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**EXTRACURRICULAR PARTICIPATION IN RURAL PENNSYLVANIA HIGH  
SCHOOLS: WHAT HELPS? WHAT HURTS?**

A Thesis in

Rural Sociology

by

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## ABSTRACT

Participation in extracurricular activities is an important part of the American educational experience. The activities after school, such as marching in the school band, playing sports, singing at church, or competing in Future Farmers of America (FFA) help structure students' free time and allow them to explore new interests. Extracurricular activities also offer social, emotional, and behavioral benefits to those who are involved, and have become part of some college admissions and job application considerations. With increasing importance and attention placed on participation as a part of social development and as a gatekeeping tool in the transition to adulthood, it is crucial to know if all students are equally likely to participate. Identifying the elements of students' lives that help or hinder participation can shape policies to make activities more inclusive, so that all students have access to the benefits of participation. Using data from eleventh-grade students in the Rural Youth Education Study, a longitudinal study of youth from ten rural school districts in Pennsylvania, this thesis examines the relationship between parents' participation in school, religious, and community activities with student participation in seven different extracurricular activities: school sports, arts clubs, other school clubs, church youth groups, community sports, volunteer work, and community clubs. It also considers other family, personal, peer, school and community factors that may influence participation. Findings reveal that parents' participation in school and community activities increases the chances that youth participate in extracurricular activities. Having friends who participate, a parent with a college degree, and aspirations to go to college also make youth more likely to join extracurricular activities. However, overall participation did not always reflect the likelihood of participation in individual activities. Differences among the types of activities and number of activities students join are also explored.

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## Chapter 1: Introduction

In high school, students get many opportunities to explore their interests and shape their futures. High school offers independence in course selection, in friend groups, and in the activities available to fill free time. The choices that adolescents make during this time can help shape the kind of adult they want to be and the career they choose to pursue. One important part of the high school experience is participation in extracurricular activities. Adolescents can spend their time after school chasing after soccer balls, playing the clarinet, learning a foreign language, earning merit badges, or any number of other activities available in their schools and communities. These activities can have great influence over how adolescents view themselves, and how they prepare for their futures.

Participation in extracurricular activities is highly encouraged in high school because involvement can have many direct and latent positive outcomes for students. Involvement in structured extracurricular activities has been associated with better grades and test scores, more regular school attendance, improved self-esteem, and higher educational aspirations and attainment (Eccles, Barber, Stone & Hunt 2003; Israel, Beaulieu, Hartless, 2001; Miller, 2003; O'Brian & Rollefson, 1995; Newmann, Wehlage & Lamborn, 1992). Participating in after-school activities has also been cited as a deterrent for negative behaviors such as substance abuse or in-school misbehavior, although these effects vary based on the activity (Eccles et al.,2003).

Though participation in extracurricular activities can have benefits for all participants, not all high school students are involved. The choice to participate is made within the structure of adolescents' contexts, where some elements of their lives may encourage participation while others discourage it. Interest and ability to become involved in after-school activities may be

shaped by an adolescent's situation within his or her community, family, friends and a number of personal factors. Since participation can offer numerous benefits, it is important to identify structural and behavioral elements of adolescents' lives that act as barriers to participation and those that encourage participation.

Of particular interest to this study is the relationship between parents and high school students, and how parents' participation in their own extracurricular activities may encourage adolescents to participate. Though adolescents may be more interested in friends at this stage of life than spending time with parents or talking to them specifically about their free time, having parents who model these behaviors may shape youth's choices to participate or not. Both in overlapping participation and through the example set by parents who are involved in civic or social activities that do not involve youth, adolescents may come to view participation in extracurricular activities as part of a normal routine, and may be motivated to join activities of their own.

This research will analyze the influence of parents' participation in three types of activities, school, church, and general community activities, on adolescents' participation in extracurricular activities. Other family, personal, friend, school and community factors will be taken into consideration for their role to encourage or discourage participation. The analysis will study overall participation rates as well as participation in seven specific types of extracurricular activities to note different patterns of influence on participation in each type of activity.

This thesis consists of six chapters followed by an appendix and reference list. This chapter introduced the concepts surrounding extracurricular participation. Chapter 2 gives an overview of the history of extracurricular participation, the benefits of participation, and the motivations and barriers to participation among high school students. It also synthesizes

educational and child development theories that can be used to understand the context of extracurricular participation. This is followed by an exploration of the many elements of high school students' lives that may shape their decision to participate or not, which comprise the basis for many of the independent variables used in the analysis. Hypotheses are also discussed.

In Chapter 3 a description of the Rural Youth Education Study is given, followed by an explanation of the measures and overview of the analysis methods used. In Chapter 4 the descriptive statistics of the sample and a bivariate analysis of overall participation are presented. Chapter 5 describes the results of the logistic regressions for overall participation and participation in each activity, the predicted probability of participation with select youth characteristics, and a multinomial logistic regression of the number of different types of activities students join. In Chapter 6 conclusions from these results are drawn, and policy implications and directions for future research are discussed.

## Chapter 2: Prior Research and Theories

This chapter provides an overview of the meaning and history of extracurricular activities and their role in adolescent development. An overview of the theories applied to understand the context of participation, and how these contexts potentially influence the decision to participate are discussed.

### **What are Extracurricular Activities?**

Extracurricular activities are one type of many out-of-school programs and activities that occupy children and adolescents' time in the hours after school. "Organized extracurricular activities," according to Cadwallader, Wagner, and Garza (2003, pp 1), "...are defined broadly to include adult-sanctioned organized activities that youth do outside of the classroom, whether or not they are school-sponsored". Extracurricular activities may include sports teams, art clubs, band or music lessons, academic and leadership clubs, religious youth groups, coordinated volunteer work, and community clubs such as 4H, Scouts, or others. They are usually voluntary and occur outside of school hours (Massoni, 2011).

Extracurricular activities are unlike afterschool babysitting programs, which are usually for younger elementary-aged children. They are also different from part-time jobs, which offer immediate monetary reward for participation and are not usually focused on personal development. Extracurricular activities are area-specific and youth-focused activities that are believed to provide students with outlets to explore interests that may not be offered in regular coursework, and bring young people together with teachers, coaches, and community members outside of their immediate families (Massoni, 2011; Miller, 2003). These activities can appeal to participants by being fun, teaching new skills, offering social support, or helping prepare for the

future. They can also appeal to parents by offering a safe and supervised environment for the hours after school when parents may be working. Extracurricular participation can begin in late elementary school and middle school, but usually is emphasized during the high school years. At this age, adolescents have greater choice in the activities with which they engage, and can explore new interests through these activities.

### **History of Extracurricular Activities**

Extracurricular activities have gone hand-in-hand with formal schooling for many years. In elite preparatory boarding schools, literary and debate clubs extended learning well past class hours, and the beginnings of fraternities at the high school and collegiate levels gave structure to leisure time (Casinger, 2011 in Massoni 2011). Through these activities adults were able to supervise adolescent behavior in unobtrusive ways, since students were not living at home, and were able to guide youth in the behaviors that would secure their positions in society as adults (Cadwaller, Wagner, Garaza 2003; Bourdieu 1978). Sports also provided fun entertainment for participants, yet still allowed their behavior to be supervised by mentors. As popularity grew, rules for each sport were formalized and codes of conduct were created. For members of these elite schools, sports and clubs helped students build social connections and obtain qualifications that would serve them in the future as they looked for jobs. However, the formalized nature of participation required free time that was unavailable for those students who needed to work for pay outside of school (Bourdieu 1978; 1984). Extracurricular activities helped young people move up the social ladder, but were only available to those who were already privileged.

With the introduction of child labor laws and a shift towards universal education for primary and then secondary school, interest in extracurricular activities was heightened. These activities, particularly male sports, spread to public high schools throughout the country, and

were soon joined by women's sports and the expansion of school clubs. Extracurricular offerings eventually became commonplace when large numbers of women began to enter the workforce and concerns were raised about what children and youth do if left at home unsupervised (Miller, 2003; Rodman, 1990; Adler & Adler, 1994). Though school occupied children from the hours of 8:00am to 3:00pm, the remaining time in afternoons and weekends could shape youth's interests and their futures, or lead them into deviant behaviors if they lacked supervision or role models.

These worries about unsupervised behavior continued into the 1990's, increasing attention and funds for extracurricular activities. It also spawned discussion for the extension of the school day and afterschool care programs affiliated with younger grades. In his final state of the union address, President Bill Clinton called for the government to "double our investments in afterschool and summer school programs, which boost achievement and keep people off the streets and out of trouble," (Olsen, 2000). About 250 million dollars from the U.S. Department of Education were allocated to establish extracurricular activities (Girod Martineau, & Zhao, 2005; Massoni, 2011), and other afterschool programming such as the 21<sup>st</sup> Century Scholars for low-income schools (Olsen, 2000).

Also in the 1990's, growing attitudes towards high school as a stepping-stone to higher education, rather than the final stage before becoming a working adult, contributed to the expansion and diversification of extracurricular activities (Guest & Schnieder, 2003). Extracurricular activities were a way for students to spread their interests, and were promoted as a means for gaining non-cognitive skills (Putnam, 2015; Duffett & Johnson, 2004). For-profit sports clubs and special-interest groups promoted the benefits of extracurricular participation (Adler & Adler, 1994), and scientific research yielded many significant associations between active involvement and positive youth behavior. Involvement in extracurricular activities began

to be viewed by college and job recruiters as a proxy for demonstrating decision-making, teamwork, and communication skills, all qualities of a strong candidate, and demonstration of extracurricular participation was added as a section in college applications (Rubin, Bommer & Baldwin, 2002).

Nowadays, participation in extracurricular activities is highly valued and encouraged for U.S. children and adolescents, particularly those in high school. Today, between sixty to eighty percent of high school students are estimated to participate in extracurricular activities (Laughlin, 2014; Duffett & Johnson 2004). Participation is so entrenched in the discourse of youth and child development and education, it is practically considered a requirement for proof of a well-rounded personality in job and college applications (Rubin et al. 2002). However, access to these activities may not be distributed equitably among all high school students, and therefore the perceived benefits of participation in extracurricular activities may not be available to all.

### **Benefits of Participation in Extracurricular Activities After School**

Some literature has suggested that participation in more activities can lead to more positive outcomes, indicating that if some participation is good, a lot is better (Lamborn, Brown, Mounts & Steinburg, 1992). Others have found that participation at extremely high levels may detract from other areas of life, particularly schooling or academic success (Lamborn et al. 1992; Cooper, Valentine, Nye & Lindsay, 1999; Marsh & Kleitman, 2002). Generally, most literature has found that participation has positive effects on youth, and that strong commitment to a few activities can be the most beneficial (Israel, Beaulieu & Hartless, 2001; Rubin, Bommer & Baldwin, 2002; Foreman & Retallick, 2013). Some activities may provide more benefits than others, but all extracurricular activities do provide a relatively safe, supervised, and interesting

learning experience for youth, which may be contrary to what youth would do if left unsupervised (Massoni, 2011; Miller, 2003; Eccles & Barber, 1999).

Participation in extracurricular activities has been shown to benefit participants, both during the time of participation and many years afterward. Participation in at least one activity, regardless of the specific type, can be associated with largely positive social and behavioral outcomes (Eccles, et al, 2003). Participation can also help to strengthen adolescents' ties with their families, friends, and community, providing spaces for youth to interact with familial and non-familial adults in the community (Miller, 2003). Those youth whose parents were highly involved in extracurricular activities with the youth during their high school years experienced even higher likelihoods for completing college (Henderson & Berla, 1994). The effects of extracurricular participation appear to be wide-reaching and beneficial for students in many contexts and through many activities. Eccles et al. nicely summed up all the potential benefits offered by participation,

Developmentalists and youth advocates argue that constructive, organized activities are a good use of the adolescent's time because such activities provide opportunities to (a) acquire and practice specific social, physical, and intellectual skills that may be useful in a wide variety of settings including school; (b) contribute to the well-being of one's community and to develop a sense of agency as a member of one's community; (c) belong to a socially recognized and valued group; (d) establish supportive social networks of peers and adults that can help in both the present and the future; and (e) experience and deal with challenges. (Eccles, et al. 2003, pp. 866).

Participation in structured activities after the school day has been linked with better educational outcomes, such as better academic performance (as measured by grade point averages), more time spent on homework, more regular attendance, more positive attitudes towards schools and teachers, and higher educational outcomes (Gardner, Roth & Brooks-Gun, 2008; Mahoney, Larson & Eccles, 2005; Lamborn, Brown, Mounts & Steinburg, 1992; Mahoney & Carins, 1997; Jordan & Nettles, 2000; Miller, 2003). This is especially true for school-sponsored activities, which may tie students closer to the school atmosphere in a variety of settings (Massoni, 2011), and non-sport activities, which are particularly beneficial for educational expectations and achievement (Guest & Schneider, 2003). Participation can also impact young people's mental health, shape future interests and passions, and boost self-esteem (Massoni, 2011, Mahoney et al, 2005; Marsh, 1992). It can also foster connections with caring adults who provide support and connections with mentors for adolescents as they navigate the future (Miller, 2003).

Participation can also have a protective effect against negative or problem behaviors. Participation in extracurricular activities in high school has been associated with fewer behavioral problems at school, lower risk of dropping out, and lower likelihood of criminal activity (Marsh, 1992; Mahoney 2000; Mahoney & Carins, 1997; Lander & Landers 1978). Findings have been mixed on extracurricular activities' effect on substance abuse such as underage drinking or marijuana use. Overall extracurricular participation has been associated with lessening substance use (Cooley, Henriksen, Nelson & Thompson, 1995), but activity-specific participation studies have found that sports participation may actually increase the likelihood of drinking (Busseri et al., 2006; Eccles & Barber, 1999). Massoni (2011) advocates for the possibility that "No Pass, No Play" laws, banning student participation in activities if they

are found guilty of breaking the law, may act as a disincentive for students to commit these acts if these policies became widespread.

The impact of participation in activities is wide-reaching in the high school experience, and may have lasting effects into adulthood. Because of this, parents, teachers, and guidance counselors frequently urge students to participate in extracurricular activities. This process of continuously searching for outlets of self-improvement was coined ‘concerted cultivation’ by Lareau (2003). Engaging in activities both for the development of skills and networks, but also as proof of adolescents’ ability to work with others and be well-rounded, is a process on which colleges expect students to continually work (Rubin et al., 2002; Honore, 2008). College applications now have large sections dedicated to explain sports, clubs, and volunteer work, and extracurricular participation may play a role in college completion (Rubin et al., 2002; Trusty & Niles, 2004). Even the most elite universities consider extracurricular participation alongside grades and test scores for their selection processes (McCormick, 1999). To be a good candidate for college admission and for jobs, extracurricular participation is important.

Continued participation in college extracurricular activities may also influence job attainment (Howard, 1986). One study found that CEOs had significantly higher rates of college participation in extracurricular activities than other students, implying that participation in activities can have lasting effects on life experiences (Boone, Kurtz & Fleenor, 1988). But even if participation ends after high school, Gardner, Roth & Brooks-Gunn (2008) found that participation in extracurricular activities in high school had significant positive effects that lasted up to eight years past graduation. The depth and breadth of impacts from extracurricular participation can be substantial.

## **Selection Effects and Barriers to Participation**

Most studies on the benefits of participation control for background and individual characteristics of participating students, but do not account for other differences that may exist between those who chose to participate and those who did not. However, these selection effects may influence their outcomes. Previous connections with leaders of activities, who are often teachers or parents, can make joining an activity more comfortable. Having friends who are involved in an activity can also encourage participation. Being supported by parents, motivated by future plans for college, or already experiencing school success may increase the likelihood that students participate. Students who already have many of the positive traits associated with participation may be drawn to engage in these activities, so the activity only enhances their development (Rubin et al., 2002; Stemple, 2005). Those without these connections and motivations may not be as prone to join.

Students may also experience barriers to participation. Low-income high school students may not be able to afford entrance fees or gear for activities. They may have other obligations, such as working for pay to support themselves or their families. Without access to a car or public transportation, students who live far from places where activities occur may not be able to miss the school bus ride if it is their only means of getting home after school. Additionally, some schools and communities may have fewer extracurricular activities available for adolescents. All of these barriers may subtly discourage students from joining (Morris, 2015; Putnam, 2015).

It is difficult to disentangle the development of skills and connections through extracurricular participation from their origins within participants as individuals (Rubin et al., 2002; Fletcher, Elder & Mekos, 2000). Participation is voluntary, so many personal factors and personal traits may select some students, while excluding others (Gardner et al., 2008). Those

with the most resources and support, and least constraints, will likely have the easiest time choosing the number and types of activities they wish to pursue (Morris, 2015). Learning more about who is participating and what aspects of their background and experience may encourage or inhibit participation is crucial for full understanding of the benefits accrued through extracurricular activities.

## Theories to Contextualize Participation

In many ways, this thesis will draw upon the works of Pierre Bourdieu to understand the factors influencing participation in extracurricular activities. However, it will also draw from a contemporary usage of Bourdieu's ideas through the work of Annette Lareau in her book *Home Advantage*, and the distinctly American take on growing up and the education system through the work of James Coleman.

Bourdieu and Coleman have made some of the most important contributions to the development of concepts in the social sciences and education literature related to capital and social class. Coming from an economic perspective, capital traditionally signified the income, wealth, or material goods possessed by an individual (Bourdieu, 1986). It can also be more broadly defined as any resource that can be used to pursue personal interests, or accumulated for future use. Possessing capital can differentiate holders into relatively advantaged and disadvantaged positions in the social world (Astone, Nathanson, Schoen, & Kim, 1999; Bourdieu, 1984). Understanding participation in extracurricular activities in the context of capital may help illuminate the factors that may help or hinder some students' participation.

