Proposal Details

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Project Description I

Title:

Do Colleges Matter?

A Multilevel Hazard Analysis of Inequity in College Student Dropout Risks

Statement of the research problem and national importance:

In the past two decades, although access to higher education for low-income students has increased, there remains a widespread gap in dropout rates among income groups in four-year institutions in the United States (Tinto & Pusser, 2006). Statistics (National Center for Education Statistics, 2005) demonstrate that among the cohort who began in a four-year institution in 1989-90, the rate of dropout for low-income students was 13 percentage points higher than that of their higher-income peers (32.2% vs. 19.2%), while among the newer cohort starting higher education in four-year institutions in 1995-96, the difference in dropout rate remained almost the same at 12.6 percentage points (26.4% and 13.8%, respectively). Similar dropout rate gaps also exist among four-year college entrants from different racial/ethnic backgrounds, and the white-minority disparities have grown even larger over time (Cook & Cordova, 2006). The evidence indicates that significant forms of educational inequity continue to characterize American higher education. Equity, for the purpose of this proposed study, refers to a situation in which students' dropout risks are affected as little as possible by their income or racial/ethnic background.

There have been a number of research studies on student persistence/dropout in higher education, but most of the attention has focused on the characteristics and behavior of students as illustrated by the "student-centered research tradition" (Smart, Feldman, & Ethington, 2006; Bailey, 2006). Few studies have focused on what colleges can do to create conditions that foster

student persistence (Berger & Milem, 2000), and even less on how higher education institutions can reduce income-and race/ethnicity-related gaps in student dropout risk.

Although even the few institutional effect studies have expanded our understanding of student dropout risk, the literature is limited in several major ways. First, as Titus (2004) suggested, few studies have attempted at a national level to identify institutional factors associated with college student persistence/dropout. Second, rarely has prior research applied the appropriate analytic methods to account for both the longitudinal nature of the student dropout process and the multilevel nature of national data. Further, institutional effect studies in the student persistence/dropout literature are mostly limited to institutions' structural or financial attributes, lacking broader insights into other important factors, such as faculty characteristics, at the institutional level. Finally, despite the call for institutional actions for equity, little is known about what institutional level factors may help narrow dropout risk gaps across student subgroups.

The present study aims to remedy these deficiencies and expand prior research. By analyzing longitudinal and hierarchical data, this research will address how institutional characteristics are related to college student dropout risk over time, and how institutional factors may help explain the income and racial/ethnic gaps in dropout risk throughout students' undergraduate careers. The major goals of this project are: 1) to propose and test a multilevel hazard model that identifies the major institutional attributes related to student dropout risk in a longitudinal process; and 2) to promote policy changes that address the persistent inequity in higher education from an institutional perspective.

What *colleges* can do to reduce student dropout risk is a pressing issue in higher education (Tinto & Pusser, 2006). This study is timely given that "the interactive relationship between organizational behavior and student outcomes remains unexamined when one considers that organizational behavior is a theoretical domain with great potential to improve our understanding about how the college environment affects students" (Baird, 1988; p 268).

In addition, as Tinto and Pusser (2006) have noted, gains in our understanding of the student dropout process have not been translated into gains in student persistence. There is a need for empirical evidence on how institutions can improve the success of a diverse student body through effective policies and practices. The findings of this proposed study will contribute to a better understanding of key issues for low-income and minority students in higher education by identifying institutional factors that make the academic experience of these groups distinctively different from their more advantaged peers. The information will be valuable for policy review, specifically for procedure changes at the institutional level. The ultimate goal of this project is to help effectively translate knowledge into practices and policies institutions can adopt to enhance success and promote equity.

Review the literature and establish a theoretical grounding for the research:

Student dropout studies have often failed to differentiate between persistence and dropout models as theoretical frameworks (e.g., Cabrera, Castaneda, Nora, & Hengstler, 1992; Milem & Berger, 1997; Tinto, 1992). This review includes persistence models and studies that have influenced student dropout research.

Organizational Theories

Established in the 1950s, organizational behavior is an applied social science discipline focusing on the behavior and nature of people within organizations, and the behavior and nature of organizations within their environments (Miner, 2002). Although organizational models are appealing because they provide information that can be easily turned into policy via organizational action (Tinto, 1993), organizational theories and studies of college student outcomes have been surprisingly disjointed (Berger & Milem, 2000).

