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I. Introduction

Researchers have long been interested in the ways that families use their resources to benefit their offspring. This paper examines the role of family wealth in shaping children's opportunities and outcomes in the United States. Unlike the existing literature however, which focuses largely on wealth held by the nuclear family, this paper extends the concept of family to explore grandparent wealth as well. It thereby offers a broader look at intergenerational connections than most social science research does. Incorporating three generations of bonds when analyzing family dynamics allows for the possibility of obtaining a greater understanding of the extent to which there is a significant advantage to coming from a wealthy family.

The paper is organized as follows: Section II reviews the literature about wealth inequality, which forms a backdrop for the research, and section III surveys the empirical research on child outcomes. Section IV discusses the theoretical framework guiding the empirical analysis. Section V presents empirical results that describe the resources that are available in different branches of the family tree, and section VI presents the results of the multivariate analysis of the relationship between grandparent wealth and child outcomes. Section VII concludes with some remarks about future directions for research.

II. Existing research on household wealth

To justify an examination of extended family wealth, one must have some basis for arguing that wealth has some effect on the quality of families' or individuals' lives. Because wealth represents a pool of resources, beyond income, that families use to sustain themselves and to provide support to their offspring, knowing how parents can use wealth to aid their children is particularly important, and certainly as important as understanding how parental income affects children. For parents who use family resources to make human capital investments in their children for example, having substantial wealth is likely to be at least as important as having high income in any attempt to surmount the borrowing constraints that can

restrict an individual's educational attainment (Becker and Tomes,1979, 1986; and Loury, 1981 for example). The existing literature reveals that the amount of wealth that parents have has bearing on a range of adolescent, young adulthood, and mature adult outcomes, including the probability of completing high school; the probability of obtaining a college degree; non-marital childbirth; and the inheritances and inter-vivos transfers that adult children sometimes receive, which ultimately affect their levels of wealth and the degree of social mobility in society (Conley, 1999; Kotlikoff and Summers, 1988 for example).

Recent evidence from sociology suggests that parents may sometimes look outside the nuclear family to find resources that can be used on behalf of their children. Ethnographic research suggests that wealthy parents often help their adult children secure quality schooling for their offspring, either by assisting with home purchases in good neighborhoods or by paying for private school tuition in instances in which the adult children are unable to afford to do such independently (Shapiro, 2004; Shapiro and Johnson, 2000; and Oliver and Shapiro, 1995).[1] This suggests that the size of grandparents' portfolios also may be an important determinant of child outcomes.[2] This fact that extended family wealth represents an additional stock of resources that can be used to enlarge an individual's "budget constraint" obligates researchers to examine the opportunities that one generation's wealth present to enhance the prospects of subsequent generations, and to determine what patterns of assistance presently exist.[3]

Specifically, the qualitative research that finds that individuals from affluent backgrounds are able to rely on their own parents for assistance when they want to purchase a home in a good

[1] Interestingly, a recent New York Times article about Deep Throat conveys a similar message. According to the June 1, 2005 article, Mark Felt may have been motivated to reveal his identity partly in order to obtain income for his extended family. The article states that Joan Felt, Mark Felt's daughter, "spoke of the money it might make to help pay tuition bills for her children" when she explained her rationale for encouraging her father to step forward (Purdum, 2005).

[2] Additional research suggests that longer life-spans for the elderly are giving individuals two generations removed from one another a longer time period in which bonds can be established (Silverstein and Long, 1998). One might expect such an increase in psychological connections to grandchildren to result in a willingness to fund some of their activities.

[3] For example, a natural question that economists might ask is how do intergenerational transfers affect market operations and individual outcomes in the context of both educational and labor markets? If increasing grandparent-grandchild affinity leads to intervivos transfers to or on behalf of grandchildren, the economic circumstances of many generations stand to influence the investment decisions that ultimately determine the amount and quality of schooling that an individual receives.

school district, or to pay private school tuition for their child suggests a need to examine the role that wealthy grandparents play in determining the quality of schooling that a child receives, in addition to the amount of schooling that is received. While studies have examined the effect of parental income and parental wealth on educational outcomes, studies have yet to empirically examine the connection between grandparents and grandchildren at the national level.[4] Therefore it is not yet known whether there is a strong empirical connection between grandparent wealth and grandchildren's educational outcomes. Also unknown is what implications grandparent assistance might have for racial differences in opportunities and outcomes. The existing literature on wealth inequality reveals substantial racial differences in individual and household wealth (Oliver and Shapiro, 1995; and Wolff, 1996, for example). It is important to inquire about whether these differences exist for many generations in the same family, and about whether the existing racial differences in extended family wealth explain some of the difference in experiences that black and white children have. The work of Shapiro and Johnson (2000) and Shapiro (2004) begins an inquiry into the role of grandparent wealth in perpetuating social inequality. Our research seeks to contribute to this discussion.

III. The Empirical literature on the connection between family resources and child outcomes[5]

There have been several empirical studies of the relationship between parents' income and children's outcomes, and there is an emerging body of work that examines parental wealth. Mayer (1997) investigates the relationship between parental income and a variety of child and young adult outcomes, in

[4] Examples of research establishing a connection between parental income and college enrollment include, Ver Ploeg (2002), Cameron and Heckman (1999), and Black and Sufi (2002); while Conley (1999) examines the effect of parental wealth on college attendance.

[5] The review provided here is not meant to be comprehensive. Instead, it highlights existing research that our work draws from and seeks to build upon.

an attempt to determine whether the correlation between parental income and offsprings' outcomes truly represents an income effect, rather than reflecting some other attributes of parents that may have bearing on their child's success (such as lack of stress, parenting style, or genetic endowments that boost income). Mayer notes that several researchers have found relationships between parental income and child earnings during adulthood, children's educational outcomes (including both high school completion and years of schooling), and cognitive test scores. Her research also offers the suggestion that parental resources may fund valuable experiences that benefit kids, such as trips to museums or visits to parks, activities that one teacher that Mayer surveyed characterized as activities that open children' imaginations, which presumably makes them more amenable to learning.

Another excellent review of the literature is provided by Haveman, et al (2001). This paper identifies four primary "attainment" or outcome variables or measures of success during young adulthood that are emphasized in the existing literature on children: teen childbearing, high school graduation; years of schooling, and labor market performance. The authors then identify a number of variables that the existing literature studies as examples of inputs that facilitate success in these four domains. Such inputs include, school quality, parental education, parents' assets, family size, immigration status, changes in family location during childhood, and family structure (all in addition to parental income). Neighborhood quality is also highlighted, as many researchers argue that the quality of a child's neighborhood affects the quality of the peers and role models that the child will encounter (in addition to influencing the amount of funding that may be available for the neighborhood schools). In fact, Haveman et al (2001) report that the existing literature finds that better neighborhood quality is associated with improvements in all four outcome measures, while the authors report that school quality appears to be associated largely with the two measures of educational attainment. Reminiscent of Mayer's discussion of crucial experiences, in Haveman et al (2001) there is mention of the potential importance of extra-curricular activities such as art classes and music classes.

How does this research inform our work? As noted in Haveman et al, pupil/teacher ratios, expenditures per pupil, teacher's education levels, and class size as common measures of school quality. Ultimately, we too will employ these variables. Additionally, because educational attainment is considered to be such an important success measure, we examine parents' expectations about education and the preparations they make to finance it.[6] At present, however, we do not look directly at any of the four "attainment" measures identified in Haveman et al. Because the CDS-II data cover children ages 5-18 only, i.e., dependent children rather than adult offspring, we observe children rather early in life, before many of them will have had an opportunity to finish high school or to join the labor market. Accordingly, our emphasis is on variables that can be considered inputs to these successful outcomes.

One might ask whether it really makes sense to extend the analysis of family wealth beyond the resources that parents have available to use on behalf of their children. After all, one might surmise, would one not expect increasing a family's financial resources to exert upward pressure on child outcomes over low levels of resources, but to become less important as families have more resources--thereby implying that children from wealthy families would not actually benefit much from their family's high levels of wealth? Two empirical studies suggest this might not be the case. First, in an analysis of fathers and sons, Couch and Lillard (2005) provides evidence to suggest that the relationship between parental income and child income during adulthood is strongest for high income parents. Couch and Lillard (2005) argue for the inclusion of a cubic term when one estimates an intergenerational correlation in earnings regression. This allows the effect of parental income to vary across the income distribution, and it suggests that research that relies on an "average" effect may give a misleading impression of the extent to which family resources matter for those at the high end. This would be relevant to our study of wealth because it is high earners who tend to hold the bulk of the nation's wealth. If the Couch and Lillard argument applies not just to

[6] The 2002 CDS contains a question asking whether the primary caregiver and other caregivers of the child have put begun to put funds away to finance college for the CDS child. The survey also asks the child's primary caregiver how much education

parental resources, but is also relevant to any resources a family can use to help its offspring, then their research provides some suggestion that the more wealth a family has at its disposal the better the outcomes its offspring can expect to have, suggesting that extended family wealth may be important too (if it can be brought to bear on a child's circumstances).[7,8]

Second, Shapiro's research suggests that extended family wealth will matter for at least some subset of children (Shapiro, 2004). Shapiro chronicles the stories of middle class individuals who come from "wealthy" families, and finds that many young adults who have families of their own and parents with positive levels of net worth are able to rely on their parents for financial assistance if they themselves do not have the funds that they needed to make a major "purchase" on behalf of their child. He found that these parents often helped finance their adult children's home purchases when the young family sought to move to a new neighborhood with a better school district, for example.[9] He also found that these parents sometimes helped their adult children by paying for private schooling for grandchildren if the grandchild's parents could not afford the tuition.[10] Shapiro's analysis suggests that this type of extended family or cross-generational assistance occurs mainly in white families however; he finds middle class blacks are not able to rely upon their parents in these ways. Because, Shapiro's research focuses on families with school-age children, it dovetails nicely with ours. Like Shapiro, our analysis is based on the assumption that there is value in comparing the amounts of wealth that different families have in their extended families because

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he/she would like the child to attain, and how much schooling he/she expects the child to complete.

