Parental Pressures: Perpetuating the Problem of Income Inequality

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Twelve and a half percent of the United States population lives in the "other America" (United States Census Bureau 2005; Harrington 1993); the other America consists of the "unskilled workers, the migrant farm workers, the aged, the minorities, and all the others who live in the economic underworld of American life" - the society of individuals who largely live below the respective poverty threshold (Harrington 1993). To these nearly 36 million individuals, author Michael Harrington offers his harsh reality:

The real explanation of why the poor are where they are is that they made the mistake of being born to the wrong parents, in the wrong section of the country, in the wrong industry, or in the wrong racial or ethnic group. Once that mistake has been made, they could have been paragons of will and morality, but most of them would never even have had a chance to get out of the other America. (Harrington 1993)

Is Harrington correct in his assertions? His statement would suggest whole generations of people are simply "trapped" by their poverty and can do little to break such a cycle. Moreover, Harrington's statement suggests government intervention (e.g., public education, Temporary Assistance for Needy Families (TANF), etc.), as well as an individual's endowed ability are negated largely by the individual's childhood environment. Yet, I maintain Harrington, as well as past economic and sociology literature, have disregarded a possible major catalyst for socioeconomic mobility – parental pressures.

To address Harrington's statement, this research will examine equality – specifically income equality across familial generations. To date, there has been much research on this given subject. Historically, economists have offered a common answer to the problem of the transfer of income inequality across generations: "the most important family background characteristic is income itself" (Peters 1992). Even as many as eighty years ago, beginning with Stamp (1926) and Wedgwood (1928), before any large databases of family income data were available, these two economists strongly believed a child's inheritance or parent's income is a "major cause of inequality" and has the innate ability to "perpetuate and intensify inequality" (Wedgwood 1928). Much of the economics literature over the last eighty years has accordingly followed along this same line of thought, offering little innovation and alternative hypotheses.

Though sociology has not specifically focused on income inequality across generations, the discipline has largely centered on the factors affecting a child's socioeconomic status attainment, which could be regarded as closely linked with income. Consequently, sociology similarly maintains that household income is of major importance in determining the child's status outcome; however, the discipline argues there are a number of other fundamental factors in a child's status attainment process, most of which are argued to be a result of the family socialization process; there are abundant amounts of sociology research which explore the extent of parental influence on a child's educational/occupational aspirations. For instance, William Sewell, of the University of Wisconsin, pioneered such research in the 1950s with one of most intensive longitudinal surveys ever conducted. As part of his massive study, Sewell concluded educational and occupational attainments are largely formed by the influences from significant others (e.g., parents, peers). Later studies have gone on to confirm many of Sewell's findings.

Thus, these two disciplines stand somewhat opposed to each other; economics solely emphasizing the importance of household income and sociology maintaining that a combination of income and socialization processes secure a child's position in society. As a result, there

continues to be a need for pertinent research in the transfer of income inequality, filling the gap within and between these two disciplines. Accordingly, using compiled data from the 1997 National Longitudinal Youth Survey, this study examines parental pressures and their effect on intergenerational transfers of income inequality. As a necessary aside, this study additionally examines the effect household income has on the level of educational pressure parents place on their child. I hypothesize that parental pressures are a significant factor in the educational attainments of children; moreover, I hypothesize there will be a positive correlation between parental pressures and the household income. Therefore, given that a child is raised in a wealthy home, he or she is highly pressured to duplicate parental economic success, consequently perpetuating income inequality from one generation to the next - assuming there are little to no parental pressures exerted on children raised in low-income households, and they subsequently obtain positions similar to that of their parents. If the data supports such hypotheses, then there stands one possible solution to the income inequality debate: parental pressures. Importantly, this solution defies much of the economics literature, which maintains there is little to no hope for a child once they have been born in to poverty[1].

I. Literature Review

Due to the subject of this paper, it is difficult to separate the economics from the sociology and the sociology from the economics. Thus, it seems most appropriate to examine and include literature from both disciplines. Within economics literature, there is little to no relevant research on this particular subject (e.g., parental pressures and income). Therefore, I chose to examine literature conducted on the intergenerational (or intragenerational) transfer of income, leaving the family dynamics research largely within sociology. As for this research, numerous studies have been conducted to better understand generational transfers of income. From this literature, the writings can be broken down further by the different approaches they take: income or human capital.

As mentioned earlier, a majority of the pertinent economics research has focused on household income and its relationship with intergenerational transfers – this is what I refer to as the income approach. Beginning with Stamp (1926) and Wedgwood (1928), numerous researchers have conducted their own studies, concluding that household income is a major proponent of intergenerational income inequality. For instance, in his "Inter-generational Transmission of Inequality: An Empirical Study of Wealth Mobility," author Paul Menchik (1979) used the probate records of 1,050 Connecticut residents who died (leaving net estates of at least $40,000 or more in dollars at that time) in the 1930s and 1940s to show the level of income passed from generation to generation. He did so, by then looking at the probate records of the very children (who had died as of 1976) whose parents were one of these 1,050 people. Menchik found that "wealthy parents do indeed have wealthy children," thus offering some evidence of the transfer of inequality down through generations (Menchik 1979). In addition to Menchik, Blau and Duncan (1967), Ioannides and Sato (1987), and Corcoran, et al (1990) have all concluded household income is fundamental to the transfer of inequality across generations.

In a complementary approach, a number of economists have viewed the relationship between parents' income and the human capital of their children as the cause of intergenerational inequality. Initially begun by Becker and Tomes (1979) and Jenks (1979), this approach has developed a model that maintains intergenerational mobility (i.e., the ability to obtain a higher-paying job) is affected by investment in a child. In other words, the human capital approach assumes two things: first, there is a degree to which children inherit a number of their parents'

characteristics (i.e.., intelligence, personality, etc.) and second, families with greater household incomes have a greater inherent ability to provide more intensive human capital development for their children (i.e., education). In the studies originated by Becker and Tomes, they additionally assumed two other important ideas. First, parents pursue the means which maximize their utility; accordingly, they will invest in their children, because they derive some pleasure from knowing their children are well-trained and more likely to be wealthy later in life. Additionally, they assume there is some amount of "luck" in the transfer process from generation to generation and in the ultimate outcomes of children. After building a series of complex models, Becker and Tomes ultimately discovered the family's economic background is significant in relation to its propensity to invest in the human capital of the child; moreover, "families with higher propensities to invest [naturally] have higher incomes, an interaction that raises inequality" (Becker and Tomes 1979). Thus, Becker and Tomes found similar results (i.e., income is fundamental to child status attainment) to much of the other economics literature, but did so through a slightly different lens. Similar human capital studies have since been conducted using similar models, notably Peters (1992), and have found comparable results.

Due to the subject of this research, I additionally focused on a wide array of sociological works, exploring the interaction of parents and children within a family, the extent of parental influence on a child's educational/occupational aspirations, and the possible correlation between a child's socioeconomic status and the future occupational success of the child (very similar to some of the earlier research); each of these separate components is fundamental to the theory behind the greater context of this paper. Consequently, I find it most necessary to examine the literature in each of these themes.

