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Longitudinal Study of American Youth, 1987-1994, and 2007

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User Guide

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Longitudinal Study of American Youth, 1987-1994, and 2007

1) **Codebook Creation:** Due to the size of the file, a codebook for Part 1 was not created. The issue is being checked and if a viable solution is possible, an update will be released.

Longitudinal Study of American Youth

User's Manual

Student, Parent, and School Data
(1987 – Continuing)

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ACKNOWLEDGMENTS

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I. Introduction

In 1985, the NSF approved a proposal from Jon Miller at Northern Illinois University to initiate planning and pilot testing for the Longitudinal Study of American Youth (LSAY) (NSFMDR-8550085). The LSAY was designed to examine the development of:

> (1)   student attitudes toward and achievement in science,
>
> (2)   student attitudes toward and achievement in mathematics, and
>
> (3)   student interest in and plans for a career in science, mathematics, or engineering,

during middle school, high school, and the first four years post-high school and to estimate the relative influence of parents, home, teachers, school, peers, media, and selected informal learning experiences on these developmental patterns. At the time of the original award, it was not known if support would be available beyond the initial four-year period of support and the first years were designed to create a synthetic cohort that would extend from grade seven through the first year after high school. To allow the construction of this synthetic cohort, a two cohort design was developed. Fortunately, the NSF extended the original grant to include an initial period of seven years of data collection.

The older LSAY cohort, Cohort One, consisted of a national sample of approximately 3,000 tenth-grade students in public high schools throughout the United States. These students were followed for an initial period of seven years, ending four years after high school, with some students just finishing a baccalaureate degree while others were employed, raising a family, or serving in the military.

The younger LSAY cohort, Cohort Two, consisted of a national sample of approximately 3,000 seventh-grade students in public schools that served as feeder schools to the same high schools in which the older cohort was enrolled. These students were followed for an initial period of seven years, concluding with a telephone interview approximately one year after the end of high school. In both cohorts, students who dropped out of school were interviewed periodically by telephone. .

Beginning in the fall of 1987, the LSAY collected a wide array of information from each student. Reflecting the outcome variables cited above, the LSAY collected from, or about, each student:

> (1)   a science achievement test and a mathematics achievement test each fall,
>
> (2)   an attitudinal and experience questionnaire at the beginning and end of each school year,
>
> (3)   reports about education and experience from all science and math teachers in each school,
>
> (4)   reports on classroom practice by each science and math teacher serving an LSAY student,
>
> (5)   an annual 25-minute telephone interview with one parent of each student, and
>
> (6)   extensive school-level information from the principal of each school in the study.

Whenever possible, the wording and format of items from earlier longitudinal studies of the National Center for Educational Statistics (NCES) were utilized to maximize the opportunities for analyses comparing the LSAY cohorts to prior and subsequent NCES longitudinal data sets.

In 2006, the NSF funded a proposal to re-contact the original LSAY participants (now in their mid-30's) to resume data collection to determine their educational and occupational outcomes (NSF award DUE-0525357). Through an extensive tracking activity (described in Kimmel and Miller, 2008), more than 95% of the original sample of 5,945 LSAY students were located or accounted for. Some of the original participants had died, left the country, or were unable to participate due to serious health problems. A new eligible sample of approximately 5,000 participants was defined and these young adults were asked to complete a survey in 2007. More than 3,500 participants have responded to the survey, producing a response rate of slightly more than 70%. These data are also included in the new release file.

A second survey was conducted in the fall of 2008 to update our information about occupational and education outcomes and to measure the civic scientific literacy of these young adults, using Miller's adult measure that has been used in the United States for 20 years and has been used in more than 40 other countries. We expect to release those data in late 2011.

A third survey was conducted in the fall of 2009 to updated our information about occupational and education outcomes and to measure the participants use of selected informal science education resources. We expect to release those data in late 2012.

The public release data files described in this User's Manual include the information collected from the national probability sample students, their parents, and the science and mathematics teachers in their schools during the initial seven years, beginning in the fall of 1987, as well as data from the 2007 re-entry study.

The resumption of data collection and the analysis of the impact of secondary school experiences on life outcomes 15 years later required the creation of a single merged data file. The original two-cohort, two-file data structure reflected the initial period of data collection, but it was awkward for users that wanted to compare the two cohorts or to combine them for various analyses. The merged data file includes a variable to indicate the original cohort (**COHORT**), allowing a user to repeat or extend any analysis conducted with the previous LSAY release file, but the naming of the variables in the merged file has been revised to correct dual or conflicting variable names and indicators. Equally important, the new merged file structure will facilitate the annual release of new cycles of data collection through the addition of variables to the base system.

The remainder of this User's Manual provides detailed information about the major aspects of the Longitudinal Study of American Youth. Section Two provides information about the data collection schedule and procedures used in both the school-based years of the study and current ongoing data collection. Section Three discusses the original sample design and its implementation. The field operation structure and data collection procedures used by the LSAY are discussed in Section Four. Section Five provides a description of data processing used by the LSAY, including information about tracking and coding. Section Six provides information about the merged data file. Section Seven provides a description of the resumption of fieldwork in 2006. Finally, Section Eight discusses the LSAY data user community.

II. LSAY Data Collection Schedule

To collect information from the students, the LSAY administered questionnaires and achievement tests in science and mathematics to each participant. Tests and questionnaires were administered each fall, and an additional questionnaire was collected each spring. After the students completed high school (spring 1990 for most in Cohort One and spring, 1993 for most in Cohort Two), they were interviewed by telephone but were not administered achievement tests.

Parent and school data collection efforts augmented the student data records. In the spring of each year, one of the parents of each participating student was interviewed by telephone from the Public Opinion Laboratory (POL), a computer-assisted telephone interview lab at Northern Illinois University. In households with two parents present, an attempt was made to rotate the parent interviewed annually so that information would be gathered from both parents or guardians. In single-parent households, the single parent was interviewed each year. After the students left high school, the parent interviews were no longer conducted.

Additional information on the schools was collected from science and math teachers and the school principals. Two different teacher questionnaire forms were developed for the study. A teacher background questionnaire was directed to all math and science teachers in each participating school, and was mailed to the schools in January, 1988 (the middle of the first year of data collection). This file was augmented on an annual basis, with data collected from each new science and math teacher who joined the faculty of a participating LSAY school after the end of the 1987-88 school year. In the spring of 1993, a revised background questionnaire was sent to each science and math teacher teaching in one of the original schools in which an LSAY Cohort Two participant was still attending.

A course-related teacher questionnaire was also developed for each math and science teacher of an LSAY student, and asked about the characteristics of the specific class the student was taking that year. This course description instrument was sent to each teacher in the early spring of each year. If a teacher was teaching more than one course that included one or more LSAY students, the teacher was asked to complete one questionnaire for each course, thus the number of teacher course questionnaires in a given year may be larger than the number of active teachers in the study that year.

An initial principal questionnaire asking about school enrollments and program offerings was administered in fall 1989. A second principal questionnaire was administered in spring 1993 in all of the original schools in which LSAY youths were still in attendance. These questionnaires collected school-level data on student characteristics, budget, policies, computing resources, and programs and activities involving parents.

The teacher and principal questions were only administered in the original LSAY schools. If a student moved from an original LSAY school they were still asked to complete the questionnaires, but no school-level or class-level data was collected.

The full text of all data collection instruments used in the first seven years of the LSAY is available at the LSAY website (www.lsay.org) and through ICPSR.

In 2007, the LSAY resumed data collection for participants in both cohorts who were then 33 to 37 years of age. The 2007 cycle of data collection focused on building a record of educational and occupational activity since the end of high school. The data is included in this release.

The 2008 LSAY survey focused on updating educational and occupational information and obtaining a measure of civic scientific literacy, using Miller's item set that has been used in adult populations in more than 40 countries, and will be released in 2011. The 2009 survey focused on informal science education, and will be released in 2012. Additional surveys are planned on an annual basis.

III. Sample Design and Implementation

The sampling scheme for the base year of the LSAY was a two-stage stratified probability sample. The United States was stratified by four geographic regions and by three levels of urban development (central city, suburban, and non-metropolitan) to produce a total of 12 strata. Stage I involved the selection of schools to participate in the study. Stage II was the random selection of 60 students within each school selected in Stage I.

III.A. Recruitment of Schools

To recruit schools for the study, the LSAY purchased a machine readable national directory of public schools which maintain upper-secondary level grades (10-12) from a private vendor (Quality Educational Data, Inc.). The universe of schools was divided into twelve sampling strata, where the strata were defined by the cross-classification of region of the country (Northeast, Midwest, South, and West) and community type (urban, suburban, and rural). Using the QED estimates of school enrollments, the proportions of the U.S. high school student population enrolled in each strata were calculated. With an overall high school sample size target of 50, the target number of schools to be sampled from each stratum was arrived at by dividing the percentage of the student population in each strata by two and rounding the quotient to the nearest integer. Systematic samples of high schools were then drawn in each stratum.

The target sample of 50 was augmented by four additional selections. One of the original schools had only 15 students in the sophomore class, and an additional school was selected from the same stratum to augment it. Three additional high schools (one from each community type – urban, suburban, and rural) were selected in anticipation of eventual refusals among schools that originally agreed to participate.

With the sample of high schools drawn, the recruitment procedure consisted of two steps. The first step consisted of sending a letter to the district superintendent describing the project and requesting permission to include the sampled high school and a junior high or middle school that sent students to the sampled high school. This letter was followed by telephone calls and, in many cases, with a more detailed project proposal. The district offices typically made approval contingent on agreement by the principals of the participating schools. Thus, the second step of the recruitment process involved submitting another proposal to each selected school, again followed by telephone, fax, and letter negotiations.

Agreements to participate were successfully obtained from a full target sample of 54 high schools (see Table 1). Two high schools and feeder schools, however, subsequently failed to cooperate with the project in the collection of data and were dropped from the study.

As noted above, the LSAY sample design involved a sample of high schools and a sample of middle or junior high schools that sent students to the participating high schools. Selection of the latter set of schools was accomplished by obtaining information from high school officials on feeder patterns to their schools. Many of the sampled high schools were served by only one feeder school, and nine selections included the middle school grade levels included in the participating high school. A number of the high schools, however, received students from two or more feeder schools, and in these cases a selection had to be made. The selection procedure involved calculating the proportion of students in the high school who came from each feeder school and then randomly selecting one feeder school, where the probability of selection was proportional to the feeders' contributions to the high school's enrollment.

In the event that a school or district declined to participate in the LSAY, a school of similar size and zip code indicating proximity to the original selection was chosen. The justification of this treatment of non-responses was to minimize the effect non-responses have on estimates, i.e. to reduce bias. A drawback of this method is that it probably resulted in a higher rate of Stage I refusals. This was because schools typically declined participation on the grounds that they were already involved in large-scale data collection efforts, efforts that were often mandated by their state governments. By choosing alternates with adjacent zip codes, schools subject to the same mandates were often selected and, predictably, refused on the same grounds as the original draw. Table one shows the target response sizes and number of schools needed to achieve that target for each stratum.

Table 1. Stage One Sampling of High Schools

Stratum	Target/ Realized Responses	Original Selections Responding	Response Rate Among Original Draws	Number of Alternate Selections to Realize Target	Response Rate Among Alternates	Sample Size to Realize Target	Overall Response Rate
Northeast							
Urban	2/2	2	1.00	0	--	2	1.00
Suburban	6/5	4	.67	15	.13	19	.32
Rural	2/2	2	1.00	0	--	2	1.00
North Central							
Urban	3/3	3	1.00	0	--	3	1.00
Suburban	7/6	5	.71	7	.29	12	.58
Rural	7/7	6	.86	5	.20	11	.64
South							
Urban	5/5	5	1.00	0	--	5	1.00
Suburban	7/6	3	.43	10	.40	13	.54
Rural	6/6	3	.50	12	.25	15	.40
West							
Urban	2/2	1	.50	2	.50	3	.67
Suburban	5/5	4	.80	2	.50	6	.83
Rural	2/2	0	0	5	.40	5	.40
Total	54/51	38	.70	58	.28	96	.56

III.B. Sampling of Students within Schools

Once a school's cooperation was secured, the LSAY obtained a complete student roster for the seventh and tenth grade cohorts. To provide a sufficient number of students in each school to compute school effects in subsequent analyses, a sample of 60 students was selected from each school. Students were selected randomly from the lists and asked to participate until the target response size was achieved. In some schools with fewer than 60 students in their seventh or tenth grade classes, all students were selected for participation. One school requested that all students be included in the study.

When a student refused to participate, the school research coordinator was directed to draw a replacement from an additional list of students (usually 10), starting at the beginning of the alternate list and proceeding sequentially until a participant was secured. The alternate list was selected randomly, using the same procedures outlined above in constructing the original sample. Table 2 shows the target sample sizes, the number of realized student participants among the initial samples, the rates at which the initial samples fulfilled the targets, and the total realized samples. The numbers in the "total sample" column represent the numbers of students from which the LSAY sought to obtain follow-up information in all subsequent cycles of the project.

TABLE 2. Stage II Sampling of Students

Seventh Grade, Cohort Two

Stratum	Target	Initial Sample	Response Rate	Replacement Sample	Total Sample[1]
Northeast					
Urban	120	103	.86	18	121
Suburban	300	213	.71	134	347
Rural	120	112	.93	38	150
North Central					
Urban	240	208	.87	45	253
Suburban	360	335	.93	21	356
Rural	299	288	.96	53	341
South					
Urban	300	266	.89	35	301
Suburban	360	332	.92	37	369
Rural	349	315	.90	34	349
West					
Urban	120	101	.84	20	121
Suburban	300	260	.87	35	295
Rural	119	107	.90	5	112
Total	2987	2640	.88	475	3116

Tenth Grade, Cohort One

Stratum	Target	Initial Sample	Response Rate	Replacement Sample	Total Sample[1]
Northeast					
Urban	120	92	.77	26	118
Suburban	300	149	.50	106	255
Rural	120	109	.91	59	168
North Central					
Urban	180	123	.68	28	151
Suburban	360	360	.84	45	347
Rural	314	284	.90	98	382
South					
Urban	300	243	.81	25	268
Suburban	360	275	.76	63	338
Rural	359	292	.81	53	345
West					
Urban	120	65	.54	25	93
Suburban	300	231	.77	38	269
Rural	120	89	.87	6	95
Total	2935	2254	.77	575	2829

[1] Total sample sizes exceed the target sample size in some strata because some schools with tenth grade class sizes slightly greater than sixty students included all of their tenth graders in the study.

III.C. Instrument Response Rates

The LSAY fielded over 40 instruments for Cohort Two and 26 for Cohort One from October 1987 through June 1994: 12 in-school student questionnaires (fall and spring in each year of the first six years), 12 student achievement tests (science and mathematics each fall for the first six years), one teacher background questionnaire in years one through five and a second in year six, six science and math class questionnaires (completed by the students' teachers), a principal questionnaire in both years one and six, and five parent telephone interviews. Data collected from the older cohort in years four and five, and both cohorts in year seven, were confined to telephone interviews in spring 1991, spring 1992, and spring 1994; no achievement data, teacher or parent information were gathered once the students left high school. Calculated as proportions of the numbers of seventh and tenth graders who completed fall 1987 questionnaires, the response rates for the student and parent instruments are shown in Table 3. The response rates for the 2007 study are provided in Section eight.

As noted above, two teacher questionnaires were administered in the base year. The first was administered to all of the math and science teachers in each participating school. This instrument asked about teaching experience, work conditions in the school, and educational background. A second questionnaire was administered to the subset of math and science teachers who had LSAY students in their classes during the 1987-88 school year. The teachers were asked to complete separate forms for each distinct class enrolling sampled students. These forms asked about the ability level of the class, the textbook used, the course objectives, and the teacher's expectations for the students.

The second questionnaire was essentially repeated for the Years 2 through 6 of the LSAY. The target numbers of classes were smaller in these surveys because of two factors: (1) the target population was restricted to the teachers of sampled students who remained in the original sampled schools, and (2) some students did not participate in the annual follow up surveys, and thus their science and math courses and teachers were unknown. The first restriction was made because of the administrative difficulty of surveying the teachers of students who moved from their original schools: the majority of these new schools -- and thus the science and math teachers -- enrolled only one LSAY student (for instance, of the 554 new schools in which one or more LSAY students had enrolled during Spring 1992, 461 had one LSAY student, 53 schools had only two students, and 40 schools had three or more students). The response rates for the two teacher questionnaires are shown in Tables 4 and 5.

TABLE 3. School Year Instrument Response Rates: Probability Sample

Instrument	Cohort Two[1]	Cohort One[2]
Science Test, Fall '87	.99	.96
Mathematics Test, Fall '87	.98	.96
Parent Interview, Spring. '88	.79	.79
Student Questionnaire, Spr.'88	.92	.86
Student Questionnaire, Fall '88	.88	.75
Science Test, Fall '88	.88	.78
Mathematics Test, Fall '88	.88	.78
Parent Interview, Spring. '89	.80	.73
Student Questionnaire, Spring. '89	.87	.75
Student Questionnaire, Fall '89	.88	.77
Science Test, Fall '89	.78	.67
Mathematics Test, Fall '89	.78	.67
Parent Interview, Spring. '90	.71	.59
Student Questionnaire, Spring. '90	.86	.83
Student Questionnaire, Fall '90	.83	***
Science Test, Fall '90	.72	***
Mathematics Test, Fall '90	.73	***
Parent Interview, Spring. '91	.66	***
Student Questionnaire/Interview, Spring. '91	.80	.75
Student Questionnaire, Fall '91	.77	***
Science Test, Fall '91	.59	***
Mathematics Test, Fall '91	.59	***
Parent Interview, Spring. '92	.60	***
Student Questionnaire/Interview, Spring. '92	.74	.62
Student Questionnaire, Fall '92	.72	***
Science Test, Fall '92	.48	***
Mathematics Test, Fall '92	.47	***
Student Questionnaire/Interview, Spring. '93	.65	***
Student Interview, Spring. '94	.69	.72

[1] Rates are based on the total of 3,116 seventh-grade students who returned fall, 1987 questionnaires.
[2] Rates are based on the total of 2,829 tenth-grade students who returned fall, 1987 questionnaires.
*** Instrument not administered to cohort

TABLE 4. 1987-88 through 1991-92 School Year Teacher Background and Attitude Survey Response Rates: Probability Sample

Respondent Type	Target Number Of Teachers[1]	Number Completed	Response Rate
1987-1988 School Year			
Middle School/Jr. High Science	203	157	.77
Middle School/Jr. High Math	254	194	.76
High School Science	393	297	.76
High School Math	480	370	.77
Total 1987-88 School Year	1,330	1,018	.77
1988-1989 School Year (new teachers only)			
Science	142	97	.68
Mathematics	187	92	.49
Total, 1988-89 School Year	329	189	.57
1989-1990 School Year (new teachers only)			
Science	131	64	.49
Mathematics	164	95	.58
Total 1989-90 School Year	295	159	.54
1990-1991 School Year (new teachers only)			
Science	95	52	.55
Mathematics	104	49	.47
Total, 1990-91 School Year	199	101	.51
1991-1992 School Year(new teachers only)			
Science	71	30	.42
Mathematics	101	32	.32
Total 1991-92 School Year	178	62	.35

[1]Target sample consisted of all of the science and math teachers listed on the teachers-by-class master schedule.

**TABLE 5. Year 1 through Year 5 Science and Math Class Survey Response Rates:
Probability Sample**

Type of Class	Target Number Of Classes[1]	Number Completed	Classes	Students
Seventh Grade Science	393	334	.85	.87
Seventh Grade Math	495	387	.78	.85
Tenth Grade Science	841	592	.70	.77
Tenth Grade Math	1,017	729	.72	.75
	-------	-------	-------	-------
Total, 1987-88 Sch. Year	2,746	2,042	.74	.82
Eighth Grade Science	469	336	.71	.79
Eighth Grade Math	502	383	.76	.83
Eleventh Grade Science	571	398	.70	.73
Eleventh Grade Math	742	535	.72	.72
	-------	-------	-------	-------
Total, 1988-89 Sch. Year	2,284	1,652	.72	.78
Ninth Grade Science	544	441	.81	.87
Ninth Grade Math	708	611	.86	.91
Twelfth Grade Science	388	310	.80	.83
Twelfth Grade Math	510	433	.85	.90
	-------	-------	-------	-------
Total, 1989-90 Sch. Year	2,150	1,765	.82	.89
Tenth Grade Science	673	440	.65	.68
Tenth Grade Math	817	591	.72	.76
	-------	-------	-------	-------
Total, 1990-91 Sch. Year	1,490	1,031	.69	.72
Eleventh Grade Science	572	395	.69	.71
Eleventh Grade Math	721	523	.73	.78
	-------	-------	-------	-------
Total, 1991-92 Sch. Year	1,293	918	.71	.75

[1]Target sample consisted of only the science and math teachers listed by sample students on the current class
schedule grid contained either in the Fall or Spring Student Questionnaires or named by sample students
during the phone interviews.

III.D. Standard Errors and Design Effects

The standard errors of estimated population parameters are important statistics used in establishing confidence intervals or performing tests of significance. In multistage sample surveys, such as the LSAY, computation of standard errors based on the assumption of simple random sampling (SRS) – i.e. the standard errors calculated by the standard statistical packages like SPSS and SAS – usually results in an underestimate of the true standard errors and confidence intervals. The main reason for this is that the principal units of analysis in the LSAY, the students, are clustered within the primary sampling units (the schools) and are thus not random selections from the total population of students.

Empirical standard errors incorporating the departures from simple random sampling can be estimated using special techniques, some of which have been routinized into publicly-available software packages. The three techniques most commonly used for this purpose are Taylor Series Expansion, Balanced Repeated Replications, and the Jacknife Method. Examples and a comparison of these three approaches are given by Cochran (1977: 318-324). While use of one or another of these techniques is encouraged, applications often prove to be difficult and time consuming, and most researchers are satisfied to use approximations drawn from "typical", benchmark analyses. Toward this end, we calculated empirical standard errors for some sample statistics.

Simple statistics. Our first efforts involved using the Taylor Series Expansion technique as implemented by Dennis Carrol's CTAB program to calculate standard errors for univariate proportions and means. The variances of the estimated proportions and means calculated by this method are divided by the estimated SRS variances, and the square root of this ratio (the "root design effect") thus represents the factor by which the SRS standard errors should be multiplied. The mean root design effect for thirteen base year variable (all were drawn from the Cohort One fall, 1987 student questionnaire) proportions was 1.43, and there was little variability around that average. The design effects for the univariate means proved to be larger, averaging 2.87 across nine achievement test IRT scale scores. The design effects are larger for the mathematics achievement scales (mean of 3.4) than for science achievement scales (mean of 2.4). This difference may reflect a tendency for there to be a somewhat greater proportion of total achievement variance between schools (compared to the proportion among students within schools) in mathematics than science, thus increasing the impact of clustering students within schools.

These results indicate, then, that statistical tests for differences between simple proportions should multiply the SRS standard errors by about 1.5, and that tests for differences between simple means should multiply the SRS standard errors by about 3.0.

Complex statistics. These general guidelines hold for simple statistics, and it is important to recognize that design effects are generally smaller for complex statistics like regression coefficients. The SUDAAN software package developed by Research Triangle Institute (Research Triangle Park, NC, 1992) enables one to compute correct standard errors for OLS and logistic regression estimates, using the first-order Taylor series approximation of the deviations of estimates from their expected values. These estimates are easily derived, since SUDAAN uses SAS system files for input.

We calculated some design effects for OLS regressions using Cohort One mathematics achievement scores from years one to three as dependent variables. The independent variables included parental education, parental occupation, a household possessions scale, and gender. Design effects for each regression coefficient were calculated, and these design effects for each independent variable were averaged across years. The average design effects were 1.4 for parental education, 1.2 for parental occupation, 1.1 for household

possessions, and 1.7 for student gender. While users are strongly encouraged to calculate design effects which are specific to their research problems, these estimates indicate that a design effect of about 1.5 would be appropriate for this application.

IV. Field Operation and Data Collection in Years 1-7

IV.A. Structure of the Field Operation

The LSAY field operation was directed by a Field Manager at the Social Science Research Institute (SSRI) at Northern Illinois University and relied on a paid staff member in each sampled school to administer tests and questionnaires and to ship the completed materials back to the SSRI for processing. The Field Manager oversaw the efforts of the school-based Research Coordinators by means of written communications and telephone discussions. Field operations were complicated by the fact that about one in four students participating in the study changed schools (usually as the result of a residential move) or dropped out of school after the project began. An extensive set of names, addresses, and telephone numbers of parents, grandparents, and other relatives were collected from each student in the first year of the study and were invaluable in tracking family moves and individual decisions to leave school. A number of strategies were followed to locate and obtain information from these individuals.

IV.B. Selection of Research Coordinators

During the initial school recruitment process, each school principal received a letter describing the LSAY generally along with an outline of the amount of time the schools had to devote to the project. Each principal was asked to appoint a Research Coordinator for his or her school who would be responsible for the logistical tasks involved in test administration and sample management. The LSAY recommended that the Research Coordinator be a staff person who had access to school records and a flexible daily schedule.

Of the group of Research Coordinators, about half were math or science teachers and half were counselors. In a few instances principals, assistant principals, administrative assistants, and other schoolteachers served as the Research Coordinators. Many had experience in other educational research projects. Several schools had more than one Research Coordinator. Each Research Coordinator was required to sign an agreement which listed the responsibilities of the Research Coordinator and the LSAY staff. In return for their help with the project, the Research Coordinators received an annual stipend upon completion of the survey tasks. The base stipend was $600 per year, with additional amounts paid to individuals in a few localities who had agreed to do the administrative work for both cohorts.

IV.C. Student Questionnaire and Achievement Test Administration

The Research Coordinator Manual contained a detailed description of the goals and procedures of the LSAY. The procedures included testing environment criteria, the logistics of receiving and returning materials via a shipping company, and testing session arrangements and scripts for each instrument.

In the fall of years one through six, Research Coordinators scheduled three 50-minute sessions for group administrations of the achievement tests and questionnaires. The first group session was preceded by an overview of the project and a review of how to complete the forms. A script was included in the Research Coordinator Manual primarily to guide the students through the course schedule and evaluation portion of the questionnaire. While the Research Coordinators were instructed not to read any of the questionnaires as they were being completed, it was requested that they monitor for use of pens, defacement of answer sheets and other problematic behaviors. A detailed record of each testing session was made on a log-sheet. Research Coordinators recorded the date of each testing session, the particular instrument administered that day and the

number of students in attendance. Space was provided to note any problems, distractions, or difficulties during the sessions. A separate log sheet was mailed with each shipment back to the LSAY. One or more makeup sessions were scheduled for any students absent the day of their assigned testing period.

The majority of Research Coordinators were able to follow a one-instrument-per-week administration schedule. In the fall cycle, questionnaires and achievement tests were sent to the schools in October, and virtually all of the schools were able to return at least all of the group-administered instruments by the end of the calendar year. Individual make-ups and instruments from students who had moved arrived somewhat later. In the spring cycle, the questionnaires were sent in March or early April, and virtually all were returned by June.

During the summers of 1990, 1991, 1992, and 1993, students who had not returned an attitudinal questionnaire during the school year just completed were interviewed via telephone. Critical items were selected from the written questionnaires for the telephone survey. The following categories of items were included: (1) educational and occupational plans; (2) attitudes toward high school; (3) school experiences and activities; (4) previous schools attended; (5) family background; and (6) grades during the previous school year. These efforts proved to be very successful in getting students to continue with the study. The average length of the student makeup interviews was about 15 minutes.

IV.D. Teacher Questionnaires

IV.D.1. Background and Attitude Questionnaire

Using a teacher-by-class master schedule provided by each original LSAY school, data base files were constructed each fall which included all of the science and math teachers at each school. School climate and individual background information was collected from the full set of science and math teachers in the sampled schools by questionnaire in spring, 1988. In Years two, three, four, and five, this information was augmented by data collected from any new teachers in the original school sample who had LSAY students enrolled in one or more of their science or math classes. A questionnaire was sent to the initial set of teachers during the first week in February 1988. These questionnaires were placed in individual, self-addressed envelopes along with a cover letter describing the project and our appreciation for their responses. These envelopes were then put inside a larger envelope along with instructions to the Research Coordinator. The Research Coordinators were asked to distribute the questionnaires to the individual teachers. They were not instructed to keep track of any outstanding questionnaires not returned, which was handled by the LSAY staff.

Nonrespondents to the first mailing were followed up in late April using the same procedure as the initial administration. By the end of the school year, completed instruments had been received from over 70% of the targeted teachers. Remaining nonrespondents were sent an abbreviated form of the questionnaire in fall, 1988, raising the overall response rate to 76%. Background and school information from the new teachers in Years two through five were returned at a lower rate, as reflected in the Table 4 summary. In year six, a revised background questionnaire was sent to all science and mathematics teachers in each of the original LSAY schools in which a Cohort Two youth was still in attendance.

IV.D.2. Class-Specific Questionnaires

During the spring of each year, questionnaires were mailed to the science and math teachers at the original LSAY schools who had one or more of the LSAY students in their classes. On the basis of student reports, labels were generated for each of their teachers. In addition to the teacher's name, labels also included the name

of the specific class and the hour of the day it met. These were mailed along with a cover letter describing the criteria to be used in determining the number of questionnaires to be completed, and a list of the LSAY students enrolled in each class taught by the teacher. The LSAY's toll-free number was given to each teacher in the cover letter so they could contact LSAY staff with any questions or concerns.

Spring, 1988. The first teacher-class survey was fielded in March, 1988. Since the initial response rate for the class questionnaire was low, a second mailing of make-up questionnaires was sent to the Research Coordinators to distribute to teachers at school. The second mailing did not appreciably increase the response rate from teachers. During August, Research Coordinators were sent a list of math and science teachers' names and were asked to send us the home addresses of the teachers. About 80% of the schools provided address information. In some cases, teachers' home addresses could not be released; in those situations, questionnaires were sent to the school. Make-up questionnaires were sent to teachers in September along with a cover letter, business reply envelope, and a $5 gift certificate. Remaining non-respondents were contacted in October with reminder phone calls, and were sent abbreviated forms containing only key items if they requested an additional form. Some 25 teachers who did not wish to complete written forms were given phone interviews from Northern Illinois University's Public Opinion Laboratory.

Spring, 1989. The Year two teacher-class survey improved considerably on the Year one record. Questionnaires and gift certificates were mailed during the first week of April to the teachers' homes where possible and to the school otherwise. The mailing was followed with a reminder postcard 10 days later. If a completed or explicitly refused questionnaire was not returned by the end of April, a second questionnaire and cover letter were mailed. This in turn was followed up with a reminder phone call 10 days later. The response rates shown in Table 5 above were realized by the end of June, 1989.