[7] This runs counter to the kind of idea that income may matter at low levels of income, but then its effects would taper off. Instead, what may prevail is a tapering off over the middle range--so that the effects of income on outcomes may be small in the middle income range--but an upturning at high levels of family resources, so that parental/family resources again begin to have an important effect on child outcomes.

[8] Note that this is essentially a slightly different argument from the argument coming out of the modified Becker model. Here I'm using a non-linearity model to motivate my research, which is different from saying grandparents may pick up the slack if their own kids do not do well enough to provide a comfortable lifestyle for (or crucial investments in) the grandkids.

[9] Shapiro (2004) coins the term "head start assets" for the funds that are given/assets that are transferred from parents to adult children in order to allow the adult child to make a downpayment on a home or to cover the closing costs on a house.

[10] Shapiro also writes of the effect of coming from a family with sufficient wealth to be able to pay one's college fees so that one emerges from college debt free. On page 2 he notes, "...these inheritances frequently amount to what I call transformative assets. This involves the capacity of unearned, inherited wealth to lift a family economically and socially beyond where their own

this provides information about the capacity of some parents to assist their adult children financially, though--admittedly—it does not guarantee that the younger generation will receive an inheritance or a critical intervivos transfer.[11]

IV. A Theoretical framework to guide the analysis

There are several models that offer sometimes competing explanations of the ways that different generations interact, and of the motivation for and behavior governing intergenerational transfers.[12] In this paper, we seek to analyze the implications of intergenerational connections for educational outcomes, such as the amount of education that a child receives, the quality of education that a child receives, and racial differences in human capital attainment. The models of Becker and Tomes (1979, and 1986 for example) and of Loury (1981) therefore provide an appropriate starting point for our inquiry. Both are models of parental decisionmaking under altruism; they represent the standard framework used to examine the connection between parental resources and levels of education that children obtain. Our work extends these models to the grandparent setting, to explore the decision process that grandparents face when contemplating transfers and human capital investments in grandchildren, and the ways that grandparents' wealth can have bearing on their grandchildren's outcomes.

The parental investment models of Becker/Tomes (1979 and 1986) and Loury (1981) are similar in that both present a two period model with overlapping generations, with parents depicted as facing a decision about how much to invest in their offspring. The models suggest that parents will consider the returns to

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achievements, jobs, and earnings would place them." Here, Shapiro does not mean "inheritance" in the narrow sense of the term. He uses the term to refer not only to bequests, but to significant intervivos transfers as well.

[11] Shapiro also looks directly at bequests using data from the 1984, 1989, 1994, and 1999 Panel Study of Income Dynamic (PSID) wealth files. He also provides a portrait of extended family wealth using data from the 1988 PSID Time and Money Transfer file. He uses these 1988 data to examine the amount of wealth that the parents of the adults heading families have (based on the adult's report of the amount of wealth that his or her parents have). My use of data from the wealth files to paint the portrait of how much wealth there is throughout the family tree distinguishes my work from Shapiro's, as does its incorporation of data on child outcomes from the Child Development Supplement files of the PSID.

[12] For example, see Behrman, Pollak, and Taubman (1995) or Errygers and Vandevelde (1997).

education (sometimes relative to other assets) and their budget constraint when choosing how much education to provide. And, because of imperfections in capital markets, a child's level of education will be tied to or constrained by his parents' level of resources. For our purposes, the differences between the two models are not critical. Loury assumes that ability is exogenous and unknown at the time of investment. The Becker/Tomes framework allows for the possibility of intergenerational transfers of ability, and parents are presumed to know something about their children's abilities when they make the investment decision. Figure 2 (see appendix) depicts the basic features of each type of model, and the main results coming from the analyses.

What becomes apparent when examining these models is that the role for grandparents is limited. Because individuals only live for two periods--a period of childhood during which their parents make decisions for them and one period of adulthood during which they are independent--each generation only overlaps with the generation immediately following it (and for only one period). Parents overlap with their offspring during the period in which they choose the latter's level of education. And, grandparents have their effects indirectly. In Loury's framework this will be through the amount of education that they are able to provide their children, and the implications that this has for the earnings that these "children" will have to finance human capital investments in their own children (the grandchildren). In the Becker/Tomes framework, the "effect" that grandparents have is also indirect, although their framework does allow for a broader range of effects because they argue that ability and/or culture are transmitted across the generations.

What is limiting and how might the models be modified? A model with three periods of life--childhood, adulthood, and retirement--would offer a closer representation of reality. And, it would allow for the possibility that grandparents could have a direct influence on their grandchildren's outcomes. When we extend the Loury and Becker/Tomes framework to three periods we find that a parent who makes an allocation decision during adulthood--where the choice is how much to devote to consumption, to

investment in his child, and to retirement saving--may wish to revisit his decision during retirement, if his altruism extends to his grandchild and in instances in which his own child did not fare as well as expected in the labor market. The simple intuition is that if an individual cares about his children and his grandchildren (or the offspring that are alive while he is alive, which is what is assumed in the original Becker/Tomes and Loury models), the individual may find it optimal to reduce retirement consumption below what was initially planned if his child's income turns out to be low enough that it threatens the grandchild's ability to obtain an education. The formal argument is illustrated below.

An overlapping generations model with three periods

What might preferences look like in a world in which individuals live for three periods instead of two? And, is it legitimate to represent lifetimes in this way? It seems straightforward to think of each period as representing a different phase of life: childhood, adulthood, and retirement, with the addition of the latter being the point of departure of our work from that of Loury and Becker/Tomes. The model presented in this section takes Loury's parental investment model as its starting point. However, we use "I" to represent income. All other variables are defined as in Loury (1981). With three periods there are two in which an individual is a decisionmaker. The structure of preferences must reflect this.

Utility

There are two distinct utility functions--one for the adult period and one for the retirement period:

$U_t = U (c_{t,2}, V(I_{t+1}), c_{t,3})$ for the adulthood period

$U_t = U (c_{t,3}, V(I_{t+2}))$ during the retirement period

The above specification of preferences assumes, as in Loury and in Becker/Tomes, that adults in any given generation care about their own consumption during adulthood (period 2) and about their children's welfare (represented here by the indirect utility associated with income as in Loury). Individuals also care about retirement consumption however, so when they make their decisions during adulthood they choose a level of consumption for period three too. Additionally, as in Loury and Becker/Tomes, individuals "care" only

about themselves and progeny that are presently alive. We adhere to the Loury assumption that individuals "assist" their offspring through education only. This means that in period three, when one's child's outcome has been realized, there is nothing a parent can do to alter his child's circumstances. however, he can choose to assist with the human capital acquisition of any existing grandchildren during this period. A key difference between this model and Loury's original formulation, then, is that individuals make decisions twice in life, and it is not necessarily the case that the choices found to be optimal in period two will be the same choices that the individual will want to make in period three.

Budget constraints

The adulthood budget constraint is given by,

$I_t = c_{t,2} + e_{t+1} + c_{t,3}$

where the optimal choice of $c_{t,3}$ will be defined as savings (s_t).

In period three the budget constraint is,

$s_t = c_{t,R} + e^{gp}{}_{t+2}$

where the R subscript on consumption indicates that this is the consumption choice for retirement that is made in period three (to distinguish it from the choice made in period two). The gp superscript on "e" indicates that this is the amount of investment in generation t+2 that a grandparent makes (rather than that made by the parent).

Optimization

Because I_{t+l} depends partly on $\alpha t_{+1,}$ which is unknown in time t, one can think of the utility function as containing an expected utility term. The first order conditions of the optimization exercise will require that the marginal utilities from consumption and the expected marginal utility associated with one's offspring's level of well-being be equated. Assuming additive separability, we represent the condition for period two as follows:

$$U' c_{t,2} = EU'_V = U' c_{t,3}$$

Solving the first order conditions will give the optimal levels of $c^*_{t,2}$, s^*_t, and e^*_{t+1}.

For the optimization exercise during the retirement period, there are only two components to the utility function so the first order conditions compare only two terms--the marginal utility from retirement consumption and expected marginal utility associated with the grandchild's well-being. Additionally, the individual in generation t must take into account the fact that I_{t+2} depends on the total amount of education that a child receives. Accordingly, while the grandparent choice of e^{gp}_{t+2} is only a part of the level of education that determines the grandchild's income:

$$I_{t+2} = h (\alpha, e^{p}_{t+2} + e^{gp}_{t+2})$$

This implies that when a grandparent contemplates allocating some of his retirement savings toward his grandchild, diverting the funds his own consumption, the grandparent makes this decision taking the amount of education that the child's parents will make into account. We treat the grandparent's problem as being conditional on the level that already has been chosen by the parent. (The parent-related "e" term is thus taken as a given in the optimization exercise.)