From Bourdieu's perspective, capital is used as a means of social reproduction, and he focuses specifically on members of the upper classes. According to Bourdieu, those who are born into upper classes are brought up with the financial resources to maintain their position. They

learn the behaviors and values that will help them fit into their class, and make connections with others in the same class (Bourdieu, 1984, 1986). Schools may be structured to reward these behaviors and values, since most have standardized rules of etiquette and curriculum, and participation in schools and activities help give students qualifications that legitimize their social positions (Stemple, 2005; Bourdieu, 1986, 1993; Sullivan, 2002). The networks of the upper classes' groups of friends overlap, and through these networks resources are exchanged in closed loops that rarely bridge or benefit lower classes (Bourdieu, 1990). All of this leads to the elite remaining in their own groups, and little social mobility between the elite and other social classes.

This perspective offers a quite rigid view of society, but can help explain why some students are more likely to participate in extracurricular activities than others. If some students are coming from backgrounds where involvement in school and the community are routinely rewarded, valued, and viewed as part of everyday life, they may be more likely to participate. Extracurricular participation, through its formalized organization, makes games and hobbies into legitimate exercises that can be used to prove merit for future applications and careers (Bourdieu, 1978). If students' parents already have participated in activities and used credentials gained from participation to go to college or maintain a career, they will likely encourage their children to do the same. Parents transmit their social standing through values and encouragement, and schools and activities formalize these into qualifications. Those who do not come from families with this comfortability at school and in the community, or these values of skill and network building through organized activities will probably not have the same drive to participate nor the same opportunities and encouragement to become involved.

Coleman's perspective loosens the rigidity of Bourdieu's view of social classes. From this view, capital does not always reinforce social classes, but can be used to cross boundaries and bridge some class differences. Through the acquisition of new skills and values, people can raise their social standing. Forging connections between different groups of friends could help establish feelings of trust and reciprocity, where overlapping networks of friends would be more inclined to help one another and reinforce expectations and learn new things (Coleman, 1988b; Israel et al., 2001; Putnam, 1993). Coleman also emphasizes that capital can be accrued from sources outside the family, and that connections between the family and other institutions can benefit students' schooling and behavioral outcomes (Coleman, 1988).

Through Coleman's perspective, extracurricular participation may be viewed as a route to social mobility through the opportunities for personal change and enrichment for youth. The benefits of extracurricular participation, such as building skills, opening networks to mentors and adult role models, and enhancing educational credentials, all fit within this view of how capital may be used to climb the social ladder (Dumais, 2006; Lareau, 2000; Morris, 2015). From this perspective, participation may benefit those who are starting from disadvantaged social classes the most, since they would have the greatest opportunity to gain capital through the activities (Stanton-Salazar, 2011; Morris, 2015; Guest & Schnieder, 2003). However, it does not account for how these students would be able to gain access to activities, or if they face additional challenges to joining extracurricular groups in the first place.

Lareau (2000) offers a balanced perspective that mixes elements from Bourdieu and Coleman's conceptualizations of capital and social class. In her in-depth study of the relationships between young elementary students' parents and teachers, she shows how those in higher classes still have relative privilege at school compared to their lower class counterparts,

but that school activities do work to level the playing field for all students. Lareau (2000) contradicts Bourdieu's assertion that capital transmits passively across generations in the upper class, and demonstrates that parents must invest purposefully in their children in order to make sure their children retain the same class standing that they have. These investments are made by using resources to put values into action, drawing from class-based capital for both. Since different classes may offer different capital, parents of different class memberships may invest in different ways, or emphasize different elements of a child's upbringing.

Lareau (2000) also points out the downsides to parents' heavy investment of capital into their children. Those in the upper class may have values and resources that are more prized for school or career preparation, and those parents may have more time to invest in transmitting that capital. This creates advantages for their children, but places students from lower class families at a disadvantage and the gap may limit their opportunities. Institutions outside the family, such as school or other organizations sponsoring activities, can help create a fluidity of class membership by exposing all participants to the skills and networks that may help them succeed. But even if all children are exposed to these opportunities, those whose families already are familiar with them may be more successful at converting the skills and networks into advantages for their futures. Additionally, institutions can favor or recognize some types of extracurricular activities over others, and those with heavily involved parents may be more likely to join activities that will be most rewarded, leaving other children without these advantages.

In summary, extracurricular activities can have two simultaneous relationships with capital: (1) they require capital to participate, and (2) participation reproduces or enhances this capital. Individual behaviors, such as the choice to participate in extracurricular activities, may be molded through larger social and historical contexts. Those with parents who are heavily

involved in their schooling, activities, and preparation for the future, and who share the capital and values that are emphasized by schools and society, will have fewer barriers to participation. Those whose families' have less capital to invest, or who do not invest in the same ways may not have the same push to participate. Once involved in extracurricular activities, participants may both reproduce capital and social positions that they already have, but may also gain new forms of capital that could increase their social standing and help them in the future (Dumais, 2006). It is very possible that the act of participation may mediate the various advantages and disadvantages brought from home (Vandel, Reisner & Pierce, 2007; Guest & Schneider, 2003). For this reason, it is important to know what elements of adolescents' lives may be increasing their chances for joining a new activity, and what may prevent them from doing so.

## **Influences on Participation**

### **The Importance of Parents and the Family Situation**

Since parents can act as the primary means for transmitting capital to the next generation, the context of the family and parents' actions can greatly affect youth. The social class of the family, determined primarily by their economic resources and educational background, may greatly influence the resources they choose to invest in their high school students, and the types of activities and behaviors they value. Though teens are often less interested in direct family time, much of their lives are shaped around and by the networks and things that their parents provide, including their choices to participate in extracurricular activities.

### **Parent Participation**

As Lareau (2000) demonstrates, parents' involvement in school can have direct consequences for their children's educational outcomes. Parents can also involve children in extracurricular and educational activities, either through enrolling their children in these

activities and taking a leadership role in them, or by involving children in the activities in which the parents engage (Duffett & Johnson, 2004). When parents are involved in their children's schooling, social lives, and hobbies, it can benefit these children. However, these benefits for their own children may create an indirect disadvantage for those children whose parents are not as invested, not involved in the same ways, or involved in activities that are not rewarded by institutions (Lareau, 2000).

Parents' own involvement in extracurricular activities may play a role in rates of adolescent participation in extracurricular activities. When parents volunteer to be a leader, coach, or team parent in an activity with their children, it increases the children's levels of commitment and likelihood for participation (Henderson & Berla, 1994), and doing activities together, such as going to church, can help youth make connections across generations (Bauch, 2001). Parents of rural students are more likely than urban parents to volunteer or attend school events, and this involvement can establish ties between schools and parents so that they can work together to monitor their children's behavior (Provasnik, Kewal-Ramani, Coleman, Gilbertson, Herring & Xie, 2007).

Even parents' involvement in their own activities and groups can encourage students to participate in extracurricular activities. When youth see parents modeling hard work, communicating with people in different settings, and gaining enjoyment through certain activities they may see that as part of their future (Fletcher et al., 2000). Participation in activities can give parents access to larger social networks. They may get to know their children's teachers, parents of their children's friends, and other members of the community. When these connections overlap, this adult network can help the adults to work together to promote similar values and actions for adolescents, and to keep track of adolescents' whereabouts as they gain

independence in high school (Onyx & Bullen, 2000; Bauch, 2001; Israel & Beaulieu, 2004; Israel, et al., 2001).

Parents' involvement in their children's lives can have a huge impact on their educational, economic, and social outcomes. Their involvement in the school and community can also benefit their children (Duffett & Johnson, 2004; Trusty 1999; Shumow & Miller 2001; Hoover-Dempsey & Sandler 1997). They may draw upon their community resources and networks to support their children's pursuits, and can guide their children's interests through activities done together and apart.

### **Socioeconomic Status**

Families' economic status may determine if children are able to participate in extracurricular activities in direct and indirect ways. Though extracurricular activities may not involve payment to participate, there are often hidden costs with participation including transportation, equipment and supplies, or case-by-case fees (such as competition fees, or group t-shirts). Some extracurricular programs, like club sports, may adjust costs for families based on parental income (Olsen, 2000). But, increasingly even public activities like school sports are using a pay-to-play policies where individual players must supplement the costs of their activities because the school no longer has funding allocated in that area (Putnam, 2015; Snellman, Silva & Putnam, 2015). Knowing these potential barriers may turn families and adolescents who feel they may not be able to afford the activities, and may want to avoid the possibility of such hidden costs, away from participating. Youth of low-income families are half as likely to participate intensively in extracurricular activities (more than 5 hours a week per activity), than their high-income peers (Miller, 2003). Financial status may also influence the taste for certain types of activity that interest youth. Middle and upper class children are more

likely to be involved with highly structured or skills-development settings, such as private instrument lessons or tutoring in an academic area or language, and lower class children are more likely to be in less structured activities like playing with neighbors and relatives in the backyard or street (Covay & Carbonaro, 2010; Lareau, 2000).

### **Parent Education Level**

Parents' education levels can have an impact on adolescents' likelihood to participate in extracurricular activities, both as an indicator of socioeconomic status, which may determine if youth are financially able to participate at all, and as an influence on the type of activities to which youth are drawn. Parents' education has been associated with educational outcomes of their offspring (Osgood, Foster, Flanagan & Ruth, 2005), and those parents with higher education levels are likely to have higher incomes, read more to their young children, and discuss future plans with their high school children (Sayer, Bianchi, & Robinson 2004; DiMaggio & Mohr 1985; Pallas 1992). Under the guidance of parents with high educational attainment, youth may learn academic language, tools for navigating different social settings, or other cultural competencies to assist them as they look towards the future. Because parents with college degrees are also more likely to have backgrounds and experiences similar to those of teachers in the school, they may feel comfortable communicating with teachers and are more likely to advocate for their child in school than parents with less education (Lareau, 2000; Henderson & Berla, 1994; Bauch 2001). Adolescents' participation in extracurricular activities may reflect this gap. Participation in academic clubs is encouraged for students who already have college-educated parents, or where access to many activities is available, and they feel comfortable to pursue new areas because their parents have already experienced or discussed the activities with them.

### **Parental Employment Status**

Parents' employment status can affect extracurricular participation, both through economic constraints and through social and time commitments. When parents are unemployed or out of the labor force, economic resources may be strained. This can be a large and immediate barrier to participation in extracurricular activities. Even in families where one of the parents chooses to stay at home, economic resources may be limited. When parents are both working, they may be able to draw on larger social networks or resource bases that could contribute to activities involving their children. However, having both parents working full time may decrease the amount of hours spent as a family. Parents may not have time to assist in the transportation or time commitment to support their children's extracurricular involvement. Yet this lack of time may cause them to encourage participation so that their children are not at home unsupervised in the times the parents are at work. Because of these conflicting relationships with children's participation, parents' work may increase or decrease the likelihood of their children's participation in extracurricular activities depending on the family situation. (Laughlin, 2014; Putnam, 2015; Barnett, 2008)

### **Family Structure**

The marital status of parents, and characteristics of adults living in the household as children grow up, can influence many academic and social outcomes of children and adolescents. Two-parent families are more likely to have the resources to help adolescents achieve their goals (McLanahan & Percheski 2008). Family structure that is not composed of two biological parents is often associated with lower income, less money for children, lower educational attainment for children and the parent having less time to spend with children (McLanahan & Sandefur 1994). Marital status of parents can also predict children's leisure time activities (Douthitt, 1991). Single parenthood may limit parent's available time to invest in youth and children's leisure,

such as fewer trips to cultural events, less reading time together, or less money to spend for activities. However, the majority of households in less affluent, rural areas are families with two married parents (Iceland 2013). This means that youth in rural families may have more support from their parents, since both are present in the family, even though income levels may be low. Having two parents in the household may increase their likelihood to participate in extracurricular activities.

### **Negative Family Events**

Investing in children's academic and extracurricular careers is a time-consuming process for parents. Family strain can greatly impact the day-to-day schedules of parents and students, their relationships, and their abilities to maintain normalcy in their schedules. When family life is disrupted, or there are frequent changes to the family structure, the people who live in the household, or the financial status of the household, there can be negative impacts on children's well-being (McLanhan & Sandefur, 1994). Transitions in the household, such as divorce, can lower adolescents' participation rates in extracurricular activities and make other aspects of their lives more difficult as well (Laughlin, 2014).

### **Parent Expectations**

When parents make it clear to their children that they expect them to go to college, it is possible that this serves as a motivator to do well in school and to engage in activities that prepare for college (Fan & Chen 1999). Having high expectations has been described as nurturing, since involvement in children's plans for the future is part of caring, and parents' expectations that children will go to college had been associated with many positive outcomes for children (Israel et al., 2001; Byun, Meece, Irvin & Hutchins, 2012). Though parents want their children to do well and to lead happy lives, they can be realistic about the goals and

expectations they set for their children, and may not expect that their children will go further in school than they did, or pursue different interests from themselves. Some studies have found that parents of rural students have lower educational expectations for them, which may be a reflection of their evaluations of the local economic context and the job qualifications needed (Roscigno & Crowley, 2001; Roscigno et al 2006). Those parents with expectations that their children will go to college may be more likely to push their students into extracurricular participation in the hopes that it will boost their chances of being accepted. However, parents without these expectations may also be interested in having their children gain the social benefits of activities and may also encourage their children to participate.

### **Parent Support**

Parental support for adolescents' pursuits is important for encouraging participation in extracurricular activities. Adolescents will need parents' economic resources and time to participate in extracurricular activities. In the competitive atmosphere of many afterschool pursuits a nurturing and caring atmosphere at home is comforting. Parents can remind their children of their talents, or reassure them when they experience a setback. They can also listen as adolescents discuss their experiences during the day, or help them to talk through a problem (Henderson & Berla, 1994). Children who receive encouragement and self-confidence from home may be more likely to take on challenges of new extracurricular activities or new networks of friends and contacts (Fletcher et al. 2000).

### **Personal Influences on Participation in Extracurricular Participation**

The same resources and values that are employed by parents to invest in their children also can shape adolescents' views for the future. Just as capital is transmitted from parents to children through behaviors, it is also transmitted through values. Adolescents' visions for the

future can guide their current behaviors, causing them to prioritize some of their afterschool choices over others (Sewell & Hauser, 1980). Their visions for the future may also be shaped by their social position within the school and their gender, which may make some activities more culturally appealing than others as they work to fit in with peers, the community, and their families' expectations.

### **Aspirations, Grades, and Future Plans**

Personal drive and explicit pursuit of new skills, new friends, or resume-building experiences may also motivate adolescents to participate in afterschool activities. Many extracurricular activities may not be purely recreational. Those students with high educational aspirations or clear goals for their futures may pursue extracurricular activities to prepare them for college, or to make them marketable applicants. Grades can predict participation in some non-school activities (Huebner & Mancini, 2003). Additionally, some schools require students to maintain a high grade point average in order to participate in school-based extracurricular activities. All of these may play a role in adolescents' choice to participate or not.

Extracurricular activities can connect youth to mentors in the community, and may be utilized by those who hope to stay in the community as adults to connect with future employers in an informal setting. Students may want to pursue activities as a stepping-stone in their path to adulthood, however this stepping-stone may also lead them out of their communities. Many high achievers in sports and academics in rural areas are encouraged by mentors to leave their communities to pursue jobs and education elsewhere, since local opportunities may be limited (Carr & Kefalas, 2009; Corbett 2007). Youth may feel conflicted about their future plans, and their confusion about the future may influence their current actions (Hektner, 1995). Therefore,

future residential aspirations may play a mixed role in adolescent extracurricular activity participation rates.

### **Job**

Those who work in the hours after school may be less likely to take part in extracurricular activities at school or in the community. Like extracurricular activities, jobs may build skills, open social networks, and look good on a college application. Jobs in the summer may act as a complement to many extracurricular activities during the year, such as a swimmer being a lifeguard or an artist working as a pottery counselor at a summer camp. However, jobs provide a direct monetary reward for participation, which differentiates them from all of the other after-school activities. For this reason, after-school jobs will be considered separately from other extracurricular activities (Bills, Helms & Ozcan, 1995; Mortimer, 2010). Employment during the school year may act as disincentive to extracurricular participation, particularly for low-income youth who may be expected to take on responsibilities and become economically contributing members of the household at younger ages than their more affluent peers. The responsibility of work could take them away from school and community activities that may prepare them for post-secondary school options or from building networks to assist them in finding a career. However the youth who work may find networks through their employment. The amount of hours a student works can have a non-linear effect on their outcomes, with some work being beneficial, but too much work is detrimental (Edin & Kissane 2010; Crosnoe, Mistry, & Elder 2002).

### **Gender**

Levels of participation and the types of participation in extracurricular activities may be impacted by adolescents' gender. Since the introduction of Title Nine legislation, and the

enforcement of equal opportunities for sports participation, there are supposed to be equal numbers of activities available for boys and girls. Social norms about what is culturally appropriate for each gender, however, may dictate the kinds of activities that adolescents choose to join (Huebner & Mancini, 2003). Girls can be discouraged from pursuing masculine physical activities and boys from engaging in traditionally female pursuits. Family encouragement can help youth overcome some of these perceptions (Lee & Macdonald, 2009). Though there is much concern in public policy about female participation, overall it appears that girls participate in an equal number or more activities, and a wider range of activities than boys, and girls frequently have higher educational and career aspirations (Eccles & Barber 1999, Eccles et al. 2003; Foreman & Retallick, 2013; Chenoweth & Galliher 2004; Elder & Conger 2000; Elder et al. 1996; McNeal 1998).