Spring, 1990. During April, 1990, teacher-class questionnaires and gift certificates worth $5 were mailed to teachers' homes (home addresses were available for about one-third of the teachers) or to the teachers individually at school. Early in May, reminder postcards were sent to non-responding teachers to encourage them to return the questionnaires. A second letter was mailed the first week in June to those teachers who had not responded to the initial mailings. In July, telephone calls were made to those teachers (for whom we had home telephone numbers) who had not returned questionnaires, or who had omitted items on the instruments they had returned. At the end of August, one page forms of "critical items" (textbook used, average ability level of the class, and number of boys and girls in the class) were sent to Research Coordinators at the schools where teachers had not completed questionnaires. The Research Coordinators then obtained the necessary information.

Spring 1991 and Spring 1992. The same procedures followed in the 1990 administration were used in the spring 1991 and 1992 surveys.

Spring 1993. The 1993 teacher survey included a new general questionnaire as well as a repetition of the science and mathematics class questionnaire. Since the questionnaire was considerably longer, teachers were paid $10 for completing the forms. Instruments were mailed in early April, followed with reminder postcards two weeks later, and a repeat of the instrument two weeks after that if a completion had not yet been obtained.

IV.E. Parent Interviews

Using the tracking information collected from students in the fall and spring questionnaire administrations, one parent of each in-school student was interviewed by telephone each of the first five years by a Public Opinion Laboratory (POL) interviewer. The parent interviewed for the first year was selected at random on the basis of the student ID variable (the mothers of students with even-numbered IDs, the fathers of students with odd-numbered IDs). Letters were sent to each targeted parent explaining the purpose of the LSAY and informing the parent that the POL would be calling within the next week. Interviewers were drawn from the POL's regular staff. Each interviewer attended an introduction and training session conducted by project and lab supervisory staff. An additional hour was spent by each interviewer in a practice session with the actual interview instrument.

Spring, 1988. Approximately 65% of the parent sample was interviewed by May 31, 1988; completions for the additional 10% that were eventually interviewed were delayed by missing or incorrect phone numbers. Missing phone numbers were filled in by one of three means: (1) for households with address information, letters were sent asking the parent to call the POL to set an appointment for the interview; (2) directory information calls were made if parent names but not addresses were available, or (3) the schools were called and asked to provide the missing phone number and address information. The average interview length was 42 minutes.

Spring, 1989. On the basis of the previous year's tracking efforts, home phone numbers were obtained for 93% of the students participating in the second year of the LSAY. Parent interviews for 92% of these cases were completed by the end of August, 1989. A special effort was made during the summer of 1989 to interview parents who were not successfully interviewed in 1988. Of the 1,650 parents not interviewed in the base year, phone numbers were found for 1,018; of these, 80 percent were eventually interviewed. Most of the questions asked of these base-year nonrespondents were taken from the spring, 1988 interview form. As a result, basic information on household characteristics, parental education and occupation, and parent-child relationships are available for over 85% of the original sample students. The average length for the year two parent interviews was 29 minutes.

Spring, 1990. During the spring of 1990, parents of LSAY participants were again interviewed by telephone. The average length of the parent survey was 25 minutes, and 87% of previously interviewed parents completed the telephone survey.

Spring 1991 and Spring 1992. Younger cohort parent interviews began in March and continued through the spring. The older cohort parents were not interviewed in 1991 or 1992, since almost all of the original Cohort One sample had finished high school. The average length of the Cohort Two parent interviews was again 25 minutes. The 1991 and 1992 response rates (see Table 3) were .66 and .59 of the original 3,116 students.

IV.F. Principal Questionnaire.

During September, 1989, a Principal and School Questionnaire was mailed to the principal at each original LSAY participating middle school or high school. A few weeks later, a letter and duplicate questionnaire were sent to principals who had not returned the original questionnaire. Finally, follow-up telephone calls were made to encourage the principals to return questionnaires. Questionnaires were completed and returned by 94% of the principals in the study. During the spring of 1993, a second questionnaire was mailed to 52 high school principals, and a response rate of 75% was attained.

IV.G. Sample Updating and Tracking Operations

The participation status and location of each student was continuously updated on the basis of information returned by the Research Coordinators in the schools and from information received directly from the students and their families. The original student sample was adjusted shortly after the first questionnaire administration in fall, 1987. Students who had moved prior to the first administration or who had otherwise refused to participate were dropped from the sample, as were a few students who turned out to be developmentally challenged to such an extent that the Research Coordinator determined participation to be harmful to the student.

IV.G.1. Students Who Left Their Original Schools

Tracking information for those students who completed the first administration but subsequently left the school was collected and filed for future contacts. A tracking information sheet asking for the student's current address, phone number, and parent or guardian names, addresses, and phone numbers was sent along with each student questionnaire. The information provided on those sheets was compared with the existing address file records, and any changes were entered into the system. The Research Coordinators were instructed to obtain forwarding information on all students who moved to another school. The LSAY staff confirmed and augmented this information by means of phone calls to the new school or place of residence, and the address changes were entered into the database.

Students who moved to a new school were retained in the study, and an effort was made to continue collecting questionnaire, achievement test, and parent interview data from each of these students. Since most of the students who moved to another school were the only LSAY student in their new school, collection of classroom data from the mover's science and math teachers was impractical. Following the 1,000 Year three movers' teachers, for example, would have entailed recruiting an additional 2,000 teachers – equal to the number of teachers surveyed for the students who remained in their original schools. Once a student was confirmed to be enrolled in a new school, the principal of the new school was provided with background information about the LSAY and informed of the importance of the continued participation of LSAY students in the study. Administration times for the questionnaires and achievement tests were arranged with a guidance counselor in the new school, and the instruments were completed under the same conditions as in the original schools.

Students who graduated early or dropped out of high school were also tracked, but questionnaire and test data were not collected from them during the first two years of the study. Short phone interviews designed to re-establish contact and update locating information were conducted with the Cohort One early graduates and dropouts in February, 1990, and these respondents were included in the standard post-high school surveys done in spring 1991, 1992, and 1994.

IV.G.2. Refusals to Participate

Non-response to the LSAY instruments is classified along two dimensions: duration (one-time only or intermittent versus permanent) and locus of the decision (the individual respondent versus the school). In year four, the LSAY started contacting individual students from schools that had dropped out of the study. It was not possible, however, to collect achievement tests from these students, and science and math class data were not collected from their teachers.

V. Data Processing, 1987-1994

The data processing operation of the LSAY involved the maintenance of three separate computerized information systems: (1) student roster and tracking files, (2) science and mathematics teacher and course files, and (3) student and school analysis files.

V.A. Student Information and Tracking Files

Soon after the schools were recruited and Research Coordinators were hired, the LSAY requested and received rosters of all enrolled seventh and tenth graders. After the target and alternate student samples were drawn, a unique identification number was assigned to each student, and the student names and IDs were entered into the data base system. These files were subsequently augmented with names, addresses, and phone numbers of the participants' parents. The data base system also included an inventory of each instrument sent and received. The information contained in these files was used to generate labels for the questionnaires and achievement tests, produce in-house reports, and generate files for contacting the parents in the annual telephone interviews.

V.B. Teacher and Course Schedule Files

An integral part of the LSAY involved collecting information on the mathematics and science teachers and curricula in each school. This part of the project entailed two kinds of questionnaires: a general instrument administered to all science and math teachers in the participating schools, and a class-specific instrument administered to the math and science teachers of the participating students. In the fall of each year of the project, the Research Coordinators were asked to send copies of their schools' master teacher/course schedule, and this information was entered into a data base system. The information in this file was used to generate look-up tables for the coding of student schedules and for printing labels for the teacher questionnaires. Labels for the class-specific instruments were generated by selecting the courses (with the corresponding teacher) in which one or more LSAY students were enrolled. The file also contained an inventory system for keeping track of instruments sent and received.

V.C. Analysis Data Files

The analysis files were prepared entirely in-house by LSAY operations staff. At the beginning of the study, the project purchased an optical scanner to convert the questionnaire and achievement test answer sheet pages into standard ASCII data files. These files were then transferred to the Northern Illinois University mainframe computer and converted into SPSS and SAS analysis files. Prior to scanning, however, an extensive cleaning and coding process was conducted. Once transferred to the mainframe, additional error checking was carried out and, where necessary, a thorough lookup operation was initiated.

V.C.1. Instrument Cleaning

Before the coding and scanning operations were initiated, all questionnaire booklets and achievement test answer sheets were examined page-by-page for stray marks, incomplete erasures, and any damage that could affect the success of the optical scanning.

V.C.2. Coding of Student Schedules and Occupational Choices

The majority of coders were university students who worked part-time for the LSAY project. Once hired, all coders were required to attend a training session and were also given individual instruction on how to code the LSAY instruments. Training sessions covered coding policies as well as detailed explanation of proper coding techniques. Coders were instructed to ask coding supervisors if there was any doubt as to coding a proper category. Frequent edit checks were done on new coders to be sure that they followed all coding directions. As questionnaire editing for each school was completed, the questionnaires were checked by a coding supervisor who reviewed every item. If consistent errors were found, the coder was notified of the errors, and if necessary, the coder was retrained.

V.C.2.a. Course Coding

Three instruments were administered to each student each fall. For two of the instruments (the math and science achievement tests), there was a single page, optically-scanable answer sheet that required coding only the student ID and erasing stray marks. The attitude questionnaire required more extensive coding. A grid sheet at the front of the questionnaire was used to obtain the student's current schedule and information on each class. For the 1987 administration, the grid sheet data were recoded onto optically scannable answer sheets; in subsequent administrations, the data were coded directly onto the questionnaire page and then keyed into a computer by trained input personnel. Coders used a school-specific class/teacher schedule that was given course and teacher codes by the LSAY staff. This in-house class/teacher schedule was used to code all math and science courses. A standardized code list was used to code all other courses, and non-math and science teachers were given a reserved code.

The course coding operation underwent several refinements as the project continued. The coding of the schools' math and science class schedules, for example, was modified in light of new information on the content of the courses: some of the courses a school called "biology 1" proved to have no laboratory component while others did, and the LSAY codes were modified to reflect the distinction. More importantly, LSAY course coding was able to use the students' own patterns of prior course work to check the new responses. Starting in year three, reports on each student's science and math course codes were produced, and the coding staff checked all new receipts against that record. If a student showed contradictions or implausible patterns (these mainly consisted of going from a "higher" to a "lower" course; e.g., algebra 2 to algebra 1), then phone calls were made to the school or the student to clarify the situation.

V.C.2.b. Occupational Coding

Student responses to questions regarding occupational choice were coded using the 1970 Occupational Classification System devised by the U.S. Bureau of the Census. In the first (fall 1987) administration, occupations were coded from detailed lists used by each coder. For subsequent cycles, software was developed to match occupational titles elicited from survey respondents with pre-coded entries in an occupational dictionary file, and this was used to code all occupation choice variables. This program was operated by trained coders who selected the correct code from among the matches found by the software. The coded files were checked by a supervisor and then uploaded to the mainframe computer, where they were subsequently merged into the student data records.

After the Spring 1994 interviews were completed, extensive checks were made of the full seven years of occupational coding by senior-level staff members. As a result of these checks, many retrospective changes were made in occupational codes previously assigned for years one through six.

V.C.2.c. College Major and Institution Coding

Student and parent responses to questions regarding college majors were also coded using the coding software package described above. The software matched college majors collected from survey respondents with pre-coded entries in a college major dictionary file. Trained coders then selected the correct code from among the matches established by the software. When exact matches could not be made, majors were coded into the closest corresponding category (e.g., "advertising" was coded into "marketing").

Student and parent responses to questions regarding college and university identification were coded using the Federal Interagency Commission on Education (FICE) number. The FICE number is assigned by the Department of Education. Coders looked up colleges and universities collected from survey respondents in the *HEP Higher Education Directory 1992*[1]. FICE numbers of the appropriate college or university were then input into a data base, checked by a supervisor, and then uploaded to the mainframe computer, where they were merged onto the student or parent data records. When schools were named which could not be located in the HEP directory, the schools were called and the proper FICE number was assigned.

V.C.3. Student Interview Coding

Most of the questions asked in the telephone interviews conducted with Cohort One participants in spring 1991, 1992, and 1994, and cohort two participants in spring 1994 consisted of close-ended questions that required no coding by POL staff. Coding was required for two major types of items: those that could be coded using the coding software described previously, and more complex items requiring more detailed coding protocols. The following questions were coded using the coding software: (1) the participants' current and intended occupation; (2) the magazines read by the participant; (3) the participants' college major; (4) the participants college; and (5) contacts made by the participants of elected officials. Questions requiring more detailed coding protocols were those used to measure scientific literacy.

V.C.4. Parent Interview Data

Most of the questions asked in the parent interviews consisted of close-ended items that required no coding by POL staff. Coding was required for three types of items: (1) the parent and spouse's occupations, the occupation that the parent desired for the child in the survey, and the occupation that the parent thinks the child wants; (2) the magazines read by the parent, and (3) for parents with college degrees, the field in which the degree was obtained. The occupation items were coded by LSAY staff using the coding software described in the previous section. The magazine and college degree items were coded during the interview using lists of codes posted in each interview station. The completed phone interview data were uploaded to the mainframe and converted into system files for editing and corrections.

The year three Cohort One parent interviews included a series of open-ended questions designed to measure the parents' level of scientific literacy. These items were coded by graduate assistants after the interviews were completed; these codes were subsequently checked by senior staff members.

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[1] Mary P. Rodenhouse (Ed.), 1992, *HEP Higher Education Directory 1992*. Falls Church, VA: Higher Education Publications, Inc.

V.C.5. Teacher and Class Questionnaire Data

Completed teacher questionnaires were keyed into a data base system by LSAY data entry specialists. Prior to keying, the forms were carefully checked by an LSAY coding supervisor for indications of incorrect identifying information on the type of course taught and, for the class questionnaires, the courses' titles and hours taught.

Separate data files were constructed for the teacher background and for teacher-reported class data. Cases in the teacher file are the individual math or science teachers, each of whom may or may not have actually taught classes in which LSAY students were enrolled. The initial case level in the teacher-reported class file was the particular math and science class in which the LSAY-sampled student was enrolled during the school year in question. Since the information in the class file referred directly to classes taken by the students, the class data were merged with each student record and are included in the merged student-level file.

V.C.6. Machine Editing and Lookup Operations

Once the data were converted to machine-readable form and transferred to the mainframe computer, they were subject to an editing process. The first step of this process was to reconcile problems with identification codes. When problems with the IDs were solved, the next step involved locating out-of-range values on the variables, logical inconsistencies among responses, and instances of missing data on key analytic items. Printouts were then generated with lists of IDs and problematic items for each case. Coders were then assigned to locate the questionnaire booklets of the problem cases and to take steps to correct the data deficiencies.

The "key" items in the fall 1987 student questionnaire included student gender, educational expectations, parental educational attainment, and – for the tenth grade only – curriculum program enrollment. Missing gender information was resolved by looking up the students' names, consulting rosters provided by the schools in the fall of 1987, and, when necessary, making phone calls to the schools. The other key items were targeted because relatively large numbers of students incorrectly darkened two or more ovals where only one should have been marked ("multiple punches"). The problem apparently was rooted in the way the questionnaire was formatted, for despite explicit instructions on each item to mark only one oval, the proportion of double punching was higher than in previous national surveys of comparable students (vis., the High School and Beyond 1980 sophomore survey). The educational expectation and parent attainment items were corrected by taking the highest level of education marked by the student. The curriculum program item was resolved by taking the vocational program marked if the other mark was on the "general" program. If the academic program and a vocational program were marked, the student's class schedule was examined by a coding supervisor to determine if there was evidence of vocational coursework. If so the program was coded as vocational; if not, as academic. Students with two or more vocational courses were assigned a value of "10", signifying multiple vocational programs. Students marking both academic and general program enrollments were left as multiple punch missing codes.

VI. LSAY BASE FILE

VI.A. Summary of Released Files

The student and parent data from both cohorts of the LSAY have been merged into a single SPSS file (LSAYmerged2007.sav). This allows for an analysis of all tenth graders, or all twelfth graders, regardless of cohort. If analysts wish to look at one cohort, they can use the variable COHORT to select the group they wish to study. The data included in the merged file is the result of the following instruments:

Student-Level Data For Cohort One (1987-88 Tenth Graders):

o   6 student questionnaires (twice-annual while in high school)

o   3 student interviews (spring 1991, 1992, and 1994)

o   3 science and 3 mathematics achievement tests (annual while in high school)

o   3 parent interviews (annual while in high school)

o   3 science and 3 mathematics classroom teacher questionnaires (annual while in high school)

Student-Level Data For Cohort Two (1987-88 Seventh Graders):

o   12 student questionnaires (twice-annual while in middle school and high school)

o   1 student interview (spring 1994)

o   6 science and 6 mathematics achievement tests (annual while in middle school and high school)

o   5 parent interviews (annual, years one through five of the study)

o   6 science and 6 mathematics classroom teacher questionnaires (annual while in middle school and high school)

Participant-Level Data for the Combined Cohorts (2007+)

o   One questionnaire from 2007

In addition to the student files, two principal data files (principal-fall89.sav and principal-fall93.sav) and a teacher background file (teacherbackground.sav) are available for school context variables in separate teacher files.

Teacher-Level Background and Attitude Data from the Science and Mathematics

School-Level Data from the Principals of the LSAY Schools (Two files)

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Two primary forms of documentation are available in PDF format:

    (1)   The User's Manual (this document)
    (2)   Interview and Test Instruments (available at www.lsay.org and through the ICPSR)

The articulation chart is available as an excel spreadsheet and provides a description of each of the variables, as well as the variable name for each year in which the item occurs.

VI.B. Variable Naming Conventions

When the new merged file was constructed, Cohort One variables were renamed to match the naming conventions used for Cohort Two.

Original variables are the actual responses the participants (and their parents and teachers) provided to the various LSAY questionnaires. The first letter of each original variable represents the grade level of the participant (see Table 6). The second letter of each original data variable (as opposed to constructed variables) represents the source of the variable (eg., Cohort 1, Cohort 2, teacher, principal, etc.) (see Table 7). The third and subsequent letters and/or numbers of original data variables are the names that were originally assigned to the variables in the data collection process.

Table 6: First Letter of LSAY Original and Constructed Variables:

Letter	Grade level/year of study
A	Fall 7th grade
B	Spring 7th grade
C	Fall 8th grade
D	Spring 8th grade
E	Fall 9th grade
F	Spring 9th grade
G	Fall 10th grade
H	Spring 10th grade
I	Fall 11th grade
J	Spring 11th grade
K	Fall 12th grade
L	Spring 12th grade
N	Spring P1
O	Spring P2
P	Spring P3*
Q	Spring P4
R	2007
S	2008 (in future data releases)
T	2009 (in future data releases)
U	2010 (in future data releases)

*No data collection occurred for either cohort in P3.

Table 7: Second Letter of Original Variables

Letter	
A	Both cohorts were asked the item
B	Only Cohort two item
C	Only Cohort one item
I	Science class teacher
J	Math class teacher
K	Parent both cohorts
L	Parent Cohort two only
M	Parent Cohort one only

The questionnaire and interview data items are generally numbered according to their order of appearance in the actual instrument. Where items were blocked together as batteries in the instruments, the battery of items shares a common order number and the items are distinguished by sequential alphabetic suffixes. Note that there are numerous gaps in the variable numbering sequences, particularly in the Parent Interview blocks of variables. These gaps are simply artifacts of the file construction process, and do not indicate omissions.

VI.C. Missing Value Coding Conventions

Missing data on variables from each of the various surveys are coded according to a standard system. The conventions used in the LSAY are:

-95 = Did not participate in that cycle of data collection.

-96 = Multiple punch or otherwise uncodable. For optically-scanned items, the respondent darkened two or more ovals where only one should have been darkened. For written or verbal responses, the respondent gave information, which was uncodable.

-97 = Don't know. Used only for data collected by telephone interview.

-98 = Blank or refusal. Respondent skipped the question or explicitly refused to answer it.

-99 = Legitimate skip/ question not asked. Data should not be present for these cases, due to branching patterns in the questionnaire or phone interview.

VI.D. Student and Parent Data Files

VI.D.1. Data Availability Flags

The different sources of data in the student analysis file records are indicated by flag variables, each of which takes values of either one (= data from the indicated source) or 0 (= no data from the indicated source). Users of the LSAY data will find that these flag variables are a convenient means of screening cases into analysis files.

VI.D.2. Student Weights

Weight variables have been calculated in order to adjust for the unequal erosion from the original sample over the period of the longitudinal study. For example, if 10% of students from School A drop out of or are lost to the study and 20% of students from School B drop out or are lost to the study, the unweighted use of the data set would produce estimates that overestimated the contribution of students from School A and underestimated the contribution of students from School B. Correct estimates of national distributions can only be obtained by using the appropriate weight variable for the analysis at hand. A new longitudinal weight was created for the merged file containing both cohorts – WGT12A – and should be used for all longitudinal analyses containing both cohorts for the high school years. In addition, the following weights are available:

- The WEIGHT7 variable is appropriately used for analyses using only Cohort Two participants who completed one or more of the seventh grade instruments.

- WEIGHT8 is based on the subsample of Cohort Two students who completed one or more of the eighth grade instruments.

- WEIGHT9 is based on the subsample of Cohort Two students who completed one or more of the ninth grade instruments.

- WEIGHT10 is based on the subsample of Cohort One and Cohort Two students who completed one or more of the tenth grade instruments.

- WEIGHT11 is based on the subsample of Cohort One and Cohort Two students who completed one or more of the eleventh grade instruments.

- WEIGHT12 is based on the subsample of Cohort One and Cohort Two students who completed one or more of the twelfth grade instruments.

- WEIGHTP1 is based on the subsample of Cohort One and Cohort Two students who completed the first post-high school telephone interview that occurred one year after high school.

- WEIGHTP2 is based on the subsample of Cohort One participants who completed the post-high school interview that occurred two years after high school.

- WEIGHTP4 is based on the subsample of Cohort One participants who completed the post-high school interview that occurred four years after high school.

- WEIGHTR is based on the subsample of Cohort One and Cohort Two participants who completed the 2007 questionnaire.

The approach taken in weighting observations in the LSAY was to calculate "relative" weights for each student, where the sum of the students' relative weights equals the student sample size (Lee, Forthofer, and Lorimor, 1989, p. 16). To obtain these weights, we first calculated each student's selection probability, then adjusted that probability to reflect the realized sample size. The LSAY stratification (region-by-urbanicity) of schools, PPS selection of schools, and random draw of students within schools means that the sampled students must be described at three levels: their sample stratum, their school, and the sample within their school. To describe the calculation of the selection probabilities, some definitions are in order:

N = Population size of the grade cohort in the U.S.
N_h = Population size of the grade cohort in stratum h
N_{hi} = Population size of the grade cohort in school one sampled from stratum h
n_{hi} = Sample size from school i.

Using these terms, we defined the following probabilities:

N_h
$\overline{} = p_h =$ Probability of belonging to stratum h;
N

N_{hi}
$\overline{} = p_i =$ Probability of attending sampled school one in stratum h,
$\Sigma N_{hi} \qquad$ given your school was among those selected;

1
$\overline{} = p_j =$ Probability of being selected within school i.
n_{hi}

These probabilities were then multiplied to obtain each sampled student's probability of being in the study:

$(p_h)(p_i)(p_j) = z_{hi} =$ Joint probability of being in stratum h, attending sampled school one, and being in the school one sample.

Note that $0 \leq z_{hi} \leq 1$ and $\Sigma\Sigma\, z_{hi} = 1$. The weight of each student sampled in a school is the same, since each was selected with equal probability within a given school. The LSAY weights are defined as "relative" rather than as "expansion" weights: the sum of the students' relative weights equals $\Sigma\Sigma n_{hi}$, the cohort sample size. The following defines the weight given each student:

$W_{hij} =$ (cohort sample size) x (z_{hi})

The difference between the annual weights (WEIGHT7, WEIGHT8, etc.) is in the p_j and the cohort sample size terms. Users may well want to construct their own weight variables, suited to the particular subsample configurations they are analyzing. So long as an analytic configuration does not result in the loss of an entire stratum (thus altering the definition of the population sampled), weight terms can be constructed by using the CLASSIZE variable (described in the next section) to calculate p_i, and your particular subsample case counts to calculate p_j and the cohort sample size. The strata population proportions, p_h, used in LSAY were calculated from information in the 1986 QED high school universe file. These proportions were assumed to be the same for both cohorts. The proportions are as follows:

1	urban, northeast	.038
2	suburban, northeast	.112
3	rural, northeast	.043
4	urban, northcentral	.051
5	suburban, northcentral	.118
6	rural, northcentral	.098
7	urban, south	.092
8	suburban, south	.110
9	rural, south	.143
10	urban, west	.044
11	suburban, west	.103
12	rural, west	.047

VI.D.3. Student Status, Location, and Postsecondary Activities Variables

Information on the participation status and location of each student at each cycle (fall and spring of each year) is included in the public use data files. The variables are named CSTATUS and CLOCATN (fall, grade 8), DSTATUS and DLOCATN (spring, grade 8), ESTATUS and ELOCATN (fall, grade 9), and FSTATUS and FLOCATN (spring, grade 9), etc. The _STATUS variables are specific to the student questionnaire fielded during the particular cycle of the project. Levels of the STATUS variables are defined as follows:

1 Participated:		Student completed a questionnaire.
2 Unavailable:		Individual not eligible. For the seasonal questionnaire administrations, eligibility was defined as "enrolled in a middle or high school". Additionally, students who moved out of the United States, were incarcerated, home-schooled, or seriously ill at the time of the questionnaire administration were included in this category.
3 Unlocatable:		Individual had moved from original school but could not be located, and was thus not administered a questionnaire.
4 Indiv. Refusal:		Individual was located and eligible but failed to complete the questionnaire.

The levels of the LOCATN variables are defined as follows:

1 In original school.		Student was still enrolled in either the original school or moved on to enrollment in the LSAY-sampled high school to which a sampled middle school sends its students. Students who were enrolled in schools which quit the study were placed here since some schools which initially quit were later converted.
2 Moved to new school.		Student moved to a school outside of the original school sample.
3 Moved not located		Student left original school, but was not yet located.
4 Dropped out		Student dropped out of school, but may have earned an equivalency degree.
5 Early Graduate		Student obtained a high school diploma and/or was enrolled in a post-secondary degree program.
6 Quit Study		Student individually decided to quit the study on a permanent basis.

After the students finished high school (June 1990 for most of Cohort One and June 1993 for most of Cohort Two) the LOCATN was no longer applicable. Three new activity variables were defined for the first post-high school interviews. These indicate (1) **NPSEMAY:** respondent's type of postsecondary educational program enrollment (if any) one year after high school; (2) **NJOBMAY:** respondent's employment status one year after

high school; and (3) **NMARMAY:** respondent's marital status one year after high school. Most of the information contained in these variables was collected in the spring 1991Cohort One telephone interviews, and in the spring 1994 Cohort Two interviews. Information on some of the nonrespondents was obtained from tracking phone calls to parents and other relatives, and some of LSAY participants returned a short critical item questionnaire mailed to their homes in the fall of 1991 and summer of 1994.

Starting with the 2007 study, a new status variable _**STATUS** (**RSTATUS** for 2007) is available. This variable describes the status of each of the original 5,945 participants for the particular data collection cycle.

VI.D.4. School Location and Organizational Variables

Most of the information on school organization and climate collected by the LSAY can be found in the Teacher Background file and the Principal File. Several additional aggregate or contextual characteristics of schools are included in the student data records. Since this information does not come directly from the questionnaires, the variables do not follow the naming convention described earlier. The following variables are defined:

> **REGION**: Region of the country where the school is located. The categories follow the standard U.S. Census divisions:
>
> | | |
> |---|---|
> | 1 | Northeast: New England and Middle Atlantic states, |
> | 2 | Northcentral: East North Central and West North Central states, |
> | 3 | South: South Atlantic, East South Central, and West South Central states, |
> | 4 | West: Mountain and Pacific states. |
>
> **URBAN**: Type of community in which the school is located. This variable is taken from the QED tape, and is based on the Federal Information Processing Standards' classification of counties (or townships in the New England states) as "Metropolitan Statistical Areas" (MSAs) or rural areas:
>
> | | |
> |---|---|
> | 1 | Urban: Central city of an MSA |
> | 2 | Suburban: Area outside of a central city, but still located within the MSA |
> | 3 | Rural: Area outside any MSA |
>
> **SCHTYPE**: Organizational form of the school (1=Separate junior high or middle school, 2=Separate high school, and 3=Combined middle and high school).
>
> **CLASSIZE:** The number of students enrolled in the sampled schools' seventh or tenth grade cohorts in fall, 1987 as reported on the rosters received from the schools.
>
> **BSSCHTRK, BMSCHTRK /DSSCHTRK, DMSCHTRK /FSSCHTRK, FMSCHTRK:** (Cohort Two students only). Whether the school used between-class ability grouping in the seventh (B_SCHTRK), eighth (D_SCHTRK), and ninth (F_SCHTRK) grade science and mathematics programs. Coding was based on school curriculum descriptions and teacher questionnaire responses to BI3A, BJ3A, DI3A, and DJ3A. If contradictions were found between the teacher reports and school guides, code assignments were based on what a majority of the teachers reported.

VI.D.5. Course Codes and Student Ratings of Courses

Conversion of hours to subjects. Each of the LSAY student questionnaires asked the respondents to write in the course title, the teacher name, and their opinions of each course on their daily schedule. The level of detail provided by this format, while essential to the LSAY data collection design, is not useful for analysis purposes and the information has been converted into a more tractable form. It will generally be the case that one will want to focus on types of courses, and the data file contains the data in that form. The base year subject categories include mathematics, science, language arts, computer science, foreign language, social studies/history, art, music, and vocational/business. Ten variables are defined for each subject area course: a LSAY course code, a two-digit teacher code, six course evaluation items, an indicator of whether computers were used in the course, and the number of hours of homework the student had for the course in an average week. The course code variable allows the analyst to distinguish the specific nature of the course within each general subject area. Thus, if one wanted to compare the learning outcomes of students who took, for example, algebra as opposed to geometry in the tenth grade, the course code variable can be used to classify the students according to the type of math class they took.

Two concurrent courses within a subject. A difficulty in working with the course variables arises when students take two or more courses within a general course category. For three subject area divisions where this occurred with some frequency, two sets of variables were defined: a "first" course set and a "second" course set. *The numbering of the sets as first and second is essentially arbitrary*, reflecting the order in which each course appeared on the student's schedule. The three subject areas for which two sets of course variables were defined include seventh through twelfth grade English, tenth through 12th grade math, and tenth through twelfth grade science. The variables for these subject areas are named _AENG1A--_AENG1A (first English course), _AENG2A--_AENG2J (second English course), _AMTH1A--_AMTH1J (first math course), -_AMTH2A--_AMTH2J (second math course), _ASCI1A--_ASCI1J (first science course), and _ASCI2A--_ASCI2J (second science course), where the leading underscore ("_") is replaced by the cycle code letter ("A" to "F"). The rates of multiple course-taking were greatest in English (60 percent of the seventh graders and 11 percent of the tenth graders), and quite low in tenth grade math and science (2.0 and 2.2 percent, respectively).

