MONEY & MARRIAGE ON THE ELEMENTARY MIND

A HIGH-LEVEL ANALYSIS OF INEQUITABLE CHILD DEVELOPMENT IN LA COUNTY

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ABSTRACT

My research concerns the interaction between household income and parental structure, as they relate to varying developmental outcomes in children. While the existing literature demonstrates that disparities in purchasing power may be key to predicting developmental trajectories, and that single parenthood carries negative implications for children's development, little consensus has been reached on how these two separate factors of parents' earnings, on one hand, and civil status, on the other, interact or even counter each other.

Localizing my study to Los Angeles County, I aimed to quantify developmental trajectories through public elementary school test scores and map them onto both the U.S. Census Bureau's American Community Survey data on household structure, as well as the California Department of Education's measures of socioeconomic disadvantage.

My initial hypothesis was that households' purchasing power, regardless of parental structure, most accurately predicts childhood development, and that this effect would be especially magnified at the edges of analysis – wealthy single parent households, as opposed to disadvantaged single parent households. I reasoned that at high income levels, the support of a second parent could be "substituted" for through the purchase of supplementary resources, such as extracurricular opportunities and afterschool care. Conversely, I also reasoned that at low-income levels, negative environmental factors and peer effects may leave children more susceptible to deviation, regardless of their parents' civil status.

My findings of considerable substitution effects not only lend support to these initial claims, but also produce significant normative implications for gender dynamics, place-based interventions, and transfer payment policies.

INTRODUCTION & LITERATURE REVIEW

The rate of children being raised by an unmarried parent in the United States has risen dramatically in the past few decades. The bulk of this disconcerting rise is attributable to the large increase in the single motherhood rate from 12% in 1968 to 21% in 2017, as single fatherhood remained relatively low from 1% in 1968 to 4% in 2017 (Livingston). In fact, Census Bureau data reveals that approximately one-third of American children are being brought up in single parent homes today. In addition to there being far more single parent homes led by mothers than there are by fathers, it is evident that single mothers are nearly three times more likely to experience poverty than single fathers, who themselves are already at greater risk of poverty than their married counterparts (Kramer). This reality of overwhelmingly low-income and maternal single parents leads us to consider two distinct but interacting factors — civil status and socioeconomic status.

Studies have broadly highlighted the adverse effects of nontraditional household structures. Work conducted under the Center for Research on Child Wellbeing (CRCW), illustrates this relationship particularly well (McLanahan). Leveraging survey data on nearly 5,000 births across 20 U.S. cities, with parameters such as welfare status, education, domestic violence, child health, the researchers found that single parenthood was strongly correlated with reduced developmental outcomes for children. They found that for these families, parental resources both in the form of disposable income and available time to spend with children were significantly strained.

Variation in socioeconomic status has also been shown to strongly influence child development through several channels. Foremost of these is the home environment, as detailed in a 2009 Institute for Research on Poverty (IRP) paper titled, “Income and Child Development.” The authors hypothesized that parents of low-income families are more likely to be stressed or unresponsive towards their children than parents of high-income families (Berger). They further

reasoned that this dissimilarity in parental support produces diverging behavioral, cognitive, and even health outcomes in children — all of which in turn influence academic achievement. Leveraging an ongoing longitudinal birth cohort study of preschoolers first developed in 1998, and which samples nearly 5,000 births across twenty U.S. cities, they found that the data closely aligned with their initial assumptions (Berger). Indeed, assessments of variables including food insecurity, home disorganization, and parent depression all seemed to confirm that faulty home environments, resulting directly from disparities in household income, translate into an array of adverse developmental conditions that impede success in school.

It seems to me, however, that the aforementioned works fall short of discussing any joint effects between civil status and socioeconomic status. The CRCW paper, for instance, fails to consider an analysis of income variation among these single parent homes and does not explain whether financially strained families with two present parents are any better or worse off than the strained homes of single parents. The IRP paper similarly fails to interact parents' incomes with their civil status in determining the varying levels of adversity faced by children in its respective study.

The existing body of literature's inability to adequately explain the dynamism between marriage and income and how they jointly affect childhood development motivated me to design a revised methodology, which I move to detail in the following section.