### **The Influence of Peers on High School Students**

Adolescence is a time of increasing independence and individual decision-making (Arnett 2004; DeJong, 1972). Youth explore interests and try new things. Some youth may disagree with parents on certain aspects of their identities and actions during the high school years. During this time, peer support is increasingly important. Adolescents frequently compare themselves with peers to make sense of their economic standing, academic standing, and role in the high school social world (Steinberg 2011). The actions of friends may inform the activities that adolescents choose, or do not choose to participate in, based on the identity that they want to obtain or maintain. Positive peer pressure may encourage adolescents to join the extracurricular activities that their friends do (Huebner & Mancini, 2003). Once in activities, the friends that are made may become friends outside of the structured extracurricular environment (Eccles et al., 2003).

However, peers can also lead adolescents to engage in deviant activities since so much of youth efforts are focused on fitting in with friends (Gavin & Furman, 1989). Friends may also be selected, knowingly or unknowingly, along lines of social class. Groups form around similar tastes and similar forms of capital increase the likelihood of overlapping interests and communication (Crossley 2005). Unfortunately, this may mean that advantaged students are clustered with similarly-advantaged peers, while disadvantaged youth are clustered in their own circles.

### **School and Community Context for Extracurricular Participation**

Extracurricular activities often serve as the bridge between schools and communities. Through these, schools can act as the social center of the community (Bauch, 2001; Colangelo, Assouline & New, 1999). Rural schools can be affected greatly by the context of their communities. Schools rely on local property taxes to supplement their budgets, and sparse populations or low property values may mean fewer opportunities for special courses or outside activities (Herzog & Pittman 1995). These communities can sometimes have the most need for adolescent development support, but may have the most difficulty accessing and affording it (Eccles et al., 2003; Cotter, 2002). However, youth in rural communities may be the most likely to have support and integration of parents and community members within school and after school offerings (Bauch, 2001).

Partnerships between schools and community members can strengthen trust and reinforce common social norms (Driscoll, 1995; Bauch, 2001; Granovetter, 1973). This reciprocity, trust, and intergenerational communication can help guide adolescents as they look towards their futures (Onyx & Bullen, 2000; Henderson & Mapp, 2002). However for youth who deviate from the local norms, the close ties between school, community, and family may be

stifling or exclusive. Connections with teachers, guidance counselors, or other non-relative mentors can serve as adult outlets for students to gain acceptance or go to for advice in situations where they may feel different from others (Bauch, 2001; Griffin, Hutchins, & Meece, 2011; Putnam, 2015).

Compared to urban or suburban schools, rural teachers may be more connected with students. They can offer different perspectives of the community, and may help students to feel they belong in both the school and the community. Teachers and school staff also can make students feel as though someone cares for them (Hardre, Sullivan & Crowson, 2009; Hallinan, 2008).

### **Why Rural?**

In the 2010 school year, there were 9 million rural students in public schools across the United States, and half of U.S. school districts were classified as rural (Johnson & Strange, 2014; NCES, 2013). The contexts of rural youth's upbringing can be significantly different from children in urban or suburban settings, and may differ across rural areas, since rural areas, like urban or suburban, can be very diverse (Cuervo & Wyn, 2012; Elder & Conger, 2000). Most studies of participation in extracurricular activities focus on nationally-representative high school student populations, or compare between urban, rural and suburban students.

There has been mixed literature about the likelihood of adolescent participation in extracurricular activities in rural areas. In a study on sports participation, rural young people were found to be less likely and equally as likely to participate as urban and suburban students, respectively (Mummery, Schofield, Abt & Soper, 2000; Savage & Scott, 1998). In studies of overall extracurricular participation, students in rural communities were found to be more likely to participate (Fletcher et al., 2000). Though numbers of participants may be small in each class

or group, rural students do take advantage of the opportunity to explore many venues for participation. Youth in small high schools are likely to participate in more than one extracurricular activity, and high-achieving youth may gain open community support, such as features in the local newspaper, recognition by civic organizations, or overlap in mentorship, giving them confidence as they plan for the future (Carr and Kefalas 2009).

This study focuses only on rural students, providing insight into some of the variation that may occur among students in this group and their choices to participate in extracurricular activities. The study focuses on rural Pennsylvania, and the data analyzed are representative of rural Pennsylvanian students. According to the Northeast-Midwest Institute, Pennsylvania has the largest rural population (NEMW, 2004). At the time of the Rural Youth Education data collection, between 2005 and 2009, less than 8 percent of rural Pennsylvania's population was non-white, and average household income was around \$54,000. Just over 400,000 students were enrolled in rural school districts in Pennsylvania, and the poverty rate was around 13 percent<sup>1</sup>. Rural youth may experience unique combinations of factors that influence their decisions and ability to participate in extracurricular activities.

## **Summary**

This research explores the many ways in which adolescents' lives relate to participation in extracurricular activities, but is not meant to establish causal relations. Extracurricular activities can benefit youth in many ways. Parents' participation can help youth overcome some home disadvantages or may reinforce student differences in their likelihood to participate. Since participation may offer many direct and indirect advantages to participants it is important to know who is participating and the context within which the choice to participate is made.

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<sup>1</sup> Retrieved from Center for Rural Pennsylvania website "About Rural PA" [www.rural.palegislature.us/about.html](http://www.rural.palegislature.us/about.html)

## Hypotheses

This analysis contributes to prior research in a number of ways. It combines many of the factors that have been examined in previous literature for a thorough analysis of the elements of an adolescent's life that may contribute to their decision to become involved in an extracurricular activity. It also adds a unique set of variables coming from youth's report of their parents' involvement in school, religious, and community activities. Furthermore, the analysis includes an overall measure of participation or not, and then examines participation in specific types of activities. In this way, the relationship of different combinations of influential elements of adolescent's lives with participation can be compared across activities.

Overall, this thesis will give an overview of the activities in which rural high school students in Pennsylvania participate. It will identify elements of the context, such as family, individual characteristics, peers, school and community, that influence the type of activities students choose to join. It will also examine these elements for their association with the number of different types of activities students join. Drawing from the work of Lareau (2000), it is expected that parents' participation in school, religious, and community activities will increase the likelihood of adolescents' overall participation in extracurricular activities. It is also expected that each type of parent participation will relate to specific student activities in different ways. From the information gained through previous studies of participation in extracurricular activities, it is likely that other aspects of family life, such as communication with parents and family socioeconomic status, may be important in the decision to participate. Friends who participate in activities may encourage participation, while having an afterschool job may hinder participation. It is expected that these influences may vary in importance for participation in different extracurricular activities.

## Chapter 3: Data, Measures, and Description of Analysis

This chapter begins with a description of the data used in this study. It then describes the measures of overall and activity-specific participation as well each of the independent variables. The chapter concludes with a description of the analytical procedures used.

### Data

This study uses data from the Rural Youth Education (RYE) study, a longitudinal data set based on surveys of rural Pennsylvania youth about their educational, occupational, and residential aspirations. The purpose of the RYE project was to better understand adolescent perceptions of their current communities and future prospects in light of statewide concerns of rural brain drain and youth outmigration. Over 1,500 students in 7<sup>th</sup> and 11<sup>th</sup> grades in ten rural school districts across the state participated in the first wave of data collection. The participant selection process was multistage, employing an initial stratification of school districts based on rurality, regional representation, and a typology of relevant characteristics to select rural Pennsylvania school districts, followed by a random selection of school districts from within each category, contact and recruitment of the school districts/schools and then the recruitment of all seventh and eleventh grade students from those districts.

Classification of rurality was determined by the Center for Rural Pennsylvania's population density-based classification system, where rural school districts have less than 274 people per square mile. The Center for Rural Pennsylvania provided funding for the RYE study in every year of data collection<sup>2</sup>. The study also considered differences by region, and used the

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<sup>2</sup> Funding was provided by The Center for Rural Pennsylvania and a USDA National Research Initiative Grant.

10 regions of the “Stay Invent the Future”<sup>3</sup> initiative in Pennsylvania to ensure that all rural parts of the state were represented. Selection was further classified by a typology of rural Pennsylvania school districts using measures of family poverty, educational attainment of adults, and population change to develop eight categories of rural areas and bringing the number of possible rural school districts to 227. From these, ten school districts were randomly selected, and after gaining consent from administrators and parents, seventh and eleventh grade students within those districts were recruited to participate. After the first year, one district left the study and was replaced with a comparable district in the same category. A second school was added in an attempt to increase racial/ethnic diversity in the sample of students. The sample is weighted to be representative of youth in rural Pennsylvania. Multiple imputation was used to provide a statistically principled estimate of missing values.

Conducted between the years of 2005 and 2011, the study followed two cohorts of rural youth, a younger cohort and the older cohort, beginning when they were in 7<sup>th</sup> and 11<sup>th</sup> grade respectively. Youth were surveyed every two years for four waves of data. For the younger cohort, this meant students were administered 3 in-class, paper-based surveys during school hours (7<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> grade) and one survey post-graduation. For the older cohort, only the first survey was administered in school, with the subsequent three surveys occurring by a mixture of phone, mail, and web survey. Monetary incentive, as well as multiple reminder cards, emails, and phone calls were made to retain participation in later waves of data collection outside of the school setting.

The surveys were intended to probe students about their personal life, aspirations, home, community, and school experiences. For this study I focus on the younger cohort and use

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<sup>3</sup> Stay Invent the Future was a \$4.1 million initiative to provide regional grants to identify and strengthen industry clusters, workforce capabilities, educational institutions, and lifestyle opportunities.

information from the third wave of data, collected in 2009 when the younger cohort was in eleventh grade, to better understand how participation in extracurricular activities may be shaped by various individual, peer, family and school factors (N= 1057).

## Measures

### Dependent Variables

Previous studies on extracurricular participation often combine specific activities into larger categories. Some group all of the activities together into a binary variable, participation or not. Others have counted the hours of participation in each activity, and others have estimated separate analyses on sports (Guest & Schneider, 2003; Morris, 2015; Dumais, 2006; Marsh, 1992). Some activities cluster naturally into larger categories (such as grouping soccer, basketball, and volleyball into the category of sports), but many other categories have been developed, including performance activities, academic clubs, school involvement activities, volunteering, religious group participation, team sports, and prosocial activities (Eccles & Barber 2003; Huebner & Mancini, 2003). Using more specific measures allows researchers to separate the impact of specific types of activities or the factors that may influence interest or participation into each kind of activity (Covay & Carbonaro, 2010; Morris 2015).

Using information from the third wave of the RYE study, seven dependent variables signify participation in different extracurricular activities. The responses also were collapsed into an overall participation measure, for consistency with many prior studies. For each of the seven dichotomous variables, 1 signifies when a respondent answered “yes” to the question, “Are you participating in any of the following activities during the current school year?” Variables include: 1. *School sports*: school-sponsored sports teams; 2. *Arts*: art/music/dance clubs or

activities; 3. *Clubs*: academic and leadership clubs (with examples given of newspaper, yearbook, science/math, computer, debate, foreign language, student council); 4. *Religious group*: religious or church youth groups; 5. *Volunteer*: coordinated volunteer work or community service activities, 6. *Community sports*: community sports teams (including little league, gymnastics, soccer, basketball, swimming, ect.), and 7. *Other Community*: other community clubs (such as the 4H, Scouts, or others).

To gain understanding of broad participation, in general, responses to all seven participation questions were collapsed into a dichotomous variable, *Participate*, where 1 indicates participation in any activity and the reference category (0) is for those who did not participate in any activities. Examining factors that significantly impact the likelihood of participation in any of the activities helps identify overarching barriers or participation enhancers.

### **Independent Variables**

The RYE data present the unique opportunity to examine students' reports of their parents' participation in three different activities. Many previous studies on student participation in extracurricular activities featured the importance of parent's involvement in students' lives measured through talking with children about their days, setting high expectations, and encouraging participation explicitly. Knowing if parents are modeling participatory behavior and how that may affect student participation rates offers a useful and distinctive addition. The RYE survey asked students to report separately for mothers' and fathers' participation in three activities: volunteering at school, volunteering in religious activities, and volunteering in any community activity. These activities may overlap with students' own activities, or parents may

engage in them without their children. Mothers' and fathers' participation in each of the activities was correlated, so responses for both parents were combined for each activity.

*Parents' involved in school* is a dummy variable, where 1 is for respondents who indicated that either the mother or father, or both, has been involved at school (through volunteering in the student's class, PTO or PTA), and 0 indicates that neither parent has been involved at school. It is likely that having a parent who volunteers at school will increase the chances of the student participating in extracurricular activities, particularly those that are based at the school.

*Parents' involved in religious organizations* is a dichotomous variable, indicating that either the mother or father, or both, has been involved in a religious organization. Since one of the extracurricular activities in which youth could indicate participation is religious activities, it is likely that having a parent who volunteers in religious activities will increase the chances of youth participation as well, and may be positively associated with participation in other activities.

*Parents' involved in the community* is measured like the aforementioned variables, where indication that either the mother or father, or both, has been involved in any organization in the community (such as volunteer groups or clubs like the Lion's club, youth group, local government, hospital, or Habitat for Humanity) was coded as 1, all others as 0. Parents can implicitly encourage youth participation in extracurricular activities by modeling that behavior, even if the activities they do are different from youth activities. Therefore, it is expected that parent volunteering in the community would increase the likelihood of youth participation in any extracurricular activities.

## **Parents' Influence on Extracurricular Participation**

Previous literature indicates that many other aspects of youth's family and behavior of parents have a large influence on youth's afterschool activities. Parents control the resources that could be used to enable participation, and their actions and words can impact youth's current behavior and future plans. It is expected that characteristics of the parents and the family situation will have a significant impact on high school students' likelihood of participation in extracurricular activities.

*Received Public Assistance:* Family finances can constrain participation in activities that require entrance fees, equipment, or even hefty time commitment. Youth whose families receive public assistance may be less likely to participate in extracurricular activities. To measure this, the RYE study asked "In the past two years has your family ever received public assistance such as welfare or TANF?" coded as 0-1, with 1 indicating yes and 0 indicating no.

*Feels Financially Equal to Peers:* In addition to welfare receipt, responses to the statement "My family can afford to buy the things that other families can buy" was used to gauge students' own assessment of their families' financial situations. Original responses ranged from strongly agree to strongly disagree but were collapsed into a dummy variable where 1 indicates agree and strongly agree, 0 otherwise. Students who feel that their family can afford to buy things that other families in the community can buy will probably have a greater ability to participate in extracurricular activities.

*Either Parent Has Bachelor's degree:* Frequently used as an indicator of family socioeconomic status, the education level of parents could influence youth's participation in extracurricular activities. Respondents were asked to select the highest education level obtained

by each parent, ranging from less than high school to college or more. If either parent received a college degree or higher the response was coded as 1, and a 0 otherwise. It is expected that students with at least one parent with a college degree may be more likely to participate in extracurricular activities.

*Both Parents Work Full-Time:* Respondents were asked about the employment status of each of their parents. Responses that both parents work a full-time job were coded as 1, all other responses were coded 0. Working parents may be more likely to encourage their children to participate in structured and organized afterschool activities, since the parents may be working during afterschool hours. They may also be more likely to be able to afford any participation fees. For these reasons it is expected that having working parents would increase the likelihood of participation.

*Resides with Two Biological Parents:* Respondents were also asked about with whom they lived. Their description of family structure was collapsed into a dummy variable. One variable indicated that the respondent has lived with both (biological or adoptive) parents since birth, all others were coded 0. Two parents may be able to coordinate schedules to help students get to practices, club meetings, or other activities after school, and thereby increase the likelihood of participation.

*Experienced Negative Family Event:* Experiencing traumatic family change, such as a divorce, parents fighting frequently, or a parental job loss can affect the lives of high school students. This variable captures if the student experienced any of these events in the past year in a dichotomous variable, coded 1 if such an event was experienced. Not experiencing any of these events was the reference category, coded 0. Experiencing a negative family event is expected to decrease the likelihood of participating in extracurricular activities.

*Parents Expect College Attendance:* An understanding of parents' expectations for their children was derived from the question "How disappointed do you think your (Mom/Dad) would be if you didn't graduate from college?" If the respondent believed that either the mother or the father would be disappointed or very disappointed the response was coded as 1, and if neither parent would be disappointed the response was coded 0. It is likely that if parent expectations for student's future goals are high, this would also reflect on current expectations to prepare for that future, by doing well in school and participating in extracurricular activities.

*Parents Offer Support and Warmth:* Students who feel support from home may be more likely to feel confident as they pursue interesting and challenging activities. Students were asked if they turn to their mothers or fathers for advice and support. Responses of agree or strongly agree for either parent were coded 1; responses of no for both were coded 0.

### **Youth Personal Influences on Extracurricular Participation**

Numerous personal experiences and expectations may influence high school students' desire to participate in extracurricular activities. Youth may juggle many goals, current opportunities, and personal interests as they choose what to do in their free time.

*Aspires to College or More:* Educational aspirations were measured by asking students how far they planned to go in school. Responses were collapsed into a dichotomous measure where those who wanted to obtain a college degree or more were coded as 1, and those who did not were the reference group, coded 0. It is expected that those who wish to complete college will be more likely to participate in extracurricular activities than those who do not, since participation in extracurricular activities is considered in the admissions process.

