



# ASSOCIATION FOR INSTITUTIONAL RESEARCH 2009 RESEARCH APPLICATION

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**Is Institutional Financial  
Representative  
at a US Post-secondary institution?**  
Yes

## Title of Proposal

Where and When: An Event History Analysis of Student Flow in  
Postsecondary Education

## Statement of the research problem and national importance

To address conceptual and methodological shortcomings in the extant literature on

student mobility, this study employs event history modeling to describe and explain how key factors—like academic preparation, student background, college enrollment, financial aid, and pertinent postsecondary policies—affect student movement among all public two- and four-year institutions in Indiana. This project seeks to (a) test, refine, and expand existing typologies of student movement and (b) model how time-varying factors (like those listed above) affect movement in a longitudinal fashion. To-date, relatively little research has investigated student movement via rigorous statistical methods and—moreover—no research has taken into account the dynamic, time-varying nature of enrollment and mobility. This inquiry contributes to recent work on student mobility, (e.g., McCormick 1997; Goldrick-Sab, 2006) while also extending the long line of persistence research (e.g., Bean, 1980; Pascarella & Terenzini, 1980; Tinto, 1975) that seeks to understand and differentiate forms of and reasons for student departure from higher education.

Knowledge about the causes and consequences of student mobility is of importance nationally because the prevalence of student mobility will continue to grow in the coming decades, fueled by demographic shifts (e.g., increasing numbers of adult students) (Anderson, 2003) along with changes in education policy (e.g., financing or transfer and articulation agreements) (Longanecker & Blanco, 2003). Even as mobility continues to grow, relatively little is known about its relationship to academic success. Adelman (1999, 2006) has suggested that not all forms of student movement are equal, noting that some movement (movement that he calls “purposeful”) may contribute to degree attainment, whereas other forms of movement may be negatively related to degree completion. Goldrick-Sab and Pfeffer (2007) label this a ‘mobility penalty’, noting that it is more likely paid by students from lower socioeconomic strata and is associated with moving from a four- to two-year institution. Students from higher socioeconomic strata were more likely to move from one four-year institution to another and paid no similar price in regard to degree completion. As Borden (2004) has argued, postsecondary policy-makers and practitioners will need to know how to adapt policy and practice to meet the realities of student enrollment patterns and—importantly—understand how forms of movement relate to educational outcomes.

Growing interest among scholars, policy-makers, and practitioners in student mobility is converging with increased capacity—via student unit record systems—to track students, making this research timely. Among the many challenges associated with studying the enrollment patterns of increasingly mobile students is the challenge of tracking students across institutions. However, the continued development of as well as interest in student unit record (SUR) systems presents a unique opportunity to follow students as they move among institutions. Overall, 40 states now maintain SURs (Ewell & Boeke, 2007). The recent attention given to SURs by the Spellings Commission and the National Center for Education Statistics is indicative of the growing interests among researchers and policy makers in using unit-record data to illuminate persistent questions in the field. From the early 1990s onward a small but growing cadre of scholars, such as Ed St. John, Steve DesJardins, and others have advocated the use of extant data from SUR systems in research. Advocates argue that such systems enable researchers to model more accurately the complexities of student behaviors along

pathways to academic success. Furthermore, researchers and policy makers have long-acknowledged the inadequacy of single-institution data systems in tracking increasingly mobile students across multiple institutions over prolonged periods of time. The portrait of a student attending one institution for four-years no longer reflects the reality of postsecondary education. State and even regional SUR databases are seen as potential solutions in the current milieu of accountability and complexity.

## **Review the literature and establish a theoretical grounding for the research**

Student mobility within postsecondary education is gaining increasing attention among policy makers, campus practitioners, and scholars—and with good reason. Adelman (1999) estimates that the multi-institutional attendance rate now exceeds 60 percent of undergraduate students (compared to 40% and 54% in the 1970s and 1980s respectively). In addition, mobility is not limited to movement from community colleges to baccalaureate institutions, as some may perceive. Goldrick-Sab & Pfeffer (2007) found that 30 percent of students who began at four-year institutions changed colleges at least once during their enrollment lifetime. Moreover, student mobility is not simply a matter of switching enrollment from one institution to another. Students may move multiple times. In a study of movement among several urban community colleges and a university Bach, Banks, Kinnick, Ricks, Stoering, and Walleri (2000) found that 25 percent of students who had begun at the community college moved an average of just over three times over the span of five years. Most students in postsecondary education enroll in multiple institutions.