DATA & METHODOLOGY

My first step was to localize my study to Los Angeles County, with the intention of controlling for regional differences in cultural attitudes. States in the South and Midwest, for instance, are far more religious than California and thus less socially accepting of non-traditional family structures, which may skew statistics on separated parents. Even within the state of California, there are significant differences between counties in the Central Valley and those along the coast. I reasoned that limiting my scope to the expansive Los Angeles landscape would moderate potential skewing, while also allowing for ample data points.

From there, I set out to source data that tracks my study's three core variables: child development, single parenthood, and income. I immediately identified standardized academic performance trackers as a readily available and objective measure of child development across nearly all grade levels. For single parenthood, I could not access any child specific or school specific measures. That's not to say that this data does not exist. Longitudinal studies have leveraged kid-level household structure data in their own studies, but tightly restrict external access for those outside of their organizations. Opting for an alternative route, I extracted single parenthood data from the U.S. Census Bureau's 2012-2016 American Community Survey 5-Year Estimates, which provides tract level data on "family household types" — specifically the percentage of family households with children under the age of 18" being raised by either single mothers or single fathers ("Data Profiles").

Relying on tract level rather than school or individual level data on single parent homes, I had to reconsider the types of schools that would either be included or excluded from my research. Census tracts are typically designed to reflect local and homogeneous neighborhood units ("Glossary"). While in less dense rural areas, these tracts can span entire cities, it is more common

in dense urban areas for tracts to cover mere blocks. Upper-level students attending the same middle or high schools, on the other hand, tend to be spread out over several tracts and across cities, as they are fed in from a larger number of subsidiary elementary schools. To reduce the incongruency between heterogeneous students and homogeneous tracts, I decided to exclude academic performance trackers for upper grade levels and focus solely on public elementary schools, whose students tend to reside in the same neighborhood tracts as the schools they attend. Similarly, I excluded magnet, charter, alternative, and specialty schools, as they draw students from across school districts and over tract boundaries.

Having extracted family household types from the 2012-2016 ACS for each public elementary school's tract in Los Angeles County — a total of 1,141 unique tracts[1] — I still needed to determine which specific trackers of elementary school academic performance to use in measuring child development, decide on how best to track varying incomes across the schools, and select a narrowed time frame of reference. To that end, I was fortunate to come across the California Department of Education's Academic Performance Index (API) as well as the California Longitudinal Pupil Achievement Data System (CALPADS).

The API was implemented by the California Department of Education in 1999 as a leading means to track school level accountability on a statewide scale and continued until 2013, when new legislation mandated a new statewide accountability system and suspended API calculations (Academic Performance Index). With a target score of 800 and maximum score of 1,000 for each

[1] For each LA County elementary school, I utilized an online source https://statisticalatlas.com/United-States/Overview, which pulls data from the American Community Survey, to manually identify each elementary school's respective US Census Tract and extract data on "family household types."

school, the API was primarily driven by standardized test scores, and overall results from the 1999 to 2012 academic school years are now available for public download.

CALPADS captures a sweeping array of variables across the California public education system from students' gender to ethnic background over time. While kid-level data on individual students is available, access to the Statewide Student Identifiers necessary to view these records is strictly limited to the subjects' parents or legal guardians. Moreover, parents and legal guardians can only request access to data related to their own children, and not those of others (CALPADS). This restriction led me to utilize CALPADS' Unduplicated Pupil Count (UPC), which provides school level counts of enrollment, English language learners, and free & reduced lunch program recipients. These counts are readily available for each school year from 2014 to 2019. Of these counts, free & reduced lunch program eligibility stood out to me as a viable means of approximating relative income, which I could not find full data on for each and every LA County elementary school.

At this point, I was finally able to track or closely approximate all three points of single parenthood, child development, and income, but did not yet have a set time frame of reference. To make use of the available cross-sectional data, I specifically selected the 2014-2015 school year from the available CALPADS counts and the 2012-2013 school year for API because California's Academic Performance Index program was permanently suspended in 2013 and the earliest comprehensive documentation of data for CALPADS was done in 2014.

