Socioeconomic Status and Youth Participation in Extracurricular Arts Activities

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ABSTRACT

A growing amount of research finds that the accumulation of, investment in, and mobilization of certain cultural resources are significant predictors of children's advantageous social development in both institutional settings and interpersonal relationships. Several theories and empirical analyses illustrate the importance of children's leisure-time activities in the accumulation of valuable resources. These cultural resources confer advantages to children, especially in educational settings (e.g. teachers' perception of students, intellectual development, and academic outcomes) because these arenas are often key spaces for social mobility. However, few research studies attempt to empirically pinpoint the socioeconomic origins of children's cultural (dis)advantages. This notable gap in the research literature can be addressed by examining family-level predictors of the accumulation and transmission of these cultural resources. The purpose of this study is to investigate the link between family-level socioeconomic status and children's participation in structured, extracurricular, arts-based activities as well as cultural performance attendance. Drawing on Bourdieu's (1984) concept of "cultural capital" and Lareau's (2002; 2003) concept of "concerted cultivation", this study explores whether or not socioeconomic status is a significant predictor of children's participation in extracurricular arts activities as well as attendance of cultural performances using the Panel Study of Income Dynamics (PSID) and the Child Development Supplement (CDS-II). I evaluate Lareau's class analysis and expand upon it by disaggregating the key dimensions of socioeconomic status and identifying which are the most salient for increased participation in arts-based activities among children in the United States context. I provide a detailed analysis and discussion of the nuanced relationships between socioeconomic status measures and youth participation in the arts.

Dedication

This work is dedicated to my mother, Patti Lellock, whose strength has taught me to persevere.

Table of Contents

List of Tables

Chapter 1

Introduction

Social class differences in educational achievement remain a persistent cause for concern especially among social scientists, educators, and policy-makers. Children from higher socioeconomic status families tend to drop out less (Ensminger and Slusacick 1992) and achieve higher levels of educational attainment (Duncan, et al. 1998) when compared to their lower and working-class peers. In industrial and postindustrial societies, educational credentials and cultural competencies (e.g., familiarity with dominant cultural codes and discourse) typically convert into occupational achievement, which then correlate with higher income and class status (Meyer 1977; Blau and Duncan 1967; Duncan, Featherman, and Duncan 1972). This general pathway has been of interest to scholars throughout the twentieth and early twenty-first century, yet knowledge of the mechanisms involved in the intergenerational transmission of educational and cultural advantage remains inadequately examined (van de Werfhorst 2010). A breadth of both quantitative and qualitative literature clearly illuminates the importance of the accumulation of, investment in, and mobilization of cultural resources as significant predictors for children's academic and eventual occupational success (DiMaggio 1982). However, the socioeconomic mechanisms for this intergenerational transmission are not so obvious.

These literatures are, according to leading scholars Annette Lareau and Elliot Weininger (2003:577), "rife with variations in analytic focus, conceptualization, and argument." One prominent way researchers attempt to understand the significance of cultural resources is by examining linkages between extracurricular activity participation (e.g., arts, sports, clubs, hobbies, etc.) and various advantageous economic and social outcomes for children (e.g., increased educational attainment, higher aspirations, and better physical/mental health). Yet,

little research has attempted to empirically identify the salient predictors of the accumulation of cultural capital in the first place. The present study will attend to this gap by both confirming the importance of family-level socioeconomic status *and* identifying which specific aspects of socioeconomic status promote (or constrain) the transmission of children's cultural advantage using a large, nationally-representative dataset.

I argue that the aggregation of socioeconomic status measures obfuscates possible variations in found in the existing literature, which could provide a basis for theoretical and methodological refinement. To this end, I intend to discern exactly *which* components in an operationalization of "class" correlate most strongly with the likelihood of childhood participation in cultural extracurricular activities thus raising the probability/possibility of cultural resource accumulation. These analyses will help clarify the linkages or mechanisms of participation in cultural extracurricular activities and, by extension, academic and occupational achievement.

Although studies (e.g., Eccles, Barber, Stone, and Hunt 2003) suggest that cultural capital activities (e.g., performing arts) are strongly linked to educational outcomes in the United States, few attempt to systematically uncover the socioeconomic origins of increased participation in these activities. Of these studies, Lareau (2002; 2003) argues that participation in cultural activities (as well as in-home language-use and interaction with institutional agents) is strongly linked to the accumulation of valuable cultural resources. The purpose of the present study is to investigate family-level socioeconomic status indicators to identify which most strongly correlate with both childhood and adolescent participation in arts-based extracurricular activities such as music, dance, and drama lessons. I examine family-level predictors of children's participation in structured, adult-supervised, out-of-school extracurricular arts activities with a focus on

disaggregating the dimensions of socioeconomic status. Research of this nature is important for policy makers, educators, and academics who may be interested in understanding and reducing achievement gaps for children in the context of the United States. This study is based upon data from the 2001-2002 Panel Study of Income Dynamics (PSID) and the 2002-2003 Child Development Supplement (CDS-II) and will use binary logistic and ordered logit regression analyses.

Chapter 2

Theoretical Background and Review of Literature

Pierre Bourdieu (1984) wrote extensively about the relation between socioeconomic status/class background and how people consume culture. For Bourdieu, the dominant classes maintain economic monopolization through systematic symbolic boundary construction and maintenance. Through these processes, cultural products (such as works of art) become hierarchically-ranked and consumed by specific classes. In other words, social class background figures dominantly in the determinations of cultural preferences. In Bourdieu's analytical model, highbrow arts participation and consumption are reserved exclusively for the most affluent in society while those in the lower tranches of the social structure consume the cultural trash. Thus, taste (in everything from clothing, hairstyle, jewelry, music, literature, leisure activities, etc.) serves as a public signal for social class membership. From Bourdieu's standpoint, the consumption of art, entertainment, and leisure activity is a complicated phenomenon that simultaneously signifies which social groups one belongs and to which one does *not* belong. Nothing is more powerful as a class indicator, according to Bourdieu, than the ways people relate to the arts. From the art that people hang in their homes (Halle 1993) to the frequency of visiting museums (Zolberg 1992) to the discussions people have about art (Bourdieu 1984), all of these experiences indicate class membership.

Bourdieu's theory illuminates the existence of strong class differences in tastes and how consumptive practices become legitimated and ranked hierarchically. Bourdieu (1984) argued that the dominant classes must maintain particular ideologies that justify this ranking – and that this ideology is strongly linked to upper class taste. Such a model implies that in order to be able

to fully appreciate the arts (or even talk about them in socially-acceptable ways) one must have competence with the dominant ideologies. He argues that such competencies (termed "cultural capital") are transmitted intergenerationally through the institutions of family and education. Thus, cultural capital is accumulated predominantly in the upper classes and involves familiarity with the appropriate vocabulary, grammar, and cultural knowledge necessary for engaging in upper class discourse. Through processes of exclusion, the dominant class monopolizes these resources and gains exclusive access to their systemic benefits. For this reason, analyses of class that privilege the sole significance of income are overly simplistic from the beginning.

Bourdieu's use of the word capital in his conceptual framework is a deliberate allusion to financial capital and, by extension, the fungibility of specific resources. The term "capital" itself implies a relation to economic capital in that there is a payoff for those who accumulate it, invest in it, and exchange it in a market. According to Bourdieu and Passeron (1977), families of higher class standing transmit their own cultural capital to their children in the home, which allows their children to gain advantages in educational institutions such as schools as result of a cultural schema involving power relations that perpetuate inequality. Children's knowledge of, or familiarity with, practices and tastes associated with the upper class (such as highbrow art or music) influence teachers' evaluations and, in effect, lead to more favorable treatment and access to more educational opportunities (Kerbo 2009). In other words, Bourdieu's theory of cultural reproduction assumes that the cultural resources of the family are transmitted to their children in the home, which results in increased cultural advantages (e.g., greater familiarity with dominant codes, increased opportunities, etc.) for children. Further, this theory represents an attempt to link micro-level and macro-level analyses by examining how the transmission of individual-level attributes are connected to larger processes of social reproduction (Kerbo 2009). Educational

credentials are typically necessary for economic success, which makes cultural reproduction an important part of the process of social reproduction. For this reason, researchers of stratification and inequality have routinely placed cultural capital as a central concept in their analyses (Lareau and Weininger 2003).

Over the past several decades, sociologists utilized Bourdieu's concept of cultural capital and theories of social/cultural reproduction in various ways when examining status attainment processes. Much early status attainment research tended to focus primarily on parental income and education (Blau and Duncan 1967). It was not until DiMaggio's (1982) influential empirical piece that sociologists began to focus on the ways that cultural resources matter in the intergenerational transmission of advantage. This piece was one of the first to focus on cultural aspects of family background in relation to educational success for students. DiMaggio (1982) operationalizes cultural capital by looking at children's self-reports of interest in "highbrow" arts. The noteworthy theoretical connection here is that familiarity with and interest in "highbrow" arts such as classical music, art, and literature is part of a shared "cultural currency" for dominant status cultures in the United States. In the end, DiMaggio (1982) demonstrates that cultural capital accumulation is related to higher student grades, but independent of their scores on standardized tests.

Since the 1980s, scholars have consistently shown the accumulation of cultural resources plays an important role for status attainment later in life (DiMaggio and Mohr 1985; Kalmijn and Kraaykamp 1996; Aschaffenburg and Maas 1997; Sullivan 2001; Dumais 2002). While the varying strands of literature that draw on Bourdieu's theory of cultural and social reproduction may concur that cultural resources impact life chances, there are many ongoing disputes as to *how* they matter. For example, a persistent theoretical and empirical puzzle involves questions of

who specifically benefits most from investment in cultural resources (Roscigno and Ainsworth-Darnell 1999). By this, I mean that there seems to be variation in terms of the linkages between investments in cultural resources and positive outcomes such as educational attainment based on gender and race (Roscigno and Ainsworth–Darnell 1999; Dumais 2002).

Another issue in the literature surrounds disagreements about how to best measure cultural capital. Scholars identify a multitude of competing definitions that are operationalized in various (and sometimes highly divergent) ways. One can identify two dominant theoretical strands in the literature – reproduction and mobility. On the one hand, supporters of cultural reproduction theory frame cultural capital as being (1) monopolized by the dominant classes, (2) transmitted exclusively to their children resulting educational advantage, and (3) exchanged in ways to secure economic advantage. In contrast, advocates of cultural mobility theory reorient considerations of socioeconomic status as an ongoing process of participation (rather than an individual attribute) and increased access to cultural resources actually serves to benefit disadvantaged groups by providing alternative strategies for success. Regardless of the ongoing debates, sociological literature clearly indicates that the possession of and ability to mobilize cultural resources can play a crucial role in children's school success and status attainment later in life.

Before the 1950s, developmental psychologists dominated the academic writing on adolescence. However, beginning in the 1950s, sociologists turned their attention to the lives and social worlds of adolescents, and, in so doing, set in motion an increasingly interdisciplinary field of inquiry that, owing to the sociological perspective, includes attention to social structure, culture, and institutions (Dornbusch 1989). In his classic work, *Adolescent Society: The Social Life of the Teenager and Its Impact on Education*, Coleman (1961) demonstrates the importance

of extracurricular activities for students both inside and outside of the school context by illuminating the ways certain activities (e.g., sports or leadership activities) confer status to adolescents. In other words, participation in such activities is a source of adolescent prestige, social capital and peer-group acceptance. In addition to providing a context for fostering social and cultural capital, participation in sports and fine arts activities increases the likelihood that children stay in school (McNeal 1995). High school female athletes are less likely to get pregnant, have first intercourse later in adolescence, have fewer sexual partners, and use contraceptives more often (Sabo et al. 1998). Activity involvement is generally linked to reduced drug use, higher grades, greater school perceptions, increased educational attainment, higher job autonomy later in life, having jobs with higher SEI scores, greater volunteer work, better psychological well-being (Eccles et al. 2003).

Drawing on these findings, some scholars have directed their attention to other potential sites of cultural resource accumulation. Participation in extracurricular activities and leisure time use for children is immensely important for their cognitive, cultural, and prosocial development. For example, Agnew and Petersen (1989) show that juvenile delinquency is negatively correlated with structured, adult-supervised activities and, conversely, delinquency is positively correlated with participation in unsupervised, peer-oriented activities. Such activities not only keep kids off the street or out of prison, but also provide a context for the inculcation of cultural resources (Shann 2001).