*Aspires to Live in Rural PA:* Students were asked where they wanted to live by age thirty. Their responses were collapsed into a dichotomous variable where 1 indicates the goal of living in rural Pennsylvania by the age of thirty, and the reference category (coded 0) is for all who plan to live elsewhere at that age. Residential aspirations may have mixed influence on participation in extracurricular activities since planning to stay in the area may lead youth to want to make connections through activities, but planning to leave may also indicate their interest in trying new things, which may also be exhibited through participation.

*Has Future Plans:* Youth with a strong set of goals and a vision for their future lives may be more likely to participate in extracurricular activities, since participation can offer connections, skills, and lines on a resume. Students were asked if they agreed with the statement “I have plans for my future” and those who agreed or strongly agreed were coded as 1, others were coded 0.

*High Grades:* Much of the literature cites participation as a potentially positive influence on grades, however selection effects of those participants were rarely discussed. It is possible that those with higher grades may already be more likely to participate than those with lower grades. To capture this, students who reported that they received all A’s, or A’s and B’s in the past year were coded as 1, others were coded 0.

*Ever Worked for Pay:* This variable indicates working at a job for pay at any time, coded as 1, or never working for pay as the reference category (coded 0). This captures if students worked summer jobs or do odd jobs, such as babysitting, which may occur during times that would not interfere with participation in extracurricular activities. It is expected that ever working for pay may increase the likelihood of participation, since the activities and job may reciprocate connections and benefits.

*Currently Work for Pay:* Respondents were asked if they worked a job for pay during the current school year in a binary variable where responding “yes” was coded as 1, “no” was coded 0. Working during the school year may leave little free time, so it is expected that this would lessen the likelihood of participation in extracurricular activities.

*Female:* Gender was captured by one binary variable where 1 indicates female; 0 indicates male. Previous literature has mixed results on the influence of gender on participation in extracurricular activities. Although many concerns have been raised about potential limitations that gender stereotypes and norms may have on girl’s participation levels, it is expected that girls will be equally likely to participate in extracurricular activities as boys.

### **Peer Influences on Extracurricular Participation**

Friends’ opinions of participation in organized activities, and the activities of choice, can influence what adolescents choose to do with their time outside of school. Following peers’ advice can lead youth to join the same activities as their friends, and the activities can open opportunities to make new friends. In the survey, youth were presented with a list of activities (see list below) that they may do with friends and were asked “Of your four closest friends, how many do the following?” Youth could pick from five categories, organized from “none” through “four friends”. Responses were collapsed into a dummy variable to account for non-normal distribution, where selection of three or four friends, representing the majority of the respondents friends, were coded 1, and responses of none, one, or two friends were coded 0 for each of the activities.

*Most Friends Volunteer:* Having the majority of one's friend group participate in volunteering in the community is likely to encourage youth to participate in volunteer activities, as well as other extracurricular activities.

*Most Friends go to Church:* Friends who attend a church or religious youth group may encourage youth to also participate, either in their own church, or in the same religious group as friends. Church participation may also encourage other forms of participation in extracurricular activities, such as community activities that use the church facilities, or volunteering.

*Most Friends do Sports, Clubs, Arts:* This question asked youth how many of their four closest friends participate in organized sports, clubs or arts activities. It is expected that having the majority of friends participate in any of these activities might encourage youth participation in them as well.

### **School and Community Influences on Extracurricular Participation**

The overall sense of community within the school or town can have an effect on students' decisions about participation. Norms for appropriate activities and uses of time can dictate whether students feel comfortable in their school and community settings. Structural makeup of communities can also open opportunities for more participation. Positive experiences at school and in the community can encourage students to become involved, and can give them the connections, skills, confidence and opportunities to participate in extracurricular activities.

*Students and Teachers Get Along:* Responses, ranging from strongly agree to strongly disagree, to the prompt "The students get along well with teachers" were collapsed into a binary variable where 1 indicates agreement and strong agreement, 0 indicates disagree or strongly disagree. Having positive connections between students and teachers can encourage students to

participate in activities, since students feel comfortable at school and teachers may lead school-sponsored activities.

*Believe Teachers Care About Them:* Responses of agree or strongly agree to the statement “Most of my teachers care about me” were coded 1, indicating personal connections between the student and his or her teachers. Those who disagreed were coded 0. Feeling personally cared about by teachers may open communication lines between students and staff, encouraging students to participate in activities with teachers they know.

*Like School:* This variable captures if students like their schools or not. Responses of agree or strongly agree were coded as 1, and disagree and strongly disagree were coded as 0. Those who like school are expected to be more likely to participate in extracurricular activities, particularly those affiliated with the school.

*Like Community:* Students who reported liking their community “a lot” were coded as 1, and all other responses were coded as 0 for this variable. It is expected that those who greatly like their communities will be more likely to participate in extracurricular activities, particularly those that are community-based and community-oriented.

*Feels Family Included in Community:* Agreement and strong agreement to the statement “My family feels it is part of this community” were coded as 1, intended to capture a feeling of sense of belonging in the local community. Those who disagreed were coded 0. It is expected that students who feel comfortable within their communities would be more likely to participate in extracurricular activities, particularly those that require community input such as volunteering.

*High Community Education Level:* School districts with populations whose percentage of adults with high school degrees was above Pennsylvania’s median were labeled as areas of high

educational attainment, and coded 1, others were coded 0. It is expected that these areas may have higher rates of participation in extracurricular activities.

## Description of Analysis

This individual-level analysis examines elements of high school students' lives that may influence their choice to participate in extracurricular activities or not. The data are imputed for missing values (averaging 3% on key dependent and independent variables) and weighted to be representative of rural students across Pennsylvania. The analysis begins with an overview of important measures and their descriptive statistics. The percentages of adolescents who participated in each activity, and who responded "yes" for each of the independent variables are displayed. Descriptive statistics for reasons for not participating are also shown. A bivariate analysis between those who participate in any activity and those who do not participate in any activities and all of the possible predictors is also included. Results from these analyses are used to contextualize the possible results from the logistic regressions.

To understand if parents' participation in activities affected their children's participation in any extracurricular activity or if there were other significant predictors, a logistic regression model is estimated. Logistic regression is appropriate for analyses with a binary dependent variable. The first regression gave an overall idea of the factors related to participation by modeling participation in any activity. To better understand the factors associated with participation in specific activities, regression models were separately estimated for each of the seven possible activity types. By examining each individual activity, statistically significant variables predicting participation in each extracurricular activity and across activities can be

compared and patterns identified. Patterns of participation may emerge, as well as patterns of salient factors.

Calculations predicting the probability of participation in any activity, as well as for each separate activity were conducted. Predictions were made holding most variables constant at the most frequent response category, while using different values for the variables of interest.

Finally, to understand if students who participate in many different types of activities influence the analyses, a multinomial logistic regression is conducted. Some students participated in many types of activities, while others may have participated in just one. Differences between the students in each category of participation, such as one activity, two activities, all the way through participation in five or more types of activities were compared to those who did not participate.

This thorough examination of participation in extracurricular activities among rural Pennsylvania youth provides a better understanding of the factors that influence high school students' choices to participate at all, and for each unique activity, as well as which specific activities students find most attractive.

## Chapter 4: Descriptive Statistics and Bivariate Statistics

This chapter provides a descriptive overview of the sample, as well as preliminary analysis. In the descriptive statistics section, the percentages of participants for each activity and the overall participation percentage are displayed. The number of activity types high school juniors join is also presented, as well as reasons for not participating in any activity, followed by percentages of responses for independent variables. In the second section, results of the bivariate analysis, comparing those who participated at all with those who did not participate in any activity are discussed.

### Descriptive Statistics

Descriptive statistics for the dependent variables are shown in Table 1. Of the seven extracurricular activity categories, participation in sports was the most popular selection, followed by participation in school clubs. Fifty-one percent of respondents participated in sports during the current school year, and almost half participated in school clubs. These large levels of participation may reflect the broad nature of these categories, but also high levels of interest among high school juniors. Participation in the arts, whether in band, art club, or being part of a dance troupe, garnered participation from 37.2 percent of students. Just under one third (32.8%) of the sample reported participation in religious groups, and 30.0 percent reported volunteering during the current school year. Activities that were based in the community had lower levels of participation, which may reflect more selective participation criteria or just fewer activities in each of these categories. Twenty-one percent of the youth reported participation in community sports, and just 13.3 percent participated in other community activities such as 4H or scouts.

Overall, participation in any activity was very high. Eighty-three percent (83.1%) of rural high school juniors in this sample were participating in at least one extracurricular activity. This is a positive sign for rural high school students in Pennsylvania, since they may be gaining many current and long-term benefits through participation.

Table 1. Descriptive Statistics for Participation in Extracurricular Activities

<i>Description</i>		<i>% Yes</i>
School Sports	Varsity, JV, intramural, or cheerleading	51.0
School Clubs/Activities	Science/math, computer, debate, student council, newspaper/yearbook, foreign language	49.8
Arts	School music, art, or dance clubs/activities	37.2
Religious	Religious or church youth group	32.8
Volunteer	Volunteer work or community service	30.0
Community Sports	Little league, gymnastics, soccer, basketball, swimming, etc.	21.5
Other Community Activities	4H, Boy or Girl Scouts, clubs	13.3
Participate	Responded "yes" to any of the above activities	83.1
Did Not Participate	Responded "no" to all of the above activities	16.9

N= 1057, Data weighted to represent Rural Pennsylvania 11th grade youth

It is also noteworthy that the majority of youth in this sample participate in more than one type of activity. Table 2 shows the number of activity categories in which youth reported participation during the current school year. One fifth of the sample reported participation in two activities, 16.9 percent participated in three, and 14.3 percent participated in four activities. By participating in more than one type of activity, youth are broadening their experiences and increasing their chances to acquire diverse networks, skill sets, and positive benefits from these activities.

Table 2. Descriptive Statistics for Number of Activities Students Join

<i>Number of activities</i>	<i>% Yes</i>
No Participation	16.9
Participation in 1	18.9
Participation in 2	20.3
Participation in 3	16.9
Participation in 4	14.3
Participation in 5	8.8
Participation in 6	3.1
Participation in 7	0.8

Note: Data weighted to represent Rural Pennsylvania 11th grade youth

For those who did not participate in any activity, the RYE survey offered the chance to explain the reasoning behind the decision (see Table 3). After marking the activity categories in which they currently participate, respondents were asked, “If you are not involved in school or community activities, what are some of the reasons? (Select all that apply)”. The most frequent response was that students have other responsibilities, which 29.9 percent selected. Disinterest was also cited as a deterrent, with 21.3 percent saying they are not interested in available activities and 14.5 percent responding that they don’t want to be involved. Transportation, which is commonly thought to be a barrier to participation in extracurricular programming in rural areas, was selected by 10 percent of respondents as a barrier. Prohibitive cost or lack of available options for activity selection was selected by 4.9 percent and 3.8 percent of respondents, respectively. These responses indicate that lack of participation may be a combination of other responsibilities and lack of interest, much more than structural barriers.

Table 3. Reasons Given for Not Participating in Extracurricular Activities

	<i>% Yes</i>
I have other responsibilities that take up my time (i.e. schoolwork, job, helping around the house)	29.9
I'm not interested in the activities available	21.3
I don't want to be involved in any activities	14.5
Difficult to get transportation	10.0
Activities cost too much money	4.9
There are few or no activities available in my school or community	3.8

Note: Data weighted to represent Rural Pennsylvania 11th grade youth

Table 4 displays the percentage of respondents selecting a particular response category for each independent variable. The key independent variables are parents' participation in activities of their own. One in five youth (22%) had either a mother or father who volunteered at school, indicating that there was a presence of parents in rural high schools. Thirty-seven percent (36.6%) of youth had at least one parent involved in religious or church activities, which may imply that there is still a strong faith-based community in rural Pennsylvania. Additionally, 28.5 percent of youth had at least one parent who volunteers in the community in some other way. Parents' participation in community activities outside of their jobs may foster a sense of civic duty and reciprocity in a community, creating close-knit bonds and overlapping social ties within which their children grow up.

### **Parent Variables**

It appeared that rural youth in Pennsylvania were growing up in fairly financially viable and stable households. Most youth, 72.6 percent, believed that their families could afford to buy what others bought in the community, but 8.3 percent reported receiving public assistance within

the last two years. This rate of assistance receipt was above the national and state average at the time of data collection, just at the official end of the great recession<sup>4</sup> (Irving, 2010). Forty-three percent of youth reported that at least one of their parents had a college degree, and over half reported that both of their parents worked full-time jobs. Almost two-thirds of students had lived with their two biological parents since birth, representing a stable family structure for growing up. When asked directly if any of three negative family events had occurred within the past two years, just over a quarter of respondents said that either a parent had lost a job, parents had fought a lot, or parents had divorced.

Youth also appeared to have open lines of communication with parents. Eighty-one percent believed that either their mother or father would be disappointed if they did not go to college. This shows a high level of college-bound expectations from parents in rural Pennsylvania. Similarly, 79.7 percent of students report that they can go to either parent for advice and support. With high expectations and high support, parents of most of these youth in rural Pennsylvania are demonstrating the kind of parenting style that may encourage youth to pursue their interests and set high goals.

### **Youth Personal Variables**

The rural youth in this study had clear visions for their futures. Almost all of them, 92.8 percent, agreed or strongly agreed that they had plans for their future. Sixty-seven percent of youth in this sample wanted a 4-year college degree or more; only 26.7 percent wanted to live in rural Pennsylvania by the time they were thirty years old. Half of the sample was female, and over half of the students report very high grades in the last year, achieving marks of all A's or A's and B's. In addition to their schoolwork and extracurricular activities, 65.5 percent report

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<sup>4</sup> American Community Survey estimates national rate at 2.6 percent, Pennsylvania at 3.3 percent

ever working for pay and 36.6 percent were currently working during the school year when the survey was administered.

Table 4. Descriptive Results for Parent, Personal, Peer, School and Community Influences on Extracurricular Participation

<i>Variable</i>	<i>Description</i>	<i>% Yes</i>
<i>Parent Participation</i>		
Parents Involved in School	Either parent volunteers at school	22.0
Parents Involved in Religious Organizations	Either parent volunteers at church	36.6
Parents Involved in Community	Either parent volunteers in the community	28.5
<i>Parent Variables</i>		
Feels Financially Equal to Peers	Feels family can afford what other's buy	72.6
Received Public Assistance	Family received assistance in past two years	8.3
Either Parent Has a BA	At least one parent has Bachelor's degree	42.8
Both Parents Work Full-Time	Both parents employed full time	53.6
Resides with Two Biological Parents	Lived with both parents since birth	64.0
Experienced Negative Family Event	Parents divorced, fought a lot, or lost job	25.8
Parents Expect College Attendance	At least one parent will be disappointed	81.2
Parents Offer Support and Warmth	Goes to either for advice and support	79.7
<i>Youth Personal Variables</i>		
Aspires to College or More	Want a 4-year degree or more	67.3
Aspires to Live in Rural PA	Wants to live in rural Pennsylvania	26.7
Has Future Plans	Has plans for the future	92.8
High Grades	Gets Mostly A's and B's or all A's	54.5
Ever Worked for Pay	Ever had a job for pay	65.5
Currently Work for Pay	Currently work for pay	36.6
Female	Number of Females	50.5
<i>Peer Variables</i>		
Most Friends Volunteer	3 or 4 of 4 closest friends volunteer	19.5
Most Friends go to Church	3 or 4 for 4 closest friends go to church	27.2
Most Friends do Sports, Clubs, Arts	3 or 4 of 4 closest friends participate in sports, clubs, arts	57.8
<i>School and Community Variables</i>		
Students/Teachers Get Along	Believe students and teachers get along	75.0
Teachers Care About Them	Believe teachers care about them	75.8
Like School	Agrees that they like school	59.5
Like Community	How much do you like your community	29.4
Feels Family Included in Community	Family is a part of the community	58.2
High Community Education Level	Community education level above the median for PA	52.6

N= 1057, Results weighted to represent rural Pennsylvania 11th grade youth

### **Peer Variables**

Youth reported that they have many friends participating in extracurricular activities. Fifty-eight percent of youth responded that the majority of their closest friends participate in organized sports, clubs, or arts activities. Additionally, 27.2 percent reported that most of their closest friends participate in religious activities. One in five said their closest friends volunteer in

the community. If peers do impact the likelihood of participating in extracurricular activities, then having students who report that many of their friends participate may be a good indicator of their own participation.

### **School and Community Variables**

Teachers can have a large impact on students' lives, acting as mentors inside and outside the classroom. Around three out of four students believed that students and teachers get along in their school, and believed that most of their teachers care about them personally. Sixty percent said that they liked school, and 29.4 percent said that they liked their community a lot. Fifty-eight percent believed that their family was a part of the community. Fifty three percent of students lived in communities where the percentage of adults with a high school degree was above the state median. Having a strong sense of belonging and support within the immediate community at school, and the greater community at large, may encourage students to participate in extracurricular activities. From this it can be deduced that youth in rural Pennsylvania may have an interesting mix of influences in their lives that may increase or decrease their likelihood to participate in extracurricular activities.

### **Bivariate Statistics**

To initially investigate differences in characteristics between those rural high school students in Pennsylvania who participated in extracurricular activities and those who did not, a bivariate analysis was conducted. Table 5 shows differences between participants and non-participants across all independent variables and reports the chi-square significance for each comparison.