To provide additional context behind that decision, there was no standardized method on tracking statewide school accountability for four years following the suspension of API and the California School Dashboard was only recently introduced as a completely redesigned alternative in 2017. I reasoned that efforts to assess more recent measures may be particularly unreliable due

to these developing changes. Keeping with the imperfect data that was available to me, I concluded that the latest available API scores from 2012-2013 were the closest I could get in time to the earliest available CALPADS UPC counts from 2014-2015. While this two-year gap is less than optimal, I believe that any differences in student records are negligible for such a short timeframe. It is unlikely, for example, that mass migrations or any significant demographic shifts between elementary schools took place within just two years.

Altogether, I was able to align 2012-2016 ACS tract specific family household types, 2012-2013 API scores, and 2014-2015 CALPADS UPC counts for 1,032 LA County public elementary schools, which provide a basis for my regression analysis.

EMPIRICAL STRATEGY

In order to first gain an overall understanding of child development dynamics in LA County, I regressed the explanatory variables of single parenthood [SGL_Parent] and free & reduced lunch eligibility [FRL] on the independent variable of Academic Performance Index [API]. I also added English language learner [EL] and enrollment total [ENRL] as controls for immigrant populations and varying population density, given that non-native English speakers are at an inherent disadvantage when taking standardized exams and that peer effects on elementary school students vary between differing urban environments.

$$y_i = \beta_1 + \beta_2\, SGL\_Parent + \beta_3\, FRL + \beta_4\, EL + \beta_5\, ENRL + u_i$$

Due to significant differences between single mothers and single fathers that I identified in my literature review, I also ran a similar regression with the explanatory variable of single parenthood bisected into single motherhood [SGL_Mother] and single fatherhood [SGL_Father].

$$y_i = \beta_1 + \beta_2\, SGL\_Mother + \beta_3\, SGL\_Father + \beta_4\, FRL + \beta_5\, EL + \beta_6\, ENRL + u_i$$

SGL_Parent, SGL_Mother, SGL_Father, FRL, and EL are numerically expressed as proportions, whereas API and ENRL are expressed as whole numbers ranging in the hundreds.

After running my summary statistics, I realized that the vast majority of LA County elementary school students were low-income and eligible for free & reduced lunches. In fact, the average rate of free & reduced lunch program eligibility across the county was nearly 70% and the median was nearly 80%. To prevent a skewing of my analysis, and to also test my hypothesis of prevalent substitution effects, I divided the data into three sub-groups — above-median free & reduced lunch [FRL>0.795], below-median free & reduced lunch [FRL<0.795], and low free & reduced lunch [FRL<0.25]. The first sub-group, [FRL>0.795], is aimed at isolating the poorest

elementary schools in the county. Students attending these schools, where over 80% of their peers are on government aid, face unique circumstances that warrant closer analysis. The second sub-group, [FRL<0.795], is aimed at testing how interactions between the variables change when lower rates of relative poverty are weighted more heavily. The third sub-group, [FRL<0.25], serves to isolate the wealthiest of LA County elementary schools, where less than 25% of students receive government meal aid, and where I hypothesized that substitution effects between marriage and income would be the most apparent.

As an added check, I further compartmentalized the data into quartiles which, along with the main county group and three FRL sub-groups, produced a total of twelve unique regressions that I move to discuss next.

RESULTS & ANALYSIS

Following my very first regression of single parenthood on LA County elementary schools' academic performance, it was immediately clear that both family structure and economic purchasing power have an incredibly powerful influence on young students' development. As shown in [Table #5], the coefficient for SGL_Parent is −102.658 and the coefficient for FRL is −154.731. While I was not surprised to find that even after controlling for other factors such as schools' enrollment size and share of non-native students, single parenthood and meal aid eligibility remain the strongest two predictors of academic performance by an enormous margin, I was surprised to observe how close these two primary factors are in magnitude.

Narrowing the county down to [FRL>0.795] schools in [Table #5], the coefficient for SGL_Parent increased slightly from −102.658 to −108.99 while the coefficient for FRL dropped substantially from −154.731 to −106.072. I reasoned that this reweighting can be explained by less income variation and greater financial pressure on single parents at the low end. Within these neighborhoods where over 80% of elementary students depend on free & reduced meal program to meet their daily nutritional needs, FRL measures may not provide much actionable insight. However, when placed in relation to findings from the other two sub-groups [FRL<0.795] and [FRL<0.25], varying free & reduced lunch rates reveal powerful substitution effects.

