

Dear Rob,

Thank you for submitting your proposal. A printable summary is below. Your confirmation number is 5499. A confirmation email will be sent to you within 24 hours.

Applicants will be notified of the status of the proposed project by August 1, 2014.

If you have questions or need assistance regarding your application please contact the AIR Grant staff at 850-385-4155 x200 or grants@airweb.org.

SUMMARY

Personal Information	
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Highest degree	
Discipline of highest degree	
Position description	
Staff members in IR office	
Campus type	
Years of experience in IR	
IR Roles	
Year of birth	
Race/Ethnicity	
Gender	

Grant Type
I am applying for a:
<input type="text" value="Research Grant"/>

Financial Representative

Name

Teresa Taylor

Affiliation

University of Georgia

Department

Institute of Higher Education

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Business Manager

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Zip or Postal Code

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Country

United States

Additional Contacts**Project Description****Project title:**

How Parental Education Shapes the Postsecondary Plans and Outcomes of Students

Statement of the research problem and national importance (limit 750 words):

- What is the research problem this proposal intends to address?
- Why is this topic of national importance?
- Why is it timely to conduct this research at this time?

1. What is the research problem?

The main research problem for this study is to determine the ways in which the educational attainment level of parents affects the choices made by their children regarding postsecondary education. Researchers who have studied college access and completion have often found that the socioeconomic status of a student's family has a significant impact on student aspirations, decisions, and outcomes (e.g., Pascarella & Terenzini, 2005). Socioeconomic status is a construct affected by factors such as the financial resources of a student's family, and the educational experiences of a student's family.

Even though many researchers use measures of parental education in their studies, we do not yet fully understand how parental education helps to shape the decisions and outcomes of students. The lack of understanding is due in part to variations in how we represent parental education in statistical models. For example, researchers can define parental education in terms of years of education, highest credential earned, or whether parents have at least some form of postsecondary education. The effects of parental education on students may also depend on which parent (mother or father or both) has postsecondary training.

To illustrate, studies often focus on whether "first-generation" college students are less likely than their peers to go to college and earn a degree. But it is not clear how first-generation status should be defined. Is a first-generation student someone for whom neither parent has earned a college degree, or only one parent and if so which one, and does the type of degree matter? Or should students whose parents have gone to, but not completed, college also be classified as first-generation students?

It is also important to determine if the level of a parent's college education matters. Studies often group families together regardless of their level of postsecondary education, and yet it is likely that students from families where one or more parent has earned a graduate degree may have higher aspirations and outcomes than other students.

In this study, we focus on the associations between different ways of representing parental education and the postsecondary aspirations, decisions, and outcomes of students. We will use longitudinal data from the Education Longitudinal Study of 2002 (ELS) to examine a cohort of more than 15,000 10th graders and determine in more detail how parental education helps to shape student postsecondary experiences. We will estimate a series of logistic and multinomial logistic regression models to focus on whether student decisions and outcomes are affected by: (1) the way in which first-generation status is defined, (2) the level of postsecondary education completed by parents, and (3) the number of parents who have various levels of educational attainment.

2. Why is this topic of national importance?

Educational attainment is an important topic of national concern for both the individuals receiving the education and for society as a whole. Economists have consistently shown that on average there are large financial returns to students when they earn a college degree (Toutkoushian, Shafiq, & Trivette, 2013). College thus becomes a means for individuals to increase their economic mobility and address persistent socioeconomic differences in the United States by race/ethnicity. In addition, studies such as McMahon (2009) have found that postsecondary education leads to a series of spillover benefits for the public at large that on average exceed the resources spent to support it. One of the main contributions of postsecondary education to society at large is the potential to raise the nation's standard of living and global economic competitiveness. Therefore, it is crucial to develop a better understanding of the factors that affect the decisions made by students about whether to go to college, and their prospects for completing their college education.

3. Why is it timely to conduct this research at this time?

Despite the broad array of initiatives aimed at accomplishing these goals, many students in the US still do not go to college and/or earn a degree. There is substantial interest in the US in raising the postsecondary aspirations and experiences of students. The Gates Foundation (2012) and the federal government have argued that the nation should strive to increase the proportion of students with some form of postsecondary credential. Likewise, a number of state governments are implementing "performance funding systems" where state funding is tied to the numbers of students earning postsecondary degrees. The connection between parental education and postsecondary decisions will be particularly relevant in the future as the demographic composition of the US population continues to shift towards racial/ethnic groups where parental education levels on average have traditionally been lower.