How these sets of variables should be used depends in large part on the analyst's particular purposes. If one wants to obtain a characterization of how each student evaluated his or her English course, for example, then one may want to average the evaluations of the first and second English courses. In other applications one may find it more appropriate to take the higher or the lower of the first and second course variable values.

VI.D.6. Occupational Choice Variables

All of the student questionnaires asked the respondents to write in the names of their first and second choice occupations when they were older. The year four and year five Cohort One student interviews and the year seven Cohort One and Cohort Two interviews asked the respondents to name their choice of occupation when they were older and their current occupation, if any. The parent interviews included several questions about occupations: the respondent's, his or her spouse's, his or her children's, the occupation they would like their LSAY child to pursue, and the occupation the parent thinks the child wants to pursue. The responses to all these items were coded by LSAY staff into the 1970 3-digit U.S. Bureau of Census codes. The coded student questionnaire responses are found in the merged data file. These same codes have been applied to the participants' actual occupations in 2007. We are in the process of reviewing the coding scheme, and anticipate updating the codes in subsequent data releases.

After the Spring 1994 interviews were completed, extensive checks were made of the full seven years of occupational coding by senior-level staff members. As a result of these checks, many retrospective changes were made to occupational codes previously assigned for years one through seven.

VI.D.7. Composite Variables

A composite variable is a measure constructed from two or more individual variables. The LSAY project has developed several such variables which are included in the merged data file. We have defined composite variables in two main areas: (1) socioeconomic background and (2) course work in science and math.

VI.D.7.a. Socioeconomic Background

GENDER. Student's gender. Gender information was gathered from student self-reports in the base year questionnaire, and from coding the names of each student. These were compared and discrepancies resolved by further archival checks or phone calls to the students' schools.

MOTHED. Mother's education. If the student's mother was interviewed in 1990, 1989, or 1988, then MOTHED is her self-reported highest degree earned, with the most recent information taking precedence. If no interview was completed with the mother, but the student's father was interviewed, then MOTHED is his most recent report on his spouse. If no information was collected from either the mother or father, the student's fall 1987 report of mother's education is used. The 2008 questionnaire included questions about parent education during high school for participants with missing parent education data. The variable MEDSRCE indicates the source of the mother's education. Even though the 2008 data is not included in the current release, we have updated missing parent education and occupation, when possible, from the 2008 questionnaires.

FATHED. Father's education. If the student's father was interviewed in 1990, 1989, or 1988 then FATHED is his self-reported highest degree earned, with the most recent information taking precedence. If no interview was completed with the father, but the student's mother was interviewed, then FATHED is her most recent report on her spouse. If no information was collected from either the mother or father, the student's fall 1987 report of father's education is used. The 2008 questionnaire included questions about parent education during high school for participants with missing parent education data. The variable FEDSRCE indicates the source of the father's education.

PEDUC/PEDUC3. The highest level of education of either parent, as is available in MOTHED and FATHED.

MOTHOCC. Mother's occupation, coded with the 1970 Census Occupational Classification System. If the student's mother was interviewed in years one through five (1988-1992) then MOTHOCC is her self-reported occupation, with the most recent information taking precedence. If no interview was completed with the mother, but the student's father was interviewed, then MOTHOCC is his most recent report on his spouse. The 2008 questionnaire included questions about parent occuapation during high school for participants with missing parent occupation data. The variable MOCCSRCE indicates the source of the mother's occupation.

FATHOCC. Father's occupation, coded with the 1970 Census Occupational Classification System. If the student's father was interviewed in years one through five (1988-1992), then FATHOCC is his self-reported occupation, with the most recent information taking precedence. If no interview was completed with the father, but the student's mother was interviewed, then FATHOCC is her most recent report on her spouse. The 2008 questionnaire included questions about parent occuapation during high school for participants with missing parent occupation data. The variable FOCCSRCE indicates the source of the father's occupation.

POCI. Parent employment in a STEMM (science, technology, engineering, mathematics, or medical profession) career.

VI.D.7.b. Ability Group Placements and Course Work in Science and Mathematics

BSNGRP, BMNGRP/DSNGRP, DMNGRP/FSNGRP, FMNGRP. (Cohort Two only). The number of ability groups in the school, defined only for schools using ability grouping. Coded from school curriculum guides and teacher questionnaire responses.

BSCLSLEV, BMCLSLEV/DSCLSLEV, DMCLSLEV/FSCLSLEV, FMCLSLEV. (Cohort Two only). The rank order of the student's seventh, eighth, and ninth grade science and math classes in terms of the school's ability grouping hierarchy. Coded from school curriculum guides and teacher questionnaire responses.

BSLEV3, BMLEV3/DSLEV3, DMLEV3/FSLEV3, FMLEV3. (Cohort Two only). The rank order of the student's seventh, eighth, and ninth grade science and math classes, simplified into a tripartite "high," "middle," and "low" scheme. "High" classes were classified *by the school* as above average, "middle" as average, and "low" as below average.

SMHCR7/SMHCR8/SMHCR9/SMHCR10/SMHCR11/SMHCR12: Highest math course taken each year, using the original LSAY course codes. The original course code variables used in grade seven were ABMTHA and BBMTHA; in grade eight, CBMTHA and DBMTHA; in grade nine, EBMTHA and FBMTHA; in grade ten, GAMTH1A, GAMTH2A, HAMTH1A, and HAMTH2A; in grade eleven, IAMTH1A, IAMTH2A, JAMTH1A, and JAMTH2A; and in grade twelve, KAMTH1A, KAMTH2A, LAMTH1A, and LAMTH2A. By year 4, virtually all of the Cohort One respondents were done with high school, and current course data were not collected from the few who had not finished. Some missing data for the Cohort One students were filled in during year 4 by follow-up phone interviews, in which students with missing math and science course data for 11th or 12th grade were asked what courses they took.

If a student had no course data for a given year, and the respective annual LOCATN (see section IV.G.3 above) variable was 4="Dropped out of school" or 5="Graduated early", the student was classified as "not in school" for these variables. If a student gave us course information in the fall semester and left school the next term, we used the fall course data.

SSCCR7/SSCCR8/SSCCR9/SSCCR10/SSCCR11/SSCCR12: Highest science course taken each year, using the original LSAY science course codes. The original course code variables used in grade seven were ABSCIA and BBSCIA; in grade eight, CBSCIA and DBSCIA; in grade nine, ESCIA and FBSCIA; in grade ten, GASCI1A, GASCI2A, HASCI1A, and HASCI2A; in grade eleven, IASCI1A, IASCI2A, JASCI1A, and JASCI2A; and in grade twelve, KASCI1A, KASCI2A, LASCI1A, and LASCI2A. By year 4, virtually all of the Cohort One respondents were done with high school, and current course data were not collected from the few who had not finished. Some missing data for the Cohort One students were filled in during year 4 by follow-up phone interviews, in which students with missing math and science course data for 11th or 12th grade were asked what courses they took. If a student had no course data for a given year, and the respective annual LOCATN variable (see section IV.G.3 above) was 4="Dropped out of school" or 5="Graduated early", the student was classified as "not in school" for these variables. If a student gave us course information in the fall semester and left school the next term, we used the fall course data.

MTH7/MTH8/MTH9/MTH10/MTH11/MTH12. Highest math course taken in each grade, using simplified course codes. They contain the same information as the SMHCR_ variables, but convert the original course codes into a simplified set of categories.

SCI7/SCI8/SCI9/SCI10/SCI11/SCI12. Highest science course taken in each grade, using simplified course codes. They contain the same information as the SCCR_ variables, but convert the original course codes into a simplified set of categories.

MTRK10/MTRK11/MTRK12 (math) and **STRK10**/**STRK11/STRK12** (science). Highest math/science course taken from seventh through 12th grade (Cohort Two), or tenth through 12th grade (Cohort One). These variables summarize the sequences represented by MTH7-MTH12 and SCI7-SCI12. If a Cohort has missing data for 12th grade, these variables will be missing unless the student had already reached the highest category of course taking by eleventh grade. Students who dropped out of high school or graduated early are coded up to the time they left school, and are not classified as missing.

LAB9/LAB10/LAB11/LAB12. Numbers of lab science courses completed in grades 9, 10, 11, and 12. Whether or not each course had a laboratory component was determined from information obtained from the schools. **HSLAB** sums the annual counts to obtain an overall record.

ALGTRK3/ALGTRK4. The year the participants took algebra in high school (if at all), summarized into three and four categories.

BIO3/BIO4. The year the participant took biology in high school (if at all), summarized into three and four categories.

CALCHS. A dummy variable indicating whether or not the student took calculus in high school.

NUMHSMTH. The number of high school math courses taken that are pre-algebra or higher.

NUMHSSCI. The number of high school science courses taken that are biology or higher.

UGCALCNUM. The number of calculus courses (if any) taken as an undergraduate college student.

UGSCI. The number of science courses (if any) taken as an undergraduate college student.

VI.D.7.c. Participant Education and Occupation, 2007.

RSEDAN. The participant's educational pathways.

RSEDAN5/RSEDAN6. The participant's highest level of education in five and six categories.

RBACC. A dummy variable indicating whether or not the participant has a baccalaureate degree.

RMAJFIRST/RMAJFIRST2. College major when first entered college.

RMAJLAST2/RMAJLAST. College major when graduated from college.

RGRADMAJ/RGRADMAJ10. Major when completed graduate degree.

PSEQUAL. The participant's ratings of the quality of their undergraduate college experiences.

ROCC8/ROCC6. Participant occupation in eight and six categories.

RSTEMM4/RSTEMM10/RSTEMM7/RSTEMM/RSTEMMX/RSTEMMB/RSTEMMA. Participant employment in a STEMM (science, technology, engineering, mathematics, or medical profession).

VI.D.7.d. Attitudes and Plans.

LAMAJOR8/LAMAJOR2/LAMAJOR3. The participant's planned college major while in high school.

SEDEX7/SEDEX8/SEDEX9/SEDEX10/SEDEX11/SEDEX12/SEDEXHS. The student's expected highest level of education..

SEDPL7/SEDPL8/SEDPL9/SEDPL10/SEDPL11/SEDPL12/SEDPLHS. The student's post-high school education and work plans.

LIKEMTH. Summary measure of how much the student liked mathematics in high school

LIKESCI. Summary measure of how much the student liked science in high school.

PACPH7/PACPH8/PACPH9/PACPH10/PACPH11/PACPH12/PACPHHS. Summary measure of the student's report of how much their parents encouraged them academically.

PCOPH7/PCOPH8/PCOPH9/PCOPH10/PCOPH11/PCOPH12/PCOPHHS. Summary measure of the parents educational expectations for their children, and how disappointed they would be if they did not reach that level of education.

PMHPH7/PMHPH8/PMHPH9/PMHPH10/PMHPH11/PMHPH12/PMHPHHS. Summary measure of the student report of how much their parents encouraged them in mathematics.

PSCPH7/PSCPH9/PSCPH10/PSCPH11/PSCPH12/PSCPHHS. Summary measure of the student report of how much their parents encouraged them in science.

HSCRE7/HSCRE10/HSCRE11/HSCREHS. Summary measure of the learning resources available in the student's home.

KMHPH7/KMHPH8/KMHPH9/KMHPH10/KMHPH11/KMHPH12. Summary measure of peer encouragement in mathematics.

KMHSCPH7/KMHSCPH8/KMHSCPH9/KMHSCPH10/KMHSCPH11/KMHSCPH12. Summary measure of peer encouragement in mathematics and science.

KSCPH7/KSCPH8/KSCPH9/KSCPH10/KSCPH11/KSCPH12. Summary measure of peer encouragement in science.

KACPH10/KACPH11/KACPH12/KACPH7/KACPH8/KACPH9. Summary measure of peer academic encouragement.

KCOPHHS. Peer college push during high school.

TCOPHHS. Teacher college push during high school.

SSCTCPHHS. Student science teacher push during high school.

SMHTCPHHS. Student math teacher push during high school.

TCOEXHS. Teacher college expectations for the student during high school.

VI.D.7.e. Geographic Variables.

DSGR12YR07. The distance from the participant's residence in twelfth grade to their residence in 2007.

DSGR12CO. The distance from the participant's residence in twelfth grade to their first post-secondary institution.

DSGR12BA. The distance from the participant's residence in twelfth grade to the institution where they received their first baccalaureate degree.

DSCOYR07. The distance from the participant's first post-secondary institution to their R-cycle (2007) residence.

DSBAGS. The distance from the participant's first baccalaureate institution to their first graduate school institution.

DSBAYR07. The distance from the institution where the participant received their first baccalaureate degree to their R-cycle (2007) residence.

DSGSYR07. The distance from the institution where the participant received their highest graduate school degree to their R-cycle (2007) residence.

VI.D.8. Math and Science Achievement Test Scale Scores

The focus of cognitive testing in the LSAY was on measuring the development of student achievement in mathematics and science. For the first five years of the study (A-cycle through I-cycle), the LSAY employed items developed by the National Assessment of Educational Progress (NAEP, 1986a; NAEP, 1986b). In Fall 1992, the tests were revised for the last year of data collection (k-cycle) to refresh the test and to raise achievement ceilings for both mathematics and science.

In 1996 the LSAY achievement scores were re-calibrated to put the results for the two cohorts on the same metric. As noted above, the LSAY achievement tests were developed from the NAEP item pools (with NAEP approval and support). The NAEP, however, is a cross-sectional study taken at various points in time, but always with different students. In contrast, the LSAY utilized two cohorts of public school students in grades seven and 10. The original calibration of the LSAY mathematics and science achievement scores used the BILOG software, which provided only a single group analysis. Although the LSAY sought the best advice available at the time, subsequent analyses of the data suggested that there were some serious problems in the original calibration.

By the time that the problem had been identified, a new generation of IRT software was available, allowing IRT scoring using multiple groups. The senior author of the new BILOG-MG software – Michele Zimowski – was engaged as the principal consultant for the re-calibration of the LSAY achievement scores. Under her direction, the LSAY mathematics and science achievement scores were re-calibrated to produce more accurate estimates of both cohorts and to maintain the ability to make comparisons across cohorts. To obtain a comparable score over a three-year period for Cohort One and a six-year period for Cohort Two, multiple-group item-response theory (IRT) methods, as implemented in BILOG-MG (Zimowski et al. 1996) were used to select and model items from the NAEP item pools.

IRT scores are normally computed with a mean of zero and a standard deviation of one, resulting in the assignment of a negative score to approximately half of the students. This is often confusing to readers. To provide a simpler metric, a mean score of 50 and a standard deviation of 10 were assigned to the seventh grade students in the LSAY and all subsequent scores were computed using that metric.

At the same time that the LSAY aggregate achievement scores were re-calibrated, new sub-scales for biological science, physical science, and environmental science were computed.

All variables related to the science and mathematics achievement scores follow the variable naming conventions depicted in Figure 1, with the exception of three summary variables **SCIACHV** (a summary high school science measure), **MTHACHV** (a summary high school mathematics measure), and **ACHIEVE** (the mean of their high school science, mathematics, and reading percentile scores).

Mathematics and science achievement scores were imputed when possible, following the general protocols depicted in Table 8. Scores were not imputed: (1) once the student dropped out of school; (2) if the student was missing two or more scores in Cohort One, or four or more scores in Cohort Two. The patterns of missing data and imputations for the science and mathematics achievement scores are presented in Tables 9, 10, and 11.

Table 8. Protocols Followed for the Imputation of Missing Mathematics and Science Achievement Data

Cohort Two		
	Grade 7	Regressed 7 on 8 and 9
	Grade 8	Mean of 7 and 9
	Grade 9	(1) Mean of 8 and 10; else (2) Regressed 9 on 7 and 8
	Grade 10	(1) Mean of 9 and 11; else (2) Regressed 10 on 8 and 9; else (3) regressed 10 on 7 and 8—mathematics scores were conditioned on having Algebra I in 8th grade. After comparing the mean math scores of students with and without course data, it was found that those missing course data were similar to non-algebra students. Therefore, those students missing course data were coded non-algebra I
	Grade 11	(1) Mean of 10 and 12; else (2) Regressed 11 on 9 and 10; else (3) Regressed 11 on 8 and 9—mathematics scores were conditioned on having Algebra I in 8th grade. After comparing the mean math scores of students with and without course data it was found that those missing course data were similar to non-algebra I students. Therefore, those students missing course data were coded non-Algebra I.
	Grade 12	(1) Regressed 12 on 10 and 11; else (2) Regressed 12 on 9 and 10—Mathematics scores were conditioned on having Trigonometry or Calculus in 12th grade. After comparing the mean math scores of students with and without course data it was found that those missing course data were similar to non-Trig/Calculus students. Therefore, those students missing course data were coded non-Trig/Calculus
Cohort One		
	Grade 10	Regressed 10 on 11 and 12
	Grade 11	Mean of 10 and 12
	Grade 12	Regressed 12 on 10 and 11

FIGURE 1. LSAY Naming Conventions for Science and Mathematics Achievement Variables

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General Form: AXXXYYY

> Cycle----------$\rightarrow$ A
> Test Code----------$\rightarrow$ XXX
> Variable Type Code--------$\rightarrow$ YYY

Cycle Codes:

A	Grade seven
C	Grade eight
E	Grade nine
G	Grade ten
I	Grade eleven
K	Grade twelve

Test Codes:

Mathematics
  MTH   Aggregate Mathematics

Science
  SCI   Aggregate Science
  BIO   Biological Science
  ENV   Environmental Science
  PHY   Physical Science

Variable Type Codes:

IMPF   This flag variable indicates whether the score is: (1) not imputed, missing; (2) imputed, missing; (3) not imputed, aberrant; (4) imputed, aberrant; or (5) the original observed score.

IMP   The scores represented by this variable include observed scores when the observed scores were non-aberrant, and imputed scores for missing and aberrant scores that met the imputation criteria

IRT   This variable contains the observed IRT scores. Missing scores are coded as -98, and aberrant scores that did not meet the imputation criteria are coded as -96.

Table 9. Patterns of Missing Data and Imputations for Cohort One Science and Mathematics Achievement Scores

Pattern	Number	Percent	Action Taken
Mathematics			
Three valid scores	1,437	50.8	No imputation
10,12 valid; 11 missing/aberrant	151	5.3	Imputed
10-11 valid; 12 missing/aberrant, student in school	454	16.0	Imputed
10-11 valid; 12 missing/aberrant, school dropout	101	3.6	No imputation
10 missing; 11-12 valid	17	.6	Imputed
Two missing scores	596	21.1	No imputation
Three missing scores	73	2.6	No imputation
Science			
Three valid scores	1,461	51.6	No imputation
10,12 valid; 11 missing/aberrant	185	6.5	Imputed
10-11 valid; 12 missing/aberrant, student in school	415	14.7	Imputed
10-11 valid; 12 missing/aberrant, school dropout	88	3.1	No imputation
10 missing; 11-12 valid	27	1.0	Imputed
Two missing scores	582	20.6	No imputation
Three missing scores	71	2.5	No imputation

Table 10. Patterns of Missing Data and Imputations for Cohort Two Science Achievement Scores: Grades 7-12

Pattern	Number	Percent	Action
Six valid scores	735	23.60	None
One missing; 7-11 valid; 12 missing; in school	378	12.10	Impute 12
One missing; 7-11 valid; 12 missing; dropout	35	1.10	None
One missing; 7-10, 12 valid; 11 missing	115	3.70	Impute 11
One missing; 7-9,11-12 valid; 10 missing	81	2.60	Impute 10
One missing; 7-8,10-12 valid; 9 missing	39	1.30	Impute 9
One missing; 7,9-12 valid; 8 missing	47	1.50	Impute 8
One missing; 8-12 valid	7	0.20	Impute 7
Two missing; 7-10 valid; 11-12 missing; in school	256	8.20	Impute 11-12
Two missing;7-10 valid; 11-12 missing; dropout Grade 12	16	0.50	Impute 11
Two missing;7-10 valid; 11-12 missing; dropout Grade 11	63	2.00	None
Two missing; 7-9 valid; 10,12 missing	78	2.50	Impute 10
Two missing; 7-8,10-11 valid; 9,12 missing; in school	28	0.90	Impute 9,12
Two missing; 7-8,10-11 valid; 9,12 missing; dropout	8	0.30	Impute 9
Two missing; 7,9-11 valid;8,12 missing, in school	45	1.40	Impute 8 12
Two missing; 7,9-11 valid; 8,12 missing; dropout	6	0.20	Impute 8
Two missing; 8-11 valid; 7,12 missing; in school	5	0.20	Impute 7, 12
Two missing;7-8,10,12 valid; 9,11 missing	8	0.30	Impute 9, 11
Two missing; 7,9-10,12 valid; 8,11 missing	8	0.30	Impute 8, 11
Two missing; 8-10,12 valid; 7,11 missing	1	0.00	Impute 7, 11
Two missing; 7-8,11-12 valid; 9-10 missing	15	0.50	Impute 9,10
Two missing; 7,9,11-12 valid; 8,10 missing	3	0.10	Impute 8, 10
Two missing; 8-9,11-12 valid; 7,10 missing	2	0.10	Impute 7, 10
Two missing; 7,10-12 valid; 8-9 missing	10	0.30	None
Three missing; 7-9 valid; 10-12 missing; in school	158	5.10	Impute 10-11
Three missing; 7-9 valid 10-12 missing; in school	1	0.00	Impute 10
Three missing; 7-9 valid;10-12 missing; dropout Grade 12	11	0.40	Impute 10-11
Three missing; 7-9 valid; 10-12 missing; dropout Grade 11	38	1.20	Impute 10
Three missing; 7-9 valid; 10-12 missing; dropout Grade 10	36	1.20	None
Three missing;7-8,10 valid; 9,11-12 missing; in school	44	1.40	Impute 9
Three missing; 7,9-10 valid; 8,11-12 missing; in school	49	1.60	Impute 8, 11-12
Three missing; 7,9,10 valid;8,11-12 missing; dropout Grade 12	5	0.20	Impute 8,11
Three missing; 7,9-10 valid; 8, 11-12 missing; dropout Grade 11	15	0.50	Impute 8
Three missing; 8-10 valid; 7,11-12 missing; in school	3	0.10	Impute 7,11-12

Table 10. Patterns of Missing Data and Imputations for Cohort Two Science Achievement Scores: Grades 7-12 (Continued)

Three missing; 7-8,11 valid; 9,10,12 missing	24	0.80	Impute 9,10
Three missing; 7,9,11 valid; 8,10,12 missing	10	0.30	Impute 8,10
Three missing; 7,10-11 valid; 8-9,12 missing; in school	12	0.40	Impute 12
Three missing; 7,10-11 valid; 8-9,12 missing; dropout	3	0.10	None
Three missing; 8,10-11 valid; 7,9,12 missing; in school	1	0.00	Impute 9,12
Three missing; 7-8,12 valid; 9-11 missing	9	0.30	Impute 9,10
Three missing; 7,9,12 valid; 8,10-11 missing	4	0.10	Impute 8
Three missing; 7,10,12 valid; 8-9,11 missing	5	0.20	Impute 11
Three missing; 7,11-12 valid; 8-10 missing	6	0.20	None
Four missing; 7-8 valid; 9-12 missing	51	1.60	None
Four missing; 8-9 valid; 7,10-12 missing; in school	3	0.10	Impute 7,11
Four missing; 8,9 valid; 7,10-12 missing; dropout	2	0.10	Impute 7,10
Four missing; 7 and 10 valid;8-9,11-12 missing	28	0.90	None
Four missing; 7 and 12 valid; 8-11 missing	10	0.30	None
Four missing; 7 and 11 valid; 8-10, 12 missing	10	0.30	None
Four missing;7,9 valid; 8,10-12 missing	65	2.10	Impute 8
Four missing;7,8 valid;9-12 missing; in school;	213	6.80	Impute 9-10
Four missing; 7,8 valid; 9-12 missing; dropout Grade 10	15	0.50	Impute 9
Four missing; 9,12 valid; 7-8,10-11 missing	1	0.00	None
Four missing; 8,9 valid; 7,10-12 missing	1	0.00	Impute 7
Five missing; 7 valid	236	7.60	
Five missing; 8 valid	5	0.20	
Five missing; 9 valid	1	0.00	
Five missing; 10 valid	2	0.10	
Six missing scores	8	0.30	None

Table 11. Patterns of Missing Data and Imputations for Cohort Two Mathematics Achievement Scores: Grades 7-12

Pattern	Number	Percent	ACTION
Six valid scores	782	25.10	None
One missing; 7-11 valid; 12 missing; in school	363	11.60	impute 12
One missing; 7-11 valid; 12 missing; dropout	46	1.50	None
One missing; 7-10, 12 valid; 11 missing	102	3.30	Impute 11
One missing; 7-9,11-12 valid; 10 missing	35	1.10	Impute 10
One missing; 7-8,10-12 valid; 9 missing	53	1.70	Impute 9
One missing; 7,9-12 valid; 8 missing	54	1.70	Impute 8
One missing; 8-12 valid; 7 missing	7	0.20	Impute 7
Two missing; 7-10 valid; 11-12 missing; in school	287	9.20	Impute 11,12
Two missing; 7-10 valid; 11-12 missing; quit study	1	0.00	None
Two missing;7-10 valid; 11-12 missing; dropout grade 12	15	0.50	Impute 11
Two missing;7-10 valid; 11-12 missing; dropout grade 11	63	2.00	None
Two missing; 7-9 valid; 10,12 missing	55	1.80	Impute 10
Two missing; 7-8,10-11 valid; 9,12 missing; in school	36	1.20	Impute 9,12
Two missing; 7-8,10-11 valid; 9,12 missing; dropout	8	0.30	Impute 9
Two missing; 7,9-11 valid;8,12 missing, in school	37	1.20	Impute 8, 12
Two missing; 7,9-11 valid; 8,12 missing; dropout	8	0.30	Impute 8
Two missing; 8-11 valid; 7,12 missing; in school	6	0.20	Impute 7, 12
Two missing; 8-11 valid; 7,12 missing; dropout	1	0.00	Impute 7
Two missing;7-9,12 valid; 10-11 missing	36	1.20	Impute 10-11
Two missing;7-8,10,12 valid; 9,11 missing	12	0.40	Impute 9,11
Two missing; 7,9-10,12 valid; 8,11 missing	7	0.20	Impute 8, 11
Two missing; 8-10,12 valid; 7,11 missing	1	0.00	Impute 7, 11
Two missing; 7-8,11-12 valid; 9-10 missing	17	0.50	Impute 9, 10
Two missing; 7,9,11-12 valid; 8,10 missing	2	0.10	Impute 8, 10
Two missing; 8-9,11-12 valid; 7,10 missing	1	0.00	Impute 7, 10
Two missing; 7,10-12 valid; 8-9 missing	18	0.60	None
Two missing; 9-12 valid; 7-8 missing	1	0.00	None
Three missing; 7-9 valid; 10-12 missing; in school	137	4.40	Impute 10,11
Three missing; 7-9 valid;10-12 missing; dropout grade 12	7	0.20	Impute 10-11
Three missing; 7-9 valid; 10-12 missing; dropout grade 11	20	0.60	Impute 10
Three missing; 7-9 valid; 10-12 missing; dropout grade 10	65	2.10	None
Three missing;7-8, 10 valid;9,11-12 miss	51	1.70	Impute 9
Three missing;7,9-10 valid;8,11-12 missing; in school	24	0.80	Impute 8, 11-12
Three missing; 7,9,10 valid;8,11-12 missing; dropout grade 12	2	0.10	Impute 8, 11

Table 11. Patterns of Missing Data and Imputations for Cohort Two Mathematics Achievement Scores: Grades 7-12 (Continued)

Three missing; 8-10 valid; 7,11-12 missing; dropout	2	0.10	Impute 7
Three missing; 7-8,11 valid; 9-10, 12 missing; in school	21	0.70	Impute 9-10
Three missing; 7-8,11 valid; 9-10,12 missing; early grad	1	0.00	Impute 9-10
Three missing; 7-8,11 valid; 9-10, 12 missing; dropout	3	0.10	Impute 9-10
Three missing; 7,9,11 valid; 8,10,12 missing	11	0.40	Impute 8,10
Three missing; 8-9,11 valid; 7,10,12 missing	1	0.00	Impute 7,10
Three missing; 7,10-11 valid; 8-9,12 missing; in school	5	0.20	Impute 12
Three missing; 7,10-11 valid; 8-9,12 missing; dropout	4	0.10	None
Three missing; 8,10-11 valid; 7,9,12 missing; dropout	1	0.00	Impute 9
Three missing; 7-8,12 valid; 9-11 missing	18	0.60	Impute 9-10
Three missing; 7,9,12 valid; 8,10-11 missing	4	0.10	Impute 8
Three missing; 7,10,12 valid; 8-9,11 missing	3	0.10	Impute 11
Three missing; 7,11-12 valid; 8-10 missing	6	0.20	None
Three missing; 8,11-12 valid; 7,9-10 missing	1	0.00	None
Four missing; 7-8 valid	49	1.60	None
Four missing; 7 and 12 valid, 8-11 missing	7	0.20	None
Four missing; 7 and 10 valid, 8-9,11-12 missing	26	0.80	None
Four missing; 7 and 11 valid, in school, no imputation	9	0.30	None
Four missing;7,9 valid; 8, 10-12 missing;	39	1.30	Impute 8
Four missing;7,8 valid;9-12 missing; in school & grade 12 dropout	249	8.00	Impute 9-10
Four missing; 7,8 valid; 9-12 missing; dropout grade 10	18	0.60	Impute 9
Four missing; 9,12 valid; 7-8,10-11 missing	1	0.00	None
Four missing; 8,9 valid; 7,10-12 missing; dropout	1	0.00	Impute 7
Four missing; 8-9 valid; 7,10-12 missing; in school	3	0.10	Impute 7,10-11
Five missing; 7 valid	237	7.60	None
Five missing; 8 valid	6	0.20	None
Five missing; 9 valid	2	0.10	None
Five missing; 10 valid	2	0.10	None
Six missing scores	14	0.40	None

VI.D.9. Reading Comprehension Test

A sixteen-item reading comprehension test was included in the spring 1990 questionnaire for both cohorts, and the spring 1993 questionnaire for Cohort Two. The items were originally developed by the Educational Testing Service for the U.S. Department of Education surveys, High School and Beyond and the National Longitudinal Study of 1972. The items and question text are available in two forms, first as "non-keyed" response-pattern distributions (FB23AN through FB26DN/LA29AN through LA32DN), and, second, as "keyed" correct-incorrect dichotomies (FB23AK through FB26DK/LA29AK through LA32DK). Initial factor analysis of the items shows that the battery had a clearly dominant first factor, but that one item (FB24BK/LA30BK) did not scale with the rest and should be excluded from the scale. Leaving that item out, the alpha reliabilities of the reading test scale (FBREAD and LAREAD in the data file) are, in 1990, .86 for Cohort One and .80 for Cohort Two; in 1993, alpha is .86 for Cohort Two.