Moving rightward in [Table #5], we can see that as the limit for FRL is lowered, SGL_Parent's effect on API is steadily weakened. For schools with FRL rates below the county median, the SGL_Parent coefficient was reduced to −90.167, as the FRL coefficient was raised to −143.421. For the wealthiest 137 schools [FRL<0.25], where less than a quarter of students were receiving government support, the coefficient for SGL_Parent sharply dropped to −44.468, as the coefficient for FRL rose to −223.717. In each and every sub-group, single parenthood and free &

reduced lunch eligibility consistently moved in opposite directions in relation to academic performance. This inverse relationship strongly suggests that when it comes to students' academic performance, dual parenthood can be substituted for with economic resources.

Furthermore, variation in purchasing power within higher earning groups appears to predict academic performance much more effectively than income variation among less well-off groups. For reference, the FRL coefficient for [FRL<0.25] schools, −223.717, was nearly 145% of the FRL coefficient for [FRL>0.795] schools, 106.072. These measures are statistically significant with a 99% confidence interval. I believe that this large difference can be explained by the fact that income ranges in wealthier neighborhood tend to be much wider than income ranges in poorer neighborhoods. While in poor neighborhoods, the lowest and highest earning parents may only be separated by a few thousand dollars, lower and higher earning parents in wealthy neighborhoods may be separated by hundreds of thousands. The data seems to suggest that substitution effects continue into the upper income ranges and actually produce increasing returns to students' academic performance.

While single parenthood adversely impacts families on both the low and high end of the earnings scale, its effects appear to be greatly moderated among high earning single parent families in the sample — supporting my earlier hypothesis that wealthier single parents can supplement their children's development with resources that are out of reach for less advantaged families. I was, however, shown to be wrong on my hypothesis that single parenthood would not affect already socioeconomically disadvantaged children. Even among the poorest of elementary schools where over 80% of students relied on free & reduced lunch programs, single parenthood had an outsize negative effect of −102.658. It could, therefore, be reasonably argued that low-income

children born to two married parents are in fact better off developmentally than their counterpart born into single parent families.

Still, as noted in my literature review, family dynamics have been shown to sharply contrast between single mother and single father homes. Single mothers not only make up the vast majority of single parents, but also face much higher rates of poverty than single fathers. The diverging effects of this reality can be clearly observed from my second line of regression analysis.

As shown in [Table #6], the substitution effects identified earlier are not so clear cut when single parenthood is split into single motherhood and fatherhood. Aggregating all 1,083 schools, SGL_Mother and SGL_Father seem to have nearly identical effects on LA County academic performance with the respective coefficients of −102.580 and −102.869. However. for the poorest [FRL>0.795] schools, SGL_Mother's negative effect was much higher −120.845, while SGL_Father's effect was actually brought down to −78.377. Among wealthy [FRL<0.25] schools, on the other hand, the coefficient for SGL_Mother was reduced down to just −29.255, which is less than a third of the SGL_Mother coefficient when regressed on all schools, while the coefficient for SGL_Father remained relatively stable at 91.842.

While there may be several reasons behind these results, I believe that differences in labor market conditions at the high and low edges provides the most compelling case. Single motherhood is so much more detrimental to children attending impoverished schools in low-income census tracts because of the opportunities that are available to women with limited skills and education. Consider a working-class neighborhood in South Central Los Angeles or in the rural High Desert. Most, if not all, the employment opportunities are geared specifically for male workers. For instance, it's very uncommon for a woman to be hired for a low-skilled job in a quarry or oil

refinery, due to the physical demands of such work. Without access to steady work in these underserved tracts, single mothers at the low end of the labor market are especially impacted by economic hardships, which are inevitably passed onto their children.

On the other hand, we can consider an upper-middle class neighborhood where most residents hold college degrees. A single mother here has access to more gender-neutral employment opportunities. Work in an office environment, for example, does not require any trait that is more present in a certain gender than another. Single mothers who live in wealthier tracts and who are thus positioned at the high end of the labor market are able to command more sustainable income to provide for their children's development.

