

Proposal Cover Page

2008 AIR DISSERTATION FELLOWSHIP PROPOSAL

“From Aspirations to Access: The Role of Place in the Facilitators of and Barriers to Postsecondary Education for Rural and Urban Students”

Dataset of Interest: Educational Longitudinal Study of 2002 (ELS: 2002)

Grant Amount Requested: \$19,661.00

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Project Summary

The postsecondary educational attainment of American students has been frequently discussed among researchers and policymakers. A postsecondary education holds economic and social value at the individual, local, and national levels (Baum & Payea, 2004). Unfortunately, not all students are attaining postsecondary educations at the same rate. In 2001, the National Center for Policy and Higher Education (NCPHE) identified postsecondary education among the most important policy issues. Indeed, James B. Hunt Jr., Chairman of the NCPHE said, “Geography, wealth, income, and ethnicity still play far too great a role in determining the educational opportunities and life chances of Americans” (2001, para. 6).

Disparities in access to postsecondary education exist for ethnic, race, class, and geographic minority students (Charles, Roscigno, & Torres, 2007). An abundance of intervention programs have been developed to improve postsecondary education access for disadvantaged youth. The outcomes of these programs include greater academic achievement, higher educational aspirations, and, increased college attendance rates (Gandara, 2001; Project GRAD, 2006). Despite these improvements, access to higher education remains unequally distributed, particularly between rural and non-rural students (Shaw, De Young, & Rademacher, 2004). The majority of programs aimed at improving college access target underrepresented students in urban settings (Gandara, 2001). Therefore, it is plausible that the remaining disparities are a reflection of incongruous program components with the needs of rural students, likely due to unawareness of the unique characteristics of rural individuals, families, and schools.

This study is informed by the findings in previous literature on the factors that facilitate or impede postsecondary education access for all students (Adelman, 1999; Charles et al., 2007; Kaufman & Gabler, 2004). Few studies have examined this issue with rural students specifically and the studies (Dyk & Wilson, 1999; Smith, Beaulieu, & Seraphine, 1995) that have addressed this issue maintained a singular focus on either family or school, not both. The consequences of examining only one aspect of the lives of rural students are inconclusive or weak effects of school factors, and/or an overestimation of the influence of family (Roscigno & Crowley, 2001).

The proposed study will comprehensively examine how place (rural versus urban) moderates the influence of individual, family, and school factors on postsecondary education access. Further, this study seeks to identify differences in how race/ethnicity moderates the influence of related factors among rural students. Specifically, the

following research questions will be addressed: (1) *What individual, family, and school factors are related to postsecondary education access, based on attendance at a 2- or 4-year college, for rural and urban students?* (2) *Among rural and urban students, for which individual, family, and school factors does place moderate their influence on postsecondary education access, based on attendance at a 2- or 4-year college?* (3) *Among rural students, for which individual, family, and school factors does race/ethnicity moderate the relations with postsecondary education access, based on attendance at a 2- or 4-year college?*

Data for this study will be gleaned from the Education Longitudinal Study 2002 (ELS: 2002), which is sponsored by the U.S. Department of Education's National Center for Educational Statistics (NCES). Students from public, private, and home schools in only rural or urban locations who participated in the ELS: 2002 study during all three phases of data collection (n = 8,462) will be included in the proposed study. A sub-sample of rural students only will be (n = 2,952) will be used in investigating the third research question. Two hierarchical logistic regression analyses will be utilized in answer the research questions using certain individual, family, and school variables as the predictor variables and whether or not the student enrolled in postsecondary education after high school as the outcome variable.

Over the past several years, the *United States Department of Education*, the *National Center for Education Research*, and *The Spencer Foundation*, along with many state governments, have declared access to postsecondary education among their top priorities. Geographical inequities have been linked with barriers to educational opportunity (Rosigno et al., 2006). In order to eradicate the existing disparities in postsecondary education access, we must acquire an understanding of the individual and contextual factors that facilitate or impede access for underrepresented students. Upon the reauthorization of the Higher Education Act by the United States Congress, funding will be allocated to support postsecondary education intervention programs such as GEAR UP and Project GRAD. The results of the proposed study will be very informative to the development of such programs particularly those aimed at improving postsecondary access for disadvantaged rural students by providing an understanding of the unique strengths and needs of students from those settings. A critical mass of citizens with education beyond high school is a necessary requisite for the United States to be prosperous in the global economy of the 21st century. Ensuring access to postsecondary education for all American students, regardless of race, ethnicity, class, or place, will facilitate this challenging objective.

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Project Description

Statement of Problem and Variables

The attainment of postsecondary education among American students has been frequently discussed by researchers and policymakers. A postsecondary education holds economic and social value at the individual, local, and national levels (Baum & Payea, 2004). In its influential report, *Measuring Up 2000*, the National Center for Policy and Higher Education (NCPHE, 2001) identified preparation for and participation in postsecondary education among the most important policy issues. Indeed, James B. Hunt Jr., Chairman of the NCPHE said, “despite the accomplishments of American higher education, its benefits are unevenly and often unfairly distributed, and do not reflect the distribution of talent in American society. Geography, wealth, income, and ethnicity still play far too great a role in determining the educational opportunities and life chances of Americans” (2001, para. 6). A substantial body of evidence exists that supports this acknowledgement (e.g., Baum & Payea, 2004; Charles, Roscigno, & Torres, 2007; Hu, 2003; Roscigno & Crowley, 2001; Shaw, De Young, & Rademacher, 2004).

Disparities in access to postsecondary education exist for ethnic, race, class, and geographic minority students (Baum & Payea, 2004; Charles, Roscigno, & Torres, 2007). In order to eradicate these discrepancies, we must learn more about the factors that facilitate or impede access to postsecondary education for underrepresented students. An abundance of intervention programs, such as GEAR UP and Project GRAD, have been developed to improve postsecondary education access for disadvantaged students. The outcomes of these programs have included significant decreases in dropout rates, greater academic achievement, higher educational aspirations, and, ultimately, increased college attendance rates (Gandara, 2001; Project GRAD, 2006). Despite these advancements, access to higher education remains unequally distributed, particularly between rural students and their non-rural counterparts (Roscigno, Tomaskovic-Devey, & Crowley, 2006; Shaw, De Young, & Rademacher, 2004).

Disproportionate access to higher education exists among students in different localities around the United States. Using data from the National Education Longitudinal Study of 1988, Hu (2003) examined postsecondary access for students in urban, suburban, and rural schools. Interestingly, he found that if urban students remained in school until the later years of their K-12 schooling then they appeared to be enrolled in postsecondary institutions at percentages similar to their suburban counterparts. However, he noted that rural students were consistently disadvantaged as smaller percentages of them were enrolled in postsecondary education when compared to their urban and suburban counterparts. The majority of programs aimed at improving college access target

underrepresented students in urban settings (Gandara, 2001; Project GRAD, 2006). Although some intervention programs may have participants from rural areas, it is plausible that the remaining disparities in postsecondary education access are a reflection of incongruous program components for the needs of rural students, due to unawareness of the unique characteristics of rural individuals, families, and schools. Whereas some characteristics of rural students, families, and schools operate as facilitators of postsecondary access, other factors function as barriers. Further, individual and contextual factors that facilitate postsecondary access in urban settings may function as barriers to access in rural settings or vice versa. In order to more clearly understand the influence of these distinct characteristics, the purpose of the proposed study is to identify the variables that facilitate or impede postsecondary access for students and to determine how those factors may be moderated by place (i.e., rural vs. urban). This study will also explore how race/ethnicity moderates those factors within rural settings.

Families and schools are shaped by the communities in which they reside (Roscigno, Tomaskovic-Devey, & Crowley, 2006). A by-product of living in any location is access to or restriction from opportunities and resources. The economic resource disparities of rural communities have been shown to have negative effects upon family and school investments (Roscigno & Crowley, 2001). Approximately 22% of rural children live in poverty (U.S. Census Bureau, 2007). Although it is acknowledged that the rate of rural children living in poverty is comparable to that of urban children living in poverty, it has been averred that rural poverty is not simply urban poverty in a rural setting (Khattri, Riley, & Kane, 1997).