The following summary reading scores are available in the data file:

> FBREAD – The percentage correct on the reading items in ninth grade (Cohort Two only)
> LAREAD – The percentage correct on the reading items in twelfth grade (both Cohorts)
> LAREADi – The higher of the two reading scores for Cohort Two and the twelfth grade score for Cohort One
> LAREADIX – This is a twelfth grade reading score with cases with missing data assigned the median value for LAREADi based on a 90-cell matrix of three levels of algebra track (7th or 8th grade, 9th grade, and never/10th-12th grades), five levels of science achievement (quintiles), gender, and three levels of parent education (baccalaureate or higher, some college, and high school or less).

VI.D.10. Math and Science Class Data

The data collected from the math and science teachers of the LSAY student sample were originally processed as a class-level file. Since these data are intended to characterize the students' math and science class experiences, the class-level data have been merged onto the student records and are included in the merged file. A small number of students took two science or two math courses concurrently, and it was necessary to make some decisions about which set of class data to use in the merged file. For a few cases, the decision was arbitrary, as when a student reported taking Algebra and Geometry in the same semester. In most cases, though, one of the two courses is clearly a supplement to the other course, and in these cases the "main" course is given precedence. Data from the teacher class files were merged with the student data using the Fall class ID (eg., AMTHCLS). When there were two math classes, the data from the first class was merged (eg., GMTHCLS1).

VI.E. Math and Science Teacher Background and School Climate Data File

The information collected from the math and science teachers about their attitudes, experience, and educational backgrounds was maintained in a separate, teacher-level file. These data were collected primarily in order to describe aspects of the students' schools and their science and mathematics programs. For those purposes, analysts will often find it useful to aggregate the teacher-level data up to a school- or department-within-the-school level of analysis. If a teacher taught both math and science classes, that teacher was asked to complete both a math and science teacher background questionnaire. Similarly, if a teacher in one of the combined junior high/high school schools taught courses at both levels that teacher was asked to complete both a junior high

and high school form of the questionnaire. This results in a small number of teachers whose data is reported for two separate questionnaires, leading to duplicate case identifiers (TCHID).

Merging teacher with student data. The data can also be used, however, to study relationships between individual teacher characteristics (e.g., years of teaching experience, or educational background) and student or classroom characteristics (e.g., academic achievement, attitudes toward science or math, or method of classroom instruction). To use the data in this fashion, it is necessary to merge the teacher data with the student records. *The teacher ID can only be constructed for students who have remained in one of the original LSAY schools*, since teachers in new schools were not surveyed. For teachers who had sampled students in their classes, the teacher identification number variable, TCHID, can be matched with the cycle-specific student records. Although the teacher identification number associated with a math and science class that a student took is cycle-specific, the TCHID in the math and science teacher background file is not. The easiest way to carry out the file merging is to construct separate teacher files for science and math teachers, each with a renamed TCHID variable to match the cycle-specific teacher IDs on the student records. The student records must then be sorted by the class-teacher ID of the subject of interest (science or math) in order to match up with the new teacher file. If one wants to merge both of the new teacher files with the students, it will be necessary to rename the variables common to the math and science teacher questionnaires, for these have the same variable names in the unified teacher file.

Revised teacher educational background variables. Initial work with the variables describing the teachers' college course work in science, math, and pedagogy (BE92A--BE100D) revealed two problems: (1) some teachers had probably misread the questionnaire: though asked about the *number of courses*, several reported instead the *number of credit hours*; (2) many instances of missing data were probably instances where the teacher took no courses at the level indicated. In year 4, LSAY staff systematically worked through the data files and the original questionnaires, and recoded all cases where a clear resolution was possible. Instead of replacing data in the original variables, new variables containing the revised data were defined. All of the revised variables report the number of *semester courses*, rather than quarter courses. Numbers of quarter courses reported by some teachers were converted to semester courses by simply multiplying the number of quarter courses by 2/3.

The revised variables are defined as follows:

> **UBIO/UCHM/UPHY/UEAR/UMTH**: Numbers of *undergraduate* semester courses completed by the teacher in biology, chemistry, physics, earth science, and mathematics.

> **GBIO/GCHM/GPHY/GEAR/GMTH**: Numbers of *graduate* semester courses completed by the teacher in biology, chemistry, physics, earth science, and mathematics.

> **UESE/USSE/UEME/USME:** Numbers of *undergraduate* semester courses completed by the teacher in elementary science education, secondary science education, elementary math education, and secondary math education.

> **GESE/GSSE/GEME/GSME**: Numbers of *graduate* semester courses completed by the teacher in elementary science education, secondary science education, elementary math education, and secondary math education.

In a small number of instances, teachers reported combined totals for undergraduate and graduate courses. In addition, it appears likely that a few teachers reported as "graduate" courses any course taken post-baccalaureate. As a result, we also created a set of variables combining undergraduate and graduate courses in each subject area.

TOTBIO/TOTCHM/TOTPHY/TOTEAR/TOTMTH/TOTESE/TOTSSE/TOTEME/TOTSME:
Total numbers of *undergraduate and graduate* semester courses completed by the teacher in biology, chemistry, physics, earth science, mathematics, elementary science education, secondary science education, elementary math education, and secondary math education.

VI.F. Principal File

The principals of the original LSAY schools completed questionnaires about school characteristics and the principals' own background in fall 1989. Eight schools, which included both the middle and high school grades, were sent only one questionnaire. Of the 95 probability sample schools participating in fall 1989 (six of the original schools had quit by then, but four additional schools had been added because one seventh grade school split into two eight grade schools, and two tenth grade school split into two 11th grade campuses), 88 returned questionnaires. These data are available in a separate SPSS system file as a school-level file. The data are intended to be used primarily for constructing variables to characterize the school context of the sampled students. To use the data for this purpose, the school-level variables can be merged with the student records by the school code ID variables (SCHCODE, SCHF88, SCHF89, SCHF90, etc.).

A second principal questionnaire was administered in spring 1993 in all of the original high schools that were still participating in the study and in which LSAY students were still in attendance.

VII. THE RESUMPTION OF FIELD WORK FOR THE LSAY IN 2006

At the time of the last data collection in 1994, all participating students were told that they might be contacted for additional information at some future date. The LSAY had accumulated a massive amount of data that needed analysis and there was mounting evidence of respondent fatigue.

Recognizing the policy value of the LSAY, the NSF provided funding in 2005 for two new cycles of LSAY data collection in 2007 and 2008 (DUE-0525357). Viewed in the context of other major national longitudinal studies, the resumption of the LSAY provides the longest available longitudinal record of the impact of education and schooling on young adult outcomes.

Recognizing the importance of being able to contact students and families throughout the course of a longitudinal study, the LSAY collected a wide array of family contacting information (including the names, addresses, and telephone numbers of parents, grandparents, and one or more other relatives) throughout the initial years of the study. This information facilitated short-term tracking if a student moved from one school to another during the early years of the study (approximately 1,000 of the original 5,945 students did change schools or addresses during the first seven years of the LSAY) and in anticipation that the study would want to reach these students at some time in the future. These contact records were retained and updated periodically through the end of data collection in 1994. These records served as the foundation for all subsequent tracking activities.

In addition to the parent and family tracking information, the LSAY questionnaires collected exact birthday information from 96% of the LSAY participants in the first cycle of the study. Participant birth day, month, and year proved particularly helpful in locating respondents with common names – i.e., Mary Smith – from the available listings of individuals with the same name and for verifying other record-based information.

The primary LSAY tracking activity began in April, 2006, and involved five search activities: (1) online tracking; (2) newsletter mailing; (3) calls to parents and other relatives; (4) use of alternative online search

methods; and (5) questionnaire mailing. These activities were used sequentially during the first months of tracking, but all five activities are used currently in our efforts to track the remaining more-difficult-to-locate LSAY participants, as well as to locate participants when they move. The original proposal outlined a period of six months of intensive tracking with the first new cycle of data collection scheduled for the fall of 2006. Due to the re-location of the project to Michigan State University in August, 2006, the date for the resumption of date collection was moved back to February, 2007, allowing more time for follow-up tracking activities than originally anticipated.

It is important to recognize that tracking is an on-going activity in a longitudinal study. Although we engaged in an intense period of tracking the current location of our LSAY participants after a break of 12 years, every cycle of data collection involves some identification of respondents who have moved or changed names or are no longer able to be reached at the same address. The 2007 LSAY questionnaire explicitly asked each respondent if they planned to move within the next two years and, if so, to provide the name and address of another person who would know their new location.

Although the tracking effort did not produce a useable address for some of the cases, it did produce sufficient information for us to make a disposition decision removing the individual from the study population (see Table 12). The current release file contains data for 3,689 cases for the 2007 study. We continue to search for the remaining participants, and urge them to rejoin the study. We will add additional re-entry cases to the file when we release the data from the 2008 study in late 2011[2]. Analysts can use the variable **RDATE** to determine when an R-cycle, re-entry questionnaire was completed.

Table 12: LSAY Tracking Results, September 2010.

	Number	**Percent**
Original Sample	**5,945**	**100.0**
Ineligible		
Participant in military in foreign country	14	.2
Participant in jail – no address	127	2.1
Participant deceased	114	1.9
Participant incapacitated/unable to participate	89	1.5
Foreign student returned to home country	39	.6
Only one or two years of original data	323	5.4
Insufficient tracking information	231	3.9
Eligible Sample	**5,008**	**84.2**
Active Sample	**5,008**	**100.0**
Completions	3,689	73.7
Soft refusal	121	2.4
Hard refusal	61	1.2
Verifying location and seeking cooperation	1,137	22.7

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2 Since the initial release data file was prepared for ICPSR deposit, we have had 226 additional re-entry completions. These cases, and all additional cases, will be included with the next ICPSR release. Nearly 78 percent of the completions in the current data file were submitted in 2007, while the remainder occurred between 2008 and 2010.

For the re-entry questionnaire in 2007, the participants were given the option of completing the study online, through a telephone interview, or a print questionnaire. The mode of completion for the re-entry study is described in the variable **RMODE**.

VIII. The LSAY User Community

The release of the merged LSAY data set and the decision to utilize the services of the ICPSR for data dissemination purposes marks the beginning of an effort to re-vitalize the LSAY user community. During the earlier years of the study, the release of the seven-year CD-Rom was coupled with a series of workshops for users at AERA annual meetings and in conjunction with other professional meetings. These efforts produced a substantial number of secondary users who in turn produced more than 30 dissertations and more than 70 articles in refereed journals (see list on www.lsay.org).

The release of the merged file includes all updated information from the first seven years of data collection and the 2007 survey data. We encourage the user community to share their publications and code for constructed variables used in publications through the LSAY email address (lsay@lsay.org), and to suggest areas of future data collection through the annual LSAY questionnaire.

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APPENDIX A

DIRECTORY OF INSTRUMENTS USED BY THE LSAY

Directory of Instruments Used by the LSAY

Student Questionnaires Cohort One (1987-1994)
q1f87.pdf – Cohort One print questionnaire fall 1987
q1s88.pdf – Cohort One print questionnaire spring 1988
q1f88.pdf – Cohort One print questionnaire, fall 1988
q1s89.pdf – Cohort One print questionnaire, spring 1989
q1f89.pdf – Cohort One print questionnaire, fall 1989
q1s90.pdf – Cohort One print questionnaire, spring 1990
coh1s91.pdf – Cohort One telephone interview script, spring 1991
coh1s92.pdf – Cohort One telephone interview script, spring 1992
coh1s94.pdf – Cohort One telephone interview script, spring 1994

Student Questionnaires Cohort Two
q2f87.pdf – Cohort Two print questionnaire, fall 1987
q2s88.pdf – Cohort Two print questionnaire, spring 1988
q2f88.pdf – Cohort Two print questionnaire, fall 1988
q2s89.pdf – Cohort Two print questionnaire, spring 1989
q2f89.pdf – Cohort Two print questionnaire, fall 1989
q2s90.pdf – Cohort Two print questionnaire, spring 1990
q2f90.pdf – Cohort Two print questionnaire, fall 1990
q2s91.pdf – Cohort Two print questionnaire, spring 1991
q2f91.pdf – Cohort Two print questionnaire, fall 1991
q2s92.pdf – Cohort Two print questionnaire, spring 1992
q2f92.pdf – Cohort Two print questionnaire, fall 1992
q2s93.pdf – Cohort Two print questionnaire, spring 1993
coh2s94.pdf – Cohort Two telephone interview script, spring 1994

Merged Cohorts Questionnaires 2007
merged2007.pdf – merged cohorts print questionnaire, 2007

Math Tests
math7c2.pdf – Cohort Two 1987 test
math10c1.pdf – Cohort One 1987 text
matha.pdf – Fall 1992 lowest level
mathb.pdf – Fall 1992 middle level
mathc.pdf -- Fall 1992 highest level
mathe.pdf – Fall 1988 lowest level
mathm.pdf – Fall 1988 middle level
matht.pdf – Fall 1988 highest level
mathx.pdf –Fall 1989, 1990, 1991 lowest level
mathy.pdf – Fall 1989, 1990, 1991 middle level
mathz.pdf – Fall 1989, 1990, 1991 highest level

Science Tests
sci7.pdf – Cohort Two 1987 test
sci10.pdf – Cohort One 1987 text
scia.pdf – Fall 1992 lowest level
scib.pdf – Fall 1992 middle level
scic.pdf -- Fall 1992 highest level

scie.pdf – Fall 1988 lowest level
sciem.pdf – Fall 1988 middle level
sciet.pdf – Fall 1988 highest level
scix.pdf –Fall 1989, 1990, 1991 lowest level
sciy.pdf – Fall 1989, 1990, 1991 middle level
sciz.pdf – Fall 1989, 1990, 1991 highest level

Parent Interviews Cohort One
parc1s88.pdf – Cohort One parent interview script, spring 1988
parc1s89.pdf – Cohort One parent interview script, spring1989
parc1s90.pdf – Cohort One parent interview script, spring 1990

Parent Interviews Cohort Two
parc2s88.pdf – Cohort Two parent interview script, spring 1988
parc2s89.pdf – Cohort Two parent interview script, spring 1989
parc2s90.pdf – Cohort Two parent interview script, Spring 1990
parc2s91.pdf – Cohort Two parent interview script, Spring 1991
parc2s92.pdf – Cohort Two parent interview script, Spring 1992

Math Teacher Background Questionnaires
mt1bs88.pdf – Cohort One math teacher background print questionnaire, spring 1988
mt1bs89.pdf – Cohort One math teacher background print questionnaire, spring 1989
mt1bs90.pdf – Cohort One math teacher background print questionnaire, spring 1990
mt2bs88.pdf – Cohort Two math teacher background print questionnaire, spring 1988
mt2bs89.pdf – Cohort Two math teacher background print questionnaire, spring 1989
mt2bs90.pdf – Cohort Two math teacher background print questionnaire, spring 1990
mt2bs91.pdf – Cohort Two math teacher background print questionnaire, spring 1991
mt2bs92.pdf – Cohort Two math teacher background print questionnaire, spring 1992
mt2bs93.pdf – Cohort Two math teacher background print questionnaire, spring 1993

Science Teacher Background Questionnaires
St1bs88.pdf – Cohort One science teacher background print questionnaire, spring 1988
St1bs89.pdf – Cohort One science teacher background print questionnaire, spring 1989
St1bs90.pdf – Cohort One science teacher background print questionnaire, spring 1990
St2bs88.pdf – Cohort Two science teacher background print questionnaire, spring 1988
St2bs89.pdf – Cohort Two science teacher background print questionnaire, spring 1989
St2bs90.pdf – Cohort Two science teacher background print questionnaire, spring 1990
St2bs91.pdf – Cohort Two science teacher background print questionnaire, spring 1991
St2bs92.pdf – Cohort Two science teacher background print questionnaire, spring 1992
St2bs93.pdf – Cohort Two science teacher background print questionnaire, spring 1993

Math Teacher Classroom Questionnaires
mt1cs88.pdf – Cohort One math teacher classroom print questionnaire, spring 1988
mt1cs89.pdf – Cohort One math teacher classroom print questionnaire, spring 1989
mt1cs90.pdf – Cohort One math teacher classroom print questionnaire, spring 1990
mt2cs88.pdf – Cohort Two math teacher classroom print questionnaire, spring 1988
mt2cs89.pdf – Cohort Two math teacher classroom print questionnaire, spring 1989
mt2cs90.pdf – Cohort Two math teacher classroom print questionnaire, spring 1990
mt2cs91.pdf – Cohort Two math teacher classroom print questionnaire, spring 1991
mt2cs92.pdf – Cohort Two math teacher classroom print questionnaire, spring 1992

mt2cs93.pdf – Cohort Two math teacher classroom print questionnaire, spring, 1993

Science Teacher Classroom Questionnaires
st1cs88.pdf – Cohort One science teacher classroom print questionnaire, spring 1988
st1cs89.pdf – Cohort One science teacher classroom print questionnaire, spring 1989
st1cs90.pdf – Cohort One science teacher classroom print questionnaire, spring 1990
st2cs88.pdf – Cohort Two science teacher classroom print questionnaire, spring 1988
st2cs89.pdf – Cohort Two science teacher classroom print questionnaire, spring 1989
st2cs90.pdf – Cohort Two science teacher classroom print questionnaire, spring 1990
st2cs91.pdf – Cohort Two science teacher classroom print questionnaire, spring 1991
st2cs92.pdf – Cohort Two science teacher classroom print questionnaire, spring 1992
st2cs93.pdf – Cohort Two science teacher classroom print questionnaire, spring 1993

Principal Questionnaires
phsf89.pdf – Cohort One principal print questionnaire, spring 1989
pmsf89.pdf – Cohort Two principal print questionnaire, spring 1989
phs9293.pdf – Cohort Two principal print questionnaire, school year 1992-93

LSAY Articulation Chart - Student Variables

The code for the second letter of variable names: A=both cohorts; B=Cohort Two only; C=Cohort One only   Yellow highlight I need to delete for ICPSR release version 2010 fall

	Summary	Grade7 FALL	Grade7 SPRING	Grade8 FALL	Grade8 SPRING	Grade9 FALL	Grade9 SPRING	Grade10 FALL	Grade10 SPRING	Grade11 FALL	Grade11 SPRING	Grade12 FALL	Grade12 SPRING	P1 SPRING	P2 SPRING	P4 SPRING	2007 SPRING
Unique identifier	CASENUM																
School ID from 1987	SCHOOLID																
Date completed		ABDATE		CBDATE	DBDATE	EBDATE	FBDATE	GADATE	HBDATE	IADATE	JADATE	KADATE	LADATE	NADATE	OCDATE	QCDATE	
Interview Form						EBFORM	FBFORM			IBFORM	JBFORM			NAFORM		QCFORM	RMODE
Month of Birth		AB1A						GC1A									
Year of Birth		AB1C						GC1C									
Name change since high school																	R10
Marital status																	R3
Plan to marry in next year														NB312		QC312	
Married more than once																	R4
N times been married																	R5
Age for first marriage																	R8
Age for most recent marriage																	R6
How long have you been married																	R9
Number of children														NB317	OC314	QC317	
Living with children considered family																	R12
First child gender																	R13A2
First child year of birth																	R13A3
Second child gender																	R13B2
Second child year of birth																	R13B3
Third child gender																	R13C2
Third child year of birth																	R13C3
Fourth child gender																	R13D2
Fourth child year of birth																	R13D3
Fifth child gender																	R13E2
Fifth child year of birth																	R13E3
Current living situation																	R326A
Race/ethnicity	RACETH																
Race/ethnicity 3 categories	RACETH3																
PARENT EDUCATION AND OCCUPATION																	
Mother's edu	MOTHED																
Source of mother's ed data	MEDSRCE																
Father's edu	FATHED																
Source of father's ed data	FEDSRCE																
Highest parental edu	PEDUC																
Highest parent education three categories	PEDUC3																
Mother's occ: consensus code	MOTHOCC																
Mother's occ: source	MOCCSRCE																
Father's occ: consensus code	FATHOCC																
Father's occ: source	FOCCSRCE																
Parental Occupation	POCI																
No. of schls since 1st grd						EB11				KC11							
TYPES OF SCHOOLS																	
Type of school grade 1						FB21A				LC21A							
Type of school grade 2						FB21B				LC21B							
Type of school grade 3						FB21C				LC21C							
Type of school grade 4						FB21D				LC21D							
Type of school grade 5						FB21E				LC21E							
Type of school grade 6						FB21F				LC21F							
Type of school grade 7						FB21G				LC21G							
Type of school grade 8						FB21H				LC21H							
Type of school grade 9										LC10							
RESOURCES IN THE HOME:																	
Daily newspaper		BB15A						HC15A	JB18A								
Specific place-->homework		BB15B						HC15B	JB18B								
Typewriter		BB15C						HC15C	JB18C								
Computer		BB15D						HC15D	JB18D					NA205	OC204	QC205	
Atlas or globe		BB15E						HC15E	JB18E								
Room of your own		BB15F						HC15F	JB18F								
Pocket calculator		BB15G						HC15G	JB18G								
More than 50 books		BB15H						HC15H	JB18H								
Weekly news magazine		BB15I						HC15I	JB18I								

The code for the second letter of variable names: A=both cohorts; B=Cohort Two only; C=Cohort One only Yellow highlight I need to delete for ICPSR release version 2010 fall

	Summary	Grade7 FALL	Grade7 SPRING	Grade8 FALL	Grade8 SPRING	Grade9 FALL	Grade9 SPRING	Grade10 FALL	Grade10 SPRING	Grade11 FALL	Grade11 SPRING	Grade12 FALL	Grade12 SPRING	P1 SPRING	P2 SPRING	P4 SPRING	2007 SPRING
Microscope			BB15J						HC15J		JB18J						
Telescope			BB15K						HC15K		JB18K						
Your own telephone			BB15L						HC15L		JB18L						
CURRENT MATH COURSE:																	
Remedial					DB2A1												
Regular					DB2B1												
Algebra					DB2D1												
Pre-algebra					DB2C1												
Geom. or other adv. math					DB2E1												
Not taking math					DB2F1												
CURRENT ABILITY GROUPING:																	
Mathematics					DB6A1												
Science					DB6B1												
English					DB6C1												
Social Studies					DB6D1												
CURRENT CLASS ENROLLMENT:																	
Advanced/honors English						EB4A											
Advanced/honors math						EB4B											
Advanced/honors science						EB4C											
Bilingual/bicultural pgm.						EB4D											
Gifted/talented classes						EB4E											
Eng. as 2nd lang. (ESL)						EB4F											
Remedial/basic English						EB4G											
Remedial/basic math						EB4H											
Educationally handicapped						EB4I											
Physically handicapped						EB4J											
IF NO MATH NOW, WHY NOT?																	
Have taken highest here											JB15A	KA44A					
Won't need in future											JB15B	KA44B					
Don't like math											JB15C	KA44C					
Wouldn't do well											JB15D	KA44D					
Advised it was unnecess.											JB15E	KA44E					
Other courses I wanted											JB15F	KA44F					
Didn't want to work hard											JB15G	KA44G					
IF NO SCI NOW, WHY NOT?																	
Have taken highest here											JB16A	KA45A					
Won't need in future											JB16B	KA45B					
Don't like science											JB16C	KA45C					
Wouldn't do well											JB16D	KA45D					
Advised it was unnecess.											JB16E	KA45E					
Other courses I wanted											JB16F	KA45F					
Didn't want to work hard											JB16G	KA45G					
WHY MATH COURSE THIS YEAR?																	
Need for career						FB3A			HB6A		JB6A		LB6A				
Mother/father recommended						FB3B			HB6B		JB6B		LB6B				
Teacher(s) encourgement						FB3C			HB6C		JB6C		LB6C				
Counselor recommended						FB3D			HB6D		JB6D		LB6D				
Friends are taking						FB3E			HB6E		JB6E		LB6E				
Boy/girlfriend taking						FB3F											
Want high G.P.A.						FB3G			HB6F		JB6F		LB6F				
Course fits my ability						FB3H			HB6G		JB6G		LB6G				
Need for college						FB3I			HB6H		JB6H		LB6H				
Only math available						FB3J			HB6I		JB6I		LB6I				
Fit my schedule						FB3K			HB6J		JB6J		LB6J				
Test score-->take class						FB3L			HB6K		JB6K		LB6K				
Needed to graduate													LB6L				
WHY SCI COURSE THIS YEAR?																	
Need for career						FB2AO			HB3A		JB3A		LB3A				
Mother/father recommended						FB2BO			HB3B		JB3B		LB3B				

LSAY Articulation Chart - Student Variables

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	Summary	Grade7 FALL	Grade7 SPRING	Grade8 FALL	Grade8 SPRING	Grade9 FALL	Grade9 SPRING	Grade10 FALL	Grade10 SPRING	Grade11 FALL	Grade11 SPRING	Grade12 FALL	Grade12 SPRING	P1 SPRING	P2 SPRING	P4 SPRING	2007 SPRING
Teacher(s) encourgement							FB2CO		HB3C		JB3C		LB3C				
Counselor recommended							FB2DO		HB3D		JB3D		LB3D				
Friends are taking							FB2EO		HB3E		JB3E		LB3E				
Boy/girlfriend taking							FB2FO										
Want high G.P.A.							FB2GO		HB3F		JB3F		LB3F				
Course fits my ability							FB2HO		HB3G		JB3G		LB3G				
Need for college							FB2IO		HB3H		JB3H		LB3H				
Only sci. available							FB2JO		HB3I		JB3I		LB3I				
Fit my schedule							FB2KO		HB3J		JB3J		LB3J				
Test score-->take class							FB2LO		HB3K		JB3K		LB3K				
Needed to graduate													LB3L				
CURRENT COURSE INFO.																	
FIRST MATH CLASS																	
Class code		ABMTHA	BBMTHA	CBMTHA	DBMTHA	EBMTHA	FBMTHA	GAMTH1A	HAMTH1A	IAMTH1A	JAMTH1A	KAMTH1A	LAMTH1A				
6/7-digit Class ID		AMTHCLS	BMTHCLS	CMTHCLS	DMTHCLS	EMTHCLS	FMTHCLS	GMTHCLS1	HMTHCLS1	IMTHCLS1	JMTHCLS1	KMTHCLS1	LMTHCLS1				
Teacher code		ABMTHB	BBMTHB	CBMTHB	DBMTHB	EBMTHB	FBMTHB	GAMTH1B	HAMTH1B	IAMTH1B	JAMTH1B	KAMTH1B	LAMTH1B				
5-digit Teacher ID		AMTHTCH	BMTHTCH	CMTHTCH	DMTHTCH	EMTHTCH	FMTHTCH	GMTHTCH1	HMTHTCH1	IMTHTCH1	JMTHTCH1	KMTHTCH1	LMTHTCH1				
Teacher gender		AMTSEX	BMTSEX	CMTSEX	DMTSEX	EMTSEX	FMTSEX	GMT1SEX	HMT1SEX	IMT1SEX	JMT1SEX	KMT1SEX	LMT1SEX				
Like subject		ABMTHC	BBMTHC		DBMTHC	EBMTHC	FBMTHC	GAMTH1C	HAMTH1C	IAMTH1C	JAMTH1C	KAMTH1C	LAMTH1C				
Teacher clarity		ABMTHD	BBMTHD		DBMTHD	EBMTHD	FBMTHD	GAMTH1D	HAMTH1D	IAMTH1D	JAMTH1D	KAMTH1D	LAMTH1D				
Class challenge		ABMTHE	BBMTHE		DBMTHE	EBMTHE	FBMTHE	GAMTH1E	HAMTH1E	IAMTH1E	JAMTH1E	KAMTH1E	LAMTH1E				
Career utility		ABMTHF	BBMTHF		DBMTHF	EBMTHF	FBMTHF	GAMTH1F	HAMTH1F	IAMTH1F	JAMTH1F	KAMTH1F	LAMTH1F				
Text clarity		ABMTHG	BBMTHG		DBMTHG	EBMTHG	FBMTHG	GAMTH1G	HAMTH1G	IAMTH1G	JAMTH1G	KAMTH1G	LAMTH1G				
Class difficulty		ABMTHH	BBMTHH		DBMTHH	EBMTHH	FBMTHH	GAMTH1H	HAMTH1H	IAMTH1H	JAMTH1H	KAMTH1H	LAMTH1H				
Computer use		ABMTHI	BBMTHI		DBMTHI	EBMTHI	FBMTHI	GAMTH1I	HAMTH1I	IAMTH1I	JAMTH1I	KAMTH1I	LAMTH1I				
Hours homework		ABMTHJ	BBMTHJ	CBMTHJ	DBMTHJ	EBMTHJ	FBMTHJ	GAMTH1J	HAMTH1J	IAMTH1J	JAMTH1J	KAMTH1J	LAMTH1J				
Class period		ABMTHK	BBMTHK	CBMTHK	DBMTHK	EBMTHK	FBMTHK	GAMTH1K	HAMTH1K	IAMTH1K	JAMTH1K	KAMTH1K	LAMTH1K				
SECOND MATH CLASS																	
Class code								GAMTH2A	HAMTH2A	IAMTH2A	JAMTH2A	KAMTH2A	LAMTH2A				
7-digit Class ID								GMTHCLS2	HMTHCLS2	IMTHCLS2	JMTHCLS2	KMTHCLS2	LMTHCLS2				
Teacher code								GAMTH2B	HAMTH2B	IAMTH2B	JAMTH2B	KAMTH2B	LAMTH2B				
Like subject								GAMTH2C	HAMTH2C	IAMTH2C	JAMTH2C	KAMTH2C	LAMTH2C				
Teacher clarity								GAMTH2D	HAMTH2D	IAMTH2D	JAMTH2D	KAMTH2D	LAMTH2D				
Class challenge								GAMTH2E	HAMTH2E	IAMTH2E	JAMTH2E	KAMTH2E	LAMTH2E				
Career utility								GAMTH2F	HAMTH2F	IAMTH2F	JAMTH2F	KAMTH2F	LAMTH2F				
Text clarity								GAMTH2G	HAMTH2G	IAMTH2G	JAMTH2G	KAMTH2G	LAMTH2G				
Class difficulty								GAMTH2H	HAMTH2H	IAMTH2H	JAMTH2H	KAMTH2H	LAMTH2H				
Computer use								GAMTH2I	HAMTH2I	IAMTH2I	JAMTH2I	KAMTH2I	LAMTH2I				
Hours homework								GAMTH2J	HAMTH2J	IAMTH2J	JAMTH2J	KAMTH2J	LAMTH2J				
Class period								GAMTH2K	HAMTH2K	IAMTH2K	JAMTH2K	KAMTH2K	LAMTH2K				
FIRST SCIENCE CLASS																	
Class code		ABSCIA	BBSCIA	CBSCIA	DBSCIA	EBSCIA	FBSCIA	GASCI1A	HASCI1A	IASCI1A	JASCI1A	KASCI1A	LASCI1A				
6/7-digit Class ID		ASCICLS	BSCICLS	CSCICLS	DSCICLS	ESCICLS	FSCICLS	GSCICLS1	HSCICLS1	ISCICLS1	JSCICLS1	KSCICLS1	LSCICLS1				
Teacher code		ABSCIB	BBSCIB	CBSCIB	DBSCIB	EBSCIB	FBSCIB	GASCI1B	HASCI1B	IASCI1B	JASCI1B	KASCI1B	LASCI1B				
5-digit Teacher ID		ASCITCH	BSCITCH	CSCITCH	DSCITCH	ESCITCH	FSCITCH	GSCITCH1	HSCITCH1	ISCITCH1	JSCITCH1	KSCITCH1	LSCITCH1				
Teacher gender		ASTSEX	BSTSEX	CSTSEX	DSTSEX	ESTSEX	FSTSEX	GSTSEX	HSTSEX	IST1SEX	JST1SEX	KSTSEX	LSTSEX				
Like subject		ABSCIC	BBSCIC		DBSCIC	EBSCIC	FBSCIC	GASCI1C	HASCI1C	IASCI1C	JASCI1C	KASCI1C	LASCI1C				
Teacher clarity		ABSCID	BBSCID		DBSCID	EBSCID	FBSCID	GASCI1D	HASCI1D	IASCI1D	JASCI1D	KASCI1D	LASCI1D				
Class challenge		ABSCIE	BBSCIE		DBSCIE	EBSCIE	FBSCIE	GASCI1E	HASCI1E	IASCI1E	JASCI1E	KASCI1E	LASCI1E				
Career utility		ABSCIF	BBSCIF		DBSCIF	EBSCIF	FBSCIF	GASCI1F	HASCI1F	IASCI1F	JASCI1F	KASCI1F	LASCI1F				
Text clarity		ABSCIG	BBSCIG		DBSCIG	EBSCIG	FBSCIG	GASCI1G	HASCI1G	IASCI1G	JASCI1G	KASCI1G	LASCI1G				
Class difficulty		ABSCIH	BBSCIH		DBSCIH	EBSCIH	FBSCIH	GASCI1H	HASCI1H	IASCI1H	JASCI1H	KASCI1H	LASCI1H				
Computer use		ABSCII	BBSCII		DBSCII	EBSCII	FBSCII	GASCI1I	HASCI1I	IASCI1I	JASCI1I	KASCI1I	LASCI1I				
Hours homework		ABSCIJ	BBSCIJ	CBSCIJ	DBSCIJ	EBSCIJ	FBSCIJ	GASCI1J	HASCI1J	IASCI1J	JASCI1J	KASCI1J	LASCI1J				
Class period		ABSCIK	BBSCIK	CBSCIK	DBSCIK	EBSCIK	FBSCIK	GASCI1K	HASCI1K	IASCI1K	JASCI1K	KASCI1K	LASCI1K				
SECOND SCIENCE CLASS																	
Class code								GASCI2A	HASCI2A	IASCI2A	JASCI2A	KASCI2A	LASCI2A				
7-digit Class ID								GSCICLS2	HSCICLS2	ISCICLS2	JSCICLS2	KSCICLS2	LSCICLS2				
Teacher code								GASCI2B	HASCI2B	IASCI2B	JASCI2B	KASCI2B	LASCI2B				
Like subject								GASCI2C	HASCI2C	IASCI2C	JASCI2C	KASCI2C	LASCI2C				
Teacher clarity								GASCI2D	HASCI2D	IASCI2D	JASCI2D	KASCI2D	LASCI2D				
Class challenge								GASCI2E	HASCI2E	IASCI2E	JASCI2E	KASCI2E	LASCI2E				