Unlike single motherhood, single fatherhood in Los Angeles County had a relatively stable effect on academic performance at all FRL thresholds. In fact, there was only about a ten-point difference in coefficients for SGL_Father between low-income [FRL>0.795] schools and high-income [FRL<0.25] schools. I argue that reasons for this trend can be found again in gender specific labor market conditions for single parents. At both the low and high end of the labor market across poor and rich census tracts, there is a broad array of employment opportunities for men of varying skillsets. A single father is far less limited in what opportunities he can choose to take up from manual labor to white collar work and is therefore more able to consistently provide for his children at varying income levels. This is not due to a single father's gender in and of itself, but rather the structuring of opportunities around that given gender.

Quartile specific assessments of LA County further support my argument. [Table #7] shows how from quartiles two to three, SGL_Mother and SGL_Father carry similar effects on

academic performance — [Q2]: −133.626 and −130.170; [Q3]: −129.601 and −141.393. These findings closely align with those found earlier when aggregating all 1,083 schools (see page 12).

However, at the edges of single parent earning power — quartile one, which has the highest FRL rates, and quartile four, which has the lowest FRL rates — inversely related gender effects are strikingly magnified. For especially disadvantaged schools in [Q1], the coefficient for SGL_Mother increased only marginally from its countywide aggregate value of −102.580 to −112.863, while the coefficient for SGL_Father more than halved from its aggregate value of −102.869 to its quartile value of −39.913. For more privileged schools on the opposite end in [Q4], the exact opposite was observed. While the SGL_Father coefficient decreased moderately, SGL_Mother approached zero with a statistically insignificant coefficient of 14.646.

I, therefore, maintain my argument that the restrictive low end of potential earnings uniquely disadvantages single mothers while elevating single fathers, whereas the more gender-neutral high end of earning power enables single mothers to more frequently match or surpass their male counterparts.

Although there is no fully proven case to be made for why gender differences in single motherhood and fatherhood produce widely varying effects on academic performance, this much is clear — a child born into a low-income census tract is best off being raised by married parents, less so with a single father, and worst off with a single mother. For children born into higher income tracts, differences in childhood quality between single mother homes and single father homes are inconclusive.

Lastly, I sought to counter the prevailing narrative pressed forward by numerous bodies of research and media, which have targeted the blame for rising crime rates and urban decay on absent

fathers of largely African American descent. Titles such as "The Woes of the Inner City African-American Father," make it seem as though this claim is entirely grounded in truth (Wilson). While marriage undoubtedly plays a powerful role in a child's development, the issue of rising single parenthood rates is not unique to any one kind of racial population or urban environment.

Enrollment data stood out to me as a means of approximating each elementary school's surrounding urban environment. Larger enrollment totals, for instance, would imply denser local neighborhoods, while smaller enrollment totals would imply more sprawl. Referencing both [Table #5] and [Table #6], it's clear that ENRL has virtually zero influence on elementary school students' academic performance, with p values less than 0.01 across the board.

It seems then that the powerful factors of family structure and purchasing power cross over urban boundaries. While for all of Los Angeles County, the mean single parenthood rate was 32.6%, the mean rate was only marginally better among the wealthiest [FRL<0.25] schools at 18.1%. Single parenthood is evidently a growing issue in the cities and suburbs alike. The data, therefore, suggests that there are deeper structural barriers to success in our inner cities that require further attention, but go beyond the scope of this paper.

CONCLUSION & NORMATIVE IMPLICATIONS

To recap, I have worked to demonstrate how money and marriage inextricably guide children's developmental trajectories from a young age. Yet, my results have not been as clear cut as I initially hypothesized. Stark differences between single mother and father dynamics as well as geographic diversity in the urban landscape make it difficult to pinpoint how exactly income and parental structure may jointly interact on a child-by-child basis. Yet one point of concern is certain. There are undeniably powerful substitution effects between economic resources and parental circumstances.

Across the board, purchasing power remained a consistent predictor of academic success, despite changes to other variables. If we are to take these results seriously, we ought to consider improvements to transfer payment policies that seek to advance mobility for our most vulnerable. We cannot bring separated parents back together or fix broken homes. We can, however, level the playing field by distributing resources where they are needed most.