Differences between rural and urban. The characteristics of rural and urban families tend to be strikingly different. The attributes of rural families include a greater likelihood of being intact, greater parental involvement in students' education, and close community ties (Roscigno et al., 2006). Some concerns for rural families include low levels of parental educational attainment, unemployment, underemployment, high rates of substance/alcohol abuse, and elevated rates of teenage pregnancy. In addition, rural communities lack cultural and educational resources such as nearby museums or libraries, technological resources, and recreational opportunities for young people (Khattri et al., 1997). In contrast, while individuals in urban settings share the struggles of low wages, elevated rates of drug and alcohol abuse, and teenage pregnancy, urban students may draw from resources such as public libraries, clinics, and museums not available to those in more isolated, rural settings. However, urban students also face challenges that are unique to their locale such as broken families, violence, and gang activity. The presence or absence of these

variables has a distinct influence on the postsecondary educational opportunities of rural and urban students (Roscigno et al., 2006).

In a similar vein, the characteristics of rural schools are remarkably different from those of urban settings. The constructive features of rural schools include small school and class size, high levels of community support, and strong parent-teacher relations (Khattri et al., 1997). Contrarily, rural schools face the challenge of overcoming several institutional disadvantages due mainly to their geographic isolation, including limited access to educated role models, limited curricular offerings, outdated technology, and difficulty attracting and retaining qualified teachers (Williams, 2003). In contrast, urban schools are often large, allowing them to offer a diverse array of courses, extracurricular activities, and athletics. The disadvantages of large schools include high student-teacher ratios, decreased opportunities for participation in extracurricular activities and breakdowns in school, family, and community relations (Smith, Beaulieu, & Seraphine, 1995).

Several studies have examined the factors that successfully predict postsecondary attainment for students in general (Adelman, 1999; Charles et al., 2007; Kaufman & Gabler, 2004). However, much less research has been conducted on the family and school factors related to postsecondary educational attainment for rural students, specifically. While the studies (Dyk & Wilson, 1999; Smith et al., 1995) that have addressed this issue provided a valuable contribution to the rural education literature, they shared a problematic feature of taking a singular focus on either family or school, not both. The consequences of examining only one aspect of the lives of rural students are inconclusive or weak effects of school factors, and/or an overestimation of the influence of family (Roscigno & Crowley, 2001).

Although rare, multivariate analyses of individual, family, and school characteristics will help disentangle the underlying processes related to the disproportionate educational opportunities for students in different types of geographical settings (Hu, 2003). Two studies have examined the role of place using multivariate analyses. Using the National Longitudinal Youth Survey, Blackwell and McLaughlin (1999) found that among rural youth, educational attainment was predicted best by family characteristics, particularly having a college educated mother and home resources, for girls and by individual characteristics, such as academic achievement and extracurricular activities, for boys. A major difference between this study and the proposed one is that it examined postsecondary educational attainment rather than postsecondary educational access.

Currently, there are no published studies examining the impact of individual and contextual factors on postsecondary educational access per se; however, an unpublished master's thesis by Snyder (2003) did investigate the issue. He examined whether the relations between attending a rural high school and entering a four-year college were mediated by school, family, and individual characteristics using data from the National Educational Longitudinal Survey 1988/2000. He found student resources, such as taking more math and science courses and participating in extracurricular activities, and family resources, such as total household income, parent education, parent expectations, and educational resources in the home, to be instrumental in overcoming the disadvantages of attending a rural high school in terms of gaining access to postsecondary education. One attribute of this study was the utilization of a non-rural comparison group to ascertain whether the predictor variables had effects only on rural students or on non-rural students as well.

The use of national datasets, which afforded the inclusion of individual, family, and school factors, was a major strength of the Blackwell and McLaughlin (1999) and Snyder (2003) studies; however, both studies contained two major limitations for understanding factors related to postsecondary access for today's rural students. First, the datasets utilized in the studies are outdated and may not generalize to rural students of today. Second, the studies failed to recognize the diverse experiences among rural youth, particularly those of racial and ethnic minorities. Approximately 20% of the United States' students living in rural areas are non-white (NCES, 2003). Sensitivity to the experiences of ethnic and racial minorities in rural areas is crucial to understanding the factors related to postsecondary access for students from such areas.

Proposal of Work

The overarching goal of this project is to identify the individual, family, and school factors that facilitate or impede postsecondary education access for rural and urban students and to determine how level of urbanicity might moderate those factors. Further, this study seeks to identify differences in how race/ethnicity moderates the influence of related factors among rural students. To accomplish those goals, the following questions will be addressed:

- (1) *What individual, family, and school factors are related to postsecondary education access, based on attendance at a 2- or 4-year college, for rural and urban students?*
- (2) *Among rural and urban students, for which individual, family, and school factors does place moderate their influence on postsecondary education access, based on attendance at a 2- or 4-year college?*

(3) *Among rural students, for which individual, family, and school factors does race/ethnicity moderate the relations with postsecondary education access, based on attendance at a 2- or 4-year college?*

The questions guiding this study are exploratory because the field of research on the education of rural students is relatively young and previous literature is lacking. Thus, an exploratory study of this nature is warranted to inform future research including model building and theory testing.

The theoretical framework for this study is based on The Social Cognitive Career Theory (SCCT; Lent, Brown, & Hackett, 1994). Many educational and vocational researchers have used SCCT, developed from Bandura's Social Cognitive Theory, in their investigations of the processes through which people develop interests, make decisions, and attain varying levels of success in their career and educational pursuits. Based on a triadic reciprocal model, SCCT addresses how cognitive-person variables, other person variables, and environmental variables interact with each other to ultimately influence educational or career outcomes. Although SCCT has yielded a number of inquiries on the cognitive-person variables, few studies have examined the environmental variables. A Concentric Model of Environmental Influences, proposed by Lent, Brown, and Hackett (2000) within the SCCT, whereby one's environment is conceived as a series of embedded layers with the individual residing in the innermost circle surrounded by the immediate environment (i.e., family), which is encircled by the larger social context (i.e., school), will serve as a framework for the proposed study.

Database. Data for this study will be gleaned from the Education Longitudinal Study 2002 (ELS: 2002), which is sponsored by the U.S. Department of Education's National Center for Educational Statistics (NCES). Highly regarded by researchers, NCES datasets are large, comprehensive, methodologically sound, and, with weights, nationally representative. The use of this dataset was selected for those reasons along with the fact that it is a current dataset that will represent today's students. Additionally, because ELS: 2002 was designed to address issues related to the transitions of American young people from tenth grade through high school and into postsecondary education and the workforce, this dataset contains the necessary data to answer the research questions of the proposed study.

Sample. Students from public, private, and home schools in rural and urban locations who participated in the ELS: 2002 study during all three phases of data collection (n = 8,462) will be included in the proposed study. Students from suburban schools will be excluded. Generally, ELS: 2002 student participants were high school sophomores during the base-year, high school seniors during the first follow-up, and had been out of high school for

at least two years in 2006 at the time of the second follow-up. A sub-sample of rural students only (n= 2,952) will be used in investigating the third research question. Survey responses from each student's parent and school administrator will inform the study as well.

Variables of interest. The relations between certain individual, family, and school variables from the participants' sophomore and senior high school years and the dependent variable of reported postsecondary enrollment in either a 2- or 4-year college or not at any point within two years after high school graduation will be examined. The dependent variable (F2B07) will be extracted from the ELS: 2002 second follow-up. Each predictor variable at the individual, family, and school levels was selected for theoretical reasons based upon previous literature such as those studies mentioned in the literature review. Due to space constraints, a full review of the previous literature will not be discussed. See Table 1 for the measurement qualities and a detailed description of each predictor variable.

The individual-level variables are the student's educational aspirations, participation in extracurricular activities, importance of education to the student, importance of living close to their family, participation in community service, whether the student finds school interesting or challenging, type of high school program, years of advanced math and science coursework, whether the student has or plans to take any Advanced Placement courses, and how many hours per week the student spends working an outside job. The family-level variables are the parent's educational attainment, the parent's educational aspirations for the student, annual family income, native language of the parent(s), family composition, home resources, cultural capital, how much advice the parent provided to the student about college, and how involved the parent was in the student's academics. The school-level variables are the total school enrollment, percent of students in the free/reduced lunch program, degree to which student learning is hindered by building conditions, degree to which student learning is hindered by a lack of computers, degree to which counselors or teachers encourage students to enroll in academic classes, degree to which teachers pressure the students to academically achieve, how often bullying occurs at the school, how often gang activity occurs at the school, whether mentoring, internships, or job shadowing is offered by the school, percentage of 10th graders in the college preparatory program, percentage of 12th graders who attend college application programs, and percentage of 12th graders who attend financial aid programs. The moderator variables will be school urbanicity (rural vs. urban) and student race/ethnicity. In order to preserve the ability to generalize the results nationally, weighting variables will be used.