Parenting research and research on the dynamics of families is almost in overabundance; hundreds of researchers have examined every possible family structure imaginable (i.e., nuclear family, single parent families, African-American families, homosexual couples, etc.). For my research specifically, I found studies which mainly focused on the interactions of children and their parents. For instance, in "Parents as Educational Models and Definers," Jere Cohen (1987) used previous data from James Coleman's (1961) *Adolescent Society* to examine the attributable source of parental influence. In other words, Cohen investigated the overall influential effectiveness of either parents acting as role models (i.e., modeler) for their children (via a high prestige job, commitment to family, etc.) or as definers, whose explicit expectations "establish what behaviors are appropriate" (Cohen 1987). Then, he attempted to view any possible differences based on the extent of modeling or defining, amongst such variables as class, gender of child, gender of parent, and more. Cohen discovered that though parents often influence children through a combination of modeling and defining, "defining influence was significantly stronger than modeling influence" (Cohen 1987). Additionally, Cohen found distinct differences between gender of the child (daughters more heavily influenced by modeling, boys more heavily influenced by defining) and social class differences (blue-collar parents more effectively employed defining, whereas white-collar parents used a more balanced blend of modeling and defining). Importantly, Cohen found no difference between the gender of the parent and their amount of influence, but he did find that the parent with the higher education tended to have more influence. Even more important, the very fact that Cohen discovered defining is more influential than modeling offers some hope to low-income families, because though there might be a lack of models in lower-income families, it is ultimately the parent's defined expectations which have the greatest influence.

Like Cohen, author David Lynn (1974) centered much of his *The Father: His Role in Child Development* on the various types of parenting styles, particularly in regards to class. In his research, Lynn found that within a household where the father works in a blue-collar occupation (as compared to a father in a white-collar position), "he may be domineering, autocratic, and arbitrary, but he does not involve himself in the details of his children's affairs"; whereas, the "high-status" father is often more prone to "exercise power in the context of a closer relationship with his children, giv[ing] him a greater knowledge of his children's lives" (Lynn 1974). Ultimately, Lynn found when parents are well educated, "they are more apt to have both the interest and the means to provide for the child's [developmental] needs" (Lynn 1974).

Beyond the simple relationship between parents and child, I felt it was essential to examine the extent to which that relationship influences a child's educational and/or occupational aspirations. For instance, as part of his massive study, William Sewell deduced that educational and occupational attainments are the outcomes of two related processes: "those by which status aspirations are formed and those by which they are enacted" (Haller and Portes 1973). Moreover, an individual's aspirations are largely formed by the influences from significant others (e.g., parents, peers), as well as the pressure the individual puts on him or herself.

From this point, many researchers have adapted Sewell's initial research to better fit the times or particular scenarios. For instance, in 1993, Wilson, Peterson, and Wilson, conducted a study of young women in Appalachia, attempting to identify the influences behind the participants' educational and occupational attainment. In their study, they found a number of novel details, but two of some importance, because they go against much of the public's perception and much of the literature. First, they found that parental desires exerted a greater influence on educational/occupational attainment than socioeconomic status - truly defying much of the literature and thought. Second, a young woman's mother was more influential in her status attainment than their best friend, going against some of the literature that maintains peers are the ultimate form of socialization.

In addition to this study, others have come along and found similar correlations. In 1963, Gerald Bell conducted a study of hundreds of youth, ultimately to discover that parental motivation was a better predictor of high ambition than was social class; moreover, he positively linked aspirations with motivational directives from significant others. In his 1969 book *Occupations and the Social Structure*, Richard Hall, after conducting a great deal of his own research, summarizes the findings of a large majority of the relevant discipline: first, "aspirations and expectations are at least partially formed in the family setting" and second, "the family is the first link a child has with the occupational system" (Hall 1969). Though Mr. Bell's writings largely agree with this research, it should be noted that there are researchers in the field, such as Simpson and Simpson (1960), who downplay the significance of parental influence on occupation, calling it "vaguely supportive" and not "of a determining nature" (Simpson and Simpson 1960).

Finally, I believed that it was highly appropriate to review the literature conducted on the possible correlation between socioeconomic status and aspirations or even occupational attainment. In four separate, well-known studies, a number of researchers analyzed such a relationship. Beginning with Melvin Kohn's (1959) study of Washington, DC youth and ending in Kiker and Condon's (1981) analysis, a wide range of conclusions have been reached. For instance, in Kohn's research, his data established and supported a uniquely-held hypothesis that

lower classes hold higher aspirations than the middle class; he discovered that the lower class desires ambition in their children and a good education for their child more than the middle class. In a related response to this, in 1964, Bennett and Gist's study of 800 urban high school students found dissimilar results; they found no significant difference in the aspiration levels of the upper, middle, and lower class students. In a 1979 report by Otto and Haller, they found results contradicting both Kohn and Bennett and Gist; Otto and Haller's data showed a positive relationship between a child's aspirations and their socioeconomic status. Finally, in 1981, Kiker and Condon confirmed Otto and Haller's results with their own study, in which they concluded there were four significant factors in the earnings of young men - one of which was parental income (or socioeconomic status) and another of which was achievement motivation; moreover, achievement motivation was higher in middle income families and lower in lower income families. Ultimately, as one study summarized, it is a commonly held belief that "striving for success is strongest among those in the middle or upper classes" (Reismann 1959).

The relevant research within these two disciplines is clearly abundant; the arguments of the two fields are equally as clear. Economics has historically related the level of household income to the transmission of income inequality across generations. Sociology additionally maintains household income is a major determinant in the transfer of income across generations, yet also argues there are a number of other essential variables (i.e., family dynamics, parenting style). In light of previous research, this study will look at the problem of intergenerational income inequality from an original perspective: the pressures parents exert on children of lower income and higher income families are different, resulting in disparate transfers of income from parent to child.[2]

II. Empirical Model

Following the criteria established by these two disciplines, the baseline model accounts for the intergenerational theories of economics. For instance, since the economics literature centered largely on household income, a number of variables are considered in the F_{ij} matrix for family demographics[3]. In this matrix, *HOUSEHOLD INCOME*, the location of the household (i.e., *URBAN*), and the *MOTHER* and *FATHER'S COLLEGE* degree obtainment are considered. In the literature, each of these factors has been shown to have a direct correlation with income. For instance, Mare and Glaeser (2001) concluded that "workers in cities earn 33 percent more than their nonurban counterparts," partially because "higher ability workers live in cities" (Mare and Glaeser 2001). Additionally, the education of the mother and father in the household should be a determining factor in the household income, since "occupational achievement is prefigured by education[4]" (Hall 1969).

The baseline model additionally allows for several other aspects of the economics literature, notably a measure of endowments (i.e., *PIAT PERCENTILE*), measure of training (i.e., *HOMEWORK*), and several demographic variables (i.e., *AGE, ETHNICITY, GENDER*); each of these variables are included within the I_{ij} matrix for an individual's attributes. As with the family demographics matrix, past research has shown these individual variables to have tested relationships with educational attainment or income. For instance, the endowment and training variables are drawn from similar variables in the aforementioned studies of Becker and Tomes (1979). Thus, the regression for the educational attainment of a child looks as follows, where μ_{ij} is the error term:

(1) $\qquad E_{attain.} = F_{ij}\beta_i^F + I_{ij}\beta_i^I + \mu_{ij}$

However, for the use of this research, an additional matrix of peer/parental pressures will be used to test the significance of pressures on a child's educational attainment. The matrix P_{ij} for parental pressures includes: *MOTHER/FATHER PRAISE, MOTHER/FATHER SUPPORTIVE, MOTHER/FATHER KNOW TEACHERS AND SCHOOL ACTIVITIES, CHILDREN ASK MOTHER/FATHER FOR ADVICE*, and *MOTHER/FATHER KNOW THE CHILD'S LIFE GOALS*. Additionally, in this matrix, I have included the *EDUCATIONAL ATTAINMENT OF A CHILD'S BEST FRIEND* as an additional pressure because it has been found to be a positive significant factor in the educational attainment of a child by Otto and Haller in 1979 and Wilson, Peterson, and Wilson in 1993 - any model would be incomplete without it. Therefore, the model with the hypothesis included looks as follows, with μ_{ij} being the error term:

$$(2) \qquad E_{attain.} = F_{ij}\beta_i^F + I_{ij}\beta_i^I + P_{ij}\beta_i^P + \mu_{ij}$$