Given that organizational behavior is a theoretical domain with great potential to improve our understanding about how college attributes affect students (Baird, 1988), several prominent conceptual models were created. Bean's (1983) causal model of student attrition, developed from Price's (1977) model of turnover in work organizations, argues that higher education institutions differ in their structural linkages to occupational and economic groups, and therefore institutional capacity to allocate graduates to high status occupations varies. Tinto's (1987) interactionalist approach provides an inclusive view of the student dropout process by integrating psychological, social, and organizational perspectives. It emphasizes the impact of dynamic, reciprocal interaction between the environment and individuals and offers an explicit model for testing hypotheses about student dropout. The main point is that experiences promoting students' social and intellectual integration into college communities are likely to strengthen their commitment and reduce dropout risk. The third model, Berger and Milem's (2000) framework, focuses on the structural-demographic features of an institution. In line with the structural-contingency theory (Pfeffer, 1982), this model maintains that institutions' structural and demographic characteristics such as size, selectivity, and students' mean SES may influence student involvement in the academic and social sub-systems on campus and their persistence/dropout outcomes.

More recently, Titus (2006a) incorporated the resource dependence theory and proposed that financial aspects of organizations might also influence student decisions in continuous enrollment. Resource dependency theory, presented by Pfeffer & Salancik (1978), argues that organizations are externally constrained and require resources from the environment. Compared with other theoretical approaches, this theory emphasizes the importance of resources such as revenue and expenditure.

Research of Institutional Effects on College Student Dropout

To date, organizational theory has provided an important foundation for scholars to examine the relationship between institutional characteristics and student dropout decisions. One line of research investigated the student demographics of an institution concluding that the mean SES of students within an institution's is positively related to student persistence (Titus, 2006a), while the percentage of minority students in an institution is positively associated with dropout (Rhee, 2008).

A second line of research found that institutions' structural characteristics (enrollment size, selectivity, control) have significant associations with student persistence/dropout. To be more specific, enrollment size (Kamens, 1971; Ryan, 2004; Titus, 2004) and selectivity (Kim, 2007; Titus, 2004, 2006a; Gansemer-Topf & Schuh, 2006) are both negatively related to student dropout. Institutional control is also a significant factor, with higher retention rates in private institutions (Kim, 2007; Titus, 2006a; Ryan, 2004).

The relationship between institutions' faculty characteristics and student persistence/dropout outcomes has largely been neglected in prior research (Tinto & Pusser, 2006;

Schuster, 2003). Among the only two existing studies, one (Schibik & Harrington, & 2004) found that the percentage of courses taught by part-time faculty is negatively related to retention rates, while the other (Ehrenberg & Zhang, 2005) discovered that the increased usage of part-time faculty adversely affect students' graduation rates. Research in K-12 education (Rumberger & Thomas, 2000) found that schools with a higher student-teacher ratio tend to have higher dropout rates; it is worth considering the possible effects of student-faculty ratio in higher education as well.

Although there has been some recent research on the roles of institutional finance, it is not clear how expenditure on instruction is related to student persistence/dropout. Some studies found this type of expenditure to positively contribute to first-year retention rates in private institutions (Gansemer-Topf, 2006), as well as to overall graduation rates in all institutions (Ryan, 2004); however, another study (Titus, 2006a) found no significant relationship. Expenditure for academic support services has been found to significantly improve persistence and graduation rates (Gansemer-Topf; 2006; Ryan, 2004), but not significantly predict college degree completion (Titus, 2006a). Expenditure on student services, though presumed to have positive effects on students' persistence (e.g., Astin, 1993), was found not to significantly improve first-year retention or six-year graduation rates in private institutions (Gansemer-Topf, 2006), and not significantly related to degree completion (Ryan, 2004; Titus, 2006a).

Differential Effects of Institutional Factors

It is important to examine the interaction between student background and institutional factors. Most prior organizational studies on student dropout assumed, without empirical evidence, that all student behavior is shaped by the same sources of organizational behavior (Tinto, 1993). Although very few studies in higher education have explored this area, some research in K-12 education (e.g., Wenglinsky, 1998) found that instructional expenditure was related to differences in achievement between SES groups: lower spending levels were associated with greater achievement gaps within schools. The result implies that low-income groups may be relatively more vulnerable to the lack of financial resources at the school level.

