



## ELS:2002 ANNOTATED BIBLIOGRAPHY

*(February 2009)*

This bibliography is derived from computer searches of online bibliographic databases such as DISSERTATION ABSTRACTS, ERIC, PSYCHOLOGICAL ABSTRACTS, and SOCIOLOGICAL ABSTRACTS, as well as the NCES.ED.GOV website. In addition to journal articles, dissertations and reports, ELS:2002-based books and conference papers are also included. Where abstracts are available from multiple sources, preference has been given to the ERIC abstract.

Please contact John Wirt at [John.Wirt@ed.gov](mailto:John.Wirt@ed.gov) with any corrections.

“NCES”, “ED” (ERIC documents), and “EJ” (ERIC journals) publication numbers are indicated in brackets. Publications with an “NCES” number may be accessed from the National Center for Education Statistics (NCES) at <http://nces.ed.gov>. Publications with “ED” or “EJ” numbers are indexed in the Educational Resources Information Center (ERIC) at <http://eric.ed.gov>.

### *Arranged alphabetically by year*

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#### **2009**

Hampden-Thompson, Gillian, Siri Warkentien, and Bruce Daniel. (2009). Course Credit Accrual and Dropping Out of High School, by Student Characteristics. Issue Brief. U.S. Department of Education, Institute of Education Sciences. Washington, DC: National Center for Education Statistics. [NCES 2009-035].

This brief publication uses the ELS:2002 transcript data to report and examine differences in the average number of course credits earned between on time high school graduates and dropouts, both within and accumulated across academic years. Differences in the course credit accrual of ELS:2002 sophomore cohort high school graduates and dropouts are also reported by selected subjects (English, mathematics, and science).

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#### **2008**

Berends, Mark, Samuel R. Lucas, and Robert V. Penaloza. (2008). “How Changes in Families and Schools Are Related to Trends in Black-White Test Scores.” *Sociology of Education*, 81(4): 313-344.

This article employs data from ELS:2002 as well as the prior NCES high school longitudinal studies and the National Assessment of Educational Progress. The authors analyze data from 1972 to 2004 to examine mathematics achievement in relation to school and family measures. A particular focus

is the association between Black-White test score gaps and changes in family background and school characteristics.

Bozick, Robert, and Steven J. Ingels. (2008). *Mathematics Coursetaking and Achievement at the End of High School: Evidence from the Education Longitudinal Study of 2002 (ELS:2002)*. U.S. Department of Education, Institute of Education Sciences. Washington, DC: National Center for Education Statistics. [NCES 2008-319]

This report documents and examines the relationship between the number and types of math courses taken in the 11th and 12th grade and growth in mathematics proficiency over the same time period. Using data from the Education Longitudinal Study of 2002 (ELS:2002), the analysis identifies the coursetaking sequences most prevalent among contemporary high school students in their junior and senior years, sociodemographic characteristics of the students who follow these course sequences, and the association between specific courses and course sequences and mathematics gains over the last two years of high school. Because most students (94 percent) entered the second half of high school with a mastery of basic mathematics skills such as simple arithmetic and operations, most learning during this time was in intermediate-level mathematics skills and concepts. For example, the percentage of students with an understanding of simple problem solving skills grew from 53 to 65 percentage points over the two year period. In terms of learning in specific content areas, the largest gains in intermediate skills such as simple operations and problem solving were made by those who followed the geometry–algebra II sequence. The largest gains in advanced skills such as derivations and making inferences from algebraic expressions were made by students who took precalculus paired with another course. The smallest gains were made by students who took one mathematics course or no mathematics courses during their last 2 years of high school.

Flowers, Tiffany A., and Lamont A. Flowers. (2008). “Factors Affecting Urban African American High School Students’ Achievement in Reading.” *Urban Education*, 43(2): 154-171.

Data analyzed from the Education Longitudinal Study of 2002 indicate that the achievement of urban African American high school students is positively influenced by number of hours spent doing homework and by parents’ expectations of their child’s future attainment. Implications for practice and research are provided.

Ingels, Steven J., and Ben W. Dalton. (2008). *Trends Among High School Seniors, 1972-2004*. National Center for Education Statistics, Institute for Education Sciences, U.S. Department of Education. Washington, DC. [NCES 2008-320].

Using questionnaire and transcript data collected in 1972, 1980, 1982, 1992, and 2004, this report presents information on five cohorts of high school seniors. The analysis addresses overall trends, as well as trends within various subgroups defined by sex, race/ethnicity, and socioeconomic status (SES). Key findings of the report include the following: The proportion of Black seniors who were in the highest SES quartile doubled from 1972 to 1992 (from 5 percent to 10 percent), and increased overall from 5 percent in 1972 to 14 percent in 2004. The percentage of seniors enrolling in calculus during their senior year grew from 6 percent to 13 percent between 1982 and 2004. The percentage of seniors taking no mathematics courses during their senior year declined from 57 percent to 34 percent over this time period. Seniors increased their senior-year enrollment in advanced science courses (chemistry II, physics II, and advanced biology) from 12 percent in 1982 to 25 percent in

2004. In each class of seniors, most of those who planned further schooling intended to attend four-year postsecondary schools, with the proportion of students planning to attend four-year schools rising from 34 percent in 1972 to 61 percent in 2004. In all years, higher percentages of Asian high school seniors, and lower percentages of Hispanic seniors (except in 1992), compared to other racial/ethnic groups, planned attendance at four-year institutions. No difference was observed between 1972 and 2004 between the percentage of seniors expecting a bachelor's degree as their highest level of education. Instead, growth between these two time points was greatest in expectations for a graduate or professional degree: 13 percent of seniors expected to attain this level of education as their highest in 1972, compared to 38 percent of seniors in 2004. In 1972, males expected to earn a graduate degree as their highest educational level in greater proportions than did females (16 percent versus 9 percent); however, in 2004, females expected to earn a graduate degree more often than males (45 percent versus 32 percent). Seniors increasingly expected to work in professional occupations (growing from 45 percent).