Yet, despite the prevalence of students' mobility in attending postsecondary institutions, relatively little is known about the variety and complexity of these movements primarily because very few studies have addressed the broad topic of mobility and even within the voluminous transfer literature most research has focused on linear movement directly from a two- to four-year institution (Townsend & Dever, 1999). A review of the literature on student mobility shows that less than two dozen studies have addressed the topic. A number of these are conceptual or methodological (e.g., Borden, 2004; Robinson, 2004) or are purely descriptive (e.g., Bach et al., 2000; Barnes & Robinson, 1999; Corrigan, 2003; de los Santos Jr & Wright, 1990). Just a handful of articles have explored student mobility using relatively rigorous statistical methods (Adelman, 1999, 2006; Goldrick-Rab, 2006; Goldrick-Rab & Pfeffer, 2007; McCormick, 1997, 2003).

Moreover, even when considering the substantial body of transfer literature as part of our understanding about mobility, we find that most of this work has focused on students who transfer in a traditional fashion from a two-year college to a four-year institution (Townsend & Dever, 1999), having first earned an associate's degree. However, even this traditional notion of 'moving up' captures only a small slice of the complex reality of transfer. For example, McCormick (1997) found that only 22 percent of students who began at a community college transferred to a

four-year institution (though the number was closer to 39% for the one in four students who began with the intention of earning a baccalaureate degree). Furthermore, just over one-third of students who began at a community college and eventually transferred to a four-year institution first earned an associate's degree. Finally, students who did move to a baccalaureate institution did not transfer right away. On average, students took about 21 months to enroll in a four-year institution after being enrolled in a community college. This suggests that significant gaps exist in the transfer literature with respect to understanding student mobility.

## Conceptual Foundations

The student adjustment model provides the conceptual foundation for this study. Characteristic of these models is an explicit consideration of contexts, evident in much of the more recent scholarship on persistence (St. John, Paulsen, & Carter, 2005; St. John, Paulsen, & Starkey 1996; Titus, 2006; Torres, 2006). Efforts to consider the ways in which contexts interact with individual characteristics is in part a response to previously unacknowledged shortcomings with integration (Tinto, 1975) and attrition (Bean, 1980) models, particularly as they were applied to understanding the experiences of underrepresented students or nontraditional students.

Building on prior work that looked at the effects of environmental factors on persistence, Cabrera, Stampen, Hansen (1990), Cabrera, Castaneda, Nora, and Hengstler (1992), and Cabrera, Nora, Castaneda (1993) developed and tested an integrated model that incorporates elements from both the integration and attrition models. Nora and Cabrera (1996) further developed this Student Adjustment Model in testing the effects of prejudice and discrimination on the adjustment of underrepresented students. The Student Adjustment Model conceptualizes colleges as having academic and social domains in which students' experiences can negatively or positively affect their cognitive and affective development, which in turn affects academic and intellectual development, commitment to degree attainment, and institutional commitment. In this model the academic and social domains are seen as interdependent, with students' experiences in one sphere reinforcing experiences in the other. Compared to earlier retention theory, the adjustment model incorporates greater consideration of student contexts, such as structural diversity, as factors in persistence. Titus (2006) extends this model to include institutional resources, including revenue and expenditure patterns.

This thread of persistence research has developed in order to integrate, synthesize, and extend retention theory beyond 'traditional' students. This conceptual extension is particularly important in the study of student mobility because, as prior research (Goldrick-Sab, 2006; McCormick, 2007) has suggested, movement does not conform to traditional theories of enrollment, which have historically been based on a traditional age student who enrolls in a linear fashion for a specified period of time. In other words, movement is likely conditioned in part on variables such as age, race/ethnicity, income, campus climate, or dependency

status—all factors which have not figured prominently into theories of enrollment.

### **Describe the research method that will be used**

The complexity of studying the multi-faceted forms of student mobility is substantial. For example, in a study of just over 5,000 undergraduate students attending one of three urban community colleges and university, (Bach et al., 2000) found 48 distinct patterns of attendance over a five year period. The nascent nature of our understanding about student mobility is further evidenced in the array of terms used by researchers to describe it: excursions, swirling, double-dipping, serial transfer, migration, fragmentation, rebounding, discovery, and more. Given the complexities and need for more information about types of movement, the first objective of this study is to test, refine, and expand existing typologies of student movement. The second is to model how time-varying factors affect movement in a longitudinal fashion. Therefore, the first set of research questions explored in this study is descriptive and intended to provide a foundation for multivariate analysis.