In order to accurately obtain a representative model of the population, it was absolutely necessary to find a large amount of data. Accordingly, all of this study's data was obtained from the 1997 National Longitudinal Survey of Youth[5]. Initially, I had hoped to use the 1979 youth study, since it would offer a clear illustration of the lives these youths led from the 1970s up until the early 1990s. Unfortunately, the 1979 survey offered very little data concerning the parent-respondent relationship; whereas, the 1997 survey offered an abundance of data. In the 1997 survey, 8,984 youths, ranging from twelve to sixteen years of age (as of December 31, 1996), were surveyed on hundreds of different issues; the first round of interviews were conducted January and October 1997, while the second round was performed March and May of 1998. It should be noted that all independent variables were taken from respondent's 1997 answers, except for *CHILDREN ASK MOTHER/FATHER FOR ADVICE*, and *MOTHER/FATHER KNOW THE CHILD'S LIFE GOALS*, which were taken from 2001 and 2002 survey questions respectively. In order to effectively gauge the educational expectations of respondents, the most up to date results were used (2001 or 2002) because this gave respondents time to mature and to reach an age where they could responsibly evaluate their ultimate education level[6].

For a large majority of model (2), the data is self-explanatory. For instance, such variables as *HOUSEHOLD INCOME, HOMEWORK, PIAT*, and *AGE* are all numerical variables, taken straight from thousands of responses to the NLS survey. However, the remainder of the model consists of categorical information, broken into various dummy variables (refer to the data definitions in Table (1) for example). In order to understand the model, it is essential to discuss at least some of these dummy variables, especially considering all of the praise variables are categorical (for a full description, see APPENDIX A). Though there are many dummy variables, I have simplified the system by giving the value of one to all variables which previous literature (or this literature) has shown to have a significant impact on the educational attainment of a child. For instance, if a child lives in an *URBAN/SUBURBAN* environment, they would be assigned the value of one because past literature has shown urban dwellers to earn more on average; if they lived on a military base, Indian reservation, or in a rural area, they were assigned a value of zero. Accordingly, for the *MOTHER'S PRAISE* variable, a value of one was assigned if the mother usually or always (both categories within that particular NLS survey question) praised the child; a zero was given if the mother only praised sometimes,

rarely, or never. Though there are too many categorical variables to simply cover here, there is a rather comprehensive breakdown of each in the summary statistics below.

It is important to further note that educational attainment has been divided to ensure that both incremental educational goals, as well as long term educational goals are accounted for in this study. For instance, for both models (1) and (2), each model was run twice with two different dependent variables: the *HIGHEST GRADE THE RESPONDENT BELIEVED HE OR SHE WILL OBTAIN IN THEIR LIFETIME* and the *PERCENT CHANCE THE RESPONDENT WILL OBTAIN A FOUR-YEAR COLLEGE DEGREE BY THE AGE OF 30*[7]. I believe it is fundamental to have this distinction, because it not only separates the college degree respondents from the non-college degree respondents, but also the four-year college degree respondents from those who have chosen to pursue an advanced degree.

Table 1: Summary Statistics

Variable	Mean	Std. Deviation	n =
Degree (E_{attain})	67.2	38.5	1947
Grade (E_{attain})	14.7	2.43	1915
HH Income (F_{ij})	$46361	$42143	6588
Urban (F_{ij})	0.402	0.490	7933
College Mother (F_{ij})	0.173	0.378	7335
College Father (F_{ij})	0.210	0.407	7335
PIAT (I_{ij})	37.4	27.3	6044
Homework (I_{ij})	14.7	16.1	4717
Age (I_{ij})	14.30	1.48	8984
Female (I_{ij})	0.511	0.499	8984
Hispanic (I_{ij})	0.211	0.408	8984
African Amer. (I_{ij})	0.269	0.444	8984
Mother praise (P_{ij})	0.749	0.433	5213
Father praise (P_{ij})	0.686	0.464	3956
Mother support. (P_{ij})	0.772	0.419	8607
Father support. (P_{ij})	0.677	0.468	6436
Mother – teacher (P_{ij})	0.693	0.461	5158
Father – teacher (P_{ij})	0.477	0.500	3922
Advice – Mother (P_{ij})	0.782	0.413	4472
Advice – Father (P_{ij})	0.597	0.491	4036
Goals – Mother (P_{ij})	0.630	0.483	4468
Goals – Father (P_{ij})	0.375	0.484	4021
College friend (P_{ij})	0.833	0.372	1796

Data Definitions:
* denotes the data came from 2002.
Degree is the percent chance the respondent will have a 4-year college degree by the age of 30.
Grade is the highest expected grade a respondent believes he or she will obtain in their lifetime (12=high school graduate).
Urban equals 1 if the respondent lives in a central city or suburb.
College mother equals 1 if the respondent's mother has attended at least some college.
College father equals 1 if the respondent's father has attended at least some college.
PIAT consists of the mathematics section from the Peabody Individual Achievement Test; it is expressed as a percentile.
Homework is measured in minutes.
Female equals 1 if the respondent is a female
Hispanic equals 1 if the respondent is Hispanic.
African American equals 1 if the respondent is African American
Caucasian was used as the benchmark ethnicity.

Mother praise equals 1 if the mother praises the respondent usually or always.
Father praise equals 1 if the father praises the respondent usually or always.
Mother supportive equals 1 if the mother is very supportive of the respondent.
Father supportive equals 1 if the father is very supportive of the respondent.
Mother – teacher equals 1 if the respondent's mother knows most or everything of the respondent's teacher and school activities
Father – teacher equals 1 if the respondent's father knows most or everything about the respondent's teacher and school activities
Ask advice – Mother equals 1 if the respondent asks their mother for educational or occupational advice sometimes or often.
Ask advice – Father equals 1 if the respondent asks their father for educational or occupational advice sometimes or often.
Life goals – Mother equals 1 if respondent's mother knows most or everything about the respondent's life goals.
Life goals – Father equals 1 if respondent's father knows most or everything about the respondent's life goals.
College friend equals 1 if the respondent's best friend has attended at least some college.

III. Regression Results
A. Parental Praise

After running an initial OLS regression of models (1) and (2) (with both dependent variables), I found that many of the variables (minus the praise variables) were insignificant[8]. Thus, in an attempt to find the significance of the variables at the $\alpha = .10$ level, a number of variables were dropped from the P_{ij} matrix: *MOTHER/FATHER SUPPORTIVE, MOTHER/FATHER KNOW TEACHER AND SCHOOL ACTIVITIES, CHILDREN ASK MOTHER/FATHER FOR ADVICE, MOTHER/FATHER KNOW THE CHILD'S LIFE GOALS*, and *RESPONDENT'S BEST FRIEND HAS ATTENDED AT LEAST SOME COLLEGE*. Additionally, many of these variables were also dropped from the study because they produced inconsistent results from one dependent variable to the next[9]. Moreover, by adding numerous pressures to the model, the number of observations in the sample dwindled to less than three hundred respondents; consequently, many of the educational pressure variables were dropped from model (2). Accordingly, the final models looked as follows:

(3) [10] $\quad E_{attain.} = F_{ij}\beta_i^F + I_{ij}\beta_i^I + \mu_{ij}$

(4) [11] $\quad E_{attain.} = F_{ij}\beta_i^F + I_{ij}\beta_i^I + P_m\beta_3 + P_f\beta_4 + \mu_{ij}$

After dropping many of the pressure variables from the $P_{ij}\beta_i^P$ matrix, the chosen model only includes measures of *MOTHER AND FATHER PRAISE*, because it offered an acceptable number of observations and consistent results, regardless of the dependent variable. The regression results for both praise models are given below.