Levesque, Karen, Jennifer Laird, Elisabeth Hensley, Susan Choy, Emily Forrest Cataldi, and Lisa Hudson. (2008). *Career and Technical Education in the United States: 1990 to 2005*. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. [NCES 2008-035]

This report draws on various NCES databases, including the student and school surveys of the Education Longitudinal Study of 2002 (ELS:2002), in order to report on the condition of and trends in contemporary career and technical education. ELS:2002 describes U.S. high schools in 2002, including comprehensive high schools and full-time CTE high schools, indicating as well whether these full-time high schools were served by area CTE schools, and this information that is drawn upon in the report.

Provasnik, Stephen, and Michael Planty, (2008). *Community Colleges: Special Supplement to The Condition of Education 2008*. National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC. [NCES 2008-033].

This report draws on data from various NCES databases, including the Education Longitudinal Study of 2002 (ELS:2002), in order to present a descriptive profile of community colleges in the United States. ELS:2002 data are used to answer questions about the characteristics of students who enroll in community colleges immediately after completing high school; about how immediate enrollees in community colleges differ from those in public and private 4-year colleges and universities; about the percentage of immediate enrollees who attend community college as a stepping stone to a higher degree; about changes in the educational expectations of immediate enrollees in community college.

Rumberger, Russell W., and Susan Rotermund. (2008). "What Happened to Dropouts From the High School Class of 2004?" Santa Barbara, CA: California Dropout Research Project, Linguistic Minority Research Institute, University of California at Santa Barbara. Available at: [http://www.lmri.ucsb.edu/dropouts/pubs\\_statbriefs.htm](http://www.lmri.ucsb.edu/dropouts/pubs_statbriefs.htm).

Using ELS:2002, this statistical brief compares high school completion statuses for dropouts in California with the completion statuses of dropouts from the nation at large. Also examined are (California versus nation) school and work statuses for dropouts and their non-dropout peers.

Sciarra, Daniel T. (2008, April). "The Multidimensionality of School Engagement and Math Achievement Among Racial Groups." *Professional School Counseling*.

This journal article draws on a behavioral, emotional and cognitive construct of school engagement to study the relationship between school engagement and mathematics achievement across racial groups, using base year and first follow-up data from ELS:2002. In this analysis, behavioral and cognitive engagement accounted for substantially more variance in math achievement than did emotional engagement. The article also discusses ways in which school counselors can promote engagement.

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## 2007

Bozick, Robert, and Erich Lauff. (2007). *Education Longitudinal Study of 2002 (ELS:2002): A First Look at the Initial Postsecondary Experiences of the High School Sophomore Class of 2002*. U.S. Department of Education, Institute of Education Sciences. Washington, DC: National Center for Education Statistics. [NCES 2008-308].

This brief report uses data from the Education Longitudinal Study of 2002 (ELS:2002) to describe the initial postsecondary enrollment experiences of the high school sophomore class of 2002, including the types of postsecondary institutions they attend, the timing of their enrollment, the reason they chose their first college or university, their fields of study, their reason for leaving if they have withdrawn, and their expectations for future education. Additionally, the report shows the relationship between these initial postsecondary enrollment experiences with student background characteristics and high school factors. The appendix provides a brief description of the ELS:2002 design.

Dalton, Ben, Steven J. Ingels, Jane Downing, and Robert Bozick. (2007). *Advanced Mathematics and Science Coursetaking in the Spring High School Senior Classes of 1982, 1992, and 2004*. U.S. Department of Education, Institute of Education Sciences. Washington, DC: National Center for Education Statistics. [NCES 2007-312].

This report presents new time series data on the coursetaking patterns in mathematics and science for the spring high school graduating classes of 1982, 1992, and 2004. Coursetaking information was derived from high school transcripts collected by NCES in the following three studies: (1) High School and Beyond Longitudinal Study of 1980 Sophomores; (2) the National Education Longitudinal Study of 1988; and (3) the Education Longitudinal Study of 2002. The analysis addresses overall trends, as well as trends within various subgroups defined by sex, race/ethnicity, socioeconomic status (SES), expectations for future educational attainment, and school sector. The report examines trends in academic coursetaking in both mean credits earned in math and science and in the highest course level that high school graduates completed in the two subjects. Some key findings are as follows.

First, in mathematics, academic coursework increased from, on average, 2.7 total credits in 1982 to 3.6 total credits in 2004. In addition, graduates shifted from taking lower level mathematics courses to taking more advanced courses. For example, the percentage of graduates who persisted through the mathematics curriculum into the two most advanced levels—precalculus and calculus—tripled between 1982 and 2004. At the subgroup level, while students in each of the four SES quartiles increased their participation in advanced mathematics over time, some disparities increased—for

example, the difference between the highest and lowest SES quartiles in precalculus and calculus coursetaking went from 18 percentage points in 1982 to 35 percentage points in 2004.

Second, in science, the average number of credits increased from 2.2 total credits in 1982 to 3.3 total credits in 2004. Further, graduates shifted in significant proportions from taking lower level science courses to taking upper level ones. At the subgroup level, despite increased completion of advanced-level science courses by graduates from all school sectors, Catholic and other private school students remained more likely than their public school counterparts to complete advanced-level courses in science.

Dee, Thomas S., Wei Ha, and Brian A. Jacob. (2006/2007). "The Effects of School Size on Parental Involvement and Social Capital: Evidence from the ELS:2002." *Brookings Papers on Educational Policy* – 2006/2007, pp. 77-97.