## **Parent Participation**

Differences between participants and non-participants were strong for the three parent participation variables. Only 5.2 percent of non-participant students had a parent volunteering in school, and only 9.6 percent had a parent volunteering in the community. This is much lower than student participants, who had 25.4 percent and 32.4 percent of parents participating, respectively. Differences between student participants and non-participants in their parents' rates of participation in religious organizations were smaller, with 39.3 percent of participants having a parent who volunteers at church and 23.4 percent of non-participant's parents doing so. In each of these three categories, the participating students had significantly higher rates of parental participation ( $p < .001$ ).

## **Parent Variables**

Youth who did not participate in any extracurricular activities had lower levels of feeling as financially well-off as peers ( $p < .05$ ), and twice the percentage of reported public assistance receipt as compared to their participating peers ( $p < .01$ ). The percentage of non-participants who had a parent with a college degree was half that of students who participate ( $p < .001$ ). Additionally, participants in extracurricular activities had higher percentages of both parents working than non-participants (though they were not significantly different), were more likely to be in a two biological parent family structure ( $p < .05$ ), and had lower rates of experiencing a negative family event in the past two years ( $p < .01$ ). Although parents' expectations and family warmth were high for both groups, the highest percentages of warmth and expectations were found for those who participate ( $p < .001$ ). All of these indicate that family factors may play a role in the student's choice to participate in extracurricular activities.

### **Youth Personal Variables**

Differences between participants and non-participants also existed on the personal level, though some were larger than others. Differences in educational aspirations were among the largest. Seventy-five percent of those who participated in extracurricular activities aspired to go to college, while only 31.1 percent of those who did not participate had the same aspirations ( $p < .001$ ). However, plans to live in rural Pennsylvania were not significantly different for the two groups, indicating that it may not play a role in influencing participation. Having plans for the future and having high grades were both more common for participants. Sixty percent of participants had high grades, as compared to 26.8 percent of those who did not participate ( $p < .001$ ). All students had high rates of ever working for pay ( $p < .05$ ), though students who participate in extracurricular activities had higher rates. And surprisingly, there were not significant differences between students who participated and those who did not in their reports of currently working. Additionally, females were much more likely to participate than males. Roughly, fifty-four percent of participants were female, as opposed to 34.9 percent of non-participants ( $p < .001$ ).

### **Peer Variables**

Having most of one's close friends participate in activities was significantly higher for those who did participate than for those who did not across all three peer variables ( $p < .001$ ). While 22.6 percent of participants reported most of their close friends volunteer, just 4.6 percent of non-participants did ( $p < .001$ ). Having close friends involved in religious groups followed a similar pattern. Having most close friends participate in organized sports, clubs, or arts activities was reported by 66.1 percent of participants, and 16.6 percent of non-participants ( $p < .001$ ).

These differences indicate that friends may play an important role in the decision to participate or not in extracurricular activities.

Table 5. Parent, Personal, Peer, School and Community Variables by Participation

<i>Independent Variables</i>	<i>Participate (83.0%)</i>	<i>Not Participate (17.0%)</i>	<i>P-value</i>
<i>Parent Participation</i>			
Parents Involved in School	25.4	5.2	0.000
Parents Involved in Religious Organizations	39.3	23.3	0.000
Parents Involved in Community	32.4	9.6	0.000
<i>Parent Variables</i>			
Feels Financially Equal to Peers	74.0	65.7	0.021
Received Public Assistance	7.2	13.4	0.002
Either Parent Has a BA	47.2	21.0	0.000
Both Parents Work Full-Time	54.7	48.3	0.182
Resides with Two Biological Parents	66.1	54.1	0.012
Experienced Negative Family Event	24.1	33.8	0.006
Parents Expect College Attendance	85.2	61.6	0.000
Parents Offer Support and Warmth	82.2	67.5	0.000
<i>Youth Personal Variables</i>			
Aspires to College or More	74.7	31.1	0.000
Aspires to Live in Rural PA	27.8	23.4	0.257
Has Future Plans	93.7	88.0	0.002
High Grades	60.2	26.8	0.000
Ever Worked for Pay	67.1	57.7	0.008
Currently Work for Pay	36.3	38.3	0.766
Female	53.7	34.9	0.000
<i>Peer Variables</i>			
Most Friends Volunteer	22.6	4.6	0.000
Most Friends go to Church	31.3	7.3	0.000
Most Friends do Sports, Clubs, Arts	66.2	16.6	0.000
<i>School and Community Variables</i>			
Students/Teachers Get Along	78.3	58.6	0.000
Teachers Care About Them	80.4	53.5	0.000
Like School	65.1	32.1	0.000
Likes Community	31.2	20.6	0.005
Feels Family Included in Community	62.7	36.3	0.000
High Community Education Level	52.3	53.8	0.902

N= 1057

Note: \*p<.05, \*\*p<.01, \*\*\* p<.001, Results weighted to represent rural Pennsylvania 11th grade youth

### **School and Community Variables**

Seventy-eight percent of students who participated in extracurricular activities believed students and teachers got along, compared to 58 percent of those who did not participate ( $p < .001$ ). The percentage who believed that teachers cared about them also was higher for participants (80.4 percent), compared to 53.5 percent of those who did not participate ( $p < .001$ ). Participants reported liking school at twice the rate of non-participants ( $p < .001$ ), and 62.7 percent of participants believed their families were included in the community, as opposed to 36.3 percent of non-participants ( $p < .001$ ). Differences in community education level between participants and non-participants were not significant, however, liking school and community were different between the two groups with higher percentages of participants than non-participants reporting liking school and community. Interestingly, relatively low percentages of respondents indicated that they liked their community.

## **Summary**

From these statistics it can be concluded that there are significant differences in characteristics and experiences between those who participate in any extracurricular activity, and those who do not. Parents' rates of participation in school and community are widely different for participants and non-participants. Having a parent with a college degree, the youth aspiring to a college degree, and grades also had large differences, indicating that educational plans and experiences may play an important role in the choice to participate. Participants were more likely to report that most friends participate in activities than non-participants, indicating that youth may follow the lead of their friends when choosing to fill their free time. Finally, school and community factors, such as liking school or feeling included in the community appear to be quite different for participants and those who are not involved in any activities. These large differences may shed light on the important role of each when students choose how to spend their time after

school. Whether these factors associated with participation in the bivariate analysis remain important when these variables are included in a multivariate model of participation is examined in Chapter 5.

## Chapter 5: Results of Logistic Regressions and Predicted Probabilities

This chapter presents the results of the logistic regressions and reports the predicted probabilities of participation. First, a nested model for overall participation in any activity is described. This is followed by a comparison of final models across all seven types of extracurricular activities, and a description of the patterns that emerged across types of activities. Finally, the predicted probability of youth participation in extracurricular activities is calculated when parents participate in school or community activities, compared with friends' participation in sports, clubs, or arts, and compared with having a parent with a college degree.

### Logistic Regression of Participation

Table 6 shows the logistic regression models estimated using the binary overall participation measure as the dependent variable. This is measured as 1 if the youth participated in any activity and 0 if they reported no participation. The primary interest in this analysis is to explore the relationship between parents' participation in activities and student's participation in any extracurricular activity. Other measures include characteristics of students' families, personal interests, peers' behaviors, and views on school and community that may influence student's decision to become involved in extracurricular activities. The first model includes parent involvement measures, then each additional model incorporates one additional group of variables to determine whether the addition of these measures affects the significance of measures already in the model. In each model, as more variables were added, the Akaike Information Criteria (AIC), measuring the relative fitness of the models, decreased. This indicates an increase in the predictive power of the overall regression model.

In Model 1, parents' involvement in religious activities is not significantly related to students' own participation in extracurricular activities. However, parents' involvement in school and volunteering in the community are significantly and positively related to youth participation. Parent participation in school was associated with a 1.49 increase in the likelihood of youth participating in any extracurricular activity. The influence of parent involvement in community on youth participation was smaller at 1.15.

Family characteristics are added in Model 2. Parents' religious participation continues to not be significant. Parents' involvement in school and in the community remains significant, but the effect is reduced. Having a parent with a college degree or more is significantly and positively related to youth participation. Youth growing up in households with high educational expectations and familial warmth also are more likely to participate in extracurricular activities.

In Model 3, adolescent's own activities and interests are added. Parents' involvement in school, parents' involvement in the community, and having a parent with a college degree continue to significantly affect participation, though their coefficients slightly decrease. Parents' expectations that youth will attend college and parents' support are no longer significant influences on youth participation. Among these personal youth variables, future plans to live in rural Pennsylvania and plans to attend college are both positively related to participation in extracurricular activities. Having high grades also is positively related to participation, and girls have higher odds of participation than boys. Aspirations to attend college have the largest influence on participation in this model.

Model 4 adds variables about friends' participation in volunteer activities, religious groups, or a combination of peer participation in sports, arts, and clubs. When these variables are added, effect sizes for parents' participation in school, parents' participation in volunteer

activities in the community, parents' education level, youth's educational aspirations, and gender all slightly decrease but remain significant and positively associated with participation in extracurricular activities. Aspirations to live in rural PA no longer is statistically significant. All three of the peer variables are significant influences on youth participation in extracurricular activities, indicating that friend participation may be quite important for increasing the odds of participation.

Table 6. Logistic Regression for Overall Participation: Participation in Any Extracurricular Activity

	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Parent Participation</i>					
Parents Involved in School	1.492 ***	1.141 **	1.005 **	0.988 *	0.921 *
Parents Involved in Religious Organizations	0.366	0.200	0.155	0.046	0.050
Parents Involved in Community	1.146 ***	1.012 ***	0.895 **	0.760 *	0.727 *
<i>Parent Variables</i>					
Feels Financially Equal to Peers		-0.154	-0.320	-0.354	-0.463 *
Received Public Assistance		-0.210	-0.328	-0.282	-0.383
Either Parent Has a BA		0.840 ***	0.617 **	0.507 *	0.627 **
Both Parents Work Full-Time		-0.031	-0.042	0.057	0.163
Resides with Two Biological Parents		0.169	0.136	0.005	0.070
Experienced Negative Family Event		-0.276	-0.348	-0.269	-0.115
Parents Expect College Attendance		0.858 ***	0.145	-0.040	-0.199
Parents Offer Support and Warmth		0.406 *	0.267	0.162	0.119
<i>Youth Personal Variables</i>					
Aspires to College or More			1.333 ***	1.176 ***	1.146 ***
Aspires to Live in Rural PA			0.475 *	0.332	0.251
Has Future Plans			-0.099	-0.167	-0.342
High Grades			0.594 **	0.448 *	0.328
Ever Worked for Pay			0.370	0.236	0.285
Currently Work for Pay			-0.347	-0.414	-0.388
Female			0.569 **	0.554 **	0.556 *
<i>Peer Variables</i>					
Most Friends Volunteer				0.852 *	0.701
Most Friends go to Church				0.731 *	0.616
Most Friends do Sports, Clubs, Arts				1.528 ***	1.490 ***
<i>School and Community Variables</i>					
Students/Teachers Get Along					0.102
Teachers Care About Them					0.646 **
Like School					0.636 **
Like Community					0.094
Feels Family Included in Community					0.411
High Community Education Level					-0.498 *

N= 1057, Data weighted to represent Rural Pennsylvania 11th grade youth

Pseudo R2= 0.3357

In the final model, which adds measures of youth perceptions of school and community, parents' involvement in school and in the community continue to be significant. The coefficients

for this final model can be seen in Table 6, and the odds ratios for the final model are reported in Table 7 for additional interpretation and are discussed here. The odds of participation are 151 percent higher for those who have a parent that participates in school activities than those who do not (OR 2.51, CI 1.12-5.61,  $p < .05$ ). Having a parent who volunteers in the community increases the odds of youth participation to be 106 percent higher than those without a parent who does so (OR 2.06, CI 1.09-3.90,  $p < .05$ ). This indicates that parents' involvement in their own activities plays an important role in their offspring's participation in extracurricular activities.

Having a parent with a college degree continues to be significant, increasing the odds of participation by 87 percent (OR 1.87, CI 1.17-2.99,  $p < .001$ ). Interestingly, with all variables included, feeling that one can afford to buy the same things that other families can buy significantly impacts the likelihood of participation in extracurricular activities, but negatively. As youth feel they can afford the items that other families in the community buy, their odds of participation decrease by 37 percent (OR .63, CI .40-.99,  $p < .05$ ). This finding is somewhat counterintuitive, and will be explored in further detail through the analysis of activity-specific participation in Table 6.

Those youth who aspire to a college degree had 215 percent greater odds to participate in extracurricular activities than those who did not (OR 3.15, CI 1.95-5.08,  $p < .001$ ). Girls also had higher odds of participation than boys. Peers' participation in sports, clubs, or arts activities significantly increased the odds of youth participation. Those who reported most friends were involved in these activities had 344 percent higher odds of participation (OR 4.44, CI 2.74-7.17,  $p < .001$ ). However, with all variables included, having most friends involved in religious or volunteer activities was no longer significant.

Table 7. Odds Ratios for Overall Participation Final Model

<i>Independent Variables</i>	OR
<i>Parent Participation</i>	
Parents Involved in School	2.512 *
Parents Involved in Religious Organizations	1.052
Parents Involved in Community	2.070 *
<i>Parent Variables</i>	
Feels Financially Equal to Peers	0.629 *
Received Public Assistance	0.682
Either Parent Has a BA	1.872 **
Both Parents Work Full-Time	1.177
Resides with Two Biological Parents	1.073
Experienced Negative Family Event	0.891
Parents Expect College Attendance	0.819
Parents Offer Support and Warmth	1.126
<i>Youth Personal Variables</i>	
Aspires to College or More	3.145 ***
Aspires to Live in Rural PA	1.285
Has Future Plans	0.710
High Grades	1.388
Ever Worked for Pay	1.330
Currently Work for Pay	0.678
Female	1.744 *
<i>Peer Variables</i>	
Most Friends Volunteer	2.016
Most Friends go to Church	1.852
Most Friends do Sports, Clubs, Arts	4.436 ***
<i>School and Community Variables</i>	
Believe Students/Teachers Get Along	1.108
Believe Teachers Care About Them	1.908 **
Like School	1.889 **
Like Community	1.099
Feels Family Included in Community	1.508
High Community Education Level	0.608 *

N= 1057

Note: \*p<.05, \*\*p<.01, \*\*\*p<.001

Results weighted to represent rural Pennsylvania 11th grade youth

Pseudo R2= 0.3357

In this final model, school and community variables were added and some had significant impact on participation. Feeling that ‘teachers care’ and ‘liking school’ significantly increased the likelihood that youth participate in extracurricular activities. Feeling that teachers care increased the odds of participating in extracurricular activities by 91 percent (OR 1.91, CI 1.21-3.00,  $p < .01$ ). Those who liked school had 89 percent higher odds of participation than those who did not (OR 1.89, CI 1.21-2.94,  $p < .01$ ). Liking the community or feeling that one’s family was a part of the community, as well as feeling that students and teachers get along were not significantly associated with participation. Living in a community where the percentage of adults with high school degrees was above the state median was negatively associated with participation. This finding will be explored more through analyses of each activity individually, as shown in Table 7.

## Results of Logistic Regressions for Individual Activities

In Table 8, final models for participation in each activity are displayed. The final model for overall participation also is included for comparison. Models for each activity resulted in unique combinations of significant variables associated with participation. Several patterns emerged when comparing these variables across the separate activities. Results within individual activities are explored first, followed by comparisons across activities.

### **Results for Each Activity**

*School-sponsored sports participation* was significantly influenced by at least one measure from each variable group. Parents’ involvement at school increased the odds of youth participation in school sports. Involvement in school sports was also affected by economic indicators. Feeling that your family could afford what other families can buy was positively

related to sports participation, and receiving public assistance was negatively related. Having a parent with a college degree also significantly and positively impacted sports participation. Aspiring to go to college and having most friends participate in sports, arts, or clubs both are positively associated with participation in school-sponsored sports. School sports participation was the only activity significantly affected by negative family events. Experiencing parents fighting a lot, losing a job, or divorce was negatively associated with school sports participation. This may mean that some aspect of sports participation is particularly affected by these negative events, perhaps the high time commitment of sports or need for parent support. School sports was also the only activity that was significantly associated with the overall education level of the community, which was then reflected in the overall model. In communities where the percentage of adults with high school degrees was above the state median, there were lower odds of participation in school sports. Students in these areas may be doing other activities instead of sports, or it may be that sports are emphasized more in communities with lower overall education levels, or that sports activities are those most likely to be available in schools in areas where a larger share of adults have not completed high school.

*Participation in clubs* was positively associated with parents' involvement in both school and community activities. Both increased the odds of involvement in school clubs. However, no other family variables significantly impacted participation in clubs. Like participation in school sports, aspiring to go to college significantly and positively influenced participation in clubs. Additionally, clubs were one of two activities associated with students' report that they had plans for their futures (community sports was the other activity). Students who want to prepare for their futures may want to join career or skill-building clubs, or hone in on specific interests through club participation. Having high grades also was positively associated with involvement

in clubs. Girls had greater odds of participation in clubs than boys, and having friends who participate in sports, arts, or clubs also were significantly associated with club participation. Feeling that teachers care was positively associated with participation in clubs. Having good relationships with teachers may provide teachers with the opportunity to encourage youth to participate in activities that they lead, or that may positively impact the adolescents' futures.

