THE INVISIBLE HAND:

KIN NETWORK WEALTH AND ITS IMPACT ON WEALTH TRANSFERS

by

Colin Macfarlane

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ABSTRACT

This paper investigates the connections between household wealth inequality, intergenerational transfers of wealth, and kin network wealth inequality. It asks how kin network wealth influences the distribution of intergenerational transfers of wealth for blacks, whites, Asians, and Hispanics and how this relates to resources and need. Using 1999-2011 PSID data, these questions are tested using lagged random effects models of wealth transfers for the whole sample and in race specific models. Results show that higher network wealth is associated with greater wealth transfers, but that the effect is positive only for whites and Hispanics. Resources, class need, and health or unemployment need lead to different levels of wealth transfers for each racial group. The influence of network wealth on intergenerational transfers of wealth has implications for understanding the connections between resources and need, studying the racial wealth gap, and improving asset building policy.

Chapter 1

INTRODUCTION

The wealth gap and the racial gap are wider now in America than at any point since data collection began in 1983. A typical white family owns twenty times more wealth than the typical black family and eighteen times more than a Hispanic family (Kochhar, Fry and Taylor 2011). There are few indicators that wealth inequality will decrease, considering that whites are more likely to receive an inheritance, they collect larger inheritances, they obtain more monetary transfers over the course of their entire lifetime, and they have wealthier social networks than blacks or Hispanics (Wilhelm 2001; Shapiro 2004). These intergenerational transfers of wealth impede racial equality and upward mobility in America by passing on historical advantages and reproducing the racial wealth gap for the next generation.

Wealth or net worth is the total amount of assets minus all debts. A household's assets include their home equity, real estate and vehicle ownership, stocks, bank accounts, bonds, and 401(k) accounts, minus mortgages, vehicle loans, personal loans, and other liabilities. An *intergenerational transfer of wealth* is a term used to describe all asset exchanges between two relatives. In practice it often includes intragenerational transfers, describing exchanges within generations, as well as transfers of wealth to non-relatives. This encompasses all inheritance, meaning postmortem monetary exchanges, and inter vivos transfers, meaning any monetary

transfer during one's lifetime, transferred to family or friends. Around half of all wealth is earned through intergenerational transfers of wealth and it is the largest predictor of household wealth levels (Wilhelm 2001). While families use income for daily expenses, kin networks use wealth and intergenerational transfers as a semipermanent resource that allows them to pay for college, purchase a home, invest in their children and maintain their socioeconomic position during unemployment and recessions (Wilhelm 2001; Shapiro 2004; Johnson 2006). Parents with greater wealth leverage these assets to get their family into better schools, pay off student loans, and to provide unequally advantageous life chances for their children beyond their own means (Shapiro 2004; Johnson 2006).

In this thesis, I analyze how intergenerational transfers of wealth are influenced by kin network wealth, meaning the value and distribution of assets within the extended family. My research questions are threefold: What is the median kin network wealth for black, white, Asian and Hispanic families? How does kin network wealth influence the frequency and magnitude of intergenerational transfers of wealth for blacks, whites, Asians, and Hispanics? How do white, black, Hispanic, and Asian kin networks respond to resources and need with intergenerational transfers of wealth? I argue that as kin network wealth increases, intergenerational transfers of wealth will increase exponentially regardless of racial group. However, I argue that transfers should be more common among kin networks where wealth is more unequally distributed.

I begin by showing how prior research has come to a consensus on the salience of the racial wealth gap and the role of intergenerational transfers, while debate exists on a broader definition of wealth transfers and on explaining the causes of intergenerational transfers of wealth. I argue that previous scholarship explaining asset transfers does not sufficiently account for racial disparities in transfers, nor do they study transfers within the social network beyond just the parent and child. In order to address this gap in the literature, I use 1999-2011 data from the Panel Study of Income Dynamics along with lagged random effects models to study the influence of kin network wealth on asset transfers. In my analysis I show how intergenerational transfers are explained by kin network wealth, class need, and household crisis needs, but that this varies by racial group. Specifically, the effect of kin network wealth is greater for whites than it is for Hispanics and blacks. I end with a discussion of how kin network wealth's influence on wealth transfers is important for understanding resources and needs, calculating the racial wealth divide, and addressing asset building policy.

Chapter 2

LITERATURE REVIEW

This thesis connects scholarship on the causes of wealth inequality, the causes of intergenerational transfers of wealth, and the influence of extended family networks to study how kin network wealth influences asset transfers. To begin I show that intergenerational transfers of wealth impact two pervasive inequalities in America: the wealth gap between the upper class and middle/lower classes as well as the racial wealth gap between whites and people of color. I then show how previous research argues that wealth transfers are the most influential factor in perpetuating asset inequality. Though most scholars agree on the crucial roles of intergenerational transfers of wealth, they disagree on whether to include inheritance, inter vivos, parental wealth, or social capital in their operationalization of asset transfers. I argue that focusing on inheritance and inter vivos transfers best captures asset exchanges for this thesis without confusing it with positive feedback effects resulting from transfers. Next I argue that previous structural studies on the causes on wealth transfers have not sufficiently analyzed transfers beyond the parent/child binary or with a net worth measure. While previous research shows it occurs, we have little understanding of how exchanges work within an extended family or how transfers from one relative may influence transfers from another family member. There is a need then to connect

these bodies of research and understand how the level of wealth within the extended family network influences the level and frequency of intergenerational transfers.

Recent Trends in Wealth and Racial Wealth Inequality

With agreement across varying national surveys and methodologies, researchers have shown both the wealth gap and racial wealth gap are more unequal now than at any time in the past three decades. The wealth inequality gap has never approached egalitarianism, though recent trends show the distance between the rich and the poor is only widening. In 1983, the top one percent owned 33.8 percent of all US wealth, the top five owned 56.1 percent, and the top twenty owned 81.3 percent. By 1998, this had increased to 38.1 percent, 59.4 percent, and 83.4 percent respectively (Keister 2005; Aizcorbe, Kennickell, and Moore 2001; Kennickill, Starr-McCluer, and Suden 1997; Shammas 1993). Data collected in 2007 illustrates that the upper echelons were the primary benefactors during the global recession considering the wealth of the top one percent stood at 34.6 percent, the top five at 61.9 percent, and the top twenty at an unprecedented 85 percent of all American wealth (Wolff 2010). To put that in perspective, the top 3 million Americans now have twice collective net worth as the bottom 240 million Americans. The recession caused US median wealth to drop 38.8 percent from 2007 to 2010; however again this primarily affected the middle and lower class and has only further widened the wealth gap (Bricker at al. 2012).

The wealthiest percentages of Americans are disproportionately white and the least wealthiest disproportionately people of color, an important link between race and class inequality that partially explains why the racial wealth gap has inflated in the last decade as well. White families though have always held a dominant wealth advantage over Hispanic and black families in America (Shapiro 2004). However, in the post-civil rights era the racial wealth gap has only expanded. From 1984 to 2004, whites families owned about 7 times that of a typical Hispanic family and about 10 times that of a typical black family (Kochhar, Fry and Taylor 2011). However, by 2009, white median wealth increased to 14 times wealthier than Hispanics and 20 times that of African Americans, with similarly disproportionate advantages in net financial assets (Kochhar, Fry and Taylor 2011). That translates to a white median wealth of \$113,000 compared to only about \$6,300 and \$5,600 respectively for a typical Hispanic and black American family.