Review the literature and establish a theoretical grounding for the research (limit 1000 words):

- What has prior research found about this problem?
- What is the theoretical/conceptual grounding for this research?

1. What has prior research found about this problem?

There is a long history of studies on the many different factors that influence the postsecondary decisions and outcomes for students. Because the student college choice process involves multiple steps, there are a number of factors that can influence this process. Many studies have focused on the role of personal factors such as gender and race/ethnicity in student choice, or whether financial incentives and information can help entice more students to go to college (Astin, 1964; Hearn, 1991; Hossler & Maple, 1993; Maple & Stage, 1991; Nora, 1987; Paulsen & St. John, 2002; Perna, 2000; Stage & Hossler, 1989).

Within this vast literature, a number of studies address how the socioeconomic status (SES) of a student's family affects their postsecondary decisions (Astin & Oseguera, 2004; Pascarella & Terenzini, 2005; Sewell & Shah, 1968). In general, these studies have concluded that there is a positive association between measures of SES and student decisions about college. The positive association suggests that students from higher SES families can better afford to pay for college, and have more interaction with people who have themselves gone to college and can help examine the benefits and costs of college.

An important facet of socioeconomic status is the educational attainment of a student's parents. Researchers have used many different approaches to measuring this construct. Some studies such as Card (1993) focused on a single variable for the years of parental education, while other studies including Dubow, Boxer, and Huesman (2009) utilized a single composite variable with values for different degree levels (such as 1=high school, 2=some college, 3=associate degree). Although these approaches are parsimonious, they restrict each increment in parental education to have the same impact on students.

Another approach to measuring parental education would be to use multiple dichotomous variables for different levels of parental education (e.g., Paulsen & St. John, 2002). It is common, however, for studies to combine parents with different levels of college education into two aggregate categories, such as "first generation" or "not first generation" (Chen & Carroll, 2005; Choy, 2001; Ishitani, 2006; Padgett, Johnson, & Pascarella, 2012; Pascarella et al., 2004; Ward, Siegel, & Davenport, 2012). This research has shown in general that first-generation college students are less likely than others to go to college and earn a degree. However, first-generation status could be defined based on whether neither parent graduated from college, neither parent attended college, both parents did not attend/graduate from college, or one specific parent (e.g., mother) has done so. The definition can also depend on whether "college" refers to any postsecondary institution or only 4-year institutions.

The effects of parental education on their children may further depend on the educational attainment of each individual parent. Some studies have used variables for both the mother's and father's education (e.g., Brewer, Eide, & Ehrenberg, 1999). Due to the correlation between a mother's and father's education, however, the results could be insignificant (Kodde & Ritzen, 1988) which led some researchers to only use the mother's education level. It is not clear which parent's education should matter the most, and it may depend upon which parent is living at home. Finally,

some prior studies have considered how the number of parents with postsecondary education may affect student decisions. It is possible that students coming from families where both parents went to college make different decisions than others. And the connection between parental education and family structure may matter as well.

In a recent analysis of the postsecondary aspirations of high school seniors in New Hampshire (Harding, Parker, & Toutkoushian, 2014), we found that students were more likely to take college preparatory courses and apply to college as the number of parents with a college education increased. Likewise, students who had at least one parent with a PhD were more likely to pursue a graduate education. These results support the notion that the effect of parental education on students goes beyond the simple first-generation/non-first generation dichotomy. However, the data are not nationally representative, and the data on parental education was reported by students and thus may not be accurate.

2. What is the theoretical/conceptual grounding for this study?

We rely on human capital theory and the college choice framework to guide this study. According to human capital theory, individuals invest in themselves through acquiring new knowledge and skills. As these attributes accumulate, an individual can become more valuable in the workplace, deserving additional compensation (Becker, 1975; Mincer, 1958; Schultz, 1961). Human capital theory cannot explain the entirety of student college-going behaviors, however. Much of the research on college choice has relied on the work of Don Hossler and colleagues (Hossler, Braxton, & Coopersmith, 1989; Hossler & Gallagher, 1987; Hossler, Schmit, & Vesper, 1999) and others (Paulsen, 2000; Perna, 2006) to explain the way in which students tend to make these decisions. The college choice process involves three major phases: predisposition, search, and choice.

