



**The AERA Grants Program
Key Findings of Selected Studies,
Volume 2**

**A Report to the
AERA Grants Program
Governing Board**

**Edited by
Jeanie Murdock
Program Director
AERA Grants Program**

July 2006 (revised)

AERA Grants Program Governing Board 2005-2006

Martin Carnoy

Professor of Education and Economics
Stanford University

Louis Gomez

Professor of Education and Computer Science
Northwestern University

Jeremy Kilpatrick

Professor of Mathematics Education
University of Georgia

Felice Levine

Executive Director
AERA

Michael Nettles

Senior Vice President
Policy Evaluation and Research Center
Educational Testing Service

Jerome Pine

Professor of Physics
California Institute of Technology

William Russell

Executive Director Emeritus
AERA

William Schmidt, Chair

Professor of Education and Statistics
Michigan State University

Barbara Schneider

Professor of Education
Michigan State University

Gerald Sroufe

Director of Government Relations
AERA

Karen Worth

Senior Scientist
Educational Development Center, Inc.

*Ex-Officio Members:***Mary Frase**

Division of Science Resources Statistics
National Science Foundation

Edith McArthur

National Center for Education Statistics

Larry Suter

Division of Research, Evaluation and
Communication
National Science Foundation

The research presented in this report was supported by small grant and fellowship awards from the American Educational Research Association, which receives funds for its *AERA Grants Program* from the U.S. Department of Education's National Center for Education Statistics and the National Science Foundation under NSF Grants RED-9452861, REC-9980573 and REC-0310268. Opinions reflect those of the authors and do not necessarily reflect those of AERA, NSF, or NCES.

Table of Contents

I.	Introduction and Overview	1
II.	Impact of the AERA Grants Program	4
III.	Key Findings	7
	A. Elementary and Secondary Schools and Teachers	7
	B. Student Achievement	10
	C. Early Childhood Education	11
	D. Race and Ethnicity	13
	E. Postsecondary Education	15
	F. Methodology	17
IV.	Article Abstracts	20
V.	Bibliography of Included Articles	66

I. Introduction and Overview

Education continues to be a key issue of paramount concern for both policy-makers and the general public. The President and Congress have placed education as a high priority, and the No Child Left Behind (NCLB) Act has spurred education policy discussions, reforms, and controversy nationwide. As NCLB increases the need for more accountability in schools, school districts, and states, the U.S. Department of Education’s Institute of Education Sciences is promoting higher standards for research in education through increased scientific rigor and reliability. At a time when governmental and public interest in education is surging, many important educational issues, such as standards and assessment, teacher quality and training, school accountability, resources, and student achievement are fiercely debated. The ongoing need for solid educational research has never before been more critical.

Since 1990, the American Educational Research Association (AERA) has operated the AERA Grants Program with joint funding from the National Science Foundation (NSF) and the National Center for Education Statistics (NCES) of the Institute of Education Sciences¹. This program seeks to provide scientific, accurate, and replicable research on timely education policy issues that is of use to policy makers, educators, and federal, state, and local agencies, and to build the research infrastructure necessary to conduct such studies. Through competitive small grants, fellowships, and training components, the Program has supported and encouraged researchers from a variety of disciplines (e.g., education, psychology, sociology, economics) to conduct education policy- and practice-related research using quantitative methods with data from the rich, often longitudinal, data sets sponsored by NSF and NCES. To date the program has supported 377 Small Grants (\$10,000-\$35,000 each) and Fellowships. Over 280 publications, most in well-respected, refereed journals (e.g., *Educational Evaluation and Policy Analysis*, *Sociology of Education*, *Economics of Education Review*, *American Educational Research Journal*, *Research in Higher Education*) have resulted directly from AERA Grants Program support across all components (see Table 1).

Table 1: AERA Grants Program Awards and author-reported publications by component, 1990 to May 2006.

Component	Total # of awards	Completed awards to date	# of publications	Avg # of publications per awardee *
Senior Fellows	13	12	27	2.25
Research Fellows	24	24	18	.75
Postdoctoral Fellows	3	3	2	.67
Research Grants	164	131	167	1.27
Dissertation Grants	173	144	70	.49
Totals	377	314	284	.90

*Calculated on completed awards.

Since information on publications is based on awardees keeping the Program informed beyond the grant period and the lag time to publication is often several years, it is estimated that the number of publications resulting from AERA Grants Program is higher than indicated.

¹ NSF grants that have supported the AERA Grants Program include SPA 8955347, RED 9255347, RED 8452861, REC 9980573, and REC 0310268.

For sixteen years the AERA Grants Program has been extremely successful and has evolved into an important resource for researchers who conduct scientifically rigorous, field-initiated, quantitative studies on education policy and practice issues. An external program evaluation of the AERA Grants Program (Greene, et al. 1999) concluded that the program “has demonstrated significant accomplishments in enhancing individual educational researchers’ abilities to use nationally representative, large-scale data bases in their research”² and “has contributed to the development of a strong, visible infrastructure promoting and supporting policy- and practice-relevant research with national data bases.”³

To highlight the exemplary research conducted by the AERA Grants Program awardees, in 2001 the Governing Board commissioned a report, *The AERA Research Grants Program: Key Findings of Selected Studies*, which included selected publications generated from AERA Grants Program support for the years 1995-2001. The report describes the work of the AERA Grants Program as follows:

Although relatively limited in scope, the AERA Grants Program has in fact generated a wealth of findings that have tremendous significance for educational policy. The importance of this research can be traced to the type of work that is funded. All grants rely on large-scale data sets that are drawn from multistage probability samples, which makes it possible to make predictions about the future, or evaluate programs and then describe the likelihood of what might happen if certain organizational, institutional, or instructional reforms were implemented on a larger scale. Secondary data analysis of federal data sets, particularly data sets that obtain information on individuals and institutions over time, continues to provide perhaps the richest scientific source for educational policy research we have to date.⁴

Key Findings, Volume 2 builds on the previous reports and showcases exemplary research supported by the AERA Grants Program from 2002 to 2005. For *Key Findings, Volume 2*, forty-eight awardees who had completed their grant projects and reported publications as a result of AERA Grants Program support were asked to submit structured abstracts of each publication that appeared in a peer-reviewed journal. Such journals rely on unbiased peer review and serve as the standard for what is considered by the field as high-quality research capable of withstanding rigorous review by scientists and policy makers. The resulting forty-six structured abstracts are the basis of this report.

The report is organized into six topical areas: elementary and secondary schools and teachers, student achievement, early childhood education, race and ethnicity, postsecondary education, and methodology. It is important to note that all of the research showcased in this report was conducted with awards ranging between \$10,000 and \$35,000. The report includes selected brief “key findings” followed by full abstracts written by the authors of the publications, and a bibliography of the journal articles included in this report. A complete bibliography of all publications resulting from AERA Grants Program support and further information on the program may be found at <http://www.aera.net/grantsprogram>.

² p. iv, Greene, J., et al.

³ p. iv-v, Greene, J. et al.

⁴ p. i, Whiteley, et al.

The findings and conclusions presented herein reflect the opinions of the individual authors and do not necessarily reflect the views of AERA, the AERA Grants Program Governing Board, or the funding agencies.

References

Greene, J., Goodyear, L, Tischler, C., and Galin, M. (1999). *The Grants Program of the American Educational Research Association*. (<http://www.aera.net/grantsprogram>)

Whiteley, B.J., Seelig, S.E., Weinshenker, M., and Schneider, B. (2002). *The AERA Research Grants Program: Key Findings of Selected Studies*. (<http://www.aera.net/grantsprogram>)

II. Impact of the AERA Grants Program

From the forty-six journal articles included in this report, all of which were supported by the AERA Grants Program, many important policy recommendations emerged from the findings. Although somewhat disparate in content, the findings pointed to practices that could potentially improve the quality of education for all students and especially those in families and schools with limited economic and social resources. Areas where the policy implications seemed especially clear focused on ways to improve educational achievement, enhance early childhood education, promote access to postsecondary institutions, and reduce inequities for ethnic and racial minorities. This report illustrates key findings from these selected publications.

Research shows that the way schools are organized and financed can affect students, sometimes in unintended ways. Schools that are effective in promoting growth in achievement are not necessarily effective in reducing dropout or transfer rates. School policies that emphasize improvement in test scores may hurt performance in other areas, especially for high schools where having students graduate is more important than having students improve test scores. Money matters, especially when spent on instruction. Some school districts facing high levels of competition spend a higher proportion of available resources on student instruction, however, most school districts generally spend too few of available resources on instruction. Although school districts comply with the letter of the law, Title I ultimately fails to fully meet the spirit of its mandate to supplement instructional spending. State and local revenue efforts initially are unaffected by Title I changes, but local governments substantially and significantly crowd out changes in Title I within a 3-year period.

The evidence on the creation of charter schools shows that educational organizational environments, the local political environment, and legislative support are key in the process of generating charter schools. States tend to mimic adjacent states regarding charter school legislation. The presence of non-religious private schools increases the submission of charter school applications. In school districts that are relatively even in distributions of white and non-white students, charter schools may provide a public school option for “white flight”. Specific education policies, such as requiring transportation and having multiple chartering authorities, are important for encouraging charter schools to serve low income and minority students.

Teachers were the focus of several articles. Findings show that racial, ethnic, and gender dynamics between students and teachers affect teacher perceptions of student performance. Student discipline problems are a major reason for teachers’ dissatisfaction with their jobs, second only to low compensation. Minority teachers are less satisfied with both work conditions and student discipline than their white peers.

International studies comparing the US and other countries found that the US is unusual in the way it differentiates mathematics instruction for students. Tracking of US students was prevalent within schools, whereas European countries operated technical and vocational tracks parallel to academic tracks. Student attitudes toward mathematics and students’ socioeconomic status (SES) seem to be the most consistent predictors of achievement worldwide. Similarly, school average SES was consistently predictive of school-level achievement in the majority of countries studied. School violence, although not related to national crime rates, is prevalent in the 37 countries

studied. National systems of education that have greater achievement differences between high-achieving and low-achieving students record more violence in the schools.

The findings related to student achievement show that neighborhood effects (e.g., collective socialization, social control, social capital, perception of opportunity, and institutional characteristics) affect educational achievement. Individual, family, and neighborhood characteristics all have a significant effect on the probability that a child will repeat a grade. Participating in cultural activities, such as, lessons in art, dance, or music, visits to museums and libraries, and attending concerts, showed a significant positive effect on the grades of girls, less significant for boys. Participation in cultural activities is related to SES, with higher participation rates for more advantaged students. The involvement of fathers has a positive impact on student achievement over and above that accounted for by mother involvement.

Early childhood education studies included findings on kindergarten and early elementary education, as well as preschool. For kindergarten students, delayed entry shows beneficial effects in terms of higher test scores at kindergarten entry and larger gains in the early school years. However, longer term effects are still unproven. There is no evidence that a policy of grade retention in kindergarten improves average achievement in mathematics or reading. In fact, children who were retained would have learned more in both reading and mathematics had they been promoted. Both lower and higher poverty schools are equally likely to have computers available for children in kindergarten classrooms. However, the digital gap widens as children move into first grade. Frequent use of software for literacy, mathematics, and games was positively correlated with academic achievement during kindergarten. Although most schools offer African American students the opportunity to access computers, a majority of those students do not have access to home computers, especially children attending lower poverty schools. Full-day kindergarten benefits children who learn to read more slowly than other children, however, the effect is lessened when holding constant SES and age of entry to kindergarten. At the preschool level, at-risk children who participate in high-quality preschool programs and those who have literacy rich home environments show increased competence and resilience when they enter kindergarten.

Studies on racial and ethnic issues found that Spanish-English dual language programs in US public schools are viable in economically and racially diverse settings, although they most often exist in large, urban school districts with large enough populations of Spanish- and English-speakers to balance classrooms. Biliteracy is a possible endpoint of linguistic assimilation, and biliteracy in Spanish and English, in comparison to English monolingualism, offers a significant advantage in educational attainment. Biliterate students are significantly more likely to complete high school and go on to college, compared to their monolingual peers. When African American students formulate self-evaluations of their own academic competence, they are less sensitive to external performance measures such as results on standardized tests and grades. When selecting levels of self-esteem, both African American and white students are equally likely to rely on their own evaluations of their academic competence and their own academic performance. Non-promotional student mobility appears to impinge on academic performance in 12th grade, especially for Mexican-American adolescents. Peer connectedness may be an especially salient test score predictor among youth of Mexican descent. The diagnosis of Learning Disabled (LD) was more prevalent for white students in the 1970s, but by 1998 disadvantaged minority status

was the major social determinant of LD diagnosis, especially due to high rates of LD among African American students.

Research on higher education shows that students who attain a bachelor's degree are more likely to have experienced a higher number of advantages during high school than students who attend college but do not graduate. High school students who do not go on to college experience a higher number of adversities. Students from lower income families are more likely to drop out of college before completing a degree, although students with financial aid in the second and third years were less likely to drop out. Students from lower SES backgrounds are more likely than advantaged students to follow complex, rather than linear, attendance pathways toward degree attainment. However, part-time enrollment significantly deters college completion, whereas the number of prior enrollments facilitates college completion. College graduates with a loan debt of \$5000 or more are significantly less likely to apply within one year of graduation to doctoral programs than their peers who do not have loan debt.

Studies of the effects of college degree attainment on wages found that students who complete their degree at 25 or older receive a significantly lower premium in wages than those who graduate at a younger age. The penalty for late graduation is much smaller for women than for men. The effects of college quality increase in the early period of graduates' careers. There appears to be an increasing gender gap and relative little disparity in earning and growth in the early careers of college graduates. It appears to pay to attend high-quality colleges, however, the measures of college quality must be clearly defined and specified. Graduates from high-quality colleges are more likely to enroll in graduate programs, especially doctoral programs at research universities, and are also more likely to graduate within four or five years. For recent college graduates, differences in salaries tend to arise mainly from labor market rather than academic differences between men and women.

Studies of postsecondary faculty also found that part-time faculty are more satisfied with their positions than full-time faculty, and are engaged in work they enjoy, namely teaching. For Asian-American women faculty, there is no consistent evidence of a "glass ceiling", although data limitations do not allow a clear conclusion on this issue.

All studies in this report use sophisticated quantitative methods that underscore the value of analyzing large datasets to provide accurate and reliable measures of educational outcomes. Because the emphasis of the program is on education policy and practice, few strictly methodological studies are funded by the AERA Grants Program. The articles in the methodology section describe new methods and approaches for analyzing large data sets. One article evaluates the utility of unidimensional versus multidimensional conceptualizations of father involvement in child rearing. Another uses growth mixture modeling to test the existence of unique growth trajectory classes through a combination of latent class analysis and standard growth curve modeling. A framework for causal inference in which peer effects can be summarized via a scalar function of the vector treatment assignments in a school was used to look at retention policies in kindergarten. Lastly, practical solutions for using structural equation modeling techniques with complex data samples are evaluated. These and other studies presented here provide a wealth of innovative statistical methods, models, and techniques that can be used in further research in a variety of disciplines.

III. Key Findings Organized by Substantive Area

Identified by author, date of publication, and data source used. Complete citations available in the Article Abstracts and Bibliography of Included Articles sections.

A. Elementary and Secondary Schools and Teachers

Main Issues

Elementary and secondary schools and teachers are vital elements in the educational environment, and much of the research supported by the AERA Grants Program focuses on these areas. Several studies examine how schools are organized, charter school creation and policies, and school financing. Others focus on factors such as school violence and high school dropout. Studies on teachers include the examination of the effects of racial differences between teachers and students and the consequences for student performance, and the effect of student discipline problems on teacher satisfaction.

Key Findings

Akiba, LeTendre, Baker, and Goesling (2002) TIMSS 1995

- School violence is widely prevalent among the 37 nations studied, although it is not related to general crime rates in these nations.
- School violence rates are related to some social indicators such as absolute deprivation and age distribution, but not to others such as income inequality or social integration.
- National systems of education that produce greater achievement differences between high-achieving and low-achieving students tend to record more violence.
- Providing equal access to high quality instruction may mediate school violence.

Dee (2005a) NELS:88

- Racial, ethnic, and gender dynamics between students and teachers have consistently large effects on teacher perceptions of student performance and are an important focal point for addressing inequities.
- The effects associated with race and ethnicity appear to be concentrated among students of low socio-economic status and those in the South.
- Since teacher perceptions are likely to influence educational opportunities as well as the classroom environment, classroom interactions make important contributions to the observed demographic gaps in student achievement.