In an effort to understand the causes of both persistent and increased racial wealth inequality, researchers now generally agree the divide is related to disparities in 1) age, 2) socioeconomic status, 3) household composition, 4) location, 5) racial prejudice, 6) immigration, and 7) intergenerational transfers of wealth. Counter to the life cycle hypothesis, which poses that people steadily accumulate wealth until retirement and then deplete nearly all assets before death (Modigliani and Brumberg 1954), whites accumulate wealth over the life cycle at a dramatically higher rate than black families and hold substantial assets upon death (Blau and Graham 1990). Whites hold socioeconomic advantages over blacks and Hispanics in income, education, work

experience, and upper-white collar occupations, each widening wealth advantages (Blau and Graham 1990; Oliver and Shapiro [1995] 2006, Land and Russell 1996, Horton and Thomas 1998). Blacks have lower marriage rates and a higher prevalence of single female households (Oliver and Shapiro [1995] 2006) while Hispanics have more children than whites (Hao 2001), meaning assets come from fewer sources or are spread thinner. People of color are also more likely to be located in asset poor areas such as the South and racially segregated areas (Massey and Denton 1993; Rugh and Massey 2010). Both predominantly immigrant groups, Asians and Hispanic wealth is influenced by their country of origin, year of entry, English proficiency, foreign-born status, native marriage, immigration context, and exchange rates (Krivo 1995; Hao 2001, 2007; Cobb-Clark and Hildebrand 2006a, 2006b; Campbell and Kaufman 2006).

The recent expansion of racial wealth inequality has been linked to these persistent factors and others related to the 2007 recession. Though racial disparities in education, occupational segregation, and income have slightly improved in the past decade, racial segregation and class segregation has increased (Rugh and Massey 2010). Segregated wealth inflates the home equity value of upper class homes and has the exact opposite impact on low wealth and racially segregated areas. Much of the recent drop thus has to do with a sharp decline in housing equity and high rates of foreclosure, especially in states like Florida, California, Nevada, and Arizona. Disproportionately higher numbers of Hispanic families live in these states, which has taken a critical toll on their wealth levels (Kochhar, Fry and Taylor 2011). Indebtedness among the middle class has also risen to its highest point since the early

1980s. In 1983, the average annual middle class income to total debt ratio was 1 to 0.67. By 2007, largely as the result of rising home equity debt (Wolff 2011), this ratio had grown to 1 to 1.57. In contrast, the predominantly white wealthy have asset portfolios primarily composed of stocks and bonds, rather than housing equity, therefore many have outpaced previous wealth levels now that the stock market has regained strength (Wolff 2011). Critical though to these trends is the role of asset transfers, because through them families inherit stocks, avoid home equity debt, and move into wealthier areas.

The Role and Definition of Intergenerational Transfers of Wealth

While other factors remain pertinent, scholars overwhelmingly agree that intergenerational transfers of wealth are the most important cause of racial wealth inequality. Whites are 15-25% more likely than non-whites to receive an inheritance and inherit, on average, about \$110,000 more than blacks over the course of their lifetimes (Menchik and Jianakoplos 1997; Avery and Rendall 2002). In the now retiring baby boom generation, whites boomers have earned 2.7 times more lifetime non-inherited wealth than black boomers, but hold an 8.1 to 1 advantage in lifetime inherited wealth (Avery 2002). This finding has led some to conclude, "even when earnings gaps are reduced, intergenerational transfers will act as a drag on the process of equalization of racial economic status" (Avery 2002, 1335). Even if income, education, occupation, and other major inequality gaps are reduced, the process of intergenerational transfer of wealth will continue to perpetuate wealth inequality.

There is consensus on the relative salience of intergenerational transfers of wealth, but there is a notable diversity of opinions on how to define and measure wealth transfers. Earlier studies focused almost purely on inheritance because after death wealth transfers are typically the largest monetary exchanges from one generation to another. To measure intergenerational transfers, they relied on a combination of probate records, Federal Reserve Board estimates of total US wealth, and survey questions asking respondents how much they had received in the previous year from inheritance and gifts. Assuming a stable economy and zero returns on inheritance, they estimated only about 1 percent of all wealth in America is transferred every year, around \$20 billion in 1988 (Modigliani 1988). Using this narrow definition of intergenerational transfers of wealth, they estimated that inheritance accounts for between 10 and 18 percent of an individual's lifetime wealth, the rest being selfaccumulated (Modigliani 1988; Kotlikoff and Summers 1981; Menchik and David 1983). In terms of the asset gap between blacks and whites, researchers estimate that 20 percent of variability in racial wealth can be explained by inheritance alone (Avery and Rendall 1997; Menchik and Jianakoplos 1997).

Though helpful for understanding the critical role of post mortem inheritance, most early asset transfer studies considered any exchange of wealth before death as essentially negligible, for both methodological and theoretical reasons. Many were relying on previous economic knowledge from probate records and estate tax laws, both of which treated post mortem inheritance as the only type of transferred wealth between two people. Questions on inter vivos transfers were not introduced onto

national wealth surveys until 1983. Yet also theoretically, this older school of thought presumed that people did not exchange substantial wealth across generations while they were still living. By focusing only on assets transferred at the end of a lifetime, prior research likely underestimates the flow of intergenerational transfers of wealth.

Reacting to the lack of living transfers in previous studies of intergenerational transfers of wealth, other scholars have measured the combined effect of inter vivos and inheritance. Gale and Scholz (1994) calculate that 31 percent of accumulated wealth comes from inheritance, while an additional 21 percent comes from inter vivos transfers. In one of the most thorough studies of intergenerational transfer of wealth, Wilhelm (2001) argues that even this estimate is likely conservative. He concludes that "a great deal of wealth – probably one-half but perhaps more – first reaches its owners by way of intergenerational transfer. The bulk of these transfers go to white households, middle-aged to later-aged households, well-educated, professional, and managerial households (Wilhelm 2001, 155)." Using 1988 PSID data he calculated the annual flow of intergenerational transfers of wealth at \$52.1 billion (Wilhelm 2001). It is this combination of both inheritance and inter vivos transfers that I believe best captures intergenerational transfers of wealth without combining the term with other effects.

Recent scholars though argue that parents influence the wealth gap through multiple forms of social capital, many immeasurable, therefore parental wealth can best predict offspring wealth levels via assumed intergenerational transfers (Conley 1999; Shapiro 2004; Keister 2005; Albertini and Radl 2012; Jayakody 1998; Morgan

and Scott 2007). Parents transfer wealth to their children, allowing them and their family to buy their first home, purchase cars, leverage their way into private schools, and to pay for college (Shapiro 2004; Johnson 2006). While some of these monetary exchanges would be reported on national surveys as "gifts" if over \$3000, smaller transfers and others such as money paid directly to colleges or loan companies are omitted. Vital factors such as religious orientation, parental education level, and extra curricular activities stem from parental wealth, but also have immeasurable head start affects for children due to transferred social capital (Keister 2005, Shapiro 2004). By using parental wealth or other parental characteristics as regression variables, the combined influence of both measurable and immeasurable parental transfers can be estimated. Using the PSID, Conley calculates that when including parental wealth and SES factors, most if not all of the racial wealth gap between blacks and whites can be accounted for (2010). Parent's net worth, parent's income, and parent's occupation are three of the five most important factors in predicting net worth (Conley 2010).