There are several reasons why parental education is thought to influence a student's postsecondary decisions in these frameworks. First, there is a positive association between educational attainment and earnings, and thus students from more highly-educated families may be better able to pay for college. Second, parents who have gone to college may have better information about the costs and benefits to college and can help their children understand these issues. Information from their parents can thus help shape the decisions of students. This is particularly true of parents who play a large role in providing information to their children. When both parents have gone to college, they may have more cultural capital that can be used to help entice their children to go to college (Dumais & Ward, 2010; Prospero & Vohra-Gupta, 2007).

Describe the research method that will be used (limit 1000 words):

- What are the research questions to be addressed?
- What is the proposed research methodology?
- What is the statistical model to be used?

1. What are the research questions to be addressed?

Four main research questions will be addressed in this research project:

Question 1: How are the postsecondary decisions and outcomes of students associated with the level of college education of their parents?

Question 2: Are the postsecondary decisions and outcomes of students affected by the number of parents who have started or completed a college education?

Question 3: Are the postsecondary decisions and outcomes of students affected by how researchers define a "first-generation student"?

Question 4: Do the effects of parental education on the postsecondary decisions and outcomes of students depend on which parent (mother or father or both) has postsecondary education?

2. What is the proposed research methodology?

In this study, we will use logistic and multinomial logistic regression analysis to examine the relationships between a variety of measures of parental education and student decisions and outcomes from college. To do this, we will use the Education Longitudinal Study of 2002 to follow a nationally-representative sample of 10th grade students over a 10-year period to see how parental education and other factors suggested by the literature affect students. The student outcomes of interest for logistic regression will include:

- (1) whether students in grade 10 aspire to go to college;
- (2) whether students took college preparatory classes;
- (3) whether student plans to take AP test, SAT, PSAT;
- (4) whether applied to college;
- (5) whether the student enrolls in college; and
- (6) whether the student graduates from college by 2012

Student outcomes of interest for multinomial logistic regression will include:

- (1) the level of postsecondary aspiration as of grade 10;
- (2) the type of colleges applied to; and
- (3) the type of colleges enrolled in

3. What is the statistical model to be used?

The general form of the statistical models that we will examine is:

$$Y = \alpha + D\beta + A\gamma + S\delta + P\theta + \epsilon$$

where:

Y = dependent variables

D = demographic variables for students (e.g., gender, race, age)

A = academic ability and performance measures (e.g., HSGPA, SAT, etc.)

S = family SES measures not including parental education (e.g., income, HS attended, number of parents at home, other SES/wealth measures)

P = parental education measures

There are several different approaches that we will use for measuring parental education in the statistical analyses for this project. Beginning with first-generation vs. non-first generation students, we will estimate separate models where we define non-first generation students as either:

P = 1 if either parent has attended a 2- or 4-year college

P = 1 if either parent has earned a 2- or 4-year degree

P = 1 if either parent has earned a 4-year degree

P = 1 if mother has attended/completed college

P = 1 if father has attended/completed college

P = 1 if birth parent living with student has attended/completed college

With regard to the effects of the highest level of educational attainment of parents, we will create separate dummy variables for the level of parental education:

P1 = 1 if highest education level completed for a parent is HS or less

P2 = 1 if highest education level completed for a parent is some college but no postsecondary credential

P3 = 1 if highest education level completed for a parent is Associate degree

P4 = 1 if highest education level completed for a parent is Bachelor degree

P5 = 1 if highest education level completed for a parent is Master degree

P6 = 1 if highest education level completed for a parent is Doctor/Professional degree

Finally, we will create variables for the number of parents with postsecondary education:

P = number of parents who have at least an Associate degree

P = number of parents who have at least a Bachelor degree

P = number of parents who have at least a Master degree

P = number of parents who have at least a Doctor/Professional degree

The variables for educational attainment by parent will be interacted with family living status to determine whether the effect of a mother's or father's education varies with whether they live with the student. All of the statistical analyses for this project will take into account the complex stratified sampling design of ELS using the weighting variables developed by NCES with the data (e.g., F2BYWT). A complete list of variables from ELS that will be used in this research project is contained in the Appendix to this project description.