For the retirement period, non-satiation will imply a choice of c that is non-zero. The question is how this consumption choice ($c_{t,R}$) compares to that made in period two ($c_{t,3}$), i.e., whether the consumption choice made for period three during period three dictates that the individual consumes all of his retirement savings (or whether $e^{gp^*}_{t+2}$ will be non-zero). To think about this question it is helpful to consider an extreme example. Suppose I_{t+1} actual turns out to be 0. We know that I_{t+i} depends upon the amount of education that an individual receives during childhood and his realization for ability. Given this role of the unknown, it is possible that there will be instances in which I_{t+1} turns out to be zero even if the level of education provided was positive. In such a situation a grandparent would know that this would mean that his adult child would not be able to fund any education for the grandchild (since the grandparent

presumably knows the equation governing educational investment). This means that the grandparent also would expect the income of his grandchild to be zero ($I^{expected}_{t+2} = 0$) However, if a grandparent derives utility from the well-being of his offspring, he would have to consider financing some education for the grandchild because an expected I_{t+2} equal to zero will not satisfy the first order conditions for the retirement period optimization exercise. Instead, EU'v will be inordinately high, and some resources will have to diverted toward educating the grandchild (to raise the expectation for I_{t+2}) so that the expected marginal utility falls and the marginal utility of retirement consumption rises.

This simple example shows that once a grandparent has time to reassess his situation, or to re-optimize on period later, it is possible that he will reduce his retirement consumption below the level that was planned initially.[13] The model suggests that if grandparents live long enough to observe their own children's outcomes and to develop concern for their grandchildren, they may use their wealth to benefit the latter. For researchers this means that an individual whose parents have limited means whose grandparents are wealthy will be expected to have more resources available for educational investment than a measure based solely on the parents would suggest.

V. Descriptive analysis: Family portraits of children, parental wealth and grandparent wealth

The three generational analysis discussed in the theoretical section of this paper indicates that there are circumstances in which measures of parental resources may not fully characterize the full range of resources that are available when one raises a child. It suggests that grandparent's wealth is an additional factor that should be examined when studying the effects of family background. However, to examine the role of grandparent's wealth one needs data covering three generations of the same family, and there are few nationally representative datasets that contain information about children, families, wealth, and different

[13] These results can be illustrated more formally. However, for ease of exposition the intuitive discussion is provided in this working draft.

generations all in one place. The Panel Study of Income Dynamics (PSID) is a glaring exception. Because of its unique design—it was started in 1968 and has followed both the original families in the sample and their offspring over time—it has adults and their parents as respondents. Additionally, beginning in 1984, the PSID began collecting extensive data on household wealth. And, in 1997 it added a special supplement, the Child Development Supplement (CDS), designed to provide detailed information about the children in PSID families. In this paper, data from both the Child Development Supplement and the wealth files of the Panel Study of Income Dynamics are analyzed to determine the volume of wealth that exists in different generations of a child's family. The analysis uses children from the 2002 CDS as the focal point, and it identifies the wealth held by the families in which they reside using the 2001 wealth file.[14] Then, making use of the PSID's longitudinal and multigenerational structure, we identified the grandparents of the CDS children, and obtained their wealth in 2001 as well.[15] The 2002 CDS contains information about 2,907 children age 5-18. It was possible to obtain grandparent wealth information for 1668 of these children.[16,17]

[14] The 2003 wealth data only became available in mid-May 2005, which was well after this paper was begun.

[15] The PSID is a nationally representative longitudinal survey of U.S. households that has followed families and their offspring since 1968. The survey collects data on a wide range of economic and socio-demographic variables, and it also contains data on wealth holdings, asset ownership and debt; and extensive information about the children of PSID families and their school environments. Data for the proposed study is drawn from the PSID core, and from its 2001 Wealth Supplement and the second wave of the Child Development Supplement (the 2002 CDS), which covers children age 5 to 18. The PSID is unique in that it contains information about numerous families of different generations and offers the ability to match different households with their relatives, which means that one can use the dataset to construct multi-generational extended families. The CDS contains a number of measures of child outcomes, and of children's neighborhood and school characteristics. This includes families' self-reports of neighborhood quality, safety, racial composition, and whether the family ever moved for the benefit of the child; along with information about school type (private vs. public), class size, teachers' levels of education, pupil-teacher ratios, and school spending.

[16] There were some children for whom no grandparent wealth information could be found in the 2001 PSID wealth file. The absence of grandparent wealth information can be attributable to the grandparents being deceased, or to their having dropped out of the PSID in the year in which the wealth data was collected. There also were a few children excluded because they lived with their grandparents, meaning that we cannot consider their grandparents as an additional source of resources for them because their grandparents are the ones raising them.

[17] Note also that beyond the child's nuclear family (or the family with which the child resides, to be more precise) the PSID contains detailed information about only one side of a child's family tree. This is by virtue of the study's design. The PSID is a longitudinal survey of U.S. families that began in 1968. Since that time, it has followed the original families and the families that have been created as the children of the original sample families have matured and gone on to set up their own households. Because of this design individuals in the PSID can be traced back to an original 1968 family. Accordingly, it is possible to take a young individual, such as a child in the CDS, and to find her parents and members of earlier generations of her family in the dataset. While the exercise is not easy, it is facilitated by the PSID's inclusion of mother and father identification numbers in the record for any individual in found in the study. For the CDS kids the parental identifiers are contained in the child's record within the CDS. For other individuals, it can be found in the "sampling variables" file at the PSID Datacenter

Two measures of family wealth are available in the PSID. While both are net worth measures created by taking the total value of a family's assets and subtracting the value of the family's debts, one measures family net worth excluding home equity (s516). The second reports net worth including home equity (s517). The latter is the broadest measure of wealth available, since the bulk of many families' wealth takes the form of equity in their home.[18] Table 1 reports mean values for wealth in the different generations of the family tree for the average child.[19]

Table 1. Wealth throughout the different generations of a child's family tree

	Mean*	Mean* for families with positive wealth	Median	Medians for families with positive wealth
CDS child	n.a.	n.a.	n.a	n.a
Parental wealth (generation 2)				
p_s516 (wealth not including home equity)	$153,842 (1241064)	$192,549 (1377040)	$17,880	$28,500
p_s517 (wealth including home equity)	$219,790 (1289904)	$251,531 (1372893)	$52,400	$72,000
Grandparent wealth[20] (generation 1)				
g3_wlth1 (wealth not including home equity)	$352,718 (1029016)	$391,645 (1075882)	$76,000	$104,700
g3_wlth2 (wealth including home equity)	$454,388 (1085158)	$477,734 (1106999)	$174,500	$198,250

*standard deviations in parenthesis

Table 2. Income measures for the families in which the CDS kids reside

	Mean for all	Mean for	Mean for families of

(http://simba.isr.umich.edu/ALL/). For more information about the PSID files and the PSID Datacenter see http://psidonline.isr.umich.edu/

[18] This, however, may be less true for older people than it is for young families since older families will be expected to have accumulated other wealth thru life-cyle saving.

[19] All data are weighted.

[20] While it is not clear if Shapiro's definition of wealth includes home equity, both of these figures are much higher than the $150,000 (in 1999 dollars) that Shapiro (2004: 62) reports in his elder generation. (Instead, these numbers are closer to his conditional mean, reported on page 63.) Shapiro's findings are based on family information taken from the 1988 Time and Money Transfer file. Accordingly, there are (at least) two possible reasons that our findings differ. First, the wealth data for parents in theTime and Money Transfer file comes from respondents' reports of how much wealth their parents have (not from direct interviews with the parents). Second, our sample contains families with children, not all families in the dataset.

	families	families of black children	white children[21]
Total family income	$79,233 (97696)	$36,824 (32145)	$86,035 (103242)
Long-run total family income[22]	$76,964 (60235)	$31,717 (25219)	$82,756 (75217)
Long-run labor income[23]	$64,474 (72993)	$24,898 (25313)	$69,509 (61671)

Table 2 provides nuclear family income data for comparison. As expected the income data suggest that families have fewer resources at their disposal than the wealth measures indicate. This table presents three distinct measures of income. Total family income measured in current dollars is depicted alongside a long-term income measure, average income over the 1997-2001 period, and alongside a long-term measure of income that reflects the family's labor earnings only.

Table 3 compares extended family wealth by race. As shown in the table, the average white child has more wealth in his extended family than the average black child. When examining net worth including home equity, one finds that the average black child lives in a family with less than 10 percent of the wealth of the average white child's family. The actual black/white wealth ratio in the parent generation is 0.071 at the mean (and 0.03 at the median). The average white child also has wealthier grandparents than the average black child does--about eight times as much using wealth including home equity as the measure of

[21] Our race dummy variable is constructed to identify whether a child is black or not. Accordingly, the "white" category may include Asians and Latinos who are not black (because we do not separate groups by ethnicity). However, because of the PSID's sample design, it does not include many Asians. It therefore is mostly whites who are being captured here.
[22] This variable corresponds to average family income over the 1997-2001 period. Note though that PSID data were collected biannually over this period, so the measure includes only three years worth of data.
[23] This variable is created using earnings of the head and wife (where relevant) of the family in which the child lived as reported in the 1997, 1999, and 2001survey years, using the CPI-U to standardize dollar amounts. Each family's income data was linked across time via its household head, so that the family is matched across time when it has the same household head, and it is required to have the same household head in 1997, 1999 and 2001 in order to be included. This is a common assumption made when linking PSID data across families over time (see Hurst, Luoh and Stafford, 1998 for example). It does reduce the sample size a bit however, because not all families have the same adults leading them over time. There are only 1321 children for whom this long-term family income information is available.

net worth. This corresponds to a black/white wealth ratio of 0.12 in the grandparent generation at the mean. The corresponding figure for the median is 0.11.[24]

Table 3. Wealth throughout the different generations of the family tree by race

	Mean		Median	
	Black	White	Black	White
CDS child	n.a	n.a	n.a	n.a
Parental wealth (generation 2)				
p_s516 (wealth not including home equity)	7,926 (43587)	178,592 (1340642)	1,000	24,700
p_s517 (wealth including home equity)	18,002 (56229)	253,808 (1392107)	2,160	72,000
Grandparent wealth (generation 1)				
g3_wlth1 (wealth not including home equity)	38,249 (119043)	402,177 (1095538)	6,000	115,200
g3_wlth2 (wealth including home equity)	63,526 (130389)	516,083 (1152387)	24,375	227,000

Table 4 divides children into two groups: those whose elders have some wealth and those whose elders have no wealth. Almost 20 percent of children live in nuclear families with no wealth (i.e., zero or negative net worth) if home equity is excluded from the net worth measure, while about 12 percent of children reside in families with no wealth according to the net worth with home equity measure.[25] These are families that can be considered asset poor, although this would be according to a much looser criterion than is used in the emerging literature on asset poverty--where a family is considered asset poor if it cannot sustain its normal consumption level for more than three months with its savings (Caner and Wolff, 2004, Haveman and Wolff, 2004; and Wolff, 2001).[26] Our data therefore should be viewed as a lower bound on the proportion of children who are truly asset poor.