LSAY Articulation Chart - Student Variables

The code for the second letter of variable names: A=both cohorts; B=Cohort Two only; C=Cohort One only   Yellow highlight I need to delete for ICPSR release version 2010 fall

	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
Career utility								GASCI2F	HASCI2F	IASCI2F	JASCI2F	KASCI2F	LASCI2F				
Text clarity								GASCI2G	HASCI2G	IASCI2G	JASCI2G	KASCI2G	LASCI2G				
Class difficulty								GASCI2H	HASCI2H	IASCI2H	JASCI2H	KASCI2H	LASCI2H				
Computer use								GASCI2I	HASCI2I	IASCI2I	JASCI2I	KASCI2I	LASCI2I				
Hours homework								GASCI2J	HASCI2J	IASCI2J	JASCI2J	KASCI2J	LASCI2J				
Class period								GASCI2K	HASCI2K	IASCI2K	JASCI2K	KASCI2K	LASCI2K				
FIRST ENGLISH CLASS																	
Class code		ABENG1A	BBENG1A	CBENG1A	DBENG1A	EBENG1A	FBENG1A	GAENG1A	HAENG1A	IAENG1A	JAENG1A	KAENG1A	LAENG1A				
Like subject		ABENG1C	BBENG1C		DBENG1C	EBENG1C	FBENG1C	GAENG1C	HAENG1C	IAENG1C	JAENG1C	KAENG1C	LAENG1C				
Teacher clarity		ABENG1D	BBENG1D		DBENG1D	EBENG1D	FBENG1D	GAENG1D	HAENG1D	IAENG1D	JAENG1D	KAENG1D	LAENG1D				
Class challenge		ABENG1E	BBENG1E		DBENG1E	EBENG1E	FBENG1E	GAENG1E	HAENG1E	IAENG1E	JAENG1E	KAENG1E	LAENG1E				
Career utility		ABENG1F	BBENG1F		DBENG1F	EBENG1F	FBENG1F	GAENG1F	HAENG1F	IAENG1F	JAENG1F	KAENG1F	LAENG1F				
Text clarity		ABENG1G	BBENG1G		DBENG1G	EBENG1G	FBENG1G	GAENG1G	HAENG1G	IAENG1G	JAENG1G	KAENG1G	LAENG1G				
Class difficulty		ABENG1H	BBENG1H		DBENG1H	EBENG1H	FBENG1H	GAENG1H	HAENG1H	IAENG1H	JAENG1H	KAENG1H	LAENG1H				
Computer use		ABENG1I	BBENG1I		DBENG1I	EBENG1I	FBENG1I	GAENG1I	HAENG1I	IAENG1I	JAENG1I	KAENG1I	LAENG1I				
Hours homework		ABENG1J	BBENG1J	CBENG1J	DBENG1J	EBENG1J	FBENG1J	GAENG1J	HAENG1J	IAENG1J	JAENG1J	KAENG1J	LAENG1J				
SECOND ENGLISH CLASS																	
Class code		ABENG2A	BBENG2A	CBENG2A	DBENG2A	EBENG2A	FBENG2A	GAENG2A	HAENG2A	IAENG2A	JAENG2A	KAENG2A	LAENG2A				
Like subject		ABENG2C	BBENG2C		DBENG2C	EBENG2C	FBENG2C	GAENG2C	HAENG2C	IAENG2C	JAENG2C	KAENG2C	LAENG2C				
Teacher clarity		ABENG2D	BBENG2D		DBENG2D	EBENG2D	FBENG2D	GAENG2D	HAENG2D	IAENG2D	JAENG2D	KAENG2D	LAENG2D				
Class challenge		ABENG2E	BBENG2E		DBENG2E	EBENG2E	FBENG2E	GAENG2E	HAENG2E	IAENG2E	JAENG2E	KAENG2E	LAENG2E				
Career utility		ABENG2F	BBENG2F		DBENG2F	EBENG2F	FBENG2F	GAENG2F	HAENG2F	IAENG2F	JAENG2F	KAENG2F	LAENG2F				
Text clarity		ABENG2G	BBENG2G		DBENG2G	EBENG2G	FBENG2G	GAENG2G	HAENG2G	IAENG2G	JAENG2G	KAENG2G	LAENG2G				
Class difficulty		ABENG2H	BBENG2H		DBENG2H	EBENG2H	FBENG2H	GAENG2H	HAENG2H	IAENG2H	JAENG2H	KAENG2H	LAENG2H				
Computer use		ABENG2I	BBENG2I		DBENG2I	EBENG2I	FBENG2I	GAENG2I	HAENG2I	IAENG2I	JAENG2I	KAENG2I	LAENG2I				
Hours homework		ABENG2J	BBENG2J	CBENG2J	DBENG2J	EBENG2J	FBENG2J	GAENG2J	HAENG2J	IAENG2J	JAENG2J	KAENG2J	LAENG2J				
SOCIAL STUDIES CLASS																	
Class code		ABSSTA	BBSSTA	CBSSTA	DBSSTA	EBSSTA	FBSSTA	GASSTA	HASSTA	IASSTA	JASSTA	KASSTA	LASSTA				
Like subject		ABSSTC	BBSSTC		DBSSTC	EBSSTC	FBSSTC	GASSTC	HASSTC	IASSTC	JASSTC	KASSTC	LASSTC				
Teacher clarity		ABSSTD	BBSSTD		DBSSTD	EBSSTD	FBSSTD	GASSTD	HASSTD	IASSTD	JASSTD	KASSTD	LASSTD				
Class challenge		ABSSTE	BBSSTE		DBSSTE	EBSSTE	FBSSTE	GASSTE	HASSTE	IASSTE	JASSTE	KASSTE	LASSTE				
Career utility		ABSSTF	BBSSTF		DBSSTF	EBSSTF	FBSSTF	GASSTF	HASSTF	IASSTF	JASSTF	KASSTF	LASSTF				
Text clarity		ABSSTG	BBSSTG		DBSSTG	EBSSTG	FBSSTG	GASSTG	HASSTG	IASSTG	JASSTG	KASSTG	LASSTG				
Class difficulty		ABSSTH	BBSSTH		DBSSTH	EBSSTH	FBSSTH	GASSTH	HASSTH	IASSTH	JASSTH	KASSTH	LASSTH				
Computer use		ABSSTI	BBSSTI		DBSSTI	EBSSTI	FBSSTI	GASSTI	HASSTI	IASSTI	JASSTI	KASSTI	LASSTI				
Hours homework		ABSSTJ	BBSSTJ	CBSSTJ	DBSSTJ	EBSSTJ	FBSSTJ	GASSTJ	HASSTJ	IASSTJ	JASSTJ	KASSTJ	LASSTJ				
COMPUTER CLASS																	
Class code		ABCOMA	BBCOMA	CBCOMA	DBCOMA	EBCOMA	FBCOMA	GACOMA	HACOMA	IACOMA	JACOMA	KACOMA	LACOMA				
Like subject		ABCOMC	BBCOMC		DBCOMC	EBCOMC	FBCOMC	GACOMC	HACOMC	IACOMC	JACOMC	KACOMC	LACOMC				
Teacher clarity		ABCOMD	BBCOMD		DBCOMD	EBCOMD	FBCOMD	GACOMD	HACOMD	IACOMD	JACOMD	KACOMD	LACOMD				
Class challenge		ABCOME	BBCOME		DBCOME	EBCOME	FBCOME	GACOME	HACOME	IACOME	JACOME	KACOME	LACOME				
Career utility		ABCOMF	BBCOMF		DBCOMF	EBCOMF	FBCOMF	GACOMF	HACOMF	IACOMF	JACOMF	KACOMF	LACOMF				
Text clarity		ABCOMG	BBCOMG		DBCOMG	EBCOMG	FBCOMG	GACOMG	HACOMG	IACOMG	JACOMG	KACOMG	LACOMG				
Class difficulty		ABCOMH	BBCOMH		DBCOMH	EBCOMH	FBCOMH	GACOMH	HACOMH	IACOMH	JACOMH	KACOMH	LACOMH				
Computer use		ABCOMI	BBCOMI		DBCOMI	EBCOMI	FBCOMI	GACOMI	HACOMI	IACOMI	JACOMI	KACOMI	LACOMI				
Hours homework		ABCOMJ	BBCOMJ	CBCOMJ	DBCOMJ	EBCOMJ	FBCOMJ	GACOMJ	HACOMJ	IACOMJ	JACOMJ	KACOMJ	LACOMJ				
FOREIGN LANGUAGE CLASS																	
Class code		ABFORA	BBFORA	CBFORA	DBFORA	EBFORA	FBFORA	GAFORA	HAFORA	IAFORA	JAFORA	KAFORA	LAFORA				
Like subject		ABFORC	BBFORC		DBFORC	EBFORC	FBFORC	GAFORC	HAFORC	IAFORC	JAFORC	KAFORC	LAFORC				
Teacher clarity		ABFORD	BBFORD		DBFORD	EBFORD	FBFORD	GAFORD	HAFORD	IAFORD	JAFORD	KAFORD	LAFORD				
Class challenge		ABFORE	BBFORE		DBFORE	EBFORE	FBFORE	GAFORE	HAFORE	IAFORE	JAFORE	KAFORE	LAFORE				
Career utility		ABFORF	BBFORF		DBFORF	EBFORF	FBFORF	GAFORF	HAFORF	IAFORF	JAFORF	KAFORF	LAFORF				
Text clarity		ABFORG	BBFORG		DBFORG	EBFORG	FBFORG	GAFORG	HAFORG	IAFORG	JAFORG	KAFORG	LAFORG				
Class difficulty		ABFORH	BBFORH		DBFORH	EBFORH	FBFORH	GAFORH	HAFORH	IAFORH	JAFORH	KAFORH	LAFORH				
Computer use		ABFORI	BBFORI		DBFORI	EBFORI	FBFORI	GAFORI	HAFORI	IAFORI	JAFORI	KAFORI	LAFORI				
Hours homework		ABFORJ	BBFORJ	CBFORJ	DBFORJ	EBFORJ	FBFORJ	GAFORJ	HAFORJ	IAFORJ	JAFORJ	KAFORJ	LAFORJ				
ART CLASS																	
Class code		ABARTA	BBARTA	CBARTA	DBARTA	EBARTA	FBARTA	GAARTA	HAARTA	IAARTA	JAARTA	KAARTA	LAARTA				
Like subject		ABARTC	BBARTC		DBARTC	EBARTC	FBARTC	GAARTC	HAARTC	IAARTC	JAARTC	KAARTC	LAARTC				
Teacher clarity		ABARTD	BBARTD		DBARTD	EBARTD	FBARTD	GAARTD	HAARTD	IAARTD	JAARTD	KAARTD	LAARTD				

LSAY Articulation Chart - Student Variables

The code for the second letter of variable names: A=both cohorts; B=Cohort Two only; C=Cohort One only Yellow highlight I need to delete for ICPSR release version 2010 fall

	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
Class challenge		ABARTE	BBARTE		DBARTE	EBARTE	FBARTE	GAARTE	HAARTE	IAARTE	JAARTE	KAARTE	LAARTE				
Career utility		ABARTF	BBARTF		DBARTF	EBARTF	FBARTF	GAARTF	HAARTF	IAARTF	JAARTF	KAARTF	LAARTF				
Text clarity		ABARTG	BBARTG		DBARTG	EBARTG	FBARTG	GAARTG	HAARTG	IAARTG	JAARTG	KAARTG	LAARTG				
Class difficulty		ABARTH	BBARTH		DBARTH	EBARTH	FBARTH	GAARTH	HAARTH	IAARTH	JAARTH	KAARTH	LAARTH				
Computer use		ABARTI	BBARTI		DBARTI	EBARTI	FBARTI	GAARTI	HAARTI	IAARTI	JAARTI	KAARTI	LAARTI				
Hours homework		ABARTJ	BBARTJ	CBARTJ	DBARTJ	EBARTJ	FBARTJ	GAARTJ	HAARTJ	IAARTJ	JAARTJ	KAARTJ	LAARTJ				
MUSIC/DANCE CLASS																	
Class code		ABMUSA	BBMUSA	CBMUSA	DBMUSA	EBMUSA	FBMUSA	GAMUSA	HAMUSA	IAMUSA	JAMUSA	KAMUSA	LAMUSA				
Like subject		ABMUSC	BBMUSC		DBMUSC	EBMUSC	FBMUSC	GAMUSC	HAMUSC	IAMUSC	JAMUSC	KAMUSC	LAMUSC				
Teacher clarity		ABMUSD	BBMUSD		DBMUSD	EBMUSD	FBMUSD	GAMUSD	HAMUSD	IAMUSD	JAMUSD	KAMUSD	LAMUSD				
Class challenge		ABMUSE	BBMUSE		DBMUSE	EBMUSE	FBMUSE	GAMUSE	HAMUSE	IAMUSE	JAMUSE	KAMUSE	LAMUSE				
Career utility		ABMUSF	BBMUSF		DBMUSF	EBMUSF	FBMUSF	GAMUSF	HAMUSF	IAMUSF	JAMUSF	KAMUSF	LAMUSF				
Text clarity		ABMUSG	BBMUSG		DBMUSG	EBMUSG	FBMUSG	GAMUSG	HAMUSG	IAMUSG	JAMUSG	KAMUSG	LAMUSG				
Class difficulty		ABMUSH	BBMUSH		DBMUSH	EBMUSH	FBMUSH	GAMUSH	HAMUSH	IAMUSH	JAMUSH	KAMUSH	LAMUSH				
Computer use		ABMUSI	BBMUSI		DBMUSI	EBMUSI	FBMUSI	GAMUSI	HAMUSI	IAMUSI	JAMUSI	KAMUSI	LAMUSI				
Hours homework		ABMUSJ	BBMUSJ	CBMUSJ	DBMUSJ	EBMUSJ	FBMUSJ	GAMUSJ	HAMUSJ	IAMUSJ	JAMUSJ	KAMUSJ	LAMUSJ				
VOCATIONAL/BUSINESS CLASS																	
Class code		ABVOCA	BBVOCA	CBVOCA	DBVOCA	EBVOCA	FBVOCA	GAVOCA	HAVOCA	IAVOCA	JAVOCA	KAVOCA	LAVOCA				
Like subject		ABVOCC	BBVOCC		DBVOCC	EBVOCC	FBVOCC	GAVOCC	HAVOCC	IAVOCC	JAVOCC	KAVOCC	LAVOCC				
Teacher clarity		ABVOCD	BBVOCD		DBVOCD	EBVOCD	FBVOCD	GAVOCD	HAVOCD	IAVOCD	JAVOCD	KAVOCD	LAVOCD				
Class challenge		ABVOCE	BBVOCE		DBVOCE	EBVOCE	FBVOCE	GAVOCE	HAVOCE	IAVOCE	JAVOCE	KAVOCE	LAVOCE				
Career utility		ABVOCF	BBVOCF		DBVOCF	EBVOCF	FBVOCF	GAVOCF	HAVOCF	IAVOCF	JAVOCF	KAVOCF	LAVOCF				
Text clarity		ABVOCG	BBVOCG		DBVOCG	EBVOCG	FBVOCG	GAVOCG	HAVOCG	IAVOCG	JAVOCG	KAVOCG	LAVOCG				
Class difficulty		ABVOCH	BBVOCH		DBVOCH	EBVOCH	FBVOCH	GAVOCH	HAVOCH	IAVOCH	JAVOCH	KAVOCH	LAVOCH				
Computer use		ABVOCI	BBVOCI		DBVOCI	EBVOCI	FBVOCI	GAVOCI	HAVOCI	IAVOCI	JAVOCI	KAVOCI	LAVOCI				
Hours homework		ABVOCJ	BBVOCJ	CBVOCJ	DBVOCJ	EBVOCJ	FBVOCJ	GAVOCJ	HAVOCJ	IAVOCJ	JAVOCJ	KAVOCJ	LAVOCJ				
COURSES PREVIOUSLY TAKEN:																	
Advanced English								GB28A		IC7A							
Advanced math								GB28B		IC7B							
Advanced science								GB28C		IC7C							
Bilingual/bicultural								GB28D		IC7D							
Gifted/talented courses								GB28E		IC7E							
ESL (English 2nd lang.)								GB28F		IC7F							
Remedial English								GB28G		IC7G							
Remedial math								GB28H		IC7H							
Educationally handicapped								GB28I		IC7I							
Physically handicapped								GB28J		IC7J							
EXPECTED 9TH GRADE COURSES																	
No math					DB3A1												
General/Basic Math					DB3B1												
Consumer Math					DB3C1												
Pre-Algebra					DB3D1												
Algebra (1st year)					DB3E1												
Algebra (2nd year)					DB3F1												
Geometry					DB3G1												
Other Advanced Math					DB3H1												
Don't know					DB3I1												
9TH GRADE COURSES TAKEN																	
Algebra									HC1A								
Geometry									HC1B								
Biology									HC1C								
Physical Science									HC1D								
General/Basic Math									HC1E								
General/Basic Science									HC1F								
WHY CHOOSE ABOVE COURSES:																	
Need for career					DB4A												
Mother/Father wants it					DB4B												
Teacher encourages it					DB4C												
Counselor recommends it					DB4D												
Most friends taking it					DB4E												

LSAY Articulation Chart - Student Variables

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	Summary	Grade7 FALL	Grade7 SPRING	Grade8 FALL	Grade8 SPRING	Grade9 FALL	Grade9 SPRING	Grade10 FALL	Grade10 SPRING	Grade11 FALL	Grade11 SPRING	Grade12 FALL	Grade12 SPRING	P1 SPRING	P2 SPRING	P4 SPRING	2007 SPRING
Boy/Girlfriend taking					DB4F												
Want high GPA					DB4G												
Fits ability level					DB4H												
Need it for college					DB4I												
Only course available					DB4J												
Fits into course schedule					DB4K												
Placement scores indicate					DB4L												
Absences this year				DB17			FB19		HB18		JA20		LA18				
Educ. degrees expected		AB11	BB14	CB14	DB4	EB15	FB3	GA16	HA19	IA16	JA25	KA27	LA17	NA166	OC167	QC166	
Certainty of education level														NB167			
EXPECTATIONS FOR R AFTER																	
HIGH SCHOOL:																	
Father			BB16A		DB7A		FB7A		HA22A		JA28A		LA26A				
Mother			BB16B		DB7B		FB7B		HA22B		JA28B		LA26B				
Teachers			BB16C		DB7C		FB7C		HA22C		JA28C		LA26C				
Friends			BB16D		DB7D		FB7D		HA22D		JA28D		LA26D				
Students			SEDPL7		SEDPL8		SEDPL9		SEDPL10		SEDPL11		SEDPL12				
NOT PLANNING COLLEGE																	
Can't afford it				CB1A1		EB1AO		GB19A		IA21D		KA17D					
Not capable of college				CB1B1		EB1BO		GB19B		IA21C		KA17C					
Don't need college				CB1C1		EB1CO		GB19C		IA21B		KA17B					
Not interested										IA21A		KA17A					
Want to get married										IA21E		KA17E					
Not sure of plans yet										IA21F		KA17F					
Parents object										IA21G		KA17G					
Stay home to help family										IA21H		KA17H					
Family business; no need										IA21I		KA17I					
PLAN TO DELAY COLLEGE																	
Need to save money										IA22A		KA18A					
Not ready to attend										IA22B		KA18B					
Not yet capable										IA22C		KA18C					
Need to make up courses										IA22D		KA18D					
Parents need help at home										IA22E		KA18E					
Family financial help										IA22F		KA18F					
Don't want to go away										IA22G		KA18G					
Need time to plan life										IA22H		KA18H					
Travel for a year first										IA22I		KA18I					
Other activity planned										IA22J		KA18J					
PLAN TO ATTEND COLLEGE																	
For better job				CB17A		EB17A		GB18A		IA23A		KA19A	LA19A				
Gain education/ideas				CB17B		EB17B		GB18B		IA23B		KA19B	LA19B				
Improve skills				CB17C		EB17C		GB18C		IA23C		KA19C	LA19C				
Nothing better to do				CB17D		EB17D		GB18D		IA23D		KA19D	LA19D				
Make me more cultured				CB17E		EB17E		GB18E		IA23E		KA19E	LA19E				
To make more money				CB17F		EB17F		GB18F		IA23F		KA19F	LA19F				
Learn things of interest				CB17G		EB17G		GB18G		IA23G		KA19G	LA19G				
Prepare for grad school				CB17H		EB17H		GB18H		IA23H		KA19H	LA19H				
Parents want me to go				CB17I		EB17I		GB18I		IA23I		KA19I	LA19I				
Probably find no job				CB17J		EB17J		GB18J		IA23J		KA19J	LA19J				
To get away from home				CB17K		EB17K		GB18K		IA23K		KA19K	LA19K				
PLANS TO TAKE TESTS:																	
SAT										IC1A	JB17A	KA6A					
ACT										IC1B	JB17B	KA6B					
ASVAB										IC1C	JB17C	KA6C					
TO PREPARE FOR COLLEGE, I																	
Looked at catalogues											JB23A	KA21A	LA20A				
Visited campuses											JB23B	KA21B	LA20B				
Chose college											JB23C	KA21C	LA20C				

LSAY Articulation Chart - Student Variables

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	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
Chose major										JB23D	KA21D	LA20D					
Talked with rep.										JB23E	KA21E	LA20E					
Talked to college students										JB23F	KA21F	LA20F					
Am looking for more info.										JB23G	KA21G	LA20G					
Expected college major									IB24		KA20	LA21					
Sure of college choice?											KC20B	LA23					
IMPORT. IN COLLEGE CHOICE																	
College expenses											KC7A	LA24A					
Availability--financial aid											KC7B	LA24B					
Availability--curriculum											KC7C	LA24C					
Reputation--academic											KC7D	LA24D					
Reputation--athletics											KC7E	LA24E					
Social life at college											KC7F	LA24F					
Ability to live at home											KC7G	LA24G					
Friends attending											KC7H	LA24H					
Relatives have attended											KC7I	LA24I					
INFLUENCE ON COLL. CHOICE																	
Mother											KC8A	LA25A					
Father											KC8B	LA25B					
Sibling											KC8C	LA25C					
Other relative											KC8D	LA25D					
A teacher											KC8E	LA25E					
A school counselor											KC8F	LA25F					
Friends											KC8G	LA25G					
What I have read											KC8H	LA25H					
Ability to finance college				CB18						IA25							
Educ. needed for 1st job		BB23		DB13	EB23	FB15	GB25	HA14	IA31	JA14	KA34	LA15				
Sure of H.S. graduation?				CB15						IC15							
Sure of higher education?				CB16		EB16		GB17		IA17		KA28					
MATH NEEDED FOR 1st JOB:																	
None, I don't need any for this job		BB24A		DB14A	EB2EO	FB16A	GB26E	HA15A	IA32E	JC14A	KB35E	LC16A				
Geometry		BB24B		DB14B	EB2AO	FB16B	GB26A	HA15B	IA32A	JC14B	KB35A	LC16B				
Algebra		BB24C		DB14C	EB2BO	FB16C	GB26B	HA15C	IA32B	JC14C	KB35B	LC16C				
Trignometry		BB24D		DB14D	EB2CO	FB16D	GB26C	HA15D	IA32C	JC14D	KB35C	LC16D				
Calculus		BB24E		DB14E	EB2DO	FB16E	GB26D	HA15E	IA32D	JC14E	KB35D	LC16E				
I am not sure		BB24F		DB14F	EB2FO	FB16F	GB26F	HA15F	IA32F	JC14F	KB35F	LC16F				
SCIENCE NEEDED FOR 1st JOB:																	
None, I don't need any for this job		BB25A		DB15A	EB3D	FB17A	GB27D	HA16A	IA33D	JC15A	KB36D	LC17A				
Biology		BB25B		DB15B	EB3A	FB17B	GB27A	HA16B	IA33A	JC15B	KB36A	LC17B				
Chemistry		BB25C		DB15C	EB3B	FB17C	GB27B	HA16C	IA33B	JC15C	KB36B	LC17C				
Physics		BB25D		DB15D	EB3C	FB17D	GB27C	HA16D	IA33C	JC15D	KB36C	LC17D				
I am not sure		BB25E		DB15E	EB3E	FB17E	GB27E	HA16E	IA33E	JC15E	KB36E	LC17E				
COLLEGE ENROLLMENT																	
Post-secondary education													NA2	OC2	QC2	
Recodes of "Others" in QC2															QC2A	
Full-time/part-time student													NA6	OC8	QC6	
Degree-granting program													NA7	OC9	QC7O	
Recodes of "Others" degree granting program													NB7A		QC7AO	
Expected graduation date													NA9	OC11	QC9	
Major field													NA10	OC12	QC10	
Likelihood to graduate with major													NA11	OC13		
Expect to have minor/second major													NA12	OC14	QC12	
Minor/second major													NA13	OC15	QC13	
Satisfied with college													NA17	OC17	QC17	
Who selected college													NA18	OC18		
College term system													NA24	OC24	QC24	
Length of regular term													NA25	OC25		
Enrolled in Fall of last year													NA26	OC6	QC7	
Enrolled in Fall of this year														OC7	QC26	

LSAY Articulation Chart - Student Variables

	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
COMMUNITY COLLEGE																	
Reason for taking comm college courses																	R28
Enrolled in 1 or more comm colleges																	R29
Year of first CC enrollment																	R31B
Take math, sci, or tech courses since leaving HS																	R32
Bio or life sciences courses																	
N of semesters																	R33A
N of quarters																	R33B
Chemistry courses																	
N of semesters																	R34A
N of quarters																	R34B
Physics, Astronomy, or other physical sci																	
N of semesters																	R35A
N of quarters																	R35B
Geology or earth sci																	
N of semesters																	R36A
N of quarters																	R36B
Other Science																	
N of semesters																	R37A
N of quarters																	R37B
Undergrad Math																	
N of semesters																	R38A
N of quarters																	R38B
Most advance math course: coded																	R39
Tech courses																	
N of semesters																	R40A
N of quarters																	R40B
Area(s) of tech courses taken																	R41A-R41C
Major field of study when first enrolled: coded																	R42
Major field of study when last enrolled: coded																	R43
N of AA/AS degrees																	R44
Major field of study for only degree: coded																	R45
Yr degree obtained																	R46
Quality of academic program																	R48A
Accessibility of Faculty																	R48B
Quality of prep for current occupation																	R48C
Quality of prep for baccalaureate																	R48D
Opportunity meet and work w/ other students																	R48E
Overall quality of education																	R48F
Major field of study for first degree: coded																	R49
Yr degree obtained																	R50
Quality of academic program																	R51BA
Accessibility of Faculty																	R51BB
Quality of prep for current occupation																	R51BC
Quality of prep for baccalaureate																	R51BD
Opportunity meet and work w/ other students																	R51BE
Overall quality of education																	R51BF
Major field of study for 2nd degree: coded																	R52
Yr degree obtained																	R53
Quality of academic program																	R55A
Accessibility of Faculty																	R55B
Quality of prep for current occupation																	R55C
Quality of prep for baccalaureate																	R55D
Opportunity meet and work w/ other students																	R55E
Overall quality of education																	R55F
Major field for most recent degree: coded																	R56
Yr degree obtained																	R57
Quality of academic program																	R59A
Accessibility of Faculty																	R59B
Quality of prep for current occupation																	R59C
Quality of prep for baccalaureate																	R59D
Opportunity meet and work w/ other students																	R59E
Overall quality of education																	R59F
4-YEAR COLLEGE OR UNIVERSITY																	