This study presents empirical evidence, from the base year of the Education Longitudinal Study of 2002 (ELS:2002) on whether the size of public high schools influences measures of parental involvement and social capital. This publication includes a discussion of the school-size literature and of the difficulties of making causal inferences, a multivariate analysis of baseline data, and results of a bounding exercise. Study findings suggest that smaller high schools may be more effective at influencing the probability that parents volunteer at the school and may be more effective at promoting social capital.

Dumais, Susan A., and Aaryn Ward. (2007). "The Activities and Attitudes of American Teenagers, 1990-2002: Gender Differences, Math Achievement, and College Expectations." Paper presented at the annual meeting of the American Sociological Association, New York, N.Y.

Using data from the National Education Longitudinal Study of 1988 (NELS:88) and the Educational Longitudinal Study of 2002 (ELS:2002), the authors analyze the effects that students' attitudes and extracurricular participation have on two academic outcomes: mathematics achievement test scores and college expectations. Both changes between cohorts, and gender differences within each cohort, are investigated. The positive effects of school activities on math achievement test scores were greater for the Class of 2004 than for the Class of 1992, as were the negative effects of non-academic values. There were no cohort differences in the activities and attitudes that affected college expectations. For the Class of 1992, leisure activities had more of a negative effect on males' math test scores than on females' scores. Females in the Class of 2004 who worked experienced an increase in math test scores, while working males experienced a decrease. The findings indicate that many of the same activities and attitudes were relevant for math achievement and college expectations in the two time periods, but that gender differences have emerged.

GAO (United States Government Accountability Office) (2007). *Information Sharing Could Help Institutions Identify and Address Challenges Some Asian Americans and Pacific Islander Students Face*. Washington, D.C.: Author. [GAO-07-925].

This report uses ELS:2002 base year and first follow-up data (as well as National Postsecondary Student Aid Study data) to examine the question of what challenges Asian American and Pacific Islander students face in pursuing and completing their postsecondary education, taking into account factors such as academic preparedness (e.g., high school program, proportion enrolled in

English as a second language courses, tested achievement in reading and math as reflected by the ELS:2002 assessment battery, socioeconomic status, and parental savings for their child's future education). It includes breakdowns for eight Asian/Pacific Islander groups.

Hampden-Thompson, G., G. Kienzl, B. Daniel, and A. Kinukawa. (2007). *Course Credit Accrual and Dropping Out of High School*. Issue Brief. U.S. Department of Education, Institute of Education Sciences. Washington, DC: National Center for Education Statistics. [NCES 2007-018].

This brief publication uses the ELS:2002 transcript data to report and examine differences in the average number of course credits earned between on time high school graduates and dropouts, both within and accumulated across academic years. Differences in the course credit accrual of ELS:2002 sophomore cohort high school graduates and dropouts are also reported by selected subjects (English, mathematics, and science).

Ingels, Steven J., Daniel J. Pratt, David Wilson, Laura J. Burns, Douglas Currivan, D., James E. Rogers, and Shirley Hubbard-Bednasz. (2007). *Education Longitudinal Study of 2002: Base-Year to Second Follow-up Data File Documentation*. U.S. Department of Education. Washington, DC: National Center for Education Statistics. [NCES 2008-347].

This data file documentation report describes the procedures and methodologies employed during the Education Longitudinal Study of 2002 (ELS:2002) base year, first- and second-follow-ups. The focus is on the second follow-up; its concise treatment of the base year and first follow-up does not supersede the more detailed documentation available for the earlier rounds of the study. The manual is designed to provide guidance and documentation for users of the restricted-use data as released in Electronic Codebook (ECB) format and may also prove helpful for users of the associated public use Data Analysis System (DAS).

Included in the documentation are the following: an overview of the study and its predecessor studies; a description of the data collection instruments, including both the development and content of the tests and questionnaires used in the three rounds of data collection; documentation of the sample design, weighting, and design effects; a summary of the data collection methodology and results, including detailed response rates; a description of data preparation and processing activities; and an overview of data file structure and contents. In addition, further documentation is contained in a series of appendices. This publication is available online only, at the NCES website (<http://nces.ed.gov>).

KewelRamani, A., L. Gilberston, L., Fox, M., and S. Provasnik. (2007). *Status and Trends in the Education of Racial and Ethnic Minorities*. Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. [NCES 2007-039]

This NCES report includes ELS:2002 data on after-school activities (broken down by race and gender) as well as advanced coursetaking in mathematics, science, English and foreign languages.

Lee, Sang Min, Jason Kushner, and Seong Ho Cho. (2007). "Effects of Parent's Gender, Child's Gender and Parental Involvement on the Academic Achievement of Adolescents in Single Parent Families." *Sex Roles*, 56(3-4): 149-157.

The authors used the Education Longitudinal Study (ELS) to investigate the effects of parent's gender, child's gender, and parental involvement in school on the academic achievement of adolescents in single-parent families. A three way  $2 \times 2 \times 2$  (parent's gender  $\times$  child's gender  $\times$  parental involvement) MANCOVA was conducted with four student academic achievement indicators as dependent variables and SES as a covariate. The results indicated that parent gender and child gender interact with parent involvement to affect adolescents' academic achievement differentially. Specifically, daughters who lived with highly involved single-fathers performed better academically than the other groups did. These findings suggest that researchers who study single-parents' involvement in their adolescents' academic achievement need to pay more attention to gender-specific effects.