The broadest argument posits that focusing on inheritance, inter vivos transfers, or parental wealth only focuses on exchanges from parent to child, while ignoring extended family finances. Household wealth and the size and frequency of intergenerational transfer may have more to do with relatives in poverty, grandparent wealth, or some form of extended family wealth (Chetiji and Hamilton 2002; Chetiji 2010b). Chetiji and Hamilton (2002) argue that families who have impoverished relatives have a more difficult time accumulating wealth because of a pressure to help those in their kin network. Black families are more likely to have impoverished family

members within their kin network than white families and are more likely than whites to have retired parents in need of financial assistance. They calculate that impoverished kin networks explain 27 percent of the black/white wealth gap, mostly due to the drain these intergenerational transfers have on middle class black wealth (Chetiji and Hamilton 2002). Chetiji (2010b) further notes that a considerable portion of wealth transfers come from grandparents, yet the average black child has 1/8th the grandparental wealth as the average white child. This grandparental wealth divide holds true even for middle class and college educated blacks (Chetiji 2010b).

For my research studying the role of kin network wealth on intergenerational transfers of wealth, I argue that it makes the most sense to define intergenerational transfers as the combination of inheritance and inter vivos exchanges. An imposing body of prior research shows that any modern estimation of asset transfers must go beyond post mortem inheritance. We know monetary transfers made during the life course account for a substantial percentage of accumulated wealth and thus focusing only on inheritance illuminates only half the overall picture. I argue parental wealth and extended family research however is really measuring both intergenerational transfers of wealth and the positive feedback effects caused by these transfers, without actually using a concrete wealth transfer variable. For example, Conley (2010) argues that parental wealth and SES can predict their children's net worth levels for blacks and whites, yet this is predominantly true because higher parental wealth leads to higher levels of asset transfers, which leads to higher levels of offspring wealth. It is exactly this causal relationship that calls for further research. Indeed, measuring *exact*

asset transfer levels would provide a more systematic explanation than assuming them or combining them with social capital affects.

Parental wealth and extended family finance research still highly influences how I argue scholars should use kin network wealth to study these intergenerational transfers. By showing that racial wealth inequality can be partially explained by parental wealth, grandparental wealth, or relatives in poverty, each is actually showing that parents, grandparents, and other relatives affect the level of intergenerational transfers of wealth. Though scholarship certainly shows the majority of wealth transfers downward from parent to child, given prior research (Chetiji and Hamilton 2002; Chetiji 2010b; Wilhelm 2001) we then expect that relatives transfer wealth *within* generations, from child to parent, and outside the nuclear family. I extend this research to argue that the transfers are relational, hypothesizing for example that parental wealth transfers may be much lower for a child receiving substantial transfers from another relative. It is then evident that the entire kin network must be explored in the context of the racial wealth gap in order to capture the collective context of intergenerational transfers, defined as receipts of inheritance or inter vivos.

Causes of Intergenerational Transfers of Wealth

Though I have argued racial wealth scholarship informs how we study intergenerational transfers of wealth, the debate on what causes these asset transfers has been largely separate from previous bodies of work. I believe that since we know the wealth and racial wealth gap are keystones of inequality and that asset transfers are

the primary cause of racial wealth inequality, that current research would benefit from focusing on what factors cause inequalities in intergenerational transfers. Current theories on what causes transfer inequalities vary from the individual, to the cultural, to the structural. Individual theories fail to explain structural racial inequalities and focus too much on personal motivations, though the average American would accept these notions of transfers based on personal responsibility. Cultural factors show there may be differences in transferring norms for blacks and white, but I believe these are the result of structural issues related to kin networks. Structural theories best explain how transfers depend on both the resources of the giver and needs of the receiver, though previous research still focus narrowly on only transfers from parents to children.

Individual theories on intergenerational transfers argue transfers depend on motivation, specifically whether the parent is personally motivated by altruism, status reproduction, or reciprocity. Under the altruistic and status reproduction models, parents transfer wealth to their children purely to advance their children's livelihood, without any expectations of reciprocal transfers (Abertini and Radl 2012; Elster 2006). Parents are concerned about ensuring their children achieve at least the same class or social status as them, resulting in them transferring wealth when their children fall short of expectations. The reciprocal model instead argues parents transfer wealth because they expect their children to help them out later on in life when they cannot support themselves (Henretta et al. 1997; Klein Ikkink et al. 1999; Silverstein et al. 2006; Leopold and Raab 2011). The argument implies parents are forward looking

with each transfer, expecting a sort of return on investment when exchanging money with their children.

While certainly there is individual variability in transfer motives, these individual theories largely rely on rational actor theory and fail to account for large racial disparities in intergenerational transfers of wealth. All three models imply that parents have a specific and premeditated goal to each transfer, yet research shows most families are not even cognitively aware of most transfers as anything other than non-advantageous "gifts" (Shapiro 2004). Qualitative studies of asset transfers (Shapiro 2004, Johnson 2006) show that parents are aware that using assets to get into better schools will give their children an advantage, but they think the inheritance or transfers they have received for down payments and college debt is fairly universal and has not given them an advantage over their own hard work. Transfer motives may thus have status reproduction goals, but they are short term, socialized actions, with little thought of reciprocity. Furthermore, the distinction between altruism, status reproduction, and reciprocity motives is somewhat moot because neither answers why transfers occur at certain points, why they vary in magnitude, or why they differ across race and class.

Cultural arguments instead hypothesize that whites and non-whites have slightly different attitudes about who to transfer wealth to, what transfers should be used for, and at what point they should be transferred. Predominantly they argue that middle class blacks feel a greater obligation than middle class whites to transfer wealth to poorer friends and family (Shapiro 2004, O'Brien 2012; Chetiji and

Hamilton 2002). In O'Brien's (2012) research, he calculates that low income blacks and whites provide about the same amount of assistance, while higher income blacks actually provide more assistance than similar income whites. He admits that there are surely structural concerns, but theorizes that middle income blacks may have a different cultural norm that encourages dispersing net worth rather than providing informal assistance, such as job recommendations, to impoverished relatives (O'Brien 2012). Qualitative studies though show that black, white, lower class, and upper class families all have the same individual desires to ensure their children achieve an equal or better lifestyle (Shapiro 2004, Johnson 2006). Though Shapiro's (2004) interviews with black families revealed there is higher demand on middle class black families to transfer, I argue that is because of a structural issue in the kin network rather than a cultural norm. If one controlled for poverty outside the nuclear family, I hypothesize the culture differences would be smaller.

When attempting to understand what causes wealth transfers, I argue we need to move beyond individual and cultural models and focus on structural theories that note that intergenerational transfers of wealth depend on either the resources of the giver or the needs of the receiver. Researchers show that whites and non-whites have the same desire about intergenerational transfers and when controlling for class they transfer at the same frequency and magnitude (Albertini and Radl 2012; Morgan and Scott 2007). Classes may have particular norms that influence transfers, but mainly transfer differences result from the level of available resources (Albertini and Radl 2012; Morgan and Scott 2007). They demonstrate that there is a clear positive

association between greater wealth or higher class and greater intergenerational transfers of wealth, and that as wealth inequality increases so too does transfer inequality (Morgan and Scott 2007).

Jayakody (1998) makes a more nuanced structural argument, positing that transfers depend on not just the resources the parent has available, but the needs of the children, defined as whether they are low income and whether they are single parents. He argues that when controlling for family structure and parental income, the black/white gap in intergenerational transfers disappears for all but the lowest levels of income (Jayakody 1998). Single parents are the likeliest family unit to receive wealth transfers, though white single mothers are the more likely to receive them than black single mothers, and yet they receive the lowest average amount transferred in terms of magnitude. Married white couples receive the highest magnitude of intergenerational transfers (Jayakody 1998). Jayakody therefore shows transfers depend on not just the structural position of the parent, but also the structural position of the child.