The present study integrates important aspects of Bean's (1983), Tinto's (1987), Berger and Milem's (2000), and Titus' (2004, 2006a) work into a comprehensive conceptual model. It is hypothesized that institutions' demographics, structural characteristics, and faculty and financial resources may affect student dropout risk. To explore the possible differential effects of institutional factors, this project includes tests of interaction effects between institutional factors and students' income and racial/ethnic variables. Given the longitudinal nature of student departure and the hierarchical structure of the data, multilevel hazard modeling will be used for advancing this field of research. This study helps identify not only which institutions have lower dropout risks but also which institutions are more equitable, with narrower dropout risk gaps across student sub-groups. Through this research, the proposed conceptual framework (Graph 1) will be made available for extensive investigations of these pressing issues in the future.

Describe the research method that will be used:

Research Questions

This multilevel hazard study addresses three major research questions:

(1) How do student level variables predict student dropout over time from their first institution?

(2) How are the various institutional level factors related to student dropout over time after controlling for all student level predictors?

(3) How do the relationships between institutional characteristics and student dropout vary across income and racial/ethnic groups after controlling for student- and institutional-level predictors?

Data Sample

This study uses combined longitudinal data from the Beginning Postsecondary Student Survey (BPS: 96/01) and the Integrated Postsecondary Education Data System (IPEDS) 1995-2000. The sample is limited to Fall 1995-96 first time, full-time, degree-seeking undergraduate students attending four-year institutions. The final sample is comprised of 6,174 students attending 423 four-year institutions.

Analytic Methods and Statistical Model

With an increasing interest in educational research that focuses on the longitudinal process of student outcomes such as student dropout (DesJardins, 2003), event history methods (or hazard/survival analysis) have emerged as a distinctive and effective group of analytic methods that fit this type of research (Yamaguchi, 1991). As Barber, Murphy, Axinn, and Maples (2000) suggested, classical statistical procedures such as event history methods assume individuals behave independently. However, it is possible that individuals in the same context behave more similarly than individuals from different contexts; as a result, statistical procedures that incorporate the multilevel data structure are necessary and important. Another rising focus still under-studied in higher education research has been the relationship between institutional characteristics and student persistence/dropout. Existing multilevel studies (e.g., Kim, 2007; Rhee, 2008; Titus, 2004) have greatly improved our understanding of this relationship, but the standard multilevel methods utilized in this group of research often do not incorporate time or time-varying covariates into analysis. One recent methodological development in higher education research is represented by a limited number of studies (Bahr, 2009; Titus, 2006b), which include longitudinal information at the student level. However, none of them considered time-varying institution-level factors in analysis.

To address the above problems, the present study combines event history analysis with multilevel models, and remedies the deficiency in the literature by accounting for longitudinal information at both student and institutional levels. Event history or hazard/survival analysis can be classified as discrete or continuous, the distinction being the metric used to measure the time-of-event occurrence (Yamaguchi, 1991). Given that student dropout is recorded in academic years which are discretely observed, this study applies the multilevel discrete-time hazard method.

Multilevel hazard models, particularly models involving both individual and macro-level time-varying covariates, are not common (Barber et al., 2000). The availability of longitudinal data from both BPS and IPEDS and the recent development of software programs that can handle multilevel hazard modeling create a unique opportunity to apply advanced methods to study institutional effects on student dropout over time. With both individual and institutional-level time-varying covariates incorporated in the multilevel hazard model, this study aims to examine how student dropout risk is related to institutional factors and whether this relationship varies by student income and race/ethnicity. Using several independent variables as examples, the three-level

discrete-time hazard model can be written in statistical forms. The detailed statistical model and related description can be found in the attachment (see Equation 1).

Data Analysis

The analysis will be carried out in three consecutive steps:

Step 1: Data Reconstruction. First, to deal with the missing data issue, multiple imputation, as recommended by Allison (2001), will be conducted by employing IVEware, which uses a sequential regression imputation method. As a result of this procedure, five datasets are generated which requires the function of incorporating multiple datasets in the analytic software for the multilevel hazard analysis. Second, the student-level data and institutional data that contain time-varying factors will be converted into long form data, which supports analyses of change over time (Singer & Wilett, 2003), then a series of "year" variables will be created. Third, the potential multicollinearity problem will be checked by the use of the correlation and Variance Inflation tests.

Step 2: Descriptive Analysis. The first step of the data analysis is to produce descriptive statistics of the sample. The life-table and Nelson-Aalen estimation methods will be applied to compare hazard curves for different income and racial/ethnic groups. These two analytical techniques are important methods of estimating hazard functions in event history methods (Singer & Willett, 2003).