Newgent, Rebecca A., Sang Min Lee, and Ashley F. Daniel. (2007). "Interracial Best Friendships: Relationship with 10<sup>th</sup> Graders' Academic Achievement Level." *Professional School Counseling*, 11(2): 98-104. [EJ817455]

The authors examined the relationships between interracial best friendships and 10<sup>th</sup>-grade students' academic achievement. The analysis consisted of data from the ELS:2002 database. The results indicated that interracial best friendships for minority students (African Americans, Latino Americans, Asian Americans, and American Indians) generally have a positive relationship with students' academic achievement.

Planty, Michael, Stephen Provasnik, and Bruce Daniel. (2007). *High School Coursetaking: Findings from the Condition of Education 2007*. U.S. Department of Education. Washington, D.C.: National Center for Education Statistics. [NCES 2007-065].

The special analysis on high school coursetaking uses ELS:2004 data in conjunction with data gathered in earlier high school transcript studies to report on coursetaking trends.

Rotermund, Susan. (2007). *Why Students Drop Out of High School: Comparisons from Three National Surveys*. Statistical Brief Number 2. Santa Barbara, CA: California Dropout Research Project, Linguistic Minority Research Institute. <http://www.lmri.ucsb.edu>

This statistical brief uses ELS:2002 state-level (California) and national-level data as well as data from NELS:88 to compare tenth-graders' reasons for dropping out of high school.

Schneider, Barbara, Adam E. Wyse, and Vanessa Keesler. (2006/2007). "Is Small Really Better? Testing Some Assumptions about High School Size." *Brookings Papers on Educational Policy* – 2006/2007, pp. 15-47.

Using data from the Education Longitudinal Study of 2002 (ELS:2002), the authors investigated the impact of small schools on student mathematics achievement, postsecondary expectations, college attendance after high school, the number of postsecondary institutions students applied to, and the type of institution to which students applied, employing both conventional hierarchical linear

models and propensity score matching techniques that specifically attempt to account for selection effects. Small schools did not show consistently positive effects.

U.S. Department of Education, National Center for Education Statistics (2007). *The Condition of Education 2007*. Indicator 21: Time Spent on Homework. Washington, DC: U.S. Government Printing Office. [NCES 2007-064].

This indicator compares data on time spent in homework in 1980 versus 2002, for high school sophomores as studied in High School and Beyond and the Education Longitudinal Study of 2002. The data are taken from the report Cahalan, Ingels, Burns, Planty and Daniel (NCES 2006-327) *United States High School Sophomores: A Twenty-Two Year Comparison*.

U.S. Department of Education, National Center for Education Statistics (2007). *The Condition of Education 2007*. Indicator 22: Student Preparedness. Washington, DC: U.S. Government Printing Office. [NCES 2007-064].

This indicator compares data on student preparedness in 1980 versus 1990 and 2002, for high school sophomores as studied in HS&B, NELS:88, and ELS:2002 (percentage of 10<sup>th</sup> graders who usually or often came to school unprepared without school books, supplies or homework). The data are taken from the report Cahalan, Ingels, Burns, Planty and Daniel (NCES 2006-327) *United States High School Sophomores: A Twenty-Two Year Comparison*.

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## 2006

Bozick, Robert, Tiffany Lytle, Peter H. Siegel, Steven J. Ingels, James E. Rogers, Erich Lauff, and Michael Planty. (2006). *Education Longitudinal Study of 2002: First Follow-up Transcript Component Data File Documentation*. U.S. Department of Education. Washington, DC: National Center for Education Statistics. [NCES 2006-338].

The transcript data documentation accompanies the restricted-use ELS:2002 first follow-up high school transcript and course offering component ECB. It comprises five chapters and a series of appendixes. The first chapter introduces the transcript data set. Chapter 2 describes transcript data collection materials and procedures. Chapter 3 covers the topic of data control and preparation. Chapter 4 discusses data processing, while Chapter 5 is a guide to the transcript component data files and documentation, including the transcript weights, design effects, and content and organization of the data files. Appended matter deals with the following topics: cross-cohort comparison to other transcript collections, transcript study data collection materials, letter grade conversion scale, course content lists for subject area and composite variables, the student file codebook, the course file codebook, the school file codebook, the course offerings file codebook, a listing of the classification of secondary school courses, and further documentation of design effects. This document is not publicly available (see Ingels et al. 2007 [NCES 2008-347] for a publicly-available description of the ELS:2002 transcript component).



Cahalan, Margaret W., Steven J. Ingels, Laura J. Burns, Michael Planty, and Bruce Daniel. (2006). *United States High School Sophomores: A Twenty-Two Year Comparison, 1980–2002*. U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office. [NCES 2006-327].

Using questionnaire and test data collected in 1980, 1992, and 2002, this report presents time series data on three cohorts of high school sophomores. Chapter 1 provides an introduction. Chapter 2 examines the changing context of cohort demographics, family characteristics, and school characteristics. Chapter 3 reports on the school experiences of the three sophomore cohorts, including their high school programs, motivation, views of school safety and of teaching, and computer use. Tested achievement is addressed in Chapter 4, which details results in math from 1980 to 1990 and 2002, and results in reading from 1990 to 2002. Chapter 5 examines after-school activities, including trends in extracurricular activities, employment, and unstructured social activities. Continuity and change in life values across cohorts are explored in Chapter 6; specifically, attitudes toward work and money, friendship and leisure, family life and children, and community and social values. Chapter 7 reports on plans and expectations, including educational expectations, occupational expectations, and perceptions of adult influences on attending college. Two appendixes provide technical notes, a glossary of key classification variables used, and tables of standard errors for estimates contained in the report.