Previous structural theories on intergenerational transfers of wealth, however, may still focus too much on the nuclear family and limited class measures. Most posit that transfers depend solely on the resources of the parent, rather than the additional factor of whether their child is particularly in need of transferred resources (Albertini and Radl 2012; Morgan and Scott 2007). More critically, they all see transfers as occurring downward from parent to child, rather than measuring all transfers from grandparent to child, child to parent, or extended family relative to child. Structural arguments about the influence of class have also only looked at the class status of the

parent and the child, rather than the class positions within the kin network. Most researchers also operationalize class via income, education, and occupation rather than a more robust net worth measure. Two families at the same level of income, education, or occupation often have entirely different levels of wealth available, thus their ability to transfer is decidedly different. I plan to use kin network wealth instead of these previous parental class measures because wealth is a more robust measure of resources and transfers are more complicated than just one set of parents giving to one child. If we accept that measuring need and resources best captures structural inequalities, then we also need to control for events beyond low class position, such as unemployment or poor health that would also trigger need.

Prior research on the causes of racial wealth inequality and the causes of intergenerational transfers of wealth provide a firm foundation for understanding asset exchanges, but have not sufficiently explained how transfer inequality is impacted by a larger network. Parental wealth studies assume a flow of intergenerational transfers, but do not explicitly measure transfers, and still focus only on parents. Previous structural studies explaining the causes of wealth transfers have not analyzed transfers beyond the parent/child binary and have not incorporated wealth into class measures. No previous study has calculated the role of wealth within the extended family. I argue then there is a need to study how kin network wealth influences intergenerational transfers of wealth.

Chapter 3

METHODOLOGY

Data

I conducted this study using data from the Panel Study of Income Dynamics (PSID), a nationally representative longitudinal survey that has been collecting data on the same kin networks since 1968. The PSID is more applicable for this research than other surveys that measure household wealth such as the Survey of Consumer Finances and the Survey of Income and Program Participation because it measures multiple types of intergenerational transfers and continues to survey kin once they leave the original household. The household wealth measurements are also comparable to other surveys (Hao 2007). I combined data from the 1999, 2001, 2003, 2005, 2007, 2009, and 2011 PSID Main Family waves. These are the most recent PSID waves that collect household wealth and intergenerational transfer data, while prior to 1999 this wealth data is only available in five year intervals between 1984-1999 rather than biennially. This twelve year frame is sufficient to test for lagged effects.

Variables

The unit of analysis in this research is households, measured either with household data or with data limited to the head of household. My dependent variable is transfers of wealth, which I operationalized by measuring annual head and wife transfer income. This variable includes all transferred income to the head or spouse from alimonies, annuities, child support, retirement, TANF, SSI, VA Pensions, worker compensation, help from relatives, help from non-relatives, and other unspecified income transfers. The transfer income variable therefore captures nearly all types of wealth transfers a household could receive in a given year. Due to self-reporting, many transfers of wealth by respondents were likely not included in this variable. For example, respondents do not report transfers for relatives that go directly to third parties such as college tuition payments. However the PSID is the only dataset that contains data on intergenerational transfers of wealth, household wealth, and kin networks collectively. Systematic tracking of wealth transfers is unavailable currently and unlikely because the costs and comprehensiveness of such a study would be untenable.

My focal independent variable is kin network wealth. I first linked all current household heads in the 2011 PSID to their original 1968 family identification, using this as a kin network. I then aggregated all the household wealth on the 2011 household heads for each year, divided by the number of household heads within the kin network, and used this average number as kin network wealth. I repeated this for each wave in the dataset so that there is an average kin network wealth measure for

every kin network per observational year. Though kin network wealth could be calculated multiple ways, I argue this method best controls for shared household wealth and network size. Aggregating all wealth in a network without averaging by the size of the network would create a highly right skewed variable that would require transformation. Instead, this variable captures the average amount of wealth a household could draw on regardless of how many households the PSID has recorded in their network.

The PSID asks respondents whether they identify as white, black, American Indian, Alaska Native, Asian, Native Hawaiian or other Pacific Islander. Using the head of household's response, I recoded race into White, Black, Asian, and other, which includes American Indians, Alaskan natives, and those defining themselves as "other". Hispanics of all racial groups are coded as Hispanic. I created interaction terms for each racial group with kin network wealth to explore how the effect of greater family resources may result in different transfer income for each racial group. I expect that as kin network wealth increases, transfer income will also increase. However, I hypothesize that this effect will be less for non-white racial groups.

Based on previous literature, I control for sex, age, education, income, unemployment, and health status. Sex is coded 1 for male heads of household and 0 for female heads. Age is measured by the age of the head of household. Females and late-middle aged adults are expected to have higher levels of wealth transfers. Education and income test for class related need in a network. Education is operationalized as the highest years of school completed by the head of household.

Income measures the total family income received in the previous tax year. Those who are more educated and have higher incomes are expected to have greater economic or class need, thus they are expected to receive more transfer income than upper class respondents. I include unemployment and health variables to control for a second type of need based on negative life events in a respondent's life that would cause them to have a greater need for resources. Unemployment is coded 1 if the head experienced any period of unemployment in that year. Health is coded 1 if the head rated their health status as "fair" or "poor" and coded 0 if they rated their health as "excellent", "very good", or "good". Positive values for unemployment and health are expected to be associated with positive wealth transfer values.

Censoring

Data has been censored due to both extreme outliers and missing data. Rather than eliminate extreme outliers, transfers of wealth was top coded at \$400,000, kin network wealth was top coded at \$1,500,000, and income was top coded at \$2,000,000. These numbers were chosen based on univariate analyses of extreme outliers. Using the lagged random effects model, 16,424 cases were dropped due to missing data. These censored cases are younger and have less network wealth, transfers of wealth, and income (Appendix B). However the cases dropped are comparable to the final sample in terms of race, sex, education, unemployment, and health. The final model includes 42,651 families, of which 24,461 are white, 13,516 are black, 1,798 are Hispanic, 581 are Asian, and 2,111 are Other.

Methodology

To analyze the influence of kin network wealth on intergenerational transfers of wealth, I use a random effects model with a two year lag on kin network wealth. A random effects model is necessary to capture the within and between variability in kin network wealth across time. Lagged effects are appropriate because it can take a few years for a kin network to recognize need within the family. Impoverished family members may also resist reaching out for assistance immediately. I supplement this main model by analyzing transfer income by both quartiles and deciles with lagged random effects models. Furthermore, I run race specific lagged random effects models for each group and test these differences in coefficients. Descriptive statistics and graphs have been weighted using the PSID family weights for each wave year. All models in this thesis are weighted using the 2011 family weight provided within the PSID to control for the complex survey design and longitudinal attrition. The models in this analysis meet the assumptions for multicollinearity and the Breusch and Pagan Lagrangian multiplier test for random effects. Though my models does not meet the assumptions for heteroskedasticity, this is not a major issue for random effects models. Additionally, though my models did not meet the criteria for the Hausman endogineity test, this is primarily due to changes over time in the household head.

Chapter 4

ANALYSIS

Descriptive Statistics

As shown in Table 1, households received an average of \$5,851 in transferred wealth each year. Compared to an average yearly income of \$69,214, wealth transfers represented approximately 8.5% of all income households received. The average kin network wealth for all heads of household was \$254,319. In this sample, the average household head is male, middle-aged, and has a high school education. More than 7% of all heads were unemployed at some point between 1999-2011. Furthermore, 19% of heads reported they had poor health at any point during the sample years.

Table 2 shows that Whites on average receive twice as much in wealth transfers than blacks or Hispanic. Whites households also have an average kin network wealth of \$293,360 compared to only \$69,841 for blacks, \$154,690 for Hispanics, \$460,427 for Asians, and \$161,367 for Others. Black households were more likely to have a female head than any other racial group. Black households also experienced the most unemployment, 13%, compared to 11% for Others, 10% for Hispanics, and 6% for both white and Asian households. Blacks were the most likely to report poor health as well, followed by Hispanics and Others. Whites in the sample on average also completed an additional year of education compared to blacks, Hispanics, and Others.