- What are the most common forms of student movement among all public two- and four-year institutions in Indiana? What is the temporal profile of these common forms?
- To what extent are forms of movement more or less common by different institutional type (e.g., research university or a four-year branch campus)?
- What are the typical characteristics (i.e., gender, race/ethnicity, age, dependency status, income, academic preparation, income, and intensity of enrollment) of students associated with common forms of movement?

Building on findings from descriptive analysis, our next set of research questions has the goal of better understanding how a variety of factors affect movement in each period of enrollment.

- To what extent do student background characteristics (i.e., race/ethnicity, gender, income, dependency status) affect propensity to move, controlling for all else? How do these variables affect timing of movement? How do these effects change over time?
- To what extent do policies (i.e., high school curriculum, developmental education, financial aid) affect propensity to move, controlling for all else? How do these policies affect timing of movement? How do these effects change over time?

To explore the patterns of student movement as well as the variables that affect

movement over time, this study employs event history modeling using a student unit record system containing data for all students enrolled in Indiana's public postsecondary institutions from 1999 to 2007. All first-time, first-year students who enrolled in 1999 in community colleges or baccalaureate degree institutions (approximately 55,000 individuals) will be tracked through the end of the 2007-2008 academic year.

## Descriptive Analysis

Prior approaches to analyzing complex student enrollment patterns will guide the descriptive portion of the project. (Bach et al., 2000) and (Robinson, 2004) in their analysis of common forms of mobility, employ a coding scheme that enables them to describe and aggregate varied patterns of enrollment. Robinson's pathway technique, for example, develops a priori codes for different forms of enrollment (e.g., beginning=1, continuing=2), then concatenates codes to develop a longitudinal description of enrollment in each period of observation. Similarly, this study will assign codes to the forms of enrollment (defined here as being reported as enrolled by a postsecondary institution) in each period (academic year). To guide the process some codes will be developed a priori based on prior research (e.g., dual-enrollment, enrolled in a four-year or two-year institution). In addition, through an iterative process of descriptive analysis, additional codes will be developed based on observed patterns. Open coding as well as broad definitions of enrollment (i.e., being reported as enrolled at an institution rather than transferring or earning credits) provide flexibility in the analysis and help prevent artificial constriction of conceptual boundaries. Goldrick-Rab (2006) warns against developing a priori definitions of enrollment that are too restrictive as they might bias the results toward certain groups. For example, defining movement among institutions based on transfer of credits may ignore the movement of low-income students who are less likely to formally transfer.

## Multivariate Analysis

The temporal nature of enrollment is implicitly recognized in the extant literature on educational attainment (e.g., Tinto, 1975; Bean, 1980; Braxton, 2000). Yet despite acknowledging the longitudinal nature of enrollment, most researchers continue to approach analyses in cross-sectional fashion. In fact, relatively few persistence studies employ methods that incorporate temporal aspects into their conceptual and analytic models (DesJardins, Ahlburg, McCall, 2002)

To address this shortcoming, a handful of education scholars have begun applying event history analysis (EHA) techniques developed in other fields—notably, demography, biology, and engineering—to the study of persistence (e.g., DesJardins, 2001; DesJardins, Ahlburg, McCall, 2002; DesJardins, Ahlburg, McCall, 2004; DesJardins, Kim, Rzonca, 2003; Doyle, 2006 ). EHA, in its most basic form, is the longitudinal analysis of when individuals or organizations experience events of interest (Allison, 1984). Unlike traditional approaches to regression, EHA explicitly incorporates temporal dimensions in estimating coefficients and the overall fit of the model while allowing for variation from

period to period in explanatory variables. Perhaps more importantly than the technical improvements offered by EHA, the technique does not constrain the conceptual models we use to understand and map the social process of interest. Rather than modeling persistence in a temporally flat fashion, EHA enables us to specify and account for the temporal aspects of the events of interest.

The events of interest in this study will be partially determined by the descriptive analysis, but are likely to include continued enrollment, stopout, departure, changing instructional homes, dual enrollment, and earning a postsecondary credential. Analysis time will be measured as academic years because only annual data are available. A discrete-time model will be used to estimate the effects of financial aid on timing to first departure. As suggested by Allison (1984) in instances where time is measured in discrete units it is appropriate to employ discrete-time methods. Equation 1 denotes the general form of the model where  $h(t_j)$  represents the hazard rate of experiencing the event of interest at a discrete point in time,  $D$  represents the baseline hazard intercept parameter at time periods one through eight, and  $\beta_1$  through  $\beta_5$  represent the slope coefficients for the predictor variables.