[TABLE #1]

Summary Statistics – [LA County Elementary Schools]

	Obs	Mean	Std Dev	Min	Max
API	1083	819.156	68.242	629.000	981.000
SGL_Mother	1083	0.237	0.122	0.000	0.729
SGL_Father	1083	0.090	0.068	0.000	0.498
SGL_Parent	1083	0.326	0.148	0.000	0.795
ENRL	1083	589.383	201.313	103.000	1413.000
FRL	1083	0.684	0.276	0.003	0.985
EL	1083	0.326	0.176	0.006	0.795

- API: Academic Performance Index
- ENRL: School Enrollment Total
- SGL_Mother: Single Motherhood Rate
- SGL_Father: Single Fatherhood Rate
- SGL_Parent: Single Parenthood Rate
- FRL: Free & Reduced Lunch Program Eligibility
- EL: English-Language Learner Status

[TABLE #2]

Above-Median Free & Reduced Lunch – [FRL>0.795]

	Obs	Mean	Std Dev	Min	Max
API	541	775.789	43.960	629.000	896.000
SGL_Mother	541	0.287	0.109	0.000	0.729
SGL_Father	541	0.108	0.070	0.000	0.360
SGL_Parent	541	0.396	0.126	0.000	0.795
ENRL	541	615.745	216.094	112.000	1413.000
FRL	541	0.893	0.046	0.795	0.985
EL	541	0.442	0.125	0.099	0.795

[TABLE #3]

Below-Median Free & Reduced Lunch – [FRL<0.795]

	Obs	Mean	Std Dev	Min	Max
API	541	862.534	60.245	654.000	981.000
SGL_Mother	541	0.186	0.112	0.000	0.581
SGL_Father	541	0.071	0.062	0.000	0.498
SGL_Parent	541	0.257	0.135	0.000	0.718
ENRL	541	562.290	181.070	103.000	1134.000
FRL	541	0.475	0.252	0.003	0.794
EL	541	0.208	0.137	0.006	0.668

[TABLE #4]

Low Free & Reduced Lunch – [FRL<0.25]

	Obs	Mean	Std Dev	Min	Max
API	137	927.949	30.756	803.000	981.000
SGL_Mother	137	0.132	0.078	0.000	0.542
SGL_Father	137	0.049	0.042	0.000	0.193
SGL_Parent	137	0.181	0.091	0.019	0.542
ENRL	137	593.307	144.040	218.000	991.000
FRL	137	0.117	0.073	0.003	0.248
EL	137	0.111	0.074	0.006	0.337

[TABLE #5]

OLS: SINGLE PARENTHOOD /// ACADEMIC PERFORMANCE

	LA County	FRL>0.795	FRL<0.795	FRL<0.25
SGL_Parent	−102.658***	−108.990***	−90.167***	−44.368*
	(10.020)	(14.418)	(14.066)	(25.679)
FRL	−154.731***	−106.072**	−143.421***	−223.717***
	(6.985)	(43.154)	(8.748)	(33.479)
EL	−19.831*	−8.164	−33.695**	70.005**
	(10.310)	(15.583)	(15.089)	(32.470)
ENRL	0.001	−0.009	0.020**	0.020
	(0.006)	(0.009)	(0.009)	(0.016)
_CONS	964.275***	922.812***	949.364***	942.608***
	(4.786)	(35.936)	(6.852)	(11.056)
Observations	1083	541	541	137
Adjusted R^2	0.664	0.128	0.608	0.304
F Stat	(4, 1078)	(4, 536)	(4, 536)	(4, 132)
	535.60	20.74	210.64	15.84

*p<0.1; **p<0.05; ***p<0.01

[TABLE #6]