Wealth Transfer Recipient Descriptive Statistics

For the whole sample, 43.1% of households received a transfer of wealth at any point compared to 56.9% of households that never received an asset transfer. Relative to non-recipients, those receiving a transfer were on average 8 years older and slightly less educated. Recipients had an average income that was approximately \$24,000 less than non-recipients and an average household wealth that was \$8,000 less than those not getting transfers. Female heads were also more likely to receive assets than not. Of those reporting asset transfers, 11% were unemployed and 24% were in poor health at some point compared to 4% and 14% respectively for non-recipients.

Divided by racial group, 41.7% of white households, 46.3% of blacks, 37.0% of Hispanics, 38.2% of Asians, and 46.4% of Others received an asset transfer (Appendix A). For each racial group, recipients were older and more likely to be female, unemployed, less educated, and in poor health. Whites, black, and Hispanic recipients had lower network wealth, household wealth, and income than non-recipients. Black transfer recipients had an average household wealth of \$66880 and an average income of \$33006, in contrast to \$83153 and \$45005 respectively for blacks not reporting transfers of wealth. Nearly 17% of Hispanic wealth transfer recipients had been unemployed in the past, while only 5% of Hispanic non-recipients had experienced work loss. White recipients were 9 years older than non-recipients and Asian recipients 15 years older, both substantially larger than the age gap for blacks or Hispanics.

Comparing mean wealth transfers to mean network wealth, Whites transferred 5.03% of their available wealth, blacks 11.46%, Hispanic 4.83%, Asians 3.96%, and Others 5.43% (Appendix A). Blacks therefore distributed the greatest proportion of their network wealth, despite having the lowest level of network wealth in comparison to all racial groups.

Network Wealth and Household Wealth

From 1999 to 2011, white's advantage in household wealth has doubled over black and Hispanic households (Appendix D). In 1999, whites held 11.40 times more household wealth as blacks and 5.46 times more than Hispanics. By 2011, whites had 18.35 times the household wealth of blacks and 12.38 times that of Hispanics. Blacks and Hispanics also own less wealth in magnitude in 2011 than they did in 1999. A black family held a median of \$7,660 in household wealth in 1999, peaked at \$13,000 in 2001, and has dropped to their lowest point at \$4,855 in 2011. Hispanic families in 1999 held a median \$16,000 in household wealth, peaked in 2007 with \$37,000, and fell to \$7,200 by 2011. White and Asian households therefore started with a large advantage in household wealth and largely maintained their levels following the recession, while blacks and Hispanics have fallen even further in term of racial wealth inequality.

Figure 1 displays how median kin network wealth has changed for each racial group from 1999 to 2011. Leading up to 2007, Asians and whites were the predominant benefactors of the booming US economy before the recession. Following

the recession, Hispanic kin network wealth dropped dramatically and has continued to fall, while Asian and white wealth is still around 2005 levels. Blacks have had the lowest levels of kin network wealth for all years measure and saw little to no gains during the economic expansion. As seen in Figure 2, for all racial groups, kin network wealth rose from 1999 to 2007 and decreased since then. However, whites rose from a kin network wealth of \$115,750 in 1999, peaked at \$201,333 in 2007, and only decreased to \$172,125 by 2011 (Appendix D). In contrast, blacks in 1999 had \$21,960 in network wealth, peaked at \$37,047, and by 2011 had nearly depleted all those gains at \$23,364 in network wealth. The same is true for Hispanics. In 1999, white households held 5.27 times the amount of kin network wealth as black households and 3.05 that of Hispanic households. In 2011, kin network wealth inequality expanded to 7.37 times that of blacks and 5.40 times that of Hispanics, which is the most unequal point for kin network wealth measured in this sample.

Random Effects Models

Table 3 shows my primary findings using a random effects model on wealth transfers. Incorporating in a two year lag, as kin network wealth increases so too do transfers of wealth. Interaction terms between race and kin network wealth show that the effect of family resources on transfer income is only positive for whites and Hispanics and instead negative for blacks, Asians, and Others. With the exception of the Hispanic interaction term, each of the kin network wealth variables are significant at the 0.001 level. Resources appear to be either more influential effect for Whites and Hispanics or they are transferred through kin networks differently than other racial groups. Beyond kin network wealth and race, the control variables behave as predicted. Older household heads are associated with higher transferred wealth. Female heads of household are associated with lower levels of wealth transfers. Those with higher incomes are associated with high levels of asset transfers as well, meaning lower class need is not associated with increased transfers. Heads who at some point were unemployed or in poor health are associated with higher levels of transfers and both of these variables are statistically significant at the 0.001 level. This shows that contrary to class need, unemployment and health need are positively associated with wealth transfers.

I further investigate these findings by recoding wealth transfers into quartiles and deciles for respondents who reported any transfer income received. This censored sample includes 18,005 households that received any transfer of wealth. These households have a higher average wealth transfer level, however are comparable to the main sample with the exception of being only slightly more unemployed and in poor health. This shows that when examining wealth transfers by quartiles, kin network wealth again is associated with higher transfer levels. This effect is less for blacks and Others, while the effect of kin network wealth on wealth transfers is greater for Hispanic households compared to whites. Black, Asian, and Other households were associated with higher transfer levels compared to whites when controlling for other variables. However, this is statistically significant at the 0.001 level for only Asians and Other. Overall, the quartile model shows that wealth resources, upper class

position via income and education, and unemployment and health need are all positively associated with wealth transfers. This table displays the same random effects model when recoding transfers into deciles for those who received any transfer of wealth. There is a strong positive association between kin network wealth and transfer levels, but the interaction terms for blacks and Others are negative. Age, education, income, unemployment, and poor health are all positively associated with wealth transfers and are all statistically significant at the 0.001 level. These models therefore consistently show that when controlling for difference factors of need, available kin network wealth resources increases the amount of transfers a person receives. Additionally, these models are in agreement that lower class need does not lead to increased transfers, while needs related to poor health and unemployment do lead to greater intergenerational transfers of wealth.

Table 4 displays group specific random effects model by each racial group. For whites and Hispanics, kin network wealth is positively associated with transfers of wealth, while the association is negative for blacks, Asians, and Other households. With the exception of Asians, age and unemployment were both associated with greater levels of wealth transfers. Also, for all racial groups, male heads were associated with lower transfer levels when compared to female heads. For black, Asian, and Other households, poor health was not associated with increased transfers. Unlike all other racial groups, Hispanic households with high levels of education and high levels of income were actually associated with lower levels of transferred wealth. As education increases for white and black so too do transfers of wealth. In wald tests

comparing racial group coefficients to white coefficients, all coefficients are significant for blacks in comparison to whites at the 0.001 except for network wealth. For Hispanics, age, sex, education, and income are significantly different at the 0.001 level. For Asian in comparison to whites, sex and education are significantly different, while for Others, the coefficients for age, education, and unemployment are significantly different.

Chapter 5

DISCUSSION

The Role of Resources and Need

These findings illuminate a more complex picture about how available resources and needs influence intergenerational transfers of wealth. Scholars of racial wealth inequality and wealth transfers have mostly argued for a binary giver/receiver relationship of transfers downward from parent to child (Conley 1999; Shapiro 2004; Keister 2005; Morgan and Scott 2007; Albertini and Radl 2012). These scholars operate under the assumption that parents are significantly wealthier than their children and that transfers from non-parents are mostly negligible. Though parents may most often have greater resources and children greater need, the deciding factors for transferring wealth is not this binary family relationship but rather resources and needs within the network.