Youth *involvement in the arts*, through band, art or dance clubs, or other activities, was significantly associated with parents' involvement at school. Again, having a parent with a college degree, aspiring to go to college, and having a friend who participates in sports, arts, or clubs was significantly associated with youth involvement. Also, females had higher odds of participation in the arts than boys. Arts participation was one of the only school-based activities positively impacted by reporting that most friends were involved in volunteering and involved in religious activities. Those who reported that most friends volunteered or most friends were involved in religious activities had higher odds of participation in the arts than those who did not. Arts participation was significantly associated with feeling that one could afford what other families in the community could buy. Those who reported feeling that they could afford these things were less likely to participate in the arts, meaning that feelings of financial stability decreased the odds of involvement in an arts activity. Also, none of the community or school-based variables was significantly related to arts participation. This may indicate disconnect between these students and the context around them, or a different perspective held by individuals interested in arts.

*Religious participation* was associated with many factors that were not influential in other activities. Religious participation was the only activity significantly related to parents' involvement in religious activities. It is not surprising that these two are related, since families

often attend church events together. However surprisingly, no other parent variables such as the measures of family socioeconomic status or parental expectations or support were associated with religious participation. Additionally, religious participation was the only measure significantly affected by liking the community, feeling that one's family belongs in the community, or aspiring to live in a rural area by age thirty; each was associated with increased odds of participation. Perhaps connection to the community, in a number of ways, is related to the likelihood of participation in religious groups. Girls had higher odds of involvement in religious activities, and having friends who also were involved in church was significantly and positively associated with religious participation. School variables were significantly related to participation in religious activities, but in contradictory ways. Liking school and feeling that teachers care increased the odds of participation, but feeling that students and teachers get along was negatively related to religious participation.

Having a parent who volunteered in the community was positively related to *students' own volunteering in the community*. Volunteering was the only extracurricular activity significantly related to family structure. Growing up in a two-biological parent family was associated with increased odds of volunteering, whereas there was no significant effect on other activities. Aspiring to go to college and having most of one's close friends volunteer or go to church also were positively related to volunteering. However, no community or school factors significantly impacted rates of volunteering in the community. This is surprising. For volunteering to occur within the local community, one would expect that liking, feeling included, or getting along well with those in the immediate community would encourage youth to volunteer.

*Participation in community sports* was the only activity not significantly related to any of the parent participation variables. Having a parent who participates in any activity did not significantly increase or decrease the odds of involvement in community sports. Having a parent with a college degree, and a youth with aspirations to go to college, liking school or reporting that most friends participate in sports, arts, or the community were positively related to community sports involvement. Participation in community sports was also significantly related to grades, however the relationship is negative. Those with high grades had lower odds of participation in community sports.

*Other community activities*, such as participation in scouts or 4H, were significantly impacted by parents' involvement in the community. Those with parents who volunteered in community activities had higher odds of participation in community activities than those whose parents did not volunteer. Having a parent with a college degree or reporting that most friends volunteer were positively related to participation in community activities. Receiving public assistance was negatively related to participation in community activities. Perhaps these activities required a certain level of socioeconomic status in order to join or to be able to have time to participate. No aspect of adolescents' personal goals or current work affected their participation in community activities, and neither did the community variables. Those who liked school had higher odds of involvement in community activities than those who did not like school. But, those who believed that students and teachers get along had lower odds of participation.

Table 8. Regression Results for Each Extracurricular Activity

	Participation Overall	Sports Participation	Clubs Participation	Arts Participation	Religious Participation	Volunteer Participation	Comm. Sports	Other Comm.
<i>Independent Variables</i>	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)	b (SE)
<i>Parent Participation</i>								
Parents Involved in School	0.921 (0.410) *	0.436 (0.190) *	0.480 (0.202) *	0.547 (0.179) **	-0.285 (0.208)	0.372 (0.194)	0.097 (0.198)	-0.083 (0.235)
Parents Involved in Religious Organizations	0.050 (0.247)	-0.096 (0.162)	-0.140 (0.170)	0.250 (0.158)	2.225 (0.177) ***	0.065 (0.176)	-0.331 (0.183)	0.095 (0.211)
Parents Involved in Community	0.727 (0.323) *	0.194 (0.178)	0.396 (0.185) *	0.173 (0.174)	0.445 (0.196) *	1.305 (0.182) ***	0.168 (0.195)	0.498 (0.225) *
<i>Parent Variables</i>								
Feels Financially Equal to Peers	-0.463 (0.231) *	0.425 (0.170) *	-0.045 (0.179)	-0.449 (0.173) **	-0.369 (0.201)	-0.326 (0.197)	0.108 (0.206)	0.020 (0.236)
Received Public Assistance	-0.383 (0.332)	-0.582 (0.293) *	0.029 (0.291)	-0.035 (0.277)	-0.113 (0.331)	-0.255 (0.345)	-0.420 (0.397)	-1.608 (0.631) *
Either Parent Has a BA	0.627 (0.239) **	0.310 (0.155) *	0.124 (0.163)	0.355 (0.154) *	-0.075 (0.181)	0.139 (0.175)	0.447 (0.175) *	0.460 (0.208) *
Both Parents Work Full-Time	0.163 (0.211)	0.088 (0.148)	-0.008 (0.155)	-0.268 (0.147)	-0.021 (0.169)	-0.239 (0.166)	0.256 (0.169)	-0.317 (0.194)
Resides with Two Biological Parents	0.070 (0.214)	0.282 (0.156)	0.238 (0.163)	0.093 (0.159)	0.163 (0.184)	0.563 (0.185) **	0.162 (0.186)	-0.070 (0.211)
Experienced Negative Family Event	-0.115 (0.229)	-0.411 (0.170) *	0.022 (0.178)	0.237 (0.166)	-0.091 (0.196)	0.089 (0.190)	-0.065 (0.200)	0.151 (0.225)
Parents Expect College Attendance	-0.199 (0.249)	0.134 (0.213)	0.085 (0.228)	0.276 (0.225)	-0.039 (0.248)	0.286 (0.265)	-0.075 (0.271)	-0.152 (0.293)
Parents Offer Support and Warmth	0.119 (0.232)	0.114 (0.187)	0.014 (0.195)	-0.119 (0.190)	0.000 (0.227)	0.017 (0.222)	0.463 (0.243)	0.059 (0.268)
<i>Youth Personal Variables</i>								
Aspires to College or More	1.146 (0.244) ***	0.924 (0.189) ***	0.905 (0.193) ***	0.598 (0.197) **	0.092 (0.222)	0.566 (0.227) *	0.731 (0.243) **	0.081 (0.270)
Aspires to Live in Rural PA	0.251 (0.266)	-0.091 (0.177)	-0.046 (0.189)	0.082 (0.177)	0.601 (0.199) **	0.026 (0.196)	0.104 (0.201)	0.263 (0.227)
Has Future Plans	-0.342 (0.333)	-0.203 (0.294)	0.209 (0.319)	0.528 (0.335)	-0.397 (0.332)	-0.120 (0.345)	-0.176 (0.363)	-0.562 (0.366)
High Grades	0.328 (0.232)	-0.406 (0.165)	0.870 (0.159) ***	0.083 (0.161)	-0.251 (0.190)	0.109 (0.182)	-0.418 (0.187) *	0.015 (0.221)
Ever Worked for Pay	0.285 (0.245)	0.147 (0.174)	0.099 (0.183)	0.000 (0.174)	-0.032 (0.200)	-0.115 (0.198)	-0.154 (0.199)	-0.010 (0.232)
Currently Work for Pay	-0.388 (0.249)	-0.219 (0.170)	-0.247 (0.179)	-0.119 (0.169)	0.301 (0.196)	0.211 (0.192)	0.092 (0.191)	0.015 (0.224)
Female	0.556 (0.219) **	-0.048 (0.153)	0.812 (0.156) ***	0.817 (0.150) ***	0.562 (0.178) **	0.361 (0.172) *	-0.222 (0.173)	-0.017 (0.203)
<i>Peer Variables</i>								
Most Friends Volunteer	0.701 (0.426)	-0.100 (0.196)	0.550 (0.212)	0.391 (0.188) *	0.233 (0.212)	1.384 (0.197) ***	0.171 (0.205)	0.637 (0.227) **
Most Friends go to Church	0.616 (0.341)	0.232 (0.176)	0.423 (0.184)	0.447 (0.167) **	1.243 (0.190) ***	0.409 (0.185) *	-0.106 (0.189)	0.088 (0.221)
Most Friends do Sports, Clubs, Arts	1.490 (0.245) ***	1.202 (0.159) ***	0.575 (0.165) ***	0.523 (0.165) **	-0.068 (0.193)	0.023 (0.187)	1.438 (0.216) ***	0.227 (0.234)
<i>School and Community Variables</i>								
Students/Teachers Get Along	0.102 (0.228)	-0.029 (0.187)	0.303 (0.197)	0.017 (0.191)	-0.489 (0.215) *	0.321 (0.224)	-0.379 (0.223)	-0.554 (0.250) *
Teachers Care About Them	0.646 (0.232) **	0.305 (0.191)	0.457 (0.203) *	0.080 (0.196)	0.500 (0.229) *	-0.066 (0.225)	-0.261 (0.229)	0.204 (0.276)
Like School	0.636 (0.226) **	0.130 (0.165)	0.145 (0.171)	-0.024 (0.166)	0.382 (0.191) *	0.064 (0.191)	0.474 (0.197) *	0.480 (0.233) *
Likes Community	0.094 (0.119)	-0.139 (0.087)	0.128 (0.092)	-0.004 (0.087)	0.211 (0.101) *	0.035 (0.098)	-0.041 (0.103)	-0.068 (0.121)
Feels Family Included in Community	0.411 (0.220)	-0.067 (0.161)	0.113 (0.169)	-0.187 (0.163)	0.527 (0.189) **	0.274 (0.184)	0.055 (0.189)	-0.051 (0.220)
High Community Education Level	-0.498 (0.215) *	-0.321 (0.149) *	0.135 (0.154)	-0.066 (0.147)	-0.080 (0.170)	-0.125 (0.166)	0.099 (0.168)	-0.022 (0.196)
Pseudo R2	0.3357	0.191	0.251	0.147	0.290	0.238	0.130	0.080

N= 1057

Note: \*p&lt;.05, \*\*p&lt;.01, \*\*\*p&lt;.001, Results weighted to represent rural Pennsylvania 11th grade youth

## **Comparisons Across Activities**

Each of the activities had unique combinations of variables that were significantly associated with participation. Some activities had numerous significant predictors, while others had few. Occasionally, the direction of influence was different for different activities that were significantly related to the same explanatory variable. Participation in religious activities was the activity that had the most significant predictors, and one of the most unique combinations of predictors. Participation in religious activities was heavily influenced by school and community factors much more than other activities, indicating that churches may tie students to school and to the community at large; a finding that was also found by (Bauch, 2001). Unsurprisingly, religious participation of youth was the only activity significantly influenced by parents' religious involvement. However, no other parent variables predicted youth religious participation. The only other activity without any parent predictors was clubs. Perhaps in both of these activities the importance of these more structural factors, such as socioeconomic status or family structure, and the explicit encouragement and support from parents are not as important as they are for other activities. School sports appeared to be the most affected by these same factors, indicating that participation in these activities may rely heavily on economic and structural support from the family.

Volunteering, playing community sports, and participating in community activities had the least number of significant predictors. These were also the three activities with the fewest participants, which may have affected the findings. Additionally, participation in the arts was the only activity influenced by friends' participation in any activity. Those who said that most of their friends participated in volunteering, or religious activities, or sports/clubs/arts activities were significantly more likely to participate in the arts than those who did not have friends in any

activity, indicating that friends may play a larger role in arts participation than in other extracurricular activities.

### **Differences Between School and Community**

Through this analysis across activities it became clear that there were differences between factors associated with school-based extracurricular participation, and participation in activities that were largely focused in the community. School activities, such as school sports, clubs, and arts, were all significantly related to parents' involvement in the school. This finding is supported by the literature that when parents' are involved in their children's activities, the children are more likely to continue to participate in those activities (Henderson & Berla, 1994; Bauch, 2001). Additionally, higher educational aspirations of youth were significantly related to all school-based activities, indicating that they may be linked to future college plans. Having friends involved in sports, clubs, or arts was also significant for all, which makes sense since each of the activities was mentioned specifically. Feeling like one's family can afford to buy the things that other families can buy was important for participation in two school-based activities (which ones??), and receiving public assistance within the past two years was significant for a youth being less likely to participate in sports. None of these variables was significant for community-based activities. Perhaps participation in school activities is more closely linked with economic status.

Community activities covered a broader range of undertakings that are not associated with school including religious activities, volunteering, playing community sports, or involvement in other community activities. Even with this variety, parents' involvement in the community significantly increased the odds of participation in three of the four community

activities. Other variables had little consistent impact on all of the community participation activities in the same way that they did for the school participation measures.

### **Differences Between Prior Research and The Findings in This Study**

In a few cases, there were instances where a variable was significantly related to the odds of participation in an activity, but the direction of the association was surprising. Those students who reported feeling financially secure had a lower likelihood of overall participation. When activities were separated this pattern continued for those participating in arts, but was the opposite for sports. As students felt more financially equal to their peers, they increased their likelihood to participate in sports. Additionally, grades were not significant overall, but having high grades was associated with clubs participation and community sports participation in opposite ways. High grades increased the likelihood of clubs participation, yet was associated with a lower likelihood of participation in community sports. Furthermore, the only two activities significantly affected by students feeling that they get along well with teachers were religious participation and participation in other community activities. In both cases, the relationship was negative. Getting along with teachers reduced the likelihood of participation.

Some of the variables that previous literature suggested may have been important were not significantly related to participation in any of the activities. Having parents who are employed full time, who expressed high expectations for their children to their children, or who offer advice and support to their children were not significantly associated with participation in any activities. Youth having plans for the future, ever working, or working currently were also not significantly associated with any activities. This is surprising, since after school jobs could directly interfere with time to participate in extracurricular activities. This contradicts some of the common ways that social and cultural values and resources have been thought to be passed

through generations. Perhaps this indicates that when the actions of parents are taken into account, their explicit guidance through talking with adolescents is not as important in affecting youth participation in activities.

### **Overall Patterns**

Overall, five variables were influential for four or more of the activities. And these spanned school and community participation. Parent's involvement in the community, parents' education level, students' high educational aspirations, having friends who participate in community activities, and being female all significantly increased the odds of participation in four activities or more and were significant for overall participation rates.

Parents' participation in the community significantly influenced students' participation in clubs, religious activities, volunteering, and other community activities. It was not significant for school arts or school and community sports participation. This may indicate that parents who are involved in community activities pass on ideas of civic engagement that may encourage club and community activity participation, churchgoing, and youth who volunteer.

The educational attainment of parents and the aspirations of youth to go to college were also significant influences for participation in numerous activities. Parents with college degrees may be interested in preparing their children for college, passing along values that may encourage participation. College aspirations increase the odds of participation in school sports, arts, and clubs, and community sports and volunteering. All of these activities may contribute to strengthening a college application, and may indicate that students are making strategic choices for how to use their time.

There were significant gender differences in patterns of participation. There was a higher percentage of female than male participants overall, and girls' participation spanned a diverse array of activities. Girls had higher odds of participating in all activities except for school and community sports and other community activities. This may indicate that in rural Pennsylvania, sports and scouts still occupy a masculine role in the high school culture, and may not garner as much interest from girls in the school. It may also indicate that these activities are not available for girls since most sports and scouting are gender-specific. Alternatively, boys may not be inclined to take part or are not included in the other activities at school and in the community whereas girls may be encouraged to pursue a diverse array of options because of views that some activities are gender specific so they select these activities accordingly.

Having most friends involved in sports, arts, and clubs was influential for students' own participation in both school and community sports, arts, and in clubs. Students may be following their friends into activities, or creating friend groups within these activities. Additionally, students who had volunteering friends had higher odds of volunteering themselves, and those with religious friends had higher odds of participation in religious activities.

## **Summary**

These results follow trends found in the literature and also make intuitive sense. High school is a time of identity exploration, where the influence of parents and friends combine, where gender identity is explored, and where youth are looking to the future. It is no surprise that these elements play a role in the choices youth make to participate in various extracurricular activities. This analysis offers a unique inclusion of youth's report of their parents' participation in three activities, and shows that parents' positions as role models do make a difference in youth participation rates. The separate analysis of influential factors for each activity also highlights

differences in factors associated with participation in each activity; these differences were masked in the overall participation model.

## Predicted Probabilities

To better understand the influence of some of the key variable identified in the previous analyses, a series of estimates were calculated to predict the probability of participation in each activity when adjusting variables of interest, and holding all other variables constant at the most common response. Since parent's participation in school and community activities were found to be significant in the overall participation model, as well as across many of the individual activities, the influence of these variables were compared with two other key influences on youth participation: friends' participation in school, clubs, and arts activities, and parents' education levels. Both of these variables were also significant in the overall participation model and across many activities. Patterns for boys and girls were similar, so the results for female's probabilities of participation are displayed, while males can be found in the appendix.

Figure one displays the probability of participation in any extracurricular activity when different elements of adolescent's lives are considered. Probabilities across each of these scenarios are high, but slight differences can be observed. The first bar represents the probability of participation for youth who neither have friends who participate in sports, arts, or clubs nor parents who participate in school or community activities, and all other variables are held constant. The probability of participation is .876, which is still quite a high likelihood that students will participate, even without parents or peers modeling this behavior. This may be a reflection of the large majority of students in the sample reporting that they do participate in an activity. The second bar represents the probability of participation when friends participate, but

parents do not. Friend participation increases the probability of participation to .969. The third represents the probability when parents are involved, but friends are not. When parents participate, the probability of youth participation is again much higher than when they do not, and all other elements are held constant (.973). The final bar on the graph represents when parents are involved in school and community activities, and friends are involved in sports, arts, or clubs. Having parents and friends that are involved in activities makes the probability of participation very high (.994).