References cited (no word limit):

- Astin, A. (1964). Personal and environmental factors associated with college dropouts among high aptitude students. *Journal of Educational Psychology*, 55, 219-227.
- Astin, A., & Oseguera, L. (2004). The declining "equity" of American higher education. *The Review of Higher Education*, 27, 321-341.
- Becker, G. (1975). *Human capital: A theoretical and empirical analysis, with special reference to education*. Chicago: University of Chicago Press.
- Bill and Melinda Gates Foundation (2012). New grants to reimagine financial aid & help increase postsecondary access, success and completion (<http://www.gatesfoundation.org/media-center/press-releases/2012/09/postsecondary-financial-aid-grants-announcement>).
- Brewer, D., Eide, E., & Ehrenberg, R. (1999). Does it pay to attend an elite private college? Cross-cohort evidence on the effects of college type on earnings. *Journal of Human Resources*, 104-123.
- Card, D. (1993). Using geographic variation in college proximity to estimate the return to schooling. NBER Working Paper No. 4483. Cambridge, MA: National Bureau of Economic Research.
- Chen, X., & Carroll, C. (2005). First-generation students in postsecondary education: A look at their college transcripts. Postsecondary education descriptive analysis report. NCES 2005-171. National Center for Education Statistics.
- Choy, S. (2001). Students whose parents did not go to college: Postsecondary access, persistence, and attainment. Findings from the condition of education, 2001.
- Dubow, E., Boxer, P., & Huesmann, L. (2009). Long-term effects of parents' education on children's educational and occupational success: Mediation by family interactions, child aggression, and teenage aspirations. *Merrill-Palmer Quarterly*, 55, 224-249.
- Dumais, S., & Ward, A. (2010). Cultural capital and first-generation college success. *Poetics*, 38, 245-265.

- Harding, J., Parker, M., & Toutkoushian, R. (2014). Deciding about college: How soon is soon enough? Paper presented at the annual meeting of the Association for Education Finance & Policy, San Antonio, TX, March 13.
- Hearn, J. (1991). Academic and nonacademic influences on the college destinations of 1980 high school graduates. *Sociology of Education*, 64, 158-171.
- Hossler, D., Braxton, J., & Coopersmith, G. (1989). Understanding student college choice. In J. Smart (Ed.), *Higher education: Handbook of theory and research*, Vol. 5 (pp.231-288). New York: Agathon Press.
- Hossler, D., & Gallagher, K. (1987). Studying student college choice: A three-phase model and the implications for policymakers. *College and University*, 62, 207-21.
- Hossler, D., & Maple, S. (1993). An investigation of the factors which differentiate among high school students' plans to attend a postsecondary educational institution and those who are undecided. *Review of Higher Education*, 16, 285-307.
- Hossler, D., Schmit, J., & Vesper, N. (1999). *Going to college: How social, economic, and educational factors influence the decisions students make*. Baltimore: Johns Hopkins University Press.
- Ishitani, T. (2006). Studying attrition and degree completion behavior among first-generation college students in the United States. *The Journal of Higher Education*, 77, 861-885.
- Kodde, D., & Ritzen, J. (1988). Direct and indirect effects of parental education level on the demand for higher education. *Journal of Human Resources*, 356-371.
- Maple, S., & Stage, F. (1991). Influences on the choice of math/science major by gender and ethnicity. *American Educational Research Journal*, 28, 37-60.
- McMahon, W. (2009). *Higher learning, greater good: The private and social benefits of higher education*. Baltimore, MD: The Johns Hopkins University Press.
- Mincer, J. (1958). Investment in human capital and personal income distribution. *The Journal of Political Economy*, 66, 281-302.
- Nora, A. (1987). Determinants of retention among chicano college students: A structural model. *Research in Higher Education*, 26, 31-59.
- Padgett, R., Johnson, M., & Pascarella, E. (2012). First-generation undergraduate students and the impacts of the first year of college: Additional evidence. *Journal of College Student Development*, 53(2), 243-266.
- Pascarella, E., Pierson, C., Wolniak, G., & Terenzini, P. (2004). First generation college students: Additional evidence on college experience and outcomes. *Journal of Higher Education*, 75, 249-284.
- Pascarella, E., & Terenzini, P. (2005). *How college affects students* (Vol. 2). K. Feldman (Ed.). San Francisco: Jossey-Bass.
- Paulsen, M. (1990). *College choice: Understanding student enrollment behavior*. ASHE-ERIC Higher Education Report, No. 6. Washington, DC: School of Education and Human Development, The George Washington University.
- Paulsen, M., & St John, E. (2002). Social class and college costs: Examining the financial nexus between college choice and persistence. *The Journal of Higher Education*, 73, 189-236.
- Perna, L. (2000). Differences in the decisions to enroll in college among African Americans, Hispanics, and Whites. *Journal of Higher Education*, 71, 117-141.
- Perna, L. (2006). Studying college access and choice: A proposed conceptual model. In J. Smart (Ed.), *Higher Education: Handbook of Theory and Research*, Vol. XXI (pp. 99-157). The Netherlands: Springer.
- Prospero, M., & Vohra-Gupta, S. (2007). First generation college students: Motivation, integration, and academic achievement. *Community College Journal of Research and Practice*, 31, 963-975.
- Schultz, T. (1961). Investment in human capital. *American Economic Review*, 51, 1-17.
- Sewell, W., & Shah, V. (1968). Social class, parental encouragement, and educational aspirations. *American Journal of Sociology*, 73, 559-572.
- Stage, F., & Hossler, D. (1989). Differences in family influence on the college plans of high school males and females. *Research in Higher Education*, 30, 301-315.
- Ward, L., Siegel, M., & Davenport, Z. (2012). *First-generation college students: Understanding and improving the experience from recruitment to commencement*. San Francisco: John Wiley & Sons.
- Wells, R., Seifert, T., Padgett, R., Park, S., & Umbach, P. (2011). Why do more women than men want to earn a four-year degree?: Exploring the effects of gender, social origin, and social capital on educational expectations. *The Journal of Higher Education*, 82, 1-32.