Liu, Ge. (2006). "Explaining the Asian-American Advantage in Math Achievement: The Direct and Indirect Effects of Parent Involvement as Social Capital." Paper presented at the annual meeting of the American Sociological Association, Montreal Convention Center, Montreal, Quebec, Canada, Aug 10, 2006 *Online*: [http://www.allacademic.com/meta/p104473\\_index.html](http://www.allacademic.com/meta/p104473_index.html)

This study examined family and parental factors contributing to Asian-American advantage in math achievement. Using data collected from ELS:2002, it found that the Asian advantage could be attributed in part to Asian-American parents' high educational expectations and positive achievement attributional styles, and that the effects of these norms and expectations were also mediated by all the three basic elements of students' learning process: ability, effort and opportunities for learning.

Planty, Michael, Robert Bozick, and Steven J. Ingels. (2006). *Academic Pathways, Preparation, and Performance: A Descriptive Overview of the Transcripts from the High School Graduating Class of 2003-04*. U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office. [NCES 2007-316].

This report uses transcript data from the Education Longitudinal Study of 2002 (ELS:2002) to provide nationally representative information about the level of academic preparation the high school graduating class of 2003–04 had when leaving high school. This report focuses on two general areas. First, it presents the curricular landscape for contemporary American high school students. Pursuant to this theme, the report's tables address the following questions: How many credits are today's high school graduates earning? In what subject areas are they most/least focusing their energies? Do these patterns vary across characteristics of the student and the schools they attend? Second, this report describes the linkage between academic pathways, particularly in mathematics coursework, and high school performance and preparation for postsecondary life. The tables in the report address the following questions: What is the association between advanced

coursetaking and grades? Is advanced math coursetaking associated with greater math proficiency? Are students who take more advanced courses more prepared than their peers who take lower-level courses? To what degree is there an association between educational expectations and coursetaking? Two appendixes provide information about ELS:2002 and its transcript component, information about the variables used in the report, and standard errors for all reported estimates.

U.S. Department of Education, National Center for Education Statistics (2006). *The Condition of Education 2006*. Indicator 23: Postsecondary Expectations of 12<sup>th</sup>-Graders. Washington, DC: U.S. Government Printing Office. [NCES 2006-071].

ELS:2002 first follow-up (2004) data are presented in Indicator 23, which compares their educational expectations as seniors with those of seniors in High School and Beyond (HS&B: 1982) and the National Education Longitudinal Study of 1988 (NELS:88). The expectations tables are broken down by the following row variables: socioeconomic status (SES), sex, race/ethnicity, males by race/ethnicity, and females by race/ethnicity.

U.S. Department of Education, National Center for Education Statistics (2006). *The Condition of Education 2006*. Indicator 27: High School Sophomores Who Left Without Graduating Within 2 Years. Washington, DC: U.S. Government Printing Office. [NCES 2006-071].

ELS:2002 first follow-up (2004) data are presented in Indicator 27, on high school sophomore cohort members who had left high school without graduating with a regular diploma or certificate of attendance two years later. Tables show the percentage of non-completers by parent education, percentage of leavers in the ELS:2002 sophomore cohort compared to the sophomore cohorts of earlier studies (NELS:88 in 1990 and HS&B in 1980), the characteristics of their schools and their school experiences, and the reasons they gave for leaving school.

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## 2005

Chromy, James R., Peter H. Siegel, and Elizabeth Copello. (2005). "Propensity Models Versus Weighting Cell Approaches to Nonresponse Adjustment: A Methodological Comparison." *Proceedings of the Joint Statistical Meetings*, Minneapolis, August 2005.

Statistical adjustment of nonresponse is a deep and pervasive issue for sample surveys. Contemporary statistical methods offer two broad classes of approach to nonresponse adjustment. One is the use of a traditional weighting cell approach. More recently, response propensity modeling, using, typically, logistic regression, has been developed as a further approach to nonresponse adjustment. Additionally, RTT's General Exponential Model (GEM) is a generalization of weight adjustments, and in addition to nonresponse adjustment can optionally include features such as poststratification and weight trimming.

The authors use data from the Education Longitudinal Study of 2002 (ELS:2002) to compare the results of the weighting class method, raking, a logistic regression propensity model, and GEM. They focus on nonresponse adjustment but also look at extreme weight adjustment and poststratification. For the one-dimensional case where each unit is in one unique cell, it can be shown that the three methods will produce the same results. Expanding to many variables and

multiple dimensions, marginal totals, variances, and weight distributions can be compared. An extended version of this paper is available as appendix H of Ingels et al. (2007) [NCES 2008-347].

Fox, Mary Ann, Brooke A. Connolly, and Thomas D. Snyder. (2005). *Youth Indicators 2005: Trends in the Well-Being of American Youth*. U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office. [NCES 2005-050]

Indicator 18 of this report employs ELS:2002 base year data to examine sophomores' educational aspirations. Breakdowns are provided by race and ethnicity, with comparisons to past surveys (1980, 1990, vs. 2002).

Ingels, Steven J., Laura J. Burns, Xinglei Chen, Emily Forrest. Cataldi, and Stephanie Charleston. (2005). *A Profile of the American High School Sophomore in 2002: Initial Results From the Base Year of the Education Longitudinal Study of 2002*. U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office. [NCES 2005-338].

The data for this report describe the tested achievement and educational status of a cohort based on a nationally representative probability sample of 15,362 10th-graders in 752 public, Catholic, and other private schools, who were studied in the spring term of the 2001-02 school year. The base-year data collection for the Education Longitudinal Study of 2002 (ELS:2002) is the first wave of a new longitudinal study of high school students that continues a series of nationally representative longitudinal studies conducted by the United States Department of Education's National Center for Education Statistics (NCES) over recent decades. Future survey waves will follow both students and high school dropouts and will monitor the transition of the cohort to postsecondary education, the labor force, and family formation. Although the base-year study comprised surveys of parents, teachers, school administrators, and library media specialists, as well as the cohort of high school sophomores, to remain concise, this report draws primarily on data from students, the primary unit of analysis for the study. This document is organized in the following sections: (1) Introduction; (2) Sociodemographic and Educational Profile of American High School Sophomores in 2002; (3) School Experiences; (4) Extracurricular and Sports Activities; (5) Sophomores' Time Use; (6) Tested Achievement- the Reading and Mathematics Proficiency of High School Sophomore Class of 2002; and (7) Values, Expectations, and Plans. The following are appended: (1) Technical Notes and Glossary; and (2) Standard Error Tables. (Contains 40 tables & 35 figures.)