Statistical methods. A hierarchical regression analysis was selected due to the nested nature of the data. Multiple regression analysis is frequently used as a multivariate technique in predicting a continuous dependent variable with a set of independent ones. The use of a binary dependent variable violates the assumption of homoscedasticity for ordinary least squares regression; therefore, logistic regression, the most appropriate analysis for predicting the presence or absence of a criterion variable, was chosen for the proposed study. With logistic regression, the dependent variable, referred to as a logit, represents the natural log of the odds of one of the two possibilities for the dependent variable to occur. The hierarchical logistic analysis will inform us of the nature and degree of relationship between the individual, family, and school predictor variables and the likelihood of one of the two possible outcomes (i.e., postsecondary enrollment or not). Further, the results will inform us as to whether or not urbanicity or race/ethnicity moderates the influence of any of the predictor variables on postsecondary access.

The aforementioned variables will be selected and extracted from the ELS: 2002 base-year and second-follow-up restricted file. The researcher will conduct analyses of descriptive statistics and check for irregularities, missing data, and compliance with the assumption for hierarchical regression analyses. Any necessary adjustments to address issues of missing data and non-compliance will be made.

Given the nested nature of the data and the selected analyses, the predictor variables will be introduced in stages. To answer the first two questions, one hierarchical logistic regression will be conducted. The first model will include school urbanicity and the criterion variable, the second model will introduce the individual factors, the third model will introduce the family factors, and the fourth model will introduce the school factors. The significance of each model will indicate which factors influence educational access and to what degree based on the value of R^2 . Interactions between the predictor variables and urbanicity will be examined with each model and, if significant, post-hoc analysis of the interaction terms will indicate how the influence of certain predictor variables on postsecondary access is being moderated by the degree of urbanicity. A second hierarchical logistic regression will be conducted for the third question using only rural students. The individual, family, and school models will be analyzed for interactions between predictor variables and race/ethnicity. If significant, post-hoc analyses will be conducted to determine how race/ethnicity is moderating the influence of certain predictor variables on postsecondary education access.

Limitations. In using a national dataset, such as ELS: 2002, certain compromises are made, which introduce limitations to the study. First, in using secondary data, the researcher may not have access to the exact

data needed to answer the questions of interest, either in terms of variable content or variable type. Therefore, research questions may need to be adjusted to fit the data and thus may not fully explore the phenomenon of interest. In the current study, for example, issues related to the influence of financial need on subsequent educational access were not addressed in the base-year in the manner the researcher would have liked. Thus, the influence of finances on postsecondary access was withheld from the proposed study. Moreover, level of urbanicity as measured in the ELS: 2002 data is based on school, not home. So, students who live in a rural environment but who attend suburban or urban schools, due to private or charter school attendance, may not be appropriately addressed or included in the current study. This is another by-product secondary data analysis.

Logistic regression, the proposed analysis for this study, is based on a dichotomous outcome of either attending a postsecondary institution or not. However, this type of analysis may not capture the whole picture regarding postsecondary education attendance. For example, the outcome variable for the proposed study is the ELS:2002 second follow-up question which asked participants whether they attended a postsecondary institution at any point after high school. However, this variable does not inform us as to whether the participant is still enrolled in the institution and, if not, why the individual is no longer enrolled (e.g., money, family, academic difficulty). Questions regarding those issues should certainly be addressed in future studies. Further, as with any relational study, causation cannot be inferred. Therefore, although certain variables may be found to be significantly related to postsecondary access, there may be extraneous variables whose influence is not being captured in the current study.

Work Plan and Dissemination Plan

June 2008. Apply for license for restricted version of ELS: 2002 with dissertation advisor.

July 2008 - September 2008. Extract variables of interest from the respective waves of ELS: 2002 ECB and import into SPSS. Run descriptive statistics. Check data for irregularities, missing data and compliance with assumptions for hierarchical regression analyses. Make necessary adjustments to address issues of missing data and non-compliance.

August 2008. Submit preliminary research proposal for 2009 AERA Annual Conference.

October 2008 - December 2008. Run proposed hierarchical regression analyses and analyze the results. Submit research proposal for 2009 AIR Annual Forum. Write the results chapter for dissertation.

January 2009 - February 2009. Write the discussion chapter of the dissertation. Submit results and discussion chapters to committee for feedback.

March 2009. Final oral examination of the dissertation to committee. Write paper on the impact of place for presentation at the 2009 AERA Annual Convention.

April 2009. Make final revisions to dissertation as suggested by the committee and submit to the Graduate School at Ball State University. Write paper presentation on the differences between rural and urban students in the school factors that facilitate and impede postsecondary education access for the 2009 AIR Annual Forum. Present paper on the moderation of place on factors related to postsecondary access at the AERA Convention in San Diego, California.

May 2009 - July 2009. Present paper on differences between rural and urban students in the school factors related to postsecondary access for the AIR conference. Revise papers from AERA and AIR conference for submission to the *Educational Researcher*. Submit final report to AIR as required for the dissertation grant. Submit proposal for paper presentation on the school-level results for the Annual Meeting of the Mid-Western Educational Research Association in October 2009.

The researcher is committed to and passionate about disseminating the results of this project. The two major goals of the project are to have the dissertation proposal, which includes the first introduction, literature review, and methodology chapters, defended and accepted by the doctoral committee at the end of April 2008 and to have the dissertation defended by the dissertation committee by March 2009. Support from the AIR Dissertation Grant would allow the researcher to focus solely on obtaining the NCES dataset, extracting the variables of interest, preparing the data for the statistical analyses, and possibly running the data analyses earlier than scheduled, during the summer of 2008. Additionally, the support will allow the researcher to reduce her workload so that she may focus on the writing of the dissertation during the fall of 2008 and the spring of 2009.

Following this timeline, the researcher would submit proposals for two separate scholarly paper presentations at the 2009 Annual Meeting of the American Educational Research Association (AERA) and the 2009 Annual Forum of the Association for Institutional Research. The paper presentation format at the AERA and AIR meetings will allow the researcher to present the findings of this study to an audience of educators and scholars, which will promote discussion among audience members and hopefully result in constructive criticism. Utilizing that feedback the author will revise the manuscripts and submit each of them for publication in the following national refereed journals: the *Educational Researcher*, the *Journal for Research in Rural Education*, the *Rural Educator*. The two manuscript submissions to the *Educational Researcher* will focus on how place moderates

the influence of the predictor variables on postsecondary education access for rural and urban students and differences in the school-level factors related to postsecondary access between rural and urban students. The manuscript submission to the *Journal for Research in Rural Education* will focus on how ethnicity moderates the influence of the family variables on postsecondary education access for rural students only. The manuscript submission to the *Rural Educator* will focus on how ethnicity moderates the influence of school-level variables on postsecondary education access for rural students only. Further dissemination of the project findings includes submission for presentation at the Rural Sociological Society in July 2009 and the Mid-Western Educational Research Association in October 2009. As required, a final report of the project will be submitted to the AIR office within thirty days of the expiration of the grant, which will be approximately June 30, 2009.

Description of Policy Relevance

Over the past several years, the *United States Department of Education*, the *National Center for Education Research*, and *The Spencer Foundation*, along with many state governments, have declared access to postsecondary education among their top priorities. As the United States Congress works to reauthorize the Higher Education Act and subsequent funding for programs such as Project GRAD or GEAR UP, the results of this study will be very informative to the decisions made regarding that bill and future legislation as well as the development of programs that are supported using funds appropriated by that bill. Educational investments do not occur in a vacuum. Geographical inequities have been linked with barriers to educational opportunity (Roscigno et al., 2006). In order to eradicate the existing disparities in postsecondary education access, we must tailor the components of intervention programs to fit the needs of underrepresented students.

As states around our country examine the postsecondary educational attainment of their citizens in order to meet the demands of the national and global economy, policymakers will find the results of this study particularly useful. By providing an understanding of the unique strengths and needs of students from rural and urban settings, this study will inform the development of policies on higher education and intervention programs in order to ameliorate postsecondary education access for rural and urban students. A critical mass of citizens with education and training beyond high school is a necessary requisite for the United States to be prosperous in the global economy of the 21st century. Ensuring access to postsecondary education for all American students, regardless of race, ethnicity, class, or place, will facilitate this challenging objective.