#### Equation 1. General Form of Discrete-Time Survival Model

$$\text{logit } h(t_j) = [\alpha_1 D_1 + \alpha_2 D_2 + \dots + \alpha_8 D_8] + [\beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5]$$

The models will control for factors posited by theory and previous research to affect student flow, including: (a) student background variables ( $\beta_1$ ), (b) academic preparation variables (including high school curriculum) ( $\beta_2$ ), (c) college experience variables (including developmental education and postsecondary contexts) ( $\beta_3$ ), (d) measure of academic momentum ( $\beta_4$ ), and (e) financial aid ( $\beta_5$ ).

A series discrete-time models will be estimated, beginning with a main effects (ME) of time model, as suggested by Singer and Willett (2003). The ME model generates a fitted hazard profile against which subsequent models can be compared. Next, a proportional hazards model will be estimated. This includes time-constant and time-varying variables hypothesized to affect timing to movement. Like the ME model, a proportional hazards model provides a point of comparison against which additional hypotheses and models can be tested. In addition, a nonproportional hazards model will be estimated. A key feature of non-proportional models is that the effects for focal variables is allowed to vary in each time period, thereby foregoing the assumption that hazard is proportional across time. Finally, competing risks models with repeated events will be estimated to jointly model the events of interest. Prior research (DesJardins, Ahlburg, McCall, 2002) suggests that continuous enrollment or stopping-out, for example, may affect events like earning a postsecondary credential. Moreover, it is important to conceptualize events as repeating as students may stopout several times over the course of their enrollment, as one example.

**Will you use a NCES target dataset?**

Yes

**Will you use a NSF target dataset?**

No

**Please select the datasets that you intend to use:**

NCES-IPEDS\_Fall\_Enrollment\_(EF), NCES-IPEDS\_Finance\_(F)

**Explain why each dataset best serves this research.  
Include a variable list for each dataset used.**

The combination of a statewide student unit record database and data from IPEDS enables longitudinal tracking of students along with detailed information about institutional contexts, consistent with the student adjustment model employed here. Data come from the Indiana Commission for Higher Education (ICHE) statewide student information system (SIS) student unit record database and the National Center for Education Statistics Integrated Postsecondary Education Data System (IPEDS). SIS data are collected from all public universities, colleges, and community colleges in Indiana for enrollment-related transactions and represent the universe of students enrolled from 1999-2007. Specific variables coming from this dataset are listed below.

- Gender
- Income\*
- Age\*
- High school rank
- Combined SAT score
- High school diploma
- Credits attempted\*
- Campus residence\*
- State residency
- Declared major\*
- Developmental education\*
- Institutional type\*

- College GPA
- Institutional aid
- State grants
- Federal grants
- Private grants
- Need-based loans
- Non-need-based loans
- Work-study
- Total cost
- Applied for aid
- Received aid

Enrollment and finance data from the Integrated Postsecondary Education Data Systems (IPEDS) are used for measures of campus climate (e.g., structural diversity), institutional wealth (e.g., instructional expenditures per student), and net price. Data from 1999-2007 will be used. Specific variables calculated with this dataset are listed below.

- Proportion of minority students at campus\*
- Diversity of faculty and staff at campus\*
- Instructional expenditures/student\*
- Endowment wealth\*
- Room and board\*
- Fees\*

\* Time-varying explanatory variables.

**Will you address the NPEC focus topic?**

Yes

**If yes, please briefly describe:**

This study addresses the topic of student flow by testing and refining existing typologies of movement and then shedding light on the ways in which important variables—like academic preparation, student’s background, financial aid, high school curriculum, and institutional contexts—affect forms and timing of movement. This project has the potential to help shape new conceptual approaches for understanding flow and extending the base of our empirical knowledge. The implications of the project for IPEDS are threefold. First, knowing more about the causes and consequences of student flow will help illuminate to what extent data collection protocols in IPEDS do not capture dynamic forms of enrollment. Next, findings from this study may point to additional measures of student success (such as different measures of graduation or transfer as suggested by some) that could be captured with IPEDS. Finally, given increasing interest in the utility of statewide unit record systems, this project will provide an example of the ways in which national and state datasets can be used together to paint finer portraits of student enrollment.