[24] Both black/white ratios are lower than the black/white wealth ratios typically reported in the literature for the population as a whole. The latter range from about 0.17 to 0.25 (Chiteji & Stafford, 1999).

[25] The "no wealth" category includes families with zero wealth and those with negative wealth.

[26] It might be preferable to consider these families with "low assets," perhaps akin to the way some families are classified by researchers as "low income." See Haveman and Wolff (2004, footnote 5) for a thoughtful discussion of the relative merits of different terminology.

Table 4 also reveals that almost 10 percent of children have grandparents with no wealth using the net worth measure that excludes home equity. Only about 5 percent have grandparents without wealth if one uses the net worth with home equity variable to gauge wealth.

One can use Table 4 to examine race differences in lack of wealth throughout the family tree as well. While only about 9 percent of white children have parents with no wealth (using the net worth with home equity measure), about 34 percent of black children have parents with zero or negative wealth. In the grandparent generation, the dearth of children with no wealth in this branch of the family tree occurs for both races when home equity is included in the wealth measure. Only about 4 percent of white children have grandparents with no wealth by this criterion, and about 10 percent of black children do. However, if one is thinking of the prospect of grandparents contributing funds to assist in the rearing of the grandchildren, one might argue that, theoretically, the net worth excluding home equity might be the better net worth measure to look at since it indicates the amount of savings that the grandparents have that is not tied up in their home. One might consider this the best indication of the amount of funds that grandparents would have freely available to spend on their grandchildren. As shown in the table, using this measure about 7 percent of white children have grandparents with no wealth, and 93 percent have grandparents with positive wealth. However, only about 73 percent of black children have grandparents with positive wealth.

Table 4. Children with wealth somewhere in the family tree--in percentage terms

	No parental wealth[27]	Some parental wealth	No grandparent wealth	Some grandparent wealth

[27] It is perhaps useful to compare these to the asset poverty rates reported in Caner and Wolff (2004a: 498) since they also analyze PSID data. In an analysis of PSID wealth data from 1999, these authors find asset-poverty rates of 26% (for wealth including home equity) and 40% (wealth excluding home equity) in the population at large. While our figures are not directly comparable with theirs, as their figures are for asset-poverty--which sets a threshold based on whether a family has sufficient savings to sustain its current level of consumption for about three months if it suffers a disruption to its income flow--we make the comparison for a crude check (and to provide some context). Because the definition of asset poverty requires a higher cutoff point than a measure of positive wealth (versus no wealth), we expected our numbers to be lower than Caner and Wolff's. And, they are.

	Wealth1	Wealth2	Wealth1	Wealth2	Wealth1	Wealth2	Wealth1	Wealth2
All children	19%	12%	81%	88%	10%	5%	90%	95%
White children	16%	9%	84%	91%	7%	4%	93%	96%
Black children	39%	34%	61%	66%	27%	10%	73%	90%

*The term "Wealth1" refers to the wealth measure that excludes home equity. "Wealth2" indicates calculations involving the net worth including home equity measure.

How many children have no wealth in any branch of the family tree?[28] If one excludes home equity from net worth one finds that about 2 percent of all children fall into this category. For among those whose parents have no wealth, many have grandparents who do. (About 17% of all children have no wealth in the parent generation of their family tree but positive wealth in the grandparent generation.[29]) When home equity is included in the measure of wealth, fewer than 1 percent of all children have wealth-less parents and wealth-less grandparents. Alternatively, about 11 percent of all children have parents with no wealth, but grandparents with positive wealth.

What about the resources available to children who live in families that are income poor? As shown in Table 5 about 62 percent of the children living in families that fell below the poverty line reside in nuclear families with positive wealth holdings (when home equity is excluded), and 65 percent in *natal units?* with positive wealth if equity in homes is taken into account.[30] What is more telling perhaps are the findings regarding grandparent wealth since they reveal how many children (members of generation three) live in

[28] The data discussed in this paragraph are not shown in the tables included in the paper.
[29] These may be the children to whom our modified Becker model is most applicable, if there parental income also is low.
[30] Because the PSID asks about income in the preceding year, the poverty data actually apply to the year 2000. While this is less than desirable, as some families cycle into poverty for short spells only, there are no income data for the year 2001 due to the biannual *frequency* of the data collection. Note that it is not surprising that some families with low income would have positive wealth, since many families can experience disruptions to their income flow for short periods (due to job loss for example), and economic theory actually predicts that they might accumulate precautionary savings to guard against this contingency. However, because the wealth data come from the year after the family's poverty status was measured, any errors resulting from the use of 2000 income data would tend to make our wealth data understate both the number of families with positive wealth and the mean levels of wealth. That is to say, if families had to draw on their savings because they were poor in 2000, the level of wealth (measured in 2001) would be expected to be lower than it would be if we had measured it contemporaneous to income.

income poor families that might be able to appeal to generation-one for assistance. About 72 to 87 percent of children living in poverty have grandparents with positive wealth (using net worth excluding home equity and net worth including it respectively). Mean wealth for these families is $10,170 or $16,065 (using net worth without and with home equity respectively). And, the average amount of wealth held in the grandparent generation is $66,902 (net worth excluding home equity) or $96,095 (net worth including home equity).

Table 5. The wealth situation of income poor children

	Percent of income poor children residing in families with positive wealth[31]		Percent of income poor children whose grandparents have wealth		Mean parental wealth		Mean grandparent wealth	
	Wealth1	Wealth2	Wealth1	Wealth2	Wealth1	Wealth2	Wealth1	Wealth2
all children	62%	65%	72%	87%	$10,170 (57230)	$16,065 (69121)	$66,902 (14205)	$96,095 (162740)
white children	82%	90%	92%	96%	$14,091 (61004)	$21,523 (71967)	$108,536 (170055)	$143,252 (192754)
black children	65%	68%	67%	84%	$5,482 (53327)	$9,387 (67368)	$3,611 (27439)	$26,502 (45934)

*The terms Wealth1 and Wealth2 are as defined for Table 4.

Section summary

This portrait of wealth in the different branches of the family tree reveals that there are many children who have grandparents with significant wealth. It also shows substantial variation by race. As with nuclear family income and parental wealth, black families have fewer resources to draw on than white families do when extended family resources are added to the picture.

[31] Again, these correspond to lower rates than the rates of asset poverty reported by Caner and Wolff (in Caner and Wolff 2004b). Categorizing families according to whether they are asset poor (i.e., able to sustain 3 months of consumption or not), the authors find that 19% (32%) of white families are asset poor, while 50% (69%) of black families are (depending upon whether one uses net worth including home equity or net worth excluding home equity as one's measure of wealth). This means black families are about 2.1 to 2.6 times as likely to experience asset poverty than white families are. Somewhat similarly, our data suggests that black children are 1.9 to 3.2 times as likely to be in families with no wealth than white children are.

While most people are likely to acknowledge that individuals do not attain the outcomes that they attain without some help from their parents, most of the existing literature examining how children benefit from their families' economic circumstances and the processes through which older generations affect children's life chances focuses on the natal family. We are aware of no explicit empirical tests of the role that grandparent wealth plays in determining a child's opportunities, although the ethnographic research of both Oliver and Shapiro (1995) and Shapiro (2004) discussed in earlier sections of this paper provide a good starting point for thinking about how grandparents may influence their grandchildren's life chances. In the next section multivariate regression analysis is used to determine whether wealth held in the grandparent generation influences child outcomes. By exploring the implications that grandparent wealth has for child outcomes, this research adds to the existing literature on wealth and cross-generational connections.

VI Multivariate Analysis

To explore the hypothesis that grandparent resources can influence child outcomes, we examine the relationship between their wealth and children's education and the quality of the neighborhoods in which the children reside. While it is possible that grandparent wealth might influence a wide range of child outcomes if grandparent wealth is indeed being brought to bear on children's needs and being used to supplement parents' resources, this paper focuses on educational factors primarily.[32] This interest in human capital attainment follows directly from the Becker/Tomes parental investment model that was used as the starting point for the paper's analysis. Table 6 lists the eight different education measures that are analyzed. All come from the 2002 CDS. The CDS data provide an ideal testing ground for the paper's hypotheses because the survey has an impressive sample size, and because of its abundance of information about children, including information about their activities at school and in the home, about their

[32] For example, consumption and health outcomes also might be affected.

behavior and attitudes, about their caregivers and their teachers, and about their use of time.[33] As noted earlier, the CDS data are used in conjunction with the extensive economic and socio-demographic information about the CDS kids' families that is available in the PSID.