Innovative Aspects of the Project

The proposed study is quite innovative and groundbreaking. As previously mentioned, no previous studies have examined the influence of place (rural versus urban) upon the relationship between individual and contextual variables on postsecondary education access. Further, this study will inform researchers and educators on the characteristics of students from rural areas, a group which is often neglected by researchers. Additional innovative aspects of this study are the use of a current dataset to examine the postsecondary educational paths of rural and urban students and the use of a comprehensive approach in investigating the influence of individual and contextual variables on postsecondary access. Finally, previous studies investigating the postsecondary education of rural students have failed to recognize the unique experiences among rural students with respect to racial and ethnic differences. This study will examine the role of race and ethnicity on postsecondary access among rural students. Not only will the innovative aspects of this study make it deserving of funding and eventual publication, it certainly warrants the attention of policymakers and educators who are charged with improving postsecondary education access for disadvantaged students.

Discussion of Intended Audience

An effective element found in existing intervention programs was awareness of participants' backgrounds (Gandara, 2001). This is imperative when working to improve educational access for underrepresented students from varying geographic settings, which is why researchers, educators, and policymakers will find the outcomes of this study particularly informative. Researchers could use the results of this exploratory study to inform future projects including model building or path analysis in examining the influence of certain individual and contextual variables on postsecondary access. Educators could use the outcomes of the study to identify students in rural and urban schools who may be at-risk based on certain individual and contextual variables in their lives. Educators who are aware of variables that pose a risk of impeding access to postsecondary education and those that may facilitate access may suggest certain activities or behaviors, such as participation in extracurricular activities or taking more math or science courses, to students in an effort to increase the likelihood of postsecondary education access. Policymakers along with those charged with developing programs to improve access to postsecondary education could use the findings of this study to inform the development of such program to better fit the needs and characteristics of students from different locations (urban or rural).

Appendices

Table 1. List of Independent Variables to be used in the Proposed Study.

Variable Name/ELS Label	Data Type	Variable Description
<i>Moderator Variables</i>		
School urbanicity/BYURBAN	Categorical	Urbanicity of school locale during base year of either rural, urban, or suburban
Student's race/ethnicity/BYRACE	Categorical	Student's reported race/ethnicity in base year
<i>Individual Level Variables</i>		
Educational aspirations/ BYSTEXP	Ordinal	How far student thinks he/she will get in school as determined by student during sophomore year in high school
Hours spent in extracurricular activities/ BYS42	Continuous	Number of hours per week student reported spending on participation in extracurricular activities
Importance of education to student/ BYS40	Ordinal	Student response to the question, "How important is getting a good education important to you in your life?"
Importance of living close to family/ F1S40H	Ordinal	Student response to the question, "How important is living close to parents and relatives important to you in your life?"
Participation in community service/ BYS44C	Ordinal	Student response to, "How often do you spend time volunteering or performing community service outside of school?"
Finds school interesting and challenging/BYS27A	Ordinal	Student response to how much he or she agrees with the statement, "I go to school because I think the subjects that I am taking are interesting and challenging."
High school program/BYSCHPRG	Ordinal	High school program reported by student
Years of advanced math coursework/F1S17F-F1S17H	Continuous	A sum of the responses to questions F1S17F-F1S17H indicating number of years of coursework in trigonometry, pre-calculus, and calculus, including Advanced Placement courses
Years of advanced science coursework/F1S16F & F1S16H	Continuous	A sum of the responses to questions F1S17F-F1S17H indicating number of years of coursework in chemistry and physics, including Advanced Placement courses
Has taken or plans to take Advanced Placement test/ F1S21D	Categorical	Student indication of whether he or she has taken or plans to take Advanced Placement test
Hours worked/week during school year/ F1S60	Ordinal	Student (high school senior year) response to the question, "How many hours do/did you usually work each week on your current or most recent job during this school year?"
<i>Parent Level Variables</i>		
Parental education attainment/BYPARED	Ordinal	Highest level of education reached by either parents
Parental aspirations for student/ BYPARASP	Ordinal	Parent response to the question, "How far in school do you want your tenth grader to go?"
Annual family income composite/BYINCOME	Ordinal	Total annual family income during sophomore year

Parents' native language/BYPARLNG	Categorical	Native language spoken by parent
Family composition/BYFCOMP	Categorical	Individuals with whom student lived
Home resources/Sum of BYS84A-BYS84E; BYS84H	Ordinal	Index which determines the amount of educational resources in the student's home ranging from 0-6 including newspaper, books, computer, internet access
Cultural capital/ BYP57C	Ordinal	How often parents reported attending concerts, plays, and movies with their 10 th grader in the past year
Parent provided advice about college/ BYP56C	Ordinal	How often in the past semester parents reported providing advice about college to their child?
Parental involvement in academics/ BYP57B	Ordinal	How often in the past year parent worked on schoolwork or project with their child?
<i>School Level Variables</i>		
School enrollment/ F1SCENP	Ordinal	Total school enrollment in October 2003
Percent free-lunch/ F1SCFLP	Ordinal	Percentage of students receiving free or reduced priced lunch
Learning hindered by building condition/ BYA50A	Ordinal	Administrator response to the statement, "In your school how much is the learning of 10-graders hindered by poor condition of buildings?"
Learning hindered by lack of computers/ BYA50H	Ordinal	Administrator response to the statement, "In your school how much is the learning of 10-graders hindered by lack of computers?"
Enrollment encouragement/ F1A38L	Ordinal	Administrator response to the statement, "Counselors/teachers encourage students to enroll in academic classes."
Teacher academic pressure/ BYA512	Ordinal	Administrator response to the statement, "Teachers at this school press students to achieve academically."
Bullying activity/ BYA49N	Ordinal	Administrator response to the statement, "How often does bullying activity occur at your school?"
Gang activity/ BYA49R	Ordinal	Administrator response to the statement, "How often does gang activity occur at your school?"
Internships offered/ BYA18B	Binary	Administrator indication of whether internships are offered or not to 10 th graders at school
Job shadowing offered/ BYA18C	Binary	Administrator indication of whether job shadowing is or is not offered to 10 th graders at school
Mentoring offered/ BYA18D	Binary	Administrator indication of whether mentoring is or is not offered to 10 th graders at school
% in college prep program/ BYA14B	Continuous	Percentage of 10 th graders in college preparatory program
% attend college app programs/ F1A20A	Ordinal	Percentage of 12 th graders who attend college application programs
% attend financial aid programs/ F1A20B	Ordinal	Percentage of 12 th graders who attend financial aid programs

Figure 1. Theoretical framework based on SCCT (Lent et al., 2000).

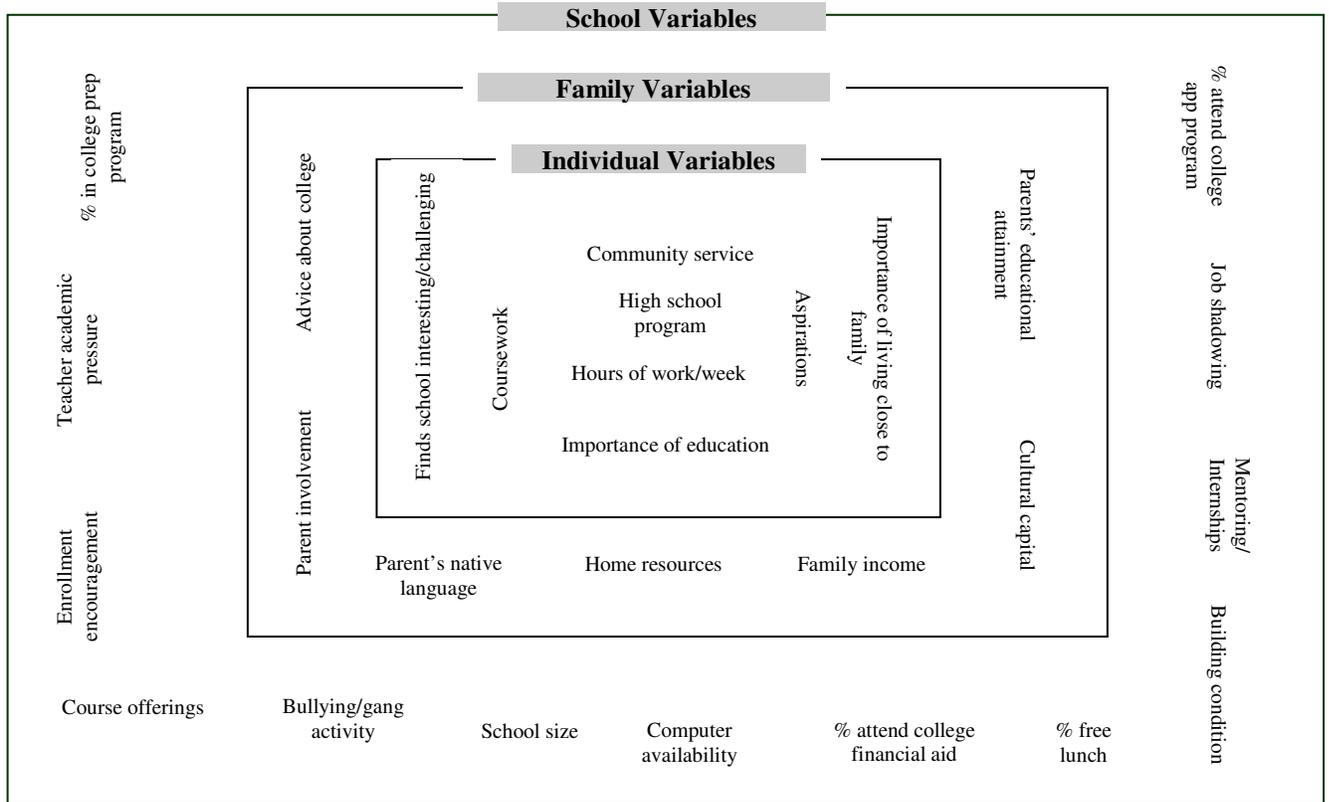


Figure 2. Effects of moderation by place on predictor variables.