OLS: SINGLE MOTHERHOOD & FATHERHOOD /// ACADEMIC PERFORMANCE

	LA County	FRL>0.795	FRL<0.795	FRL<0.25
SGL_Mother	−102.580***	−120.845**	−77.224**	−29.255
	(11.628)	(16.609)	(16.341)	(29.745)
SGL_Father	−102.869***	−78.377***	−126.879***	−91.842*
	(18.715)	(25.760)	(27.531)	(53.699)
FRL	−154.734***	−100.524**	−143.693***	−223.600***
	(6.993)	(43.285)	(8.738)	(33.477)
EL	−19.826*	−9.925	−33.120**	70.882**
	(10.322)	(15.616)	(15.073)	(32.480)
ENRL	0.001	−0.010	0.020**	0.020
	(0.006)	(0.008)	(0.009)	(0.016)
_CONS	964.274***	919.272***	949.975***	942.604***
	(4.788)	(35.985)	(6.854)	(11.055)
Observations	1083	541	541	137
Adjusted R^2	0.664	0.129	0.609	0.304
F Stat	(5, 1077)	(5, 535)	(5, 535)	(5, 131)
	428.08	17.03	169.44	12.88

*p<0.1; **p<0.05; ***p<0.01

[TABLE #7]

OLS: SINGLE MOTHERHOOD & FATHERHOOD /// ACADEMIC PERFORMANCE (QUARTILES)

	Q1	Q2	Q3	Q4
SGL_Mother	−112.863***	−133.626***	−129.601***	14.646
	(23.822)	(23.048)	(22.155)	(23.387)
SGL_Father	−39.913	−130.170***	−141.393***	−80.816*
	(33.695)	(39.373)	(36.028)	(41.185)
FRL	−247.535**	−218.580**	−105.385***	−193.312***
	(122.951)	(92.329)	(35.924)	(12.876)
EL	−45.843**	31.037	−71.589***	61.355**
	(22.651)	(21.668)	(19.778)	(23.959)
ENRL	−0.005	−0.016	0.023	0.028**
	(0.012)	(0.012)	(0.014)	(0.011)
_CONS	1065.302***	1014.148***	947.791***	928.965***
	(111.615)	(76.367)	(24.034)	(8.756)
Observations	270	271	271	271
Adjusted R^2	0.107	0.154	0.268	0.496
F Stat	(5, 264)	(5, 265)	(5, 265)	(5, 265)
	7.41	10.83	20.76	54.05

*p<0.1; **p<0.05; ***p<0.01

[TABLE #8]

Quartile One [Q1]

	Obs	Mean	Std Dev	Min	Max
API	270	770.626	42.608	639.000	872.000
SGL_Mother	270	0.308	0.105	0.052	0.729
SGL_Father	270	0.113	0.074	0.000	0.360
SGL_Parent	270	0.420	0.122	0.108	0.795
ENRL	270	626.107	215.306	112.000	1223.000
FRL	270	0.931	0.021	0.899	0.985
EL	270	0.478	0.114	0.145	0.795

[TABLE #9]

Quartile Two [Q2]

	Obs	Mean	Std Dev	Min	Max
API	271	780.934	44.756	629.000	896.000
SGL_Mother	271	0.267	0.110	0.000	0.677
SGL_Father	271	0.104	0.065	0.000	0.360
SGL_Parent	271	0.372	0.125	0.000	0.735
ENRL	271	605.421	216.780	127.000	1413.000
FRL	271	0.856	0.029	0.795	0.899
EL	271	0.407	0.125	0.099	0.728

[TABLE #10]

Quartile Three [Q3]

	Obs	Mean	Std Dev	Min	Max
API	271	823.613	47.530	654.000	922.000
SGL_Mother	271	0.237	0.114	0.000	0.581
SGL_Father	271	0.087	0.070	0.000	0.498
SGL_Parent	271	0.324	0.135	0.000	0.718
ENRL	271	538.893	184.581	169.000	1134.000
FRL	271	0.694	0.074	0.526	0.795
EL	271	0.285	0.138	0.034	0.668

[TABLE #11]

Quartile Four [Q4]

	Obs	Mean	Std Dev	Min	Max
API	271	901.273	44.521	710.000	981.000
SGL_Mother	271	0.135	0.084	0.000	0.542
SGL_Father	271	0.055	0.048	0.000	0.268
SGL_Parent	271	0.190	0.099	0.000	0.542
ENRL	271	587.247	176.039	103.000	1080.000
FRL	271	0.258	0.162	0.003	0.525
EL	271	0.133	0.085	0.006	0.424

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