Project Description - Appendix

- [ELS Variable List](#)

NSF Datasets

NSF datasets:

Will you use a NSF dataset?

No

Please check all NSF datasets that apply:

Explain why the selected NSF dataset(s) best serves this research limit (250 words):

Include a variable list for each dataset used.

NCES Datasets

NCES datasets:

Will you use a NCES dataset?

Yes

Please check all NCES datasets that apply:

- Educational Longitudinal Study of 2002 (ELS: 2002)

Explain why the selected NCES dataset(s) best serves this research (limit 250 words):

Include a variable list for each dataset used.

For this study, we will be using ELS. ELS is a longitudinal survey of a nationally-representative sample of approximately 15,400 10th graders beginning in 2002. Students were then followed up in 12th grade, and two subsequent times (2006 and 2012). The high response rates to the follow-up surveys in the first and second waves (~89%) ensure that there will be a sufficient number of students in the sample to conduct the statistical analyses for this project. Descriptive statistics from ELS (NCES 2008-308) reveal that student aspirations and college enrollments vary with the highest level of educational attainment for either parent.

There are a number of reasons that ELS is an ideal dataset for the purpose of this study. First, the survey collects information from students at the predisposition and choice stages of their college careers. Thus the data would enable us to determine how parental education affects the initial predispositions of students, and whether they actually enroll in and graduate from college. This is the most current longitudinal sample of US students that follows them through normal college completion. The ELS also collected information about parental education from the parents and not the students, thus enabling us to more reliably test for the effects of parental education on student decisions and outcomes. The list of variables that will be used in this project are shown in the Appendix to the project description for this proposal.

NPEC Focus Topic

NPEC Focus Topic:

Will you address the NPEC focus topic, *Noncredit Instructional Activity at Postsecondary Institutions*?

No

If yes, briefly describe (limit 250 words):

Timeline and Deliverables

Timeline:

Provide a timeline of key project activities.

Dates Project Activities

9/1/2014 Begin research project

9/1/2014 to 12/31/2014 Create variables from ELS for the two studies. Use descriptive statistics and frequency distributions to check data.

1/1/2015 to 3/31/2015 Conduct statistical analyses for research project, and obtain preliminary results for the first study in this project. Submit mid-year progress report to AIR by February 6, 2015.