Dee (2005b) CCD, SDDDB

- Money can matter, in particular, money spent on instruction.
- The effective allocation of school district resources depends, in part, on their institutional setting.
- School districts generally spend too few of available resources on instruction. However, money spent on instruction is highly effective when conditioned on the decision to spend outside the classroom.

Gordon (2004) Census of Governments Elementary-Secondary School District Financial Data (F33), SDDDB

- State and local revenue efforts initially are unaffected by Title I changes, but local governments substantially and significantly crowd out changes in Title I within a 3-year period.
- Although school districts comply with the letter of the law, Title I ultimately fails to fully meet the spirit of its mandate to supplement instructional spending.
- Title I increases initially boost total school district revenue and instructional spending about dollar for dollar, but by the third year following the census-determined Title I changes, the effects are no longer significantly positive in the full sample, due to local government reactions countering the effects of Title I.
- These local reactions occur across all regions and regardless of aggregate state-level changes, but state revenue reactions to individual districts differ by state-level changes in Title I.

Lacireno-Paquet (2004) SASS and CCD

- Certain education policy characteristics, such as having multiple chartering authorities and requiring the transportation of students, are important for explaining charter schools' service to low-income and minority students.
- Being managed by a large for-profit educational management organization (EMO) was positively but not significantly related to charter school enrollment of low-income and minority students.
- Small-EMOs served significantly lower percentages of minority students.
- Policy design and organizational form matters for determining the student population that charter schools will serve.

Lacireno-Paquet (2006) SASS, Charter School Survey

- Management of charter schools by for-profit EMOs can have both positive and negative effects on low-income and minority enrollment depending on EMO type and urban location.
- Strong and significant effects were shown for the importance of state policy characteristics in terms of shaping charter school enrollments of low-income and minority students.
- State policies on charter schools, especially on issues of authorization, funding, and transportation, must be considered carefully to ensure the market and regulatory environment do not create incentives for charter schools to avoid traditionally disadvantaged student populations.

Liu and Meyer (2005) TFS 94/95

- Student discipline problems are a major reason for teachers' dissatisfaction with their jobs, second only to low compensation.
- There is little association between teachers' satisfaction with their salary and their perception about student discipline problems.
- Private school teachers are generally more satisfied with their jobs than public school teachers.

- Minority teachers are less satisfied with work conditions and student discipline problems than non-minority teachers.

O'Dwyer (2005) TIMSS 95/99

- Compared to other countries, the US is unusual in the way it differentiates mathematics instruction for its students. US students receive mathematics instruction in some of the most homogenous environments, with considerable variation between classrooms within the same school, and among schools.
- Unlike European countries which operate technical and vocational tracks parallel to their academic tracks, the US students were likely to be tracked within schools.
- Students' attitudes toward mathematics and students' SES seem to be the most consistent predictors of achievement both within and across TIMSS administrations.
- The amount of non-academic work, paid or otherwise, that a student participated in outside of school was negatively associated with achievement in all countries.

Renzulli (2005) CCD

- Educational organizational environments are key in the process of generating charter schools.
- Non-religious private schools increase the submission of charter school applications, while the density of extant charter schools in local districts decrease the submission of applicants.
- Local political environment and legislative support play a significant role in the creation of charter schools.

Renzulli and Roscigno (2005) Census, CCD, PSS

- States tend to mimic adjacent states in terms of charter school legislative adoption. Likewise, regional similarities exist for charter school creation.
- Internal attributes of states, such as competition between private and public school sectors, the relative strength of teacher's unions, the presence of racial competition, urbanization, and political party dominance likewise play a role, depending on whether the analytic focus is on legislative adoption or policy implementation.

Rumberger and Palardy (2005) NELS:88

- Schools that are effective in promoting student learning (growth in achievement) are not necessarily effective in reducing dropout or transfer rates.
- High schools have relatively little variability in dropout rates after controlling for student inputs, but considerable variation in transfer rates.
- Characteristics of schools that contributed to performance in one area often did not contribute to performance in another.
- Policies designed to improve performance in test scores could hurt performance in other areas, especially at the high school level where having students graduate may be at least as important as having students improve test scores.
- In addition to test scores, dropout and transfer rates should be used to judge school performance.

B. Student Achievement

Main Issues

Student achievement is a key measure of educational success, and many articles focus on factors related to improving achievement at all levels of schooling. Studies of this type move inside the school, investigating not only the teachers and students but also other relevant actors, including parents, peers, and administrators, to understand the interrelationship between the social structure and student performance. Often using sophisticated multilevel analytic techniques, these investigations examine the effects of individual motivation, neighborhood characteristics, father involvement, grade repetition, teen drinking and employment on student achievement.

Key Findings

Ainsworth-Darnell (2002) NELS:88, Census

- Neighborhood level social inequalities affect educational outcomes.
- Theoretical mediators of neighborhood effects on educational performance (collective socialization, social control, social capital, perception of opportunity, and institutional characteristics) account for about half of the neighborhood effect on educational achievement, with collective socialization having the strongest influence.

Corman (2003) NHES, CCD

- State-to-state variations in overall school expenditures, special education enrollments, handicapped preschool enrollments, and Head Start allocations are not found to have a significant impact on whether a child repeats a grade.
- School entrance month has a very large and significant impact on individual students' probability of having repeated a grade, due to the relative age of the student.
- Variations in state policies are not found to have an impact on rates of school failure.
- Individual, family, and neighborhood characteristics are all found to have large and significant effects on the probability that a child will repeat a grade.

Dee and Evans (2003) NELS:88, 1990 PUMS, MTF

- Alcohol use among teens has small and statistically insignificant effects on educational attainment.
- While there may be good policy reasons to restrict youth alcohol availability, the putative benefits in terms of human capital decisions are not among them.

Dumais (2002) NELS:88

- Participating in cultural activities (such as art lessons, music lessons, dance lessons, library visits, museum visits, and attending concerts) positively affects the grades of boys and especially girls.
- Socioeconomic status correlated with participation in cultural activities, with students from high socioeconomic backgrounds being more likely to participate.
- Special efforts should be made to ensure access to arts education for students from lower socioeconomic backgrounds.

McBride, Schoppe-Sullivan, and Ho (2005) PSID-CDS I

- Father involvement has a positive impact on student achievement over and above that accounted for by mother involvement.
- Relationships among some aspects of school-level and family-level resources and child achievement are partially mediated by fathers becoming involved in personal communications with their children about school and school experiences.
- Fathers' communication with teachers and counselors is significantly associated with a decrease in the negative relation between family income and student achievement.

Warren and Cataldi (In press) CPS, Census, NLSY:79/81 and 97/99, HS&B, NELS:88

- Rates of employment among adolescents have changed little since 1940.
- The relationship between students' intensive employment (more than 20 hours per week) and high school completion has been stable and persistently large since the late 1960s.

C. Early Childhood Education

Main Issues

Early childhood education, including preschool through 3rd grade, is a critical time in the development of a child. Schooling and learning at an early age often sets the tone for future academic performance and provides the framework for student success or failure. The studies included in this section examine topics specifically related to early childhood education, such as, at-risk children in preschool settings, technology availability and use in early elementary school, the effects of kindergarten retention on student achievement, delayed entry into kindergarten, and the effect of the length of the school day on reading achievement in kindergarten.

Key Findings

Datar (2006) ECLS-K

- Delaying kindergarten entry may have beneficial effects in the short-run in terms of higher test scores at kindergarten entry and larger gains in the early school years.
- Benefits may be more pronounced for at-risk children.
- It is unknown whether these effects persist in later years and how entry age impacts non-academic outcomes.

Hong and Raudenbush (2005) ECLS-K

- There is no evidence that a policy of grade retention in kindergarten improves average achievement in mathematics or reading. Nor was there evidence that the policy of retaining some classmates in kindergarten would benefit those children who would always be promoted.
- Children who were retained would have learned more in both reading and mathematics had they been promoted. After being retained for one year, the average loss in academic growth experienced by the retainees was equivalent to almost half a year's expected growth.

- At-risk children promoted to the next grade level appeared to have a better chance of growth acceleration.

Judge (2005a) ECLS-K

- Most schools offer young African American children the opportunity to access computers, and the availability of computer resources at schools and home increased from kindergarten to first grade. However, a majority of African American students do not have access to home computers, especially for children attending lower poverty schools.
- Access to and use of a home computer, computer area in classrooms, child/computer ratio, software, and computers in school were positively correlated with academic achievement.
- Frequent use of software for literacy, mathematics, and games was positively correlated with academic achievement during kindergarten. High achieving African American children used software for literacy and math more frequently than both low and average achievers during kindergarten.

Judge (2005b) ECLS-K

- Center-based child care and literacy rich home environment are tied to competence as well as resilience among at-risk children.
- One way to increase children's competence as they begin kindergarten is through at-risk children's participation in high quality preschool programs with developmentally appropriate and intellectually engaging curriculum.

Judge, Puckett, and Cabuk (2004) ECLS-K

- Lower and higher poverty schools are about equally likely to have computers available for children when they start their formal schooling. However, the digital gap starts to widen as children move into first grade.
- Even though children's access to most computer resources at school increased from kindergarten to first grade, children attending high poverty schools had significantly less access to computers and software.
- Young children's use of computers in their classrooms differed by school poverty status.

Kaplan (2002) ECLS-K

- Three reliable growth trajectory classes were identified corresponding to slow-developing, normal-developing, and fast-developing reading growth in kindergarten students.
- Full-day kindergarten attendance benefits children in the slow reading development class relative to the normal and fast reading development class, but that effect is lessened when holding constant socio-economic status and age-of-entry into kindergarten.

D. Race and Ethnicity

Main Issues

Race and ethnicity are often considered critical factors that influence student learning. These socially constructed terms are used to compare differences in learning opportunities and outcomes among students depending on their membership in one particular racial or ethnic group. The research reported here focuses on student mobility, the distribution of social capital across racial/ethnic groups, segregation and the racial composition of charter schools, self-concept for Black youth, minority representation in special education, dual-language programs in the schools, and Spanish language maintenance and biliteracy.

Key Findings

Linton (2004a) Census

- Metropolitan-area context – notably bilinguals’ status and Hispanics’ political influence – greatly influences the odds of bilingualism among US-born Hispanic adults.
- In addition to macro-level factors such as size of an area’s Latino immigrant population, there is evidence for a critical mass effect. People are more likely to maintain bilingualism when lots of others around them are doing the same thing.
- Spanish-English bilingualism is a possible endpoint of linguistic assimilation, not just a stop along the way to English monolingualism.

Linton (2004b) SDDDB, Census

- Spanish-English dual-language programs in US public schools are viable in economically and racially diverse settings. They are most likely to exist in relatively large, urban school districts, where there are enough Spanish- and English-speakers to balance the classrooms, and not too many other-language students whose English is limited.
- Factors significantly related to the presence of a dual-language program in a school district are relatively high parent education and parents’ ability to spend time at school.
- The growth of dual-language education seems to correspond to a change in the degree to which non-Hispanics value Spanish.

Lutz (2004) NELS:88

- Biliteracy in Spanish and English, in comparison to English monolingualism, offers a significant advantage in educational attainment. Biliterate students are significantly more likely to complete high school compared to their monolingual peers.
- Students with oral proficiency in Spanish, in addition to proficiency in English, are not significantly different in terms of their likelihood to complete high school than are English-only speakers.
- Biliterate students are significantly more likely to enter college, particularly a bachelor’s program, than are their peers who speak only English.

Morgan and Mehta (2004) NELS:88

- When Black students formulate self-evaluations of their own academic competence, they are less sensitive to external performance evaluation (i.e., results on standardized tests and grades).
- When Black students select levels of general self-esteem, they are just as likely as White students to rely on their own evaluations of their academic competence and to rely on their own academic performance.

Ong-Dean (In press) Office for Civil Rights, Elementary and Secondary School Compliance Report, 1976, 1986, 1998.

- In 1976, Black and Hispanic students in California were significantly less likely to be diagnosed Learning Disabled (LD) than white students, mainly due to their presence in high-minority districts where overall LD rates are low. This suggests a tendency for privileged students to be diagnosed LD at higher rates in the 1970s.
- By 1998 disadvantaged minority status was the major social determinant of LD diagnosis, especially due to high rates of LD among Black students.
- Discriminatory school practices and underidentifying disadvantaged minority students with emerging disability diagnoses, such as Asperger's Syndrome, may be resulting in minority overrepresentation with LD.

Ream (2003) NELS:88

- Mexican Americans change residences and schools more frequently than their white counterparts, and non-promotional student mobility appears to impinge on 12th grade math test score performance, particularly among youth of Mexican descent.
- Defensive and accommodating teaching strategies may increase students' *perceptions* of teachers' concern for their well-being, while concomitantly short-circuiting the convertibility of social capital into 12th grade test score performance, especially among Mexican-American adolescents.

Ream (2005) NELS:88

- The relative distribution of social capital across racial/ethnic groups is partly dependent on the form in which social capital is measured.
- Peer connectedness may be an especially salient test score predictor among youth of Mexican descent.
- Mexican American adolescents appear to be comparably disadvantaged in terms of the availability of peer connectedness. School organization practices, e.g., tracking, can also interrupt the flow of social possibilities, contributing to the social cohesion of certain groups of students over Mexican origin youth.

Renzulli and Evans (2005) SASS, CCD

- Relatively even distribution of white and non-white students within districts and corresponding competitive pressures spur white charter school enrollment.
- Racial competition within the educational arena may be bolstering the return to school segregation.
- Charter schools may provide a public school option for white flight without the drawbacks of residential mobility.

E. Postsecondary Education

Main Issues

Research in postsecondary education provides valuable and timely information to policy makers who must make decisions on funding higher education, student financial aid programs, access to college and affirmative action, and the determination of what programs are necessary for training the future workforce, both locally and globally. The research presented in this section provides important new information related to a wide range of postsecondary education issues, such as, faculty satisfaction, the paths students take toward earning a degree, student dropout, the effects of college quality and gender on future earnings, financial aid and student debt burdens.

Key Findings

Antony and Valadez (2002) NSOPF

- Both full- and part-time faculty members in higher education express equal levels of satisfaction with their workloads, job security, opportunities for advancement, pay, and benefits.
- Contrary to much of the literature, part-time faculty are purposefully engaged in work they enjoy, specifically teaching.
- Overall, part-time faculty report more satisfaction with their jobs than full-time faculty.

Dumais (2005) NELS:88

- Students who attain a bachelor's degree are more likely to experience a higher number of advantages in high school (such as financial resources, achievement in school, engagement in school, parental and significant others' involvement, expectations and plans for the future, and school characteristics) than students who attend college but do not graduate.
- Students with only a high school diploma are more likely to experience a higher number of adversities.
- It is possible for students to overcome one life domain adversity (such as lack of financial resources) with the presence of advantages in another domain (such as teachers' encouragement).

Goldrick-Rab (2006) NELS:88, PTF

- Students from lower socioeconomic backgrounds are more likely than advantaged students to follow pathways characterized by interrupted movement, attending more than one school, and taking time off.
- Students from disadvantaged family backgrounds and those with poorer high school preparation are following pathways in college that are unlikely to lead to successful degree completion.
- Students from advantaged backgrounds are able to move among schools while maintaining their enrollment, while disadvantaged students who change schools also take some time off.

- Higher education institutions should redesign their systems with the understanding that students now follow complex, rather than linear, attendance pathways.

Ishitani and DesJardins (2002) BPS: 90/94

- Students from lower income families were more likely than their counterparts to depart college before completing their degree, especially in the second and third year of attendance.
- Students with financial aid were particularly less likely to drop out in the second and third years.

Joy (2003) B&B

- For recent college graduates, differences in salaries tend to arise mainly from labor market rather than academic differences between men and women.
- Gender differences in job sector, industry, and hours worked have the largest effect on gender differences in salaries.
- Most important, as much as 75% of the wage gap remains unexplained by both the academic and labor market variables.
- While in the past, encouraging women to complete college and major in traditionally male-dominated fields has contributed to the closing of the wage gap, it would appear now that educational parity alone does not ensure labor market parity.