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	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
Have you enrolled since leaving HS																	R60
1st Institution																	
Yr of enrollment																	R61
Major/Field:coded																	R63
Full- or Part-time student																	R64
N of semesters																	R65A
N of quarters																	R65B
Quality of academic program																	R66A
Accessibility of faculty																	R66B
Quality of prep for current occupation																	R66C
Quality prep for add'l grad/professional study																	R66D
Opportunity meet and work w/ other students																	R66E
Earn baccalaureate degree																	R67
1st degree field																	R68A
2nd degree field																	R68B
Additional description of degree field (coded)																	R69
Year degree received																	R70
Reason for leaving (coded)																	R71
2nd Institution																	
Yr of enrollment																	R72
Major/Field:coded																	R74
Full- or Part-time student																	R75
N of semesters																	R76A
N of quarters																	R76B
Quality of academic program																	R77A
Accessibility of faculty																	R77B
Quality of prep for current occupation																	R77C
Quality prep for add'l grad/professional study																	R77D
Opportunity meet and work w/ other students																	R77E
Earn baccalaureate degree																	R78
1st degree field																	R79A
2nd degree field																	R79B
Additional description of degree field (coded)																	R80
Year degree received																	R81
Reason for leaving (coded)																	R82
3rd Institution																	
Yr of enrollment																	R83
Major/Field:coded																	R85
Full- or Part-time student																	R86
N of semesters																	R87A
N of quarters																	R87B
Quality of academic program																	R88A
Accessibility of faculty																	R88B
Quality of prep for current occupation																	R88C
Quality of prep add'l grad/professional study																	R88D
Opportunity meet and work w/ other students																	R88E
Earn baccalaureate degree																	R89
1st degree field																	R90A
2nd degree field																	R90B
Additional description of degree field (coded)																	R91
Year degree received																	R92
Reason for leaving (coded)																	R93
Most recent Institution																	
Yr of enrollment																	R94
Major/Field:coded																	R96
Full- or Part-time student																	R97
N of semesters																	R98A
Quality of academic program																	R99A
Accessibility of faculty																	R99B
Quality of prep for current occupation																	R99C
Quality of prep add'l grad/professional study																	R99D
Opportunity meet and work w/ other students																	R99E
Earn baccalaureate degree																	R100
1st degree field																	R101A
2nd degree field																	R101B
Year degree received																	R103

LSAY Articulation Chart - Student Variables

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	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
Courses taken at a 4-yr college/univ																	
Bio or life sciences																	
N of semesters																	R104A
N of quarters																	R104B
Chemistry																	
N of semesters																	R105A
N of quarters																	R105B
Physics, Astronomy, or other physical sci																	
N of semesters																	R106A
N of quarters																	R106B
Geology or Earth sci																	
N of semesters																	R107A
N of quarters																	R107B
Other sci																	
N of semesters																	R108A
N of quarters																	R108B
Total Math																	
N of semesters																	R109A
N of quarters																	R109B
Calculus or higher																	
N of semesters																	R111A
N of quarters																	R111B
Taken advanced math course since HS																	R110
Enigneering and tech																	
N of semesters																	R112A
N of quarters																	R112B
Aerospace or Aeronautical Engineering																	
N of semesters																	R113A1
N of quarters																	R113A2
Biomed Engineering																	
N of semesters																	R113B1
N of quarters																	R113B2
Chemical Engineering																	
N of semesters																	R113C1
N of quarters																	R113C2
Civil Engineering																	
N of semesters																	R113D1
N of quarters																	R113D2
Electrical Engineering																	
N of semesters																	R113E1
N of quarters																	R113E2
Industrial/Manufacturing Engineering																	
N of semesters																	R113F1
N of quarters																	R113F2
Mechanical Engineering																	
N of semesters																	R113G1
N of quarters																	R113G2
Metallurgical/Material Engineering																	
N of semesters																	R113H1
N of quarters																	R113H2
All other engineering																	
N of semesters																	R113I1
N of quarters																	R113I2
EDUCATIONAL ASSISTANCE																	
Participant in edu support or assistance programs																	R114
N of institutions participated at																	R115
First Program:																	
Program description: coded																	R118
N of semesters																	R119A
N of quarters																	R119B
Usefulness of program																	R120
Second Program:																	
Program description: coded																	R123
N of semesters																	R124A
N of quarters																	R124B

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		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
Usefulness of program																	R125
Third Program:																	
Program description: coded																	R128
N of semesters																	R129A
N of quarters																	R129B
Usefulness of program																	R130
Research with professor(s)																	R131
Kind of research experiences																	R132
GRADUATE SCHOOL PLANS																	
Grad or Professional school																QC80O	
Type of Grad degree																QC81	
Grad field of study																QC82O	
GRADUATE OR PROFESSIONAL SCHOOL																	
N enrolled in for at least one semester																	R133
1st University																	
Year of enrollment																	R134
Expected degree																	R136
Degree description (coded)																	R137
Field of enrolled degree (coded)																	R138
Full- or part-time student																	R139
N of semesters																	R140A
N of quarters																	R140B
Quality of academic program																	R141A
Accessibility of faculty																	R141B
Quality of prep for current occupation																	R141C
Quality of prep for add'l grad/professional study																	R141D
Opportunity to meet/work w/ other students																	R141E
Degree earned																	R142
Degree received																	R143A
1st degree field																	R144A
2nd degree field																	R144B
Additional degree field																	R145
Year degree earned																	R146A
Work as post-doctoral fellow																	R147
More than one post-doctoral fellowship																	R148
Years																	R150A
Months																	R150B
Currently hold a post-doctrate fellowship																	R151A
If med degree, work as intern or resident																	R152
Year began residency																	R153
Currently serving in a med residency																	R154
Years																	R155A
Months																	R155B
Passed specialty boards																	R157
If law degree, passed bar exam																	R158
2nd University																	
Year of enrollment																	R159
Expected degree																	R161
Other Degree expected																	R162
Field of enrolled degree (coded)																	R163
Full- or part-time student																	R164
N of semesters																	R165A
N of quarters																	R165B
Quality of academic program																	R166A
Accessibility of faculty																	R166B
Quality of prep for current occupation																	R166C
Quality of prep for add'l grad/professional study																	R166D
Opportunity to meet/work w/ other students																	R166E
Degree earned																	R167
Degree received																	R168A
1st degree field																	R169A
2nd degree field																	R169B
Additional degree field																	R170
Year degree earned																	R171

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	Summary	Grade7 FALL	Grade7 SPRING	Grade8 FALL	Grade8 SPRING	Grade9 FALL	Grade9 SPRING	Grade10 FALL	Grade10 SPRING	Grade11 FALL	Grade11 SPRING	Grade12 FALL	Grade12 SPRING	P1 SPRING	P2 SPRING	P4 SPRING	2007 SPRING
Work as post-doctoral fellow																	R172
More than one post-doctoral fellowship																	R173
Years																	R175A
Months																	R175B
Currently hold a post-doctrate fellowship																	R176A
If med degree, work as intern or resident																	R177
Year began residency																	R178
Currently serving in a med residency																	R179
Years																	R180A
Months																	R180B
Passed specialty boards																	R182
If law degree, passed bar exam																	R183
3rd University																	
Year of enrollment																	R184
Expected degree																	R186
Field of enrolled degree (coded)																	R188
Full- or part-time student																	R189
N of semesters																	R190A
N of quarters																	R190B
Quality of academic program																	R191A
Accessibility of faculty																	R191B
Quality of prep for current occupation																	R191C
Quality of prep for add'l grad/professional study																	R191D
Opportunity to meet/work w/ other students																	R191E
Degree earned																	R192
Degree received																	R193A
1st degree field																	R194A
2nd degree field																	R194B
Additional degree field																	R195
Year degree earned																	R196
Work as post-doctoral fellow																	R197
If law degree, passed bar exam																	R208
4th University																	
Year of enrollment																	R209
Expected degree																	R211
Field of enrolled degree (coded)																	R213
Full- or part-time student																	R214
N of semesters																	R215A
N of quarters																	R215B
Quality of academic program																	R216A
Accessibility of faculty																	R216B
Quality of prep for current occupation																	R216C
Quality of prep for add'l grad/professional study																	R216D
Opportunity to meet/work w/ other students																	R216E
Degree earned																	R217
Degree received																	R218A
1st degree field																	R219A
2nd degree field																	R219B
Year degree earned																	R221
5th University																	
Year of enrollment																	R234
Expected degree																	R236
Field of enrolled degree (coded)																	R238
Full- or part-time student																	R239
N of semesters																	R240A
Quality of academic program																	R241A
Accessibility of faculty																	R241B
Quality of prep for current occupation																	R241C
Quality of prep for add'l grad/professional study																	R241D
Opportunity to meet/work w/ other students																	R241E
Degree earned																	R242
6th University																	
Year of enrollment																	R259
Expected degree																	R261
Other Degree expected																	R262
Full- or part-time student																	R264

LSAY Articulation Chart - Student Variables

	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
N of semesters																	R265A
Degree earned																	R267
CURRENT STATUS																	
Work full-/part-time for pay																	R283A
Taking vocation/tech courses																	R283B
Taking courses at 2-yr/4-yr college																	R283C
Field of study: coded																	R316
Expect to earn a degree																	R317
Degree expected																	R318
Other degree expected																	R319
Year expected to receive degree																	R320
Taking courses at grad/professional level																	R283D
Field of study: coded																	R321
Expect to earn a degree																	R322
Degree expected																	R323
Year expected to receive degree																	R324
Enrolled in an educational program																	
Part time/ full time																	
Expected degree/ certificate																	
Other degree																	
Major																	
Apprenticeship or gov't training																	R283E
Active duty in Armed Forces																	R283F
Homemaker																	R283G
Temp layoff																	R283H
Looking for work																	R283I
None of the above																	R283J
K-12: teacher, sub, counselor or admin																	R284
Teaching level																	R285
Subjects currently teaching																	
Bio or life sciences																	R286A
Chemistry																	R286B
Physics or physical sciences																	R286C
Earth science																	R286D
Other science																	R286E
Middle-school math																	R286F
Algebra																	R286G
Geometry																	R286H
Calculus																	R286I
Probability or stats																	R286J
Other math																	R286K
Eng writing or literature																	R286L
History																	R286M
Gov't, econ, or social studies																	R286N
Foreign language																	R286O
Art																	R286P
Music																	R286Q
Computer skills																	R286R
Other tech courses																	R286S
Course not listed																	R286T
Year began teaching																	R287
Continue teaching																	R288
Teacher/professor at PS school, college or univ																	R289
Teaching level																	
PS trade or vocational school/program																	R290A
Non-degree adult education																	R290B
Community college																	R290C
Baccalaureate-granting college/univ																	R290D
Doctoral-granting college/univ																	R290E
Law school																	R290F
Medical school																	R290G
Other PS school, college or univ																	R290H
Teaching field/discipline																	R292
Year began teaching																	R293
Continue teaching																	R294

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	Summary	Grade7 FALL	Grade7 SPRING	Grade8 FALL	Grade8 SPRING	Grade9 FALL	Grade9 SPRING	Grade10 FALL	Grade10 SPRING	Grade11 FALL	Grade11 SPRING	Grade12 FALL	Grade12 SPRING	P1 SPRING	P2 SPRING	P4 SPRING	2007 SPRING
More than one job																	R295
N of jobs																	R296
Current occupation coded																	R297
Description of current employer																	R299
Year began current job																	R300
Continue with current job																	R301
Unemployed																	
Held job since HS																	R302
Last occupation																	R303
Description of last employer																	R305
Year began last job																	R306
Year left last job																	R307
HEALTH AND OCCUPATION																	
Personal health rating																	R20
Kinds of work limited due to health																	R21
Amount of work limited due to health																	R22
Year limitation began																	R23
Health condition																	R24
SPOUSE'S CURRENT STATUS																	
Work full-/part-time for pay																	R308A
Taking vocation/tech courses																	R308B
Taking courses at 2-yr/4-yr college																	R308C
Apprenticeship or gov't training																	R308D
Active duty in Armed Forces																	R308E
Homemaker																	R308F
Temp layoff																	R308G
Looking for work																	R308H
None of the above																	R308I
Occupation																	R309
Description of current employer																	R311
Highest level of education completed																	R312
Year received first/only baccalaureate degree																	R313
1st degree field																	R314A
2nd degree field																	R314B
MILITARY SERVICE																	
Served in National Guard																QC176O	R14
Served on active duty																QC177O	R15
N of years of active duty																	R17
Year begun active duty																	R18
Served in Special Ops overseas																QC178O	R16
Training helpful with job																	R19
PSE: MATH																	
LAST FALL																	
Took math course														NB28			
Took other math courses														NB32			
FIRST FALL COURSE																	
Name														NA29	OC28		
Required/gen ed/elective														NA30	OC30		
Grade														NA31	OC31		
SECOND FALL COURSE																	
Name														NA33	OC32		
Required/gen ed/elective														NA34	OC34		
Grade														NA35	OC35		
THIS TERM																	
Took math courses														NB36			
Took other math courses														NB42			
FIRST COURSE SPRING																	
Name														NA37	OC36		

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Required/gen ed/elective														NA38	OC38		
SECOND COURSE SPRING																	
Name														NA43	OC42		
Required/gen ed/elective														NA44	OC44		
No. of math courses to take														NA45	OC45	QC45	
No. of math courses required														NA46	OC46	QC46	
HS math preparation														NA47	OC47	QC47	
Current total math courses																QC29	
No. Calculus courses																QC30	
Highest math course																QC31	
Orientation of calculus																QC32	
Post-calculus courses																QC33	
Math study group participation																QC34	
Study group meeting frequency																QC35	
Number math study groups																QC36	
Calculator use H.S. math																QC40	
Usefulness calculator H.S.																QC41	
Graphing calculator use																QC42	
PSE:SCIENCE																	
FIRST COURSE IN FALL																	
Name														NA48	OC48		
Required/gen ed/elective														NA50	OC50		
Grade														NA51	OC51		
Laboratory period														NA52	OC52		
SECOND COURSE IN FALL																	
Name														NA54	OC54		
Required/gen ed/elective														NA56	OC56		
Grade														NA57	OC57		
FIRST COURSE IN SPRING																	
Name														NA58	OC58		
Required/gen ed/elective														NA60	OC60		
SECOND COURSE IN SPRING																	
Name														NA61	OC61		
Required/gen ed/elective														NA63	OC63		
Science study group participation														NA64	OC64	QC64	
Study group meeting frequency														NA65	OC65	QC65	
No. oc sciences courses having study group																QC51	
No. of science courses to take														NA66	OC66	QC66	
No. of science courses required														NA67	OC67	QC67	
HS science preparation														NA68	OC68	QC68	
Current total science courses																QC45O	
Biology taken																QC46O	
Chemistry taken																QC47O	
Physics taken																QC48	
Number science study groups																	
PSE FOREIGN LANGUAGE																	
FIRST FOR LANG. COURSE																	
Language name														NA69	OC69	QC58	
No. of courses you will take														NA71	OC71	QC60	
No. of courses you have taken																QC57	
Took this language in HS														NA72	OC72	QC72	
HS for. lang. preparation														NA73	OC73	QC73	
No. of for. lang. courses required														NA74	OC74	QC74	
No. of for. lang. courses will take														NA75	OC75	QC75	
Second for. lang. taken this year														NA78	OC78	QC61	
No. of course in 2nd for. Lang																QC63	
Speak or read any other for. lang.														NA80	OC80	QC80	
How was other lang. learned														NA82	OC82	QC82	
No. of for. lang. classes in college																QC56	

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PSE: GPA																	
No. of courses completed in fall														NA83	OC83		
Fall GPA														NA84	OC84		
Cumulative GPA																QC76	
GPA Scale														NA85	OC85	QC85	
Standardized GPA														NC85S	OC85S		
PSE: HOUSING																	
Living with parents														NB87			
College housing														NA88	OC88	QC88	
How far away from HS home														NA89	OC89		
COLLEGE COMPUTER USE																	
Have computer at college														NA206	OC205	QC206	
Use computer for school														NA207	OC201	QC207	
Use computer math/science														NB212		QC212	
JOB YOU ARE LOOKING FOR																	
Looking for a job														NA91	OC91	QC91	
Census occupation code														NA92	OC92	QC92	
FIRST JOB FOR PAY																	
Working for pay														NA90	OC90	QC90	
Census occupation code														NA93	OC93	QC93	
Work hours per week														NA94	OC94	QC94	
How long have you held it														NA95	OC95	QC95	
Career or just for income														NA96	OC96		
Career or school job														NC98	OC98		
Rate like/dislike this job														NA100	OC100	QC100	
Rate HS preparation for this job														NA101	OC101		
Did HS courses prepare														NC104	OC104		
HS course job prep: most useful															OC105		
Was 2nd HS course helpful														NC106	OC106		
HS course job prep: 2nd most useful															OC107		
Was 3rd HS course helpful														NC108	OC108		
HS course job prep: 3rd most useful															OC109		
Computer requirement														NA110	OC110	QC110	
Computer usage														NA111	OC111	QC111	
Math requirement														NC113	OC113	QC134	
Rate HS math preparation														NC115	OC115		
Science requirement														NC118	OC118	QC139	
Rate HS science preparation														NC120	OC120		
SECOND JOB FOR PAY																	
Another job for pay														NA121	OC121	QC121	
Census occupation code														NA122	OC122	QC122	
Work hours per week														NA123	OC123	QC123	
How long have you held it														NA124	OC124		
Career or just income														NC125	OC125		
Career or school job														NC127	OC127		
Computer requirement														NA130	OC130	QC130	
Computer usage														NA132	OC132	QC132	
Rate like/dislike this job														NC134	OC134		
Did HS courses prepare														NC135	OC135		
HS course job prep: most useful															OC136		
Was 2nd HS course helpful														NC137	OC137		
HS course job prep: 2nd most useful															OC138		
Was 3rd HS course helpful														NC139	OC139		
HS course job prep: 3rd most useful															OC140		
Math requirement														NC141	OC141		
Rate HS math preparation														NC143	OC143		
Scientific information used														NC147	OC147		
Rate HS science preparation														NC149	OC149		
EDUCATION LEVEL																	

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Current highest level education														NB135	QC135		
Field of degree														NB137	QC137		
Plan enroll GED														NA138	OC224	QC138	
Graduated from HS last year														NC214	OC214		
Attending HS/GED program														NC218	OC218		
Expected graduation														NC222	OC222		
Grad HS/Earned GED																	R25B
Which one earned?																	R26
Year of GED completion																	R27
Did not graduate HS																	R25A
Non-graduates: last HS class level														NC225			
Last attended HS														NC226			
Vocational or Trade school																	R25C
Comm. College, no degree																	R25D
Completed Comm. College																	R25E
Attended 4-yr college, no degree																	R25F
Earned baccalaureate																	R25G
Some grad school, no degree																	R25H
Earned master's degree																	R25I
Earned doctoral degree																	R25J
Earned professional degree																	R25K
PSE: HIGH SCHOOL EVALUATION																	
HS prep for college														NC150	OC150		
HS course wish had taken														NA151	OC151		
1st HS course wish had taken														NB152	OC152		
2nd HS course wish had taken														NB153	OC153		
OCCUPATIONAL IMAGE BATTERY																	
No single job appeals		AB13A		CB7A		EB7A		GA7A		IA7A		KA8A					
Often think about job		AB13B		CB7B		EB7B		GA7B		IA7B		KA8B					
Quite certain about job		AB13C		CB7C		EB7C		GA7C		IA7C		KA8C					
Unsure of my performance		AB13D		CB7D		EB7D		GA7D		IA7D		KA8D					
Worried about job liked		AB13E		CB7E		EB7E		GA7E		IA7E		KA8E					
THIS SCHOOL YEAR, I:																	
Varsity/interschl. sports		AB14A	BB10A		DB1A		FB1A	GC14A	HA1A		JA1A		LA1A				
Intramural sports team		AB14B	BB10B		DB1B		FB1B	GC14B	HA1B		JA1B		LA1B				
Ran for student gov'nment		AB14C	BB10C		DB1C		FB1C	GC14C	HA1C		JA1C		LA1C				
Trouble keeping up		AB14D	BB10D		DB1D		FB1D	GC14D	HA1D		JA1D		LA1D				
Active in band/orchestra		AB14E	BB10E		DB1E		FB1E	GC14E	HA1E		JA1E		LA1E				
Work on school pubs.		AB14F	BB10F		DB1F		FB1F	GC14F	HA1F		JA1F		LA1F				
Vocational educ. club		AB14G	BB10G		DB1G		FB1G	GC14G	HA1G		JA1G		LA1G				
Debate, speech, drama		AB14H	BB10H		DB1H		FB1H	GC14H	HA1H		JA1H		LA1H				
Chorus or dance		AB14I	BB10I		DB1I		FB1I	GC14I	HA1I		JA1I		LA1I				
Going steady		AB14L			DB1QQ		FB1QQ	GC14L	HB1QQ		JA1OO		LA1PP				
Church/religious group		AB14J	BB10J		DB1J		FB1J	GC14J	HA1J		JA1J		LA1J				
Sci/Math/Computer club		AB14K						GC14K									
Math club			BB10L		DB1L		FB1L		HA1L		JA1L		LA1L				
Computer club			BB10M		DB1M		FB1M		HA1M		JA1M		LA1M				
Science club			BB10K		DB1K		FB1K		HA1K		JA1K		LA1K				
Talked to teacher-career		AB14N	BB10N		DB1N		FB1N	GC14N	HA1N		JA1N		LA1N				
Talked to mother-career		AB14O	BB10O		DB1O		FB1O	GC14O	HA1O		JA1O		LA1O				
Talked to father-career		AB14P	BB10P		DB1P		FB1P	GC14P	HA1P		JA1P		LA1P				
Talked to counselor-career		AB14Q	BB10Q		DB1Q		FB1Q	GC14Q	HA1Q		JA1Q		LA1Q				
Bored with school		AB14R	BB10R		DB1R		FB1R	GC14R	HA1R		JA1R		LA1R				
Use school library weekly		AB14S	BB10S		DB1S		FB1S	GC14S	HA1S		JA1S		LA1S				
Use public library weekly		AB14T	BB10T		DB1T		FB1T	GC14T	HA1T		JA1T		LA1T				
Closed out-some courses		AB14U	BB10U		DB1U		FB1U	GC14U	HA1U		JA1U		LA1U				
Cheerleading/Pep club		AB14V	BB10V		DB1V		FB1V	GC14V	HA1V		JA1V		LA1V				
Cut classes sometimes			BB11F		DB1BB		FB1BB		HA1BB		JA1BB		LA1BB				
Worked part-time for pay			BB11G		DB1CC		FB1CC		HA1CC		JA1CC		LA1CC				
Read six or more books			BB11I		DB1EE		FB1EE		HA1EE		JA1DD		LA1EE				
Visited a science museum			BB11J		DB1FF		FB1FF		HA1FF		JA1EE		LA1FF				
Visited a zoo, etc.			BB11L		DB1HH		FB1HH		HA1HH		JA1FF		LA1GG				
Visited an art museum			BB11K		DB1GG		FB1GG		HC1K		JC1GG		LC1GG				

LSAY Articulation Chart - Student Variables

The code for the second letter of variable names: A=both cohorts; B=Cohort Two only; C=Cohort One only Yellow highlight I need to delete for ICPSR release version 2010 fall

	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
Worked full-time for pay				BB11H	DB1DD		FB1DD		HC1H		JC1DD		LA1DD				
Weekly read news mag.				BB11M	DB1II		FB1II		HA1II		JA1GG		LA1HH				
Talk friends-job/future				BB11O	DB1KK		FB1KK		HA1KK		JA1II		LA1JJ				
Talk parents-news issues				BB11N	DB1JJ		FB1JJ		HA1JJ		JA1HH		LA1II				
Used a computer 10 hours				BB11P	DB1LL		FB1LL		HA1LL		JA1JJ		LA1KK				
Read newspaper regularly				BB11Q	DB1MM		FB1MM		HA1MM		JA1KK		LA1LL				
School discipline probs.				BB11R	DB1NN		FB1NN		HA1NN		JA1LL		LA1MM				
Entered a science fair				BB11E	DB1AA		FB1AA		HA1AA		JA1AA		LA1AA				
Thought of dropping out				BB11D	DB1Y		FB1Y		HA1Y		JA1Y		LA1Y				
Was a political volunteer				BB11C	DB1Z		FB1Z		HA1Z		JA1Z		LA2Z				
Teacher influenced career				BB11B	DB1X		FB1X		HA1X		JA1X		LA1X				
Wrote a computer program				BB11A	DB1W		FB1W		HA1W		JA1W		LA1W				
Have a driver's license									HB1VV		JA1TT		LA1VV				
Have my own car											JC1C		LA1WW				
Drive to school most days									HB1WW		JA1UU		LA1XX				
Drove family car weekly									HB1XX		JA1VV		LC1D				
Smoke cigarettes daily					DB1OO		FB1OO		HB1OO		JA1MM		LA1NN				
Dated most weeks					DB1PP		FB1PP		HB1PP		JA1NN		LA1OO				
Went to movie most weeks			AB14M		DB1RR		FB1RR	GC14M	HB1RR		JA1PP		LA1QQ				
Attended varsity football							FB1WW				JC1F		LC1WW				
Attended varsity bsketbll							FB1XX				JC1G		LC1XX				
Attended dance with date					DB1SS		FB1SS		HB1SS		JA1QQ		LA1RR				
Safety at school					DB1TT		FB1TT		HB1TT		JA1RR		LA1SS				
Something stolen at sch.					DB1UU		FB1UU		HB1UU		JA1SS		LA1TT				
Work pt.time in bus./							FB1VV				JC1A		LA1UU				
school program																	
Attended priv/rel school													LB1YY				
Attended public school											JB1WW						
Attended Catholic school											JB1XX						
Attended non-Catholic/relig											JB1YY						
Attended non-rel/private											JB1ZZ						
Protested Gulf War									HB1GG								
Relative In Gulf War									HB1DD								
Attended Gulf War Rally									HB1YY								
Wrote to a soldier									HB1ZZ								
LAST SUMMER I:																	
Worked part-time for pay			AB15A	CB1A		EB1A		GA1A		IA1A		KA1A					
Worked full-time for pay			AB15B	CB1B		EB1B		GA1B		IA1B		KA1B					
Played organized sports			AB15C	CB1C		EB1C		GA1C		IA1C		KA1C					
Took music/dance lessons			AB15D	CB1D		EB1D		GA1D		IA1D		KA1D					
Took vacation trip			AB15E	CB1E		EB1E		GA1E		IA1E		KA1E					
Watched a lot of TV			AB15F	CB1F		EB1F		GA1F		IA1F		KA1F					
Read six or more books			AB15G	CB1G		EB1G		GA1G		IA1G		KA1G					
Played a lot of sports			AB15H	CB1I		EB1I		GA1I		IA1I		KA1I					
Fixed something at home			AB15I	CB1J		EB1J		GA1J		IA1J		KA1J					
Visited science museum			AB15J	CB1K		EB1K		GA1K		IA1K		KA1K					
Visited art museum			AB15K	CB1L		EB1L		GA1L		IA1L		KA1L					
Visited a zoo, etc.			AB15L	CB1M		EB1M		GA1M		IA1M		KA1M					
Had six or more dates			AB15M	CB1AA		EB1AA		GA1AA		IA1AA		KA1AA					
Read news magazines			AB15N	CB1BB		EB1BB		GA1BB		IA1BB		KA1BB					
Watched TV news			AB15O	CB1CC		EB1CC		GA1CC		IA1CC		KA1CC					
Talked to parents--news			AB15P	CB1DD		EB1DD		GA1DD		IA1DD		KA1DD					
Drank alcohol (6 or more)			AB15Q					GA1FF		IB1FF		KB1FF					
Read science fiction			AB15R	CB1P		EB1P		GA1P		IA1P		KA1P					
Arrested/picked up			AB15W					GC1W									
Did lots of home chores			AB15X	CB1T		EB1T		GA1T		IA1T		KA1T					
Was bored a lot			AB15Y	CB1U		EB1U		GA1U		IA1U		KA1U					
Talk to friends-career			AB15Z	CB1V		EB1V		GA1V		IA1V		KA1V					
Did puzzles			AB15AA	CB1FF		EB1FF		GC1AA		IC1FF		KC1FF					
Used a computer 10 hours			AB15BB	CB1GG		EB1GG		GA1GG		IA1GG		KA1GG					
Talk friends-news issues			AB15CC	CB1HH		EB1HH		GA1HH		IA1HH		KA1HH					
Read newspaper regularly			AB15DD	CB1II		EB1II		GA1II		IA1II		KA1II					
Attended symphony concert				CB1N		EB1N		GB1N		IA1N		KA1N					
Was a political volunteer				CB1H		EB1H		GB1H		IA1H		KA1H					
Considered running away				CB1O		EB1O		GB1O		IA1O		KA1O					

LSAY....**Longitudinal Study of American Youth**

December, 2010

LSAY Articulation Chart - Student Variables

	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
Considered suicide				CB1S		EB1S		GB1S		IA1S		KA1S					
Repaired a machine				CB1W		EB1W		GB1W		IA1W		KA1W					
Drove car at least 1/wk				CB1JJ		EB1JJ		GB1JJ		IA1JJ		KA1JJ					
Flew in an airplane				CB1EE		EB1EE		GB1EE		IA1EE		KA1EE					
Played a musical instrument		AB15S		CB1Q		EB1Q		GA1Q		IA1Q		KA1Q					
Took a course in sci. or math		AB15U						GC1U									
Took a course in science				CB1X		EB1X		GB1X		IA1X		KA1X					
Took a course in math				CB1Y		EB1Y		GB1Y		IA1Y		KA1Y					
Took a computer course		AB15V		CB1Z		EB1Z		GA1Z		IA1Z		KA1Z					
Played chess and checkers		AB15T		CB1R		EB1R		GA1R		IA1R		KA1R					
SUMMER JOB:																	
TYPE SUMMER JOB																	
Have summer job										IB3							
Lawn work				CB3A						IA4A							
Waiter/waitress				CB3B						IA4B							
Newspaper				CB3C						IA4C							
Babysitting				CB3D						IA4D							
Camp/recreation				CB3E						IA4E							
Farm work				CB3F						IA4F							
Factory				CB3G						IA4G							
Manual labor				CB3H						IA4H							
Store clerk,salesperson				CB3I						IA4I							
Office,clerical				CB3J						IA4J							
Hospital/health				CB3K						IA4K							
Chores around house				CB3L						IA4L							
Other				CB3M						IA4M							
Money earned				CB4						IC4							
DESCRIPTION/EVALUATION																	
OF SUMMER JOB																	
People goof off				CB5A						IA5A							
Mostly for money				CB5B						IA5B							
More enjoy than school				CB5C						IA5C							
Good work habits develop				CB5D						IA5D							
More imp. than school				CB5E						IA5E							
Worked hard				CB5F						IA5F							
Enjoyed job				CB5G						IA5G							
Learned a lot				CB5H						IA5H							
Continue in field				CB5I						IA5I							
Decided career				CB5J						IA5J							
Will continue school				CB5K						IA5K							
Required thinking				CB5L						IA5L							
HAVE YOU EVER:																	
Foreign travel		AB16A						GC16A									
Written (non-class) poem		AB16B						GC16B									
Played on sports team		AB16C						GC16C									
Been expelled/suspended		AB16D						GC16D									
Flown in an airplane		AB16E						GC16E									
Member of scouting/club		AB16F						GC16F									
Written a computer pgm.		AB16G						GC16G									
Taken a drink of alcohol		AB16H						GC16H									
Given a public speech		AB16I						GC16I									
Repaired a machine		AB16J						GC16J									
Arrested/Picked up		AB16K						GC16K									
Won award for writing		AB16L						GC16L									
Considered running away		AB16M						GC16M									
Teacher influenced career		AB16N						GC16N									
Attend orchestra concert		AB16O						GC16O									
Considered suicide		AB16P						GC16P									
Visited science museum		AB16Q						GC16Q									
Visited art museum		AB16R						GC16R									
Dated		AB16S						GC16S									
Been political volunteer		AB16T						GC16T									
Thought of dropping out		AB16U						GC16U									