More recently, scholars have also demonstrated that arts-based extracurricular activity participation appears to improve students' academic achievement and aspirations, foster positive attitudes toward school, and increase the odds of going to college (Broh 2002; Kaufman and Gabler 2004; Darling et. al 2005). Participation in arts-based activities is also linked to fewer

8

risk behaviors (such as drug use or unprotected sex), more positive measures of emotional well-being, lower probabilities of dropping out of school, more positive self-concepts, and greater school engagement (Eccles and Barber 1999). Covay and Carbonaro (2010) demonstrate that childhood participation in structured, adult-supervised extracurricular activities appears to improve students' non-cognitive skills such as task management, persistence, independence, working harmoniously in groups, dealing positively with authority figures, as well as developing strong interpersonal peer relationships. The sociological research points to extracurricular participation in general and arts-based participation specifically as key social arenas for the accumulation of cultural resources. What remains unclear for social scientists are the factors that contribute to children's participation in arts-based activities in the first place.

Some early work on the topic by sociologists (e.g., DiMaggio and Useem 1980) set the stage for these distinct avenues of inquiry, but researchers since have not satisfactorily engaged with these issues. Other scholars, particularly those in the fields of consumer research, have drawn some less than definitive conclusions about individual level predictors for arts participation, consumption, and educational outcomes. For example, Andreasen and Belk (1980) find that sex is not significantly correlated with arts (specifically theater and symphony) attendance, education of parents is positively correlated with attendance, age is negatively correlated with attendance, and race is not significantly associated with cultural performance attendance. Although this study ultimately stresses the importance of lifestyle, socialization, and attitudes as opposed to socioeconomic status indicators, it provides somewhat conclusive evidence confirming previous studies' findings regarding various relationships among specific demographic variables. It does not, however, elucidate the complex relationships between these variables, cultural logics, and socioeconomic (dis)advantage. Recent research in this area has

more fully examined demographic variables as predictors for arts attendance and participation

For example, Novak-Leonard and Brown (2011) find that females participate in arts activities at

higher rates than males, non-Hispanic whites participate at higher rates (compared to all other

racial groups), families with higher incomes have children who participate in the arts more, and

native born citizens compared with naturalized and non-citizens report higher arts participation.

Studies such as these, extensive as they may *seem* to be are still limited in ways that the present

study may more fully address. For instance, few of these studies focus exclusively on children

and socialization processes. Perhaps even more importantly, these studies are crucially lacking in

theoretical grounding and propulsion. By drawing on a large, nationally-representative sample

that has detailed SES measures on families as well as their children's leisure time use and by

connecting to grounded sociological theory, this study will spackle in some of the

aforementioned gaps. Sociologist Annette Lareau has been the most fruitful in theorizing the

connections between family, school, leisure and cultural resources. In the following section, I

will outline her key contributions and explicate my use of them in this study.

    Lareau (2002; 2003) draws heavily on Bourdieu in order to illuminate the ways that

families transmit a cultural, and thereby an economic, advantage to their children. Her

conclusions are drawn from observations and in-depth interviews of poor, working class, and

middle class families. Her research is primarily guided by the question: Do parenting styles vary

by class and/or race? She finds that there are significant differences in parenting styles across

social classes; however, in terms of race, parenting styles are more similar than different. She

argues that parenting style affects children's opportunities to acquire scarce resources like

wealth, power, prestige, health, safety, etc., later in life. According to Lareau, this link is only

partly about families' economic resources; she identifies an important *cultural* component in that

parents make different assumptions about what constitutes "good" child rearing. Parents mobilize specific child rearing logics (which are strongly class-identified) in order to achieve the best for their children. She terms these logics "concerted cultivation" and "natural growth" (Lareau 2000, 2002, 2003).

Concerted cultivation, a primarily middle class parenting logic, is guided by the basic assumption that children possess talents and skills that can only be realized with constant adult intervention. In contrast, the childrearing logic of natural growth (more widely used by the poor and working class) is based on the assumption that as long as children's basic needs are met then children will develop their natural skills and abilities spontaneously. Lareau (2003) argues that each class-based parenting logic can be described along three main dimensions: how children's time-use is organized, how children are taught to use language in the home, and how parents interact with institutional agents (e.g., teachers, principals, and physicians). Lareau's (2003) theory suggests that parents of a higher social class status tend to invest more time and economic resources in their children's extracurricular activities and that these activities are more likely to be adult-directed. In contrast, working class and poor parents do not emphasize or involve their children in structured and organized leisure activities. Working class and poor children are more likely to be self-directed and interact with peers of varying age groups when compared with their middle class counterparts. Lareau's qualitative analysis has been subjected to quantitative evaluation and scholars have found support of her theory. For example, Cheadle and Amato (2010) confirm that families of higher socioeconomic status is strongly correlated with increased music and arts lessons – among other indicators of concerted cultivation. Similarly, Bodovski and Farkas (2008) find that higher family socioeconomic status are strongly and positively correlated with concerted cultivation.

The present study focuses exclusively on the link between socioeconomic status/class background and children's time (please refer to Table 1). Specifically, I test the extent to which class background is in fact linked to children's participation in structured, adult-directed, arts activities. In short, the present study contributes to the literature by quantitatively testing a specific strand of Lareau's theory of concerted cultivation drawing upon a large, nationally representative sample.

Chapter 3
Methods

Data and Sample

In order to address the substantive and theoretical concerns outlined in the previous sections, I analyze secondary data from the Panel Study of Income Dynamics (PSID) main family interview from 2001-02 and the Child Development Supplement (CDS-II) from 2002-03. The PSID is the longest running panel study in the United States. Data collection for the PSID began in 1968 and continued annually through 1996 (beginning in 1996, the PSID was implemented biennially). The sample is nationally representative and comprised of roughly 5,000 American families with an over-sampling of low-income families. The sample design of the PSID is highly complex, yet lends well to studies focusing on economic issues as a result of its extensive range of socioeconomic indicators allowing for a more thorough examination of the relationship between family-level socioeconomic status background and youth participation in arts activities.

In 1997, the PSID data was supplemented with the collection of the Child Development Supplement, which included additional information for families who had at least one child under the age of twelve in the household. A second wave of the Child Development Supplement (CDS-II) was conducted in 2002-03, which includes children aged five through eighteen. The CDS-II included a subsample of 2,019 families and 2,907 children. This sample only includes children who had not established households of their own, who live in the U.S., who do not reside on military bases, and who are not institutionalized. The response rate for the CDS-II was 94%. The purpose of the CDS-II is to provide additional information on families and their children with a focus on early psychosocial development. Data from the CDS-II are particularly useful for

assessing family-level background measures such as changes in employment, economic

hardships, time use, and dimensions of parenting styles in the ways they relate to the behavioral

and cognitive development of children. There are multiple perspectives assessed in the CDS files

such as those of parents, teachers, and the children themselves. Data for this study come

exclusively from the primary caregiver file and the main family interview sections of the CDS.

The sample size for the present study is composed of 2,465 observations.

The sample includes families who have more than one child which possibly has the effect

of creating a lack of independence between observations and, thus, a sample bias. In other words,

it is entirely possible that some families have reported more than one observation. I limited the

sample to single-child households in order to examine this potential bias which reduced the

sample to 521 cases. After running the multivariate models including only single-child

households, I concluded that the analyses were substantively consistent enough to use the larger

sample that features all families regardless of the number of children.

Standard errors using standard binary and ordered logistic regressions are not accurate

due to the complex sampling design of the PSID that utilizes both stratification and clustering.

Thus, robust standard errors were calculated using the complex sampling design function in

SPSS that account for the strata and clusters. Additionally, population weights were used to

adjust for the oversample of low-income families.

Measures

Dependent Variables

Extracurricular arts-activity participation

Extracurricular arts-activity participation is defined as children's or adolescents' participation in structured, organized, adult-supervised, and arts-based extracurricular activities outside of school. These activities include, but are not limited to, music, dance, and drama lessons. The variable is a dichotomous measure that indicates whether or not the child in question has taken music, dance, or drama lessons in the last year for those 6-19 years old.

Cultural performance attendance

Cultural performance attendance is defined as the frequency a child attended theatrical or musical performances. The variable is ordinal and reflects the number of times a family member has taken the child to a musical or theatrical performance. The options are 1 = never; 2 = once or twice; 3 = several times; 4 = about once per month; 5 = more than once a month. Based on the distribution of the responses, I recoded the variable to combine values 3 through 5 to reflect about once per month or more. In sum, there are 3 possible values for this variable: never, once or twice, and about once per month or more.

Independent Variables

Total family income

This variable reflects total family money income. The variable is constructed by summing head and spouse taxable income, head and spouse transfer income, the taxable income of other family members, the transfer income of other family members, and the social security for all family unit members. These aggregate variables are discussed in turn below. Total family income originally included negative values which indicated a net loss. I bottom-coded this variable at $0 in order to include only families who either had a net gain or no net gain. I also truncated families who had

more than one million dollars in total family income. This variable originally exhibited right skew (5.51). The natural log transformation overcorrected for this issue. I ultimately used a square root transformation to correct for the positive skew. A square root transformation on the variable produced a skewness statistic of 1.32 after correction.

Head and spouse taxable income

This variable reflects the income earned by the head[1] and spouse in the family unit. The variable includes the income from assets, earnings, and net profit from farm or business. Head and spouse taxable income was bottom-coded at $0 even though there were some heads and spouses who suffered a net loss from a business or farm. This variable is also truncated at one million dollars. This variable exhibited significantly non-normal positive skew (6.14). The natural log transformation overcorrected for this issue reducing the skew to -2.76. I ultimately used a square root transformation to correct for the positive skew. A square root transformation on the variable produced a skewness statistic of 1.14 after correction.

Head and spouse transfer income

The variable indicates the total transfer income of the head of household and spouse excluding social security. Because the components of transfer income are very diverse, it can be difficult to ascertain the exact source/type of the transfer payment. I proceed in my analysis by assuming that the transfer monies indicated in this variable typically stem from sources such as welfare,

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[1] Each family in the PSID has only one head of household. If the family had both a husband and a wife, the husband is assigned the head of household status. However, the family member who is designated as head of household is subject to change as time passes. The following rules apply to the designation of new heads of household if they are subject to change: (1) heads of household must be at least 16 years old and also be the family unit member with the most financial responsibility; (2) if the person with the most financial responsibility is female and has a husband or has been living with a boyfriend for at least a year, then this male is automatically assigned as head of household; (3) if the male head of household is unable to fulfill the roles of household head, then the family unit will have a female head.

financial aid, subsidies, and other payments from public institutions. This variable is non-negative and initially positively skewed (7.01). I corrected for this skew by using a natural log transformation which reduced the skew to .36.

Taxable income of other family members

This variable represents all other family unit members' total taxable income. It is bottom-coded at $0 and includes all other family members' income from assets and earnings. This variable exhibited significantly non-normal positive skew (10.340). I performed a natural log transformation to correct for the positive skew. The transformation on the variable produced a skewness statistic of .65 after correction.

Transfer income of other family members

This continuous, non-negative variable indicates other family members' total transfer income except Social Security; it includes all income from transfers. This variable exhibited significantly non-normal positive skew (10.72). I performed a natural log transformation to correct for the positive skew. The transformation on the variable produced a skewness statistic of 3.33 after correction.

Social security for all family members

This variable represents the total social income for the family unit. It includes Social Security income for the head of household, spouse, and all other family unit members. I adjusted the

skewness of this variable using a natural log transformation. The original positive skew of 4.983 was corrected to 2.664.

Total family wealth

Total family wealth is constructed by summing the values of seven assets types: value of farm/business, value of all checking and savings accounts, value of other real estate, value of vehicles, value of other assets, and the value of annuity/IRA net of debt value plus the value of home equity. Negative values indicate the actual amount of negative wealth. Values of 0 indicate that a family does not own any asset or home equity or their net value is zero. All positive values indicate the actual amount of their positive wealth. I truncated this variable at one million dollars.

Value of farm/business

This variable reflects the total amount of money a family would realize on their farm or business if they sold the properties and paid off any debts. A value of zero indicates that a family does not own a farm or business or that they would break even. I truncated this variable at one million dollars.

Value of all checking/savings accounts

This variable reflects the total sum of all family unit members' checking and/or savings accounts. Value of zero indicates that the family does not hold any cash assets. The values are top-coded at one million dollars.This variable exhibited positive skew (12.12) which was

corrected for using a natural logarithmic transformation. The natural logarithmic transformation reduced the skew to -.62.

Value of other real estate

Other real estate refers to any real estate the family may own other than their main home, such as a second residence, other land, rental real estate, or money owed to the family based on a land contract. The values represent how much the family would realize if they sold all the other real estate and paid off any debts on it. A zero value indicates that the family does not own any real estate other than the home. The significantly non-normal positive skewness this variable initially displayed (12.56) was corrected for using a natural logarithmic transformation which reduced the skewness to 2.80. I truncated this variable at one million dollars.