Step 3: Multilevel Hazard Analysis. This stage of analyses will include a set of multilevel hazard models. The first is a null model, with no predicting variables at the within- or between-institution level (Raudenbush & Bryk, 2002), to examine whether the odds of dropout vary significantly across institutions, which would support multilevel analysis of the data. Time-varying measures including student financial aid variables and institutional characteristics will be entered in the second model. The third model will incorporate student-level variables that do not change over time. In this model, the coefficients of institutional faculty and financial resource variables will be allowed to vary by income and race/ethnicity so as to test their interaction effects. As parsimonious models often generate relatively stable and precise estimates and are easier to interpret, random slopes will only be specified if they show theoretically important variations among institutional level units. For this reason, the slopes for income and race/ethnicity will be set as fixed across institutions. Before fitting the third level model, the assumption that the incremental dropout risk in each additional year does not vary across income groups and ethnic groups will be tested. The next model will introduce institutional indicators to explain differences in dropout risk by institutional control and selectivity.

Following prior research (Rumberger & Thomas, 2000) and given the exploratory nature of testing the interaction effects, institutional variables will be introduced sequentially, with only the significant variables from the preceding step used in the subsequent model. The third set of models in Step 3 involves a series of tests to determine whether race/ethnicity and income gaps in dropout risk are a function of the various institutional factors. After fitting the full model with interaction effects, multivariate hypothesis testing will be conducted to examine whether the full model represents a significant improvement over the baseline model. Weights will be applied to ensure the generalizability of the findings (Thomas & Heck, 2001; Toutkoushian& Conely, 2005).

Methodologically, the proposed study is innovative because it takes advantage of the recent advancements in Hierarchical Linear Modeling and longitudinal research methods. To the best of the knowledge of the principal investigator, the use of multilevel hazard modeling with both individual and institutional-level time-varying covariates is nonexistent in college student persistence/dropout research. Thus, this current study represents a new analytic approach in this line of research.

Project Description II

Will you use NCES target dataset? Yes

Please check all NCES datasets that apply
- Beginning Postsecondary Student (BPS) Longitudinal Study
- IPEDS Fall Enrollment (EF)
- IPEDS Finance (F)
- IPEDS Human Resources (HR)
- IPEDS Institutional Characteristics (IC)

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

This study uses combined data from the Beginning BPS (96/01) and IPEDS 1995-2000. The BPS tracks a nationally-representative cohort of students who entered higher education for the first time in the academic year 1995-96 for six years, until 2001. It is a highly desirable dataset because it contains yearly information about student enrollment as well as other time-varying variables such as financial aid received. IPEDS is a system of interrelated surveys of institutions in seven areas: characteristics, prices, enrollment, student financial aid, degrees and certificates conferred, student persistence and success, and institutional human and fiscal resources. The combined use of these two datasets enables longitudinal tracking of students along with detailed time-varying information about institutional contexts.

Because BPS provides the information for the first institutions students attended only, within-institution persistence or dropout are considered as appropriate outcomes for investigation (Titus, 2004, 2006a). In the current proposed study, the dependent variable is defined as institutional dropout measured by a dichotomous variable, indicating whether or not a student left his/her first four-year institution without return by the end of the sixth year of the observational period. Thus, the origin state is the enrollment in the first institution in the fall of 1995-96, the destination state is the occurrence of leaving the first institution without return by 2000-01, and the duration is the number of years of enrollment at the first institution.

The independent variables identified from literature include (See Table 1 for details):

Student Variables

--- Background (age, gender, race/ethnicity, family income, and parental education)

--- Aspirations and achievement (educational aspirations, high school GPA, college GPA, major).

--- Financial aid (grant*, merit-aid, loans*, work-study aid*).

--- Integration factors (academic and social integration).

--- Time in college (in years).

Institutional Characteristics

--- Demographics (students' mean SES*, percentage of minority students*).

--- Structure (size*, control, selectivity).

--- Faculty resources (percentage of part-time faculty*, faculty-student ratio*).

--- Financial resources (instructional expenditures*, academic support expenditures*, and student service expenditures*).

* Time-varying explanatory variables.

Two sets of interaction effects will be tested. The first is the interaction between income/race and financial aid, as the literature suggests that students from different backgrounds may respond to financial aid differently in their persistence/dropout behavior (e.g., Chen, 2008; Chen & DesJardins, in press; Hu & St. John, 2001; Paulsen & St. John, 2002). The second set includes interaction effects between student income/racial background and institutional faculty and financial resource factors, because (a) it is important to examine how student sub-groups interact with institutions (Tinto, 1993), and (b) institutional faculty and financial resources are the major policy/practice variables within institutional control, which has important policy implications for institutions to improve student persistence rate.