Table 2: Praise Regression (Chance of Obtaining College Degree)

Variable	Estimate	Std. Error	t value	VIF
Intercept	46.523	4.995	9.31***	0
College Mother	7.278	3.951	1.84*	1.223
College Father	0.109	3.877	0.03	1.314
HH Income	.000	.000	4.11***	1.170
PIAT	0.327	0.055	5.87***	1.163
Female	-10.485	2.919	-3.59***	1.009
Urban	2.195	3.007	0.73	1.031
Afro. American	3.522	4.271	0.82	1.200
Hispanic	-0.189	3.928	-0.05	1.209
Mother praise	7.688	3.894	1.97**	1.243
Father praise	0.956	3.552	0.27	1.266

F – value = 10.57
Adjusted R squared = .1530
Durbin Watson Test = 2.030[12]
White Test = 112.31[13]
*** Denotes 1 percent level of significance
** Denotes 5 percent level of significance
* Denoted 10 percent level of significance

Table 3: Praise Regression (Expected Grade)

Variable	Estimate	Std. Error	t value	VIF
Intercept	13.417	0.303	44.26***	0
College Mother	0.459	0.241	1.90*	1.223
College Father	-0.157	0.234	-0.67	1.301
HH Income	0.000	0.000	3.77***	1.164
PIAT	0.021	0.003	6.49***	1.158
Female	-0.406	0.177	-2.29**	1.009
Urban	0.046	0.182	0.25	1.035
Afro. American	0.103	0.258	0.40	1.195
Hispanic	0.051	0.239	0.21	1.200
Mother praise	0.415	0.237	1.75*	1.260
Father praise	0.158	0.218	0.72	1.283

F – value = 10.03
Adjusted R squared = .1472
Durbin Watson Test = 1.912[14]
White Test = 94.89[15]

Looking at the baseline model within these regressions, several things are clearly apparent. First, according to the t values, *COLLEGE MOTHER*, *HH INCOME*, and *PIAT* are positive and significant (in both), while *FEMALE* is negative and significant in relation to a child's educational attainment. Thus, the data once again supports the importance of household income and endowed ability, bolstering the aforementioned theories of economics and sociology.

Moreover, it should be noted that the addition of praise variables has yielded one positive and significant variable – *MOTHER PRAISE*. For instance, in the regression with *CHANCE DEGREE* as the dependent variable, a mother who usually or always praises their child raises the

chance their child will obtain a college degree by 7.3 percent, *ceteris paribus*[16]. As for the other praise regression, a mother's praise raises the child's expected grade level by almost half a year (e.g., semester). Yet, with such results, I must offer this caveat: according to the White test, both regressions show ongoing difficulties with heteroscedasticity; thus, the t-values may be slightly skewed. Thus, it is impossible to fully conclude the statistical significance of these variables until this statistical flaw is removed.

To correct for heteroscedasticity present in the data, I initially hoped that taking the log of the respondent's *HOUSEHOLD INCOME* would remove any statistical flaws; the respondent's household income has the greatest variation of numbers. However, a simple logarithm did not resolve the problem. Thus, I employed an asymptotic covariance matrix to account for the faulty standard errors. Having corrected completely for heteroscedasticity, the praise regression in regards to a child's *CHANCE OF OBTAINING A COLLEGE DEGREE* (with corrected t values) is given below.

Table 4: Adjusted Praise Regression (Chance of Obtaining College Degree)

Variable	Estimate	Std. Error[17]	t value	VIF
Intercept	-7.261	18.018	-0.39	0
College Mother	7.626	3.957	2.29**	1.218
College Father	1.015	3.874	0.28	1.302
Ln HH Income	5.609	1.655	3.27***	1.233
PIAT	0.341	0.057	6.08***	1.191
Female	-10.069	2.939	-3.49***	1.009
Urban	1.590	3.036	0.529	1.036
Afro. American	4.914	4.371	1.09	1.249
Hispanic	0.763	4.049	0.178	1.240
Mother praise	7.894	3.917	1.88*	1.249
Father praise	1.608	3.592	0.42	1.274

F – value = 10.11
Adjusted R squared = .1478
Durbin Watson Test = 2.042[18]

In this adjusted praise regression, numerous variables within the baseline regression are once again positive and significant: *COLLEGE MOTHER, HOUSEHOLD INCOME*, and *PIAT*. Additionally, *FEMALE* is once again negative and significant. Importantly, within this adjusted regression, *MOTHER PRAISE* is positive and significant. Thus, it is now possible to finally conclude that a mother who usually or always praises their child raises the chance their child will obtain a college degree by 7.9 percent, assuming all else is held constant[19].

B. Parental Advice

As an aside, I pursued a regression which examined parental advice, in lieu of the previously tested praise variable. In the early stages of this research, as I was attempting to determine which pressure variables would provide the best-fit model, praise produced consistently significant results; additionally, parental advice produced significant results in several regressions, but not on a consistent basis. Thus, I feel it is most appropriate to further examine this variable and the possible results it may produce.

Similar to the previous regressions, the advice regression consisted of the baseline matrix, with the addition of *MOTHER ADVICE* and *FATHER ADVICE* in place of the praise variables. It should be noted that in running these "advice regressions," there were several initial observations. First, *PARENTAL ADVICE* (for either parent) was insignificant when *CHANCE DEGREE* was used as the dependent variable. Additionally, much like earlier regressions, there was heteroscedasticity present within the data. However, the table given below (for HIGHEST GRADE EXPECTED) has been adjusted for heteroscedasticity using an asymptotic covariance matrix.

Table 5: Adjusted Advice Regression (Grade Expected)

Variable	Estimate	Std. Error[20]	t value	VIF
Intercept	9.826	1.426	5.56***	0
College Mother	0.514	0.367	1.61	1.138
College Father	-0.497	0.277	-1.54	1.232
Ln HH Income	0.297	0.128	1.81*	1.292
PIAT	0.037	0.004	7.44***	1.144
Female	-0.644	0.258	-2.54**	1.067
Urban	0.156	0.261	0.619	1.037
Afro. American	0.150	0.336	0.418	1.349
Hispanic	-0.130	0.375	-0.335	1.285
Mother advice	0.202	0.335	0.647	1.138
Father advice	0.511	0.277	1.763*	1.163

F – value = 10.04
Adjusted R squared = .2365
Durbin Watson Test = 1.741[21]
White Test = 70.04

Just as in previous regressions, *HOUSEHOLD INCOME* and *PIAT* are positive and significant, while *FEMALE* is negative and significant. Furthermore, *FATHER ADVICE* is significant at the $\alpha = 0.10$ level. Importantly, assuming all else is constant, if the respondent asks their father for educational or occupational advice sometimes or often, a child's expected education increases by a little over a semester.

Thus, to this point, we are able to draw several conclusions. First, this research supports previous economics literature; household income, as well as *PIAT* percentile (a measure of human capital) are both positive and significant. Additionally, this research reinforces societal views of parenting: a mother is often seen as a nurturing and caring source, whereas a father gives direct advice and punishment. The data supports such views, with the mother influencing a child's educational attainment through praise and a father influencing through direct advice. Finally, this research has shown that parental praise and advice are significant determinants of the educational attainments of children. Consequently, these variables of parental pressure should be added to the economics base of income inequality literature.

IV. Gender and Race Effects

Though some conclusions have already been reached, this research is not at an end. At the suggestion of several individuals, this study shall additionally examine possible demographic disparities of sensitivity to particular pressures. For instance, a female may react more favorably and her education may be more directly influenced through the praise of their mother, instead of

praise from their father. Truly, there are numerous combinations which can be manufactured and tested; however, this study will simply examine the different reactions to praise and advice variables by gender and by race.