Value of stocks

The value of stocks represents the total worth of the family's shares of stock in publicly held corporations, mutual funds or investment trusts. This variable does not include stocks held in employer-based pensions or IRAs. A zero value indicates that the family does not own any of these assets. The value is truncated at one million dollars. The significantly non-normal positive skewness this variable initially displayed (8.76) was corrected for using a natural logarithmic transformation which reduced the skewness to 1.81.

Value of vehicles

This variable represents the total value of vehicles including cars, trucks, motorhomes, trailers, and boats minus any amount that is still owed on them. The zero value indicates that a family does not own any vehicles or that their net value is zero.

Value of other assets

Other assets include bond funds, cash value of life in a life insurance policy, a valuable collection for investment purposes, and rights in a trust or estate. The value represents the amount that the family would realize if they were to sell these assets. Zero values indicate that the family does not own other assets or that their net value is zero. The variable was top coded at one million dollars. The significantly non-normal positive skewness this variable initially displayed (12.42) was corrected for using a natural logarithmic transformation which reduced the skewness to 2.12.

Value of annuity/IRA

This variable represents the total amount of family members' monies in private annuities or Individual Retirement Accounts (IRAs). Zero values indicate that the family does not have money in private annuities or IRAs. The positive skewness this variable initially displayed (7.007) was corrected for using a natural logarithmic transformation which reduced the skewness to 1.516.

Value of home equity

The value of a family's home equity is constructed as: value of home minus first and second mortgage (if applicable). Values of zero indicate that the family does not have any home equity or that the net value. Values over the one million dollar level have been truncated.

Debt

Debts include credit card charges, student loans, medical bills, legal bills, and loans from relatives. This variable does not include home mortgages or vehicle loans because they are covered in the previous wealth variables. Any debts above $100,000 were truncated at this level.

Occupation of head

I operationalize occupation by creating a categorical variable that reflects the sort of work done by the head of household. Using 3-digit occupation codes from the 1970 Census of Population, the Alphabetical Index of Industries and Occupations issued June 1971 by the U.S. Department of Commerce and the Bureau of Census I constructed five occupational categories. The first category, "Professional/Managerial" includes values 1-195 and 201-245 and represents the sort of work done by professional, technical, managers, administrators excluding farm managers and administrators. The second category, "Clerical/Sales" includes values 260-285 and 301-395 and represents the sort of work done by clerical, sales, and kindred workers. The third category, "Service" includes values 901-984 and represents the sort of work done by service workers, including private household workers. The fourth category, "Crafts/Operatives/Farming and Laborers" includes values 401-600, 601-695, 701-715, and 740-824 and represents the sort of work done by craftsmen, operatives, transport equipment operatives, and laborers, farm laborers,

farm managers, farm foremen and kindred workers. Lastly, the value "0" indicates that the head of household is currently not working for money now.

Occupation of spouse

This measure reflects the occupation of the spouse and was constructed in the same way as the occupation of the head of household. The same five categories remain intact for this measure.

Home ownership

I measure home ownership by creating a dummy variable that reflects whether or not the head of household (or anyone else in the family) owns or is buying the home (either fully or jointly). Mobile home owners who pay rent on lots are included in this measure. (1=owns or is buying home; 0=does not own home).

Vehicle ownership

Whether a family owns or is leasing at least one vehicle is indicated by a dummy variable where 1=owns or is leasing at least one vehicle and 0=does not own a vehicle.

Value of home

Respondents were asked to estimate the present value of their main house or apartment (how much money it would bring if they sold it on that day.) The values represent whole dollar amounts. Families indicating that they did not own a house or apartment were originally coded as 0, but were subsequently recoded as missing values. Those who did not or could not estimate the value of their home were also coded as missing values. The variable is truncated at one million

dollars. This variable exhibited significantly non-normal positive skew. A natural log

transformation overcorrected for the issue, so a square root transformation was implemented.

Education of head

The education of the head of household is indicated by whole years. I combined the values 0-8 to

create a category that reflects those heads of households who have had 8 years or less of formal

schooling. The value 17 indicates that the respondent completed at least some post-graduate

work.

Education of spouse

The education of the spouse is coded identically compared with the education of the head of

household.

Control Variables

A battery of control variables will be included in the analysis primarily to examine how

demographic factors are related to arts participation and attendance.

Age of head

This variable represents the actual age (in years) of the head of the family unit. The minimum

value is usually 18, although in rare cases a person under 18 might become head of household.

Sex of head

This dummy variable reflects the sex of the head of household (0=female;1=male).

Age of spouse

This variable represents the actual age of the current spouse in years.

Race of head

The race of the head of household is indicated by one of five categories: white, black, Hispanic, Asian, and other. Each category is represented by a dummy variable with white being the reference group.

Marital status

The marital status of the head of household is indicated by one of the five following categories: married, single, widowed, divorced, separated. Each value is represented by a dummy variable with the reference group being married.

Age of child

Child's age at the time of the interview in 2002 is indicated by a continuous variable that ranges from 6 to 19.25 years. The age variable was constructed from the Primary Caregiver Interview and preloaded birth date of the child.

Sex of child

The sex of the child is reflected in a dummy variable (0=female;1=male).

Hours worked per week of head

The number of hours worked per week by the head of household is a continuous variable where 0 indicates that the head of household is either currently not working for money or did not work at all in that year. Positive values represent the actual number of hours worked per week of the head of household.

Hours worked per week of spouse

This variable reflects the total number of hours worked per week by the spouse and is constructed in the same manner as the head of household.

Total number of adults in family unit

Total number of people in family unit is a continuous variable ranging from 1 to 9. This variable represents the actual number of adults currently in the family unit. This variable was created by subtracting the number of children in the family unit from the total number of adults in the family unit.

Total number of children in family unit

This variable represents the actual number of persons currently in the family unit who are neither head of household nor spouse from newborns through those 17 years of age, whether or not they are actually children of the head or spouse. The variable ranges from 0 to 9 children.

Geographic region

I control for the family's current geographic region of residence by including a variable in the models indicated by four categories: Northeast, North Central, South, and West. Those residing outside the continental United States were removed from the analysis because of a lack of valid cases. States were assigned to regions as follows: *Northeast* (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont); *North Central* (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin); *South* (Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, Washington DC, West Virginia; *West* (Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming). *Northeast* will be the omitted category in the regression analyses because it is the smallest category.

Metropolitan area

Important differences in childhood participation in the arts may exist between families who reside in metropolitan areas and those who do not. The PSID includes Beale rural-urban codes that are based on matches to the Federal International Processing Standard state and county codes. Beale codes are especially useful because they are not simply based on population density. As Krause et al. (2012:6) note, "Beale codes form a classification scheme that distinguishes metropolitan counties by size and non-metropolitan counties by degree of urbanization and proximity to metropolitan areas. Instead of typical rural-urban classifications based on population density, Beale codes account for proximity to metropolitan areas..." I

created a dummy variable (1 = metropolitan, 0 = nonmetropolitan) that indicates whether or not the family lives in a metropolitan or nonmetropolitan area.

Analytic Strategies

The present study does not make use of formal hypotheses because of its inherently exploratory nature. I will begin the analysis by examining univariate (descriptive) statistics in order to ascertain a clearer picture of the demographic contours of the sample. Next, I will analyze bivariate correlation matrices in order to gain a better understanding of how the variables in the present study are intercorrelated. Lastly, I construct and analyze several multivariate models. Binary logistic regression models will be conducted in order to determine the relationship between socioeconomic status/social class and youth participation in arts-based activities. Ordered logit models will be conducted in order to determine the relationship between socioeconomic status/social class and children's attendance of musical and theatrical performances. The first models for each outcome will use the aggregate measures of income and wealth. Then additional models will be run to determine to disaggregate separate indicators of income and wealth.

I also intend to consider and identify possible interactions. I will focus primarily on interactions between parents' education, income, and wealth as well as potential interactions with the child's demographic characteristics (e.g., sex and age). Interaction terms used centered variables that were then multiplied together. My goal is to determine whether socioeconomic variables have a multiplicative impact upon arts consumption and participation. If this is the case, then it should be observed that higher values on multiple socioeconomic status/class measures result in even higher likelihoods for children's participation in arts-based activities. It

27

could also be the case that the class/status measures are substitutes for one another, which would mean it is only necessary to be high on one aspect of socioeconomic status in order to increase the likelihood of children's arts participation. Please see Table 2 for a list of the interaction terms I consider both the binary regression as well as the ordered logit models.

Chapter 4

Results

Univariate

Tables 3 and 4 provide the sample size, means, standard deviations, and minimums and maximums for all dependent, independent, and control variables in the study. According to Table 3, 32% of the parents in the sample had taken their children to some sort of arts lesson (including music, dance, or drama) at least once in the last year. As Table 3 also indicates, cultural performance attendance was reported more frequently than arts participation. Although 52.2% of the children in the sample had never been taken to an arts performance in the past year, 31.7% had gone once or twice and 16.1% had gone about once per month or more.

The average total family income for the sample was 233.13 ($54,358) and ranges from $0 to $1,000,000. The majority of the total family income was constituted by the head and spouse's taxable income, which was 209.61 ($41,245.14) on average. Head and spouse's transfer income ranged from 0 to 11.66 ($115,844.03), although the mean transfer income of the head and spouse was only 3.58 ($35.87). According to Table 3, the taxable income of other family members ranged from 0 to 12.50 ($268,337.28) with a mean of 2.9 ($18.24). The transfer income of other family unit members ranged from 0 to 10.69 ($43,914.51) with a mean of only .61 ($1.84). The social security income of all family unit members was .81 ($2.26) on average and ranged from 0 to 10.47 ($35,201).

Total family wealth ranged from -$243,000 to $1,000,000 (as shown in Table 3). The average for this variable was $111,680.34. The most significant constitutive source of family wealth was the families' home equity. The average value of home equity was $45,900.59. Home equity ranged from -79.80 to 100 with an average of 4.59 ($45, 900). The mean value of

business or farm worth was $13,913.59. The value of vehicles owned by families ranged from $0 to $230,000 with an average of $11,642.30. Although the total value of all checking and savings accounts for families ranged from $0 to $1,000,000, the average was only 5.55 ($257.24). The average value of annuity/IRA was 2.33 ($10.29). The average value of families' other assets and other real estate were $4.46 and $2.77 respectively. Total debt ranged from $0 to $100,000 with an average of $5,594.80.

As shown in Table 3, 12.82% of heads of household were not currently working at the time of the interview, 28.03% worked professional or managerial occupations, 13.79% worked in a sales or clerical occupation, 12.05% work in a service-based occupation, and 33.31% worked in either crafts, operatives, farming, or laborers. Only about half (51.85%) of the spouses in the sample were currently employed either full or part time. Among spouses, 18.78% worked in professional or managerial occupations, 16.23% work in clerical/sales-based occupations, 7.63% work in service occupations, and finally 5.52% worked in either crafts, operatives, farming or as laborers. The average education for the head of household in this sample was slightly more than a high school diploma (12.88 years). Spouses in the sample were slightly more educated than the heads of household with an average of 13.12 years. On average, heads of household worked approximately 37.82 hours per week compared with spouses who worked on average 17.13 hours per week.

As Table 3 indicates, 64.18% of the sample owned or were buying the home (either fully or jointly). The average home value was $97,906.86. Additionally, 87.34% of the families owned or were leasing at least one vehicle. The average age of the head of household was 39.87 years, and 69% of the heads were male. The average age of spouse (if present) was 38.72 years. Among heads of households, 49.57% were white, 40% Black, 7.14% Hispanic, 1.58% Aasian,

and 1.7% report some other race. Among heads of households, 66.61% reported being married,

14.4% single, 2.07% widowed, 11.64% divorced, and 5.27% separated. The ages of children in

the household ranged from 6 years to 19.25 years with an average age of 12.37 years. Slightly

more children in the sample were male (51%). Families, on average, had a total number of 4.24

people in the family with 2.29 children on average. According to Table 2, 75.01% of the families

lived in a metropolitan area. 13.43% lived in the Northeast, 24.67% lived in North Central,

44.18% lived in the South, and 17.73% lived in the West.

Bivariate

In this section I examine associations between the key variables of interest for this study

by analyzing Pearson's product-moment (*r*) and Spearman's rank (*rho*) correlation coefficients. I

use Pearson's *r* to describe associations between the arts-activity participation dummy variable

and Spearman's *rho* for the ordinal cultural performance attendance variable. The data indicates,

in general, that both arts-activity participation as well as cultural performance attendance are

significantly, but moderately weakly correlated with income/wealth measures as well as most

other independent variables with varying directions of association.