Net of all other demographic and need based factors, the amount of resources a family has to draw upon positively influences their asset transfers. Two families of equal class positions and who have faced equal household crises are going to receive different levels of intergenerational transfers of wealth depending on the wealth levels of their relatives. Though Jayakody (1998) has argued that wealth transfers are structural and depend on both needs and resources, her study did not investigate

household crisis needs or resources beyond parental income. Using a more robust measure of resources, this study improves our understanding to show that transfers are indeed structural, but depend on the level of resources throughout a network.

In terms of need, these results show that not all types of need should be treated equally. Families of a lower class, measured by income and education, are considered to be in greater need and yet are less likely than higher class families to receive asset transfers. This finding is in agreement with previous research (Wilhelm 2001; Morgan and Scott 2007) showing that those in the upper class maintain and increase their wealth through more frequent asset transfers. However, when families suffer crises such as poor health or unemployment though, this type of need leads to increased asset assistance. The kin network likely responds similarly to parents when unemployment strikes by transferring enough surplus wealth to allow kin to stay at their previous income level (Wilhelm 2001). Poor health is a predictor of lower wealth in the long term (Smith 2007; Warren 2009), however the extended family sees health need as a legitimate reason to transfer wealth.

The effects of resources and need on intergenerational transfers of wealth vary by racial group. For white families, the effect is equal to the main model. The average white recipient or non-recipient has greater income, household wealth, and network wealth than black and Hispanic recipients and non-recipients. Wealth resources are therefore plentiful, allowing wealthier kin to transfer more resources than any other racial group. This facilitates white networks to respond to kin who are out of work or suffering health problems. Previous research shows that upper class whites receive

large inheritances and the largest transfers of wealth (Wilhelm 2001). This explains why class position is positively associated with transfers for whites, rather than the majority of wealth transfers going to lower class whites.

Results show here that for black families greater resources leads to less transfers, lower class need is associated with less transfers, and unemployment or health need have a mixed effect. Previous research has shown that black middle-aged and middle-class families have greater pressure to transfer scarce wealth because of poorer parents, grandparents, and other relatives (Chetiji and Hamilton 2002; Chetiji 2010b). This research extends this hypothesis to the entire kin network. The fact that black families do not transfer like other racial groups do in terms of resources and need is most likely related to their network wealth levels and transfer rate. Black families have the lowest levels of kin network wealth and thus the least amount of resources to draw upon. Despite this, they transfer the greatest percentage of their kin network wealth each year and transfer to the highest percentage of families within that network. This is likely due to cultural norms among black networks, especially pressure from the black middle class to transfer to poorer relatives. Black families have the most need, but the least resources, therefore the available kin network wealth is spread out thinly throughout the network.

In Hispanic families, greater resources lead to greater transfers, lower class need is positively linked to asset transfers, and unemployment and poor health are associated with higher exchanges as well. Hispanics appear to have the most distributive kin networks when it comes to resources and needs. Network wealth was

not significant in the main model for Hispanics, but was positively associated with wealth transfers in the quartile, decile, and race specific models. Most evidence therefore suggests that wealth flows from high resources to high need for Hispanics. Previous research has illustrated that Hispanics, primarily comprised of immigrants, come to the U.S. with considerably low levels of wealth compared to other racial groups and non-immigrants. However, after 24 years in America, immigrants as a whole surpass natives in wealth accumulation (Hao 2001). One explanation for this may be this system of kin network transfer support within Hispanic networks and it's ability to lift those with low resources and high need out of asset poverty.

For Asian families in this sample, less network wealth resources and higher class status leads to greater transfers, while health and unemployment are mixed. With a small number of Asian networks (N=195) that have extremely high levels of network wealth and transferred wealth, the Asian sample in this study is difficult to interpret without better data collection that oversamples Asian households.

Network Wealth's Impact on Racial Wealth Inequality

This study has shown that is necessary to consider the racial kin network wealth gap in tandem with the racial wealth gap, especially for scholarship related to asset poverty, trends in inequality, and causes of increased wealth inequality. This research expands upon previous studies on asset poverty to demonstrate that the family networks of blacks and Hispanics as a whole are less wealthy than white networks. Previous research has shown that, compared to whites, blacks and Hispanics

have less wealthy parents (Conley 1999; Shapiro 2004), less wealthy grandparents (Chetiji 2010b), and less wealthy other relatives (Chetiji and Hamilton 2002) in their network. No previous research to my knowledge though has calculated wealth levels of a network as a whole before. In 2011, whites had over five times the network wealth of Hispanics and more than seven times that of black families. This dearth of wealth is important for research on the black and Hispanic middle class because it shows these racial groups are under more pressure to transfer wealth to impoverished kin.

Though the traditional racial wealth gap is larger, the influence of kin network wealth has through intergenerational transfers makes this gap more alarming. Estimates (Wilhelm 2001) show that 50 percent or more of household wealth comes from wealth transfers and these transfers come directly from kin networks. Therefore, the larger the racial kin network wealth gap, the more likely whites are than other racial groups to receive network help for a health crisis, a college loan, a down payment on a home, or money for a private school education. As the racial kin network wealth gap increases for whites, a government safety net is increasingly less salient for white households and increasingly the only resort for black and Hispanic households. Essentially, the wider racial kin network wealth inequality, the more likely whites will see opportunities transferred to them based not on merit but on the wealth of generations before them.

Research presented here also illuminates an unfortunate trend between racial kin network wealth inequality and racial household wealth inequality. This study

shows that kin network wealth is more unequal in 2011 than it was in any other year measured. Furthermore, this study agrees with previous studies (Kochhar, Fry and Taylor 2011) that the household racial wealth inequality has expanded to its largest point for blacks and Hispanics. Though previous studies have only been able to assume this connection, this study shows that increased racial wealth inequality has a negative impact on the entire racial kin network. The parity in these trends also reveals that most networks are still segregated primarily by racial group. I have argued in this paper that household wealth is primarily influenced by intergenerational transfers of wealth, which depend largely on kin network wealth, therefore increased kin network wealth inequality.

Asset Building Policy

American policy solutions to racial wealth inequality have primarily centered around asset building programs. Though scholars advocate that policy should address asset test limits on welfare (Sherraden 1991; Shapiro 2005), increased taxation of wealth, and wealth poverty lines (Caner and Wolff 2004), most have turned to implementation of asset building policy. In order to stimulate asset development for those without assets, these policies incentivize participants to put money into asset savings accounts by matching from the state or federal government on condition that the money is used for education, a small business, or a home (Shapiro 2005). These would be universally available, though most advocate scaled incentives based on need. Some examples include Child Savings Accounts, Individual Development Accounts,

and Down Payment Accounts. Pilot studies of these accounts have been enacted in California, New York and other states and recently the Department of Education established the Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) that will fund 10,000 of these accounts for high school students. The goal here is to manufacture a system of wealth transfers that can provide any child, regardless of wealth position, a base of asset to draw upon for key life events.

Research presented in this paper shows that most asset building programs like GEAR UP have noble goals, but their implementation will likely not lead to expected results due to racial kin network inequality. A randomly sampled individual with ample network wealth will be drastically more capable to save money than one with little network wealth. Instead of decreasing wealth inequality, this type of program would likely expand it because those in wealthier networks could benefit more. Even programs that scale for need based on income, education, or household net worth would still fail to account for the characteristics of the child's network. A person from an asset poor may appear to not be gaining wealth in response to the program, but in reality their wealth gains are being distributed to their poorer family members.