As for such differences by race and gender in regards to parental influence, there has been some considerable research. For instance, in their 1963 study, Bennett and Gist found a distinct difference in the overall influence of white parents compared to black parents: "black mothers are more influential as motivators of occupational and educational aspirations and plans than black fathers" (Bennett and Gist 1963). However, on the whole, "there is no difference in the extent of influence of the mother and father within white families" – though in several cases, "white mothers appeared to be exerting considerably more influence than white fathers" (Bennett and Gist 1963). Additionally, of the black children that were surveyed, a majority identified their mother as the "most influential [individual] in their educational and occupational decisions" (Bennett and Gist 1963). Thus, Bennett and Gist concluded there is a strong matriarchal presence within black families.

Chandra Muller (1998) conducted a very similar study, but largely focused on parental influence by particular gender. Muller found that daughters in many cases were more nurtured and restricted, while sons were given greater freedom to explore possibilities. Moreover, she understandably discovered that sons and daughters identify and communicate more with the parent of the same gender. However, she additionally found that there was a negative association between academic achievements and talking with their father about school, regardless of gender; furthermore, she found a negative association between academic achievement and daughters talking with their mother about school (Muller 1998).

Thus, from this literature, it is likely that within white families there will be little difference between the influence of a mother and father. Conversely, Bennett and Gist's study suggests that the data should confirm black mothers are more influential in the educational attainment of their children than a black father. In addition to these conjectures, Muller's study maintains that not only should father's advice be negative and significant for both genders, but a daughter's educational attainment should be negatively correlated with a mother's influence (e.g., praise, advice). To analyze these hypotheses, I shall continue with the same models and data utilized previously in the paper.

Initially, I had hoped to rerun previous praise and advice regressions by simply limiting them by either gender or race; however, such test regressions produced samples below one hundred respondents[22]. However, I was able to obtain a similar effect by either multiplying female or black (depending on which demographic was being tested) by mother praise and father praise for instance; the process was simply repeated for each possible gender and pressure combination and for each possible race and pressure combination. By multiplying these various variables together, I was able to keep the number of respondents slightly above three hundred.

As for the results of these regressions, many tables appear within APPENDIX B for the sake of brevity[23]. However, two of the many regressions are given below, because they illustrate several interesting points in particular. In the first table, I have measured a *BLACK* individual's sensitivity to *PRAISE* via their *MOTHER* and *FATHER*. In the second given table, a *FEMALE'S* reaction to *PARENTAL ADVICE* is measured.

Table 6: Adjusted Praise Regression (Chance of Obtaining a College Degree) - Race

Variable	Estimate	Std. Error[24]	t value	VIF
Intercept	-8.833	17.421	-0.48	0
Mother praise	3.518	4.156	0.80	1.423
Father praise	4.937	3.858	1.20	1.488
MP x black	24.901	8.496	3.04***	3.648
FP x black	-20.755	8.882	-2.30**	3.541
College Mother	8.372	3.945	2.53***	1.225
College Father	1.070	3.861	0.29	1.308
Ln HH Income	5.842	1.629	3.38***	1.209
PIAT	0.342	0.057	6.06***	1.196
Urban	1.594	3.009	0.53	1.030
Female	-10.27	2.923	-3.57***	1.011
Hispanic	0.887	3.951	0.21	1.195

F – value = 9.97
Adjusted R squared = .158
Durbin Watson Test = 2.040[25]
White Test = 116.93

Table 7: Adjusted Advice Regression (Chance of Obtaining a College Degree) – Gender

Variable	Estimate	Std. Error[26]	t value	VIF
Intercept	-16.774	24.288	0.74	0
Mother advice	13.028	7.008	1.79*	1.733
Father advice	-0.456	6.513	-0.68	2.224
MA x gender	-14.247	7.599	-1.98**	3.120
FA x gender	6.814	8.619	0.84	3.788
College Mother	3.918	6.184	0.74	1.221
College Father	-5.184	5.868	-1.08	1.306
Ln HH Income	5.087	2.192	2.53***	1.154
PIAT	0.548	0.082	6.99***	1.208
Urban	1.002	4.422	0.23	1.032
Afro. American	5.774	5.745	1.01	1.360
Hispanic	-4.953	6.359	-0.74	1.312

F – value = 6.61
Adjusted R squared = .1735
Durbin Watson Test = 2.009[27]
White Test = 85.60

  As in the previous regressions, the baseline models in both regressions appear mostly positive and significant: *HOUSEHOLD INCOME* and *PIAT* in both regressions and *COLLEGE MOTHER* in the first regression. Additionally, in the first regression, *FEMALE* is once again negative and significant at the $\alpha = 0.01$ level. Importantly, there appear distinct differences within gender and race in both regressions. For instance, in the first of the two given regressions, on the whole (regardless of race), *MOTHER* or *FATHER PRAISE* is not significant (though mother praise was significant in an earlier regression); however, for an individual, there are

vastly different results. For example, a mother who usually or always praises a black child raises the chance their child will obtain a college degree by nearly 25 percent, assuming all else is held constant. On the contrary, the same amount of praise for a black child by their father will result in a nearly 21 percent less chance that they will obtain a college degree. This phenomenon suggests that much of the positive "praise effects" come from black individuals and specifically the praise of black mothers.

In other similar racially sensitive regressions, there were comparable results. For instance, when paired with highest grade expected as the dependent variable, usual or constant praise for a black child by their mother raised their overall expected grade by slightly more than one year, while similar praise levels from the father reduced their overall schooling by slightly less than one year. Moreover, when black children ask their mother for educational or occupational advice sometimes or often, there is a 13.7 percent increased chance that they will obtain a four-year degree; the same level of advice from a father results in a 17 percent reduced chance. In terms of years, a mother's advice for a black child increases their overall schooling by more than one year; a father's similar advice for a black child decreases the child's overall schooling by more than two years. Thus, the data of this study rather strongly supports the decades-old findings of Bennett and Gist; a mother is "the most influential [positive individual]" for a black child (Bennett and Gist 1963); it should be noted that the father is almost equally as influential, but in almost a wholly negative manner. Moreover, these findings support Bennett and Gist's claim that black families are more matriarchal in nature.

As for the gender sensitivity regressions, they reveal slightly less than the same regressions pertaining to race. As with all previous regressions, *HOUSEHOLD INCOME* and *PIAT* are both positive and significant. However, unlike earlier advice regressions, *ASKING A FATHER FOR ADVICE* was not significant, while *ASKING A MOTHER FOR ADVICE* (not in regards to gender) was positive and significant – resulting in an increase of 13 percent that their child would obtain a four year degree. Interestingly, for females specifically, a daughter asking their mother for educational or occupational advice reduces their chances of obtaining a four year degree by a little more than 14 percent. Accordingly, these results imply that the positive "advice effect" stems largely from mothers advising their sons.

Aside from this one difference, there were no other distinct differences between male and females. Regardless, this new research supports the conclusions reached by Muller in previous research; there is a negative correlation between a daughter's level of education and that same daughter asking their mother for advice. On the whole, this research has shown that there are distinct responses to parental pressures by race and gender; moreover, such a variable is extremely important in determining an individual's ultimate level of education.

V. Conclusion

The purpose of this study is to determine whether parental pressures are capable of explaining any of the intergenerational income inequality. For nearly a century, economists and sociologists have offered differing answers to the questions of the source of intergenerational income inequality. Economists maintain that the determining factor in the transfer of income has been the very income of the household, while sociologists have argued certain socialization factors, in addition to socioeconomic status, are fundamental to the transfer of income inequality across generations. The evidence in this paper supports many of these theories, particularly the significance of the household's income, the education level of a parent, the gender of a child, and the endowed ability of the child.