Lee (2002) NSOPF

- There is no consistent evidence of a glass ceiling for Asian American faculty in higher education. However, additional evaluation of the effects of independent variables produces a more complex picture.
- Asian American faculty do not derive comparable benefits from several characteristics associated with high salaries for whites and appear to have more limited pathways to higher salaries.
- Data limitations caution against concluding that Asian American faculty either face or do not face a glass ceiling.

Millett (2003) B&B 1993/94

- College graduates with a loan debt of \$5000 or more are significantly less likely to apply within one year of graduation to doctoral programs at graduate schools than their peers who did not have educational debt.
- Bachelor's degree recipients who expect to earn a doctoral degree appear not to be adversely affected by financial indebtedness in enrolling in graduate school if they apply and are accepted.
- The offer of financial aid by the student's first choice graduate school was a significant predictor of enrolling.

Taniguchi (2005) NLSY79

- Students who complete their degree at 25 or older receive a significantly lower premium in wages than those who graduate at a younger age. The late college penalty is partly due to the delayed onset of the cumulative benefits higher education provides.
- The penalty for late graduation is much smaller for women than men.

Taniguchi and Kaufman (2005) NSLY79

- Part-time enrollment significantly deters college completion, whereas the number of prior enrollments facilitates college completion.
- Being relatively young, having high cognitive ability, and a high-status occupational background also increase the chance of college completion, but these effects partly differ by gender.
- Being divorced and having young children, the factors often negatively associated with women's socioeconomic status, suppress degree completion for both genders.

Thomas and Zhang (2005) B&B 1993/97

- The effects of college quality increase in the early period of graduates' careers.
- While earnings growth was observed among graduates from every field except the biological sciences and history relative to majors in education, graduates with majors in business, engineering, and mathematics fields enjoyed earnings increases greater than those observed among education graduates.
- There appears to be an increasing gender gap and relative little racial disparity in earnings and growth.

Zhang (2005a) B&B 93/97

- Graduates from high-quality colleges are more likely to enroll in graduate programs, especially in doctoral programs at research universities.
- Graduates from high-quality colleges are more likely to finish their graduate degree within four or five years of college graduation.
- Socioeconomic factors and academic factors work in tandem for graduate students. The academically and socioeconomically "rich" become richer while the academically and socioeconomically "poor" become poorer.

Zhang (2005b) B&B 93/97

- The common wisdom that it pays to attend high-quality colleges is quite robust over an array of measures of college quality.
- The estimated effect of college quality is sensitive to the measure of college quality, suggesting that different measures of college quality may provide partial explanation for varying effects of college quality in previous studies. Researchers need to be very explicit about how college quality is defined and measured.

F. Methodology

Main Issues

Large data sets by the very nature of their construction invite methodological analyses, whether it is to improve the quality of the data sets themselves or to experiment with new approaches for analyzing various outcomes. The studies in this section focus on developing new models and methods for analyzing large data sets and for making causal claims.

Key Findings

Hong and Raudenbush (In press) ECLS-K

- The authors proposed a framework for causal inference in which peer effects can be summarized via a scalar function of the vector of treatment assignments in a school.
- Assumptions underlying the framework include: (i) generalization of causal inferences is restricted to current school assignments; (ii) there is no interference between schools, and (iii) strongly ignorable treatment assignment, i.e., one's own and one's peers' treatment assignments, are independent of the ensemble of potential outcomes given observed covariates.
- Multi-level propensity-score stratification was used to approximate a two-stage experiment. At the first stage, intact schools are blocked on covariates and then, within blocks, randomly assigned to a policy of retaining comparatively more or fewer children in kindergarten. At the second stage, "at risk" students within schools are blocked on covariates and then assigned at random to be retained.
- The data showed no evidence that children at low risk of repetition of kindergarten benefited from a school's high retention rate and no empirical support for the kindergarten retention policy.

Kaplan (2002) ECLS-K

- Growth mixture modeling is a relatively new procedure for the analysis of longitudinal data that relaxes many of the assumptions associated with conventional growth curve modeling.
- Growth mixture modeling tests for the existence of unique growth trajectory classes through a combination of latent class analysis and standard growth curve modeling. Antecedent predictors of the latent classes can be incorporated, as well as relations from the latent classes to specific outcomes.
- When the population is composed of finite mixtures defined by unique growth trajectories, the application of conventional (single class) growth curve modeling will yield an incomplete picture of growth. Growth mixture modeling provides a more nuanced representation of the population and yields more information on which to base policy decisions or to focus future research.

Schoppe-Sullivan, McBride, and Ho (2004) PSID-CDS I

- This study evaluates the utility of unidimensional versus multidimensional conceptualizations of father involvement in child rearing and identifies the limitations inherent in using a global approach to measuring this construct.
- Employing Confirmatory Factor Analysis (CFA) techniques using maximum likelihood estimation to obtain parameter estimates, a six first-order model and a single second-order factor analysis model were compared to explore whether a global father involvement construct representing commonalities among the distinct dimensions of involvement was possible.
- Although the use of brief questionnaires such as the Inventory of Father Involvement has its advantages, researchers interested in identifying the antecedents and consequences of father involvement would be better served by developing separate measures that tap into the different dimensions of this construct.

Stapleton (2006) ECLS-K and simulated data

- This study evaluates different approaches for accommodating the complex sampling design of many national and international data sets into structural equation modeling analyses.
- Population data were simulated to have different levels of intraclass correlations and design informativeness, and six different sampling designs were imposed on the population data.
- Given the conditions studied, the pseudomaximum likelihood estimation procedures (PML) resulted in robust estimates of standard errors and chi-square statistics.
- Researchers should attempt to use PML estimation when analyzing data that arise from complex sampling designs within the structural equation modeling framework.

IV. Article Abstracts, in alphabetical order.

AERA Grants Program awardees listed in **bold**.

Ainsworth-Darnell, James W. (2002) Why does it take a village? The mediation of neighborhood effects on educational achievement. *Social Forces* 81, pp. 117-152.

Data Source(s):

National Education Longitudinal Study of 1988 (NELS:88) and 1990 Census data

Purpose of the Study:

To examine the educational failure often associated with youth living in neighborhoods experiencing concentrated poverty. The current study examines this issue by identifying which neighborhood characteristics influence educational achievement and what mechanisms mediate these associations.

Study Design and Methods:

Several theoretical mediators of neighborhood effects on educational performance (collective socialization, social control, social capital, perception of opportunity, and institutional characteristics) are examined to test whether they influence educational achievement and which has the greatest impact.

Findings:

This study reveals that theoretical mediators of neighborhood effects on educational performance (collective socialization, social control, social capital, perception of opportunity, and institutional characteristics) account for about half of the neighborhood effect on educational achievement, with collective socialization having the strongest influence.

Policy Implications:

While it is not easy to change the existing neighborhood level social inequalities, this paper detailed how these inequalities affect educational outcomes. If policy makers cannot solve the root causes of poverty and racial segregation, knowing how these factors translate into educational failure can guide them toward effective educational policies.

Akiba, Motoko, LeTendre, G., Baker, D., & Goesling, B. (2002). Student victimization: National and school system effects on school violence in 37 nations. *American Educational Research Journal*, 39 (4), 829-853.

Data Source:

Trends in International Mathematics and Science Study (TIMSS) 1995

Purpose of the Study:

The purposes of this study were to (a) explore the amount of school violence among the 37 nations in the study; (b) ascertain whether the traditional national-level predictors of crimes and delinquency explain cross-national variation in school violence; and (c) test whether factors related to the educational system are associated with levels of school violence cross-nationally.

Study Design and Methods:

This study conducted a quantitative cross-national analysis of 37 nations. Correlation and multiple regression analyses were conducted.

Findings:

The major findings of this study can be succinctly summarized as follows:

- School violence is widely prevalent among the 37 nations studied.
- School violence rates are not related to general crime rates in these nations.
- School violence rates are related to some social indicators such as absolute deprivation and age distribution but not to others such as income inequality or social integration.
- National systems of education that produce greater achievement differences between high-achieving and low-achieving students also tend to record more violence.
- When school-system variables are controlled for, many social variables become non-significant.

Policy Implications:

Our analyses focused on school violence at the national level and have some important policy implications for the American educational system. The strong linkage between achievement variation and school violence indicates the potential that providing equal access to high quality instruction may mediate school violence. It is likely that large variation in student achievement, at the national level, means higher percentages of students perceiving themselves as failures relative to other students.

We suggest further studies and testing of one possible remedy for school violence: Equalize the quality of education that all students receive. Increasing school effectiveness measured by level of overall national achievement and variation in student achievement seems the most likely national policy intervention that can be currently identified. Educational policies that encourage a higher overall level of achievement with less variation would likely facilitate safer school environments as well as provide a better environment for learning for all students in the United States.

Antony, James S. and Valadez, J.R. (2002). Exploring the satisfaction of part-time college faculty in the United States. *Review of Higher Education*, 26 (1), 41-56.

Data Source:

National Study of Postsecondary Faculty 1992-93 (NSOPF)

Purpose of the Study:

During the past two decades, two-year and four-year colleges have increased their reliance on part-time faculty. For many institutions hiring part-time faculty is a permanent strategy to meet the demands for instruction while maintaining cost effectiveness. Accounts in popular media and the literature describe part-time faculty as individuals who piece together academic careers by teaching courses at several institutions for modest pay and meager benefits, and who are frustrated and searching for full-time, permanent appointment. This study examines the accuracy of that perception by empirically investigating the satisfaction of part-time faculty.

Study Design and Methods:

This study uses a latent structural model of part-time faculty role satisfaction that captures the multi-dimensionality of this psychological construct. The measure of faculty satisfaction includes 15 items from NSOPF that address how satisfied individuals are with various aspects of their jobs.

Findings:

Both full- and part-time faculty express equal levels of satisfaction in the demands and rewards scale. No evidence exists to suggest that full-time or part-time faculty experience different levels of satisfaction with their workloads, job security, opportunities for advancement, pay or benefits. Full-time faculty are more satisfied with their level of autonomy than part-time faculty. Both full-time and part-time faculty indicated low levels of satisfaction with time available to advise students and with the quality of students, although full-time faculty were significantly more satisfied with students than part-time faculty. Overall, part-time faculty report more satisfaction with their jobs than full-time faculty.

Policy Implications:

Further research is needed to explore the differences in levels of satisfaction between part- and full-time faculty and whether the dimensions of satisfaction are the same for these two groups. Working toward a more nuanced and complete understanding of satisfaction and developing models that would help administrators in two-year and four-year institutions create environments that would contribute to job satisfaction of part-time faculty is a worthwhile goal.

Corman, Hope (2003). The effects of state policies, individual characteristics, family characteristics, and neighborhood characteristics on grade repetition in the United States,” *Economics of Education Review*, 22, 409-420.

Data Source:

National Household Education Survey (NHES) from 1991, 1993, 1995, and 1996, and the Common Core of Data (CCD). These are augmented with published data from the Education Commission of the States, Annual Report to Congress on Special Education, and data from the *Digest of Education Statistics*.

Purpose of the Study:

To investigate the effects of state education policies on grade repetition. The policies are: Head Start Expenditures, provision of public pre-school handicapped programs, current school expenditures per pupil, provision of special education services, and grade school entrance dates.

Study Design and Methods:

Multivariate probit models are performed with repeated a grade as a function of child, mother, neighborhood, and family characteristics, state education policies, and age of the child relative to the cutoff age for starting school. Altogether, there are 30,000 – 40,000 observations per model.

Findings:

State-to-State variations in overall school expenditures, special education enrollments, handicapped preschool enrollments, and Head Start allocations are not found to have a significant impact on whether a child repeats a grade. School entrance month has a very large and significant impact on individual students’ probability of having repeated a grade. This impact is due, almost entirely, to the relative age of the student. Thus, overall, variations in state policies are not found to have an impact on rates of school failure. In contrast, individual, family, and neighborhood characteristics are all found to have large and significant effects on the probability that a child will repeat a grade.

Policy Implications:

Current state policies do not seem to have an impact of student failure, in terms of students repeating a grade. The current focus on “accountability” may have the unintended effect of causing more children to fail in school. Policy-makers could improve student success by focusing on a broader range of policies that might help students be more successful.

Datar, Ashleesha. (2006). Does entering kindergarten at an older age give children a head start? *Economics of Education Review* 25(1), 43-62.

Data Source:

Early Childhood Longitudinal Study-Kindergarten Class (ECLS-K)

Purpose of the Study:

This study estimates the causal effect of kindergarten entry age on children's academic achievement at kindergarten entry and on the growth in test scores during the first two years in school.

Study Design and Methods:

This paper uses plausibly exogenous variation in birth dates and state kindergarten entry age policies to generate instrumental variable (IV) estimates of the effect of kindergarten entry age.

Findings:

Ordinary Least Squares estimates of the effect of kindergarten entry age are significantly smaller compared to IV estimates, suggesting a downward bias in prior studies that failed to address the endogeneity of kindergarten entry age. The IV estimates suggest that entering kindergarten a year older significantly boosts test scores at kindergarten entry (0.6-0.8 SD). More importantly, entering older implies a greater increase in test scores during the first two years in school (0.07-0.10 SD). The benefits from delaying kindergarten entrance tend to be significantly larger for at-risk children such as poor, disabled and boys.

Policy Implications:

Findings from this study suggest that delaying kindergarten entry may have beneficial effects in the short-run in terms of higher test scores at kindergarten entry and larger gains in the early school years. These benefits may be more pronounced for at-risk children. However, it is not known whether these effects persist in later years and how entry age impacts non-academic outcomes. Moreover, costs of delaying kindergarten entry also need to be considered. Therefore, policies targeting children's school entry age must evaluate the longer-term costs and benefits.

Dee, Thomas S. (2005a). A teacher like me: Does race, ethnicity or gender matter?" *American Economic Review* 95(2), 158-165.

Data Source:

National Education Longitudinal Study of 1988 (NELS:88)

Purpose of the Study:

To examine the effect of the gender and racial interactions between teachers and students on teacher perceptions of student performance.

Study Design and Methods:

Conditional logit specifications that controlled for student fixed effects by exploiting the fact that the base year of NELS:88 included evaluations from two teachers for each sampled student.

Findings:

Racial, ethnic, and gender dynamics between students and teachers have consistently large effects on teacher perceptions of student performance.

Policy Implications:

These results suggest that the racial, ethnic, and gender dynamics between teachers and students provide an important focal point for addressing inequities. However, the exact form of a targeted policy intervention is unclear since the structural nature of these dynamics is not clearly known.

Dee, Thomas S. (2005b). Expense preference and student achievement in school districts. *Eastern Economic Journal*, 31(1), 23-44.

Data Source:

Common Core of Data (CCD), School District Data Book (SDDDB)

Purpose of the Study:

This study contributes to the “does money matter” debate by focusing on the effects of how school districts allocate resources across instructional and non-instructional categories.

Study Design and Methods:

Using cross-sectional data on all unified school districts, the author tests for the existence of “expense preference” by estimating the effect of exogenous variation in competition from private schools on the allocation of resources in public schools. Using a unique data set with information on the unified school districts in 18 states, estimates of the structural effects of instructional and non-instructional spending on high school completion rates are presented.

Findings:

The results indicate that some school districts facing high levels of competition spend a higher proportion of available resources on student instruction. The high-school completion equations also indicate that school districts generally spend too few of available resources on instruction. However, they also demonstrate that money spent on instruction is highly effective when conditioned on the decision to spend outside the classroom.

Policy Implications:

These results suggest that money can matter, in particular money spent on instruction. However, these results suggest that the effective allocation of school district resources depends in part on their institutional setting.

Dee, Thomas S. and Evans, W.N. (2003). Teen drinking and educational attainment: Evidence from two-sample instrumental variables (TSIV) estimates. *Journal of Labor Economics*, 21(1), 178-209.

Data Source:

National Education Longitudinal Survey of 1988 (NELS:88), 1990 Public Use Microdata Samples (PUMS), Monitoring the Future Survey (MTF)

Purpose of the Study:

To examine the effects of teen alcohol use on educational attainment.

Study Design and Methods:

This study relied on the plausibly exogenous variation in teen drinking generated by state changes in minimum legal drinking ages to identify the effects of alcohol use and availability on educational attainment.

Findings:

The results indicated that alcohol use among teens has small and statistically insignificant effects on educational attainment.

Policy Implications:

These results indicate that, while there may be good policy reasons to restrict youth alcohol availability, the putative benefits in terms of human capital decisions are not among them. In particular, the authors show that, even under the assumption that the correlation between drinking and schooling reflects causal effects, the effects of major changes in alcohol availability on schooling would be trivially small.