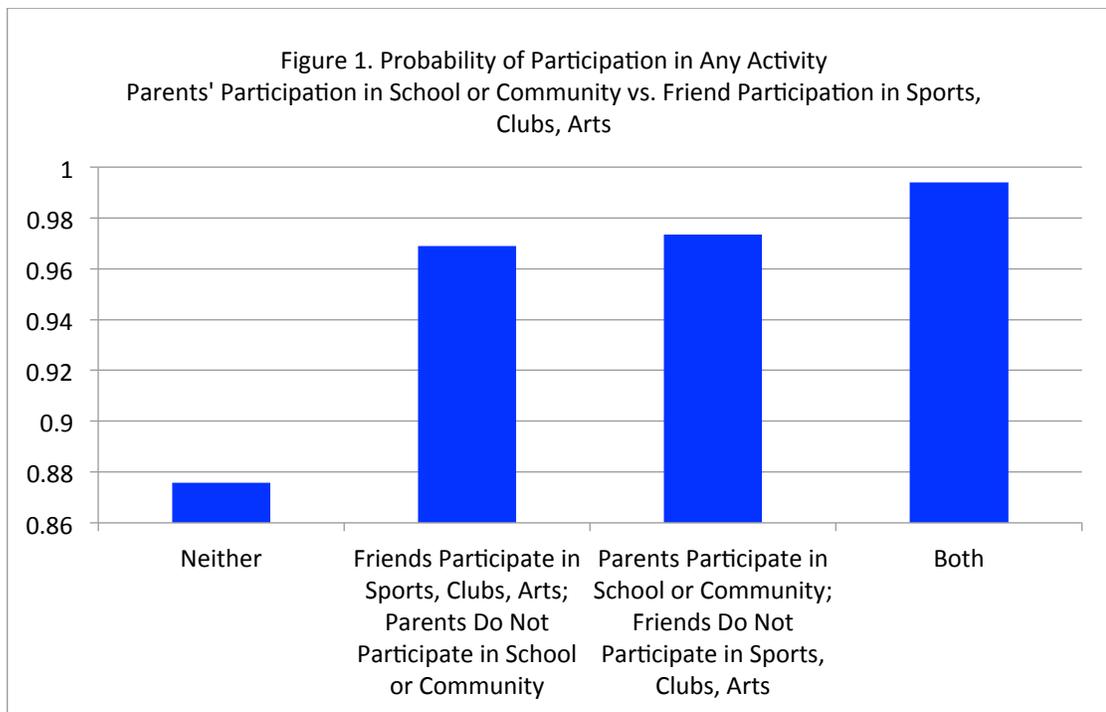


Figure two retains the same order of categories, and displays the predicted probabilities for each activity. Parents' participation in school and community activities continued to greatly influence the probability of participation in many of the activities. It increased the probability more so than friend participation in sports, arts, or clubs for adolescents' participation in clubs, arts, religious activities, and other volunteering. It was very important for the probability of volunteering, increasing the probability from .684 to .919 when other variables were held

constant. However friend participation in sports, clubs, or arts increased the probability of participation in school or community sports more than parent participation and participation in other community activities. This finding shows that both friends' participation in sports, arts, or clubs and parents' participation in school or community activities impact the probability of participation.

Figure 2. Probability of Participation for Each Activity  
 Parents' Participation in School or Community vs. Friend Participation in Sports, Clubs, Arts

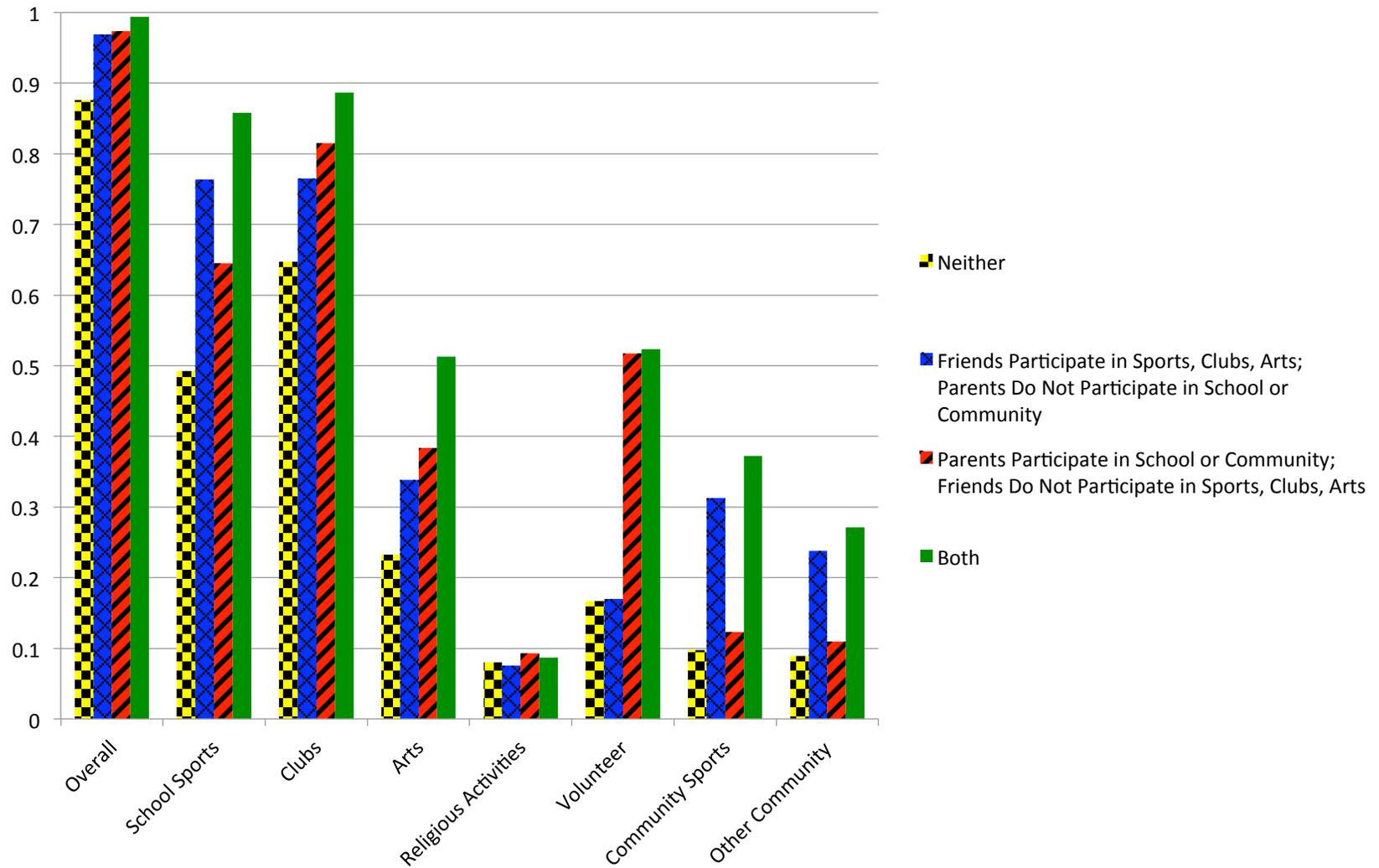


Figure three shows the predicted probability for participation in any activity when focusing on the impact of parents' participation in school and community activities compared with parents' education levels. The model provides similar results for overall participation. Just as before, the probability of participation is already very high, even without parent participation in school and community activities, or either parent having a college degree included (.969). When adding in a parent with a college degree when all other variables are held constant, the probability of participation increases to .983. Just as with the previous models, when only parents' participation in school and community activities are added to the model, and parents degree is not included, parents' participation has the greatest impact on the predicted likelihood of participation, bringing the probability to .994, which is very close to when parents participate in the school or community and one or both parents has a college degree (.997).

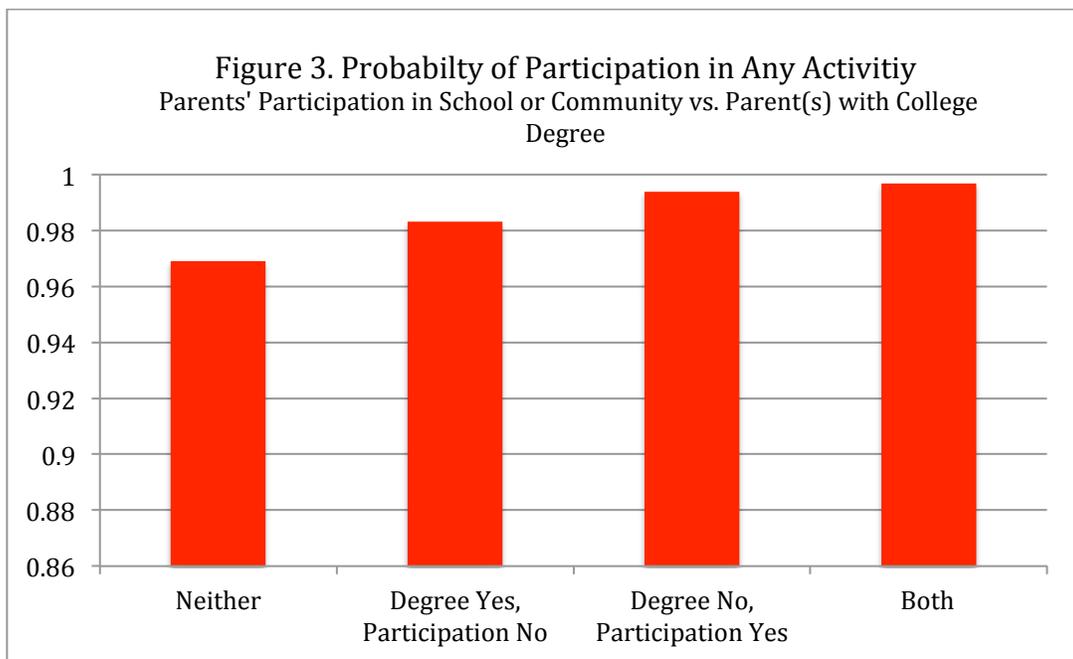


Figure 4. Probability of Participation for Each Activity  
 Parents' Participation in School or Community vs. Parent with College Degree

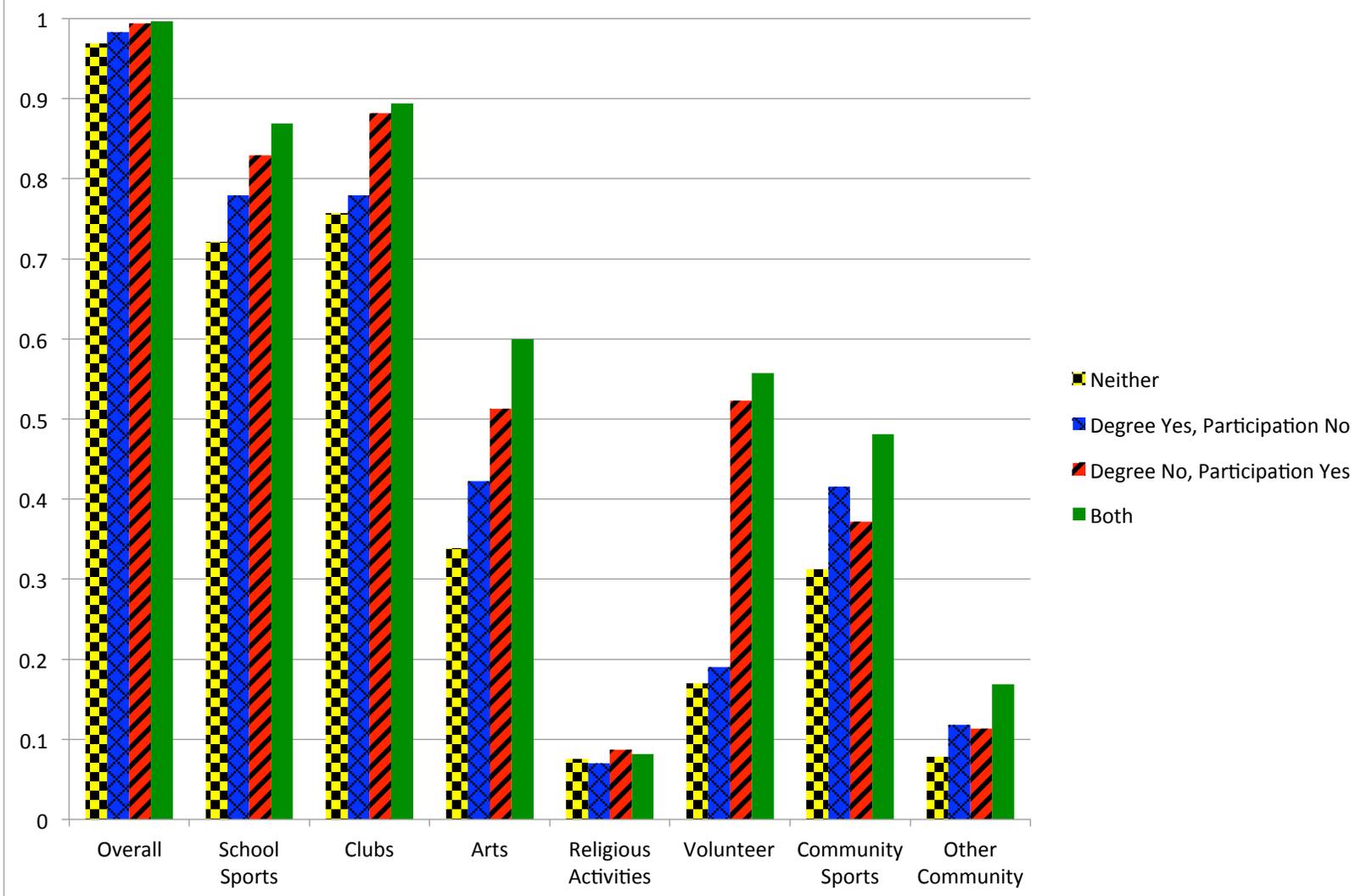


Figure four displays the predicted probabilities for each activity in these same categories. In this model, school sports do follow the overall pattern, though youth participation in religious activities, community sports and other community activities do not. Generally, the probability of participation in any of the activities is slightly higher when parents are participating in school and community activities but neither parent has a college degree and all other variables are held constant, than when a parent does have a degree, but parents' are not participating in school or community activities. This finding offers support to the idea of how important it is for parents' to actively invest in their children, and that parents' actions may increase the probability of their children's participation regardless of their own educational attainment.

### **Summary**

From these predictions it is clear that parents' participation is important for understanding adolescents' choices to participate in different extracurricular activities. Parents and friends play a large role in adolescents' choice to participate in all activities, and friends are particularly important for sports. Parents' actions provide motivation or serve as role models for adolescents. The actions of parents also are important for increasing the probability of participation, more than the parents' educational background. This concurs with Lareau's ideas that the actions of parents are crucial for transmitting the capital that they have to their children. The act of participating can help encourage youth to participate in spite of the socioeconomic status or values that may be implied by the parents' educational attainment. By modeling particular behaviors parents influence their children's activities.

## Multinomial Logistic Regression Interpretation

Another way of understanding the influences on participation in extracurricular activities in rural Pennsylvania is to examine how these influences change for those students who participated in a number of different activities. As was seen in the descriptive statistics, 83.1 percent of high school students in this sample were participating in at least one activity, but some were participating in many more activities than others. Around one-fifth of the students were involved in one activity, and another fifth were involved in two. Another 16.9 percent and 14.3 percent participated in three or four activities, respectively, and 12.7 percent participated in five activities or more (See Table 2 for more information). The factors that may be important for participation in one activity may be different than those important for participation in multiple activities. This could reflect the activities represented in those rates, or differences in the students who choose to commit to a variety of extracurricular activities.

In Table 9, multinomial logistic regression was used to compare non-participants to those who participated in one activity, two activities, three activities, four activities, and five or more activities. The number of students who participated in five, six or seven activities was low, and their influential factors and coefficients were similar, so responses were collapsed into a “five or more” category. There were some influences on participation that significantly differentiated participants in any activities from non-participants. Youth who aspired to go to college were more likely to participate in activities than to choose not to participate in any. The differences between participants and non-participants in the influence of their college aspirations continually increased at each greater interval of participation. This pattern was the same for youth who reported that most of their closest friends participated in sports, arts, or clubs. Participants at each

additional level of participation had higher odds of participation compared to non-participants when their friends participated in activities.

There were some influential variables whose significance was unique to participation in just one activity. These youth were likely to believe that teachers cared about them, much more than non-participants. Additionally, there were significant differences between participants in one activity and non-participants in the chances for living in a community with a high education level. Those who participated in one activity had lower odds of living in communities with higher education levels than non-participants. This may reflect the influence of school sports on the category, since sports were the activity that was significantly and negatively associated with community education levels in the previous analysis (See Table 7 for reference). School sports were the most common activity for those who participated in one activity, at 35.5 percent, followed by participation in clubs at 24.6 percent. These numbers reflect the greater popularity of these activities overall, and greatly outnumber those who were participating in only one of the other activities. Very few of those who were participating in one activity were volunteering, playing a community sport, or participating in another type of community activity. Details of activities in which youth engaged for each level of participation can be found in Table 9.