Table 6. Outcome variables examined in the paper[34]

1. College choice—whether costs will constrain it (Will the child need to choose a school based on how much expenses, such as tuition, will be?)
2. College fund—presence of one (Has the child's primary caregiver or other caregiver put aside funds for child to attend college or other future schooling)
3. College loan (Will the child need student loans or scholarships to help pay for college?)
4. Private college—general variable (Will the child consider private schools to attend?)
5. No private college—whether private colleges will be explicitly ruled out (Will private schools not be considered because of the amount it costs to attend?)
6. Level of schooling desired[a] (...in the best of all worlds, how much schooling would you like the child to complete?)
7. Level of schooling expected[a] (Sometimes children do not get as much education as we would like. How much schooling do you expect that the child will complete?)
8. Neighborhood ok (How the primary caregiver rates the neighborhood as a place to raise kids[b])
9. Child attending private elementary or secondary school

[a]Dichotomous variable for more then high school or not. The CDS actually reports 8 categories: (1) 11th grade or less, (2) graduate high school, (3) post-high school vocational training, (4) some college, (5) graduate 2 year college with associates degree, (6) graduate 4 yr college, (5) Masters degree or teaching credential program, (8) MD, law, PhD, or other doctoral degree.
[b]Dichotomous variable created by collapsing categories 1-3 from CDS into the "yes" category. (The CDS reports 1 for excellent; 2 for very good; 3 for good; 4 for fair; and 5 for poor.)

Most of the variables in Table 6 were reported as binary variables in the CDS. However, in the three instances in which the CDS offered categorical variables, we transformed the CDS variable into a dichotomous one.

What is interesting about these particular outcomes? There are many schooling-related variables in the CDS so it is worth pausing for a moment to think about why the ones initially chosen here might be of

[33] Detailed information about the CDS can be found at the PSID's website: www.psidonline.isr.umich.edu
[34] CDS question in parenthesis

interest.[35] Changes in the structure of the U.S. economy have made higher education more important for securing stable, high-paying jobs than it has been in the past. With the decline in manufacturing in the United States and global pressures to cut costs, many jobs that required only a high school degree while still paying enough to provide one's family with a comfortable lifestyle no longer exist, and entry-level wages for high school graduates have fallen sharply (Mishel, Bernstein, and Schmitt; 2001).[36] At the same time that the wages paid to workers with high school or less have fallen over the past two decades, wages for college-educated workers have risen (Mishel, Bernstein, and Schmitt; 2004). Accordingly whether an individual continues her education beyond high school has important implications for the opportunities that she will have in the labor market. This paper therefore begins its inquiry into the effects of family resources on child outcomes by concentrating on outcomes related to higher education.

Turning to Table 6, the college choice variable is chosen because it indicates whether a child will be expected to have unlimited choice when selecting an institution for higher learning. Greater choice should allow for a better match between the individual's talents or interests and the school she ultimately attends. As long as students and schools are heterogenous, one would expect there to be some benefit from appropriately matching the two, most likely manifested as higher achievement in college (ceteris paribus).

The college fund variable is chosen because it provides some indication about whether monies have been set aside to allow the child to obtain additional schooling after high school. While there are other ways a family can finance its offspring's college education, one does expect to observe variation here

[35] Other interesting schooling measures in the CDS include measures of teachers' education, pupil-teacher ratios, school size, and classroom composition. We plan to add these variables to our analysis at a later date. Their analysis requires special computation of statistical weights that are different from the weights available in the CDS. (See www.psidonline.isr.umich.edu/CDS/questionnaires/cdsiiweights.pdf for additional discussion of weighting issues in the CDS-II.) Additionally, some of these data are contained in a CDS module that was not released to the public until February 2005, which was after this paper was begun.

[36] For example, men with high school diplomas experienced a 25 percent decline in entry-level wages between 1973 and 1999. In 1973, a male high school graduate could expect to earn $12.42 (on average), which translates into almost $25,000 a year at full time work (in 1999 constant dollars). By 1999, this average wage had fallen to $9.27 per hour, yielding only about $18,540 in annual income. For women, the average entry-level wage for high school graduates was $7.89 in 1999, or about $15,780 annually. (These wage data are reported on page 158 of Mishel, Bernstein and Schmitt, 2004. They were converted to income

based on how wealthy the family is. The college loan variable indicates whether a child will need to rely on loans and scholarships to pay for college. This variable is interesting because it undoubtedly offers some suggestion as to whether the student's choices will be constrained, and may even contain information about whether the student will be able to pursue higher education.

The private college variable in Table 6 indicates whether the child will be able to consider private colleges when conducting her college search. Private colleges typically are more expensive than public institutions (College Board, 2004). Beyond serving as a general indication of whether the search process will be constrained, this variable may reveal something about the quality of the education that a student is likely to receive. Like private elementary and secondary schools, private colleges tend to offer smaller class sizes than large, public institutions. Additionally, there can be more emphasis on undergraduate learning, particularly at elite private colleges, partly because faculty time is not divided between graduate students and undergraduates, but also because there are likely to be some gains from specializing in educating one student population rather than trying to meet the demands of two different groups.[37] The "no private college" variable indicates whether a child who will not be able to consider private colleges will be prohibited from doing such because of costs.[38]

Our sixth outcome variable measures the level of schooling that is expected for the child. While the offspring in the CDS are not yet old enough to have entered college, parent's expectations offer a guide to how much education their child will receive. One expects that families with more resources will anticipate higher outcomes for their kids than families without (since the former are more likely to be able to finance

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data for the purpose of this paper by assuming 40 hours of week and 50 weeks of work for a full-time worker—a standard method of conversion in the literature.)

[37] For example, pedagogies are likely to differ across public and private institutions given the smaller average class sizes at the latter. Additionally, there is research that suggests that students who attend elite private colleges have higher labor market earnings and a higher probability of getting into graduate schools than other students. (See Eide, Brewer, and Ehrenberg, 1998 for example).

[38] Note that the variables we have chosen are very likely to be resource dependent—or the role of resources for them is readily apparent. The logic is that if there are going to be effects of grandparent wealth anywhere, one would expect to find them with outcomes whose dependence on resources is obvious.

the desired outcomes). The desired level of schooling measure tells us about parents' aspirations for their children.

Turning away from higher education, the private elementary and secondary school measure provides information about the child's current situation. For this variable, one expects families with greater resources (in the nuclear and the extended family) to have greater ability to enroll their children in private school.

The final dependent variable analyzed is the quality of the neighborhood in which the child resides. This variable is interesting because of the burgeoning literature on the effects that neighborhoods have on children.[39]. Neighborhood conditions can affect the quality of the school the child will attend (if the child attends public school). Additionally, they may affect the peer networks the children will be in, and the adult role models to which they will be exposed. Both of the latter could have educational consequences. Peer networks may have implications for study habits and schooling aspirations. The nature of the adult role models an individual encounters in the community can have bearing on whether a child is exposed to adults with jobs (Wilson, 1997); and, perhaps more important, adults who have college degrees and white collar jobs, or jobs that are more than low-wage ones with little opportunities for mobility and wage growth.

For each of these nine outcome variables we use multivariate probit analysis to isolate the effect of grandparent wealth. The control variables used in the analyses include parental education, child's age, the number of children in the child's family of residence, parental income, parental wealth, and race. These are standard covariates in the literature examining child outcomes.[40] The regressions employ the long-run measure of family labor income rather than the measure of current income. This choice reflects two considerations. The first is the fact that one-year measures of income are "noisy" and the associated error in measurement leads to imprecise estimates of the effect of income. The second is that income measures

[39] Haveman, et. al 2004 and Scholtz and Levine, 2004 discuss some of the findings in this literature.
[40] See Haveman, et al, 2004;Mayer, 1997; and Conley, 1999 for a good discussion of their relevance.

based on total family income will incorporate asset income for families with this source of income, and families with high levels of wealth (lots of assets) can be expected to have substantial asset income. The use of an income measure based on labor earnings is standard in the literature because it avoids this potential source of correlation across regressors. The parental education, family size, race, and wealth data come from the 2001 PSID.[41] Child's age comes from the CDS. The long-run labor income measure is constructed by averaging family income data from the 2001, 1999, and 1997 waves of the PSID.

Tables 7 through 15 report the regression results. For each outcome variable we estimate a baseline model (denoted model 1) that includes parental education, child's age, number of children in the family, income, and race (the regressors most commonly used in analyses of child outcomes). Each table then reports results from two other models as well. Model 2 adds parental wealth along with grandparent wealth to the baseline model. As noted earlier, Conley's 1999 book *Being Black and Living in the Red* highlighted the importance that parental wealth has for a family's offspring. And, since that publication researchers have begun to incorporate measures of parental wealth in their analyses of children. Our research question dictates that we add consideration of grandparent wealth as well. Model 3 incorporates the transformed wealth variables that indicate whether the child's parents (or grandparents) have positive wealth or not, rather than relying on the dollar value of parental and grandparent wealth.[42] This allows for the possibility that what matters most for children's life chances is whether members of the older generations have any wealth at all. While the PSID offers two measures of net worth, as noted earlier, the tables report the results for regressions using net worth with home equity (the "Wealth2" measure in the

[41] The race variable reflects the race of the household head. It is common in the literature to use this to represent the race of the entire family and hence the race of its children, though it clearly is not a perfect measure (particularly if there has been a cross-racial adoption). Household surveys typically do not collect separate race data for all individuals in the family.