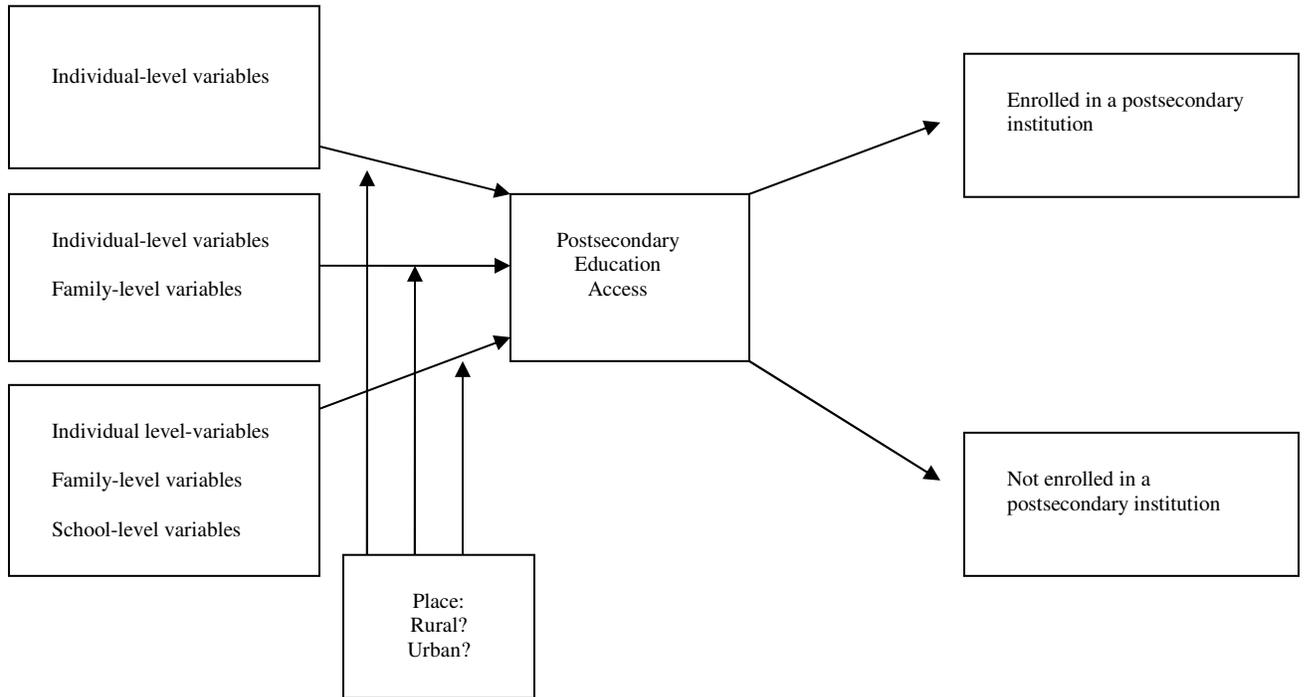
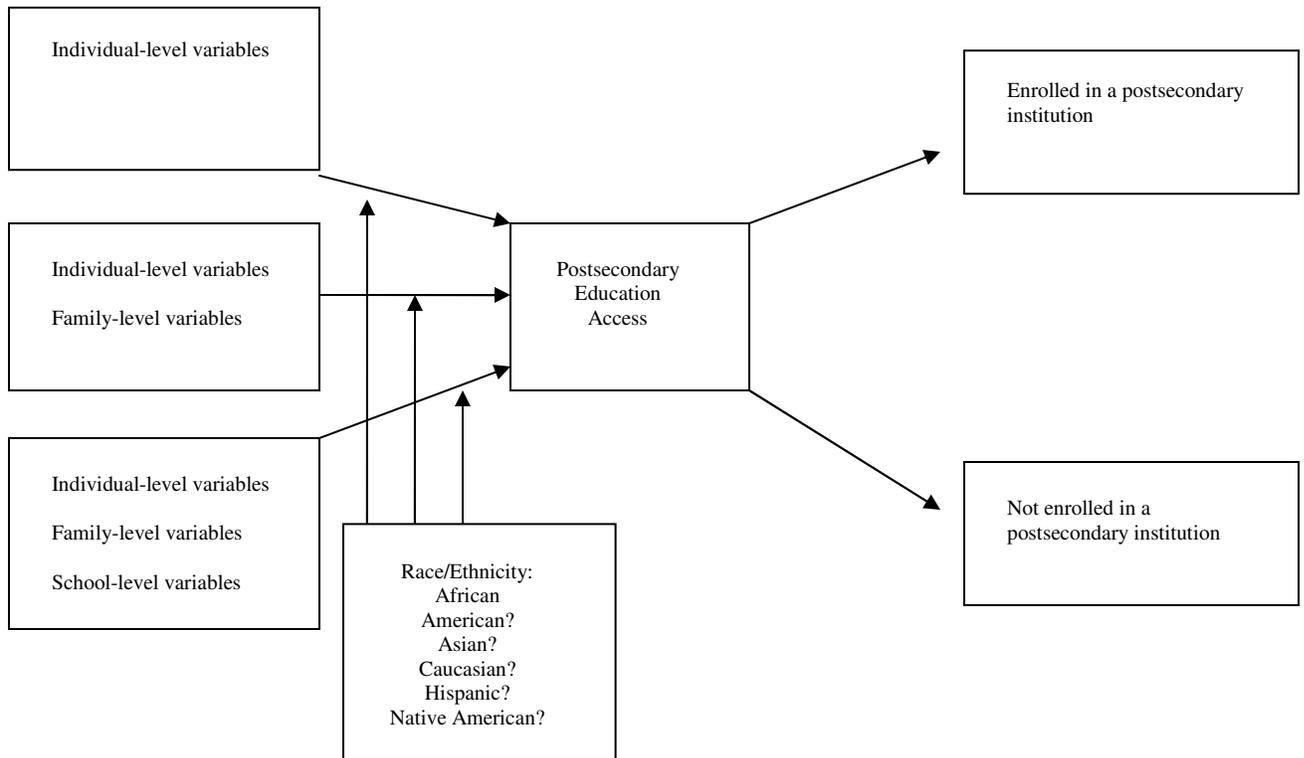


Figure 3. Effects of moderation by race/ethnicity on predictor variables for rural students only.



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Biographical Sketch

Principal Investigator: Kristen K. Williams

Kristen Williams is a doctoral student and research assistant in the Educational Psychology program at Ball State University in Muncie, Indiana. She has been involved in research since high school and throughout her undergraduate and graduate programs. Her research focuses broadly on the socio-cultural factors related to academic achievement and educational attainment for students from special populations. Within that research topic, she currently has two lines of work—rural education and gifted education.

Kristen is currently serving as a co-investigator for a study on the development and influence of perfectionism in gifted high school students. The results of that study were presented at the 17th Biennial Conference of the World Council for Gifted Children in August 2007 and the Annual Conference of the Mid-Western Educational Research Association in October 2007. One article from that study was published in the *Roeper Review*, a refereed journal on gifted education, and another manuscript is currently under review by that same journal. A third paper will be submitted for presentation at the Annual Meeting of the National Association for Gifted Children and eventually for publication in the *Journal for the Education of the Gifted*.