Perhaps unsurprisingly, extracurricular arts-activity participation is moderately and

positively associated with cultural performance attendance (.265). Extracurricular arts-activity

participation is also positively correlated with total family income in general (.215). Of the

measures that constitute total family income, extracurricular arts-activity participation is

positively correlated with head and spouse taxable income (.225). Head and spouse transfer

income (-.081), taxable income of other family members (-.060), and social security income of

other family members (-.067) are all negatively and weakly correlated with extracurricular arts-

activity participation. There is no statistically significant relationship between extracurricular arts-activity participation and the transfer income of other family members. Arts participation is positively associated with total family wealth (.180). Of the measures that constitute total family wealth, all are statistically significant except for the value of farm/business. All other wealth measures are positively and weakly correlated with extracurricular arts-activity participation. Debt is also positively associated with arts-participation (.086) which means that as level of debt increases, so too does the likelihood that children would have participated in arts-based activities.

Cultural performance attendance is positively associated with total family income (.295). Of the components that make up total family income, only two of the five measures are statistically significant. Head and spouse taxable income is positively correlated with cultural performance attendance (.273) and head and spouse transfer income is negatively associated with performance attendance (-.042). In general, family wealth is positively associated with performance attendance. All the components that constitute the wealth variable are significantly and positively correlated with cultural performance attendance. Just as for arts-activity participation, an increase in debt corresponds to an increase in cultural performance attendance (.073).

Arts-activity participation is negatively associated with heads of households and spouses who are not currently working meaning that if a head of household is not currently working then their children will be likely to have participated in extracurricular arts activities. Conversely, arts-activity participation in positively associated with professional/managerial as well as clerical/sales professions among heads of households and spouses. Arts-activity participation is negatively correlated with heads of household whose occupation is categorized as

crafts/operative/laborer/farmer or service-based (-.059). Arts-activity participation is negatively correlated with spouses whose occupation is service-based (-.040). Unlike heads of household occupations, neither clerical/sales nor crafts/operatives/laborer/farmer occupations are significantly associated with extracurricular arts-activity participation. Home ownership, vehicle ownership, and the value of a family's home are all positively albeit weakly correlated with arts-activity participation. Both spouse (.192) and head of household (.207) level of education is positively associated with youth participation in extracurricular arts-activity participation.

Cultural performance attendance is negatively associated with non-working (-.092), service-based (-.052), crafts/operatives/laborers/farmer heads of households (-.113) but positively associated with professional/managerial heads of households (.217). Cultural performance attendance is not significantly correlated with clerical/sales occupations of heads of households. Cultural performance attendance is negatively associated with non-working (-.122), service-based (-.050), and crafts/operatives/laborers/farming spouses (-.080) but positively correlated with spouses in occupations professional/managerial (.196) and clerical/sales (.044). Cultural performance attendance is significantly and positively correlated with home ownership, vehicle ownership, value of family's home, and the education level of both the head of household and spouse.

Extracurricular arts-activity participation is positively associated with the sex of head of household (.090), the age of the spouse (.041), whether the head is white (.097), and whether the head is married (.097). Arts-activity participation is negatively associated with heads of households who are black (-.099) as well as heads who are either single (-.073) or divorced (-.048). Arts-activity participation is not significantly associated with the age of the head of household, whether the head is Hispanic, Asian, or other, whether the head is widowed or

33

separated. Cultural performance attendance is positively correlated with age of head (.118), sex of head (.117), spouse's age (.114), whether the head is white (.220), and married (.132). Cultural performance attendance is negatively associated with whether the head of household is Black (-.160) or Hispanic (-.107) as well as if they are single (-.120). Performance attendance is not significantly correlated with heads of households who are Asian, widowed, divorced, or separated.

Extracurricular arts-activity participation is positively correlated with the total number of hours the head of household (.114) and spouse work per week (.057), whether the family lives in the Northeast (.072) or West (.044), as well as metropolitan area (.075). Arts-activity participation is negatively correlated with the child's age (-.070), sex (-.180), and families who reside in the South (-.117). Extracurricular-arts activity participation is not significantly correlated with total number of adults or children in family unit nor families living in the north central region of the U.S. Cultural performance attendance is positively correlated with the number of hours the head of household (.132) and spouse (.111) work per week, families who live in the Northeast (.072) and North central (.077), and families who live in metropolitan areas (.090). Cultural performance attendance is negatively correlated with the child's sex (-.102) and families who live in the South (-.164). Performance attendance is not significantly correlated with child's age, the total number of people or children in the family unit, or families residing in the West. Please see the Appendix A for correlation matrices containing demographic variables and income/wealth measures.

Multivariate

Binary Logistic Regression Model A - Wealth and Income Measures Aggregated

I begin the multivariate analysis by presenting results from a binary logistic regression model that uses aggregated income and wealth measures to predict the likelihood of children's participation in extracurricular arts activities. In this section, I focus primarily on relationships that are statistically significant. I do, however, make note of some variables of interest that do not display statistically significant relationships at the p<.05 level. The Nagelkerke pseudo R-square for this model is .196. According to Table 11, total family income is statistically significant at the p<.001 level and the coefficient is .003. In this model, total family wealth is not statistically significant. The dummy variable that indicates head of household's professional/managerial occupation is statistically significant at the p<.05 level with a coefficient of .832 ("not working" is the reference category for occupation) and odds ratio of 2.297. The dummy variable for head of household's clerical/sales occupation is statistically significant at the p<.05 with a coefficient of .813 and an odds ratio of 2.256. The dummy variable for head of household's crafts/operatives/labor/farm occupation is statistically significant at the p<.05 with a coefficient of .665 and an odds ratio of 1.945. Spouse's occupation is not statistically significant in this model. Only spouse's education levels are statistically significant (p<.05) with coefficients of .096 and .104 and odds ratio of 1.101.

As shown in Table 11, only three control variables are statistically significant. Both age and sex of child are highly statistically significant (p<.001) with coefficients of -.069 and -.951 respectively (female is the reference category for child's sex). The dummy variable that indicates South (as compared to Northeast) geographic location is statistically significant at the p<.01 level with a coefficient of -.506.

When the interaction terms listed in Table 2 were tested, only one term was significant. As Table 13 indicates, the total family income by child's age interaction term is negative and

statistically significant at the p<.05 level. This means that for families with higher incomes, older children are less likely than younger children to participate in extracurricular arts activities ($b = -.00036$). In other words, the income effect is dependent on child's age in terms of the likelihood of participation. As we observe in Table 14, the total family wealth by child's age term is nearly significant, but it does not quite reach statistical significance at the p<.05 level.

Binary Logistic Regression Model B - Wealth and Income Measures Disaggregated

In this section, I present the results from the binary regression model that uses disaggregated income and wealth measures in order to predict the likelihood of children's participation in extracurricular arts activities. The Nagelkerke pseudo R-square for this model is .215. In general, the results of this model are very similar to the previous binary logistic regression model except for a few differences. According to Table 12, head and spouse's taxable income is statistically significant at the p<.001 level with a coefficient of .003. The taxable income of other family members is also statistically significant, but with a coefficient of -.043 and odds ratio of .958. None of the other income measures are statistically significant in this model. The value of family stocks is statistically significant at the p<.05 level with a coefficient of .041. No other wealth measures are statistically significant this model. The dummy variable that indicates head of household's professional/managerial occupation is statistically significant (p<.05) with a coefficient of .666 and odds ratio of 1.946. Only spouse's education is statistically significant with a coefficient of .092. No measures of race/ethnicity are statistically significant in this model. Age and sex of child are also both statistically significant predictors. The coefficients for age and sex of child are -.055 and -.985 respectively. The dummy variable for South is statistically significant at the p<.05 level with a coefficient of -.490.

36

Ordered Logistic Regression A - Wealth and Income Measures Aggregated

Table 15 provides coefficients and significance levels for cultural performance attendance with income and wealth measures aggregated. The Nagelkerke pseudo R-square for this model is .269. Total family income is significant at the p<.05 level (b = .001). The total family wealth measures are not statistically significant in the aggregated model. The only occupation measure that is statistically significant for either heads of households or spouse is the dummy that measures spouse's participation in crafts/operatives/labor/farming. The coefficient is negative (-.998) and is statistically significant at the p<.01 level. Vehicle ownership is statistically significant at the p<.05 level with a coefficient of .655. Education is statistically significant for both head of household and spouse (p<.001 and p<.01 respectively). Both coefficients for education are positive (.173 for head and .127 for spouse). The coefficient for the sex of the head of household is negative (-1.416) and statistically significant at the p<.01 level. Of the race/ethnicity measures, only Asian is statistically significant with a coefficient of -1.580. For the marital status measures, whether the head is single (b = -.1.322 and whether the head is divorced (b = -1.024) are both statistically significant at the p<.05 level. Sex of child is a statistically significant predictor for the likelihood of cultural performance attendance (b = -.411; p<.05). The spouse's hours worked per week is statistically significant at the p<.05 level with a coefficient of .010. The coefficient for South is -.435 and is statistically significant at the p<.05 level. After testing the interaction terms listed in Table 2, I did not observe any statistically significant interactions for any of the ordered logistic regression models.

Ordered Logistic Regression B - Wealth and Income Measures Disaggregated

Table 16 shows coefficients and significance levels for cultural performance attendance with income and wealth measures disaggregated. The Nagelkerke pseudo R-square for this model is .293. No income measures are statistically significant in this model. However, three of the seven wealth measures gain statistical significance in the disaggregated model, which are the value of checking/savings accounts (*b* = .048); value of stocks (*b* = .045); and value of vehicles (*b* = -.112). None of the head of household occupation measures are statistically significant, but three of the four spouse's occupation measures are significant including spouse's clerical/sales occupation (*b* = -.464), spouse's service occupation (*b* = -.564), and spouse's occupation in crafts/operatives/labor/farming (*b* = -1.015). Both head and spouse's education remain statistically significant with coefficients of .160 and .123 respectively.

Several of the control variables are significant. The sex of the head of household increases in statistical significance (p<.01) as well as strength (*b* = -1.616). Of the race/ethnicity variables, Asian is the only statistical significant measure in this model with a coefficient of -1.647. Of the marital status indicators, single (*b* = -1.521), divorced (*b* = -1.208), and widowed (*b* = -1.515) are statistically significant. Sex of child also remains statistically significant with a coefficient of -.439. The total number of hours worked per week by the spouse also remains significant with a coefficient of .011. The coefficient for South is -.425 and is statistically significant at the p<.01 level.

Chapter 5

Discussion

The following section is divided into four sections. First, I will discuss the results of the binary logistic regression and ordered logit models. Second, I consider the key implications of these findings. Next, I provide what I believe to be significant theoretical and practical limitations of the present study. Additionally I describe some of the strategies in which these limitations may be bypassed in future research endeavors. Finally, I bring the analysis to a close by recapitulating the key arguments and findings of the present study.

Discussion

In general, the data indicates that aggregate measures of total family income are significant predictors for the increased likelihood of both children's participation in extracurricular arts activities as well as cultural performance attendance. In the disaggregated models that examine children's participation in extracurricular arts activities, it appears that the two most important aspects of total family income are the head and spouse taxable income in addition to the taxable income of other family members. As head and spouse income increases, so too does the likelihood that their children will participate in extracurricular arts activities. However, as the taxable income of other family members increases, we observe a decrease in the likelihood of children's arts participation. The first relationship was expected and its explanation, I believe, is fairly straightforward. Extracurricular arts activities are typically extremely costly. The specific rates tend to fluctuate based on the whether it is music, art, or dance (individual vs. group-based lessons, for example) as well as the expertise of the teacher(s), the concentration or competition and the geographic/metropolitan area. However, the fact remains: participation in

these sorts of activities certainly requires a good deal of disposable income as well as, according to Lareau, an accompanying child-rearing logic that finds justification in these expenses. This finding generally supports the previous literature that indicates that family-level income is positively associated with children's increased participation in extracurricular arts activities.

The second relationship (that increased taxable income of other family members decreases the likelihood of children's arts participation) does not have a clear or straightforward explanation. This is partly a result of the ambiguity of the taxable income of other family members measure in general. Exactly which family members this variable is reflecting is by no means apparent in the coding of the measure. Other family members could potentially include grandparents, aunts, uncles, cousins, or even the children themselves. If I assume that the variable is mostly reflecting the income of employed young adults in the family, then the explanation is apparent. Teenagers who are gainfully employed in the household are, I would argue, less able to commit to time and resource extensive extracurricular arts activities. If we assume that the income of other family members is for grandparents and other adults, then this may mean that children and adolescents have fewer people to take them to and from arts activities thereby decreasing their arts participation.

In the aggregate, an interaction was found between family income and child's age, which indicated that children from higher income families are more likely to participate in extracurricular arts activities if they are of a younger age. A potential explanation is that for older children parents' disposable income may be used more for college or for other types of activities. Alternatively, concerted cultivation may be more greatly promoted in younger children, and older children may be given more independence to pick and choose their activities. Future research needs to explore whether there are age differences in concerted cultivation processes.