This pattern of activity selection continued for those who were participating in two activities, though the number of participants in community sports rates jumped, which probably reflects a common pairing of school and community sports. The key variables to this study, parents' participation in activities, begin to gain significance when considering students who participate in two activities or more. There are significant differences in the odds of parents' involvement in school between non-participants and those who participated in two, three, four, or five or more activities. This is also true for the variable measuring parents' involvement in the

community. This may reflect that when students' parents are involved, they are more likely to try out different types of activities in addition to their initial interests. For both of these variables, the odds only increase as more activities are added. Parents' education level and students' reporting that they like school are also significantly different between non-participants and those who participated in two or more activities. Finally, gender differences emerged between participants and non-participants when students were participating in two activities, and this difference was also significant for participation in more than two activities. Females were more likely to participate in multiple activities than males, which is consistent with the literature on the breadth of girls' participation in all activities except sports (McNeal, 1998).

Participants in two activities were the only students to have a significantly lower likelihood of feeling as financially secure as other members of the community, and this may be reflective of the many sports and arts participants who felt this way (See Table 7). Participants in three activities were the only group to have significant differences from non-participants in their odds of receiving public assistance. This may be a critical number, where those from lower socioeconomic backgrounds can participate up to this much, but rarely participate more.

Youth who report most friends volunteer were more likely to participate in three, four, or five activities rather than not participate. This corresponds with the jump in the percentage of volunteers that occurs in the category of participation in three activities. For the participants in three activities, volunteering becomes more common than all other community-related activities, such as religious group involvement, community sports or other community activities, but continues to have fewer participants than school sports, clubs, or arts. Additionally, youth who report that most friends go to church or participate in religious activities were more likely to participate in three or more activities than not participate. Residing in a community with a

higher-than-average percentage of the adult population with a high school degree was again significant and associated with lower participation, just as it was with participation in one activity.

At very high participation rates, such as participating in four or more different activities, the differences between participants and non-participants are very strong. Youth who reported that their parents' were involved in religious activities were more likely to participate in four activities or five or more activities than to not participate. Living with two biological parents since birth was also significant for the odds of participation in four activities, which may reflect a need for parent support as students participate in a wide variety of activities. However, it was not significant for those who participated in five or more.

Table 6. Multinomial Regression for Number of Extracurricular Activities Students Participate in After School

<i>Independent Variables</i>	1 Activity vs. 0 Activities	2 Activities vs. 0 Activities	3 Activities vs. 0 Activities	4 Activities vs. 0 Activities	5 Activities vs. 0 Activities	6 Activities vs. 0 Activities	7 Activities vs. 0 Activities
<i>Parent Participation</i>							
Parents Involved in School	0.555	0.918 *	1.171 **	1.317 **	1.194 *	1.785 **	1.071
Parents Involved in Religious Organizations	-0.255	0.029	0.101	0.646 *	1.300 ***	1.202 *	1.646
Parents Involved in Community	0.288	0.723 *	0.815 *	1.409 ***	1.472 ***	1.917 ***	2.302 *
<i>Parent Variables</i>							
Feels Financially Equal to Peers	-0.313	-0.697 **	-0.531	-0.006	-0.404	-1.029	-1.847
Received Public Assistance	0.070	-0.722	-1.057 *	-0.269	-0.382	-16.177	-15.593
Either Parent Has a BA	0.422	0.689 *	0.840 **	0.815 **	1.006 **	1.833 ***	-0.499
Both Parents Work Full-Time	0.206	0.263	0.021	-0.052	-0.327	0.203	1.186
Resides with Two Biological Parents	-0.075	-0.104	0.374	0.936 **	0.555	0.907	-1.358
Experienced Negative Family Event	-0.216	-0.111	0.214	-0.193	-0.738	0.357	0.162
Parents Expect College Attendance	-0.130	-0.311	-0.134	0.695	-0.440	-0.225	15.757
Parents Offer Support and Warmth	-0.019	0.350	0.176	0.345	0.147	0.533	-0.875
<i>Youth Personal Variables</i>							
Aspires to College or More	0.711 **	1.152 ***	1.669 ***	1.682 ***	2.885 ***	1.489 *	2.686
Aspires to Live in Rural PA	0.435	0.071	-0.097	0.501	0.618	0.797	1.012
Has Future Plans	-0.548	0.415	-0.609	0.105	0.707	-1.257	-1.710
High Grades	0.494	0.079	0.408	0.139	0.751	0.046	0.000
Ever Worked for Pay	0.384	0.112	0.227	0.383	0.800	-0.514	-1.343
Currently Work for Pay	-0.447	-0.249	-0.380	-0.473	-0.230	0.022	0.518
Female	0.287	0.595 *	0.573 *	1.209 ***	1.742 ***	1.542 **	0.523
<i>Peer Variables</i>							
Most Friends Volunteer	0.063	0.655	0.999 *	1.205 *	1.977 ***	1.928 **	1.577
Most Friends go to Church	0.326	0.543	0.817 *	1.096 **	1.970 ***	1.417 **	1.204
Most Friends do Sports, Clubs, Arts	1.042 ***	1.560 ***	1.725 ***	2.119 ***	2.115 ***	2.102 ***	4.780 **
<i>School and Community Variables</i>							
Believe Students/Teachers Get Along	0.025	0.222	0.133	-0.215	-0.037	-0.124	-2.515 *
Believe Teachers Care About Them	0.695 **	0.487	0.636 *	0.705	0.776	1.277	1.015
Like School	0.480	0.641 *	1.006 ***	0.809 *	0.760	0.432	1.460
Like Community	0.192	-0.006	-0.015	0.191	-0.001	0.110	0.938
Feels Family Included in Community	0.412	0.413	0.379	0.223	0.098	0.617	1.316
High Community Education Level	-0.511 *	-0.473	-0.707 **	-0.302	-0.246	-0.419	-1.549

N= 1057

Note: \*p<.05, \*\*p<.01, \*\*\*p<.001, Results weighted to represent rural Pennsylvania 11th grade youth, reported as coefficients

Pseudo R2= 0.2239

## Summary

Overall it appears that when youth participate in one or two activities, they are most likely to participate in school-sponsored activities such as school sports, clubs, or arts. When youth participate in higher numbers of different activities, the diversity of activities chosen begins to expand, and many more elements of their lives begin to influence their likelihood to participate. Participation in a higher number of activities is most reflective of the overall model of general participation and the elements of adolescents' lives that are significant. It may be that those who participate in many activities influence the results of the overall participation measure. Many of the predictors that were influential in the activity-specific analysis were again confirmed to be significant in this analysis. Participation in different types of activities may help youth to expand their connections with friends and adult mentors, to gain new skills, and to develop a comfort with trying new things. If youth are to be encouraged to participate in many different types of activities, a focus on their future aspirations, the actions of their friends, their feelings toward school, and their parents' participation in the school and community may help engage them in more activities.

## Chapter 6: Conclusions and Discussion

The choices that high school students make about what to do with their time can have an important impact on their current social, academic, and behavioral outcomes, can prepare students for future academic or work careers, can connect them with members of the community outside their families, and can shape the adults they become in the future. Extracurricular activities are an important part of the opportunities available to youth outside of school hours. Since extracurricular activities can have such an impact on youth outcomes, and are frequently part of college and job applications and other gatekeeping tools in the transition to adulthood, researchers and policymakers need to consider the aspects of adolescents' lives that work to help or hinder their participation in extracurricular activities. This is especially important for groups that may have additional obstacles to participation such as low-income youth or rural youth.

The purpose of this study was threefold: to determine the extent of extracurricular participation among rural 11<sup>th</sup> grade youth in Pennsylvania in seven different types of extracurricular activities: school sports, clubs, arts, volunteering, religious groups, community sports, and other community activities; to examine the role of parents' involvement in school, religious, and community activities in students' decision to participate in extracurricular activities; and to identify individual, family, peer, school and community factors that play a role to encourage or discourage youth participation in each of the seven types of activities. The study offers the opportunity to compare an analysis of overall participation with each of the seven types of activities, and to compare across participants who participated in more than one types of extracurricular activity, while also incorporating the unique measure of parents' participation. The analyses conducted in this thesis helped to answer the original research questions and provided some unanticipated results.

### **Participation in Rural Pennsylvania:**

Those who worry about unsupervised youth getting into trouble in the hours after school, and those who promote participation in extracurricular activities for their many social and cognitive benefits can find satisfaction in the high rate of extracurricular participation among high school students in rural Pennsylvania. Youth indicated that they participate in a wide variety of activities, and did not acknowledge many prominent barriers to their participation. Consistent with the report of Duffett and Johnson (2004), youth cited lack of interest as one of their reasons for not participating, along with other responsibilities at home. However, 16.9 percent of youth did not participate in any activity, and other elements of adolescents' lives may have prevented them from joining multiple or different types of activities. Most youth were involved in one (18.9 percent) or two (20.3 percent) activities, though quite a few did three (16.9 percent) or four (14.3 percent) types of activities.

Those who participated were likely to have numerous advantages over non-participants, including indications of greater parent involvement in activities, higher socioeconomic status, aspirations to obtain a four-year degree, friends who participate in activities, and greater connections to the school and community. The most common activities to join were school sports and clubs. Participation in arts, religious groups, volunteering, community sports, or other community activities were often in addition to school sports and clubs and the factors associated with overall participation are most reflective of those associated with participation in school sports.

## **Participation in Context**

On the basis of the findings, it appears that in some ways participation does reflect the stratification of society, and that some students who already have advantages may be more likely to participate. Those students who reported that at least one parent had a college degree were generally more likely to participate in many types of activities, which may suggest that their parents are transmitting values and resources to them that are unavailable to other students. However, growing up in a community where the percentage of adults with college degrees was above Pennsylvania's median and feeling that one's family can afford to buy the same things that other families in the community can buy were both negatively associated with participation. This finding appears to reflect the influence of participation in school sports, clubs, and arts activities. It suggests that school may play a role in providing equal opportunities for student participation. Participation in extracurricular activities that are conducted outside of school, such as participation in religious activities, volunteering, community sports, or other community activities may be stratified by existing class patterns, or more influence by parental behaviors and resources.

Surprisingly, having a job at any time or during the time of the survey did not have a significant impact on the likelihood of participation in any extracurricular activities. Though most students reported working at some point, it is possible that students are strategic with the hours they work so that work and extracurricular life can balance. Additionally, like other studies, it was found that eleventh-grade girls in rural Pennsylvania participate in extracurricular activities more than boys, and more girls participate in many types of activities. Boys in this study tended to focus their participation in school sports, which may indicate a need for schools

and organizations to actively recruit boys into new activities that fall outside of traditional gender roles.

### **Parents' Participation**

Many of the results presented in this thesis align with the concepts introduced by Lareau (2000), about the need for parents to actively transmit their values and resources in order for youth to engage. Many studies focus on how parents can support learning at home, or intervene at school to advocate for their children, but do not investigate parent involvement in adult-only activities outside of work, or their involvement in extracurricular activities. Additionally, much of the focus on parent involvement is on younger elementary students. This study's examination of the impact of parents' involvement when students are in eleventh grade demonstrates the importance of parents' participation in activities when their children are in high school. These findings show that parents' can influence their high school students to participate in extracurricular activities just by participating in activities for their own enjoyment, particularly in the school and community. It suggests that high school students may look to their parents' actions for guidance, and that their parents' decision to be involved in activities may motivate an adolescent's own desire to participate. Perhaps modeling this behavior gives adolescents the push and indicates it is okay to participate.

### **Policy Implications:**

From these findings, it is clear that rural students in Pennsylvania participate in many activities, and their choice to participate may be motivated by combinations of influential factors. Since school-sponsored activities were the activities with the most participants, additional funding to support participation and encouragement in these areas may draw some of the non-

participants to join the activities. Garnering interest in the other activities outside of school may have additional barriers, but also may be the areas that have greatest opportunity for expanding the inclusion of new participants. Each activity, of the seven types examined, had unique combinations of influential factors that may encourage or discourage participation, and so organizational leaders and volunteer for each specific type of activity may be able to use these findings to target interventions to bring in new participants.

Across the activities, parents' participation appeared to encourage youth participation in extracurricular activities. Creating opportunities for parents to be involved at the high school level, promoting civic engagement, and making space for adult interest groups in small towns may help connect parents, which in turn could encourage youth to participate. However, it may be challenging to ask parents to take on additional responsibilities, even if they are enjoyable. Many parents' days are filled with work and managing their children's schedules, so free time is scarce. Additional research on parent participation could investigate the amount and intensity of parent involvement needed to encourage youth participation, and best practices for encouraging parent participation in ways that work for them.

### **Limitations:**

This study has a few limitations, which must be considered when interpreting the results. It is limited by the seven categories of participation, which yield insight into the types of activities that students may choose to join, but do not offer the detail of the exact endeavor, and by the three categories of parent participation: school, religious activities, and community. Generalized categories may not take into account the depth and breadth of participation opportunities offered within each type, so a three-sport athlete is not differentiated from a person who plays a single season of one sport, and a flautist who also paints and participates in theater is

also counted for only one type of activity. Additionally, this study draws from youth in rural Pennsylvania, and the results represent these students. The experiences of rural students living in communities with greater racial diversity, in communities of different population sizes or proximity to urban areas, or more rural areas, may not be reflected by these results. Future research could draw samples of rural high school youth from other regions in the nation, could specify the categories of participation, and could include other parental-figures who may be influential in the lives of children, such as grandparents or other guardians, and how their participation in activities may influence youth participation in extracurricular activities.

### **Summary**

Though participation in extracurricular activities can benefit high school students in many ways, the opportunity to participate may not be equitably distributed across all youth. Using data from eleventh grade students in the Rural Youth Education study, this thesis offered a close examination of extracurricular participation in rural Pennsylvania. Seven types of extracurricular activities were included: school sports, clubs, arts, volunteering, religious activities, community sports, and other community activities.

The study provided positive news of high levels of participation among youth in rural Pennsylvania. Students participated in many different types of activities, and frequently participated in more than one activity. Many factors contributed to greater likelihood to participate, including college aspirations of the youth, friends participating in extracurricular activities, connections to school, parents' education levels, and especially parents' involvement in school and community activities. The importance of parental involvement in activities, even when these activities may not be directly involved with youth activities, was clearly associated with youth participation in many types of activities. Different influential factors were identified

for each type of activity, and the number of different activity types that students became involved with were also examined.

With the information provided, policy-makers, extracurricular activity coordinators, school personnel, parents, youth, and interested community members could identify aspects of the context of high school students' lives that may encourage their participation in specific extracurricular activities. More youth could become involved in a greater array, and greater number of extracurricular activities, which may benefit students in their current high school experience and prepare them for future goals.

## Appendix

Appendix 1a: Predicted Probabilities Comparing the Influence of  
Parents' Participation in School or Community and Friends'  
Participation in Sports, Clubs, Arts for Females

	Neither	Friends Yes; Parents No	Parents Yes; Friends No	Both
Overall	0.876	0.969	0.973	0.994
School Sports	0.492	0.763	0.645	0.858
Clubs	0.647	0.765	0.815	0.887
Arts	0.233	0.339	0.384	0.513
Religious Activities	0.080	0.075	0.093	0.087
Volunteer	0.167	0.170	0.517	0.523
Community Sports	0.097	0.313	0.123	0.372
Other Community	0.089	0.238	0.110	0.271

Appendix 1b: Predicted Probabilities Comparing the Influence of  
Parents' Participation in School or Community and Friends'  
Participation in Sports, Clubs, Arts for Males

	Neither	Friends Yes; Parents No	Parents Yes; Friends No	Both
Overall	0.935	0.947	0.955	0.989
School Sports	0.504	0.772	0.656	0.864
Clubs	0.449	0.591	0.662	0.777
Arts	0.118	0.185	0.216	0.317
Religious Activities	0.047	0.044	0.055	0.052
Volunteer	0.122	0.125	0.428	0.433
Community Sports	0.119	0.362	0.149	0.425
Other Community	0.106	0.266	0.130	0.298

Appendix 2a. Predicted Probabilities Comparing Parents Participation in School and Community, and Parent's BA for Females

	Neither	Degree Yes, Participation No	Degree No, Participation Yes	Both
Overall	0.969	0.983	0.994	0.997
School Sports	0.722	0.779	0.829	0.869
Clubs	0.757	0.779	0.882	0.894
Arts	0.339	0.422	0.513	0.600
Religious Activities	0.075	0.070	0.087	0.081
Volunteer	0.170	0.191	0.523	0.558
Community Sports	0.313	0.415	0.372	0.481
Other Community	0.078	0.118	0.114	0.169

Appendix 2b. Predicted Probabilities Comparing Parents Participation in School and Community, and Parent's BA for Males

	Neither	Degree Yes, Participation No	Degree No, Participation Yes	Both
Overall	0.947	0.971	0.989	0.994
School Sports	0.731	0.787	0.836	0.874
Clubs	0.580	0.610	0.769	0.790
Arts	0.185	0.244	0.317	0.399
Religious Activities	0.044	0.041	0.052	0.048
Volunteer	0.125	0.141	0.433	0.468
Community Sports	0.362	0.470	0.425	0.536
Other Community	0.079	0.120	0.115	0.171

Appendix 3. Number of Activities Joined by Type of Activity

	1 Activity	2 Activities	3 Activities	4 Activities	5 or more
School Sports	35.5	52.3	64.0	75.9	94.7
Clubs	24.6	44.4	67.6	86.6	97.2
Arts	11.7	33.2	50.5	67.7	79.2
Religious Group	13.7	28.5	35.2	57.1	81.2
Volunteering	5.5	15.3	40.8	54.8	87.6
Comm. Sports	2.4	18.7	30.1	32.7	58.7
Other Comm.	6.6	7.5	11.8	25.2	38.6

Note: Weighted to Represent Rural PA 11<sup>th</sup> grade students

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