Dumais, Susan A. (2005). Accumulating adversity and advantage on the path to postsecondary education: An application of a person-centered approach." *Social Science Research* 34: 304-332.

Data Source:

National Education Longitudinal Survey of 1988 (NELS:88)

Purpose of the Study:

This study assesses the usefulness of a new methodological approach—a person-centered research strategy—to answer a classic question in educational research: Why do some working-class students succeed educationally, graduating from high school and pursuing postsecondary education, while others fail? This new methodology was developed by Burton Singer and his colleagues and is described in detail in a 1998 *Sociological Methodology* article.

Study Design and Methods:

The person-centered approach uses survey data that would normally be analyzed in a variable-centered fashion, and instead focuses on the larger unit—each case or individual. In essence, the person-centered method uses longitudinal survey data to create life histories that are general enough to represent a population of lives, while retaining some of the nuance of individuals' life stories. In this analysis, six main areas of the students' lives were considered: financial resources, achievement in school, engagement in school, parental and significant others' involvement, expectations and plans for the future, and school characteristics. After creating narratives for a subsample of cases, using as many theoretically relevant variables from the survey data set as possible, the author searched for commonalities in the narratives, making composite variables. These composite variables were further refined, reducing the original set of 1600+ variables to a final set of 30. These final variables were classified into advantages and adversities as they related to the students' educational histories. The author compared the frequencies of these advantages and adversities as they appeared for students with a high school diploma only, students who enrolled in a two-year school but did not complete a degree, students who attained an associate's degree, students who enrolled in a four-year school but did not attain a degree, and students who attained a bachelor's degree or higher.

Findings:

The traits classified as advantages, with one exception, occurred most frequently in the bachelor's degree outcome group, and the traits classified as adversities, with two exceptions, occurred most frequently among the high school diploma students. Within the other outcome groups, there was some variation, with the majority of the variables following a low-to-high (when the variable was an advantage) or high-to-low (when the variable was an adversity) outcome pattern. The differences between the bachelor's degree group and the other outcome groups are clear, and statistically significant: the bachelor's degree students were more likely to have a higher total of advantages than the other groups, and the high school diploma students were more likely to have a higher total of adversities than the other outcome groups.

Policy Implications:

It is possible to overcome adversity in one life domain (such as lack of financial resources) with the presence of advantages in another domain (such as teachers' encouragement of a student's pursuit of a college degree). Schools must therefore make a special effort to help compensate for any resources that students may be lacking in their home lives, particularly through providing information about colleges and encouragement for students.

Dumais, Susan A. (2002). Cultural capital, gender, and school Success: The role of habitus.” *Sociology of Education* 75: 44-68.

Data Source:

National Education Longitudinal Survey of 1988 (NELS:88)

Purpose of the Study:

The author aimed to determine whether boys and girls participated in extracurricular cultural activities at different rates, whether economic background affected the rates of participation, and whether participation in cultural activities affected the grades that the students received in their courses. The idea that cultural participation can translate into higher grades is known as cultural capital theory and has been shown to exist in France; the present study endeavored to find evidence for a cultural capital effect in America, and to determine whether the effect of cultural capital varied by gender.

Study Design and Methods:

The author used survey data first to compare the rates of participation in cultural activities by gender and by socioeconomic status; the cultural activities included art lessons, music lessons, dance lessons, library visits, museum visits, and going to concerts. She then used ordinary least squares (OLS) regression to predict the effects of cultural participation on students’ grades (averaging grades in English, math, science, and social studies); she conducted separate analyses by gender. Finally, she examined the same relationship (effects of cultural participation on grades) using fixed-effects models, which take into account differences between schools, such as economic variation, minority composition, and region.

Findings:

Girls participated in all cultural activities at higher rates than boys; the difference in participation was especially great for dance lessons, with 33% of girls, and only 4% of boys, participating. Overall, boys participated in an average of 1.9 activities, while girls participated in an average of 2.5 activities. Socioeconomic status also correlated with participation in activities, with students from higher socioeconomic backgrounds being more likely to participate. Participation in cultural activities had a significant positive effect on the grades of girls, both in the OLS regression models and in the fixed-effects models. For boys, there was no effect found for cultural participation in the OLS regression models, and a modest effects found in the fixed-effects models.

Policy Implications:

Because participating in cultural activities can positively affect the grades of boys and especially of girls, it is critical that arts education remains available for students, either within the school setting or at the community level. Furthermore, special efforts should be made to ensure access to arts education for students from lower socioeconomic backgrounds.

Goldrick-Rab, Sara (2006). Following their every move: An investigation of social-class differences in college pathways. *Sociology of Education*, 79 (January): 61-79.

Data Source:

National Education Longitudinal Study of 1988 (NELS:88) Postsecondary Transcript File

Purpose of the Study:

More Americans are entering college than ever before, and at the same time their pathways through the broadly differentiated higher education system are changing. Movement in, out, and among institutions now characterizes student attendance patterns—half of all undergraduates who begin at a four-year institution go on to attend more than one college, and over one-third take some time off from college after initial enrollment. This study asks whether there is social class variation in these patterns, with advantaged and disadvantaged students responding to new postsecondary choices by engaging in different pathways.

Study Design and Methods:

National longitudinal postsecondary transcript data are used to follow students across schools and examine the importance of family background and high school preparation in predicting forms of college attendance. Multinomial logistic regression was used to predict the overall type of attendance pattern a student followed. Category A is the “Traditional” pattern, consisting of attending one school and not taking any time off. Fifty-two percent of the sample (2400 students) engaged in the traditional pattern. Students who took time off from college but only attended one school are included in Category B, “Interruption,” which has 93 students (2% of the sample). Category C, termed “Fluid Movement,” includes students who attend more than one institution without interruption. In this sample, 37 percent of students (N=1726) engaged in that pattern. Finally, Category D includes students who attended multiple institutions discontinuously; a pattern termed “Interrupted Movement.” This final category includes 9 percent of the sample (N=409).

Findings:

The results demonstrate that students from lower socioeconomic backgrounds are more likely than economically advantaged students (net of prior academic preparation) to follow pathways characterized by interrupted movement. Interruptions seem to be more common among students with fewer financial resources and those that have lower grades. Thus, students from disadvantaged family backgrounds, and those with poorer high school preparation, are following pathways in college that are unlikely to lead to successful degree completion. Students from advantaged backgrounds are able to move among schools while maintaining their enrollment, while disadvantaged students who change schools also take some time off. It is only the advantaged students who are successfully “comparison shopping,” moving across schools with smooth transitions. Thus, differences in how students attend college represent an additional layer of stratification in higher education.

Policy Implications:

Our postsecondary institutions and policies are designed with traditional students, engaged in traditional attendance patterns, in mind. The structures and incentives present in the American higher education system must be redesigned, with a new understanding that students follow complex, rather than linear, pathways through college. Such efforts ought to challenge outdated views of college retention that may work to further disadvantage our already-disadvantaged high school students who manage to make it to college. Given the stagnant social class gap in college completion, it is clear that we need to work harder to facilitate the success, not only the access, of students from lower-class backgrounds in higher education.

Gordon, Nora (2004). Do federal grants boost school spending? Evidence from Title I. *Journal of Public Economics*. 88 (9-10), 1771-1792.

Data Source:

Census of Governments Elementary-Secondary School District Financial Data (F33), School District Data Book (SDDB)

Purpose of the Study:

To examine the extent to which Title I funds supplement, rather than supplant, revenue generated by state and local governments and the program's incidence on school district current instructional spending.

Study Design and Methods:

The sharp changes in per-pupil grant amounts surrounding the release of 1990 census data are used to identify effects of Title I on state and local education revenue, and how much the program ultimately increases spending by recipient school districts. Because changes in Title I spending reflect changes in state-level mean spending per pupil as well as changes in census child poverty counts, the author instruments for changes in Title I spending with the changes that would occur if state average spending per pupil remained constant.

Findings:

State and local revenue efforts initially are unaffected by Title I changes, but local governments substantially and significantly crowd out changes in Title I within a 3-year period. Although school districts comply with the letter of the law, Title I ultimately fails to fully meet the spirit of its mandate to supplement instructional spending. Title I increases initially boost total school district revenue and instructional spending about dollar for dollar, but by the third year following the census-determined Title I changes, the effects are no longer significantly positive in the full sample, due to local government reactions countering the effects of Title I. These local reactions occur across all regions and regardless of aggregate state-level changes, but state revenue reactions to individual districts differ by *state-level* changes in Title I.

Policy Implications:

When studying issues of education finance and government funding, researchers asking if money matters must first establish that the money is *spent* in ways that should matter, rather than evaluating partial equilibrium effects of any particular revenue stream. This study reveals how revenue and spending on education react to changes in Title I at state and local levels.

Hong, Guanglei, & Raudenbush, S. W. (In press). Evaluating Kindergarten Retention Policy: A Case Study of Causal Inference for Multi-Level Observational Data. *Journal of the American Statistical Association*.

Data Source:

Early Childhood Longitudinal Study Kindergarten Cohort (ECLS-K), 1998-1999 and 1999-2000

Purpose of the Study:

This article considers the policy of retaining a small proportion versus a large proportion of low-achieving children in kindergarten rather than promoting them to first grade. Under the stable-unit-treatment-value assumption (SUTVA) as articulated by Rubin, each child at risk of retention has two potential outcomes: $Y(1)$ if retained and $Y(0)$ if promoted. However, SUTVA is questionable because a child's potential outcomes will plausibly depend on which school that child attends and also on treatment assignments of other children. The authors developed a causal model that allows school assignment and peer treatments to affect one's potential outcomes. They asked three questions: (1) What is the effect of being retained in kindergarten versus being promoted to the first grade on the academic learning of retainees when few peers are retained? (2) What is the effect of being retained when comparatively many peers are retained? (3) What is the effect of a high retention rate versus a low retention rate on children at little or no risk of retention?

Study Design and Methods:

The authors proposed a framework for causal inference in which peer effects can be summarized via a scalar function of the vector of treatment assignments in a school. Assumptions underlying the framework include the following: (i) generalization of causal inferences is restricted to current school assignments; (ii) there is no interference between schools, and (iii) strongly ignorable treatment assignment, i.e., one's own and one's peers' treatment assignments are independent of the ensemble of potential outcomes given observed covariates. They used multi-level propensity-score stratification to approximate a two-stage experiment. At the first stage, intact schools are blocked on covariates and then, within blocks, randomly assigned to a policy of retaining comparatively more or fewer children in kindergarten. At the second stage, "at risk" students within schools are blocked on covariates and then assigned at random to be retained.

Findings:

Under the above assumptions, the results indicated that kindergarten retainees attending high-retention schools would have achieved more in reading and mathematics during the treatment year had these children instead been promoted. Similar results held for retainees in low-retention schools. Although the retention effect varied significantly across schools, the estimated school-specific retention effects were negative in a great majority of the schools. In addition, the data showed no evidence that children at low risk of repetition benefited from a school's high retention rate. In conclusion, no empirical support was found for the kindergarten retention policy.

Policy Implications:

When low-achieving students are retained in kindergarten, a more homogeneous classroom may ease the teacher's task in managing instructional activities, and may allow the first-grade teacher to cover more advanced content. Therefore, it is natural to hypothesize that a child promoted to the first grade may fare better when a relatively larger proportion of children experiencing learning difficulties are retained in kindergarten. Meanwhile, there may be fewer stigmas attached to retention when a child is retained with a relatively larger proportion of peers, thereby ameliorating the negative impact on the retainees. However, these arguments are not supported by the empirical findings from this study.

Hong, Guanglei & Raudenbush, S. W. (2005). Effects of kindergarten retention policy on children's cognitive growth in reading and mathematics. *Educational Evaluation and Policy Analysis*, 27, 205-224.

Data Source:

Early Childhood Longitudinal Study Kindergarten Cohort (ECLS-K), 1998-1999 and 1999-2000

Purpose of the Study:

This study was focused on evaluating the causal effects of the kindergarten retention policy on children's cognitive growth in reading and mathematics. On the one hand, a policy of retaining in grade those students making slow progress might facilitate instruction by making classrooms more homogeneous academically. On the other hand, grade retention might harm high-risk students by limiting their learning opportunities. To achieve a more comprehensive understanding of the empirical issues underlying the policy debate, the authors investigated three empirical questions in this study: (1) What is the average effect of the kindergarten retention policy? To be more explicit, should we expect to see a change in children's average learning outcomes if a school changes its retention policy? (2) What is the average impact of a school's retention policy on children who would be promoted if the policy were adopted? (3) What is the effect of kindergarten retention on those who are retained? Here the aim was to estimate how much more or less kindergarten retainees would have learned, on average, had they been promoted to the first grade rather than retained.

Study Design and Methods:

The analytic sample included 471 kindergarten retainees and 10,255 promoted students in 1,080 retention schools, and 1,117 promoted students in 141 non-retention schools. Propensity score stratification balanced the non-retention schools and the retention schools on 238 school-level pre-treatment covariates. The retained students and the promoted students attending schools that allowed retention were balanced on 207 pre-treatment covariates. The propensity model was also used as a prediction function to identify children who were not at risk of repetition even under the retention policy. Because a child's potential learning outcomes would depend on the school he or she attended as well as on the peers attending that school, the authors incorporated this important feature of multilevel educational data by identifying the level at which a treatment was implemented and representing the effects of persons, classes, and schools explicitly in the model. In the end, they examined the sensitivity of the analytic results to possible departure from the assumption of no unmeasured confounders.

Findings:

This study found no evidence that a policy of grade retention in kindergarten improved average achievement in mathematics or reading. Nor was there evidence that the policy of retaining some classmates in kindergarten would benefit those children who would always be promoted. However, the results showed that children who were retained would have learned more in both reading and math had they been promoted. After being retained for one year, the average loss in academic growth experienced by the retainees was about two-thirds of a standard deviation of the outcome in each subject area, equivalent to almost half a year's expected growth. There was evidence of a diminishing retention effect as a child's risk of retention increased; yet even for those who tended to be diagnosed as in a relatively higher need of repeating a grade, there was no evidence that they received any immediate benefit from the retention treatment. Although a significant variation of the retention effect was found in each subject area across the retention schools, the range of plausible effects did not include any important positive effects of retention.

Policy Implications:

The empirical evidence from this study refutes the arguments that adopting a kindergarten retention policy boosts achievement on average, that such a policy improves the learning of children who would in any case be promoted, or that grade retention helps children experiencing difficulty in kindergarten. In general, kindergarten retention seemed to have constrained the learning potential of all but the highest-risk children. At-risk children promoted to the next grade level appeared to have a better chance of growth acceleration. The results from this study challenge the practice of routinely using kindergarten retention as a solution to the difficulties experienced by young children. Rather than forcing these children to restart from the very beginning, exposing them to meaningful intellectual challenges on a continual basis is perhaps developmentally more appropriate.

Ishitani, Terry T. and DesJardins, S.L. (2002). A longitudinal investigation of dropout from college in the United States. *Journal of College Student Retention: Research, Theory and Practice*, 4(2), 173-201.

Data Source:

Beginning of Postsecondary Student Longitudinal Study: Second Follow-up (BPS: 90/94).

Purpose of the Study:

Although there is a myriad of college attrition studies that explain departure process, fewer studies are found that discuss the timing of departure. Using data from the Beginning of Postsecondary Student Longitudinal Study: Second Follow-up (BPS: 90/94). This study investigated students who were at risk of departure at different times.

Study Design and Methods:

Structural equation modeling is the most common statistical technique that has been applied in existing attrition studies. Since an arbitrary point of time to assess enrollment status of students needs to be specified in the structural equation approach, this particular modeling technique does not allow researchers to examine differences in departure behavior at various times. Employing Event History modeling, the study illustrated how effects of explanatory variables on student attrition varied over time.

Findings:

The study results indicate that the students from lower income families were more likely to depart than their counterparts. Moreover, being from a lower income family was more detrimental in the second and third year than in the first-year. Financial aid also presented its time-varying nature effect on student attrition. Students with financial aid were particularly less likely to drop out in the second and third years.

Policy Implications:

1. Target students who are at risk of leaving institutions at particular points of time, and improve intervention strategies before they reach the highest risk of departure.
2. Enhance interactions with students from lower income families to decrease their likelihood of departure in the third year.
3. Monitor and assess the quality of institutional interactions with students over time according to their time-varying risk of departure.
4. Improve attrition analysis by incorporating year-to-year information on academic and social integration.