[42] This variable is coded as 1 if the parents (grandparents) have no wealth, i.e., zero or negative wealth, and as 0 if this is not the case. This is an intuitive way to think of the binary outcome—does the generation in question have no wealth or not—and it makes it easy to compute proportions of families in dire circumstances when it comes to wealth. However, it requires one to think carefully when interpreting the regression coefficient.

earlier tables), unless otherwise noted. We focus on this wealth variable because families often use a mortgage on their home to finance kids' post-secondary education.[43]

The results of the regression analysis are mixed. The standard variables that one finds in a regression explaining child outcomes all have the usual signs, although there is some variation in the degree to which they are statistically significant. The tables of output highlight the results for race and permanent income for all outcomes, as researchers often are interested in knowing how the inclusion of additional resource variables effects the coefficients for these two. For example, given the magnitude of racial wealth inequality, researchers often want to know if the inclusion of wealth in a regression reduces the size of the race coefficient. This would suggest that the previously observed effects of race had less to do with skin color or ethnicity (i.e., race per se) and more to the resource differences that exist in practice between whites and non-whites.

What do we learn about the effects of wealth, particularly wealth held in the grandparent generation? For seven of the nine outcome variables wealth held in the grandparent generation influences the youngest generation's outcomes. However, there is variation in whether it is levels of grandparent wealth or the mere presence of wealth that exerts an effect. For example, as shown in Table 7, the coefficient for grandparent wealth found in the regression explaining whether costs will constrain college choice is -0.0002, indicating that an increase in grandparent wealth reduces the probability that the grandchild's choice of a college will be stymied by costs; more specifically, for every dollar increase in grandparent wealth the probability of facing constraints when choosing a college falls by 2%.[44] The dichotomous grandparent wealth variable does not show a statistically significant association with the outcome

[43] In instances in which there is a substantial difference between the two wealth measures, that difference will be noted. Note that although the argument about the relevance of home equity is compelling for parents, it may imply a more tenuous assumption for grandparents. One could argue that grandparents are likely to provide assistance on behalf of grandchildren only when they have savings that are highly liquid. However, one also could argue that grandparents may accumulate equity in their homes that they expect to free up by downsizing their housing when they reach retirement. This would make home equity a potential source of funds to be tapped on behalf of the grandkids.

however.[45] And, oddly, the parental wealth variable is not statistically significant in the regression (although it is marginally significant when the regression is run without grandparent wealth[46]).

Contrary to what is found for college costs, it is the dichotomous grandparent wealth variable that determines whether a college fund has been set up for the child, not the absolute level of grandparent wealth. The coefficient for grandparent wealth in Table 8 (Model 3) is -0.08, indicating that having no wealth in the grandparent generation reduces the probability that the child will have a college fund set up for her by 8%. For this outcome, wealth measured in dollar values does not show a statistically significant association.[47] Because the dependent variable gauges the presence of a college fund, rather than the amounts in the fund, perhaps it is not surprising that the dichotomous grandparent wealth variable would be correlated with the outcome. If the grandparents have no savings to draw from, one would not expect them to be able to make a contribution to their grandchild's college fund.

The anticipated need for financial aid does not appear to be sensitive to grandparent wealth. As shown in Table 9, parental wealth is statistically significant in the regressions, but grandparent wealth is not.[48]

As is the case for whether a college fund exists, when one considers whether a child will be able to consider private colleges (Table 10), when choosing post-secondary schooling, whether a child's grandparents have any wealth exerts an effect on the outcome. As shown in Model 3, having grandparents with no wealth reduces the probability that a private college will be considered by about 16%, though this

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[44] Among the regressors not shown, parental education came close to being statistically significant in the baseline model. The coefficient for that variable is marginally significant (at best), with a probability value equal to 0.145.
[45] In this model (model 3), race and long-term income are marginally significant at best, with p-values of 0.155 and 0.135, but no other variables are found to be statistically significant.
[46] The size of the estimated coefficient for parental wealth is the same whether the regression includes grandparent wealth or not, however, so it does not appear that parental wealth is partly picking up the effect of grandparent wealth if one leaves grandparent wealth out of the regressions.
[47] In the baseline model and in Model 2, parental education and number of children in the family are also statistically significant. Child's age is not. In Model 3, family size is statistically significant but parental education and child's age are not.
[48] In model 2, grandparent wealth excluding home equity is (at best) marginally significant, with a p-value of 0.146.

effect is found only for the wealth measure excluding home equity.[49] Actual levels of wealth do not show a statistically significant effect on this outcome.[50] When one asks whether a child will have to exclude private colleges from her search due to costs, we find no association with grandparent wealth however, regardless of whether that generation's level of wealth is measured in levels or in terms of whether grandparents have positive or no wealth.[51] This is apparent in Table 11. The results of this particular regression must be viewed with extreme caution though, because the sample size is small. And, both the Wald statistic and the pseudo-Rsquare are low.

As was found for the presence of a college fund (in Table 9) and for the first private college variable (Table 10), whether there is wealth in the grandparent generation also affects the expected level of schooling that a child will receive (Table 12).[52] While the grandparent wealth measure that includes home equity does not register a statistically significant effect, the grandparent wealth excluding home equity measure of wealth increases the probability that a child will be expected to continue beyond high school by her parents.[53] As shown in Model 3, having grandparents with no wealth reduces the probability that a child will be expected to move beyond high school by 9%. Here, again, actual levels of wealth do not show a statistically significant effect. Note that the amount of schooling desired for the child is independent of the wealth that parents and grandparents have. Conversely, as shown in Table 13, neither the presence of grandparent wealth nor the levels of grandparent wealth appear to be associated with whether parents want their kids to obtain postsecondary schooling.[54] It is not surprising that to find no association between

[49] This may indicate that grandparents are not willing to take out mortgages to finance college for the grandchild, or to tap into their home equity in other ways on behalf of the grandchild (contrary to our initial impression/suspicion), even though this is a common course of action for parents.
[50] In all three models, child's age and parental education are also statistically significant.
[51] Parental education is also statistically significant, in all three models.
[52] Adults whose own parents are wealthy may reason that they can tap into the grandparent's resources to pay for the grandchild's schooling. Conversely, those who know that there is no one in the extended family who will be able to help, will be expected to have low expectations for their child.

[53] In all models parental education is statistically significant (in addition to the variables denoted as such in the table).
[54] Parental education is statistically significant in all three models.

extended family wealth and this particular outcome variable, even though grandparent wealth does affect the expectation that a child will continue beyond high school. The two results taken together suggest that (unsurprisingly) parents have similar wishes for their children regardless of family resources, but that parents who know that there is no wealth to tap in the extended family reign their expectations in accordingly.

Whether the child attends private or public school during the elementary or secondary school years is affected by both the presence of wealth in the grandparent generation and the amount of wealth that grandparents have.[55] As shown in Table 14 (Models 2 and 3), having grandparents with no wealth reduces the probability that a child will be in private school by 9%. And, a one dollar increase in grandparent wealth raises the probability a child will be in private school by 2%.

The final variable analyzed is the quality of the neighborhood in which the child's family resides. Here, whether the grandparents have positive wealth has a statistically significant effect on the outcome (when grandparent wealth is measured using the net worth with home equity variable only), but the amount of wealth held does not.[56] Oddly, the results suggest that having grandparents with no wealth raises the probability of living in a good neighborhood by 4% (when grandparent wealth is measured inclusive of home equity).[57] Contrast this with the effect of having parents with no wealth, which depresses the probability of being in a good neighborhood by 13%.

Section summary

As noted at the beginning of section VII, the regression output provides a mixed review of the hypothesis that grandparent wealth affects child outcomes. Grandparent wealth shows a statistically

[55] In the baseline model, parental education is the only statistically significant variable.
[56] Parental education has a statistically significant effect in all the models.
[57] For the no-grandparent-wealth dummy variable that excludes home equity the sign of the coefficient is negative (the expected sign). However the variable is never statistically significant. Instead, the dummy variable that includes grandparent's home

significant association with seven of the nine outcome variables examined in this paper. However, in several cases, the association depends on the way that grandparent wealth is measured. Additional work must be done to examine some of the econometric issues that may be affecting the validity of the results, and to resolve some questions related to interpretation as well. For example, the regressions in which grandparent wealth has a statistically significant effect on child outcomes while parental wealth does not present a quandary. If having more family resources to devote to a child's rearing is helpful, it seems counter-intuitive that the resources held by grandparents could be more important than those of parents. At face value, it suggests that families tap into the grandparents' wealth before they are willing to tap into the parents. One question to ask here is whether the effect of parental wealth is not being observed due to multicollinearity problems.

Another example of an econometric issue that must be contemplated is the fact that the pseudo-Rsquare values are low for many of the tests. Overall, our estimated models do not show much of a difference between the value of the likelihood function with and without the restrictions. This suggests that the explanatory variables that are most commonly associated with child outcomes in the existing literature may not be the most important ones for the outcomes that we have chosen to examine. More theorizing can be done to decide what other variables might be included.