4/1/2015 to 5/24/2015 Draft first paper from the project. Send paper to NCES for approval. Submit proposal to present second paper from the project for presentation at the ASHE conference in November 2015.

5/25/2015 to 5/29/2015 Present first paper at the AIR Forum in Denver, CO. Please note that the budget includes funding for Rob Toutkoushian and the Graduate Assistant for this project (Rob Stollberg) to both attend the AIR Forum in 2015.

6/1/2015 to 7/31/2015 Revise first paper based on feedback from AIR Forum. Conduct additional analyses if necessary, submit first manuscript for publication in an academic journal.

8/1/2015 to 6/30/2016 Revise first manuscript for eventual publication in an academic journal. Submit final report to AIR by October 29, 2015. Submit proposal to present one or both papers at the AEPF conference on March 17-19, 2016. Send second paper to NCES for approval. Present draft of second manuscript at the ASHE conference in November 2015. Revise second paper and submit to an academic journal by spring of 2016.

Deliverables:

List deliverables such as research reports, books, and presentations that will be developed from this research initiative.

Given the scope of this project, we will break the project into two parts. The first part will address the role of parental education on student postsecondary aspirations and enrollment, while the second part will examine how parental education affects whether students complete their postsecondary education. Our goal is to produce papers from each part that would be suitable for publication in leading peer-reviewed journals in our field, such as The Journal of Higher Education, Economics of Education Review, Education Evaluation and Policy Analysis, Education Finance & Policy, or The Review of Higher Education.

Disseminate results:

Describe how you will disseminate the results of this research.
(Note: Costs of travel to meetings should be calculated on the budget page.)

The dissemination of results from the research will begin by sharing preliminary findings from the first paper with NCES for their approval to disseminate. We will then present the results at the AIR conference in Denver, CO on May 25-29-2015, and share revised versions of the study with colleagues for their comments. The final manuscript will then be submitted to a suitable academic journal in the summer of 2015.

A similar dissemination plan will occur for the second paper. We will first share the draft of the paper with NCES for their approval in the Fall of 2015, and present the paper at the ASHE conference in Denver, CO on November 7-9, 2015. We will then share the revised version of the manuscript with colleagues for their comments, and submit the final paper to a suitable academic journal in the spring of 2016. We will also present findings from one or both of these studies at the AEPF conference in Denver, CO on March 17-19, 2016.

IRB Statement

Statement of Institutional Review Board approval or exemption (limit 250 words):

As part of the proposal, a statement outlining a plan for Institutional Review Board (IRB) approval is required. The statement should outline the applicant's timeline and plan for submitting the proposal to an IRB or explain why IRB approval is not necessary. Final IRB action is not necessary prior to submitting the application.

An IRB request will be submitted to the University of Georgia in August 2014 for exempt review. Given that similar proposals I have made were granted exempt status, I anticipate that the same will apply for this project. I will notify AIR when the exempt status is granted by our IRB office.

Restricted Datasets

Statement of use of restricted datasets (limit 250 words):

Applicants should provide a statement indicating whether the proposed research will require use of restricted datasets. If restricted datasets will be used, the plan for acquiring the appropriate license should be described. Review the requirements for restricted use licenses at the NCES and NSF websites.

If restricted datasets will not be used, leave this text box blank and click *Save and Continue*.

The research project will require the use of a restricted-use dataset (ELS) from NCES. I currently hold a license to use the dataset, and the graduate assistant who will be helping with the project (Robert Stollberg) is also a license holder.

Biographical Sketch(es)

Biographical sketch (limit 750 words):

Robert K. Toutkoushian is a professor of higher education at the Institute of Higher Education at the University of Georgia. He has earned a bachelors degree in economics from Indiana University of Pennsylvania, and masters and doctorate degree in economics from Indiana University (Bloomington, IN). Prior to his current position, Dr. Toutkoushian worked in institutional research for seven years at the University of Minnesota and seven years at the University System of New Hampshire, and was a faculty member in the Educational Leadership and Policy Studies department at Indiana University. He has published more than thirty studies in peer-reviewed academic journals, twenty chapters in edited books, and served as editor for five books and monographs. He is also the editor of the AIR-sponsored journal *Research in Higher Education*, and served as the editor for the AIR-sponsored publication *New Directions for Institutional Research*.