Joy, Lois. (2003). Salaries of recent male and female college graduates: Educational and labor market effects. *Industrial and Labor Relations Review*, 56 (4), 606-621.

Data Set:

Baccalaureate and Beyond Longitudinal Study (B&B)

Purpose:

To determine why recent male college graduates earn more than their female counterparts.

Study design and methods:

Academic and labor market variables in the NCES Baccalaureate and Beyond Longitudinal Study 1993/94 were used to estimate several salary regressions for male and female recent college graduates.

Findings:

Results suggest that labor market variables outweigh academic variables in their contribution to the gender salary gap. Of the academic variables, gender differences in total credits account for more of the salary gap than gender differences in majors, grades, or institution attended. Of the labor market variables, gender differences in job sector, industry, and hours worked have the largest effect on gender differences in salaries. Differences in how men and women search for and select first jobs appear to have little impact on gender differences in salary. Most important, as much as 75% of the wage gap remains unexplained by both the academic and labor market variables.

Policy implications:

Future research will have to examine by what channels similarly trained men and women end up in such disparate labor market positions. For now, this research suggests that new strategies to ensure both equity and efficiency in the labor market may be required. While in the past, encouraging women to complete college and major in traditionally male-dominated fields has contributed to the closing of the wage gap, it would appear now that educational parity alone does not ensure labor market parity.

Judge, Sharon (2005a). Impact of computer technology on academic achievement of young African American children, *Journal of Research in Childhood Education*, 20(2), 97-107.

Data Source:

Early Childhood Longitudinal Study- Kindergarten Cohort (ECLS-K)

Purpose of the Study:

The purpose of this study is to describe young African American children's access to computers as they start their formal schooling and the relationship between academic achievement and computer use.

Study Design and Methods:

The analytic sample consists of 1,601 African American children who attended 274 public schools during kindergarten and first grade. The criteria used to define higher poverty and lower poverty schools are the following: (a) higher poverty schools have 50% or more of the total school enrollment eligible for free and reduced lunch and (b) lower poverty schools have less than 50% of the total school enrollment eligible for free and reduced lunch. Of this sample, 64.8% attended higher poverty schools ($n = 1,068$) and 35.2% attended lower poverty schools ($n = 533$). Data were collected through parent interviews and teacher and school administrator questionnaires. School administrators and kindergarten and first-grade teachers completed paper and pencil questionnaires that asked about availability and adequacy of different computer resources. Teachers were asked to rate the adequacy of their computer equipment and software. In addition, kindergarten and first-grade teachers indicated the frequency with which children in their classroom as a whole used computers for several instructional purposes. Parents provided information on whether there was a home computer that their child used and whether their child accessed the Internet from home. Direct assessment in this study is represented by children's Item Response Theory (IRT) scale scores on an individually administered cognitive test in reading and mathematics in the spring of kindergarten and first grade.

Findings:

Results indicate that access to and use of a home computer, computer area in classrooms, child/computer ratio, software, and computers in school were positively correlated with academic achievement. In addition, frequent use of software for literacy, math, and games was positively correlated with academic achievement during kindergarten. High achievers were found to use software for literacy and math more frequently than both low and average achievers during kindergarten.

Policy Implications:

Most schools offer young African American children the opportunity to access computers. Findings show that availability of computer resources at schools and home increased from kindergarten to first grade. However, a majority of African American students did not have access to home computers, especially for children attending lower poverty schools. Furthermore, a major concern related to the differential access and use of technology in schools was that high achieving African American children used software more frequently compared to low achieving children. As a result, a technological underclass may emerge in our public school system. Thus, the manner in which computers are used as well as computer access for African American students should be addressed in order to improve their educational opportunities.

Judge, Sharon (2005b). Resilient and vulnerable at-risk children: Protective factors affecting early school competence. *Journal of Children and Poverty*, 11(2), 149-168.

Data Source:

Early Childhood Longitudinal Study- Kindergarten Cohort (ECLS-K)

Purpose of the Study:

The present study explored more explicitly the role of risk and protective factors involved in vulnerability and resilience as they relate to the development of competence.

Study Design and Methods:

The analyses in this paper use the subset of 13,965 children who were first-time kindergartens in the fall of 1998 and who had complete data on all measures. This study examined competence in relation to risk and protective factors utilizing both a variable-focused dimensional approach and a person-focused categorical approach. Competence for early school success was defined in terms of a pattern of effective performance on three major age-developmental tasks: (a) reading skills and knowledge, (b) mathematics skills and knowledge, and (c) approaches to learning (task persistence, independence, eager to learn). For variable-based analyses, three six-step hierarchical multiple regressions were conducted to test the hypothesized linkages of risk and protective factors to competence outcomes. In contrast, for the person-analyses, groups of competent children were defined by reasonably good (above the 75th percentile) outcomes on at least two of three competence domains. Lower competence was defined as poor (below the 25th percentile) outcome on at least two of three competence domains. Planned comparisons were made among groups of children identified as Resilient (higher competence, higher risk), Vulnerable (lower competence, higher risk), and Competent (higher competence, lower risk). A one-way MANOVA was conducted with group status (vulnerable vs. resilient vs. competent) as the independent variable and the 14 measures of protective factors as dependent variables.

Findings:

Better fine motor, gross motor, and interpersonal skills and internalizing behaviors were associated with good outcomes across competence domains, even among children from at-risk backgrounds. Resilient children (higher risk, higher competence) had much in common with their competent peers with no risk factors, including average or better fine and gross motor skills, parental educational expectations, home literacy environment, and social skills and behavior. Results suggest that center-based child care and literacy rich home environments are tied to competence as well as resilience among at-risk children.

Policy Implications:

Findings indicate that center-based child care plays a role in children's competence. It seems quite evident that a major way to increase children's competence as they begin kindergarten is through at-risk children's participation in high quality preschool programs with developmentally appropriate and intellectually engaging curriculum. Another strong link to competence is the home literacy environment. This lack of educational resources in the home for vulnerable children may be related to issues of accessibility and available resources. Reducing the inequality of literacy resources by the time students reach kindergarten would promote school readiness and early school success.

Judge, Sharon, Puckett, K., & Cabuk, B. (2004). Digital equity: New findings from the Early Childhood Longitudinal Study. *Journal of Research on Technology in Education*, 36(4), 383-396.

Data Source:

Early Childhood Longitudinal Study- Kindergarten Cohort (ECLS-K)

Purpose of the Study:

The purpose of this study is to describe young children's differential access to computers in school and the varying conditions that affect how they experience computers.

Study Design and Methods:

The sample consists of 9,840 public school children who attended kindergarten and first grade. The criteria used to define higher poverty and lower poverty schools are the following: (a) higher poverty schools have 50% or more of the total school enrollment eligible for free and reduced lunch and (b) lower poverty schools have less than 50% of the total school enrollment eligible for free and reduced lunch. Of this sample, 61.9% attended lower poverty schools ($n = 6,093$) and 38.1% attended higher poverty schools ($n = 3,747$). Data are collected from adaptive, individually-administered child assessments, parent interviews, and teacher and school administrator questionnaires.

Findings:

Lower and higher poverty schools are about equally likely to have computers available for children when they start their formal schooling. However, the findings suggest that the digital gap starts to widen as children move into first grade. Even though children's access to most computer resources at school increased from kindergarten to first grade, children attending higher poverty schools had significantly less computers and software available. Young children's use of computers in their classrooms differed by school poverty status.

Policy Implications:

Low- and high poverty schools are about equally likely to have access to computers when children start their formal schooling. However, these findings suggest that the digital gap starts to widen as children move into first grade. Even though children's access to most computer resources at school increased from kindergarten to first grade, children attending high poverty schools had significantly less access to computers and software. Low poverty schools generally provide more widespread Internet and LAN access. However, young children's use of computers in their classrooms differed by school poverty status. The good news is that schools serving predominantly young low-income children have computers and offer experiences using computers to enhance learning, especially in literacy and math. However, we still have not bridged the digital divide.

Kaplan, David. (2002). Methodological advances in the analysis of individual growth with relevance to education policy. *Peabody Journal of Education*, 77, 189-215.

Data Source):

Early Childhood Longitudinal Study: Kindergarten Class (ECLS-K)

Purpose of the Study:

The purpose of this paper was to demonstrate how recent methodological developments in the analysis of individual growth can inform important problems in education policy. Specifically, the paper focused on a method referred to as growth mixture modeling. Growth mixture modeling is a relatively new procedure for the analysis of longitudinal data that relaxes many of the assumptions associated with conventional growth curve modeling. In particular, growth mixture modeling tests for the existence of unique growth trajectory classes through a combination of latent class analysis and standard growth curve modeling. Antecedent predictors of the latent classes can be incorporated, as well as relations from the latent classes to specific outcomes. This paper applied growth mixture modeling to data from the Early Childhood Longitudinal Study – Kindergarten Class of 1998/1999. The specific policy question posed in this paper focused on the estimation of latent growth trajectory classes in reading proficiency and the effects of full-day or part-day kindergarten programs on growth within reading trajectory classes.

Study Design and Methods:

Data utilized for this paper consisted of the kindergarten base year and first grade follow-up panels of ECLS-K. Only first-time public school kindergarten students who were at grade level at the end of first grade were chosen for this study, and thus includes children that were making normal progress through kindergarten and first grade. The measures used in this study consisted of a reading assessment, an indicator of full-day versus part-day kindergarten program, and a measure of socio-economic status. The reading assessment contains items designed to measure basic skills, vocabulary, and comprehension. Item response theory was used to derive scale scores that can be used for growth curve analyses. A continuous measure of socio-economic status and a continuous measure of age-of-entry into kindergarten were used as covariates in this study. The first step of the study was to decide on the number of unique growth trajectory classes. The number of growth trajectory classes were determined by using the Bayesian Information Criteria, the posterior probabilities of classification, and the substantive utility of the number of classes. Following the determination of the number of latent classes, kindergarten program, SES and age-of-entry were added to the model. This final step then defines a full growth mixture model. Analyses utilized the Mplus software program.

Findings:

Three reliable growth trajectory classes were identified corresponding to slow-developing, normal-developing and fast-developing reading growth in children. The results further showed that full-day kindergarten attendance benefits children in the slow reading development class relative to the normal and fast reading development class, but that the effect is lessened when holding constant socio-economic status and age-of-entry into kindergarten.

Policy Implications:

From a policy perspective, the results of this study have bearing on the question of the impact of full-day versus part-day kindergarten on growth in reading proficiency. Specifically, the results showed a small but positive benefit to reading achievement at the end-of-kindergarten for children attending full-day day kindergarten programs. Although children do appear to benefit from the findings show that full-day kindergarten attendance has a profound positive effect for children in the slow reading development class relative to their counterparts in part-day kindergarten programs. This effect is most clearly observed for end-of-kindergarten reading, but there is also a much steeper rate of linear growth and acceleration for children in the slow reading class attending full-day kindergarten again compared to their counterparts in part-day kindergarten programs. For children in the normal and fast reading development classes, there appears to be very little benefit derived from attending full-day kindergarten. From a methodological perspective, it is clear that when the population is composed of finite mixtures defined by unique growth trajectories, the application of conventional (single class) growth curve modeling will yield an incomplete picture of growth. Growth mixture modeling provides a more nuanced representation of the population and yields more information on which to base policy decisions or to focus future research.

Lacireno-Paquet, Natalie. (2006) Charter School Enrollments in Context: An Exploration of Organization and Policy Influences. *Peabody Journal of Education*, Vol. 81, No. 1, 79-102.

Data Source:

1999-2000 Schools and Staffing Survey (SASS), Charter School Survey.

Purpose of the Study:

The purpose of the study was to identify the internal school organizational characteristics that lead to sorting at the school level and to examine the extent to which the characteristics of state charter school policies influence charter schools' enrollment of low-income and minority students.

Study Design and Methods:

This study was designed to initially present heretofore unexamined descriptive statistics about the population of charter schools surveyed by the 1999-2000 SASS. Descriptive statistics on the characteristics of school organizational characteristics are presented, including the number and percent associated with educational management organizations, the number and percent using different types of admissions criteria, and so on. In addition, multivariate models are presented that examine the influence of school organizational characteristics and state policy characteristics on charter schools enrollment of low-income and minority students. The models use Ordinary Least Squares regression with the balanced repeated replication (BRR) method of calculating standard errors.

Findings:

Using the 1999-2000 Schools and Staffing Survey Public Charter School Questionnaire (U.S. Department of Education, 2000), this article provides an in-depth description of charter schools in the United States and presents multivariate analyses of the enrollment of low-income and minority students in the population of charter schools, taking into account both school organizational and state policy characteristics. The results suggest that management by for-profit educational management organizations (EMOs) can have both positive and negative effects on low-income and minority enrollment depending on EMO type and urban location. Notable were the strong and significant results on the importance of state policy characteristics in terms of shaping charter school enrollments of low-income and minority students.

Policy Implications:

This article addresses and raises policy concerns about the implications and outcomes of charter schools policy. The results demonstrate why the school organizational characteristics and the state policy context are important for understanding charter school outcomes because the choices that schools make and the boundaries of the charter school market that are determined by public policy influence schools' service to traditionally disadvantaged students. State policymakers need to pay attention to the issues of authorization, funding, and transportation. States need to carefully craft their policies to ensure the market and regulatory environment does not create incentives for charter schools to avoid traditionally disadvantaged student populations.

Lacireno-Paquet, Natalie, (2004). Do EMO-operated charter schools serve disadvantaged students? The influence of state policies. *Education Policy Analysis Archives, 12(26)*.
[<http://epaa.asu.edu/epaa/v12n26/>]

Data Source:

1999-2000 Schools and Staffing Survey (SASS) and the Common Core of Data (CCD)

Purpose of the Study:

The purpose of this study is to address the paucity of research about how the policies enacted by states either foster or hinder charter schools' service to disadvantaged students and how the characteristics of charter schools themselves affect this outcome. By combining data from the US Department of Education's Schools and Staffing Survey with data on the characteristics of state charter school policies, this article examines how different types of charter schools respond to the policy and market signals established by state charter legislation, and the impact of such signals on the willingness and ability of charter schools to serve disadvantaged student populations.

Study Design and Methods:

The SASS 1999-2000 data collection surveyed the population of charter schools was surveyed and it also included a sample of public school districts from each state in the nation. Using the Common Core of Data, charter school zip codes were used to identify the host districts for all charter schools responding to the SASS. Because districts were only sampled, not all charter school host districts were included in the SASS. About half of the host districts were identified, but these represented the host districts of more than 78 percent of all of the charter schools in the sample. Only charter schools with host districts identified were included in this analysis. These school and district level data form the base of the analysis file. Also excluded were schools in states that did not have an educational management organization (EMO) operated school responding to the survey. Another 54 schools with missing data for the dependent variables, percent free and reduced lunch eligible students and percent minority enrollment, were excluded, resulting in 533 charter schools in 216 districts being included in the analysis. Descriptive statistics are presented as is a multiple regression model that uses school, district, and state policy characteristics to understand charter schools' enrollment of low-income and minority students.

Findings:

With a sample of 533 charter schools in 13 states, models are estimated to discern whether specific state policies and whether being managed by two types of for-profit educational management organizations (EMOs)—large and small ones—encourages or discourages schools from enrolling low-income and minority students. The results suggest that certain policy characteristics are important for encouraging schools to serve low income and minority students. Specifically, having multiple chartering authorities and requiring the transportation of students are important for explaining charter schools' service to low-income and minority students. Being managed by a large-EMO was positively but not significantly related to charter schools enrollment of low-income and minority students. The results differed for small-EMO managed schools. Small-EMOs served significantly lower percentages of minority students. The results suggest that not all charter schools are the same and that policy design and organizational form matters for determining whom charter schools will serve.

Policy Implications:

Policy matters for who gets served by charter schools and the devil is indeed in the details. Policymakers, educational professionals, and interested citizens need to be thoughtful and deliberate about the kinds of charter schools they want. If equity concerns are the most prominent, then policymakers need to be sure those aspects of the law dealing with the authorization of schools, transportation, and others, have the desired effects.

Lee, Sharon M. (2002). Do Asian American faculty face a glass ceiling in higher education? *American Educational Research Journal*, 39(3), 695-724.