In the aggregate, wealth measures do not appear to be significantly related to either extracurricular arts activity participation or cultural performance attendance for youth. In and of itself, this appears to be an interesting finding because previous scholars (e.g., DiMaggio 1982) have suggested that participation in highbrow arts activities and performances tends to cluster around elite status group participation, in which, wealth figures dominantly. In the aggregate, my data do not support such claims; however, when wealth measures are examined in the disaggregate, some interesting patterns emerge. For example, the binary logistic regression model that predicted the likelihood of children's participation in extracurricular arts activities shows that, of the disaggregated wealth measures, the total value of family stocks are significantly and positively associated with participation. Further, in the disaggregated ordered logit model that predicts likelihood of cultural performance attendance we also observe a positive and significant relationship between the value of stocks as well as the value of the family's checking and savings accounts and arts performance attendance. I believe this relationship provides evidence for Lareau's theory of concerted cultivation and its explanation fits neatly within her analytic framework. In short, the data and theory suggest that those families who value and actively engage in financial/economic investment potentially share a kind of cultural logic that also translates to investment and cultivation of their children in the arts.

 I observe in the disaggregated ordered logit model a statistically significant inverse relationship between the value of family vehicles and frequency of cultural performance attendance. Although the specific reasons for this particular relationship remains unclear, this relationship could occur because those who invest in vehicles have less disposable income to spend on cultural performance events. This result also supports the importance of disaggregating socioeconomic status measures as they relate to arts activities in diverse ways. In this case, value

41

of family vehicles acts contrary to other measures (i.e., values of stocks and checking/savings accounts) by being negatively related to participation in arts activities.

According to both the binary logistic and ordered logit results, occupation plays an important role in predicting the likelihood of children's participation in arts activities. The aggregated binary logistic regression model indicates that heads of households in professional/managerial, clerical/sales, and crafts/operatives/labor occupations are related to increased participation in arts activities. However, when the model is disaggregated, it appears that only the head of household's occupation in professional/managerial occupations is associated with increased arts activities participation.. Perhaps even more interesting is the total lack of statistical significance on the part of the spouse's occupation despite the strong connection to spouse's level of education in relation to children's extracurricular arts activity participation. As for cultural performance attendance, an inverse pattern emerges. For example, the occupation of the head of household is not statistically significant across the board. However, one of the spouse's occupation measures is significant in the aggregate model: spouses that are working in crafts/operatives or who are laborers/farmers predict a decreased likelihood for children's cultural performance attendance compared to those who are not working. When the SES measures are disaggregated, spouses in clerical/sales, service, as well as crafts/operatives/labor occupations become significant and all carry an inverse relationship to frequency of arts attendance. These results all seem to indicate a strong white-collar relationship to an increased likelihood of arts activities participation. Future research should explore additional measures of arts participation and activities in order to better understand under what circumstances head of household's occupation matters more and when spouse's occupation matters more.

42

Education, perhaps one of the single most consistent measures of an individual's socioeconomic status, figures dominantly in every multivariate model, however in nuanced ways. In terms of children's participation in extracurricular arts activities, it seems that the spouse's level of education (compared to the head of household) is what matters for both the aggregate and disaggregate models. In the ordered logit models, both head and spouse levels of education are strong predictors for children's likelihood of cultural performances. This finding is consistent with previous empirical analyses as well as both Bourdieu's arguments about cultural capital and the educational system as well as the extensions to Lareau's grounded theory. For Bourdieu, more highly educated parents are able to familiarize their children with cultural expectations of teachers. Thus, children from upper class backgrounds are more able to positively interact with teachers once they reach school, for example. Part of this socialization, so social reproduction theory goes, is that parents must inculcate their children with familiarity of the dominant cultural codes in order to reap the substantive benefits later. The significant education predictors are, in no small part, related to these processes in particular and patterns of children's socialization/cultivation more generally, which seem to support both Bourdieu and Lareau.

Racial-ethnic differences are important to explore, since Lareau's concerted cultivation arguments predict a class but not a race effect. However, previous studies (e.g., Novak-Brown and Leonard 2011) consistently predict strong racial differences in arts activity participation. Although Blacks and Hispanics had lower extracurricular arts participation for the bivariate correlations, the logistic regression findings indicate, that once SES measures are simultaneously considered, the relation between race and arts participation disappear. Yet, for cultural performance attendance, Asian families are significantly less likely compared with whites to

attend cultural performances with controls for SES. These differences do not occur for extracurricular arts-activity participation. Thus, it appears that Asians do not value performance attendance as providing substantial benefits to their children, although arts lessons appear to be considered equally beneficial for Asians compared to whites. This finding needs to be further explored by future research, since cultural performances can be watched at home using videos, TV, and the internet. This result may also indicate potential immigrant or second-generation effects, since this variable was not controlled in this research study.

As the data appear to indicate in all the multivariate models the sex of the child is a crucially important predictor: male children compared with their female counterparts are much less likely to be involved with arts activities and cultural performance attendance. In terms of the differences in terms of child sex, it is altogether possible that art realms continue to be a gendered and, more specifically, a feminized space. It is also the case that many young adolescent males are socialized into the realms of sports as many sports continue to represent predominantly male domains. The child's age is a significant predictor for lessons participation, but not cultural performance attendance. The relationship between extracurricular arts activity participation and child age is negative which means that younger children are more likely to engage in these activities compared with older ones.

Implications

The practical implications for the present study are numerous, but here I will try to focus on how my findings relate to policy decisions. As I demonstrated in Chapters 1 and 2, a breadth of increasingly interdisciplinary research has consistently indicated the importance of youth participation in the arts writ large. I highlighted research that emphasizes prosocial adjustment,

cognitive development, and even health benefits. I drew on Bourdieu's concept of cultural capital and theory of social reproduction as well as Lareau's theory of concerted cultivation to illustrate the socio-cultural benefits participation in these sorts of leisure activities afford to youth and adolescents. What the present study attempted to elucidate and clarify were the most salient aspects of socioeconomic status as they relate to participation in and attendance of arts-based activities.

A very general finding of the present study is that income is significantly related to participation in these activities, which could be due to increases in disposable income but are also consistent with Lareau's class-based childrearing logics. Despite these reasons, the fact of the matter is that higher income families are able to involve their children in the types of leisure activities that seem to provide strong positive impacts for their children's life chances. One important policy aspect of these findings is that many working class poor families may rely on in-school and subsidized arts programs in order to provide their children with these experiences for free or at a low cost. The primary issue here is that these sorts of programs are typically the first to be cut from public school curricula. This has the unfortunate consequence of reducing access to (and thus, the benefits associated with) arts opportunities and experiences such as music lessons or performance attendance to only families who have sufficient disposable income. Drawing on my findings in this study as well as the expansive empirical/theoretical work on this topic, I argue that children and adolescents should have more equal access to the unique and often profound experiences in the realms of the arts.

Limitations

Theoretical Limitations

There exist several theoretical limitations of the present study. In the following section, I outline what I believe to be the most consequential and potentially deleterious. The first key theoretical limitation relates directly to Lareau's theory of concerted cultivation, which the present study set out to empirically examine. Childrearing logics, for Lareau, generally consist of three key dimensions: children's time use, language use, and interaction with institutional agents (See Table 1). The adoption and deployment of these logics are, according to Lareau, deeply class-linked and each of the constitutive dimensions are important for a variety of reasons (e.g., socialization and cultural/social/human capital accumulation). The present study only takes into consideration a single dimension of this theory, specifically, children's time use. A more developed empirical examination of childrearing logics (as outlined by Lareau) would take into account the other dimensions. Future studies may include variables that provide data on children's language use as well as parental interactions with institutional agents such as teachers, principals, and physicians in order to obtain a clearer theoretical evaluation of the problem. A second important theoretical limitation is closely related to the first but more specifically tied to children's time use. In Lareau's discussion of the time use/leisure activities of children, her main argument is that, like the other dimensions, there is a key discrepancy between the middle class and the working class/poor. Specifically, she shows that the logic of concerted cultivation involves a constant effort of the parents to keep their children active in adult-directed and organized leisure activities. The present analysis perhaps overstates the importance of arts-activities in this conception. My consideration of arts-activities and lessons as a proxy for adult-directed, organized, out-of-school leisure activities does not take into account other activities that are analytically distinct, yet potentially important such as sports or other clubs/groups. Lastly, and perhaps most generally, the present study is largely descriptive and only marginally

46

evaluates Lareau's theory. It only provides loose speculation as to the reasons for SES-based variation in arts participation for children. The results of this study do not, and perhaps cannot, explain in a well-founded manner the discrepancies uncovered in the quantitative analysis such as the complex mechanisms and dynamics of socialization into arts attendance and participation.

Methodological Limitations

This study also contains significant methodological limitations. For example, the variable that measures extracurricular arts activity participation is severely restricted in terms of its ability to provide a clear sense of what it is actually reflecting. The variable used to measure arts-activity participation was a dummy variable in which parents indicated whether or not they had taken their child to an arts-based lesson or activity at least once in the last year. The first issue with this variable is that it does not reflect frequency of attendance. For example, a family who has taken their child to violin once per week every week of the year would have answered "yes" to the question, but so too would the parent who had only taken their child to one of those violin lessons. A stronger measure would include the estimated frequency and time spent at each lesson. A second glaring issue with this variable (related to some theoretical concerns outlined above) is that the measure does not indicate what type of arts activity that the child or adolescent attended. All I know is that the activity was in some way related to the arts (music, dance, drama, etc.) and that it was adult-supervised (e.g., lessons). Additionally, this variable does not indicate how many different types of activities in which the child participated. In other words, this variable provides no way of discerning the degree of cultural omnivorousness in which the parents are attempting to inculcate their children. In future studies, it may prove useful to identify the types of activities that families are gearing their children toward, the frequency in

which they participate, and the different combinations of activity participation. I would assume that there are in fact key socioeconomic predictors for differences or variations in types and combinations of activities.

Similarly, the second dependent variable in the study does not indicate the type of cultural performance that the child attended. Although I do get a better sense of frequency, I still do not know whether the child attended a musical, a concert, a ballet, a play, or a different type of performance. Further, the variable does not clearly indicate what "counts" as a cultural performance. For instance, I cannot validly assume that the cultural performance is restricted to elite, highbrow arts such as an opera or a ballet. It is quite possible that this variable also reflects other less elite performances such as rock and roll or heavy metal shows.

This study is further methodologically limited in regards to the provided occupational measures. As was outlined above, parental occupation contributes to important and interesting variations in children's arts participation and consumption. Although the occupational measures provided were able to reflect some of these nuances, I believe a less truncated and more specific measure of type of occupation as well as an occupational prestige measure would yield even more compelling results. A more precise analysis would develop a stronger rationale for the examination of the impact of parental occupation and occupational prestige upon children's arts participation and consumption.

Conclusion

The present study attended to several gaps in the theoretical and empirical literature regarding arts consumption in the realms of extracurricular arts activities participation and cultural performance attendance. Specifically, the literature drew on a large, nationally-

representative sample in order to identify and analyze salient socioeconomic predictors of youth participation in extracurricular arts activities and cultural performance attendance. The analysis was theoretically couched in Bourdieu's work on social reproduction and Lareau's grounded analysis of class-based childrearing logics. The key findings of the study supported Lareau's class analysis by demonstrating that higher social class status predicts significantly higher participation in the arts for children. The findings also expanded upon these previous works by disaggregating key socioeconomic measures and examining their nuanced relationships to youth arts participation.