Will you use NSF target dataset? No

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

Will you address the NPEC focus topic? Yes

If yes, please briefly describe:
This project is well suited to the AIR Research Grants program. Using longitudinal IPEDS data, it focuses on how institutions may explain income/racial gaps in college student success, which closely aligns to research encouraged by the AIR grant program this year. The AIR grant program also seeks to foster the use of IPEDS data. Previous research has underutilized IPEDS by using cross-sectional data only. This project will address this problem by demonstrating the use of multiple IPEDS years and provide suggestions for future IPEDS survey question design and data collections for facilitating longitudinal research on inequity of college student outcomes.

Project Description III

Provide a timeline of key project activities:

May-July 2010. Receive funding and prepare data with two datasets

- Impute missing data in BPS (96/01) appropriately
- Restructure BPS into long form

- Download, clean, and restructure data from IPEDS 1995-2000

August-October 2010. Conduct data analyses

- Descriptive analyses
- Multilevel hazard analyses
- Submit AIR Annual Forum and AERA Annual meeting proposal

November-December 2010. Write results and rerun analyses as necessary; prepare mid-year progress report

January 2011. Write the implications for research and policy-making.

February-March 2011. Prepare papers and reports, and peer review papers.

April-May 2011. Dissemination

- Present at AERA and AIR conferences
- Finalize papers for publication
- Submit the final report to AIR grant program

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

This research will result in research reports, conference presentations, and peer-reviewed journal articles.

Research Reports

- Descriptive report describing the major trends of American college student dropout risks;
- Mid-year and final research reports to AIR and NCES;

Research Presentations

- AIR Annual Forum 2011
- AERA Annual Meeting 2011

Research Papers

One or more research papers will be developed and submitted for publication in peer-reviewed journals, such as "*Research in Higher Education*" or "*Journal of Higher Education*".

Describe how you will disseminate the results of this research:

The results of this study will be disseminated through national conferences and publications. Proposals for presentations will be submitted to professional conferences, including the annual conference of Association for Institutional Research (AIR), and the American Educational Research Association (AERA). Mid-year and final project reports will be submitted to the AIR office in June

2011. After the research is sufficiently refined with input from peer reviews, I will seek to publish the findings in scholarly journals such as *Research in Higher Education* and *Journal of Higher Education*. Other dissemination possibilities include sending summaries of the findings to scholars and organizations interested in low SES and minority student success in higher education.

Research findings will be shared with a variety of audiences including scholars, institutional practitioners, and NCES researchers. Creating and testing the proposed theoretical framework using multilevel hazard methods is an important contribution to dropout research. This project will inform higher education scholars about a unique research approach for future investigation of student dropout behavior. This study will provide much-needed empirical evidence on how institutional factors may help explain dropout risks gaps, helping institutional administrators have a better understanding of the barriers to persistence and suggesting ways institutional practices may be altered to lower dropout risks and reduce inequity in student success. Through conference presentations and reports to NCES, suggestions about the IPEDS survey questions and data collection will be made to further improve future surveys.

Budget Justification

The total funding requested for this study is $40,000. The budget includes 3-month salary in summer and two-course releases for Dr. Chen in the 2010-2011academic year; 270 hours of work by a graduate research assistant; travel to AIR forum; and other research expenses (supplies, books, software). Funds for travel to the 2011 AERA meeting will be provided by preexisting sources within the university. The funding is budgeted at a level that would allow Dr. Chen to devote an extended, uninterrupted period of time to data analysis, paper writing, and research publications.

Provide a reference list of sources cited:

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IRB Statement

Statement of Institutional Review Board approval or exemption:

I will submit my request for access to the restricted use dataset of BPS (96/01) via Seton Hall University in late January 2010. Once the data license is obtained, I will submit a request for IRB review and approval. IRB approval is expected by March 2010.

Statement of Use of Restricted Datasets

This research will require using the restricted data of BPS (96/01) for several reasons. First, the BPS 96/01 data are not available in public-use CD form. Second, although the data are available via the online DAS system, it is impossible to conduct the proposed statistical analyses via the DAS or to link BPS to IPEDS by using institutional IDs.

I have submitted an application to NCES for a restricted data license for BPS 96/01 and will hopefully obtain the license by March 2010. I will conduct research in accordance with the security guidelines for the use of NCES restricted data.