A third econometric question that one might pose is whether there is a potential endogeneity issue with the use of wealth as an independent variable. When thinking about the direction of causality that one would expect for grandparent wealth, one cannot rule out the possibility that some of the child outcomes examined actually affect the amount of wealth that grandparents have. Despite the fact that our wealth variables are one year prior to the observed child outcomes, it still remains possible that, for a variable such as private schooling for example, having a grandchild in a private school actually causes grandparent

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equity is statistically significant (as shown in the table), but the results imply that having grandparents with no wealth actually raises a child's probability of living in a good neighborhood.

wealth to be low (because the grandparents already have used some of their wealth to pay for the tuition). Future research will specify a simultaneous equation model to address this issue.

A fourth possible task to undertake in order to strengthen the empirical research would be to split the sample into children whose natal families have few resources and those whose immediate families are rich. It is possible that the best place to test the hypothesis that grandparent wealth matters is on a sample of low-income or low-wealth parents. The theoretical framework informing the analysis certainly suggests that this is the population for whom the extended family resources, i.e., the grandparents' wealth, might be most critical.

Somewhat related, one might ask whether it would be appropriate to limit the sample to grandparents who are retired, or to add a grandparent income measure to the regressions. Grandparent wealth might matter most for grandparents who are retired, because for them their savings is a good measure of the total amount of resources they have available. For grandparents still young enough to be working however, our wealth measures will misstate the resources that they have to draw upon. It may be the case that these individuals divert their income to helping grandkids when they want to provide assistance, rather than drawing down on their wealth.

There are three additional issues to confront. First, it is important to note that grandparent wealth is not a direct measure of the transfers that grandparents make to assist their grandchildren. Accordingly, we cannot rule out the possibility that the effects that we observe reflect something other than a resource transfer effect. This is a particularly interesting issue to contemplate in light of our findings for the grandparent wealth dummy. It may suggest that what matters for child outcomes is not the wealth per se, but some heritable family characteristic or trait. For example, the effects observed in the college fund regressions are consistent with a story about wealthy families having a "culture" of valuing education so that they set up a college fund for this reason while other families do not. If actual monetary amounts do

not matter, competing stories about unobserved heterogeneity are hard to dismiss. This does not render our results uninteresting, however. It simply means that one would need to interpret them differently.

Second, recent research on "reservation wealth" suggests that older individuals do not retire until their wealth reaches a threshold level (Hatcher, 2002). Accordingly, one might ask whether grandparents must cross some threshold value before they are willing to provide financial assistance on behalf of their grandchildren.

Third, and most important, to strengthen the empirical analysis of the paper additional work will be done to extend the analysis to cover other child outcomes. As noted earlier, there are several features of children's educational environments that we were not able to examine, such as pupil-teacher ratios and teacher's education levels. The CDS modules containing these data recently have been made public. Accordingly, some of the more standard outcome variables that researchers often focus on will be added to the paper at a later date.

VII Conclusion

This paper finds that grandparent wealth has bearing on several aspects of grandchildren's lives, although its present findings must be viewed with slight caution. Nevertheless, the findings are interesting because they take the literature one step closer to a thorough understanding of the role that wealth plays in the United States. Yet, it is not possible to fully understand the importance of wealth and cross-generational connections without also examining the social and political context in which family wealth is used to influence child outcomes, and without reflecting upon the social meaning of such phenomena. Do they facilitate the intergenerational transmission of status for example, and if so is this consistent with our society's notions of fairness and rugged individualism? Because social policy discussions and public debates center not only on what our world is like, but what we want it to be like, scholarly attempts to discern whether the wealth inequality that exists in the United States is consistent with our public rhetoric

about egalitarianism, equity, and the way our economic system works (or whether it challenges these principles at all) are warranted. Without such, the literature on wealth is incomplete and inadequate in guiding policymaking. Future researchers might want to situate the paper's findings in a broader, interdisciplinary context, in order to explore the political dynamics affecting intergenerational transfers, and to compare the projected economic effects of intergenerational connections and our national policies toward them to our nation's professed values and goals.[58]

[58] Changes in public policy alter the costs and benefits of individual actions, therefore political considerations can be expected to influence families' decisions about intergenerational transfers. The connection between policy and family behavior is not unidirectional however; families' self-identified goals may shape their perspective toward specific government policies. In fact, the political science literature discussing the way that individuals form their political positions notes that Americans consider political ideals, values, core beliefs, and self-interest when evaluating specific policy proposals (Hawthorne and Jackson, 1987; Feldman and Zeller, 1992; Alvarez and Brehm, 1995; Steenberger and Brewer 2002, for example). This literature also notes that individual policy proposals can sometimes require Americans to negotiate between competing political ideals, values and core beliefs. The current legislative proposals to permanently eliminate the estate tax, which presumably increases one's ability to benefit from extended family wealth, present a case in which society appears to be confronted with conflicting objectives and goals. This presents an opportunity to examine the ways that such conflict is negotiated and the way that public discussions of policy changes are conducted. Do public discussions recognize all of the economic effects of family wealth and the implications of intergenerational transfers? How are the discussions framed? (For an economist would be likely to describe the receipt of an inheritance as an instance in which an individual receives funds that are not earned on the basis of individual effort exerted in the marketplace, and she probably would add that inheritance typically benefit those coming from families that are wealthy enough to have the resources to make them. In this way, the ability to transfer funds across generations may present the prospect of transmitting one's economic status to one's offspring, or perhaps simply giving one's offspring a material resources advantage relative to other individuals with similar educational characteristics and similar work ethic. Accordingly, one might expect discussions of this estate tax to raise complicated questions about values such as fair play, merit, individualism, and equality of opportunity; while also appealing to American concerns about limited government and individual property rights. Yet, the initial legislation to repeal this tax passed rather easily, with little apparent public debate, raising questions about the way that the discussion of the tax change were framed.)

Table 7. Marginal effects for probit regression for college choice

	Model 1	Model 2	Model 3
race (dummy variable black = 1)	0.10*	.010 (=.129)	0.09 (p=.155)
permanent income (in thousands $)	-0.0006*	-0.0005 (p=.160)	-0.0006 (p=.135)
Parental wealth (level, in thousand $)		-0.00001 (p=.291)	
gp wealth (level, in thousand $)		-0.00002*	
no parental wealth dummy (zero or – wlth = 1, positive wlth = 0)			0.031
no gp wealth dummy (zero or – wealth = 1; positive wealth =0)			0.062
N = 1217			
Wald stat	22.38 (0.0004)	17.60 (0.0139)	15.39 (0.0313)
Pseudo-Rsquare	0.0201	0.0232	0.0215

All regressions also include controls for parental education, child's age, and number of kids in the family. Additionally, all regressions incorporate the PSID weights, robust estimation for standard errors and stata's clustering command (for grandparent wealth regressions). Asterisk ("*") denotes statistical significance at 0.10 level. Marginal effects shown are for wealth measures are for wealth including home equity, unless otherwise noted.

Table 8. Marginal effects for probit regression for college fund (whether one has been set up for the child)

	Model 1	Model 2	Model 3
race (dummy variable black = 1)	-0.17	-0.022	.02
permanent income (in thousands $)	0.0012*	0.0012*	0.0010*
Parental wealth (level, in thousand $)		-0.000004	
gp wealth (level, in thousand $)		-0.000015	
no parental wealth dummy (zero or – wlth = 1, positive wlth = 0)			-0.14*
no gp wealth dummy (zero or – wealth = 1; positive wealth =0)			-0.08*
N=1253			
Wald statistic	63.21 (0.0000)	41.90 (0.0000)	53.67 (0.0000)
Pseudo-Rsquare	0.08	0.08	0.09

All regressions also include controls for parental education, child's age, and number of kids in the family. Additionally, all regressions incorporate the PSID weights, robust estimation for standard errors and stata's clustering command (for grandparent wealth regressions). Asterisk ("*") denotes statistical significance at 0.10 level

Table 9. Marginal effects for probit regression for whether loans or scholarships will be needed to finance college

	Model 1	Model 2	Model 3
race (dummy variable black = 1)	0.006	-0.012	-0.011
permanent income (in thousands $)	-0.002*	-0.002*	-.002*
parental wealth (level, in thousand $)		-0.0001*	
grandparent wealth (level, in thousand $)		-0.00001 (p=0.146)	
no parental wealth dummy (zero or – wlth = 1, positive wlth = 0)			0.077*
no gp wealth dummy (zero or – wealth = 1; positive wealth =0)			0.028
N=1222			
Wald statistic	60.90 (0.0000)	45.04 (0.0000)	49.86 (0.0000)
Pseudo-Rsquare	.13	.16	.13

All regressions also include controls for parental education, child's age, and number of kids in the family. Additionally, all regressions incorporate the PSID weights, robust estimation for standard errors and stata's clustering command (for grandparent wealth regressions). Asterisk ("*") denotes statistical significance at 0.10 level

Table 10. Marginal effects for probit regression for whether private college will be considered

	Model 1	Model 2	Model 3
race (dummy variable black = 1)	-0.176*	-0.170*	-0.144*
permanent income (in thousands $)	0.0004	0.0004	0.0004
parental wealth (level, in thousand $)		-0.000006	
gp wealth (level, in thousand $)		0.00002	
no parental wealth dummy (zero or – wlth = 1, positive wlth = 0)			-0.013
no gp wealth dummy (zero or – wealth = 1; positive wealth =0)			-0.164* (Wealth1 variable only)
N=1183			
Wald stat	85.94 (0.0000)	54.64 0.0000	62.40 (0.0000)
Pseudo-Rsquare	0.08	0.09	0.09

*All regressions also include controls for parental education, child's age, and number of kids in the family. Additionally, all regressions incorporate the PSID weights, robust estimation for standard errors and stata's clustering command (for grandparent wealth regressions).