Ingels, Steven J., Michael Planty, and Robert Bozick (2005). *A Profile of the American High School Senior in 2004: A First Look—Initial Results From the First Follow-up of the Education Longitudinal Study of 2002 (ELS:2002)*. U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office. [NCES 2006-348].

This ED TAB report presents initial findings from the first follow-up of the Education Longitudinal Study of 2002 (ELS:2002). ELS:2002 is the fourth major secondary school longitudinal study sponsored by NCES, closely reflecting the research purposes and design of its three predecessor studies, NLS-72, HS&B, and NEL:88. ELS:2002 began with a nationally representative sample of 10th-graders in 2002. In the first follow-up, this sophomore cohort was studied 2 years later (2004), and the sample freshened to provide a representative sample of 12th-graders. This ED TAB report summarizes the demographic and educational characteristics of the high school senior class of 2004.

It also reports on the senior cohort's mathematics achievement, their expectations for eventual educational attainment, the importance to them of various institutional characteristics in choosing a college, and their values and plans.

Ingels, Steven J., Daniel J. Pratt, James Rogers, Peter H. Siegel, and Ellen Stutts. (2005). *ELS:2002 Base Year to First Follow-Up Data File Documentation*. United States Department of Education, Institute of Education Sciences. Washington, DC: National Center for Education Statistics. [NCES 2006-344].

This data file documentation report describes the procedures and methodologies employed during the Education Longitudinal Study of 2002 (ELS:2002) base year and first follow-up, with focus on the latter. The manual is designed to provide guidance and documentation for users of the public-use data as released in Electronic Codebook (ECB) format (NCES 2006-346). Included in the documentation are the following: an overview of the study and its predecessor studies; an account of instrumentation (both the mathematics assessment and the various questionnaires); documentation of the sample design, weighting, design effects, and analyses of data quality; a summary of the data collection methodology and results, including detailed response rates; a description of data preparation and processing activities; and an overview of data file structure and contents. In addition, further documentation is contained in a series of appendices. This publication is available online only, at the NCES website (<http://nces.ed.gov>).

Planty, Michael, and Jill F. DeVoe. (2005). *An Examination of the Conditions of School Facilities Attended by Tenth-Grade Students in 2002*. U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office. [NCES 2006-302].

This report presents key findings from the Education Longitudinal Study of 2002 (ELS:2002) Facilities Checklist for all ELS:2002 public and private schools and students in the 10th grade. The first section presents findings at the school level. National estimates on the appearance, safety and security, noise levels, and neighborhood conditions for public and private 10th-grade schools in 2002 are provided. The second section presents a description of the number and percentage of 10th-grade students who attend schools with a particular condition. In this section, national estimates on the number of 10th-grade public and private school students that attend schools with certain characteristics based on structural appearance and safety and security are provided. Appendixes discuss the goals and objectives of the ELS:2002 study, the base year study design and methodology. Also, discussions of base year sampling, weighting, response rates, and standard errors follow. Additionally, an account is provided of the statistical procedures employed for this report. A glossary is presented and, finally, the facilities checklist instrument is duplicated.

Scott, Leslie A. (2005). *School Library Media Centers: Selected Results From the Education Longitudinal Study of 2002 (ELS:2002)*. U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office. [NCES 2005-302].

This report provides an overview of the current state of school library media centers that serve U.S. 10th-graders. The National Center for Education Statistics (NCES) Education Longitudinal Study of 2002 (ELS:2002) provides comprehensive data from multiple sources on school library media centers that served 10th-graders in 2002. ELS:2002 is a longitudinal study of a nationally representative sample of 15,525 10th-graders in 752 schools in the United States in 2002. The first

follow-up was conducted in 2004, when most of the students were in the 12th grade. During the high school years, ELS:2002 was a multilevel study, involving multiple respondent populations, including students, their parents, their teachers, and their schools (from which data were collected from the school principal, the school librarian, and a facilities checklist). The ELS:2002 library media center survey, administered primarily to school librarians, examined various aspects of school libraries: their space, organization, collections, resources, staffing, and use. In addition, 10th-graders provided information on their use of and opinions about their school libraries. This E.D. TAB summarizes findings for all ELS:2002 schools and students about library media centers. Findings for schools are presented by the following school characteristics: school sector, school urbanicity, school region, grade span, school enrollment, and the percentage of students receiving free or reduced-price lunch in grade 10. Findings for students are presented by the following student characteristics: sex, race/ethnicity, socioeconomic status (SES), composite achievement test score in grade 10, student's school sector, student's school urbanicity, and student's school region. Comparisons by these school and student characteristics have been tested for statistical significance. The following are appended: (1) Technical Notes and Glossary; (2) Standard Error Tables; and; (3) ELS:2002 Library Media Center Questionnaire. (Contains 48 tables.)

U.S. Department of Education, National Center for Education Statistics (2005). *The Condition of Education 2005*. Washington, DC: U.S. Government Printing Office. [NCES 2005-094].

ELS:2002 base year (2002) data are presented in Indicator 29, on high school sophomore cohort members' perceptions of their school's learning and social environment, by student race/ethnicity and school degree of minority enrollment.