However, there is also evidence to support this study's hypothesis that parental pressures are a significant factor in the educational attainments of their children. A mother usually or always praising their child was found to increase the percent chance of college degree obtainment by almost 8 percent; moreover, a father's advice increased the overall level of education by more than a semester. Additionally, this study found distinct differences in sensitivity to these pressures by race and gender, findings that support the earlier works of Bennett and Gist (1964) and Muller (1998).

Ultimately, this study has effectively argued against the earlier claim from Michael Harrington. Granted, Harrington was correct in his assumptions that "being born to the wrong parents" (via household income) and "[being born] in the wrong racial or ethnic group" have distinct effects on the individual's ability to pull themselves out of the poverty cycle (Harrington 1993). However, I found evidence contrary to Harrington's view that "most of them would never even have had a chance to get out of the other America" (Harrington 1993). This study has clearly shown that there is some sense of hope for these parents and children in low-income households – there is a chance that given such steps as praise and advice, they may have a better life than the generations before them. Importantly, this suggests that the movement to eradicate poverty should include the micro level, focusing on the untapped resource of the individual household and the relationship between parent and child.

VI. APPENDIX A

NLS Survey Questions

Now think ahead to when you turn 30 years old. What is the percent chance that you will have a four-year college degree by the time you turn 30?

```
    270              0: 0\%
     85              1 TO 10: 1\%-10\%
     54             11 TO 20: 11\%-20\%
     79             21 TO 30: 21\%-30\%
     22             31 TO 40: 31\%-40\%
    200             41 TO 50: 41\%-50\%
     29             51 TO 60: 51\%-60\%
     29             61 TO 70: 61\%-70\%
    148             71 TO 80: 71\%-80\%
    140             81 TO 90: 81\%-90\%
    891             91 TO 100: 91\%-100\%
  -------
   1947
```

As things stand, what is the highest grade or year you think you will actually complete?

```
      0        1  1ST GRADE
      0        2  2ND GRADE
      0        3  3RD GRADE
      1        4  4TH GRADE
      0        5  5TH GRADE
      2        6  6TH GRADE
      3        7  7TH GRADE
     16        8  8TH GRADE
     30        9  9TH GRADE
     40       10  10TH GRADE
```

```
    49      11 11TH GRADE
   412      12 12TH GRADE
    42      13 1ST YEAR COLLEGE
   227      14 2ND YEAR COLLEGE
    24      15 3RD YEAR COLLEGE
   745      16 4TH YEAR COLLEGE
    70      17 5TH YEAR COLLEGE
   254      18 6TH YEAR COLLEGE OR MORE
  -------
   1915
```

Gross household income in the previous year.

```
     3      -999999 TO -3000: < -2999
     0        -2999 TO -2000
     0        -1999 TO -1000
     0         -999 TO -1
   100            0
    71            1 TO 1000
    41         1001 TO 2000
    98         2001 TO 3000
   139         3001 TO 5000
   465         5001 TO 10000
   925        10001 TO 20000
   819        20001 TO 30000
   835        30001 TO 40000
   765        40001 TO 50000
   834        50001 TO 65000
   610        65001 TO 80000
   397        80001 TO 100000
   321       100001 TO 150000
    32       150001 TO 200000
   133       200001 TO 999999: 200001+
  -------
   6588
```

Was the community in which you were living at age 14 best described as a
central city, suburb, small city or town, or rural area?

```
   1919       1 Central city
   1271       2 Suburb
   2985       3 Small city or town
   1696       4 Rural area
     18       5 INDIAN RESERVATION
     44       6 MILITARY BASE
  -------
   7933
```

What was the highest grade of schooling completed by your mother?

```
   348        0 None
  1874        1 1st grade - 8th grade
  1213        2 9th grade - 11th grade
  2631        3 12th grade
   631        4 Some college
   481        5 College degree
```

```
    47        6 Some grad school
   110        7 Grad/prof degree
  -------
   7335
```

What was the highest grade of schooling completed by your father?

```
   317        0 None
  2074        1 1st grade - 8th grade
   891        2 9th grade - 11th grade
  2044        3 12th grade
   581        4 Some college
   502        5 College degree
    61        6 Some grad school
   273        7 Grad/prof degree
  -------
   6743
```

Math PIAT percentile.

```
   302            0: 0\%
  1112            1 TO 10: 1\%-10\%
   602           11 TO 20: 11\%-20\%
   550           21 TO 30: 21\%-30\%
   400           31 TO 40: 31\%-40\%
   354           41 TO 50: 41\%-50\%
   256           51 TO 60: 51\%-60\%
   484           61 TO 70: 61\%-70\%
   356           71 TO 80: 71\%-80\%
   851           81 TO 90: 81\%-90\%
   779           91 TO 100: 91\%-100\%
  -------
   6046
```

On those weekdays, about how much time did you spend per day doing homework (minutes)?

```
  2360            0
    59            1 TO 5
    62            6 TO 10
   169           11 TO 15
   135           16 TO 20
    52           21 TO 25
  1488           26 TO 30
    11           31 TO 35
    36           36 TO 40
   332           41 TO 45
     9           46 TO 50
     4           51 TO 60
     0           61 TO 99: 61+
  -------
   4717
```

Youth's current age

```
     0            0 TO 11: LESS THAN 12
  1231           12
```

```
    1744         13
    1859         14
    1889         15
    1718         16
     531         17
      12         18
       0         19 TO 999: GREATER THAN 18
  -------
    8984
```

Gender of Youth

```
    4599         1 Male
    4385         2 Female
       0         0 No Information
  -------
    8984
```

Combined race - ethnicity variable

```
    2335         1 Black
    1901         2 Hispanic
      83         3 Mixed Race (Non-Hispanic)
    4665         4 Non-Black / Non-Hispanic
  -------
    8984
```

How often does she praise you for doing well?

```
      90         0 NEVER
     208         1 RARELY
    1006         2 SOMETIMES
    1728         3 USUALLY
    2181         4 ALWAYS
  -------
    5213
```

How often does he praise you for doing well?

```
     144         0 NEVER
     284         1 RARELY
     816         2 SOMETIMES
    1265         3 USUALLY
    1447         4 ALWAYS
  -------
    3956
```

When you think about how she acts toward you, in general, would you say she
is very supportive, somewhat supportive, or not very supportive?

```
    6646         1 VERY SUPPORTIVE
    1772         2 SOMEWHAT SUPPORTIVE
     189         3 NOT VERY SUPPORTIVE
  -------
    8607
```

When you think about how he acts toward you, in general, would you say he is
very supportive, somewhat supportive, or not very supportive?

```
    4355        1 VERY SUPPORTIVE
    1785        2 SOMEWHAT SUPPORTIVE
     296        3 NOT VERY SUPPORTIVE
   -------
    6436
```

How much does she know about who your teachers are and what you are doing in
school?

```
     179        0 KNOWS NOTHING
     486        1 KNOWS JUST A LITTLE
     917        2 KNOWS SOME THINGS
    1878        3 KNOWS MOST THINGS
    1698        4 KNOWS EVERYTHING
   -------
    5158
```

How much does he know about who your teachers are and what you are doing in
school?

```
     411        0 KNOWS NOTHING
     742        1 KNOWS JUST A LITTLE
     898        2 KNOWS SOME THINGS
    1082        3 KNOWS MOST THINGS
     789        4 KNOWS EVERYTHING
   -------
    3922
```

Since the last interview, how often have you asked your [mother
figure] advice or help on education, training, or job decisions?

```
    1343        1 Often
    2155        2 Sometimes
     823        3 Never
     151        4 Haven't made any education, training or job decisions
   -------
    4472
```

Since the last interview, how often have you asked your [father
figure] advice or help on education, training, or job decisions?

```
     653        1 Often
    1756        2 Sometimes
    1498        3 Never
     129        4 Haven't made any education, training or job decisions
   -------
    4036
```