Data Source:

1993 National Study of Post-Secondary Faculty (NSOPF-93)

Purpose of the Study:

This study investigates whether Asian American faculty in higher education experience a glass ceiling, defined as “artificial barriers based on attitudinal or organizational bias that prevent qualified individuals from advancing upward in their organization into management-level positions” (U.S. Department of Labor 1991). Theoretical perspectives on the glass ceiling suggest that as racial minorities, Asian American faculty are likely to face bias and experience barriers because of the role of race in U.S. history, culture, politics, and economy.

Study Design and Methods:

The sample consists of full-time instructional faculty and includes 1,019 Asian Americans and a comparison group of 14,381 non-Hispanic Whites. The dependent variable is the base salary of faculty members. Independent variables include several demographic characteristics and five sets of variables identified in previous research on the glass ceiling. The demographic variables are race, nativity, and age. Independent variables include (a) *human capital*, for example, highest degree and year in which highest degree was obtained; (b) *productivity* (publications, grants, committee service); (c) *field or area of specialty*; (d) *family/life-cycle* variables such as faculty member’s gender, marital status, and presence of dependents at home; and (e) *institutional* and *contextual* characteristics (for example, private versus public, region /location).

Methods of analysis include descriptive statistics and multivariate regression analysis, in which an additive earnings equation using ordinary least squares regression analysis is estimated. Six models of an earnings function are estimated with controls for demographic, life-cycle, human capital, productivity, field of specialization, institutional, and regional differences.

Findings:

Contrary to expectations, the study finds no consistent evidence of a glass ceiling. However, additional evaluation of the effects of independent variables produces a more complex picture. Asian Americans do not derive comparable benefits from several characteristics associated with higher salaries for Whites and appear to have more limited pathways to higher salaries. Data limitations caution against concluding that Asian American faculty either face or do not face a glass ceiling. This paper’s findings provide new and important baseline findings to guide future research on the glass ceiling in higher education.

Policy Implications:

Minority faculty should be treated the same as majority non-Hispanic White faculty, and institutions of higher education should recognize that glass ceilings are always potentially present and implement procedures to guard against them.

Linton, April. (2004a). A critical mass model of bilingualism among U.S.-born Hispanics. *Social Forces* 83(1), 279-314.

Data Source:

1990 U.S. Census and Public Use Microdata Sample

Purpose of the Study:

To identify contextual and individual-level factors that influence the decision to maintain Spanish, or see to it that one's children learn and maintain it.

Study Design and Methods:

Statistical analysis of U.S. metropolitan areas and U.S.-born Latino adults within them.

Findings:

Metro-area context – notably bilinguals' status and Hispanics' political influence – greatly influences the odds of bilingualism among U.S.-born Hispanic adults. In addition to other macro-level factors such as size of an area's Latino and Latino immigrant populations, there is evidence for a critical mass effect. People are more likely to maintain bilingualism when lots of others around them are doing the same thing.

Policy Implications:

U.S. language norms and patterns of linguistic assimilation are context dependent. Spanish-English bilingualism is a possible *endpoint* of linguistic assimilation, not just a stop along the way to English monolingualism.

Linton, April. (2004b). Learning in two languages: Spanish-English immersion in U.S. public schools. *International Journal of Sociology and Social Policy* 24(7/8), 46-74.

Data Source:

1990 School District Data Book (SDDB), 1990 U.S. Census 1 Percent Public Use Microdata Sample, City and County Data Book, Center for Applied Linguistics directory of two-way immersion programs.

Purpose of the Study:

To identify demographic and political factors and decision-making processes that are behind the establishment and maintenance of Spanish-English dual-language programs in U.S. public schools.

Study Design and Methods:

Statistical analysis of school districts and the metropolitan areas that encompass them, interviews with district and school administrators

Findings:

Spanish-English dual-language programs are viable in economically and racially diverse settings. They are most likely to exist in relatively large, urban school districts, where there are enough Spanish- and English-speakers to balance the classrooms, and not too many other-language students whose English is limited. Other factors significantly related to the present of a dual-language program in a school district are relatively high parent education, and parents' ability to spend time at school. State-level statutes that encourage multilingualism ('English-Plus' laws) seem to encourage educators to establish dual-language programs, but 'English-Only' and anti-bilingual education campaigns do not discourage them.

Policy Implications:

There is potential for dual-language programs to spread. This is the case because the programs are not just for Spanish-speakers or Hispanics. The growth of dual-language education seems to correspond to a change in the degree to which non-Hispanic Americans value Spanish.

Liu, Xiaofeng, & Meyer, J. Patrick. (2005). Teachers' perceptions of their job: a multilevel analysis of the Teacher Follow-up Survey for 1994-95, *Teachers College Record*, 107, 985-1003.

Data Source:

Teacher Follow-Up Survey (TFS) 1994-1995

Purpose of the Study:

This study examined teachers' perceptions of 1) student discipline problems, 2) school governance/climate, 3) professional support, 4) compensation, and 5) work conditions.

Study Design and Methods:

The authors used hierarchical linear models to relate teachers' perceptions of their job to teacher turnover and teacher characteristics.

Findings:

Student discipline problems were a major reason for teachers' dissatisfaction with their job, second only to low compensation. Another salient finding was that there was little association between teachers' satisfaction with their salary and their perception about student discipline problems. Private school teachers were generally more satisfied with their jobs than public school teachers. However, minority teachers were less satisfied with work conditions and student discipline problems than non-minority teachers.

Policy Implications:

Teachers' perceptions about student discipline problems suggest that teachers may lack the knowledge and resources in successfully dealing with discipline problems, and that increasing salary may not compensate for teachers' disappointment with student discipline problems. Policy intervention that often uses financial incentives to retain teachers may not have adequately addressed student discipline problems and their negative impact on teachers' professional lives.

Lutz, Amy. (2004). Dual language proficiencies and the educational attainment of Latinos. *Migraciones Internacionales*, 2, 95-122.

Data Source:

National Education Longitudinal Study of 1988 (NELS:88)

Purpose of the Study:

The relationship between Spanish maintenance and the educational attainment of English-speaking Latino students is investigated using data from the National Education Longitudinal Survey.

Findings:

The analysis indicates that biliteracy, in comparison to English monolingualism, offers a significant advantage in educational attainment. Net of the effects of the control variables, particularly socioeconomic status, biliterate students are significantly more likely to complete high school compared to their monolingual peers. Those with oral proficiency in Spanish (whether little or substantial), in addition to proficiency in English, are not significantly different in terms of their likelihood of high school completion than were those who spoke only English. Biliterate students are also significantly more likely to enter college, particularly a bachelor's degree program, than are their peers who speak only English. Students with high levels of oral proficiency are also significantly more likely to enter college, but not a bachelor's degree program, than are their English monolingual peers.

Policy Implications:

Overall, this research indicates that bilingualism, particularly in the form of biliteracy, offers Latino students an advantage in terms of educational attainment.

McBride, Brent A., Schoppe-Sullivan, S.J., & Ho, M.H. (2005). The mediating role of fathers' school involvement on student achievement. *Journal of Applied Developmental Psychology*, 26, 201-216.

Data Source:

Panel Study of Income Dynamics – Child Development Supplement (PSID-CDS I)

Purpose of the Study:

This study examines the relationship between school-, neighborhood-, and family-level resources and children's academic achievement, and to identify the role played by father involvement in mediating contextual influences on children's learning. Three specific research questions were addressed: (1) What is the relationship between school-, neighborhood-, and family-level resources and children's academic achievement? (2) Is increased father involvement in school settings associated with more positive academic outcomes for children beyond that accounted for by mother involvement? (3) Does father involvement act as a mediator of the contextual sources of influence on children's achievement?

Study Design and Methods:

Data were drawn from the PSID-CDS I on a subsample of 1334 children between the ages of 5 and 12 identified as living with a secondary caregiver who was the child's biological or adoptive father, stepfather, or father-figure. Structural equation modeling (SEM) procedures were used to test a hypothesized model outlining the role of father involvement in mediating the potential impact of contextual influences on children's learning and achievement, and that allowed for testing of all paths outlined in the model simultaneously. Three measures of school-related involvement were used in the analyses – i.e., father & mother school related communications with the target child; father & mother physical involvement at school; and father & mother communication with teachers and school administrators.

Findings:

Results from the SEM analyses revealed a significant relationship between father communication with teachers and school administrators (one of the involvement measures used) and student achievement beyond that accounted for by mother involvement. These findings also indicated that the relationships among some aspects of school-level and family-level resources and child achievement are partially mediated by fathers becoming involved in personal communications with their children about school and school experiences. Most notable among these was fathers' communication with teachers and counselors was significantly associated with a decrease in the negative relation between family income and student achievement.

Policy Implications:

Findings from this study suggest that father involvement does have a positive impact on student achievement over and above that accounted for by mother involvement. These findings underscore the importance for educators to focus on mothers as well as fathers as they develop initiatives to expand home-school partnerships that are designed to enhance the impact of families on their children's learning and development.

Millett, Catherine M. (2003). How undergraduate loan debt affects application and enrollment in graduate or first professional school. *Journal of Higher Education*, 74 (4), 386-427.

Data Source:

Baccalaureate and Beyond Longitudinal Study (B&B), 1993/94

Purpose of the Study:

The study addresses the question: “What is the relationship of undergraduate educational indebtedness to the decisions of recent bachelor’s degree recipients who expect to earn doctoral degrees, to apply to and if accepted, to enroll in a graduate or first professional degree program immediately after completing their bachelor’s degree? The premise of the study’s conceptual framework is that undergraduate debt along with students’ personal background characteristics, the characteristics of their baccalaureate institution, their college experiences, and their immediate opportunity costs to attend graduate school, individually and collectively influence students’ decisions to apply to graduate school, and, if accepted, their decision to enroll in graduate school.

Study Design and Methods:

B&B variables were selected on the basis of their fit into the seven major categories: (a) personal background, (b) characteristics of the baccalaureate institution, (c) college experiences, (d) immediate opportunity costs to attend graduate or first professional school, (e) offer of financial aid from first choice graduate or first professional program if accepted, (f) application to a graduate or first professional school, (g) enrollment in a graduate or first professional degree program if applied and admitted. The sample is representative of the population of recent bachelor’s degree recipients who are U.S. citizens, non-American Indians or Alaskan Natives who expect to earn a doctoral degree. The data analyses performed were both descriptive and relational. Since the two outcome variables in the model of student post-baccalaureate transitions are dichotomous, logistic regressions are used. Separate logistic regressions are presented for application to and enrollment in graduate or first professional school.

Findings:

In this study of 1992-93 college students who expect to earn a doctoral degree, undergraduate loan debt does appear to lead to a new class of indentured servants who appear to be impaired by their debt from making the transition to graduate school within one year of earning their bachelor’s degree. Students with debt of \$5,000 or higher are significantly less likely to apply to graduate or first professional school than their peers who did not have educational debt. Forty-six percent of the college graduates who expected to earn a doctoral degree did not have educational debt; the other 54% accumulated an average debt of \$10,691. Among the college graduates, students with accumulated educational debt greater than \$5,000 represented 41% of the students who expected to earn a doctoral degree. Of the students who have debt and expect to earn a doctoral degree 75% had educational debt greater than \$5,000. Bachelor’s degree recipients who expected to earn a doctoral degree appeared not to be adversely affected by financial indebtedness in enrolling in graduate or first professional degree programs if they apply and are accepted. The offer of financial aid by the student’s first choice graduate or first professional program was a significant predictor of enrolling. This finding suggests that offers of financial aid may mitigate the effect of having educational debt on students’ decisions to continue their educational careers.

Policy Implications:

The effect of educational indebtedness on the transition to graduate school for U.S. citizens is an important consideration for educational policy makers. In 1976-77, non-resident aliens represented 11% of the doctoral degree recipients at U.S. graduate schools, by 1993-94 their representation had more than doubled (26%). This raises questions about whether American graduate and professional education are becoming less accessible to American students than for their counterparts from abroad. On the basis of the finding from this study that undergraduate indebtedness is a deterrent to application to graduate or first professional school for 41% of the doctoral degree aspirants in 1992-93, policy makers could argue the federal student loan program, as it was constructed in the early 1990s, does not meet the requirements established by Senator Pell that debt not be an impediment to students. The federal government appears to have provided student loans that enabled students to gain access to college, but in this study, having educational loans greater than \$5,000 prohibited 1992-93 college graduates who expect to earn a doctoral degree from pursuing further their educational goals in the year immediately after they graduated from college.

Morgan, Stephen L. and Mehta, J. D. (2004). Beyond the laboratory: Evaluating the survey evidence for the disidentification explanation of Black-White differences in achievement.” *Sociology of Education* 77, 82-101.

Data Source:

National Education Longitudinal Study of 1988 (NELS:88)

Purpose of the Study:

As part of research to investigate the sources of the Black-White gap in achievement, the study sought to determine the extent to which students who self-identify as Black are more likely to (1) devalue success in schooling as an important source of self-esteem and (2) suffer achievement declines in response to any such devaluing.

Study Design and Methods:

Primarily OLS and fixed-effect regression models.

Findings:

First, when Black students formulate self-evaluations of their own academic competence, they are less sensitive to external performance evaluations (i.e., results on standardized tests and grades). Second, when Black students select levels of general self-esteem, they are just as likely as White students to (1) rely on their own evaluations of their academic competence and (2) rely on their own academic performance.

Policy Implications:

Mentoring programs: Programs based on the presumption that Black students devalue achievement in schooling, and hence need mentoring to convince them that schooling is worthwhile, are naive. If such programs are to be helpful in improving at-risk Black students' performance on tests, mentoring should be targeted at convincing at-risk students to adopt the basic mindset that middle-class Black students seem to have cultivated: (1) tests matter, (2) they will be judged by how they perform on these tests, (3) but they are just one measure of performance, (4) and one can still pursue post-secondary education even with mediocre test scores. This more sophisticated message should help at-risk Black students recognize that their performance does indeed matter but that other factors matter as well. This perspective sustains motivation without breeding fatalism.

O'Dwyer, Laura. (2005). Examining the variability of mathematics performance and its correlates using data from TIMSS 95 and TIMSS 99. *Educational Research and Evaluation*, 11(2), 155-177.

Data Source:

Trends in International Mathematics and Science Study (TIMSS 1995 and TIMSS 1999)

Purpose of the Study:

For the past 10 years, the Trends in International Mathematics and Science Studies (TIMSS 1995, 1999 and 2003) have provided data about how students around the world compare on a common test of mathematics and science achievement. Given the size, scope, and methodological consistency of TIMSS studies, the purpose of this research was to examine how nations around the world organize their formal education systems and how the United States' system compared, and to explore the diversity among the countries that participated in both the TIMSS 1995 and TIMSS 1999 administrations in terms of the predictors that were associated with higher mathematics achievement. Eighth Grade mathematics achievement in 23 countries across two TIMSS administrations was examined.

Study Design and Methods:

This study employed two-level hierarchical linear regression modeling techniques to predict students' eighth grade mathematics scores in 23 countries for both the 1995 and 1999 TIMSS administrations.

Findings:

Using multilevel regression techniques, this research found that countries differed both in terms of the total variability in performance and in the way the variability was observed to exist between students within classrooms and among classrooms and schools. When compared to other countries, this research found that the United States is unusual in the way it differentiates instruction for its students; students in the United States receive instruction in some of the most homogenous environments, and there was considerable variation between classrooms within the same school, and among schools. Unlike some European countries which operate technical and vocational tracks parallel to their academic tracks, here in the United States, although residential segregation may contribute to school-to-school differences, students were still likely to be tracked within schools.

Conditional multilevel models showed that students' attitudes toward mathematics and students' SES seem to be the most consistent predictors of achievement both within and across administrations. Similarly, school average SES was consistently predictive of school-level achievement in the majority of countries and in both administrations. The amount of non-academic work, paid or otherwise, that a student participated in outside of school was negatively associated with achievement in all countries and for both administrations. In these models, the maternal and self pressure composites were associated with slightly higher student-level achievement in the majority of countries and in most countries in 1995 and 1999, school achievement tended to be higher in urban areas.

Ong-Dean, Colin. (In press). High Roads and Low Roads: Learning Disabilities in California, 1976-1998. *Sociological Perspectives*, 49, 1. (forthcoming in 2006)

Data Source:

Office for Civil Rights, U.S. Department of Education, Elementary and Secondary School Compliance Report, 1976, 1986, 1998

Purpose of the Study:

To determine the relationships among school district demographics, students' race, and rates of diagnosis with learning disability (LD) at three different time points (1976, 1986, 1998), a period in which overall rates of LD dramatically increased.