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APPENDIX A

Tables

Table 1 – Dimensions of Lareau's Class-based Childrearing Logics

	Middle Class ("concerted cultivation")	Working Class and Poor ("natural growth")
Children's Time Use	Organized leisure activities	Less structure
	Adult-directed (e.g. by coach or teacher)	Self-directed
Language Use	Parents elicit talk from children	Parents content with brief exchanges
	Parents teach children to negotiate/be assertive	Parents do not expect explanations or negotiation
	Children taught to explain reasons for actions	Parents teach children to obey orders/directives without question
	Children taught to be persuasive and justify their desires	
Interaction with Institutional Agents	Parent's deeply involved on behalf of child	Parents feel powerless
	Parents monitor, scrutinize, and evaluate institutional agents	Parents turn over responsibility for children to institutional agents

Table 2 - List of Interaction Terms Considered for Multivariate Models

1. Total family income * Total family wealth

2. Total family income * Head education

3. Total family income * Spouse education

4. Total family income * Child age

5. Total family income * Child sex

6. Total family wealth * Head education

7. Total family wealth * Spouse education

8. Total family wealth * Child age

9. Total family wealth * Child sex

10. Head education * Spouse education

Table 3 - Descriptive Statistics for Dependent and Independent Variables

	Mean	S.D.	Min.	Max.
Dependent variables				
Arts-activity participation (0=no;1=yes)	32.01	0.47	0	1
Cultural performance attendance				
Never	52.17	0.50	0	1
Once or twice	31.76	0.47	0	1
About once per month or more	16.06	0.37	0	1
Independent variables				
Total family income (sqrt)	233.13	106.33	0	1000
Head and spouse taxable income (sqrt)	209.61	118.78	0	1000
Head and spouse transfer income (ln)	3.58	4.14	0	11.66
Taxable income of other family members (ln)	2.90	4.07	0	12.50
Transfer income of other family members (ln)	0.61	2.14	0	10.69
Social security income of all family members	0.81	2.55	0	10.47
Total family wealth (per 10k)	11.17	2.00	-24.30	100
Value of farm/business (per 10k)	1.39	8.60	0	100
Value of all checking/savings accounts (ln)	5.55	3.96	0	13.82
Value of other real estate (ln)	1.02	3.14	0	13.82
Value of stocks (ln)	2.01	4.08	0	13.82
Value of vehicles (per 10k)	1.16	1.72	0	23
Value of other assets (ln)	1.50	3.48	0	13.82
Value of annuity/IRA (ln)	2.33	4.31	0	13.59
Value of home equity (per 10k)	4.59	9.34	-79.80	100
Debt (per 10k)	0.56	1.20	0	10
Head Occupation (0=no;1=yes)				
Not Working	12.82	0.33	0	1
Professional/Managerial	28.03	0.45	0	1
Clerical/Sales	13.79	0.34	0	1
Service	12.05	0.33	0	1
Crafts/Operative/Laborer/Farming	33.31	0.47	0	1
Spouse Occupation (0=no;1=yes)				
Not Working	51.85	0.50	0	1
Professional/Managerial	18.78	0.39	0	1
Clerical/Sales	16.23	0.37	0	1
Service	7.63	0.27	0	1
Crafts/Operatives/Farming	5.52	0.23	0	1
Home ownership (0=no;1=yes)	64.18	0.48	0	1
Vehicle ownership (0=no;1=yes)	87.34	0.33	0	1
Value of home (per 10k)	9.79	13.32	0	100
Head education	12.88	2.38	8	17
Spouse education	13.12	1.94	8	17

Dummy variable means reported as percents.

N=2,465

Table 4 - Descriptive Statistics for Control Variables

	Mean	S.D.	Min.	Max.
Control variables				
Head age	39.87	8.40	17	81
Head sex (0=female;1=male)	0.69	0.46	0	1
Spouse age	38.72	5.71	21	75
Head race (0=no;1=yes)				
Head white	49.57	0.50	0	1
Head black	40.00	0.49	0	1
Head hispanic	7.14	0.26	0	1
Head asian	1.58	0.12	0	1
Head other	1.70	0.13	0	1
Head marital status (0=no;1=yes)				
Head married	66.61	0.47	0	1
Head single	14.40	0.35	0	1
Head widowed	2.07	0.14	0	1
Head divorced	11.64	0.32	0	1
Head separated	5.27	0.22	0	1
Child age	12.37	3.66	6	19.25
Child sex (0=female;1=male)	50.51	0.50	0	1
Head hours worked per week	37.82	18.31	0	100
Spouse hours worked per week	17.13	20.25	0	91
Total number of adults in family unit	1.95	0.75	1	9
Total number of children in family unit	2.29	1.05	0	9
Geographic region (0=no;1=yes)				
Northeast	13.43	0.34	0	1
North central	24.67	0.43	0	1
South	44.18	0.50	0	1
West	17.73	0.38	0	1
Metropolitan area	75.01	0.43	0	1

Dummy variable means reported as percents.

N=2,465

Table 5 - Correlation Matrix - Dependent Variables and Income/Wealth Measures

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1) Extracurricular arts-activity participation	-	.265**	.215**	.225**	-.081**	-.060**	-.021	-.067**	.180**	.012	.163**	.057**	.187**	.066**	.091**	.154**	.125**	.086**
(2) Cultural performance attendance[a]	.265**	-	.295**	.273**	-.042*	.035	.001	-.021	.230**	.044*	.263**	.088**	.270**	.146**	.144**	.241**	.231**	.073**
(3) Total family income	.215**	.295**	-	.941**	-.235**	.185**	-.050*	-.120**	.541**	.178**	.512**	.271**	.412**	.363**	.222**	.451**	.434**	.189**
(4) Head and spouse taxable income	.225**	.273**	.941**	-	-.357**	.053*	-.126**	-.224**	.521**	.170**	.517**	.255**	.384**	.354**	.215**	.439**	.416**	.178**
(5) Head and spouse transfer income	-.081**	-.042*	-.235**	-.357**	-	.003	.088**	.058**	-.169**	-.098**	-.173**	-.074**	-.089**	-.155**	-.070**	-.143**	-.106**	-.055**
(6) Taxable income of other family members	-.060**	.035	.185**	.053*	.003	-	.001	.027	.054**	.040*	.043*	.048*	.070**	.086**	.036	.061**	.038	.047*
(7) Transfer income of other family members	-.021	.001	-.050*	-.126**	.088**	.001	-	.104**	.010	.017	-.096**	-.009	-.001	-.068**	.005	-.009	.024	-.004
(8) Social security income of other family members	-.067**	-.021	-.120**	-.224**	.058**	.027	.104**	-	-.068**	-.007	-.101**	-.018	-.077**	-.067**	-.039	-.113**	-.041*	-.027
(9) Total family wealth	.180**	.230**	.541**	.521**	-.169**	.054**	.010	-.068**	-	.442**	.462**	.331**	.613**	.431**	.400**	.557**	.707**	-.024
(10) Value of farm/business	.012	.044*	.178**	.170**	-.098**	.040	.017	-.007	.442**	-	.125**	.161**	.122**	.253**	.143**	.157**	.056**	.124**
(11) Value of all checking/savings accounts	.163**	.263**	.512**	.517**	-.173**	.043*	-.096**	-.101**	.462**	.125**	-	.226**	.416**	.314**	.222**	.409**	.359**	.101**
(12) Value of other real estate	.057**	.088**	.271**	.255**	-.074**	.048*	-.009	-.018	.331**	.161**	.226**	-	.215**	.182**	.102**	.156**	.216**	.076**
(13) Value of stocks	.187**	.270**	.412**	.384**	-.089**	.070**	-.001	-.077**	.613**	.122**	.416**	.215**	-	.269**	.196**	.484**	.439**	.070**
(14) Value of vehicles	.066**	.146**	.363**	.354**	-.155**	.086**	-.068**	-.067**	.431**	.253**	.314**	.182**	.269**	-	.156**	.282**	.154**	.148**
(15) Value of other assets	.091**	.144**	.222**	.215**	-.070**	.036	.005	-.039	.400**	.143**	.222**	.102**	.196**	.156**	-	.226**	.159**	.030
(16) Value of annuity/IRA	.154**	.241**	.451**	.439**	-.143**	.061**	-.009	-.113**	.557**	.157**	.409**	.156**	.484**	.282**	.226**	-	.368**	.124**
(17) Value of home equity	.125**	.231**	.434**	.416**	-.106**	.038	.024	-.041*	.707**	.056**	.359**	.216**	.439**	.154**	.159**	.368**	-	-.067**
(18) Debt	.086**	.073**	.189**	.178**	-.055**	.047*	-.004	-.027	-.024	.124**	.101**	.076**	.070**	.148**	.030	.124**	-.067**	-

*p<.05; **p<.01. N=2,465

[a] indicates Spearman's rho

Table 6 - Correlation Matrix - Dependent and Other Independent Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
(1) Extracurricular arts-activity participation	-	.265**	-.115**	.153**	.043*	-.054**	-.059**	-.073**	.122**	.012	-.040*	-.021	.101**	.104**	.181**	.207**	.192**
(2) Cultural performance attendance[a]	.265**	-	-.092**	.217**	.010	-.052**	-.113**	-.122**	.196**	.044*	-.050*	-.080**	.155**	.114**	.265**	.318**	.256**
(3) Head Not Working	-.115**	-.092**	-	-.239**	-.153**	-.142**	-.271**	.207**	-.122**	-.103**	-.042*	-.029	-.194**	-.332**	-.160**	-.229**	-.114**
(4) Head Professional/Managerial	.153**	.217**	-.239**	-	-.250**	-.231**	-.441**	-.127**	.213**	.049*	-.064**	-.091**	.216**	.164**	.378**	.494**	.333**
(5) Head Clerical/Sales	.043*	.010	-.153**	-.250**	-	-.148**	-.283**	.065**	-.024	-.001	-.044*	-.050*	-.020	.057**	-.002	.074**	.069**
(6) Head Service	-.054**	-.052**	-.142**	-.231**	-.148**	-	-.262**	.135**	-.121**	-.024	.011	-.062**	-.181**	-.155**	-.162**	-.133**	-.029
(7) Head Crafts/Operative/Laborer/Farm	-.059**	-.113**	-.271**	-.441**	-.283**	-.262**	-	-.167**	-.016	.044*	.115**	.187**	.072**	.145**	-.133**	-.270**	-.268**
(8) Spouse Not Working	-.073**	-.122**	.207**	-.127**	.065**	.135**	-.167**	-	-.499**	-.457**	-.298**	-.251**	-.381**	-.294**	-.281**	-.185**	-.163**
(9) Spouse Professional/Managerial	.122**	.196**	-.122**	.213**	-.024	-.121**	-.016	-.499**	-	-.212**	-.138**	-.116**	.264**	.167**	.285**	.291**	.378**
(10) Spouse Clerical/Sales	.012	.044*	-.103**	.049*	-.001	-.024	.044*	-.457**	-.212**	-	-.126**	-.106**	.164**	.148**	.114**	.116**	.051*
(11) Spouse Service	-.040*	-.050*	-.042*	-.064**	-.044*	.011	.115**	-.298**	-.138**	-.126**	-	-.069**	.049*	.045*	-.029	-.113**	-.162**
(12) Spouse Crafts/Operatives/Laborer/Farming	-.021	-.080**	-.029	-.091**	-.050*	-.062**	.187**	-.251**	-.116**	-.106**	-.069**	-	.062**	.065**	-.023	-.149**	-.184**
(13) Home ownership	.101**	.155**	-.194**	.216**	-.020	-.181**	.072**	-.381**	.264**	.164**	.049*	.062**	-	.349**	.549**	.265**	.181**
(14) Vehicle ownership	.104**	.114**	-.332**	.164**	.057**	-.155**	.145**	-.294**	.167**	.148**	.045*	.065**	.349**	-	.229**	.251**	.088**
(15) Value of home	.181**	.265**	-.160**	.378**	-.002	-.162**	-.133**	-.281**	.285**	.114**	-.029	-.023	.549**	.229**	-	.430**	.384**
(16) Head education	.207**	.318**	-.229**	.494**	.074**	-.133**	-.270**	-.185**	.291**	.116**	-.113**	-.149**	.265**	.251**	.430**	-	.560**
(17) Spouse education	.192**	.256**	-.114**	.333**	.069**	-.029	-.268**	-.163**	.378**	.051*	-.162**	-.184**	.181**	.088**	.384**	.560**	-