How much does [she] know about your goals and aspirations in life?

```
     194        0 KNOWS NOTHING
     437        1 KNOWS JUST A LITTLE
    1020        2 KNOWS SOME THINGS
    1999        3 KNOWS MOST THINGS
```

```
    818      4 KNOWS EVERYTHING
  -------
    4468
```

How much does [he] know about your goals and aspirations in life?

```
    794      0 KNOWS NOTHING
    731      1 KNOWS JUST A LITTLE
    988      2 KNOWS SOME THINGS
   1123      3 KNOWS MOST THINGS
    385      4 KNOWS EVERYTHING
  -------
    4021
```

What is the highest grade or year of school or university [he/she] has completed?

```
     57      1 Ninth grade or less
     79      2 Tenth grade
    163      3 Eleventh grade
     70      4 GED
    697      5 High school graduate
    640      6 Some college but no degree
     90      7 2-year college degree (e.g. Associates degree)
     38      8 4-year college graduate (e.g. B.A. or B.S.)
      6      9 Graduate or professional school attendance
  -------
    1840
```

VII. APPENDIX B

Table 8: Baseline Regression (Chance of Obtaining College Degree)

Variable	Estimate	Std. Error	t value	VIF
Intercept	47.832	3.3739	14.18***	0
College Mother	5.7059	3.2952	1.73*	1.2109
College Father	0.6350	3.3020	0.19	1.3034
HH Income	.00015	.00003	4.95***	1.1929
PIAT	0.3862	0.0462	8.34***	1.1939
Female	-10.338	2.3846	-4.34***	1.0053
Urban	3.8158	2.4366	1.57	1.0214
Afro. American	4.2160	3.1931	1.32	1.2908
Hispanic	-.6973	3.2414	-0.22	1.2405

F – value = 20.67
Adjusted R squared = 0.1567
Durbin Watson Test = 1.988[28]
White Test = 103.74[29]

Table 9: Baseline Regression (Expected Grade)

Variable	Estimate	Std. Error	t value	VIF
Intercept	13.195	0.2150	61.37***	0
College Mother	0.4555	0.2098	2.17**	1.2043
College Father	-0.2643	0.2089	-1.27	1.2914
HH Income	.0000098	.0000019	5.12***	1.1857
PIAT	0.0297	0.0029	10.08***	1.1933
Female	-0.6257	0.1520	-4.12***	1.0063
Urban	0.0912	0.1554	0.59	1.0229
Afro. American	0.3767	0.2035	1.85*	1.2883
Hispanic	0.1247	0.2073	0.60	1.2343

F – value = 23.75
Adjusted R squared = .1786
Durbin Watson Test = 1.960[30]
White Test = 66.12[31]

Table 10: Adjusted Praise Regression (Grade Expected)

Variable	Estimate	Std. Error[32]	t value	VIF
Intercept	9.7806	1.0905	8.29***	0
College Mother	0.4691	0.2410	2.26**	1.2200
College Father	-0.1116	0.2337	-0.50	1.2910
Ln HH Income	0.3763	0.1002	3.42***	1.2285
PIAT	0.0219	0.0035	6.45***	1.1855
Female	-0.3907	0.1780	-2.19**	1.0094
Urban	-0.0097	0.1842	0.05	1.0407
Afro. American	0.2113	0.2637	0.77	1.2420
Hispanic	0.0953	0.2466	0.37	1.2312
Mother praise	0.4013	0.2384	1.56	1.2671
Father praise	0.2282	0.2206	0.95	1.2927

F – value = 10.10
Adjusted R squared = .1494
Durbin Watson Test = 1.920[33]
White Test = 93.50

Table 11: Adjusted Advice Regression (Chance of Obtaining College Degree)

Variable	Estimate	Std. Error	t value	VIF
Intercept	-9.5701	24.276	-0.43	0
College Mother	3.5130	6.1853	0.65	1.2181
College Father	-4.5052	5.8392	-0.80	1.2897
Ln HH Income	4.9482	2.1901	2.46**	1.1491
PIAT	0.5438	0.0825	6.92***	1.2045
Female	-7.1390	4.3847	-1.68*	1.0612
Urban	1.1451	4.4338	-0.27	1.0344
Afro. American	5.4910	5.7381	0.96	1.3526
Hispanic	-5.4833	6.3492	-0.80	1.3033
Mother advice	4.1273	5.7125	0.75	1.1477
Father advice	2.8622	4.7351	0.62	1.1716

F – value = 7.05
Adjusted R squared = .1708
Durbin Watson Test = 1.996[34]
White Test = 84.78

Table 12: Adjusted Praise Regression (Grade Expected) – Race

Variable	Estimate	Std. Error	t value	VIF
Intercept	9.8282	1.0582	8.51***	0
Mother praise	0.2277	0.2540	0.83	1.4439
Father praise	0.3764	0.2377	1.47	1.5065
MP x black	0.9936	0.5241	1.88*	3.7490
FP x black	-0.9297	0.5460	-1.62	3.6640
College Mother	0.5013	0.2411	2.39**	1.2259
College Father	-0.1229	0.2339	-0.56	1.2975
Ln HH Income	0.3771	0.0999	3.44***	1.2028
PIAT	0.0217	0.0035	6.54***	1.1910
Urban	-0.0016	0.1833	-.01	1.0350
Female	-0.3983	0.1778	-2.23**	1.0107
Hispanic	0.0693	0.2418	0.28	1.1887

F – value = 9.49
Adjusted R squared = .1528
Durbin Watson Test = 1.910[35]
White Test = 97.17

Table 13: Adjusted Advice Regression (Chance of Obtaining a College Degree) – Race

Variable	Estimate	Std. Error	t value	VIF
Intercept	-5.3846	23.908	-0.24	0
Mother advice	1.6772	5.9857	0.30	1.2656
Father advice	7.1045	5.4473	1.32	1.5578
MA x black	13.658	8.2322	1.75*	2.5461
FA x black	-17.138	10.351	-1.76*	2.3176
College Mother	3.9434	6.1817	0.72	1.2223
College Father	-5.0472	5.8259	-0.90	1.2898
Ln HH Income	4.5772	2.1888	2.30**	1.1530
PIAT	0.5343	0.0810	6.93***	1.1643
Urban	0.9977	4.4220	0.23	1.0337
Female	-7.2348	4.3660	-1.71*	1.0571
Hispanic	-6.3784	6.1920	-0.94	1.2453

F – value = 6.65
Adjusted R squared = .1746
Durbin Watson Test = 1.986[36]
White Test = 88.39

Table 14: Advice Regression (Grade Expected) – Race

Variable	Estimate	Std. Error	t value	VIF
Intercept	10.2256	1.3798	7.41***	0
Mother advice	-0.0020	0.3453	-0.01	1.2517
Father advice	1.0415	0.3128	3.33***	1.5424
MA x black	1.1174	0.4721	2.37**	2.5203
FA x black	-2.1084	0.5951	-3.54***	2.3082
College Mother	0.5750	0.3610	1.59	1.2358
College Father	-0.5666	0.3361	-1.69*	1.2919
Ln HH Income	0.2524	0.1261	2.00**	1.1483
PIAT	0.0365	0.0047	7.78***	1.1618
Urban	0.1420	0.2560	0.55	1.0367
Female	-0.6644	0.2530	-2.63***	1.0628
Hispanic	-0.2079	0.3603	-0.58	1.2310

F – value = 10.62
Adjusted R squared = .2661
Durbin Watson Test = 1.744[37]
White Test = 67.37