Study Design and Methods:

Data from California school districts on the number of students by race and by LD status (LD and non-LD) within each district are gathered. For each year, four different logistic regression models are estimated, with LD as the dependent variable. A first model includes only the intercept, showing overall district-level prevalence of LD and providing a baseline deviance. A second model adds individual students' race (RACE), revealing the effect of students' race on their probability of being diagnosed LD. A third model adds the district-level proportion of minority students (black and Hispanic) among all students (MINPROP), which is intended to capture how individual-level and structural disadvantages, both associated with higher district-level proportions of minority students, affect students' chances of being diagnosed LD. A fourth model adds an interaction between students' individual race and the district-level proportion of minority students (RACE * MINPROP). Model effect sizes are also compared.

Findings:

In 1976, black and Hispanic students are significantly less likely to be diagnosed LD than white students, which owes mainly to their presence in high-minority districts, where overall LD rates are low. This suggests a tendency for privileged students to be diagnosed LD at higher rates in the 1970s (a "high road" to LD). In 1986, the effect of RACE increases as black students become more likely to be diagnosed LD than white students. The effect of MINPROP, still negative, is diminished. An interaction between RACE and MINPROP emerges, showing a strong tendency for black and Hispanic students to be diagnosed LD at high rates in low-minority districts. By 1998, the main determinant of LD is individual students' race, with small minority proportion effects (alone and in interaction with RACE) that contribute little to model fit. The 1998 model suggests a "low road" to LD, i.e., that disadvantaged minority status is now the major social determinant of LD diagnosis, especially due to high rates of LD among black students.

Policy Implications:

On the one hand, as other researchers have suggested, there may currently be a problem with discriminatory school practices leading to minority overrepresentation with LD. On the other hand, a shift from early claims that LD was a "white, middle-class" disability to current claims that it rationalizes minority students' disadvantages apparently reflects a real historical shift. Therefore, it may be necessary to make schools more aware of and more accountable for two different types of problems: (1) a tendency for minority overrepresentation with LD; and (2) a tendency to underidentify disadvantaged minority students with emerging disability diagnoses—in the present, for example, Asperger's Syndrome.

Ream, Robert K. (2005). Toward understanding how social capital mediates the impact of student mobility on Mexican American achievement. *Social Forces* 84 (1), 201-24.

Data Source:

National Educational Longitudinal Study of 1988 (NELS:88).

Purpose of the Study:

This study investigates the following hypotheses: (1) Mexican Americans learn less in school than non-Latino Whites, in part, because they have less access to peer social capital due to the fact that they are more mobile during their school careers; and (2) Different forms of peer social capital, like different kinds of currency, have differential exchange value – hence the process of academic achievement differs across groups in a manner that disadvantages Mexican origin youth.

Study Design and Methods:

Structural Equation Modeling (SEM); longitudinal path analyses

Findings:

- The relative distribution of social capital across racial/ethnic groups is partly dependent on the form in which social capital is measured.
- Few studies have investigated whether different forms of social capital, like different forms of currency, evidence different educational exchange value. This study modeled latent forms of *Peer Connectedness* and *Peers Value Education*, finding that *Peer Connectedness* may be an especially salient test score predictor among youth of Mexican descent.
- Ironically, Mexican American adolescents appear to be comparably disadvantaged in terms of the availability of *Peer Connectedness*. Perhaps cross-generational barriers that inhibit relationship development between peers of different nativity status partly explain this difference. School organizational practices, e.g. tracking, can also interrupt the flow of social possibilities, contributing to the social cohesion of certain groups of students over Mexican origin youth. And to the degree that student mobility impinges on peer social capital, its high incidence among youth of Mexican descent may also represent a centrifugal force straining potentially valuable, if not vulnerable, social ties.

Policy Implications:

Several changes in the development of future survey instruments would enable a more thorough and accurate investigation of social capital. Survey data should facilitate its examination across time – base year and follow-up items should be matched to facilitate longitudinal analyses sensitive to issues of endogeneity and time-order sequence. Survey instruments should enable the examination of social capital across domains, since interaction takes place in informal family and peer social networks, and also in more formal public social networks within schools and communities. Survey data should include both direct and indirect measures of social capital. More direct measures reflecting person-to-person interaction (e.g. the degree to which adolescents confide in their peers about personal issues) can be particularly valuable since they not only indicate the existence of a relationship, but also offer some reflection of the *quality* of that relationship. It is difficult though to cross-validate items of this nature since they largely reflect a respondent's attitudes. Since behaviors, as opposed to attitudes, are more amenable to external verification, survey instruments should facilitate the collection of data that might be employed in both direct *and* indirect measures of social capital.

Ream, Robert K. (2003). Counterfeit social capital and Mexican American underachievement. *Educational Evaluation and Policy Analysis* 25 (3), 237-62.

Data Source:

Survey Research: National Educational Longitudinal Study of 1988 (NELS:88).

Field Research: ethnographic study in three southern California schools.

Purpose of the Study:

This study links the literature on social capital with research on student mobility to show that social network instability accompanying high mobility rates may contribute to Mexican-American underachievement.

Study Design and Methods:

Mixed-methods research design, including: (a) path analysis using Structural Equation Modeling (SEM) techniques, and (b) interviews and field research in a large west coast school district.

Findings:

- Mexican-Americans change residences and schools more frequently than their White counterparts, and non-promotional student mobility appears to impinge on 12th grade math test score performance – particularly among youth of Mexican descent.
- Defensive and accommodating teaching strategies may serve the ironic function of increasing students' *perceptions* of teachers' concern for their well-being, while concomitantly short-circuiting the convertibility of social capital into 12th grade test score performance, especially among Mexican-American adolescents.

Policy Implications:

- Reduce reactive forms of student mobility. Since a large share of student mobility, at least during secondary school, is *not* the inevitable result of family relocation, its reduction might be facilitated by school-level reform. In fact, case studies document that schools undertaking substantial and meaningful improvements can significantly reduce student transience.
- Beware of the “soft bigotry of low expectations.” Results serve as a reminder in keeping with the tenets of standards based reform that school personnel should avoid falling into old patterns of benign neglect and counterfeit niceness that may be particularly detrimental to minority youth.

Renzulli, Linda A. (2005). Organizational environments and the emergence of charter schools in the United States. *Sociology of Education*, 78 (1), 1-26.

Data Source:

Common Core of Data (CCD) and collected data on charter school applications.

Purpose of the Study:

To show how the early stages of school formation are embedded in, if not driven by, an organizational and institutional context.

Study Design and Methods:

Given the multi-level nature of these data random effects modeling was used. The data have repeated sub samples of districts, that is, multiple years are included for each district (e.g. Anchorage School District in 1996, 1997, etc.).

Findings:

Results suggest that educational organizational environments are indeed key in the process of generating charter schools. Non-religious private schools increase the submission of charter school applications, while the density of extant charter schools in local districts – or saturation, generally -- decrease the submission of applications. Finally, local political environment and legislative support matter as well

Policy Implications:

The paper has implications for understanding the formation of charter schools. In addition, the more general importance of understanding educational options as a function of organizational environments is discussed to be used in policy formation for charter schools.

Renzulli, Linda A. and Evans, L. (2005). School choice, charter schools, and white flight. *Social Problems*, 52(3), 398-418.

Data Source:

Schools and Staffing Survey (SASS) charter school data (1999-2000) and the Common Core of Data (CCD)

Purpose of the Study:

To add to the education and broader stratification literatures by examining white enrollment in charter schools and its possible consequences for levels of racial segregation.

Study Design and Methods:

OLS regression with correction for non-independence using STATA.

Findings:

The authors find that relatively even distributions of white and nonwhite students within districts and corresponding competitive pressures, spur white charter school enrollment. Such racial competition within the educational arena may indeed be bolstering the “return to school segregation.”

Policy Implications:

Charter schools may provide a public school option for white flight without the drawbacks of residential mobility such as job change or commute for parents and thus policy makers may need to consider this when drafting charter school legislation and approval of charter schools in their communities.

Renzulli, Linda A. and Roscigno, V. 2005. Charter school policy, implementation, and diffusion in the United States. *Sociology of Education*. 78, 344-365.

Data Source:

United State Census (United States Census Bureau 1999), the Common Core of Data (CCD), and the Private School Survey (PSS).

Information on legislative reforms was gleaned from Mintrom's own work on the topic (2000, p. 21 Table 1-1).

Statistics denoting state-level union membership was obtained from the NEA Handbook (National Education Association 1998) and directly from the American Federation of Teachers.

Purpose of the Study:

To examine how inter-state dynamics and intra-state attributes affect legislative adoption and the actual creation of charter schools within states.

Study Design and Methods:

Event history analyses, competing risks, and random effects negative binomial regression, analyses.

Findings:

Findings reveal a strong mimetic tendency among adjacent states in terms of charter school legislative adoption, and regional similarities in charter school creation. Internal attributes of states, such as competition between private and public school sectors, the relative strength of teacher's unions, the presence of racial competition, urbanization, and political party dominance likewise play a role, depending on whether the analytic focus is on legislative adoption or policy implementation.

Policy Implications:

This work shows that institutional process through internal politics and geography play a role in the adoption of educational policy. Furthermore, the results presented show how policy implementation varies by type of policy adopted along with inter and intra state attributes.

Rumberger, R.W. and Palardy, Gregory J. (2005). Test scores, dropout rates, and transfer rates as alternative indicators of high school performance. *American Education Research Journal*, 41, 3-42.

Data Source:

National Education Longitudinal Survey of 1988 (NELS:88).

Purpose of the Study:

Although there is a large body of research on school effectiveness, most studies have relied on a single indicator of school performance—student test scores. This study investigated the relationship between several different indicators of high school performance—test scores, dropout rates, transfer rates, and attrition rates. Two research questions were addressed: (1) Are schools that are effective in raising test scores also effective in reducing dropout rates, transfer rates, and attrition rates? (2) What school characteristics predict these alternative measures of school performance?

Study Design and Methods:

Multilevel models were used to estimate the effects of student and school characteristics on student achievement growth, dropout rates, transfer rates, and attrition rates during high school. Two classes of multilevel models were utilized since both continuous (achievement growth) and categorical (dropout rates and transfer and attrition rates) outcomes were used. First, a three-level achievement growth model was used to estimate student achievement growth or learning on a four-subject (math, reading, science, and history) achievement test composite over the four-year period when they were attending high school. Second, two types of multilevel non-linear models were used to estimate dropout rates and transfer and attrition rates; a two-level multinomial logistic regression model was used to estimate school dropout and transfer rates and a two-level binomial logistic regression model was used to estimate school attrition rates. All three models used the same set of student-level and school-level independent variables. A residual analysis was conducted to estimate the effectiveness of each school on each outcome. The residuals from the three models were used to determine the degree of correlation in effectiveness among schools on the difference outcomes.

Findings:

The results generally support the notion of an alternative as opposed to a common view of school effectiveness—schools that are effective in promoting student learning (growth in achievement) are not necessarily effective in reducing dropout or transfer rates. In fact, high schools have relatively little variability in dropout rates after controlling for student inputs, but considerable variation in transfer rates. In addition, characteristics of schools that contributed to performance in one area often did not contribute to performance in another.

Policy Implications:

Virtually all accountability systems rely on the use of test scores to evaluate the performance of schools. Yet such a singular focus may ignore other important outcomes from schooling. Moreover, policies designed to improve performance in test scores could hurt performance in other areas. This is particularly true at the high school level, where getting students to graduate may be at least as important as getting students to improve their test scores. Given the findings of this study, it is suggest that in addition to test scores, dropout and transfer rates should be used to judge school performance.

Schoppe-Sullivan, S.J., **McBride, Brent A.**, & Ho, M.H. (2004). Unidimensional versus multidimensional perspectives on father involvement. *Fathering: A Journal of Theory, Research and Practice*, 2, 147-163.

Data Source:

Panel Study of Income Dynamics – Child Development Supplement (PSID-CDS I)

Purpose of the Study:

The purpose of this study was to evaluate the utility of unidimensional versus multidimensional conceptualizations of father involvement in child rearing. Although more recent conceptualizations of father involvement have identified this construct as consisting of multiple dimensions, researchers have struggled as they have tried to balance the need to develop measures of paternal involvement that are of a manageable length while at the same time reflecting the complexity of this construct. The current investigation sought to identify the limitations inherent in using a global approach to measuring this construct via paper-and-pencil measures of father involvement.

Study Design and Methods:

Data were drawn from the PSID-CDS I on a subsample of 1,139 children identified as living with a secondary caregiver who was the child’s biological or adoptive father, stepfather, or father-figure. Analyses were conducted with this subsample to explore whether multiple aspects of fathering behavior reflect a unitary construct of “father involvement” or do broader conceptualizations necessitate viewing father involvement as multidimensional, composed of separate facets of men’s parenting. Six dimensions of father involvement were assessed in these analyses (i.e., paternal responsibility, expressions of love and physical affection, communication with the child, father-child interactions in household activities, father-child interactions in child-centered activities, paternal monitoring). Employing Confirmatory Factor Analysis (CFA) techniques using maximum likelihood estimation to obtain parameter estimates, a six first-order model and a single second-order factor analysis model were compared to explore whether a global father involvement construct representing commonalities among the distinct dimensions of involvement was possible.

Findings:

Results from the CFAs indicated the fit of the second-order factor model was worse than the fit of the first-order model, with the differences in fit between the two models being statistically significant.

Policy Implications:

These findings suggest that although the use of brief questionnaires such as the Inventory of Father Involvement (IFI: Hawkins et al., 2002) has its advantages, researchers interested in identifying the antecedents and consequences of father involvement would be better served by developing separate measures that tap into the different dimensions of this construct.

Stapleton, Laura M. (2006). An assessment of practical solutions for structural equation modeling with complex sample data. *Structural Equation Modeling*, 13, 28-58.

Data Source:

Early Childhood Longitudinal Study-Kindergarten Cohort (ECLS-K) and simulated data

Purpose of the Study:

Evaluate different approaches for accommodating the complex sampling design of many national and international data sets into structural equation modeling analyses.

Study Design and Methods:

Population data were simulated to have different levels of intraclass correlations and design informativeness and six different sampling designs were imposed on the population data. This process was repeated 500 times for each condition. Five methods of standard error and chi-square statistic estimation were used: conventional, manual adjustment of standard errors using the design effect, use of an effective sample size weight, and two methods of pseudomaximum likelihood estimation (currently available in the LISREL and Mplus software). After the simulation results are presented, the methods are demonstrated using the empirical ECLS dataset.

Findings:

Given the conditions studied in this research, the pseudomaximum likelihood estimation procedures resulted in robust estimates of standard errors and chi-square statistics. Conventional analysis resulted in standard errors that were much too small. Manual adjustment of the standard errors using the design effect resulted in overestimation of the standard errors. Use of a sampling weight that has been adjusted for the design effect is not recommended.

Policy Implications:

Applied researchers should attempt to use PML estimation when analyzing data that arise from complex sampling designs within the structural equation modeling framework.

Taniguchi, Hiromi. (2005). The Influence of Age at Degree Completion on College Wage Premiums. *Research in Higher Education* 46(8), 861-881.

Data Source:

National Longitudinal Survey of Youth (NLSY79)

Purpose of the Study:

Although studies have shown a significant wage gain associated with the possession of a college degree, few have considered at what age the degree was received to estimate this college wage premium. Given the recent increase in the enrollment of older students, this study examines how the size of the premium is affected by college timing while focusing on a possible gender difference.

Study Design and Methods:

Using data from the National Longitudinal Survey of Youth, this study examines the effect of the timing of college completion on the college wage premium with fixed-effects models.

Findings:

Results show that those who complete their degree at 25 or older receive a significantly lower premium than those who graduate at a younger age, while the penalty for late graduation is much smaller for women than men. A further analysis suggests that the late college penalty is partly due to the delayed onset of the cumulative benefits higher education provides, and that women are penalized less for late degree completion because they gain less from college education over the course of time to begin with.

Policy Implications:

The issue of the variability in college premiums by the timing of degree completion deserves close attention as nontraditional enrollment will likely continue growing in a foreseeable future, especially in light of today's skyrocketing college costs that would force more and more teenagers and young adults to postpone college and to fill jobs in the lower end of the labor market before returning to school.