I would argue that future asset policy ought to strive to incorporate kin network wealth. Research presented here shows that most networks distribute wealth internally to pull up poorer members. Asset building policy would likely improve substantially if entire networks were chosen for asset savings accounts and that incentives were structured based on the wealth of each network. Additionally, policy makers should continue to strive for full-scale implementation asset building accounts through the

ASPIRE Act, congressional legislation that would establish lifetime savings accounts for all citizens at birth.

Conclusion

This study has revealed a number of important findings for both scholars of racial inequality and policy analysts. Racial kin network wealth is more unequal now than at any point measure in this study. Kin network wealth resources have a significant influence of transfers of wealth even when controlling for multiple types of need. Furthermore, white, black, Hispanic, and Asians respond differently to resources and need within their kin networks. Future research should further explore these trends with more robust measures of intergenerational transfers of wealth. Research is needed to explore in greater detail how black networks particularly decide when and why to transfer wealth considering they have such high need and little wealth resources. Additionally, future scholarship should explore how these findings in racial kin network wealth differ by ethnic groups or multiracial households. Overall, the importance of kin network wealth inequality must not be understated. For every one dollar of wealth a white family can draw on in their extended family, a black family only has 14 cents and a Hispanic family 19 cents. With less wealth available for transferring, black and Hispanic families must more often depend on themselves for help, while whites can more often leverage money from others to their own advantage and opportunity.

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Appendix A

NETWORK WEALTH

Table 1Descriptive Statistics

	Mean	Std. Error
Wealth Transfers	5851.63	110.23
Network Wealth	254319.10	2207.39
Age	52.06	0.11
Sex	0.71	0.00
Education	13.21	0.02
Black	0.13	0.00
Hispanic	0.04	0.00
Asian	0.02	0.00
Other	0.05	0.00
Income	69214.30	540.14
Unemployment	0.07	0.00
Health	0.19	0.00

Table 2Descriptive Statistics by Racial Group

	Wh	ite	Bla	ck
	Mean	Std. Error	Mean	Std. Error
Wealth Transfers	6479.57	136.81	3599.37	154.72
Network Wealth	293360.00	2558.77	69840.86	3013.29
Age	53.21	0.13	48.05	0.27
Sex	0.74	0.00	0.49	0.01
Education	13.52	0.02	12.40	0.04
Income	75139.00	671.10	39352.00	555.17
Unemployment	0.06	0.00	0.13	0.01
Health	0.17	0.00	0.27	0.01

	Asi	an	Oth	er
	Mean	Std. Error	Mean	Std. Error
Wealth Transfers	7629.91	1515.48	4533.49	292.00
Network Wealth	460427.00	32528.80	161366.90	8370.37
Age	50.70	0.85	50.09	0.46
Sex	0.80	0.02	0.79	0.01
Education	14.65	0.14	11.38	0.11
Income	100845.70	4329.58	55337.63	2081.81
Unemployment	0.06	0.01	0.11	0.01
Health	0.13	0.01	0.21	0.01

	Hispanic				
	Mean	Std. Error			
Wealth Transfers	2754.83	219.63			
Network Wealth	154690.40	9286.25			
Age	47.30	0.54			
Sex	0.73	0.01			
Education	12.01	0.11			
Income	60080.78	2048.00			
Unemployment	0.10	0.01			
Health	0.21	0.01			

Table 3 Random Effects Model of Wealth Transfers

Observations: 42,651 Groups: 11,528

	Coef.		Std. Err.	Ζ
Network Wealth	0.0015	***	0.0001	18.42
Black Network Wealth	-0.0036	***	0.0003	-13.44
Hispanic Network Wealth	-0.0006		0.0004	-1.52
Asian Network Wealth	-0.0053	***	0.0003	-15.65
Other Network Wealth	-0.0026	***	0.0003	-9.52
Age	164.36	***	2.80	58.64
Sex	-468.80	***	77.98	-6.01
Education	-15.13		14.84	-1.02
Black	-156.58		145.27	-1.08
Hispanic	-435.50		396.45	-1.10
Asian	189.35		302.86	0.63
Other	504.71	***	96.92	5.21
Income	0.05	***	0.00	195.02
Unemployment	2537.91	***	52.99	47.89
Health	338.49	***	44.99	7.52
Constant	-6323.45	***	261.58	-24.17
	Estimate		Std. Err.	
sd(Residual)	10762.22		7.599271	
sd(_cons)	8828.805		62.29213	

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Table 4 Race Specific Random Effects Models

Black				Hispanic					
	Observations:	13,51	16; Groups: .	3,934		Observations: 1,7	98; Groups: 58	86	
	Coef.		Std. Err.	z	Wald	Coef.	Std. Err.	z	Wald
Network Wealth	-0.0022	***	0.0001	-16.18		0.0032 ***	^c 0.0002	19.94	
Age	104.17	***	3.87	26.93	***	154.49 ***	\$ 5.63	27.42	***
Sex	-273.86	**	104.44	-2.62	***	-329.73 **	118.46	-2.78	*
Education	80.21	***	19.85	4.04	***	-227.98 ***	* 21.36	-10.67	**
Income	0.05	***	0.00	56.91	*	0.00 **	0.00	-2.08	**
Unemployment	1818.46	***	61.00	29.81	**	2626.65 ***	* 86.64	30.32	
Health	-166.14	***	55.61	-2.99	***	292.40 ***	* 79.05	3.70	
_cons	-4402.72	***	326.14	-13.50		-1078.52 **	399.79	-2.70	
			Estimate	Std. Err.			Estimate	Std. Err.	
sd(_cons)			6582.23	91.51			4893.49	154.00	
sd(Residual)			5559.29	11.00			4208.44	13.94	
	Asian					Other			

	Observations: 581;	Group: 195			Observations: 2111	; Group: 838	3	
	Coef.	Std. Err.	Z	Wald	Coef.	Std. Err.	z	Wald
Network Wealth	-0.0052 ***	0.0007	-7.52		-0.0017 ***	0.0002	-9.77	
Age	-256.10 ***	37.00	-6.92		226.56 ***	7.74	29.26	***
Sex	-5520.97 ***	1569.90	-3.52	*	-1043.42 ***	303.16	-3.44	
Education	14.55	130.99	0.11	***	-179.28 ***	30.14	-5.95	***
Income	0.17 ***	0.00	63.45		0.01 ***	0.00	17.58	
Unemployment	2003.53 **	778.83	2.57		2890.29 ***	95.56	30.25	***
Health	-3180.57 ***	697.10	-4.56		37.24	89.36	0.42	
_cons	8132.25 **	2933.81	2.77		-4368.49 ***	595.27	-7.34	
		Estimate	Std. Err.			Estimate	Std. Err.	
sd(_cons)		15273.88	866.97			6570.70	176.83	
sd(Residual)		18444.27	98.74			4764.33	14.98	

Appendix B

CENSORED CASES

Table 5Total Sample Descriptive Statistics

	Mean	Std. Err.
Wealth Transfers	5463.79	93.603
Network Wealth	240246.80	1873.978
Age	50.19	0.102
Sex	0.69	0.003
Education	13.17	0.016
Black	0.13	0.002
Hispanic	0.05	0.001
Asian	0.02	0.001
Other	0.05	0.001
Income	65541.33	452.679
Unemployment	0.08	0.001
Health	0.18	0.002

Table 6Censored Sample Descriptive Statistics

	Mean	Std. Err.
Wealth Transfers	4099.94	167.387
Network Wealth	190760.90	3304.550
Age	43.59	0.222
Sex	0.64	0.006
Education	13.03	0.033
Black	0.14	0.004
Hispanic	0.06	0.003
Asian	0.02	0.002
Other	0.06	0.003
Income	52625.20	745.594
Unemployment	0.10	0.003
Health	0.15	0.004
	4/	