Kristen possesses the necessary background and experience to undertake a study of this magnitude on the education of rural students. As a student in a rural middle and high school, she noted anecdotal evidence for the influence of environmental factors on the educational attainment of rural students. As an undergraduate, she taught responsible thinking classes to high school students in rural areas around Indiana. She has applied those experiences to her work as a research and program evaluation assistant for *Project Aspire: Creating Opportunities for Low-Income, Rural Youth*, sponsored by the U.S. Department of Education. *Project Aspire* was an initiative to increase the availability of Advanced Placement courses in rural schools around Indiana. In her work on this project, Kristen created survey protocols for teacher interviews and assisted with the development of yearly formative evaluations.

Kristen has successfully applied her experiences to her own line of research on the education of rural students some of which involved the use of weighted, large-scale datasets. She presented a paper on the parental factors which best predict the postsecondary education aspirations of rural students at the Hawaii International Conference on Education in January 2008. This paper will be submitted for publication in the *Journal for Research on Rural Education*. Additionally, she has submitted proposals for presenting a project investigating the relationship between participation in certain types of extracurricular activities and postsecondary educational aspirations at the

Conference on Human Development and the Annual Conference of the Association for Psychological Science. This project, which was completed last fall, involved a multiple regression analysis using NCES data.

A strong foundation of statistical skills has prepared Kristen to successfully complete this groundbreaking study. By the end of this academic year, Kristen will have completed the entire statistics sequence offered by her department including advanced courses in multivariate analysis, regression, factor analysis, and structural equation modeling. Further, she has experience working with a large, national dataset from her recent project on the factors related to postsecondary educational aspirations of rural students using base-year and first follow-up data from ELS: 2002. Kristen has applied to attend the National Data Policy Institute in June 2008 where she hopes to gain valuable knowledge and skills to apply to her dissertation project and future research. Additionally, Kristen has experience conducting research on multi-contextual influences, such as family and schools, which will be investigated in the proposed study. One example is her work on the multi-contextual influences on the development of eating disorders in adolescents, which resulted in a publication in the peer-reviewed journal, *Sex Roles*.

Although Kristen is a relatively young researcher, her work has been recognized by her department and college at Ball State University along with other national organizations. She has been funded by the *Graduate Student Travel Award*, the *Joseph and Marcella Hollis Fund for Research in Psychology*, and the *Lyell Bussell Memorial Scholarship Travel Award* at Ball State University. In addition, she was awarded the *Urie Bronfenbrenner Doctoral Student Travel Award* for attendance at the 2007 Meeting of the Association for Public Policy and Management from the Foundation for Child Development. Because Kristen's work has been recognized around her university, she has been recruited to work on studies in other departments. For the past two summers, she was a research assistant on *The Science Literacy Project*, sponsored by the U.S. Department of Energy, which unified software developers, researchers, and teachers in the development of digital, educational gaming modules.

Kristen is passionate about her research on the postsecondary education of students from special populations. She has begun planning future work in this area upon completion and dissemination of the outcomes of the proposed study. Using the results of the proposed study, she plans to more closely examine how the factors that are moderated by place behave in their influence on postsecondary access for rural students. She also plans to investigate how well rural students are prepared, academically and non-academically, for postsecondary educational experiences. Eventually, she would like to merge her two lines of research to investigate the education of gifted students in rural areas and author a book on the topic for educators of gifted students.

Kristen Williams

Department of Educational Psychology—Ball State University—Muncie, IN 47306-0595
765.285.8500—kkwilliams2@bsu.edu

EDUCATION

Ball State University, Muncie, Indiana

- May 2009 (anticipated) **Doctorate of Philosophy**, Educational Psychology, Cumulative GPA: 3.9/4.0
Cognates: Human Development/Gifted and Talented Studies
- May 2006 **Master of Arts**, School Psychology, Cumulative GPA: 3.9/4.0
- May 2005 **Bachelor of Science**, Psychological Science, Cumulative GPA: 3.8/4.0
Graduation with Honors: *Magna Cum Laude*

PUBLICATIONS

Peer-Reviewed Publications

- Speirs Neumeister, K.L., **Williams, K.K.**, & Cross, T.L. (2007). Perfectionism in gifted high school students: Responses to academic challenge. *Roeper Review*, 29(5), 11-18.
- Peterson, K., Paulson, S., & **Williams, K.K.** (in press). The multicontextual influences on eating disorders in adolescent boys and girls. *Sex Roles*.
- Speirs Neumeister, K.L., **Williams, K.K.**, & Cross, T.L. (under review). The development of perfectionism in gifted students. Submitted to *Roeper Review*.

Manuscripts In Preparation

- Speirs Neumeister, K.L., & **Williams, K.K.** (in preparation). The bidirectional influences of perfectionism and relationships in secondary gifted students.
- Williams, K.K.**, & Huffman, L.F. (in preparation). Parental factors influencing the college aspirations of students living in rural poverty.
- Williams, K.K.** (in preparation). School factors influencing knowledge of and interest in Advanced Placement courses for students living in rural poverty.
- Williams, K.K.**, & Jameson, M.M. (in preparation). *Sports, clubs, or music: Which extracurricular activities are most related to postsecondary educational aspirations?* (Using ELS: 2002)
- Mullen, L., **Williams, K.K.**, Huffman, L.F., & Jones, J. (in preparation). A comprehensive review of the literature on digital gaming in science and math education. In Nassah, B. (Ed.) *The Science Literacy Project*. Unpublished.
- Jones, J., Mullen, L., Huffman, L.F., & **Williams, K.K.** (in preparation). Investigating the influence of digital gaming in science and math education. In Nassah, B. (Ed.) *The Science Literacy Project*. Unpublished.

PROFESSIONAL CONFERENCE PRESENTATIONS (selected)

- Williams, K.K.** (May, 2008). *Racial, ethnic, and gender differences in the influence of extracurricular activities on educational aspirations*. Paper submitted for presentation at the Annual Conference of the Association for Psychological Science, Chicago, Illinois. (Using ELS: 2002)

Williams, K.K., & Jameson, M.M. (April, 2008). *Sports, clubs, or music: Which extracurricular activities are most related to postsecondary educational aspirations?* Paper submitted for presentation at the Biennial Conference on Human Development, Indianapolis, Indiana. (Using ELS:2002)

Williams, K.K., Huffman, L.F., & Finch, W.H. (January, 2008) *Investigating the influence of parental factors on the postsecondary educational aspirations of rural middle and high school students.* Paper presented at the Hawaii International Conference on Education, Honolulu, HI.

Williams, K.K., & Speirs Neumeister, K.L. (October, 2007). Gifted high school students' perspectives on the development of perfectionism. Paper presented at the Annual Conference of the Midwestern Educational Research Association, Saint Louis, Missouri.

Williams, K.K., & Speirs Neumeister, K.L. (August, 2007). *Perfectionism in gifted high school students: Responses to academic challenge.* Paper presented at the 17th Biennial World Conference of the World Council for Gifted and Talented Children, University of Warwick, England.

RESEARCH GRANTS AND FELLOWSHIPS

2008 **Graduate Student Travel Award**, Department of Educational Psychology, Ball State University
Status: Funded (\$500) for travel to present at the Hawaii International Conference on Education

2007 **Lyell Bussell Memorial Scholarship Fund**, Teachers College, Ball State University
Status: Funded (\$500) for travel to present at the Hawaii International Conference on Education

2007 **Joseph W. and Marcella S. Hollis Fund**
Office of Academic Research and Sponsored Programs, Ball State University
Status: Funded (\$400) for travel to present at the Hawaii International Conference on Education

2007 **Urie Bronfenbrenner Doctoral Student Travel Fund**
Foundation for Child Development; Association for Public Policy Analysis and Management (APPAM)
Status: Funded (\$750) for travel to attend the APPAM fall conference

2007 **Graduate Student Travel Grant**
Office of Academic Research and Sponsored Programs, Ball State University
Status: Funded (\$100) for travel to present at the Mid-Western Educational Research Association Annual Conference

2006 **Ford Foundation Diversity Predoctoral Fellowship**
Status: Not funded (\$20,000/year)

HONORS AND AWARDS

2004 Blake Miriam T. Academic Scholarship, Ball State University
2003 Induction, Golden Key International Honor Society, Ball State University
2002 Induction, Psi Chi, National Honor Society in Psychology
2001-2005 Ball State University Dean's List
2001-2002 Ball State University Incentive Academic Scholarship
2000-2001 University of Southern Indiana Dean's Honor List
2000-2001 University of Southern Indiana Student Ambassador
2000-2001 Indiana Hoosier Scholar Academic Scholarship
2000-2001 University of Southern Indiana Student Ambassador
2000-2001 University of Southern Indiana Departmental Academic Scholarship
2000-2001 University of Southern Indiana Honors Student
2000-2001 University of Southern Indiana Pumphrey Academic Scholarship

PROFESSIONAL SERVICE

Professional Reviewing

- 2007-Present *The Teacher Educator*, Ad Hoc Reviewer
2007-Present *Mid-Western Educational Researcher*, Graduate Student Reviewer
2006-Present Prentice Hall Textbook Publishing, Ad Hoc Reviewer
2007-Present Allyn & Bacon Textbook Publishing, Ad Hoc Reviewer

Research Competition Reviewing

- 2005-Present *Association for Psychological Science*, Reviewer for the Socially and Economically Underrepresented Populations Research Competition

PROFESSIONAL AFFILIATIONS

- 2007-Present American Educational Research Association
2005-Prsent Association for Psychological Science
2003-Present Golden Key International Honor Society
2007-Present Midwestern Educational Research Association
2002-Present Psi Chi National Honor Society in Psychology
2008-Present Rural Sociological Society

Biographical Sketch

Dissertation Advisor: Sharon E. Paulson, Ph.D.