Taniguchi, Hiromi & Kaufman, G. (2005). Degree completion among nontraditional college students *Social Science Quarterly* 86, 912-927.

Data Source:

National Longitudinal Survey of Youth (NLSY79)

Purpose of the Study:

With the growing number of older students attending college, one major issue concerning these nontraditional students is their overall low completion rates. We examine factors affecting nontraditional students' degree completion.

Study Design and Methods:

Using data from the National Longitudinal Survey of Youth, we examine the effects of student characteristics on the probability of finishing college with event history models.

Findings:

Part-time enrollment significantly deters college completion, whereas the number of prior enrollments facilitates it. Being relatively young, having high cognitive ability, and a high-status occupational background also increase the chance of completion, but these effects partly differ by gender. On the other hand, being divorced and having young children, the factors often negatively associated with women's socioeconomic status, suppress degree completion for both genders.

Policy Implications:

Based on these results, we discuss how higher educational institutions and employers might be able to help increase the rate of completion among nontraditional students.

Thomas, S., and **Zhang, Liang**. (2005). Post-baccalaureate wage growth within four years of graduation: The effects of college quality and college major. *Research in Higher Education*, 46(4), 437-459.

Data Source:

Baccalaureate and Beyond Longitudinal Study (B&B) 93/97

Purpose of the Study:

The purpose of this study is to examine the rate of wage growth among early career college graduates that can be attributed to college quality and academic major. The authors extend previous work in this area by analyzing the magnitude of change in the influence of these factors at two points in the early career of these graduates.

Study Design and Methods:

The main goal is to determine if substantively and statistically significant differences exist in the economic return to various factors being modeled across two points in time, net of other factors. GLS proves an appropriate estimation strategy—an approach that allows the incorporation of the error structure directly into the analysis. In particular, Zellner’s seeming unrelated regression estimator is used to estimate this system of equations along with the asymptotically efficient, feasible generalized least-squares algorithm.

Findings:

The results of this study are the first to confirm that, net of other salient influences, the effects of college quality actually increase in the early period of graduates’ careers. They also show significant earnings shifts for graduates from a number of academic fields of study. While earnings growth was observed among graduates from every field except the biological sciences and history relative to majors in education, graduates with majors in business, engineering, and math fields enjoyed earnings increases greater than those observed among education graduates. An increasing gender gap and a relative little racial disparity in earnings and growth were also shown.

Policy Implications:

Time-variant wage returns attributable to college quality may inform future considerations of the longer-term impacts of education related investments and indebtedness associated with college costs. From the student or family point of view, the results of this study may serve to provide a better framework for understanding the magnitude of the college payoff as well as its timing. A longer-term view such as this may thereby importantly influence decisions of college choice and financing.

Warren, John R. and Cataldi, E.F. (In press). A historical perspective on high school students' paid employment and its association with high school dropout. *Sociological Forum*. (forthcoming 2006).

Data Source:

October Current Population Surveys (1968-2000); Integrated Public Use Microdata Samples from the 1940-2000 U.S. Censuses; National Longitudinal Study of Men (1966-1968); National Longitudinal Study of Women (1968-1970); National Longitudinal Study of Youth: 1979 (1979-1981); High School & Beyond (1980-1982); National Educational Longitudinal Study of 1988 (1988-1990); National Longitudinal Study of Youth: 1997 (1997-1999).

Purpose of the Study:

In this paper the authors pursued two related conceptual goals. First, they sought to document historical trends in the paid employment behaviors of Black and White high school students in the United States. Because these trends have implications for the demographic, socioeconomic, and academic composition of the population of employed high school students, they also have implications for research on the association between students' paid employment activities and educational outcomes. Consequently, their second goal was to consider the ways in which the association between Black and White high school students' paid employment activities and one important educational outcome—high school dropout—changed over time.

Study Design and Methods:

To assess trends in the selectivity and consequences of adolescent employment, the authors begin by performing separate analyses of each data set. That is, within each of the five samples they model selectivity in employment status/intensity separately for sophomores and seniors using multinomial regression models; then they model the effects of sophomore year employment status/intensity on high school dropout using logistic regression models.

To assess trends across surveys—and thus over time—in the selectivity and consequences of adolescent employment, the authors use the five sets of unstandardized coefficient estimates and their covariance matrixes—derived from each of these separate analyses—and use them as data in a secondary analysis—a form of meta-analysis that can be viewed as a special case of two level hierarchical modeling (Bryk and Raudenbush, 1992; Bryk et al., 2000; Hox, 1995). After estimating these separate “within study” multinomial or logistic regression models for each sample, the authors estimate “between study” linear regression models that attempt to explain variability across studies among the five sets of parameter estimates. The goal is to understand whether important within-study parameters vary as a function of calendar year.

Findings:

The authors find few changes in rates of employment or intensive employment among adolescents since 1940 or among students since 1980. They observe important changes in recent decades in race/ethnic and gender differences in employment and intensive employment. Finally, they observe that the relationship between students' intensive employment and high school completion has been stable and persistently large since the late 1960s.

Policy Implications:

The chief policy implication of this work stems from the observation that rates of employment and rates of intensive employment (more than 20 hours per week) have been stable for teenagers since (at least) the 1940s. While many policy makers seek to respond to the perceived increase in rates of paid employment among high school students, they would be wise to recognize (a) that such rates have not changed since about 1980 and (b) that changes in those rates prior to about 1980 reflect an increased tendency for employed young people to persist longer in school, not an increased tendency for enrolled young people to obtain paid jobs or work longer hours.

Zhang, Liang. (2005a). Advance to graduate education: The effect of college quality and undergraduate majors. *Review of Higher Education*, 28(3), 313-338.

Data Source:

Baccalaureate and Beyond Longitudinal Study (B&B) 93/97

Purpose of the Study:

Using a nationally representative sample of baccalaureate graduates from 1993, this study examines the effect of college quality and undergraduate majors on a variety of graduate education outcomes including graduate school enrollment, graduate degree attainment, and the quality of graduate programs.

Study Design and Methods:

The method employed in this analysis is straightforward binomial logit and multinomial logit (three discrete outcomes) models. Specifically, for binomial choices (graduate enrollment or not, master's program or doctoral program, and graduate degree or not), binomial logit models are used, and for multinomial outcomes (comprehensive, doctoral, or research institutions), multinomial logit are employed.

Findings:

Generally speaking, graduates from high-quality colleges were more likely to enroll in graduate programs; among those who actually enrolled in graduate programs, graduates from high-quality colleges were more likely to enroll in doctoral programs and in research universities. Similarly, graduates from high-quality colleges were more likely to finish their graduate degree within four to five years of college graduation; among the graduates who had actually obtained their graduate degree within four to five years, those from high-quality colleges were more likely to have received their degrees from research universities.

Policy Implications:

This study explores the nexus college quality and graduate education within the broad context of post-secondary access and opportunities. In particular, this analysis examines the interactions between socioeconomic and academic factors. Findings suggest that socioeconomic factors and academic factors are not all that separated; they work in tandem. The academically and socioeconomically "rich" become richer while the academically and socioeconomically "poor" become poorer in the face of massive expansion of higher education in the United States.

Zhang, Liang. (2005b). Do measures of college quality matter? The effect of college quality on graduates' earnings. *Review of Higher Education*, 28(4), 571-596.

Data Source:

Baccalaureate and Beyond Longitudinal Study (B&B) 93/97

Purpose of the Study:

This study reviews and explores varying effects of college quality caused by different measure of college quality, including Barron's ratings, mean SAT scores of entering freshman class, tuition and fees, and Carnegie Classification.

Study Design and Methods:

Conventional OLS technique is used in this study for several reasons. First, it is desirable to maintain consistency with previous research so that results can be compared without confusion due to the method. Second, although it is interesting to employ statistically more advanced methods such as correction for selection and HLM, the intention is to keep the technical aspect of this study as parsimonious as possible. Finally, results from other methods do not differ substantially from the baseline model.

Findings:

Results indicate that the estimated effect of college quality is sensitive to the measure of college quality, suggesting that different measures of college quality may provide partial explanation for varying effects of college quality in previous studies. More importantly, the current analysis shows that the common wisdom that it pays to attend high-quality colleges is robust to these measures.

Policy Implications:

Results of the current study have several important implications. In the future discussion of college quality, researchers need to be very explicit about how the college quality is measured and defined. The common wisdom that it pays to attend high-quality institutions seems to be quite robust over an array of measures of college quality. This is reassuring that high-quality college education appears to be a good investment, although educational researchers are having a difficult time to figure out the sources of such advantages provided by those high-quality institutions. On the other hand, as high-quality institutions continue to raise their high tuition and fees in their pursuit of academic excellence, future research should focus on the college choice behaviors of students from poor families, paying more attention to promoting their participation at high-quality institutions.

V. Bibliography of Included Articles

- Ainsworth-Darnell, J.W. (2002). Why does it take a village? The mediation of neighborhood effects on educational achievement. *Social Forces*, 81(1), 117-152.
- Akiba, M., LeTendre, G., Baker, D., and Goesling, B. (2002). Student victimization: National and school system effects on school violence in 37 nations. *American Educational Research Journal*, 39(4), 829-853.
- Antony, J.S. and Valadez, J.R. (2002). Exploring the satisfaction of part-time college faculty in the United States. *Review of Higher Education*, 26(1), 41-56.
- Corman, H. (2003). The effects of state policies, individual characteristics, family characteristics, and neighborhood characteristics on grade repetition in the United States. *Economics of Education Review*, 22, 409-420.
- Datar, A. (2006). Does entering kindergarten at an older age give children a head start? *Economics of Education Review*, 25(1), 43-62.
- Dee, T.S. (2005a). A teacher like me: Does race, ethnicity, or gender matter? *American Economic Review*, 95(2), 158-165.
- Dee, T.S. (2005b). Expense preference and student achievement in school districts. *Eastern Economic Journal*, 31(1), 23-44.
- Dee, T.S. and Evans, W.N. (2003). Teen drinking and educational attainment: Evidence from two-sample instrumental variables (TSIV) estimates. *Journal of Labor Economics*, 21(1), 178-209.
- Dumais, S.A. (2005). Accumulating adversity and advantage on the path to postsecondary education: An application of a person-centered approach. *Social Science Research*, 34, 304-332.
- Dumais, S.A. (2002). Cultural capital, gender, and school success: The role of habitus. *Sociology of Education*, 75, 44-68.
- Goldrick-Rab, S. (2006). Following their every move: How social class shapes postsecondary pathways. *Sociology of Education*, 79, 61-79.
- Gordon, N. (2004). Do federal funds boost school spending: Evidence from Title I. *Journal of Public Economics*, 88(9-10), 1771-1792.
- Hong, G. and Raudenbush, S.W. (In press). Evaluating kindergarten retention policy: A case study of causal inference for multi-level observational data. *Journal of the American Statistical Association*.
- Hong, G. and Raudenbush, S.W. (2005). Effects of kindergarten retention policy on children's cognitive growth in reading and mathematics. *Educational Evaluation and Policy Analysis*, 27(3), 205-224.
- Ishitani, T.T. and DesJardins, S.L. (2002-2003). A longitudinal investigation of dropout from college in the United States. *Journal of College Student Retention: Research, Theory & Practice*, 4(2), 173-202.

- Joy, L. (2003). Salaries of recent male and female college graduates: Educational and labor market effects. *Industrial and Labor Relations Review*, 56(4), 606-621.
- Judge, S. (2005a). Impact of computer technology on academic achievement of young African American children. *Journal of Research in Childhood Education*, 20(2), 97-107.
- Judge, S. (2005b). Resilient and vulnerable at-risk children: Protective factors affecting early school competence. *Journal of Children and Poverty*, 11(2), 149-168.
- Judge, S., Puckett, K., and Cabuk, B. (2004). Digital equity: New findings from the Early Childhood Longitudinal Study. *Journal of Research on Technology in Education*, 36(4), 383-396.
- Kaplan, D. (2002). Methodological advances in the analysis of individual growth with relevance to education policy. *Peabody Journal of Education*, 77, 189-215.
- Lacireno-Paquet, N. (2006). Charter school enrollments in context: An exploration of organization and policy influences. *Peabody Journal of Education*, 81(1), 79-102.
- Lacireno-Paquet, N. (2004). Do EMO-operated charter schools serve disadvantaged students? The influence of state policies. *Education Policy Analysis Archives*, 12(26).
[<http://epaa.asu.edu/epaa/v12n26>]
- Lee, S.M. (2002). Do Asian American faculty face a glass ceiling in higher education? *American Educational Research Journal*, 39(3), 695-724.
- Linton, A. (2004a). A critical mass model of bilingualism among U.S.-born Hispanics. *Social Forces*, 85(1), 1-35.
- Linton, A. (2004b). Learning in two languages: Spanish-English immersion in U.S. public schools. *International Journal of Sociology and Social Policy*. 24(7/8), 46-74.
- Liu, X. and Meyer, J.P. (2005). Teachers' perceptions of their job: A multilevel analysis of the Teacher Follow-up Survey for 1994-95. *Teachers College Record*, 107, 985-1003.
- Lutz, A. (2004). Dual language proficiencies and the educational attainment of Latinos. *Migraciones Internacionales*, 2, 95-122.
- McBride, B.A., Schoppe-Sullivan, S.J., and Ho, M. (2005). The mediating role of fathers' school involvement on student achievement. *Journal of Applied Developmental Psychology*, 26, 201-216.
- Millett, C.M. (2003). How undergraduate loan debt affects application and enrollment in graduate or first professional school. *Journal of Higher Education*, 74, 386-427.
- Morgan, S.L. and Mehta, J.D. (2004). Beyond the laboratory: Evaluating the survey evidence for the disidentification explanation of Black-White differences in achievement. *Sociology of Education*, 77(1), 82-101.
- O'Dwyer, L. (2005). Examining the variability of mathematics performance and its correlates using data from TIMSS 95 and TIMSS 99. *Educational Research and Evaluation*, 11(2), 155-177.

- Ong-Dean, C. (In press). High roads and low roads: Learning disabilities in California, 1976-1998. *Sociological Perspectives*. (forthcoming 2006).
- Ream, R.K. (2005). Toward understanding how social capital mediates the impact of student mobility on Mexican American achievement. *Social Forces* 84(1), 201-224.
- Ream, R.K. (2003). Counterfeit social capital and Mexican American underachievement. *Educational Evaluation and Policy Analysis*, 24(3), 237-262.
- Renzulli, L.A. (2005). Organizational environments and the emergence of charter schools in the United States. *Sociology of Education*, 78(1), 1-26.
- Renzulli, L.A. and Evans, L. (2005). School choice, charter schools, and white flight. *Social Problems*, 52(3), 398-418.
- Renzulli, L.A. and Roscigno, V. (2005). Charter school policy, implementation, and diffusion in the United States. *Sociology of Education*, 78, 344-365.
- Rumberger, R.W. and Palardy, G.J. (2005). Test scores, dropout rates, and transfer rates as alternative indicators of school performance. *American Education Research Journal*, 41, 3-42.
- Schoppe, S.J., McBride, B.A., and Ho, M. (2004). Father involvement: Unitary versus multidimensional constructs. *Fathering: A Journal of Theory, Research, and Practice*, 2, 147-164.
- Stapleton, L.M. (2006). An assessment of practical solutions for structural equation modeling with complex sample data. *Structural Equation Modeling*, 13, 28-58.
- Taniguchi, H. (2005). The influence of age at degree completion on college wage premiums. *Research in Higher Education* 46(8), 861-881.
- Taniguchi, H. and Kaufman, G. (2005). Degree completion among nontraditional college students. *Social Science Quarterly*, 86, 912-927.
- Thomas, S.L. and Zhang, L. (2005). Post-baccalaureate wage growth within four years of graduation: The effects of college quality and college major. *Research in Higher Education*, 46(4), 437-459.
- Warren, J.R. and Cataldi, E.F. (In press). A historical perspective on high school students' paid employment and its consequences for high school dropout. *Sociological Forum*. (forthcoming 2006)
- Zhang, L. (2005a). Advance to graduate education: The effect of college quality and undergraduate education. *The Review of Higher Education*, 28(3), 313-338.
- Zhang, L. (2005b). Do measures of college quality matter? The effect of college quality on graduates earnings. *The Review of Higher Education*, 28(4), 571-596.