### **Provide a timeline of key project activities:**

Summer 2009

- Download and clean necessary data from the Integrated Postsecondary Education Data System (IPEDS)
- Merge IPEDS data with statewide longitudinal education data system, creating longitudinal dataset in both univariate and multivariate format
- Clean and merge data to create longitudinal dataset in univariate and multivariate formats

Early Fall 2009

- Create key variables with longitudinal dataset, including imputation of missing data as appropriate and necessary
- Begin descriptive exploration of mobility patterns
- Develop approach and working typology for classifying patterns of movement and key events
- Submit AIR Annual Forum and AERA Annual meeting proposals based on initial findings

Late Fall 2009

- Complete descriptive analysis of mobility patterns
- Test, refine, and finalize definitions of mobility events
- Prepare descriptive reports for dissemination

- Distribute descriptive reports via the Project on Academic Success to campus policy makers and the Indiana Commission for Higher Education

Spring 2010

- Conduct event history modeling of student movement
- Prepare papers and reports
- Attend AERA and AIR
- Submit ASHE proposal based on research

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

Results from the research will be shared in the form of research briefs (i.e., short, policy-oriented reports aimed at practitioners and policy makers), research papers, and conference presentations. Specific deliverables include the following.

Research briefs

- Descriptive report detailing major forms of student movement (late Fall 2009)
- Topic-oriented briefs on the effects of financial aid, high school curriculum, institutional contexts, and developmental education on student movement (spring 2010)

Research papers

Depending on the findings that emerge from specific questions about the effects of particular policies, it may be possible to develop research papers on each of the three focal policy areas (financial aid, high school curriculum, developmental education) for venues such as 'Research in Higher Education' or the 'Journal of Higher Education'. The goal for the life of this project will be to submit one research paper focused on the use of event history modeling to describe and explain movement and to have analyses conducted for at least one but possibly more research papers for the preceding policy areas.

Presentations

- Indiana Pathways to College Network 2009
- AIR Annual Forum 2010

- AERA Annual Meeting 2010
- ASHE 2011

### **Describe how you will disseminate the results of this research:**

Three audiences are envisioned for this project: education scholars, campus practitioners, and education policy makers. Plans for dissemination and project deliverables are created with these audiences in mind. Scholarly-oriented outlets include peer-reviewed journals as well as attending the AERA and ASHE annual conferences. These will be the primary vehicles of dissemination for this audience. As important, however, is the potential for this project to help shape practice and policy. Therefore the results will also be shared (via the Indiana Pathways Network) with campus practitioners who work with and advise students as they progress through school as well as policy makers. To reach the latter audience, research briefs will be shared with state commissioners of higher education in Indiana and also posted to the Project on Academic Success' website.

### **Provide a reference list of sources cited:**

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### **Statement of Institutional Review Board approval or exemption**

Student data used as part of this project are currently included in existing human subjects agreements held by the Project on Academic Success. An amendment will be filed under these existing approvals with the Indiana University Institutional Review Board for the new analyses proposed here. The researchers will not collect data directly for this project; data will be made available by the Indiana Commission for Higher Education and the National Center for Education Statistics. Data will include information about all students enrolled in Indiana's public postsecondary education systems from 1999-2007.

### **Statement of Use of Restricted Datasets**

The data to be analyzed does not involve any sensitive information that would place human subjects at risk of negative repercussions. The topic of this research is students' college enrollment experiences in Indiana. No student identifiers will be present in the data used for these analyses. In this research, we use student identifiers only for the purposes of merging data from multiple sources. Any unforeseen (and unlikely) disclosure of the data outside of the research would still not place respondents at risk of criminal or civil liability. Nor would it be damaging to respondents' financial standing, employability, or reputation.

The computer on which the data sets are merged is a "stand-alone"

computer—with no connections to other computers or to the Internet. The computer is also password-protected and is set to perform an automatic shutdown after 5 minutes of inactivity. Use of the password-protected, stand-alone computer is limited to an authorized subset of Project on Academic Success (PAS) staff only. Once the identifiers are no longer needed for merging, they are stripped from the data files on the stand-alone machine. We will use crosswalk files which match cases using a PAS-generated case identification number instead of the student identifier. The office suite is locked and protected by security alarm after office hours. We regularly review and renew our security procedures to ensure compliance with institutional review board regulations, as well as with state and federal laws.