Sharon E. Paulson is Professor of Psychology—Educational Psychology at Ball State University. Dr. Paulson holds a doctoral degree in Developmental Psychology from Virginia Commonwealth University and an undergraduate degree in Physics and Psychology from The College of William and Mary in Virginia. Prior to moving into higher education, she taught high school physics and mathematics to a diverse population of students in suburban Virginia. These experiences sparked Dr. Paulson's major research interest in the academic achievement of adolescents. In particular, her early research focused on family factors, including parenting and parental involvement, as they are related to the achievement outcomes of high school students. More recently, she was involved in several major studies examining the interactive role of multiple contexts (family, teachers, and schools) on middle school students' academic outcomes.

Dr. Paulson most recent research endeavors are embedded in educational policy. She has been involved in a series of studies examining the impact of students' demographic characteristics on the variability of state- and school-level aggregated standardized test scores. One series of studies used the 2002 database of individual SAT data from The College Board. This large database contains data from over a million SAT test-takers. From these data, Dr. Paulson and her colleagues were able to identify important demographic characteristics of students that would account for variability in scores when data are aggregated at the state or school level. Most recently, this work has been continued using national NAEP data (at the state-level) and Indiana ISTEP data (at the school- and grade-level). Licenses for individual data are currently being pursued.

Dr. Paulson is well versed in sophisticated methodologies using large databases and in multivariate statistical techniques needed to analyze large data sets. She currently teaches a doctoral seminar on contemporary models and methodology in developmental psychology. She also has served as methodology and statistical advisor on a number of research studies and doctoral dissertation committees. Although she is the major advisor on Kristen Williams' dissertation project, a statistician also is being consulted for his expertise with regression and linear modeling techniques.

A brief vita is attached to provide a more detailed view of Dr. Paulson's research experiences.

Sharon E. Paulson

Department of Educational Psychology -- Ball State University -- Muncie, IN 47306-0595
765.285.8516 – spaulson@bsu.edu

Education

- Ph.D. 1991 Psychology-Developmental, Virginia Commonwealth University
- M.S. 1988 Psychology-Developmental, Virginia Commonwealth University
- B.S. 1981 Psychology/Physics, College of William and Mary
1983 Virginia Teaching Certification: Collegiate Professional (Physics, Mathematics, Psychology)

Professional Experience

- 1991-present **Professor of Psychology--Educational Psychology**
Department of Educational Psychology, Ball State University
- 1998-2004 **Co-Director** of the Center for Educational Program Evaluation
Teachers College, Ball State University
- 1990-1991 **Visiting Instructor of Psychology**
Department of Psychology, University of Richmond

Research Publications (Selected)

- Marchant, G. J., & Paulson, S. E. (under review). State SAT scores: Stability and change 2003-2004. *Practical Assessment Research and Evaluation*.
- Marchant, G. J., & Paulson, S. E. (under review). Aggregation and disaggregation in accountability testing. *American Educational Research Journal*.
- Ncube, L. & Paulson, S. E. (under review). Assessing performance and impact of an after-school program on academic achievement and developmental assets: A mixed methods quasi-experimental and qualitative methods design. *American Journal of Evaluation*
- Peterson, K. A., Paulson, S. E., & Williams, K. K. (in press). Gender differences in eating disorder symptomology with perceptions of pressures from mother, peers, and media. *Sex Roles*.
- Marchant, G. J., Paulson, S. E., & Shunk, A. (2006). Relationships between high-stakes testing policies and student achievement after controlling for demographic factors in aggregated data. *Educational Policy Analysis Archives*, 14(30). Available November 20, 2006 from <http://eppaa.asu.edu/epaa/v14n30/>.
- Marchant, G. J., & Paulson, S. E. (2005). The relationship of high school graduation exams on graduation rates and SAT scores. *Educational Policy Analysis Archives*, 13(6). Available January 21, 2005 from <http://eppaa.asu.edu/epaa/v13n6/>.
- Marchant, G. J., Paulson, S. E., & Rothlisberg, B. A. (2001). Relations of middle school students' perceptions of family and school contexts with academic achievement. *Psychology in the Schools*, 38, 505-519.
- Marchant, G. J., & Paulson, S. E. (2001). State comparisons of SAT scores: Who's your test taker? *NASSP Bulletin: The Journal of Middle Level and High School Leaders*, 85, 62-74.
- Paulson, S. E., Marchant, G. J., & Rothlisberg, B. A. (1998). Early adolescents' perceptions of patterns of parenting, teaching, and school atmosphere. *Journal of Early Adolescence*, 18, 5-26.

- Paulson, S.E. (1996). Maternal employment and adolescent achievement revisited: An ecological perspective. *Family Relations*, 45, 201-208.
- Paulson, S.E. (1994). Relations of parenting style and parental involvement with ninth grade students' achievement. *Journal of Early Adolescence*, 14, 250-267.
- Paulson, S.E., Hill, J.P., & Holmbeck, G.N. (1991). Distinguishing between perceived closeness and parental warmth in families with seventh-grade boys and girls. *Journal of Early Adolescence*, 11, 276-293.
- Paulson, S.E., Koman, J.J. III, & Hill, J.P. (1990). Maternal employment and parent-child relations in families of seventh-graders. *Journal of Early Adolescence*, 10, 279-295.

Contracts and Grants (selected)

- Paulson, S. E. (2004-2006). *Evaluation of 21st Century Community Learning Centers*. Evaluation of 21st Century CLC grant for Family Services of Delaware County (\$10,648)
- Paulson, S. E. (2004-2005). *Program evaluation of Community Alliance to Promote Education (CAPE) projects*. Contract with Community Foundation of Muncie and Delaware County to evaluate grant from Lilly Endowment. (\$10,000)
- Paulson, S. E. (2004). Evaluation of Project SEED. Evaluation of Project SEED for Indianapolis Public Schools (\$28,724)
- Paulson, S. E. (2003-2004). *Evaluation of 21st Century Community Learning Centers*. Evaluation of 21st Century CLC grant for Family Services of Delaware County (\$31,322)
- Paulson, S. E. , Rothlisberg, B. A., & Marchant, G. J. (2001-2004). *Program evaluation of Community Alliance to Promote Education (CAPE) projects*. Contract with Community Foundation of Muncie and Delaware County to evaluate grant from Lilly Endowment. (\$269,133)
- Paulson, S. E., & Marchant, G. J. (2001). *Mammals in the Schools*. Program evaluation for the Smithsonian Institute, Museum of Natural History. (\$4000)

Professional Service and Development

- Co-Director, Center for Educational Program Evaluation, Ball State University (1998-2004)
- Association Council Member, Mid-Western Educational Research Association (1998-2000)
- Co-Chair, Adolescents in Schools Special Interest Group, Society for Research on Adolescence (1997-2002)
- Co-Chair, Division E - Counseling, Human Development, and Special Education, MWERA (1993-1995)

Ad-Hoc Reviewer

- Developmental Psychology* (2004 – present)
- Social Psychology of Education* (2004-present)
- Journal of Adolescence* (2000-2001)
- Journal of Research on Adolescence* (1998)
- Sex Roles* (1996-present)
- The Teacher Educator* (1994-present)
- Child Development* (1992-present)
- Journal of Adolescent Research* (1993)
- McGraw-Hill Publishers (2001 – present)