LSAY Articulation Chart - Student Variables

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	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
Been patient in hospital		AB16V						GC16V									
Talked to scientist/eng.		AB16W						GC16W									
Entered a science fair		AB16X						GC16X									
WHEN I FINISH SCHOOL:																	
Community college		AB17A		CB2A		EB14A		GA2A		IA2A		KA2A					
Four-year college		AB17B		CB2B		EB14B		GA2B		IA2B		KA2B					
Enlist in military		AB17C		CB2C		EB14C		GA2C		IA2C		KA2C					
Get married soon after		AB17D		CB2D		EB14D		GA2D		IA2D		KA2D					
Feel I've escaped prison		AB17E		CB2E		EB14E		GA2E		IA2E		KA2E					
Leave this community		AB17F		CB2F		EB14F		GA2F		IA2F		KA2F					
Live with parents		AB17G		CB2G		EB14G		GA2G		IA2G		KA2G					
Get a full-time job		AB17H		CB2H		EB14H		GA2H		IA2H		KA2H					
Year off, then college				CB2I		EB14I		GB2I		IA2I		KA2I					
Voc, trade, bus. school				CB2J		EB14J		GB2J		IA2J		KA2J					
BY THE TIME I AM 40:																	
Be married		AB18A		CB13A		EB5A		GA3A		IA18A		KA15A		NC168		QC203	
Have at least one child		AB18B		CB13B				GC3B		IC18B				NC169		QC204	R325E
Have 3 or more children		AB18C		CB13C		EB5B		GA3B		IA18B		KA15B		NC170		QC217	
Have only two children						EB5C		GB3C		IB18C		KA15C					
Have only one child						EB5D		GB3D		IB18D		KA15D					
Have served in military		AB18D		CB13D		EB5E		GA3E		IA18E		KA15E		NC171			
Be regular voter		AB18E		CB13E		EB5F		GA3F		IA18F		KA15F		NC172		QC207O	R325D
Been political candidate		AB18F		CB13F		EB5G		GA3G		IA18G		KA15G					
Have steady/full-time job		AB18G		CB13G		EB5H		GA3H		IA18H		KA15H					
Make more $ than parents		AB18H		CB13H		EB5I		GA3I		IA18I		KA15I		NC173		QC208	
Active in church/temple		AB18I		CB13I		EB5J		GA3J		IA18J		KA15J		NC174		QC209O	
Own my own home		AB18J		CB13J		EB5K		GA3K		IA18K		KA15K					
Hold exciting job		AB18K		CB13K		EB5L		GA3L		IA18L		KA15L				QC215O	R325G
Be respected in career		AB18L		CB13L		EB5M		GA3M		IA18M		KA15M				QC216O	R325I
Hold part-time job		AB18M		CB13M		EB5N		GA3N		IC18M		KC15N					
Be in charge of others		AB18N		CB13N		EB5O		GA3O		IA18N		KA15N		NC175		QC210O	
Have accomplishments		AB18O		CB13O		EB5P		GA3P		IA18O		KA15O		NC176		QC211O	R325C
Community leader		AB18P		CB13P		EB5Q		GA3Q		IA18P		KA15P		NC177		QC212O	
Own my own business		AB18Q		CB13Q		EB5R		GA3R		IA18Q		KA15Q		NC178		QC213O	
Well-informed on issues		AB18R		CB13R		EB5S		GA3S		IA18R		KA15R		NC179		QC214O	
JOB EXPECTED AT 40																	
Census Occupation Code														OC158	QC156		
Level of education needed														OC159	QC159		
Length of program for edu														OC162	QC162		
Currently enrolled in program														OC163	QC163		
Plan to enroll in program														OC164	QC164		
MY PARENTS:																	
Insist I do my homework		AB19A		DB6A		FB2A		GC19A		HB2A		JA2A		LA2A			
Are proud of good grades		AB19B		DB6B		FB2B		GC19B		HB2B		JA2B		LA2B			
Always find time to talk		AB19C		DB6C		FB2C		GC19C		HB2C		JA2C		LA2C			
Want me to learn computer		AB19D		DB6D		FB2D		GC19D		HB2D		JA2D		LA2D			
Encourage hard work-math		AB19E						GC19E									
Encourage hard work-sci		AB19F						GC19F									
Expect college completion		AB19G		DB6E		FB2E		GC19G		HB2E		JA2E		LA2E			
Buy math/sci games, books		AB19H		DB6F		FB2F		GC19H		HB2F		JA2F		LA2F			
Are confident--my ability		AB19I		DB6G		FB2G		GC19I		HB2G		JA2G		LA2G			
Encourage sports		AB19J		DB6H		FB2H		GC19J		HB2H		JA2H		LA2H			
Help understand homework		AB19K		DB6I		FB2I		GC19K		HB2I		JA2I		LA2I			
Reward good grades		AB19L		DB6J		FB2J		GC19L		HB2J		JA2J		LA2J			
Too busy to spend time		AB19M		DB6K		FB2K		GC19M		HB2K		JA2K		LA2K			
Expect me to do well-sci		AB19N		DB6L		FB2L		GC19N		HB2L		JA2L		LA2L			
Expect me to do well-math		AB19O		DB6M		FB2M		GC19O		HB2M		JA2M		LA2M			
Don't understand me		AB19P		DB6N		FB2N		GC19P		HB2N		JA2N		LA2N			
Think math important		AB19Q		DB6O		FB2O		GC19Q		HB2O		JA2O		LA2O			
Think science important		AB19R				FB2P		GC19R		HB2P		JB2P		LA2P			
Ask me about school		AB19S		DB6P		FB2Q		GC19S		HB2Q		JA2Q		LA2Q			
Encourage science career		AB19T		DB6Q		FB2R		GC19T		HB2R		JA2R		LA2R			

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	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
Are well-informed (news)		AB19U						GC19U					LB2S				
Are active in community		AB19V						GC19V					LB2T				
Vote in elections		AB19W						GC19W					LB2U				
Voted in 88 pres. elect.				DB6R						JC6R							
Know a lot of science		AB19X						GC19X									
Are good at math		AB19Y						GC19Y									
Read a lot of news		AB19Z		DB6S		FB2S		GC19Z	HB2S		JA2S		LA2V				
Read a lot of books		AB19AA		DB6T		FB2T		GC19AA	HB2T		JA2T		LA2W				
Enjoy being with me		AB19BB		DB6U		FB2U		GC19BB	HB2U		JA2U		LA2X				
Set a curfew for me				DB6V		FB2V			HB2V		JA2V		LA2Y				
Set week night bedtime				DB6CC		FB2BB			HB2BB		JA2BB		LA2EE				
Expect me to do dishes				DB6W		FB2W			HB2W		JA2W		LA2Z				
Assign me housekeeping				DB6X		FB2X			HB2X		JA2X		LA2AA				
Have too many rules				DB6Y		FB2Y			HB2Y		JA2Y		LA2BB				
Would not let me smoke				DB6Z		FB2Z			HB2Z		JA2Z		LA2CC				
Expect H.S. alg./geom.				DB6AA		FB2LL					JC2AA						
Limit my hours of TV				DB6BB		FB2AA			HB2AA		JA2AA		LA2DD				
Censor my TV watching				DB6DD		FB2FF			HB2FF		JA2FF		LA2II				
Talked: Which college				DB6EE		FB2GG			HB2GG		JA2GG		LA2JJ				
Visited possible college				DB6FF		FB2HH			HB2HH		JA2HH		LA2KK				
Visit. col. they approve									HB2II				LC2A				
Prefer specific college				DB6GG		FB2II			HB2JJ		JA2II		LA2LL				
Don't care if go college				DB6HH		FB2JJ			HB2KK		JA2JJ		LA2MM				
Will not afford college				DB6II		FB2KK			HB2LL		JA2KK		LA2NN				
Met/talked w/a teacher						FB2CC			HB2CC		JC2CC		LA2FF				
Advise me on HS courses						FB2DD			HB2DD		JB2DD		LA2GG				
Approve my HS courses						FB2EE			HB2EE		JB2EE		LA2HH				
Talked about Gulf War									HB2MM								
MOST OF MY FRIENDS:																	
Like math-amount				CB30F		EB10F		GB10F		IA10F		KA37F					
Like math-yes or no		AB20A						GC10F									
Like science-amount				CB30J		EB10J		GB10J		IA10J		KA37J					
Like science-yes or no		AB20B						GC10J									
Do well in math-amount				CB30G		EB10G		GB10G		IA10G		KA37G					
Do well in math-yes or no		AB20C						GC10G									
Do well in science-amount				CB30K		EB10K		GB10K		IA10K		KA37K					
Do well in science-yes or no		AB20D						GC10K									
Plan to go to college-amount				CB30B		EB10B		GB10B		IA10B		KA37B					
Plan to go to college-yes or no		AB20E						GC10B									
Are really good students-amount				CB30A		EB10A		GB10A		IA10A		KA37A					
Are really good students-yes or no		AB20F						GC10A									
Have decided on a career-amount				CB30D		EB10D		GB10D		IA10D		KA37D					
Have decided on a career-yes or no		AB20G						GC10D									
Hope to be scientists,etc-amount				CB30N		EB10N		GB10N		IA10N		KA37N					
Hope to be scientists,etc-yes or no		AB20H						GC10N									
Often help with homework-yes or no		AB20I						GC10S									
Think I am a good student-amount				CB30L		EB10L		GB10L		IA10L		KA37L					
Think I am a good student-yes or no		AB20J						GC10L									
Know computer programming-amount				CB30M		EB10M		GB10M		IA10M		KA37M					
Know computer programming-yes or no		AB20K						GC10M									
Discuss current issues-amount				CB30P		EB10P		GB10Q		IA10Q		KA37Q					
Discuss current issues-yes or no		AB20L						GC10Q									
Play a lot of sports-yes or no		AB20M						GC10T									
Play musical instrument-yes or no		AB20N						GC10U									
Have had alcoholic drink-amount								GB10P		IB10P		KA37P					
Have had alcoholic drink-yes or no		AB20O						GC10P									
Are active in school club-amount				CB30I		EB10I		GB10I		IA10I		KA37I					
Are active in school club-yes or no		AB20P						GC10I									
Watch a lot of TV-amount				CB30H		EB10H		GB10H		IA10H		KA37H					
Watch a lot of TV-yes or no		AB20Q						GC10H									
Have a weekend curfew				CB30E		EB10E		GB10E		IA10E		KA37E					
Worked for candidate '88				CB30Q						IC10Q							
Worked for candidate '92												KA37S					
Will not graduate H.S.				CB30R		EB10Q		GB10R		IA10R		KA37R					

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	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
Are poli/soci well-inform-amount				CB30O		EB10O		GB10O		IA10O		KA37O					
Are poli/soci well-inform-yes or no		AB20R						GC10O									
Really don't like school				CB30C		EB10C		GB10C		IA10C		KA37C					
Seriousness with friends		AB38E		CB26E		EB27E		GA31E		IA36E		KA43E					
Parents' education																	
Mother		AB21A						GC21A									
Father		AB21B						GC21B									
OCCUPATIONAL CHOICES:																	
First choice (coded)		AB22A	BB18A	CB19A	DB8A	EB18A	FB10A	GA20A	HA9A	IA26A	JA9A	KA29A	LA9A	NA156			
Second choice (coded)		AB22B	BB18B	CB19B	DB8B	EB18B	FB10B	GA20B	HA9B	IA26B	JA9B	KA29B	LA9B				
Certainty of first choice		AB22C	BB18C	CB19C	DB8C	EB18C	FB10C	GA20C	HA9C	IA26C	JA9C	KA30	LA10	NB157		QC157	
Parents' reactions:																	
Mother-first choice		AB23A	BB19	CB20	DB9	EB19	FB11	GA21	HA10	IA27	JA10	KA31A	LA11				
Father-first choice		AB23B	BB20	CB21	DB10	EB20	FB12	GA22	HA11	IA28	JA11	KA31B	LA12				
OCCUPATIONAL																	
ENCOURAGEMENT RECEIVED:																	
Mother- amt of encouragement		AB24A	BB21A	CB22A	DB11A	EB21A	FB13A	GA23A	HA12A	IA29A	JA12A	KA32A	LC13A				
Mother- how pleased													LB13A				
Father- amt of encouragement		AB24B	BB21B	CB22B	DB11B	EB21B	FB13B	GA23B	HA12B	IA29B	JA12B	KA32B	LC13B				
Father- hou pleased													LB13B				
Sibling- amt of encouragement		AB24C	BB21C	CB22C	DB11C	EB21C	FB13C	GA23C	HA12C	IA29C	JA12C	KA32C	LC13C				
Sibling- how pleased													LB13C				
Other relative- amt of encouragement		AB24D	BB21D	CB22D	DB11D	EB21D	FB13D	GA23D	HA12D	IA29D	JA12D	KA32D	LC13D				
Other relative- how pleased													LB13D				
A teacher- amt of encouragement		AB24E	BB21E	CB22E	DB11E	EB21E	FB13E	GA23E	HA12E	IA29E	JA12E	KA32E	LC13E				
A teacher- how pleased													LB13E				
A school counselor- amt of encouragement		AB24F	BB21F	CB22F	DB11F	EB21F	FB13F	GA23F	HA12F	IA29F	JA12F	KA32F	LC13F				
A school counselor- how pleased													LB13F				
Friends- amt of encouragement		AB24G	BB21G	CB22G	DB11G	EB21G	FB13G	GA23G	HA12G	IA29G	JA12G	KA32G	LC13G				
Friends- how pleased													LB13G				
What I have read- amt of encouragement		AB24H	BB21H	CB22H	DB11H	EB21H	FB13H	GA23H	HA12H	IA29H	JA12H	KA32H	LC13H				
What I have read- how pleased													LB13H				
Most influential source																	
regarding career choice		AB25	BB22	CB23	DB12	EB22	FB14	GA24	HA13	IA30	JA13	KA33	LA14				
R's classification of job:																	
First choice		AB26A						GC26A									
Second choice		AB26B						GC26B									
JOB CAREER PREFERENCE																	
Not require college				DB16A		FB18A		HB17A		JA19A		LA16A					
Not take family time				DB16B		FB18B		HB17B		JA19B		LA16B					
Allows work with others				DB16C		FB18C		HB17C		JA19C		LA16C					
Not mechanical				DB16D		FB18D		HB17D		JA19D		LA16D					
Not require math ability				DB16E		FB18E		HB17E		JA19E		LA16E					
Allows independence				DB16F		FB18F		HB17F		JA19F		LA16F					
With numbers/formulas				DB16G		FB18G		HB17G		JA19G		LA16G					
Needs abstract thinking				DB16H		FB18H		HB17H		JA19H		LA16H					
Has clear hours and tasks						FB18I						LC16I					
OCCUPATIONAL TRAINING																	
Enough/need further education												NA159					
Time to complete training												NA162					
Currently enrolled in program												NA163					
Intend to enroll in program												NA164					
HOURS SPENT IN ACTIVITIES:																	
Homework		AB27A				EB12A		GC34				KC23A					
Watching TV		AB27B				EB12B		GC34B				KC23B		NB231		QC231O	
Watching TV on weekdays								GB12A		IB12A		KB22A					

LSAY Articulation Chart - Student Variables

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	Summary	Grade7 FALL	Grade7 SPRING	Grade8 FALL	Grade8 SPRING	Grade9 FALL	Grade9 SPRING	Grade10 FALL	Grade10 SPRING	Grade11 FALL	Grade11 SPRING	Grade12 FALL	Grade12 SPRING	P1 SPRING	P2 SPRING	P4 SPRING	2007 SPRING
Watching TV on weekends								GB12B		IB12B		KB22B					
Listening to music		AB27C				EB12C		GC34C				KA23A					
Working for pay		AB27D				EB12D		GC34D				KA23F					
Doing household chores		AB27E				EB12E		GC34E				KA23B					
Dating		AB27F				EB12F		GC34F				KA23C					
Out with friends		AB27G				EB12G		GC34G				KA23D					
Playing sports		AB27H				EB12H		GC34H				KA23E					
Reading (non-homework)		AB27I				EB12I		GC34I				KC23I					
Reading (non-schoolwork)								GB13		IB13		KB25					
Homework (on average)								GB34		IB39							
Homework in school												KB13A					
Homework out of school												KB13B					
Typical week :																	
Working for pay												KB39					
Typical weekend :																	
Working for pay												KB40					
ACTIVITIES WITH PARENTS:																	
Play, concert, movie		AB28A				EB13A		GC28A				KA24A					
Sports event		AB28B				EB13B		GC28B				KA24B					
Built/worked on something		AB28C				EB13C		GC28C				KA24C					
Museum, zoo, etc.		AB28D				EB13D		GC28D				KA24D					
Recreational activities		AB28E				EB13E		GC28E				KA24E					
Sang/played music		AB28F				EB13F		GC28F				KA24F					
Attended church		AB28G				EB13G		GC28G				KA24G					
Gender		AB29						GC29									
TALK TO PARENTS ABOUT:																	
Progress in school		AB30A		CB32A		EB2A		GA4A		IA19A		KA16A					
Career and future plans		AB30B		CB32B		EB2B		GA4B		IA19B		KA16B					
Homework/school projects		AB30C		CB32C		EB2C		GA4C		IA19C		KA16C					
Dating		AB30D		CB32D		EB2D		GA4D		IA19D		KA16D					
Problems at school		AB30E		CB32E		EB2E		GA4E		IA19E		KA16E					
Foreign Policy Issue		AB30F		CB32F		EB2F		GA4F		IA19F		KA16F					
Racial problems (society)		AB30G		CB32G		EB2G		GA4G		IA19G		KA16G					
Women's problems (soc'ty)		AB30H		CB32H		EB2H		GA4H		IA19H		KA16H					
Science/tech. issues		AB30I		CB32I		EB2I		GA4I		IA19I		KA16I					
Military/defense issues		AB30J		CB32J		EB2J		GA4J		IA19J		KA16J					
The space program		AB30K		CB32K		EB2K		GA4K		IA19K		KA16K					
Economic/business issues		AB30L		CB32L		EB2L		GA4L		IA19L		KA16L					
Environmental quality issues										IB19M		KB16M					
1988 election (president)				CB32M						IC19M							
1992 election (president)												KB16N					
PUBLIC LIBRARIES AND READING																	
Num visits public library															OC279	QC255	
INFORMAL SCIENCE EDUCATION INST																	
Num visits science, technology museum															OC275	QC253	
Num visits zoo, aquarium															OC276	QC251	
Num visits natural history museum															OC277	QC252	
Num visits art museum															OC278	QC250	
Num visits planetarium																QC254	
EXPOSURE TO PRINT MEDIA:																	
Daily newspaper		AB31A		CB33A		EB24A		GA5A		IA20A		KA14A		NB221	OC258	QC221	
Weekly news magazine		AB31B		CB33B		EB24B		GA5B		IA20B		KA14B					
Women's magazines		AB31C		CB33C		EB24C		GA5C		IA20C		KA14C					
Teenage magazines		AB31D		CB33D		EB24D		GA5D		IA20D		KA14D					
Science magazines		AB31E		CB33E		EB24E		GA5E		IA20E		KA14E					
Car magazines		AB31F		CB33F		EB24F		GA5F		IA20F		KA14F					
Hobby magazines		AB31G		CB33G		EB24G		GA5G		IA20G		KA14G					
Movie/TV/music mags.		AB31H		CB33H		EB24H		GA5H		IA20H		KA14H					
First magazine: Regularly														NB222	OC260	QC222O	

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	Summary	Grade7 FALL	Grade7 SPRING	Grade8 FALL	Grade8 SPRING	Grade9 FALL	Grade9 SPRING	Grade10 FALL	Grade10 SPRING	Grade11 FALL	Grade11 SPRING	Grade12 FALL	Grade12 SPRING	P1 SPRING	P2 SPRING	P4 SPRING	2007 SPRING
Second magazine: Regularly														NB223	OC261	QC223O	
Third magazine: Regularly														NB224	OC262	QC224O	
Fourth magazine: Regularly														NB225	OC263	QC225O	
Fifth magazine: Regularly														NB226	OC264	QC226O	
First magazine: Occasionally														NB227	OC265		
Second magazine: Occasionally														NB228	OC266		
Third magazine: Occasionally															OC267		
First science/health magazine																	
TV PROGRAMS WATCHED:																	
A television news show				CB34A						IC34A							
A network news show					DB5P												
A local news show					DB5H			HB20J			JA26J						
NOVA				CB34B						IC34B				NB233	OC282	QC233	
National Geographic				CB34C						IC34C				NB234	OC283	QC234O	
Sports/Game				CB34D	DB5E			HB20G		IC34D	JA26G						
A game show					DB5F			HB20H			JA26H						
Religious show				CB34E	DB5G			HB20I		IC34E	JA26I						
Late night talk shows				CB34F	DB5J			HB20L		IC34F	JA26L						
Nightline (ABC)					DB5I			HB20K			JA26K						
3-2-1 Contact				CB34G	DB5M					IC34G							
Square One				CB34H	DB5N					IC34H							
Nickelodian				CB34I						IC34I							
Double Dare					DB5K												
You Can't Do That on TV					DB5L												
Mr. Wizard					DB5B			HB20B			JA26B						
A PBS science show								HB20D			JA26D			NB236		QC236O	
Afternoon soap opera								HB20C			JA26C						
A PBS dramatic show								HB20E			JA26E						
MTV					DB5A			HB20A			JA26A						
Transformers					DB5O												
Ghost Busters					DB5C						JC26C						
Other cartoons					DB5D						JC26D						
Cartoon								HB20F			JB26F						
Star Trek											JB26M						
Persian Gulf War Report								HB20M									
Cable science show														NB235		QC235O	
Access to cable television														NB232		QC232	
School program		AB32		CB31		EB3		GA14		IA14		KA11					
SCHOOL PROGRAM:																	
Assigned												KB12A					
Counselor												KB12B					
Parents												KB12C					
Friends												KB12D					
Own choice												KB12E					
Only school program												KB12F					
Grade this school year						FB6		HB21			JB27						
Expected H.S. program					DB5												
Grades last year (overall)		AB33						GC33				LC6					
R'S GRADES LAST YEAR IN:																	
English				CB27A		EB4AO		GB15A		IA15A		KA26A					
Mathematics				CB27B		EB4BO		GB15B		IA15B		KA26B					
Science				CB27C		EB4CO		GB15C		IA15C		KA26C					
Social Studies				CB27D		EB4DO		GB15D		IA15D		KA26D					
NON-WORK COMPUTER USAGE																	
Have computer at home														NC204			
Hours use computer														NA209	OC202	QC209	
Primary use of computer														NA210	OC203	QC210	
Can install software														NB213		QC213	
Can use graphics package														NB214		QC214	
Can use spreadsheet														NB215		QC215	
Can program BASIC/Pascal														NB216		QC216	

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	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
Can use E-mail														NB217			
Frequency of E-mail use														NB218			
INTEREST IN SOCIAL ISSUES:																	
Foreign policy		AB34A		CB8A		EB8A		GA8A		IA8A	JC3A	KA9A			OC231	QC219	
Space exploration		AB34B		CB8B		EB8B		GA8B		IA8B	JC3B	KA9B			OC239	QC227	
Agricultural issues		AB34C		CB8C		EB8C		GA8C		IA8C	JC3C	KA9C			OC232		
Scientific discoveries		AB34D		CB8D		EB8D		GA8D		IA8D	JC3D	KA9D			OC234	QC222	
Economic/business issues		AB34E		CB8E		EB8E		GA8E		IA8E	JC3E	KA9E			OC235	QC223	
Minority rights issues		AB34F		CB8F		EB8F		GA8F		IA8F	JC3F	KA9F					
Inventions/technologies		AB34G		CB8G		EB8G		GA8G		IA8G	JC3G	KA9G			OC236		
Women's rights issues		AB34H		CB8H		EB8H		GA8I		IA8I	JC3H	KA9I				QC229	
Military/defense issues		AB34I		CB8I		EB8I		GA8J		IA8J	JC3I	KA9J			OC241		
Energy policy issues		AB34J		CB8J		EB8J		GA8K		IA8K	JC3J	KA9K			OC237	QC225	
1988 election (president)		AB34K		CB8K				GC8K		IC8K							
1992 election (president)												KB9L			OC242		
Environmental Issues								GB8H		IB8H		KB9H			OC240	QC228	
Current News Events															OC230	QC218	
Local School issues															OC233		
Medical discoveries															OC238	QC226	
HOW WELL-INFORMED ABOUT:																	
Foreign policy		AB35A		CB9A		EB9A		GA9A		IA9A	JC4A	KA10A			OC243	QC231	
Space exploration		AB35B		CB9B		EB9B		GA9B		IA9B	JC4B	KA10B			OC251	QC239	
Agricultural issues		AB35C		CB9C		EB9C		GA9C		IA9C	JC4C	KA10C			OC244		
Scientific discoveries		AB35D		CB9D		EB9D		GA9D		IA9D	JC4D	KA10D			OC246	QC234	
Economic/business issues		AB35E		CB9E		EB9E		GA9E		IA9E	JC4E	KA10E			OC247	QC235	
Minority rights issues		AB35F		CB9F		EB9F		GA9F		IA9F	JC4F	KA10F					
Inventions/technologies		AB35G		CB9G		EB9G		GA9G		IA9G	JC4G	KA10G			OC248	QC236	
Women's rights issues		AB35H		CB9H		EB9H		GA9I		IA9I	JC4H	KA10I				QC241	
Military/defense issues		AB35I		CB9I		EB9I		GA9J		IA9J	JC4I	KA10J			OC253		
Energy policy issues		AB35J		CB9J		EB9J		GA9K		IA9K	JC4J	KA10K			OC249	QC237	
1988 election (president)		AB35K		CB9K				GC9K		IC9K							
1992 election (president)												KB10L			OC254		
Environmental issues								GB9H		IB9H		KB10H			OC252	QC240	
Current News Events																	
Local School issues															OC245		
Medical discoveries															OC250	QC238	
THE NATURE OF SCIENCE:																	
Causes more good/harm		AB36A				EB28A		GA11A		IB11A		KA38A					
Theory as understanding		AB36B				EB28B		GA11B		IB11B		KA38B					
Theories as changing		AB36C				EB28C		GA11C		IB11C		KA38C					
We can never figure out		AB36D				EB28D		GA11D		IB11D		KA38D					
Data/theory more import?		AB36E				EB28E		GA11E		IB11E		KA38E					
Lucky numbers exist		AB36F				EB28F		GA11F		IB11F		KA38F				QC285	
Some things not known		AB36G				EB28G		GA11G		IB11G		KA38G					
SCIENCE OPINIONS AND KNOWLEDGE:																	
Healthier,Easier,Comfortable								GC35A						NB185		QC185	
Improves standard living				CB35A		EB31A		GB35A		IA40A		KA48A					
Safety of nuclear power				CB35B		EB31B		GC35B		IA40B		KA48B				QC282	
Solar energy promising				CB35C		EB31C		GC35C		IA40C		KA48C					
Nuclear risk minor				CB35E		EB31E		GC35D		IA40E		KA48F					
Unemployed could get jobs				CB35F		EB31F		GC35E		IA40F		KA48G		NA188			
Rockets cause weather chg				CB35G		EB31G		GA35J		IA40G		KC48G					
Humans evolved fr animals				CB35H		EB31H		GA35K		IA40H		KA48I		NB189		QC189	
Smoking causes illness				CB35I		EB31I		GC35H		IA40I		KA48J					
1000's of other "earths"				CB35J		EB31J		GA35L		IA40J		KA48K		NB192			
Continents move				CB35K		EB31K		GA35M		IA40K		KA48L		NB190		QC190	
Scientists are dangerous				CB35L		EB31L		GC35K		IA40L		KA48M					
Scientists work for good				CB35N		EB31N		GC35L		IA40N		KA48O				QC283	
Science-->change too fast				CB35O		EB31O		GC35M		IA40O		KA48P		NB187		QC187	
Work become more interesting																	
UFO's likely to exist				CB35P		EB31P		GA35N		IA40P		KA48Q					
We should rely on experts				CB35Q		EB31Q		GA35I		IA40Q		KA48R					

