources and Funding: SA and BN; Conceptual Design: SA, JAP, and BN, Analysis: SA and BN, First Draft: SA, JAP, and BN. Revision: SA and BN, Approval of the Final Version: SA, JAP, and BN.

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Data Availability

The dataset is available on the ICPSR website.

Ethical Approval

The MTF study protocol was approved by University of Michigan IRB.

Informed Consent

All adolescents provided assent. All parents and caregivers provided consent.

Conflicts of Interest

Authors have no conflict of interest.

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