Table 15: Advice Regression (Grade Expected) – Gender

Variable	Estimate	Std. Error	t value	VIF
Intercept	9.3839	1.4300	6.56***	0
Mother advice	0.6804	0.4124	1.65*	1.7139
Father advice	0.5508	0.3828	1.44	2.2177
MA x gender	-0.7032	0.4433	-1.59	3.0562
FA x gender	-0.0543	0.5043	-0.11	3.7124
College Mother	0.5215	0.3680	1.42	1.2330
College Father	-0.5573	0.3452	-1.61	1.3085
Ln HH Income	0.2981	0.1289	2.31**	1.1511
PIAT	0.0371	0.0049	7.61***	1.2064
Urban	0.1740	0.2609	0.67	1.0335
Afro. American	0.1227	0.3371	0.36	1.3547
Hispanic	-0.1318	0.3768	-0.35	1.2925

F – value = 9.18
Adjusted R squared = .2355
Durbin Watson Test = 1.749[38]
White Test = 74.84

Table 16: Adjusted Praise Regression (Chance of Obtaining a College Degree) – Gender

Variable	Estimate	Std. Error	t value	VIF
Intercept	-12.730	18.104	-0.68	0
Mother praise	8.7210	5.5470	1.46	2.4634
Father praise	5.2423	5.4529	0.88	2.8892
MA x gender	-1.6003	6.5311	-0.23	4.8685
FA x gender	-5.6428	6.8642	-0.76	5.1715
College Mother	7.6677	4.0049	2.32**	1.2273
College Father	0.8166	3.9095	0.22	1.3038
Ln HH Income	5.6197	1.6698	3.20***	1.2337
PIAT	0.3329	0.0578	5.82***	1.1961
Urban	1.2586	3.0664	0.41	1.0398
Afro. American	4.7450	4.4136	1.04	1.2524
Hispanic	0.4797	4.0855	0.11	1.2421

F – value = 8.36
Adjusted R squared = .1336
Durbin Watson Test = 2.044[39]
White Test = 127.23

Table 17: Adjusted Praise Regression (Grade Expected) – Gender

Variable	Estimate	Std. Error[1]	t value	VIF
Intercept	9.5738	1.0909	8.10***	0
Mother praise	0.4222	0.3379	1.21	2.5269
Father praise	0.3926	0.3326	1.13	2.9162
MP x gender	-0.0464	0.3997	-0.11	5.0273
FP x gender	-0.2623	0.4176	-0.59	5.3081
College Mother	0.4719	0.2427	2.25**	1.2279
College Father	-0.1194	0.2347	-0.54	1.2924
Ln HH Income	0.3763	0.1006	3.42***	1.2287
PIAT	0.0216	0.0035	6.50***	1.1907
Urban	-0.0197	0.1851	-0.11	1.0435
Afro. American	0.2039	0.2650	0.74	1.2450
Hispanic	0.0824	0.2477	0.32	1.2339

F – value = 8.87
Adjusted R squared = .1432
Durbin Watson Test = 1.922[40]
White Test = 95.81

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IX. ENDNOTES

[1] Corcoran, et al (1990); Blau and Duncan (1967); Menchik (1979)

[2] The section to follow outlines parental pressures; it offers my interpretation of parental pressures. It is important to not get lost in the language (e.g., "pressures") of this particular study, but instead to focus on its findings.

[3] Where i = number of individuals and j = number of variables.

[4] This implies employers are willing to pay a premium for higher levels of human capital.

[5] Additionally, it should be noted that this study does not take into account divorce or a child not living with their biological father or mother. In the NLS survey questions pertaining to parental pressures, the survey gives several options for the child to respond. For instance, they respond to the question in regards to their biological mother, a mother figure in their life, their biological father, or a father figure in their life. In this study, only figures concerning the respondent's biological parent(s) were utilized. However, by simply using this one measure, this possibly negates those living without a biological parent via divorce or death and any differing results a child in this scenario may present.

[6] Yet, it should be noted that as many of the respondents matured, it is safe to assume that many of these respondents were difficult to reach as they moved for jobs or went away to continue their education, thus reducing the numbers of the available sample. Therefore, given a large sample of these mature respondents, the results of this study may have been remarkably

different; the best possible scenario would be a similar study conducted with survey responses from these individuals at age thirty, after they have most probably reached their maximum education level and when they have most likely settled in one location.

[7] The PERCENT CHANCE DEGREE variable represents the respondent's self-perceived probability of obtaining a four-year degree by the age of 30.

[8] Upon suggestion, an interaction term between *COLLEGE MOTHER* and *COLLEGE FATHER* was added to the baseline model for additional testing; however, the interaction was insignificant and consequently removed.

[9] Depending on the particular model, COLLEGE FATHER was found to be negatively significant in relation to a child's educational attainment in some regressions, while ADVICE - FATHER was discovered to be positively significant in several regressions. However, both were dropped from the final models, because they produced inconsistent results.

[10] Age has been removed from this model.

[11] $P_m\beta_3$ = Mother praise; $P_f\beta_4$ = Father praise

[12] $K = 11$; $D_L = 1.8125$ and $D_U = 1.8940$ (estimates) – no autocorrelation

[13] DF = 56; Chi critical value = 74.47 – heteroscedasticity present

[14] same as previous regression

[15] same as previous regression

[16] This study lacks a measure of human capital of the individual in late high school or early college. As a result of this absence, it is impossible to discount timing or the correlation between a child's academic success and praise. For example, it is safe to assume a child will receive the praise of a parent if they are academically successful, with academics preceding any praise. Yet, without such a measure as high school GPA, this study does not take this relationship into account for the purposes of simplicity.

[17] White's corrected

[18] $K = 11$; $D_L = 1.8125$ and $D_U = 1.8940$ (estimates) – no autocorrelation

[19] When correcting for heteroskedasticity in the other praise regression, MOTHER and FATHER PRAISE were not significant; the results appear in APPENDIX B.

[20] White's corrected

[21] $K = 11$; $D_L = 1.8125$ and $D_U = 1.8940$ (estimates) – no autocorrelation

[22] In the case of much of the survey results, some questions were not answered for various reasons. This factor, reproduced across the numerous variables, resulted in limited numbers. Then, to finally limit these numbers by either gender or race, the numbers dwindled to around one hundred. Yet, by instead multiplying by these demographic variables, similar effects could be gained, while still keeping the number of observations quite high.

[23] It should be noted that in several of the regression outputs, the t values have been adjusted using an asymptotic covariance matrix to account for heteroscedasticity. In such a case, the regression has been designated as an adjusted regression.

[24] White's corrected

[25] $K = 13$; $D_L = 1.8155$ and $D_U = 1.9046$ (estimates) – no autocorrelation

[26] White's corrected

[27] $K = 13$; $D_L = 1.7281$ and $D_U = 1.8943$ (estimates) – no autocorrelation

[28] $K = 9$; $D_L = 1.8683$ and $D_U = 1.90630$ (estimates) – no autocorrelation

[29] DF = 37; Chi critical value = 52.19 – heteroscedasticity present

[30] same as previous regression

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[31] same as previous regression

[32] White's corrected

[33] $K = 11$; $D_L = 1.8125$ and $D_U = 1.8940$ (estimates) – no autocorrelation

[34] same as previous regression

[35] $K = 13$; $D_L = 1.8042$ and $D_U = 1.9024$ (estimates) – no autocorrelation

[36] $K = 13$; $D_L = 1.7281$ and $D_U = 1.8943$ (estimates) – no autocorrelation

[37] same as previous regression

[38] $K = 13$; $D_L = 1.7281$ and $D_U = 1.8943$ (estimates) – indeterminate autocorrelation

[39] $K = 13$; $D_L = 1.8155$ and $D_U = 1.9046$ (estimates) – no autocorrelation

[40] $K = 13$; $D_L = 1.8042$ and $D_U = 1.9024$ (estimates) – no autocorrelation