*p<.05; **p<.01. N=2,465

[a] indicates Spearman's rho

Table 7 - Correlation Matrix - Dependent Variables and Control Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) Extracurricular arts-activity participation	-	.265**	.022	.090**	.041*	.097**	-.099**	.006	.004	-.016	.097**	-.073**	-.033	-.048*	.002
(2) Cultural performance attendance[a]	.265**	-	.118**	.117**	.114**	.220**	-.160**	-.107**	-.021	-.008	.132**	-.120**	-.030	-.027	-.034
(3) Head age	.022	.118**	-	.208**	.647**	.083**	-.088**	-.040*	.039	.055**	.197**	-.282**	.170**	-.029	-.039
(4) Head sex	.090**	.117**	.208**	-	.014	.380**	-.454**	.098**	.064**	-.006	.950**	-.587**	-.179**	-.452**	-.319**
(5) Spouse age	.041*	.114**	.647**	.014	-	.022	-.001	-.070**	.016	.042*	.015	-.008	-.003	-.007	-.005
(6) Head white	.097**	.220**	.083**	.380**	.022	-	-.810**	-.275**	-.126**	-.131**	.363**	-.354**	-.053**	-.034	-.129**
(7) Head Black	-.099**	-.160**	-.088**	-.454**	-.001	-.810**	-	-.226**	-.104**	-.107**	-.439**	.422**	.067**	.068**	.122**
(8) Head Hispanic	.006	-.107**	-.040*	.098**	-.070**	-.275**	-.226**	-	-.035	-.037	.103**	-.073**	-.018	-.091**	.040*
(9) Head asian	.004	-.021	.039	.064**	.016	-.126**	-.104**	-.035	-	-.017	.069**	-.043*	-.018	-.026	-.030
(10) Head other	-.016	-.008	.055**	-.006	.042*	-.131**	-.107**	-.037	-.017	-	-.013	-.045*	.003	.079**	-.017
(11) Head married	.097**	.132**	.197**	.950**	.015	.363**	-.439**	.103**	.069**	-.013	-	-.579**	-.205**	-.513**	-.333**
(12) Head single	-.073**	-.120**	-.282**	-.587**	-.008	-.354**	.422**	-.073**	-.043*	-.045*	-.579**	-	-.060**	-.149**	-.097**
(13) Head widowed	-.033	-.030	.170**	-.179**	-.003	-.053**	.067**	-.018	-.018	.003	-.205**	-.060**	-	-.053**	-.034
(14) Head divorced	-.048*	-.027	-.029	-.452**	-.007	-.034	.068**	-.091**	-.026	.079**	-.513**	-.149**	-.053**	-	-.086**
(15) Head separated	.002	-.034	-.039	-.319**	-.005	-.129**	.122**	.040*	-.030	-.017	-.333**	-.097**	-.034	-.086**	-

*p<.05; **p<.01. N=2,465

[a] indicates Spearman's rho

Table 8 - Correlation Matrix - Dependent Variables and Other Control Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Extracurricular arts-activity participation	-	.265[**]	-.070[**]	-.180[**]	.114[**]	.057[**]	.024	-.026	.072[**]	.039	-.117[**]	.044[*]	.075[**]
(2) Cultural performance attendance[a]	.265[**]	-	-.027	-.102[**]	.132[**]	.110[**]	.088[**]	-.029	.128[**]	.077[**]	-.164[**]	.013	.090[**]
(3) Child age	-.070[**]	-.027	-	-.014	-.007	.082[**]	.157[**]	-.084[**]	.017	-.004	.015	-.030	.018
(4) Child sex	-.180[**]	-.102[**]	-.014	-	-.023	-.002	.001	-.022	.007	-.027	.024	-.008	.011
(5) Head hours worked per week	.114[**]	.132[**]	-.007	-.023	-	.229[**]	.193[**]	-.097[**]	.040[*]	.049[*]	-.092[**]	.029	-.053[**]
(6) Spouse hours worked per week	.057[**]	.110[**]	.082[**]	-.002	.229[**]	-	.389[**]	-.113[**]	.045[*]	.051[*]	-.090[**]	.019	-.050[*]
(7) Total number of adults in family unit	.024	.088[**]	.157[**]	.001	.193[**]	.389[**]	-	-.030	.026	.013	-.082[**]	.070[**]	.027
(8) Total number of children in family unit	-.026	-.029	-.084[**]	-.022	-.097[**]	-.113[**]	-.030	-	-.030	.030	-.050[*]	.058[**]	.021
(9) Northeast	.072[**]	.128[**]	.017	.007	.040[*]	.045[*]	.026	-.030	-	-.225[**]	-.350[**]	-.183[**]	.112[**]
(10) North central	.039	.077[**]	-.004	-.027	.049[*]	.051[*]	.013	.030	-.225[**]	-	-.509[**]	-.266[**]	-.070[**]
(11) South	-.117[**]	-.164[**]	.015	.024	-.092[**]	-.090[**]	-.082[**]	-.050[*]	-.350[**]	-.509[**]	-	-.413[**]	-.083[**]
(12) West	.044[*]	.013	-.030	-.008	.029	.019	.070[**]	.058[**]	-.183[**]	-.266[**]	-.413[**]	-	.086[**]
(13) Metropolitan area	.075[**]	.090[**]	.018	.011	-.053[**]	-.050[*]	.027	.021	.112[**]	-.070[**]	-.083[**]	.086[**]	-

*p<.05; **p<.01. N=2,465

[a] indicates Spearman's rho

Table 9 -Correlation Matrix - Total Income/Wealth Measures and Control Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) Total family income	-	.541**	.201**	.451**	.149**	.407**	-.376**	-.104**	.065**	-.007	.459**	-.365**	-.072**	-.146**	-.137**
(2) Total family wealth	.541**	-	.263**	.287**	.273**	.323**	-.293**	-.079**	.065**	-.043*	.292**	-.211**	-.041*	-.121**	-.085**
(3) Head age	.201**	.263**	-	.208**	.647**	.083**	-.088**	-.040*	.039	.055**	.197**	-.282**	.170**	-.029	-.039
(4) Head sex	.451**	.287**	.208**	-	.014	.380**	-.454**	.098**	.064**	-.006	.950**	-.587**	-.179**	-.452**	-.319**
(5) Spouse age	.149**	.273**	.647**	.014	-	.022	-.001	-.070**	.016	.042*	.015	-.008	-.003	-.007	-.005
(6) Head white	.407**	.323**	.083**	.380**	.022	-	-.810**	-.275**	-.126**	-.131**	.363**	-.354**	-.053**	-.034	-.129**
(7) Head Black	-.376**	-.293**	-.088**	-.454**	-.001	-.810**	-	-.226**	-.104**	-.107**	-.439**	.422**	.067**	.068**	.122**
(8) Head Hispanic	-.104**	-.079**	-.040*	.098**	-.070**	-.275**	-.226**	-	-.035	-.037	.103**	-.073**	-.018	-.091**	.040*
(9) Head asian	.065**	.065**	.039	.064**	.016	-.126**	-.104**	-.035	-	-.017	.069**	-.043*	-.018	-.026	-.030
(10) Head other	-.007	-.043*	.055**	-.006	.042*	-.131**	-.107**	-.037	-.017	-	-.013	-.045*	.003	.079**	-.017
(11) Head married	.459**	.292**	.197**	.950**	.015	.363**	-.439**	.103**	.069**	-.013	-	-.579**	-.205**	-.513**	-.333**
(12) Head single	-.365**	-.211**	-.282**	-.587**	-.008	-.354**	.422**	-.073**	-.043*	-.045*	-.579**	-	-.060**	-.149**	-.097**
(13) Head widowed	-.072**	-.041*	.170**	-.179**	-.003	-.053**	.067**	-.018	-.018	.003	-.205**	-.060**	-	-.053**	-.034
(14) Head divorced	-.146**	-.121**	-.029	-.452**	-.007	-.034	.068**	-.091**	-.026	.079**	-.513**	-.149**	-.053**	-	-.086**
(15) Head separated	-.137**	-.085**	-.039	-.319**	-.005	-.129**	.122**	.040*	-.030	-.017	-.333**	-.097**	-.034	-.086**	-

*p<.05; **p<.01. N=2,465

Table 10 - Correlation Matrix - Total Income/Wealth and Other Control Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Total family income	-	.541**	.068**	-.011	.371**	.349**	.288**	-.060**	.185**	.040*	-.225**	.083**	.072**
(2) Total family wealth	.541**	-	.079**	-.028	.213**	.165**	.154**	-.089**	.129**	.015	-.167**	.085**	.078**
(3) Child age	.068**	.079**	-	-.014	-.007	.082**	.157**	-.084**	.017	-.004	.015	-.030	.018
(4) Child sex	-.011	-.028	-.014	-	-.023	-.002	.001	-.022	.007	-.027	.024	-.008	.011
(5) Head hours worked per week	.371**	.213**	-.007	-.023	-	.229**	.193**	-.097**	.040*	.049*	-.092**	.029	-.053**
(6) Spouse hours worked per week	.349**	.165**	.082**	-.002	.229**	-	.389**	-.113**	.045*	.051*	-.090**	.019	-.050*
(7) Total number of adults in family unit	.288**	.154**	.157**	.001	.193**	.389**	-	-.030	.026	.013	-.082**	.070**	.027
(8) Total number of shildren in family unit	-.060**	-.089**	-.084**	-.022	-.097**	-.113**	-.030	-	-.030	.030	-.050*	.058**	.021
(9) Northeast	.185**	.129**	.017	.007	.040*	.045*	.026	-.030	-	-.225**	-.350**	-.183**	.112**
(10) North central	.040*	.015	-.004	-.027	.049*	.051*	.013	.030	-.225**	-	-.509**	-.266**	-.070**
(11) South	-.225**	-.167**	.015	.024	-.092**	-.090**	-.082**	-.050*	-.350**	-.509**	-	-.413**	-.083**
(12) West	.083**	.085**	-.030	-.008	.029	.019	.070**	.058**	-.183**	-.266**	-.413**	-	.086**
(13) Metropolitan area	.072**	.078**	.018	.011	-.053**	-.050*	.027	.021	.112**	-.070**	-.083**	.086**	-

*p<.05; **p<.01. N=2,465

Table 11 - Binary Logistic Regression Model A - Wealth and Income Measures Aggregated

	B	S.E.	Sig.	Exp(B)	
Aggregated Income/Wealth Measures					
Total family income	.003	.001	.000	1.003	***
Total family wealth	.006	.004	.206	1.006	
Other Independent Measures					
Head Professional/Managerial	.832	.337	.017	2.297	*
Head Clerical/Sales	.813	.385	.040	2.256	*
Head Service	.482	.341	.164	1.619	
Head Crafts/Operatives/Laborer/Farmer	.665	.331	.050	1.945	*
Spouse Professional/Managerial	-.268	.293	.365	.765	
Spouse Clerical/Sales	-.431	.300	.157	.650	
Spouse Service	-.567	.317	.079	.567	
Spouse Crafts/Operatives/Laborer/Farmer	.045	.367	.904	1.046	
Home ownership	-.027	.213	.898	.973	
Vehicle ownership	.190	.290	.515	1.210	
Value of home	-.009	.007	.211	.991	
Head education	.062	.041	.139	1.064	
Spouse education	.096	.040	.021	1.101	*
Control Variables					
Head age	-.005	.013	.709	.995	
Head sex	.191	.467	.685	1.210	
Spouse age	.019	.014	.185	1.019	
Head black	-.049	.216	.822	.952	
Head Hispanic	.326	.244	.186	1.386	
Head Asian	-.447	.380	.244	.639	
Head other	-.325	.431	.455	.723	
Head single	.242	.589	.683	1.274	
Head widowed	.095	.666	.887	1.100	
Head divorced	-.462	.505	.365	.630	
Head separated	.237	.619	.703	1.268	
Child age	-.069	.018	.000	.934	***
Child sex	-.951	.103	.000	.386	***
Head hours worked per week	-.004	.006	.525	.996	
Spouse hours worked per week	.005	.006	.441	1.005	
Total number of adults in family unit	-.168	.121	.172	.846	
Total number of children in family unit	.009	.062	.885	1.009	
North central	-.143	.165	.390	.867	
South	-.506	.163	.003	.603	**
West	-.120	.202	.555	.887	
Metropolitan area	.267	.186	.156	1.306	
Constant	-3.025	.924	.002	.049	**
Pseudo R^2	.196[a]				

*p<.05; **p<.01; ***p<.001. N=2,465

[a] Nagelkerke Pseudo R-Square

<u>**Table 12 - Binary Logistic Regression Model B - Wealth and Income Measures Disaggregated**</u>