Appendix C

TRANSFER INCOME DESCRIPTIVE STATISTICS

Table 7 All Racial Groups Transfer Recipients Descriptive Statistics

	Recipi	Recipients		ipients
	Mean	Std. Err.	Mean	Std. Err.
Wealth Transfers	13205.50	227.043	0.00	0.000
Network Wealth	251736.70	3406.424	256374.00	2892.789
Household Wealth	339257.90	20449.850	347078.00	11934.300
Age	56.60	0.178	48.45	0.132
Sex	0.65	0.005	0.76	0.004
Education	13.00	0.028	13.38	0.023
White	0.75	0.004	0.76	0.004
Black	0.14	0.003	0.12	0.003
Hispanic	0.04	0.002	0.05	0.002
Asian	0.02	0.001	0.02	0.001
Other	0.06	0.002	0.05	0.002
Income	55941.22	636.293	79775.96	819.128
Unemployment	0.11	0.003	0.04	0.002
Health	0.24	0.004	0.14	0.003

Table 8	White	Transfer	Recipients	Descriptive	Statistics
Table 8	white	Transfer	Recipients	Descriptive	Statistics

	Recip	ients	Non-Recipients	
	Mean	Std. Err.	Mean	Std. Err.
Wealth Transfers	14674.76	281.789	0.00	0.000
Network Wealth	291656.50	3966.081	294706.90	3341.356
Household Wealth	397814.50	26690.580	407457.40	15186.550
Age	58.32	0.205	49.18	0.155
Sex	0.68	0.006	0.78	0.004
Education	13.30	0.030	13.69	0.025
Income	60105.16	761.238	87025.57	1028.879
Unemployment	0.09	0.003	0.03	0.002
Health	0.22	0.005	0.13	0.003

Table 9Black Transfer Recipients Descriptive Statistics

	Recip	ients	Non-Recipients	
	Mean	Std. Err.	Mean	Std. Err.
Wealth Transfers	7639.16	292.426	0.00	0.000
Network Wealth	66647.56	4315.973	72686.02	4203.391
Household Wealth	66880.73	6764.629	83153.29	14290.790
Age	49.76	0.443	46.53	0.307
Sex	0.43	0.012	0.55	0.011
Education	12.23	0.063	12.56	0.057
Income	33006.40	680.239	45005.81	837.860
Unemployment	0.18	0.009	0.08	0.006
Health	0.34	0.012	0.22	0.010

	Recip	ients	Non-Recipients	
	Mean	Std. Err.	Mean	Std. Err.
Wealth Transfers	7343.66	495.594	0.00	0.000
Network Wealth	152189.00	16857.990	156192.10	10892.310
Household Wealth	124272.80	18270.380	157203.20	14705.320
Age	50.54	0.934	45.36	0.634
Sex	0.60	0.025	0.80	0.016
Education	12.00	0.202	12.02	0.131
Income	49987.18	2435.138	66140.29	2918.623
Unemployment	0.17	0.019	0.05	0.009
Health	0.27	0.024	0.18	0.016

Table 10 Hispanic Transfer Recipients Descriptive Statistics

 Table 11
 Asian Transfer Recipients Descriptive Statistics

	Recip	ients	Non-Re	ecipients
	Mean	Std. Err.	Mean	Std. Err.
Wealth Transfers	18885.82	3472.925	0.00	0.000
Network Wealth	477257.40	51128.400	449018.30	42291.050
Household Wealth	640162.30	98347.940	441631.10	45864.220
Age	59.28	1.282	44.88	0.797
Sex	0.68	0.040	0.88	0.018
Education	14.15	0.262	14.98	0.153
Income	85760.42	6472.867	111071.30	5748.826
Unemployment	0.10	0.022	0.03	0.009
Health	0.18	0.028	0.09	0.016

	Recip	ients	Non-Recipients	
	Mean	Std. Err.	Mean	Std. Err.
Wealth Transfers	9,504.42	510.517	0.00	0.000
Network Wealth	174,962.50	13,299.490	158,982.30	10,715.530
Household Wealth	284,326.70	52,310.560	238,797.40	43,283.080
Age	53.62	0.705	46.63	0.512
Sex	0.76	0.017	0.81	0.015
Education	11.18	0.166	11.57	0.138
Income	52,203.56	3,659.352	57,994.21	1,864.652
Unemployment	0.15	0.013	0.07	0.009
Health	0.29	0.018	0.15	0.012

Table 12 Other Transfer Recipients Descriptive Statistics

Appendix D

HOUSEHOLD WEALTH AND NETWORK WEALTH

Table 13Network Wealth Inequality (1999-2011)

	White	Black	Hispanic	Asian	Other
1999	115750	21960	37916.2	97000	26840
2001	141143.8	26000	40600	165000	39837.82
2003	144800	32100	44323.2	188000	48233.33
2005	168900	35766.67	80008.66	297500	94671.43
2007	201333.3	37047.25	97000	290000	105000
2009	173777.8	29040	41097.13	258499.7	57900
2011	172125	23364.57	31850.27	238900	43725.78
Network Wea	lth Inequality -	White to Grou	ıp Ratio (1999-	2011)	
	White	Black	Hispanic	Asian	Other
1999	1	5.27	3.05	1.19	4.31
2001	1	5.43	3.48	0.86	3.54
2003	1	4.51	3.27	0.77	3.00
2005	1	4.72	2.11	0.57	1.78
2007	1	5.43	2.08	0.69	1.92
2009	1	5.98	4.23	0.67	3.00
2011	1	7.37	5.40	0.72	3.94
Network Wea	Ith Inequality -	Ratio to White	es (1999-2011)		
1000	White	Black	Hispanic	Asian	Other
1999	1	0.19	0.33	0.84	0.23
2001	1	0.18	0.29	1.17	0.28
2003	1	0.22	0.31	1.30	0.33
2005	1	0.21	0.47	1.76	0.56
2007	1	0.18	0.48	1.44	0.52
2009	1	0.17	0.24	1.49	0.33
2011	1	0.14	0.19	1.39	0.25

	White	Black	Hispanic	Asian	Other
1999	87286	7660	16000	55500	16500
2001	100000	13000	26000	119100	27000
2003	101071	10000	25500	147700	30000
2005	114000	10002	31950	211000	40000
2007	122000	9500	37000	259520	48000
2009	101400	5000	12000	160600	19000
2011	89100	4855	7200	219500	24811
Household We	ealth - White to	Group Ratio (1999-2011)		
	White	Black	Hispanic	Asian	Other
1999	1	11.40	5.46	1.57	5.29
2001	1	7.69	3.85	0.84	3.70
2003	1	10.11	3.96	0.68	3.37
2005	1	11.40	3.57	0.54	2.85
2007	1	12.84	3.30	0.47	2.54
2009	1	20.28	8.45	0.63	5.34
2011	1	18.35	12.38	0.41	3.59
Household We	ealth - Ratio to	White (1999-20)11)		
	White	Black	Hispanic	Asian	Other
1999	1	0.09	0.18	0.64	0.19
2001	1	0.13	0.26	1.19	0.27
2003	1	0.10	0.25	1.46	0.30
2005	1	0.09	0.28	1.85	0.35
2007	1	0.08	0.30	2.13	0.39
2009	1	0.05	0.12	1.58	0.19
2011	1	0.05	0.08	2.46	0.28

Table 14Household Wealth by Racial Group (1999-2011)