### **Jacob Gross Biographical Sketch**

Jacob P.K. Gross is Associate Director for Research at the Project on Academic Success (PAS) at Indiana University. He completed his doctorate in History, Philosophy, and Policy Studies from Indiana University in 2008. Gross' concentration was Higher Education Policy and his dissertation focused on the effects of financial aid on the persistence of Latino students. His dissertation, titled "Promoting or Perturbing Access: An Event History Analysis of the Effects of Financial Aid on Latinos' Academic Success," was awarded an Association for the Study of Higher Education/Lumina Foundation Dissertation Fellowship. The objective of the ASHE/Lumina Fellowship "is to promote innovative scholarship by creating an intergenerational community of scholars who will examine social, institutional, and policy barriers to opportunity and student success." Gross' research focuses on the academic success of underrepresented students, with a particular interest in the effects of policy levers (e.g., high school curriculum, financial aid) on their enrollment and persistence. His work includes longitudinal studies of receipt of financial aid among Latinos, factors affecting likelihood of transfer, propensity to transfer from two- to four-year institutions for Science, Technology, Engineering, and Math majors, and exploration of the effects of merit-based and institutional aid on persistence. In addition, Gross has written about and presented on the utility of statewide longitudinal education data systems for education research. This interest grows from his work over the past four years leading efforts at PAS to build a statewide longitudinal education data system (SLEDs), which now includes eight years of data and contains more than 2 million student cases. Gross' use of the longitudinal data system includes analyses of statewide and institutional policies aimed at enhancing persistence. This work included merging institutionally provided data as well as data from IPEDS and the Indiana Department of Education with Indiana's SLEDs. Through these efforts, Gross has seen and experienced firsthand the ways in which longitudinal datasets constructed from state systems can be used alongside institutional and federal data. In addition to his topical research interests, Gross' study of longitudinal processes has contributed to his interest in the use of longitudinal analytic methods, such as event history modeling. Gross will prepare the longitudinal database and take a leading analytic role in the project described here.

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## **Don Hossler Biographical Sketch**

Don Hossler is a Professor of Educational Leadership and Policy Studies and Director of the Project on Academic Success at Indiana University. Hossler has also served as the Vice Chancellor for Enrollment Services for Indiana University Bloomington and as a Senior Consultant to the College Board for several years. His areas of specialization include college choice, student persistence, student financial aid policy, and enrollment management. He is the author, or co-author, of 12 books and monographs and more than 65 articles and book chapters. Hossler has consulted with more than 45 colleges, universities, and related educational organizations and has presented more than 130 scholarly papers and invited lectures in the United States, Canada, China, and Russia on the topics of student college choice, student persistence, student financial aid policy, and higher education finance. In addition, he has received national awards for his research and scholarship from the American College Personnel Association and the National Association of Student Personnel Administrators. Hossler is uniquely situated to play a leadership role in this study. His work places him in a position to speak to our efforts at the institutional, state, and national levels. He is currently directing funded projects from the Lumina Foundation for Education, the College Board, and the Spencer Foundation conducting research on postsecondary participation, student success, and student persistence. Hossler will be responsible for advising in preparation of the longitudinal data set, helping guide the analyses, and assisting in dissemination of the research results.

## Budget

### Personnel- Time on Project

### Personnel- Salary & Benefits

Principal Investigator Jacob Gross

35 % (FTE) academic year

0 % (FTE) summer

Academic Year \$ 27743

Summer \$ 0

Principal Investigator Don Hossler

2 % (FTE) academic year

0 % (FTE) summer

Academic Year \$ 5538

Summer \$ 0

Graduate Assistant

0 % (FTE) academic year

0 % (FTE) summer

Academic Year \$ 0

Summer \$ 0

**Total Salary and Wages**

33281

### Travel

2010 AIR Forum (presentation at 2010 Forum  
required):

2400

2400

Other research related travel:

**Other research expenses\***

(Software, books, copying fees, etc.)

1900

**Total Requested**

39981

\*Costs for publishing articles in journals are allowed. 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 the AIR Project Manager.

## Statement of Prior, Current, and Pending Funding

Jake Gross is currently pursuing research on the longitudinal effects of financial aid on Latinos' educational attainment. Support for this research comes through the Association for the Study of Higher Education/Lumina Foundation and runs through May 2009. Don Hossler is currently pursuing research on the effects of the Twenty-First Century Scholars program on educational attainment as well as the effects of student employment on educational pathways. The former project is supported by the Spencer Foundation through December 2009 and the latter is supported by the Lumina Foundation through August 2009. Less than five percent of Hossler's time is budgeted for these projects while active.