Table 11. Marginal effects for probit regression for whether family will eliminate private colleges from the child's choice set because of costs.

	Model 1	Model 2	Model 3
race (dummy variable black = 1)	0.06	0.06	0.02
permanent income (in thousands $)	-0.0012*	-0.0006	-0.0011*
parental wealth (level, in thousand $)		-0.0004*	
gp wealth (level, in thousand $)		0.00002	
no parental wealth dummy (zero or – wlth = 1, positive wlth = 0)			0.235*
no gp wealth dummy (zero or – wealth = 1; positive wealth =0)			0.043
N=534			
Wald statistic	9.88	11.00	18.36
	(0.0786)	(0.1385)	(0.0104)
Pseudo-Rsquare	0.02	0.04	0.04

All regressions also include controls for parental education, child's age, and number of kids in the family. Additionally, all regressions incorporate the PSID weights, robust estimation for standard errors and stata's clustering command (for grandparent wealth regressions). Asterisk ("*") denotes statistical significance at 0.10 level

Table 12. Probit regression for whether a child is expected to attain level of education beyond high school

	Model 1	Model 2	Model 3
race	-.08*	-0.08	-.06
(dummy variable black = 1)		(p=0.122)	
permanent income	0.002*	0.002*	.002*
(in thousands $)			
parental wealth (level, in thousand $)		0.00002	
gp wealth (level, in thousand $)		0.000005	
no parental wealth dummy			.02
(zero or – wlth = 1, positive wlth = 0)			
no grandparent wealth dummy			-.09*
(zero or – wealth = 1; positive wealth =0)			(wealth1 measure only)
N =1254			
Wald statistic	82.40	57.84	61.18
	(0.0000)	(0.0000)	(0.0000)
Pseudo-Rsquare	.17	.17	.18

All regressions also include controls for parental education, child's age, and number of kids in the family. Additionally, all regressions incorporate the PSID weights, robust estimation for standard errors and stata's clustering command (for grandparent wealth regressions). Asterisk ("*") denotes statistical significance at 0.10 level

Table 13. Probit regression for whether parents want their child to obtain more than a high school degree

	Model 1	Model 2	Model 3
race (dummy variable black = 1)	-0.05*	-0.05*	-0.05*
permanent income (in thousands $)	0.0004	0.0004	.0004
parental wealth (level, in thousand $)		0.00002	
gp wealth (level, in thousand $)		0.000004	
no parental wealth dummy (zero or – wlth = 1, positive wlth = 0)			-0.008
no grandparent wealth dummy (zero or – wealth = 1; positive wealth =0)			0.013
N =1256			
Wald statistic	45.42 (0.0000)	34.05 (0.0000)	34.05 (0.0000)
Pseudo-Rsquare	.20	.21	.21

All regressions also include controls for parental education, child's age, and number of kids in the family. Additionally, all regressions incorporate the PSID weights, robust estimation for standard errors and stata's clustering command (for grandparent wealth regressions). Asterisk ("*") denotes statistical significance at 0.10 level

Table 14. Probit regression for whether a child attends private school (at the elementary or secondary level)

	Model 1	Model 2	Model 3
race	-0.05	-0.04	-0.03
(dummy variable black = 1)	(p=.276)		
permanent income	-0.000002	-0.00002	-0.00008
(in thousands $)			
Parental wealth (level, in thousand $)		0.000004	
gp wealth (level, in thousand $)		0.00002*	
no parental wealth dummy			-0.08*
(zero or – wlth = 1, positive wlth = 0)			(wealth1 only)
no gp wealth dummy			-0.09*
(zero or – wealth = 1; positive wealth =0)			
N=1201			
Wald statistic	7.62	12.98	21.11
	(0.1786)	(0.0725)	(0.0036)
Pseudo-Rsquare	0.01	0.03	.04

All regressions also include controls for parental education, child's age, and number of kids in the family. Additionally, all regressions incorporate the PSID weights, robust estimation for standard errors and stata's clustering command (for grandparent wealth regressions). Asterisk ("*") denotes statistical significance at 0.10 level

Table 15. Probit regression for neighborhood quality

	Model 1	Model 2	Model 3
race (dummy variable black = 1)	-0.18*	-0.17*	-0.16*
permanent income (in thousand $)	0.00004	0.0001	-0.00004
parental wealth (level, in thousand $)		-0.000006 (p=.108)	
gp wealth (level, in thousand $)		0.000006	
no parental wealth dummy (zero or – wlth = 1, positive wlth = 0)			-0.13*
no gp wealth dummy (zero or – wealth = 1; positive wealth =0)			0.04* (wealth2 only)
N =1253			
Wald statistic	77.38 (0.0000)	66.12 (0.0000)	77.55 (0.0000)
Pseudo-Rsquare	.16	.17	.19

All regressions also include controls for parental education, child's age, and number of kids in the family. Additionally, all regressions incorporate the PSID weights, robust estimation for standard errors and stata's clustering command (for gp wealth regressions). Asterisk ("*") denotes statistical significance at 0.10 level

Table 16. Summary statistics for outcome variables

		All kids Mean	Black children (st. error)	White children (st. error)
college choice (will be constrained by costs) N=1611		.695	.7831 (.0184)	.6798 (.0142)
college fund (parents have set one up) N=1666		.160	.092 (.0128)	.174 (.0113)
college loans and scholarships (will be needed) N=1620		.846	.924 (.0118)	.832 (.0113)
No private colleges will be considered N=733		.659	.674 (.0269)	.654 (.0234)
Private colleges will be considered N=1548		.578	.370 (.0222)	.608 (.0151)
Neighborhood ok N=1660		.891	.669 (.0208)	.921 (.0081)
Amount of schooling the child's primary caregiver wants (for the child) N= 1666		6.05	5.37 (.0838)	6.15 (.0397)
Amount of schooling the primary caregiver expects N=1661		5.16	4.29 (.0910)	5.32 (.0511)
PCG wants child to continue beyond high school N=1666		.93	.801 (.0176)	.950 (.0065)
PCG expects child to continue beyond high school N=1661		.81	.609 (.0215)	.840 (.0110)

Appendix table

Figure 2. A Quick Review of the Loury and Becker/Tomes models

	The Loury (1981) model	*The Becker/Tomes model(s)*
Utility function	$U = U(c, V(\text{offspring's earnings}))$	$U_t = U_t (Z_t, I_{t+1})$
Objective function	$E [U (c, V^*(h(\alpha, y-c))]$	$E [U_t]$
Choice variables	c and e	Z_t and $E(I_{t+1})$ via the choice of y_t
Constraints	$c + e = y$	(1) the individual budget constraint: $Z_t + \Pi_t y_t = I_t$ (2) the "family" budget constraint, used to describe the constraint when optimizing is, $Z_t + I_{t+1} / (1+ r_t) = I_t + [w_{t+1} e_{t+1} + w_{t+1} + u_{t+1}]/[1+r_t]$ or, $Z_t + I_{t+1} / (1+ r_t) = S_t$ where "S_t" represents family resources
Major results	The first order conditions imply that, $e_t^* = e^*(y_{t-1})$	(1) The process linking one generation's income to another's can be described by the following equation: $I_{t+1} = w_{t+1} y_t + w_{t+1} e_{t+1} + w_{t+1} + u_{t+1}$ This equation illustrates the B & T idea that parents affect their offspring thru the provision of education and the transmission of "cultural" and "genetic" endowments. (2) A parent will consider his child's ability and market prospects when contemplating the tradeoff between funding his own consumption and investments that affect his child's income level. (3) I^*_{t+1} will depend upon r_t, w_{t+1} u_{t+1} (4) More specifically, <u>in the 1986 version</u> of the model, $y^*_t = g(e_{t+1}, I_t, \text{and } \varepsilon_t)$ where ε_t represents the uncertainty about market luck

Implications if looking at 3 generations without modifying the model	$x_{gen\ t+1} = h [\alpha, e^*_{gen\ t+1} (x_{gen\ t} (\alpha, e^*_{gen\ t} (y_{gen\ t-1})))]$	Incomes across the generations can be connected via the following general expression: $I_t = F(I_{t-1} I_{t-2}, u_{t-1}, v\ t, h, \alpha, \varepsilon_{t-1}, \varepsilon_{t-2}) + u_t$ where h is parameter describing the heritability of endowments and v represents luck in the transmission process [From B & T 1986]
Notes	(1) c is consumption, (2) y is income, (3) e is the level of education or training provided to one's offspring, (4) α is ability (presumed to be randomly distributed and unknown at time of optimization), (5) V represents the offspring's indirect utility function, (6) income depends upon ability and education, according to the following production function: $x = h(\alpha, e)$, with production technology constant across generations.	(1) Z_t is the individual's own consumption level (2) I represents income: I_t is the individual's own income and I_{t+1} is the income of his offspring during adulthood (3) y_t is the level of education chosen (and purchased) by generation t <u>for</u> the next generation, (4) e is not education; instead it represents a child's endowment. (5) U represents utility while the lower case u represents market luck (random shocks to income), (6) Π is the per unit cost of the educational investment good AND to allow for the possibility that the actual value of the investment differs for the offspring, B& T allow for the following, $w_{t+1} y_t = \Pi_t y_t (1+r_t)$ where w_{t+1} is the value to the offspring of the investment level y_t provided by his parents
In both models the t subscripts are generational markers not time period subscripts!!!!!		

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