Dr. Toutkoushian's areas of specialization include the economics of higher education and quantitative research methods. The majority of his publications rely on the type of multivariate analyses that would be used in this research project. Dr. Toutkoushian has published nine studies in peer-reviewed journals that relied on the National Study of Postsecondary Faculty, which is a restricted-use database compiled by the National Center for Education Statistics. More recently, he has conducted research on the effects of parental education and other factors on the various stages of college choice using a longitudinal student record database with 60,000 students from the state of Indiana, and the predisposition stage of college choice for 8,000 students in the state of New Hampshire.

The Graduate Assistant for this research project is Robert S. Stollberg. Mr. Stollberg is a third year doctoral student at the Institute of Higher Education at the University of Georgia. Mr. Stollberg has completed his doctoral course work and his areas of specialization are higher education policy and quantitative research methods in education. Because Mr. Stollberg is already funded at the maximum level by the University of Georgia for the 2014-15 academic year, the grant budget for this project does not include any funding for his services.

Budget

- [2014ResearchGrantBudget.rtk](#)

Funding History

Funding history (limit 250 words):

A statement of prior, current, and pending funding for the proposed research from all sources is required. The statement should also include a history of all prior funding from AIR to any of the PIs for any activity. Funding from other sources will not disqualify the application but may be considered in the funding decision.

Robert Toutkoushian has previously received grant funding through the AIR/NCES grant program in 2005. He has received funding in the past for other research projects, most recently in 2009 from the Spencer Foundation. He currently has no grant funding or pending funding to support this project or other projects.

Dissertation Advisor Letter of Support

There are no files attached.

ELS Variable List

The following is a list of variables from ELS that would be used in this research project:

ELS Questions	Variable Description
BYS56, BYS58	Whether student aspired to go to college in grade 10
BYS26	Whether student took college-preparatory classes by grade 10
BYS55A-C, F1S21A-D	Whether student plans to take AP, SAT, or PSAT exams
F1S50	Whether student applied to college by grade 12
F2B13A-F	Whether student enrolled in college by 2006
F3A13A, F3ICREDTYPE	Whether student graduated from college by 2012
BYS56, F1S42	Level of postsecondary aspirations in grades 10 and 12
F1S49	Type of college applied to
F2PS1	Type of college enrolled in
BYS13	Birth date of student
BYS14	Gender of student
BYS15-17	Race/ethnicity of student
BYS33	Taken AP or IB courses by grade 10
BYS41	Extracurricular activities by grade 10
BYS65	Student perceptions of parental expectations for education
BYS83	Student perceptions of parental education
BYP2-4, 10	Family status as of grade 10
BYS6-8	Number of siblings
BYS31	How well parent understands English
BYP34	Educational attainment of each parent
BYP35	Educational attainment of each grandparent
BYP54	Parental involvement in school organizations in grade 10
BYP79	Parental aspirations for 10 th grader
BPY84	Savings for college for 10 th grader
BYP85	Family income



2014 Research Grant Proposal Budget Form

Personnel - Time on Project

Principal Investigator

% (FTE) academic year
 % (FTE) summer

Second Principal Investigator

% (FTE) academic year
 % (FTE) summer

Third Principal Investigator

% (FTE) academic year
 % (FTE) summer

Graduate Research Assistant

% (FTE) academic year
 % (FTE) summer

Personnel - Salary & Benefits

academic year \$
summer \$

Personnel - Salary/Stipend

(Time on Project x Salary and Benefits)

academic year \$
summer \$

Total Salary and Wages (calculated from above fields)

\$

Travel

2015 AIR Forum (Presentation at 2015 Forum required):

\$

Other research related travel:

\$

(Note: Other planned travel should be listed in the "Timelines and Deliverables" section)

Other research expenses

Allowable expenses include: materials, such as software, books, supplies, etc.; consultant services, such as transcription, analysis, external researchers, etc.; and costs for publishing articles in journals. The purchase of computer hardware, printing a stand-alone book, overhead or indirect costs, and living expenses are not allowable. If you have questions about specific expenditures please contact AIR.

\$

TOTAL REQUESTED

\$