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## **2004**

Cahalan, Margaret W., and Bruce Daniel. (2004). "United States High School Sophomores' Demographics and Educational Expectations: 1980-2002." Paper presented at the American Educational Research Association Annual Meeting, San Diego, California (April 2004).

Using information from the three NCES high school sophomore cohort surveys (HS&B, NELS:88, ELS:2002) Part I of the paper provides a descriptive summary of selected primarily demographic trends related to high school sophomores. Part II focuses on sophomores' educational expectations and examines the relationships between aspirations and demographic variables observing changes between the studies. A concluding section briefly notes some areas of future study. An appendix includes selected information from related Census reports over the time frame of interest.

Du, Janxia, William Sansing, and Chien Yu. (2004). "The Impact of Technology Use on Low-Income and Minority Students' Academic Achievements: Education Longitudinal Study of 2002." Paper presented at the Association for Educational Communication and Technology, Chicago (October 2004). [ED485086].

Analyzing data from the Education Longitudinal Study of 2002 (ELS:2002), this report examines how computer use produced generic benefit to all children and differential benefits to minority and poor children. Specifically, we examined computer use at home vis-à-vis computer use at school in relation to the academic performance of disadvantaged children and their peers. Home computer use typifies socially differentiated opportunities, whereas school computer use promises

generic benefits for all children. The findings suggest that, with other relevant conditions constant: (a) disadvantaged children did not lag far behind their peers in computer use at school, but they were much less likely to use computers at home; (b) computer use at home was far more significant than computer use at school in relation to high academic performance; (c) using a computer at school seemed to have dubious effects on learning; (d) disadvantaged children benefited less than other children from computer use, including computer use at home; and (e) compared to their peers, disadvantaged children's academic performance seemed less predictable by computer use than other predictor variables. Note: this paper can be downloaded as a PDF file from the ERIC database: <http://eric.ed.gov>.

Du, Jianxia, Byron Havard, Chien Yu, and James Adams. (2004). "The Impact of Technology Use on Low-income and Minority Students' Academic Achievement." *Journal of Educational Research and Policy Studies*, 4(2): 21-38. [ED491418].

Analyzing data from the Education Longitudinal Study of 2002, this report examines how computer use produced generic benefits for all children and differential benefits for minority and poor children. Computer use at home was compared with computer use at school in relation to the academic performance of disadvantaged children and their peers. The findings suggest that: a) disadvantaged children did not lag far behind their peers in computer use at school, but they were much less likely to use computers at home; b) computer use at home was far more significant than computer use at school in relation to high academic performance; c) using a computer at school seemed to have dubious effects on learning; d) disadvantaged children benefited less than other children from computer use, including computer use at home; and e) compared to their peers, disadvantaged children's academic performance seemed less predictable by computer use. (Contains 4 tables.) Note: this paper can be downloaded as a PDF file from the ERIC database: <http://eric.ed.gov>.

Ingels, Steven J., Daniel J. Pratt, James Rogers, Peter H. Siegel, and Ellen Stutts. (2004). *ELS:2002 Base Year Data File User's Manual*. Washington, DC: National Center for Education Statistics. [NCES 2004-405].

This manual has been produced to familiarize data users with the procedures followed for data collection and processing for the base year of the Education Longitudinal Study of 2002 (ELS:2002). It also provides the necessary documentation for use of the public-use data files, as they appear on the ELS:2002 base year Electronic Codebook (ECB) (NCES 2004-404). Most social scientists and policy analysts should find the data set organized and equipped in a manner that facilitates straightforward production of statistical summaries and analyses. This manual provides extensive documentation of the content of the data files and how to access and manipulate them. Chapter 1 serves as an introduction to ELS:2002. It includes an overview and history of the National Center for Education Statistics (NCES) program of longitudinal high school cohorts, summarizes the ELS:2002 objectives, and supplies an overview of the base year and longitudinal study design. Chapter 2 describes the data collection instruments, including both the development and content of the student, parent, school administrator, teacher, and library media center questionnaires, as well as the student assessments in reading and mathematics, and the facilities checklist. The sample design and weighting procedures used in the base year study are documented in chapter 3, as are weights, imputation, and the calculation of design effects. Data collection schedules, training, procedures, and results are presented in chapter 4. Chapter 5 describes data preparation and processing, including the



receipt control system, optical scanning, machine editing, and data file preparation. Chapter 6 describes the contents of the data files, including the data structure and analysis populations. The appendices include, among other topics, an introduction to the public-use ECB (appendix A); the ELS:2002 questionnaires (appendix B); a glossary of special terms used in the ELS:2002 documentation (appendix E), and a crosswalk to the National Education; Longitudinal Study of 1988 (NELS:88) and the High School and Beyond (HS&B) longitudinal study sophomore questionnaires (appendix H). (Contains 11 appendices, 45 tables, and 7 figures.) This publication is available online only, at the NCES website (<http://nces.ed.gov>).

Ingels, Steven J. (2004). "Creating Time Series Data Sets: Reconciling the Conflicting Imperatives of Continuity and Change." Paper presented at the American Educational Research Association Annual Meeting, San Diego, California (April 2004). [ED490756].

The paper is divided into four parts. Part 1 provides an overview of the evolving design of the NCES high school longitudinal studies (NLS-72, HS&B, NELS:88, and ELS:2002). Part 2 describes the various kinds of intercohort analyses that can be undertaken with the studies. Part 3 (the bulk of the paper) addresses threats to true change measurement. It does so by examining the tension between the need for continuity to ensure true replication (measurement conditions must be kept constant), and the necessity for updating and revision across the dimensions of survey design, content, and methodology (nothing can be frozen in time and remain relevant). Threats to comparability are catalogued across the dimensions of sample design and definition; test and questionnaire content and format; and data collection and processing. Incremental improvements that may sharpen cross-sectional estimation may pose significant risk to cross-cohort change measurement. At the same time, some changes in design, content and methodology will be both necessary and desirable. Part 4 of the paper summarizes recommendations for dealing with the tradeoffs between strict continuity for replication, and change in response to altered circumstances and new methodological opportunities. Note: this paper can be downloaded as a PDF file from the ERIC database: <http://eric.ed.gov>.