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Tech. will overcome harms				CB35R		EB31R		GA35O		IA40R		KA48S		NB200			
Need to automate jobs				CB35S		EB31S		GC35Q		IA40S		KC48S					
Tech. causes unemployment				CB35T		EB31T		GC35R		IA40T		KC48T					
Computers-->more jobs				CB35U		EB31U		GC35S		IA40U		KA48V					
Space station needed				CB35D		EB31D				IA40D		KA48D					QC281
U.S. should go to Mars				CB35M		EB31M				IA40M		KA48N					
Science is understandable								GB35B									
Feds should support scientific research								GB35C									QC276
Convert plants to fuels to reduce oil and gas																	
Animal research is cruel/unnecessary																	QC284
Animal research is ok								GB35D				KB48U		NB193			QC193
Animal research needed to end disease																	QC280
Ecosystem will decline								GB35E				KB48H					
Citizens can affect gov't								GB35F									
People can control world								GB35G									
Less science, more faith								GB35H				KB48E		NB191			QC191
Humans created in whole by God																	
Ecosystem will improve								GB35P				KB48T					
Require 4 yrs science								GB35Q									
Require 4 yrs math								GB35R									
Require 4 yrs English								GB35S									
Require 4 yrs for. lang.								GB35T									
Require balanced fed. budget														NB186			
Evolution continuing today														NB194			
Wealthy should pay more taxes														NA196			
Income tax discourages hard work														NA198			
RISK-BENEFIT ASSESSMENTS																	
Sci. Res: Risk vs. Benefit														NB201	OC285	QC201	
Sci. Res: Benefits strongly														NB202		QC202	
Sci. Res: harms strongly														NB203		QC2030	
Sp. Expl: Costs vs. Benefit																QC265	
Sp. Expl: Benefits strongly																QC266	
Sp. Expl: Costs strongly																QC267	
Nucl. Pow: Risk vs. Benefit																QC268	
Nucl. Pow: Benefits strongly																QC269	
Nucl. Pow: Harms strongly																QC270	
RELIGIOSITY																	
Bible is word of God														NB197			
Personal God hears prayers														NB199			
No. times attend relig service														NB293			
Religious preference														NB294			
Denomination														NB295			
Campus relig services														NB297			
Community relig service														NB298			
Rating of religiosity														NB299			
SELF-ESTEEM BATTERY:																	
Positive attitude		AB37A		CB24A		EB25A		GA29A		IA34A		KA41A					
Person of worth		AB37C		CB24C		EB25C		GA29C		IA34C		KA41C					
Able to do things		AB37D		CB24D		EB25D		GA29D		IA34D		KA41D					
Satisfied with self		AB37H		CB24I		EB25I		GA29I		IA34I		KA41I					
Generally, am good studt.				CB24F		EB25F		GB29F		IA34F		KA41F					
Need more self-respect		AB37I		CB24J		EB25J		GA29J		IA34J		KA41J					
Feel like I am a failure		AB37K		CB24L		EB25L		GA29L		IA34L		KA41L					
FATE CONTROL BATTERY:																	
Good luck more important		AB37B		CB24B		EB25B		GA29B		IA34B		KA41B					
Others stop my efforts		AB37E		CB24E		EB25E		GA29E		IA34E		KA41E					
Planning leads to unhappy		AB37F		CB24G		EB25G		GA29G		IA34G		KA41G					
Change leads to unhappy		AB37G		CB24H		EB25H		GA29H		IA34H		KA41H					
Live for today		AB37J		CB24K		EB25K		GA29K		IA34K		KA41K					

LSAY Articulation Chart - Student Variables

The code for the second letter of variable names: A=both cohorts; B=Cohort Two only; C=Cohort One only   Yellow highlight I need to delete for ICPSR release version 2010 fall

	Summary	Grade7 FALL	Grade7 SPRING	Grade8 FALL	Grade8 SPRING	Grade9 FALL	Grade9 SPRING	Grade10 FALL	Grade10 SPRING	Grade11 FALL	Grade11 SPRING	Grade12 FALL	Grade12 SPRING	P1 SPRING	P2 SPRING	P4 SPRING	2007 SPRING
PERSISTENCE BATTERY:																	
I work until correct		AB37M		CB24N		EB25N		GA29N		IA34N		KA41N					
Struggle vs. give up		AB37O		CB24P		EB25P		GA29P		IA34P		KA41P					
I give up soon		AB38B		CB26B		EB27B		GA31B		IA36B		KA43B					
Bad grade-->try harder		AB38H		CB26H		EB27H		GA31H		IA36H		KA43H					
INDEPENDENCE BATTERY:																	
Ask teacher/friend soon		AB38A		CB26A		EB27A		GA31A		IA36A		KA43A					
Discuss serious things w/ friends								GA31E				KA43E					
Figure things out myself		AB37L		CB24M		EB25M		GA29M		IA34M		KA41M					
LIKES STRATEGY GAMES:																	
Likes chess/checkers		AB37Q		CB24R		EB25R		GA29Q		IA34Q		KA41Q					
Likes puzzles & riddles		AB37P		CB24Q		EB25Q		GC29P		IC24Q		KC41Q					
SELF AND SCHOOL BATTERY:																	
Could be among best			BB17A					HA23A		JB29A							
Good grades-->pride			BB17B					HA23B		JB29B							
Good grades-->unpopular			BB17C					HA23C		JB29C		LB27L					
Success-->fear of dislike			BB17D					HA23D		JB29D		LB27M					
Accomplish.-->jealousy			BB17E					HA23E		JB29E		LB27N					
Being best import. to me			BB17F					HC23F									
Learning important to me			BB17G					HC23G									
Low grade-->parents upset			BB17H					HC23H									
Don't care parents think			BB17I					HC23I									
TOLERANCE OF AMBIGUITY																	
No problem w/o solution							FB20A						LC20A				
Can learn math w/work							FB20B						LC20B				
Good teachers-->wonder							FB20C						LC20C				
Hard problems more fun							FB20D						LC20D				
Can learn sci w/work							FB20E						LC20E				
Break probs. into parts							FB20F						LC20F				
Decisions w/insuf. data							FB20G						LC20G				
Tight schedule-->no fun							FB20H						LC20H				
HOW IMPORTANT ARE:																	
Getting good grades				CB25A		EB26A		GB30A		IA35A		KA42A					
Completing homework				CB25B		EB26B		GB30B		IA35B		KA42B					
Paying attention in sch				CB25C		EB26C		GB30C		IA35C		KA42C					
Learning all taught				CB25D		EB26D		GB30D		IA35D		KA42D					
Attending every day				CB25E		EB26E		GB30E		IA35E		KA42E					
Graduating fr high school				CB25F		EB26F		GB30F		IA35F		KA42F					
Successful in work		AB12A		CB6A		EB6A		GA6A		IA6A		KA7A		NB168	QC168		
Find good spouse/be happy		AB12B		CB6B		EB6B		GA6B		IA6B		KA7B		NB169	QC169		R325A
Having money		AB12C		CB6C		EB6C		GA6C		IA6C		KA7C		NB170	QC170		
Strong friendships		AB12D		CB6D		EB6D		GA6D		IA6D		KA7D		NB171			
Steady work		AB12E		CB6E		EB6E		GA6E		IA6E		KA7E		NB172	QC172		
Leader in community		AB12F		CB6F		EB6F		GA6F		IA6F		KA7F		NB173	QC173		
Children more opportunity		AB12G		CB6G		EB6G		GA6G		IA6G		KA7G		NB174	QC174		R325H
Relatives living close														NB175			
Changing soc/econ. Wrongs		AB12H		CB6H		EB6H		GA6H		IA6H		KA7H		NB176	QC176		R325F
Having children		AB12I		CB6I		EB6I		GA6I		IA6I		KA7I		NB177	QC177		R325E
Having leisure time		AB12J		CB6J		EB6J		GA6J		IA6J		KA7J		NB178	QC178		
Current on pol/soc issues		AB12K		CB6K		EB6K		GA6K		IA6K		KA7K		NB179	QC179		R325B
Help others in community				CB6L		EB6L		GB6L		IA6L		KA7L		NB180	QC180		
Move to another area														NB181			
SCHOOL WORK ETHIC:																	
Would come to school		AB37R		CB24S		EB25S		GA29R		IA34R		KA41R					
Goof off in school		AB38C		CB26C		EB27C		GA31C		IA36C		KA43C					
Does minimal homework		AB37N		CB24O		EB25O		GA29O		IA34O		KA41O					
Put off studying		AB38D		CB26D		EB27D		GA31D		IA36D		KA43D					
Do other things first		AB38G		CB26G		EB27G		GA31G		IA36G		KA43G					
Try hard to do best		AB38F		CB26F		EB27F		GA31F		IA36F		KA43F					

LSAY Articulation Chart - Student Variables

The code for the second letter of variable names: A=both cohorts; B=Cohort Two only; C=Cohort One only Yellow highlight I need to delete for ICPSR release version 2010 fall

	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
EVALUATION OF HS YEARS:																	
Think education was good						FB22A	HB24A		JB30A		LA27A	NC298					
Most students work hard						FB22B	HB24B		JB30B		LA27B	NC299					
Teachers care about me						FB22C	HB24C		JB30C		LA27C	NC300					
School vandalism/violence						FB22D	HB24D		JB30D		LA27D	NC301					
Feel loyalty to HS						FB22E	HB24E		JB30E		LA27E	NC302					
Most stdts./no col. plans						FB22F	HB24F		JB30F		LA27F	NC303					
Happier somewhere else						FB22G	HB24G		JB30G		LA27G	NC304					
Students disrupt classes						FB22H	HB24H		JB30H		LA27H	NC305					
I never fit in at HS						FB22I	HB24I		JB30I		LA27I	NC306					
Stdts. cut/skip classes						FB22J	HB24J		JB30J		LA27J	NC307					
Good place to study/learn						FB22K	HB24K		JB30K		LA27K						
MATH AS SUBJECT MATTER:																	
LIKING:																	
I like math		AB39A		CB28A		EB29A		GA32A		IA37A		KA46A					
ABILITY:																	
I am good at math		AB39B		CB28B		EB29B		GA32B		IA37B		KA46B					
I understand math		AB39C		CB28C		EB29C		GA32C		IA37C		KA46C					
USEFULNESS:																	
Helps think logically		AB39I		CB28I		EB29I		GA32I		IA37I		KA46I					
For everyday problems		AB39H		CB28H		EB29H		GA32H		IA37H		KA46H					
Important for good job		AB39K		CB28K		EB29K		GA32K		IA37K		KA46K					
Many uses as adult		AB39L		CB28L		EB29L		GA32L		IA37L		KA46L					
ANXIETY:																	
Makes me nervous/upset		AB39E		CB28E		EB29E		GA32E		IA37E		KA46E					
Scares me when open book		AB39G		CB28G		EB29G		GA32G		IA37G		KA46G					
I worry about math tests		AB39F		CB28F		EB29F		GA32F		IA37F		KA46F					
MALE DOMAIN:																	
More useful for boys		AB39D		CB28D		EB29D		GA32D		IA37D		KA46D					
Boys better than girls		AB39J		CB28J		EB29J		GA32J		IA37J		KA46J					
CURRENT MATH TEACHER:																	
Enjoys teaching math			BB13A		DB3A		FB8A		HA7A		JA7A		LA7A				
Expects best from me			BB13B		DB3B		FB8B		HA7B		JA7B		LA7B				
Encourages extra work			BB13C		DB3C		FB8C		HA7C		JA7C		LA7C				
Expects me to work hard			BB13D		DB3D		FB8D		HA7D		JA7D		LA7D				
Expects completed homewrk			BB13E		DB3E		FB8E		HA7E		JA7E		LA7E				
Is a very good teacher			BB13F		DB3F		FB8F		HA7F		JA7F		LA7F				
Talks to me about jobs			BB13G		DB3G		FB8G		HA7G		JA7G		LA7G				
Expects me-->college			BB13H		DB3H		FB8H		HA7H		JA7H		LA7H				
Treats boys/girls differ.			BB13I		DB3I		FB8I		HA7I		JA7I		LA7I				
Makes me feel dumb			BB13J		DB3J		FB8J		HA7J		JA7J		LA7J				
Gives extra help			BB13K		DB3K		FB8K		HC7K		JC7K		LC7K				
Really seems to like me			BB13L		DA3L		FB8L		HC7L		JC7L		LC7L				
Encourages take more math			BB13M		DB3M		FB8M		HA7K		JA7K		LA7K				
Encourages math/sci job			BB13N		DB3N		FB8N		HA7L		JA7L		LA7L				
Pays attention to boys			BB13O		DB3O		FB8O		HA7M		JA7M		LA7M				
Thinks import I do well			BB13P		DB3P		FB8P		HA7N		JA7N		LA7N				
MY MATH CLASSMATES...:																	
Work hard in class						EB6AO	FB9A		HB8A		JB8A		LA8A				
Are often bored						EB6BO	FB9B		HB8B		JB8B		LA8B				
Can get help from teacher						EB6CO	FB9C		HB8C		JB8C		LA8C				
Goof off a lot						EB6DO	FB9D		HB8D		JB8D		LA8D				
Come to class prepared						EB6EO	FB9E		HB8E		JB8E		LA8E				
SCIENCE AS SUBJECT MATTER:																	
LIKING:																	
I like science		AB39M		CB29A		EB30A		GA33A		IA38A		KA47A					
ABILITY:																	

LSAY Articulation Chart - Student Variables

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	Summary	Grade7 FALL	Grade7 SPRING	Grade8 FALL	Grade8 SPRING	Grade9 FALL	Grade9 SPRING	Grade10 FALL	Grade10 SPRING	Grade11 FALL	Grade11 SPRING	Grade12 FALL	Grade12 SPRING	P1 SPRING	P2 SPRING	P4 SPRING	2007 SPRING
I am good at science		AB39N		CB29B		EB30B		GA33B		IA38B		KA47B					
I understand science		AB39O		CB29C		EB30C		GA33C		IA38C		KA47C					
USEFULNESS:																	
Helps think logically		AB39U		CB29I		EB30I		GA33I		IA38I		KA47I					
For everyday problems		AB39T		CB29H		EB30H		GA33H		IA38H		KA47H					
Important for good job		AB39W		CB29K		EB30K		GA33K		IA38K		KA47K					
Many uses as adult		AB39X		CB29L		EB30L		GA33L		IA38L		KA47L					
ANXIETY:																	
Makes me nervous/upset		AB39Q		CB29E		EB30E		GA33E		IA38E		KA47E					
Scares me when open book		AB39S		CB29G		EB30G		GA33G		IA38G		KA47G					
I worry about sci. tests		AB39R		CB29F		EB30F		GA33F		IA38F		KA47F					
MALE DOMAIN:																	
More useful for boys		AB39P		CB29D		EB30D		GA33D		IA38D		KA47D					
Boys better than girls		AB39V		CB29J		EB30J		GA33J		IA38J		KA47J					
CURRENT SCIENCE TEACHER:																	
Enjoys teaching science			BB12A		DB2A		FB4A		HA4A		JA4A		LA4A				
Expects best from me			BB12B		DB2B		FB4B		HA4B		JA4B		LA4B				
Encourages extra work			BB12C		DB2C		FB4C		HA4C		JA4C		LA4C				
Expects me to work hard			BB12D		DB2D		FB4D		HA4D		JA4D		LA4D				
Expects completed homewrk			BB12E		DB2E		FB4E		HA4E		JA4E		LA4E				
Is a very good teacher			BB12F		DB2F		FB4F		HA4F		JA4F		LA4F				
Talks to me about jobs			BB12G		DB2G		FB4G		HA4G		JA4G		LA4G				
Expects me-->college			BB12H		DB2H		FB4H		HA4H		JA4H		LA4H				
Treats boys/girls differ.			BB12I		DB2I		FB4I		HA4I		JA4I		LA4I				
Makes me feel dumb			BB12J		DB2J		FB4J		HA4J		JA4J		LA4J				
Gives extra help			BB12K		DB2K		FB4K		HC4K		JC4K		LC4K				
Really seems to like me			BB12L		DB2L		FB4L		HC4L		JC4L		LC4L				
Encourages take more sci			BB12M		DB2M		FB4M		HA4K		JA4K		LA4K				
Encourages math/sci job			BB12N		DB2N		FB4N		HA4L		JA4L		LA4L				
Pays attention to boys			BB12O		DB2O		FB4O		HA4M		JA4M		LA4M				
Thinks import I do well			BB12P		DB2P		FB4P		HA4N		JA4N		LA4N				
MY SCIENCE CLASSMATES...:																	
Work hard in class						EB5AO	FB5A		HB5A		JB5A		LA5A				
Are often bored						EB5BO	FB5B		HB5B		JB5B		LA5B				
Can get help from teacher						EB5CO	FB5C		HB5C		JB5C		LA5C				
Goof off a lot						EB5DO	FB5D		HB5D		JB5D		LA5D				
Come to class prepared						EB5EO	FB5E		HB5E		JB5E		LA5E				
ACTIVITY-IDENTITY																	
Enjoy fixing-mechanical					DB18A						JA24A						
Career-->good mother					DB18B						JA24B		LB28A				
Math/scientists nerds					DB18C						JA24C						
Woman's place in home					DB18D						JA24D		LB28B				
In marriage 2 jobs import					DB18E						JA24E		LB28C				
Woman help man's career					DB18F						JA24F		LB28D				
Woman looks after kids					DB18G						JA24G		LB28E				
Man should earn more					DB18H						JA24H		LB28F				
POLITICAL ACTIVITIES/																	
PARTISAN IDENTIFICATION																	
R's political party				CB12						IC12	JB22	KB5			OC299		QC396
Presidential preference				CB11						IC11		KB4					
Strong Republican																	QC398
Strong Democrat																	QC397
Lean Dem/Republican																	QC399
Registered to vote															OC304		QC400
Voted 1992																	QC401
Voted Bush/Clinton/Perot																	QC402
Public Official: Personal Issue															OC290		QC386
Public Official: Political Issue															OC291		QC387
First issue contacted																	QC388

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Second issue contacted																	QC389
Work for party/candidate															OC294		
Asked people to vote															OC296		
Wore candidate button				CB10A						IC10A	JB21A	KB3A			OC297		
Stuffed envelopes				CB10B						IC10B	JB21B	KB3B					
Handed out literature				CB10C						IC10C	JB21C	KB3C					
Attended speech/meeting				CB10D						IC10D	JB21D	KB3D			OC295		
Listen to candidate TV				CB10E						IC10E	JB21E	KB3E					
Read political article				CB10F						IC10F	JB21F	KB3F					
Plan to vote in '92															OC305		
Plan to vote for Bush or Clinton															OC306		
SOCIAL/POLITICAL ATTITUDES																	
Bush correct to send troops									HB25A					NC185			
U.S. did right/start military actions									HB25B					NC186			
Must trust leaders, experts									HB25C					NC187			
U.S. should be active in U.N.									HB25D								
Informed citizen/affect for policy									HB25E					NC188			
Anti-war protest should not be allowed									HB25F					NC189			
For. policy should be on moral/rights									HB25G					NC190			
For. Policy should be left to experts									HB25H					NC191			
Can not prevent wars									HB25I					NC192			
U.S. more aid to underdev. countries									HB25J								
Most not informed/affect for. policy									HB25K								
U.S. should not deal with dictatorships									HB25L								
World affairs, can't understand/control									HB25M								
U.S. less military/more diplomacy									HB25N					NC193			
U.S. lost science lead to Japan									HB25O								
Rich should pay higher tax rate									HB25P					NA196			
Unemployed could find jobs									HB25Q					NA188			
Income tax discourages work									HB25R					NA198			
Informed citizen/affect econ policy									HB25S								
Informed citizen/affect sci policy									HB25T								
Permanent military presence in Mideast														NC198			
Assistance to rebuild Iraq														NC199			
Victims of force beyond control														NC194			
READING COMPREHENSION***																	
PASSAGE 1 (JAZZ)																	
Main purpose of passage																	
Response							FB23AN						LA29AN				
Correct							FB23AK						LA29AK				
Use of phrase																	
Response							FB23BN						LA29BN				
Correct							FB23BK						LA29BK				
Tone of remark																	
Response							FB23CN						LA29CN				
Correct							FB23CK						LA29CK				
Support of statement																	
Response							FB23DN						LA29DN				
Correct							FB23DK						LA29DK				
PASSAGE 2 (EVOLUTION)																	
Main purpose of passage																	
Response							FB24AN						LA30AN				
Correct							FB24AK						LA30AK				
Time of human evolution																	
Response							FB24BN						LA30BN				
Correct							FB24BK						LA30BK				
Author's least certainty																	
Response							FB24CN						LA30CN				
Correct							FB24CK						LA30CK				
Evolution after dinosaurs																	
Response							FB24DN						LA30DN				
Correct							FB24DK						LA30DK				

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	Summary	Grade7		Grade8		Grade9		Grade10		Grade11		Grade12		P1	P2	P4	2007
		FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	SPRING	SPRING	SPRING	SPRING
PASSAGE 3 (SUNSPOTS)																	
Main concern of passage																	
Response							FB25AN						LA31AN				
Correct							FB25AK						LA31AK				
Sun storms' least effect																	
Response							FB25BN						LA31BN				
Correct							FB25BK						LA31BK				
Sun storms' great. effect																	
Response							FB25CN						LA31CN				
Correct							FB25CK						LA31CK				
Comparison with earth																	
Response							FB25DN						LA31DN				
Correct							FB25DK						LA31DK				
PASSAGE 4 (TRANSPORT.)																	
Overlooked changes																	
Response							FB26AN						LA32AN				
Correct							FB26AK						LA32AK				
Main concern of passage																	
Response							FB26BN						LA32BN				
Correct							FB26BK						LA32BK				
Future of transport.																	
Response							FB26CN						LA32CN				
Correct							FB26CK						LA32CK				
Author's viewpoint																	
Response							FB26DN						LA32DN				
Correct							FB26DK						LA32DK				
SCIENTIFIC LITERACY																	
Understand scientific study																QC288	
Meaning scientific study																QC289	
Understand computer software																QC292	
Best way to test drug (experiment closed)																QC293	
Reason for experiment question (coded)																QC294	
Understand DNA																	
Meaning DNA																	
Oxygen from plants																QC327	
Lasers focus sound waves																QC328	
Electrons smaller than atoms																QC329	
Antibiotics kill viruses																QC330	
Universe began with explosion																QC331	
Immune system no defense viruses																QC332	
All bacteria harmful to humans																QC334	
Radioactivity man-made																QC335	
Immune system protects																QC336	
DNA regulates plants and animals																QC337	
Over half human genes same as mice																	
Light/sound travels faster																QC342	
Earts goes around sun																QC343	
Length of earth rotation																QC344	
Greenhouse effect causes rise in temp																	
One-in-four:fourth has illness																QC345	
One-in-four:first sick																QC346	
One-in-four:equal risk																QC347	
One-in-four:none sick																QC348	
Read horoscope																QC349	
Astrology scientific																QC350	
CONSTRUCTED VARIABLES																	
OCCUPATION AND OCCUPATION PLANS																	
Occupation two-digit coded																	RSTEMMX
STEMM career includes social science																	RSTEMMA
STEMM career excludes social science																	RSTEMMB
Dichotomous STEMM variable																	RSTEMM

LSAY....Longitudinal Study of American Youth

December, 2010

LSAY Articulation Chart - Student Variables

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	Summary	Grade7 FALL	Grade7 SPRING	Grade8 FALL	Grade8 SPRING	Grade9 FALL	Grade9 SPRING	Grade10 FALL	Grade10 SPRING	Grade11 FALL	Grade11 SPRING	Grade12 FALL	Grade12 SPRING	P1 SPRING	P2 SPRING	P4 SPRING	2007 SPRING
Current job census code														NWORK			
LEVEL OF EDUCATION AND EDUC PLANS																	
Respondent education pathways																	RSEDAN
Respondent highest level of education 6 cat																	RSEDAN6
Respondent highest level of education 5 cat																	RSEDAN5
Has a baccalaureate degree (dichotomous)																	RBACC
Planned college major, 8 categories													LAMAJOR8				
Planned college major, 2 categories													LAMAJOR2				
ACHIEVEMENT VARIABLES																	
Summary sci ach scores (imputed included)		ASCIIMP		CSCIIMP		ESCIIMP		GSCIIMP		ISCIIMP		KSCIIMP					
Biology score (imputed included)		ABIOIMP		CBIOIMP		EBIOIMP		GBIOIMP		IBIOIMP		KBIOIMP					
Physical sci score (imputed included)		APHYIMP		CPHYIMP		EPHYIMP		GPHYIMP		IPHYIMP		KPHYIMP					
Environ sci score (imputed included)		AENVIMP		CENVIMP		EENVIMP		GENVIMP		IENVIMP		KENVIPM					
Science achievement high school	SCIACHV																
Summary math ach score (imputed included)		AMTHIRTI		CMTHIRTI		EMTHIRTI		GMTHIRTI		IMTHIRTI		KMTHIRTI					
Math achievement high school	MTHACHV																
Reading test percentage correct						FBREAD							LAREAD				
Reading score -- highest of two	LAREADI																
Reading score (imputed from matrix if missing)	LAREADIX																
Achievement (math, science, reading)	ACHIEVE																
SCHOOL COURSES: MIDDLE SCHOOL & HS																	
Took calculus in high school	CALCHS																
Year took algebra, 4 categories	ALGTRK4																
Year took algebra, 3 categories	ALGTRK3																
Highest math course taken thru								MTRK10		MTRK11		MTRK12					
HI math course		SMHCR7		SMHCR8		SMHCR9		SMHCR10		SMHCR11		SMHCR12					
HI mth course category		MTH7		MTH8		MTH9		MTH10		MTH11		MTH12					
Number HS math courses (pre-alg +)	NUMHSMTH																
School tracks math program		BMSCHTRK		DMSCHTRK		FMSCHTRK											
# of levels in math program		BMNGRP		DMNGRP		FMNGRP											
level of math class w/in curriculum		BMCLSLEV		DMCLSLEV		FMCLSLEV											
Special ed. math class		BMSPED		DMSPED		FMSPED											
Math class ability level		BMLEV3		DMLEV3		FMLEV3											
Year took biology, 4 categories	BIO4																
Year took biology, 3 categories	BIO3																
Highest science course taken thru								STRK10		STRK11		STRK12					
HI sci course		SSCCR7		SSCCR8		SSCCR9		SSCCR10		SSCCR11		SSCCR12					
HI sci course category		SCI7		SCI8		SCI9		SCI10		SCI11		SCI12					
# of semester sci labs						LAB9		LAB10		LAB11		LAB12					
Total # of semesters of sci labs													HSLAB				
Number HS science courses (Bio +)	NUMHSSCI																
School tracks science program		BSSCHTRK		DSSCHTRK		FSSCHTRK											
# of levels in science program		BSNGRP		DSNGRP		FSNGRP											
Level of sci class w/in curriculum		BSCLSLEV		DSCLSLEV		FSCLSLEV											
Special ed. science class		BSSPED		DSSPED		FSSPED											
Science class ability level		BSLEV3		DSLEV3		FSLEV3											
COLLEGE COURSES AND EXPERIENCES																	
College major														NMAJOR			
Major when first started college																	RMAJFIRST
STEMM major when first started college																	RMAJFIRST2
Major when received baccalaureate																	RMAJLAST
STEMM major when received baccalaureate																	RMAJLAST2
STEMM major graduate school (10 cat)																	RGRADMAJ10
STEMM major graduate school																	RGRADMAJ
Number of undergrad calculus courses	UGCALCNUM																
Undergraduate science courses (capped at 20)	UGSCI																

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Rating of quality of post-secondary ed by R	PSEQUAL																
ATTITUDE SCIENCE AND MATH																	
Likes math high school	LIKEMTH																
Likes science high school	LIKESCI																
BEHAVIORAL AND ATTITUDINAL SCALES																	
Student educational expectations	SEDEXHS	SEDEX7		SEDEX8		SEDEX9		SEDEX10		SEDEX11		SEDEX12					
PARENT INFLUENCES																	
Parent academic push	PACPHHS	PACPH7		PACPH8		PACPH9		PACPH10		PACPH11		PACPH12					
Parent college push	PCOPHHS	PCOPH7		PCOPH8		PCOPH9		PCOPH10		PCOPH11		PCOPH12					
Parent math push	PMHPHHS	PMHPH7		PMHPH8		PMHPH9		PMHPH10		PMHPH11		PMHPH12					
Parent science push	PSCPHHS	PSCPH7				PSCPH9		PSCPH10		PSCPH11		PSCPH12					
Home science resources	HSCREHS	HSCRE7						HSCRE10		HSCRE11							
TEACHER INFLUENCES																	
Math teacher push	SMHTCPHHS																
Science teacher push	SSCTCPHHS																
PEER INFLUENCES																	
Peer academic push		KACPH7		KACPH8		KACPH9		KACPH10		KACPH11		KACPH12					
Peer math push		KMHPH7		KMHPH8		KMHPH9		KMHPH10		KMHPH11		KMHPH12					
Peer math science push		KMHSCPH7		KMHSCPH8		KMHSCPH9		KMHSCPH10		KMHSCPH11		KMHSCPH12					
Peer science push		KSCPH7		KSCPH8		KSCPH9		KSCPH10		KSCPH11		KSCPH12					
GEOGRAPHIC VARIABLES																	
Urban classification 6 levels												KURBAN6					RURBAN6
Urban classification 8 levels																	RURBAN8
Percent population with BA or higher												KGPCBA					RPCBA
Distance grade 12 home to first post-sec school	DSGR12CO																
Distance grade 12 home to R-cycle address	DSGR12YR07																
Distance first post-secondary to R-cycle	DSCOYR07																
Distance Grade 12 home to first BA location	DSGR12BA																
Distance first BA to R-cycle home	DSBAYR07																
Distance first BA to first grad degree location	DSBAGS																
Distance from highest grad degree to R-cycle	DSGSYR07																
FLAGS AND WEIGHTS																	
School code		ASCHCODE		CSCHCODE	DSCHCODE	ESCHCODE	FSCHCODE	GSCHCODE	HSCHCODE	ISCHCODE	JSCHCODE	KSCHCODE	LSCHCODE				
Original grade cohort in study	COHORT																
School Cohort Size		ACLASSIZE						GCLASSIZE									
Respondent location				CLOCATN	DLOCATN	ELOCATN	FLOCATN	GLOCATN	HLOCATN	ILOCATN	JLOCATN	KLOCATN	LLOCATN				
Schcode region of the country		AREGION		CREGION	DREGION	EREGION	FREGION	GREGION	HREGION	IREGION	JREGION	KREGION	LREGION				
Schcode community type		AURBAN		CURBAN	DURBAN	EURBAN	FURBAN	GURBAN	HURBAN	IURBAN	JURBAN	KURBAN	LURBAN				
Final followup status				CSTATUS	DSTATUS	ESTATUS	FSTATUS	GSTATUS	HSTATUS	ISTATUS	JSTATUS	KSTATUS	LSTATUS				RSTATUS
Composite weight		WEIGHT7		WEIGHT8		WEIGHT9		WEIGHT10		WEIGHT11		WEIGHT12		WEIGHTP1	WEIGHTP2	WEIGHTP4	WEIGHTR
Longitudinal weight for the senior year												WGT12A					
Gender	GENDER																
Fall attitude data		AATTFLAG		CATTFLAG		EATTFLAG		GATTFLAG		IATTFLAG		KATTFLAG					
Fall science test data		ASCIFLAG		CSCIFLAG		ESCIFLAG		GSCIFLAG		ISCIFLAG		KSCIFLAG					
Fall math test data		AMTHFLAG		CMTHFLAG		EMTHFLAG		GMTHFLAG		IMTHFLAG		KMTHFLAG					
Spring parent data			BPARFLAG		DPARFLAG		FPARFLAG		HPARFLAG		JPARFLAG		LPARFLAG				
Spring attitude data			BATTFLAG		DATTFLAG		FATTFLAG		HATTFLAG		JATTFLAG		LATTFLAG	NATTFLAG	OATTFLAG	QATTFLAG	
Spring first science class data			BSCLFLAG		DSCLFLAG		FSCLFLAG		HSC1FLAG		JSC1FLAG		LSC1FLAG				
Spring first math class data			BMCLFLAG		DMCLFLAG		FMCLFLAG		HMC1FLAG		JMC1FLAG		LMC1FLAG				
Post-secondary type and status														NPSEMAY			
Employment status														NJOBMAY			
Marital status														NMARMAY			