Biographical Sketch

Rong Chen's Biography Sketch

Rong Chen is an assistant professor in the College of Education and Human Services at Seton Hall University (SHU). Prior to her current position, she served as a research consultant for the Advisory Committee on Student Financial aid (ACSFA) at the U.S. Department of Education and worked as a research associate at the University of Michigan, where she earned her Ph.D. in higher education.

Her research is broadly located within the areas of equity in higher education opportunities and the impact of policies and practices on promoting success for socioeconomically disadvantaged student groups. Her recent work has examined how federal financial aid programs and state financing policies affect student dropout risks, and how income/racial disparities in student success can be explained by differences in these policies. The proposed project is an extension of her research interests in promoting equity in higher education.

Dr. Chen has sophisticated skills in quantitative research methods and techniques, such as missing data imputation and multilevel and longitudinal models. As a faculty member, she teaches in the areas of policy analysis, statistical methods, and research design. In addition, she has considerable experience using large-scale data from such NCES datasets as the Beginning Postsecondary Students (BPS) study, the National Educational Longitudinal Study (NELS), the National Postsecondary Student Aid Study (NPSAS), and the Integrated Postsecondary Education Data System (IPEDS).

Past research projects have been funded by the Association for Institutional Research, the American Educational Research Association, the National Science Foundation, and the SHU University Research Council (URC). Her research has appeared and will appear in the *Research in Higher Education*, *Higher Education: Handbook of Theory and Research,* and the *Journal of Higher Education.* Currently, Dr. Chen serves on the Editorial Advisory Board for the book series entitled

Globalization and Social Justice published by AMS, Press Inc. She also serves as a manuscript reviewer for the journal *Sociology of Education*.

Selected Publications

Rong, L. Y. & Chen, R. (Forthcoming). China case study. In St. John, E. (ed.) Globalization and Social Justice. AMS Press, Inc.

Chen, R. & DesJardins, S. L. (Forthcoming). Investigating the impact of financial aid on student dropout risks: Racial and ethnic differences. *Journal of Higher Education.*

Finkelstein, M., Walker, E., & Chen, R. (May 2009). The internationalization of the American faculty. In Masayo Daikoku and Futao Hunag (eds) The Changing Academic Profession, 1992-2007: International Comparative and Quantitative Perspectives. Hiroshima, JP: The Research Institute for Higher Education, Hiroshima University.

Chen, R. & DesJardins, S. L. (2008). Exploring the effects of financial aid on the gap in student dropout risks by income level. *Research in Higher Education,* 49(1): 1-18.

Chen, R. (2008). Financial aid and student dropouts in higher education: A heterogeneous research approach. *Higher Education: Handbook of Theory and Research.* 23: 209-240

In Review

Chen, R. & St. John, E. (Under revision). College student persistence, transfer, and dropout: Income and racial differences in the effects of state financial policies. *Journal of Higher Education.*

Fellowships, Awards

2009. National Summer Data Policy Institute Fellowship, Funded by the National Science Foundation and National Center for Education Statistics. The Association for Institutional Research

2009. Provost's Faculty Scholarship Award, Seton Hall University.

2008. The Stanley E. and Ruth B. Dimond Best Dissertation Award, School of Education, University of Michigan.

2007. Horace H. Rackham Graduate School Dissertation Fellowship, University of Michigan

2004-2005. Barbour Scholar, Rackham Graduate School, University of Michigan

Research Grants

2009. Summer Stipend and Research grant award. University Research Council, Seton Hall University. $6,000.

2005-2006. Dissertation Grant from the National Science Foundation/American Educational Research Association, $15,000

2005-2006. Dissertation Fellowship from the Association for Institutional Research, $10,000

Budget Requirements

Rong Chen' Budget

Personnel-Time on Project
%(FTE) Academic Year: 10.00
%(FTE) Summer: 100.00

Personnel-Salary & Benefits
Academic Year: $ 8,5100.00
Summer: $ 22,454.00

Graduate Research Assistant's Budget

Personnel-Time on Project
%(FTE) Academic Year: 5.00
%(FTE) Summer: 30.00

Personnel-Salary & Benefits
Academic Year: $ 21,600.00
Summer: $ 7,200.00

Total Salary and Wages: $34,204.00

Travel: $1,796.00
Other travel related expenses: $0.00
Other research expenses: $3,000.00
Total Request: $39,000.00

Funding History

This project has not received any other funding, nor is there any funding proposals pending for this research project.

Rong Chen received a $10,000 2005-2006 Dissertation Grant from AIR.