Ingels, Steven J., and Leslie A. Scott. (2004). *The High School Sophomore Class of 2002: A Demographic Description. (First Results from the Base Year of the Education Longitudinal Study of 2002.* Washington, DC: National Center for Education Statistics. [NCES 2004-371].

This ED-TAB report presents first findings from the base year of the Education Longitudinal Study of 2002 (ELS:2002). ELS:2002 is the fourth major secondary school longitudinal study sponsored by NCES, closely reflecting the research purposes and designs of its three predecessor studies NLS-72, HS&B and NELS:88. Beginning with a nationally representative sample of 10<sup>th</sup>-graders in 2002, ELS:2002 is designed to provide data about critical transitions experienced by students as they proceed through high school and into postsecondary education or the workplace. This E.D. Tab report summarizes the sociodemographic and educational characteristics of the sophomore class of 2002. These characteristics are captured in a series of student- and school-level classification variables. At the student level, these variables are: sex, age, race/ethnicity, language minority status, family composition, parental education, student's expectations, and tested achievement. Also included are three characteristics of each student's school: sector (public, Catholic, or other private), metropolitan status (urban, suburban, or rural), and region in which schools are located (Northeast, Midwest, South or West). This publication is available online only, at the NCES website (<http://nces.ed.gov>).

Scott, Leslie A. (2004). "Two new themes: motivational scales and computer technology items in ELS: 2002." Paper presented at the American Educational Research Association Annual Meeting, San Diego, California (April 2004).

This paper contributes to the theme of the need to update ongoing study series (balancing exploration of new themes with the need for continuity with past contents). Two areas in which ELS:2002 has innovated, making it different from its predecessors, are in the inclusion of new psychological scales, and computer items. A considerable battery of psychological scales encompassing numerous motivational variables was included on the ELS student questionnaires. (These items can be linked to similar scales on PISA in 2000, to which the ELS:2002 reading results can also be linked.) A second focus of the paper is to analyze the set of new items that are designed to provide additional insight into the role of educational technology in contemporary American high schools. The paper presents the theoretical framework underlying the inclusion of specific computer items on the ELS:2002 school, parent and student questionnaires, and the relationship of the various factors thought to be associated with effective use of computers in school, and underscores their potential for cross-sectional analysis of the base year and longitudinal analysis thereafter.

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### **2003**

Burns, Laura J., Ruth Heuer, Steven J. Ingels, Judy Pollack, Daniel J. Pratt, Don Rock, Jim Rogers, Leslie A. Scott, Peter Siegel, and Ellen Stutts. (2003). *Education Longitudinal Study of 2002 Base Year Field Test Report*. Washington, DC: National Center for Education Statistics (Working Paper Series). [NCES 2003-03].

This field test report provides information about the methods and procedures of the study, and the performance of field test forms (specifically, tests and questionnaires), in the ELS:2002 base year field test (2001). Information provided on assessment and questionnaire item performance includes item response rates, reliability and factor structure, differential item functioning, reliabilities of scales, inter-item consistency, etc. The report is presented in an introduction and seven chapters. The introduction provides a basic account of the design of the study and the goals of the 2001 field test. Chapter 1 deals with field test preparation, such as sampling and the instrument development process. Chapter 2 deals with securing cooperation—enlisting the sample of schools as well as students and their parents and other respondent populations. Chapter 3 provides an account of data collection methods and procedures. Chapter 4 treats of the survey control system and data processing. Chapter 5 comprises an analysis of student survey results (both questionnaire and test) in terms of measures of data quality. Chapter 6 similarly analyzes the quality of school, teacher, library survey and facilities results. The final chapter, chapter 7, is an analysis of parent survey results. Additional material (including the field test questionnaires) is presented in a series of appendices. This publication is available online at the NCES website (<http://nces.ed.gov>).

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### **2002**

Ingels, Steven J. (2002). "Longitudinal Studies of Youth: Recent American Experience." Paper presented at the International Seminar of the Korea Institute for Youth Development, Seoul, Korea (June 2002). [ED466770]



This paper summarizes recent experience of large-scale, nationally representative longitudinal youth transition studies in the United States. Two study series are considered. First, the longitudinal youth cohorts of the U.S. Department of Labor's Bureau of Labor Statistics (BLS): the National Longitudinal Study, with youth cohorts that started in 1979 (NLSY79) and 1997 (NLSY97). Second, the student cohorts sponsored by the U.S. Department of Education's National Center for Education Statistics (NCES). The NCES study series comprises the following: the National Longitudinal Study of the High School Class of 1972 (NLS-72), High School and Beyond (HS&B), the National Education Longitudinal Study of 1988 (NELS:88), and the new Education Longitudinal Study of 2002 (ELS:2002). The paper is divided into four sections. The first section supplies an overview of the U.S. Department of Labor and Department of Education studies. The second section compares the studies, looking to commonalities and differences in their approach to issues of design and method. The third section summarizes the content of the research instruments used in the studies. The fourth and final section talks about some of the research applications of these databases. In addition, there are two appendices. The first appendix points to further sources of information about the design, content, and findings of these studies. The second appendix contains more detailed information about the content of the instruments described in section 3. Note: this paper can be downloaded as a PDF file from the ERIC database: <http://eric.ed.gov>.