Budget

PROPOSED EXPENDITURES

Personnel

Doctoral Student Salary	
Includes: 9-PTE Academic-year months @ \$1350/month	\$12,150
Includes: 1-PTE Summer Session @ \$1,823 (15% of AY salary)	\$ 1,823
Tentatively scheduled for July 2008-May 2009	

Fringe Benefits	
Doctoral student fringe benefits @ 7.65%	\$ 1,069

TOTAL PERSONNEL (Salary, Wages, and Benefits):	\$15, 042
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Travel

Travel to AIR Annual Forum in Atlanta, Georgia in May, 2009 (Transportation, Lodging, Food, Registration Fee)	\$1,200
Travel to AERA Annual Conference in San Diego, California in April, 2009 (Transportation, Lodging, Food, Registration Fee)	\$1,500

TOTAL TRAVEL	\$2,700
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Supplies, Materials, and Minor Equipment

Supplies and Materials	
SPSS Base 16	\$619

TOTAL SUPPLIES, MATERIALS, AND MINOR EQUIPMENT:	\$619
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Other

Printing/Publication/Duplication	\$300
Student Health Insurance Fees	\$1000

TOTAL OTHER:	\$1,300
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TOTAL DIRECT COSTS:	\$19, 661
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Budget Justification

The researcher currently holds an academic-year doctoral assistantship and teaches a couple of undergraduate courses on a semester-by-semester basis. The researcher would like to be able to focus solely on writing her dissertation during the next academic year, without having distractions of teaching or research assistantship duties. Therefore, the researcher is requesting a salary for the academic year and summer that is comparable to her doctoral assistantship and semester teaching stipend. In addition to funding for a presentation at the 2009 AIR Annual Forum, the researcher is requesting funds to present her research at the 2009 Annual Meeting of AERA in San Diego, California. There will be several parts of this study to be presented at many national and regional meetings. AERA, the national organization for research on education, has a special interest group (SIG) on rural education, and would be an optimal forum for dissemination of this study.

Additionally, although SPSS is currently available for her use in computer labs around her current institution, the researcher is requesting funds to purchase the SPSS Basic Software Package. The reason for this purchase is that the Restricted License for ELS: 2002 requires that the data be utilized in a private location on a secure, desktop computer. Therefore, the researcher will need to secure her own SPSS license to install on a desktop computer to be used in a private location.

Current and Pending Support

The researcher is currently supported by the Department of Educational Psychology at Ball State University with a doctoral-level research assistantship, which will conclude April 30, 2008. This assistantship provides a tuition and fee waiver along with a monthly stipend. Funding for the 2008-2009 academic year has not been guaranteed. Additionally, she currently teaches one or two undergraduate courses in human development each semester, pending availability of courses to teach. These courses become available on a semester-by-semester basis.

The researcher has applied for dissertation fellowships from The Spencer Foundation and AERA/NCES. The amount of the Spencer Foundation fellowship is \$25,000 and there was no budget requested. The total award for the AERA/NCES dissertation grant is \$15,000 and the budget requested was \$14,980. The proposed budget for that fellowship is available below.

Ball State University is willing to share costs with the funding agency by providing a tuition waiver assuming responsibility for the indirect costs. The tuition waiver is approximately \$6,500. The indirect cost total based on 44.5% of the total grant award is \$8,749.

Proposed Budget for AERA/NCES Dissertation Fellowship

Item	Description	Total Cost
P.I. Salary- Graduate Student Wages @ Ball State University	9-PTE academic year months @ \$1,300; 1-PTE summer session (15% of AY salary) @ \$1,755/session To be used for living expenses	\$13,455
Travel to AERA in April 2009	For presentation of project at AERA Annual Conference in San Diego, CA	\$1,250
Supplies	Printing, copying, and dissemination fees	\$275
TOTAL	TOTAL	\$14,980

Facilities Equipment and Other Resources

The Department of Educational Psychology in Teachers College at Ball State University has been recognized nationally for scholarly productivity. In addition to being industrious, the faculty members are also collegial and approachable. Therefore, the researcher of the proposed study will be supported by seasoned researchers including a skillful and experienced methodologist. Further, the department houses a computer lab which contains facilities for conducting research including nine Mac (Windows-based) computers with statistical packages including SPSS, SAS, and AMOS software, which the researcher will employ for conducting some of the analyses. However, given the conflicting nature of these public computers with the guidelines of use for restricted data, the researcher will need an SPSS software package for a personal computer to be used in a private location.

The researcher plans to continue utilizing the abundance of resources available at Bracken Library. The main branch of the Ball State University library provides access to over one million books, periodicals, and other resources. Bracken Library also offers electronic capacities such as digital academic databases and global search engines.

Special Information and Supplementary Documentation

A letter of support written by the dissertation advisor, Sharon Paulson, was mailed to the AIR office on January 2, 2008. A letter indicating willingness to share costs for this award, written by Robert Morris, Interim Associate Provost for Research and Interim Dean of the Graduate School, was emailed to the AIR office on January 14, 2008.

ADDENDUM TO ORIGINAL PROJECT PROPOSAL

Date: 1/14/2008

AIR Award Number: DG-08-401

PI Name: Kristen K. Williams

PI Institution: Ball State Univ.

Project Title: From Aspirations to Access: The Role of Place in the Factors that Facilitate or Impede Access to Postsecondary Education

The following changes have been made to the original project proposal plan:

- 1) My dissertation committee recommended that I run data analyses on the questions related to gender and ethnicity among rural students but that I do not try to address those findings within my dissertation and instead really focus on differences in individual, family, and school factors related to access for rural, urban, and suburban students. Thus, I will only be including a discussion of the first two proposed questions in my dissertation but will be examining how ethnicity and gender moderate the relations among individual, family, and school factors and college access among rural students specifically and including those findings in separate manuscripts. Also, per recommendation from the AIR review panel, the analyses will include all students, not just those from rural or urban areas (see detailed changes below).
- 2) My dissertation advisor and I recognized the need to determine and report whether previously reported disparities in postsecondary attendance still existed among participants in the newest wave of ELS: 2002. I examined this issue for my project at the AIR Summer National Data Policy Institute in Washington, D.C. As reported in the mid-year report, using the cross-tabs and t-test tools available for use with the public data (i.e. DAS), I found that there were no differences in postsecondary access between rural, urban, and suburban students in all institutions. However, when looking at access to 4-year institutions, there was not a significant difference between urban and suburban or urban and rural yet there was a difference between rural and suburban. Yet, when examining the same variables using the restricted data, I was able to conduct a Chi-Square test of association, which indicated that place was significantly associated with college attendance. Post-hoc analyses revealed that while urban and suburban students attended college at about the same rates (i.e., 76%, 75%, respectively), the rate of rural students attending college was significantly less (i.e., 69%). These findings will be added to the final report (see detailed changes below).
- 3) For optimal outcome in model development and statistical interpretation, it was determined that some of the independent variables needed to be combined and scaled. For example, the variables regarding asking a parent, teacher, or coach for college information, will now be aggregated and considered an “availability of mentor” variable. This significantly reduced the number of IVs to create a more parsimonious model both for theoretical and logistical purposes.
- 4) Finally, my dissertation advisor and I recognized that the outcome variable of interest is not truly measuring access, given that we are not considering who may be given the opportunity to attend college yet it now taking advantage of such opportunity. Thus, we have decided to rename the outcome variable as “attendance” rather than “access,” which will, in turn, be reflected in the title: “From Aspirations to Attendance: The Role of Place in the Factors that Facilitate or Impede Access to Postsecondary Education.”

Original research questions:

- (4) *What individual, family, and school factors are related to postsecondary education access, based on attendance at a 2- or 4-year college, for rural and urban students?*
- (5) *Among rural and urban students, for which individual, family, and school factors does place moderate their influence on postsecondary education access, based on attendance at a 2- or 4-year college?*
- (6) *Among rural students, for which individual, family, and school factors does race/ethnicity moderate the relations with postsecondary education access, based on attendance at a 2- or 4-year college?*
- (7) *Among rural students, for which individual, family, and school factors does gender moderate the relations with postsecondary education access, based on attendance at a 2- or 4-year college?*

Revised research questions:

- (1) *Is place (i.e., rural, urban, or suburban) related to postsecondary education attendance? If so, what is the nature of that relationship?*
- (2) *What individual, family, and school factors are related to postsecondary education access, based on attendance at a 2- or 4-year college, for all students?*
- (3) *For which individual, family, and school factors does place moderate their influence on postsecondary education access, based on attendance at a 2- or 4-year college?*

The aforementioned changes were approved by my dissertation committee and/or advisor.

Kristen K. Williams, 1/14/09