	B	S.E.	Sig.	Exp(B)	
Income Measures					
Head and spouse taxable income	.003	.001	.000	1.003	***
Head and spouse transfer income	.019	.015	.199	1.019	
Taxable income of other family members	-.043	.020	.037	.958	*
Transfer income of other family members	-.002	.036	.965	.998	
Social security income of other family	-.030	.032	.347	.970	
Wealth Measures					
Value of farm/business	-.010	.006	.124	.990	
Value of all checking/savings accounts	.019	.024	.425	1.019	
Value of other real estate	.024	.023	.313	1.024	
Value of stocks	.041	.017	.019	1.042	*
Value of vehicles	-.061	.033	.073	.941	
Value of other assets	.019	.018	.301	1.019	
Value of annuity/IRA	-.001	.017	.957	.999	
Value of home equity	-.016	.009	.064	.984	
Debt	.025	.049	.615	1.025	
Other Independent Measures					
Head Professional/Managerial	.666	.331	.050	1.946	*
Head Clerical/Sales	.671	.381	.084	1.956	
Head Service	.437	.328	.188	1.548	
Head Crafts/Operatives/Laborer/Farmer	.563	.337	.101	1.756	
Spouse Professional/Managerial	-.327	.316	.305	.721	
Spouse Clerical/Sales	-.472	.319	.145	.624	
Spouse Service	-.561	.303	.070	.571	
Spouse Crafts/Operatives/Laborer/Farmer	.108	.345	.756	1.114	
Home ownership	-.082	.217	.707	.921	
Vehicle ownership	.128	.288	.657	1.137	
Value of home	.004	.009	.656	1.004	
Head education	.048	.042	.257	1.050	
Spouse education	.092	.041	.028	1.096	*
Control Variables					
Head age	-.004	.012	.758	.996	
Head sex	.092	.503	.856	1.096	
Spouse age	.028	.014	.054	1.028	
Head black	.022	.221	.920	1.023	
Head Hispanic	.317	.238	.188	1.373	
Head Asian	-.575	.392	.148	.563	
Head other	-.278	.428	.518	.757	
Head single	.183	.606	.764	1.201	
Head widowed	.339	.741	.650	1.403	
Head divorced	-.518	.529	.332	.596	
Head separated	.240	.639	.709	1.271	
Child age	-.055	.020	.007	.946	**
Child sex	-.985	.103	.000	.373	***
Head hours worked per week	-.003	.006	.605	.997	
Spouse hours worked per week	.004	.006	.464	1.004	
Total number of adults in family unit	-.029	.135	.834	.972	
Total number of children in family unit	.025	.063	.693	1.025	
North central	-.106	.156	.499	.899	
South	-.490	.168	.005	.613	**
West	-.142	.199	.477	.867	
Metropolitan area	.243	.193	.213	1.275	
Constant	-3.409	.971	.001	.033	***
Pseudo R^2	0.215[a]				

*p<.05; **p<.01; ***p<.001. N=2,465

[a] Nagelkerke Pseudo R-Square

<u>**Table 13 - Binary Logistic Regression Model A - Income by Child Age Interaction Term Added**</u>

	B	S.E.	Sig.	Exp(B)	
Aggregated Income/Wealth Measures					
Total family income	.003	.001	.001	1.003	***
Total family wealth	.006	.004	.172	1.006	
Other Independent Measures					
Head Professional/Managerial	.827	.337	.017	2.287	*
Head Clerical/Sales	.808	.385	.041	2.243	*
Head Service	.461	.341	.181	1.586	
Head Crafts/Operatives/Laborer/Farmer	.659	.331	.051	1.933	
Spouse Professional/Managerial	-.280	.299	.353	.755	
Spouse Clerical/Sales	-.439	.301	.151	.645	
Spouse Service	-.607	.326	.068	.545	
Spouse Crafts/Operatives/Laborer/Farmer	.036	.371	.923	1.037	
Home ownership	-.046	.210	.827	.955	
Vehicle ownership	.208	.288	.472	1.232	
Value of home	-.009	.007	.169	.991	
Head education	.062	.041	.137	1.064	
Spouse education	.096	.040	.021	1.101	*
Control Variables					
Head age	-.007	.013	.590	.993	
Head sex	.168	.464	.719	1.183	
Spouse age	.022	.014	.115	1.022	
Head black	-.057	.217	.793	.944	
Head Hispanic	.311	.245	.209	1.365	
Head asian	-.463	.385	.235	.630	
Head other	-.341	.435	.436	.711	
Head single	.254	.589	.668	1.289	
Head widowed	.038	.675	.956	1.038	
Head divorced	-.489	.498	.331	.613	
Head separated	.195	.624	.756	1.216	
Child age	-.061	.018	.001	.941	**
Child sex	-.952	.104	.000	.386	***
Head hours worked per week	-.004	.006	.513	.996	
Spouse hours worked per week	.005	.006	.405	1.005	
Total number of adults in family unit	-.152	.121	.215	.859	
Total number of children in family unit	.005	.062	.932	1.005	
North central	-.126	.164	.448	.882	
South	-.505	.163	.003	.604	**
West	-.119	.201	.557	.888	
Metropolitan area	.269	.187	.156	1.309	
Income X Child Age	-.000†	.000	.015	1.000††	*
Constant	-.962	.639	.133	.382	
Pseudo R^2	.200[a]				

*p<.05; **p<.01; ***p<.001. N=2,465

[a] Nagelkerke R-Square

† b = -.00036

†† Exp(B) = .99964

Table 14 - Binary Logistic Regression Model A - Wealth by Child Age Interaction Term Added

	B	S.E.	Sig.	Exp(B)	
Aggregated Income/Wealth Measures					
Total family income	.003	.001	.000	1.003	***
Total family wealth	.007	.005	.131	1.007	
Other Independent Measures					
Head Professional/Managerial	.846	.338	.016	2.331	*
Head Clerical/Sales	.820	.384	.037	2.271	*
Head Service	.486	.346	.166	1.625	
Head Crafts/Operatives/Laborer/Farmer	.666	.333	.051	1.947	
Spouse Professional/Managerial	-.247	.302	.417	.781	
Spouse Clerical/Sales	-.409	.305	.186	.664	
Spouse Service	-.560	.320	.086	.571	
Spouse Crafts/Operatives/Laborer/Farmer	.064	.374	.865	1.066	
Home ownership	-.026	.213	.902	.974	
Vehicle ownership	.198	.294	.503	1.219	
Value of home	-.011	.007	.134	.989	
Head education	.063	.041	.132	1.065	
Spouse education	.098	.040	.018	1.103	*
Control Variables					
Head age	-.006	.013	.661	.994	
Head sex	.209	.461	.652	1.233	
Spouse age	.020	.014	.158	1.020	
Head black	-.056	.216	.797	.946	
Head Hispanic	.332	.243	.177	1.394	
Head asian	-.440	.383	.256	.644	
Head other	-.315	.430	.468	.730	
Head single	.277	.582	.636	1.319	
Head widowed	.124	.654	.850	1.132	
Head divorced	-.452	.497	.368	.637	
Head separated	.243	.615	.694	1.275	
Child age	-.064	.017	.001	.938	***
Child sex	-.955	.104	.000	.385	***
Head hours worked per week	-.004	.006	.503	.996	
Spouse hours worked per week	.004	.006	.464	1.004	
Total number of adults in family unit	-.161	.122	.193	.851	
Total number of children in family unit	.003	.062	.962	1.003	
North central	-.128	.166	.444	.880	
South	-.501	.164	.003	.606	**
West	-.102	.198	.608	.903	
Metropolitan area	.266	.184	.154	1.304	
Wealth X Child Age	-.001	.001	.068	.999	
Constant	-3.132	.917	.001	.044	**
Pseudo R^2	.199[a]				

*p<.05; **p<.01; ***p<.001. N=2,465

[a] Nagelkerke R-Square

Table 15 - Ordered Logistic Regression Model A - Wealth and Income Measure Aggregated

	Estimate	Std. Error	Sig.	
Intercept 1 (Never)	2.903	.789	.001	***
Intercept 2 (Once or Twice)	4.954	.795	.000	***
Aggregated Income/Wealth Measures				
Total family income	.001	.001	.028	*
Total family wealth	.002	.004	.685	
Other Independent Measures				
Head Professional/Managerial	-.441	.404	.280	
Head Clerical/Sales	-.541	.350	.128	
Head Service	-.402	.374	.288	
Head Crafts/Operatives/Laborer/Farmer	-.406	.348	.249	
Spouse Professional/Managerial	-.136	.228	.552	
Spouse Clerical/Sales	-.429	.227	.065	
Spouse Service	-.505	.269	.066	
Spouse Crafts/Operatives/Laborer/Farmer	-.998	.364	.008	**
Home ownership	-.037	.168	.828	
Vehicle ownership	.655	.278	.022	*
Value of home	.009	.007	.205	
Head education	.173	.043	.000	***
Spouse education	.127	.040	.003	**
Control Variables				
Head age	.007	.013	.561	
Head sex	-1.416	.382	.001	***
Spouse age	-.006	.015	.690	
Head black	-.417	.242	.090	
Head Hispanic	-.515	.277	.069	
Head Asian	-1.580	.374	.000	***
Head other	.088	.407	.830	
Head single	-1.322	.611	.035	*
Head widowed	-1.106	.615	.078	
Head divorced	-1.024	.399	.013	*
Head separated	-1.016	.629	.112	
Child age	-.018	.018	.322	
Child sex	-.411	.100	.000	***
Head hours worked per week	.002	.006	.700	
Spouse hours worked per week	.010	.004	.022	*
Total number of adults in family unit	.131	.131	.322	
Total number of children in family unit	.000	.060	.994	
North central	-.045	.171	.792	
South	-.435	.162	.010	*
West	-.286	.231	.221	
Metropolitan area	.288	.156	.071	
Pseudo R^2	.269[a]			

*p<.05; **p<.01; ***p<.001. N=2,465

[a] Nagelkerke R-Square

Table 16 - Ordered Logistic Regression Model B - Wealth and Income Measures Disaggregated

	Estimate	Std. Error	Sig.	
Intercept 1 (Never)	2.741	.890	.003	*
Intercept 2 (Once or Twice)	4.844	.890	.000	***
Income Measures				
Head and spouse taxable income	.001	.001	.063	
Head and spouse transfer income	.019	.014	.171	
Taxable income of other family members	-.022	.018	.217	
Transfer income of other family members	.024	.027	.383	
Social security income of other family members	.055	.043	.203	
Wealth Measures				
Value of farm/business	-.009	.008	.281	
Value of all checking/savings accounts	.048	.023	.043	*
Value of other real estate	.028	.018	.139	
Value of stocks	.045	.016	.006	**
Value of vehicles	-.112	.028	.000	***
Value of other assets	.002	.015	.885	
Value of annuity/IRA	.007	.015	.656	
Value of home equity	-.007	.010	.505	
Debt	.023	.043	.594	
Other Independent Variables				
Head Professional/Managerial	-.493	.424	.251	
Head Clerical/Sales	-.597	.388	.130	
Head Service	-.375	.395	.347	
Head Crafts/Operatives/Laborer/Farmer	-.384	.358	.288	
Spouse Professional/Managerial	-.219	.224	.333	
Spouse Clerical/Sales	-.464	.224	.044	*
Spouse Service	-.564	.260	.035	*
Spouse Crafts/Operatives/Laborer/Farmer	-1.015	.362	.007	**
Home ownership	-.030	.169	.860	
Vehicle ownership	.530	.288	.071	
Value of home	.012	.009	.193	
Head education	.160	.047	.001	**
Spouse education	.123	.038	.002	*
Control Variables				
Head age	.005	.012	.698	
Head sex	-1.616	.466	.001	**
Spouse age	-.010	.017	.537	
Head black	-.306	.253	.231	
Head Hispanic	-.454	.270	.099	
Head Asian	-1.647	.376	.000	***
Head other	.197	.409	.631	
Head single	-1.521	.663	.026	*
Head widowed	-1.515	.622	.018	*
Head divorced	-1.208	.444	.009	**
Head separated	-1.192	.642	.069	
Child age	-.007	.019	.711	
Child sex	-.439	.102	.000	***
Head hours worked per week	.004	.006	.519	
Spouse hours worked per week	.011	.004	.011	*
Total number of adults in family unit	.182	.125	.150	
Total number of children in family unit	.008	.060	.890	
North central	.016	.187	.933	
South	-.425	.184	.025	*
West	-.244	.246	.326	
Metropolitan area	.274	.152	.078	
Pseudo R^2	.293[a]			

*p<.05; **p<.01; ***p<.001. N=2,465

[a] Nagelkerke R-Square

APPENDIX B

IRB Approval Form

VirginiaTech
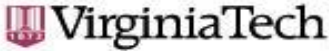
Office of Research Compliance
Institutional Review Board
2000 Kraft Drive, Suite 2000 (0497)
Blacksburg, VA 24060
540/231-4606 Fax 540/231-0959
email irb@vt.edu
website http://www.irb.vt.edu

MEMORANDUM

DATE: February 11, 2013

TO: Anastasia Sue Vogt Yuan, John Slade Lellock

FROM: Virginia Tech Institutional Review Board (FWA00000572, expires May 31, 2014)

PROTOCOL TITLE: Socioeconomic Status and Youth Participation in Extracurricular Arts Activities

IRB NUMBER: 13-068

Effective February 8, 2013, the Virginia Tech Institution Review Board (IRB) Chair, David M Moore, approved the New Application request for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report within 5 business days to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

http://www.irb.vt.edu/pages/responsibilities.htm

(Please review responsibilities before the commencement of your research.)

PROTOCOL INFORMATION:

Approved As:	**Exempt, under 45 CFR 46.110 category(ies) 4**
Protocol Approval Date:	**February 8, 2013**
Protocol Expiration Date:	**N/A**
Continuing Review Due Date*:	**N/A**

*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

FEDERALLY FUNDED RESEARCH REQUIREMENTS:

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals/work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.

— *Invent the Future* —