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High School Longitudinal Study of 2009
(HSL:09),
2013 Update and Transcript Main Study

Supporting Statement
Part B & C

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B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

This section describes the target universe for this study and the sampling and statistical methodologies proposed for the HSLs:09 2013 Update and transcript main study collection. Part B also addresses suggested methods for maximizing response rates, for testing procedures and methods, and introduces the technical staff responsible for design and administration of the study.

B.1 Target Universe and Sampling Frames

The base-year target populations for HSLs:09 consisted of (1) public and private schools within the U.S. providing instruction to 9th- and 11th-grade students, and (2) the 9th graders attending these schools in the fall semester of 2009. As with the first follow-up study, the target population for the HSLs:09 2013 Update and transcript study is the same as specified in the base year.

B.2 Statistical Procedures for Collecting Information

B.2.a School Sample

A total of 2,761 schools will be contacted for transcript collection in the fall of 2013. This includes all of the 939 base-year participating high schools (this number differs from the 944 originally collected in the base year because of school closures and merges with other schools since 2009), and 1,822 other schools attended by students during the HSLs:09 first follow-up. Any additional schools identified during the 2013 Update main study will also be included in the transcript collection effort.

B.2.b Student Sample

Students who withdrew from the study, were deceased, were determined study ineligible, were identified as questionnaire-incapable (QI) during the first follow-up study after being a nonrespondent or QI in the base year, or participated in neither the base-year data collection nor first follow-up data collections (n=2,890) will be excluded from both the 2013 Update and transcript data collections. Therefore, of the 26,305 cohort members initially selected for the HSLs:09 study, the 2013 Update will field a sample of 23,415 cohort members (89 percent of the original base year sample). All 23,415 participants will be contacted for the 2013 Update study. Either the student or the parent can complete the questionnaire. The associated high school record for each member will be collected, keyed, and coded as part of the HSLs:09 transcript study.

B.2.c Weighting

Analysis weights along with survey data are used to produce population estimates. The weights reflect the inclusion probabilities for the sampled units (i.e., base weights generated in the base year study) and adjustments to lower (1) unit nonresponse bias, (2) undercoverage bias, and (3) the variability

of the resulting weights. Analysis weights will be produced for the HSLs:09 2013 Update and transcript main studies.

The HSLs:09 longitudinal, multistage design introduces significant complexity to the task of weighting. Two sets of longitudinal weights are anticipated for the analysis of the cumulative HSLs:09 data: one set to reflect response to either the base-year or first follow-up rounds *and* the 2013 Update; and one set to reflect response to either the base-year or first follow-up rounds *and* receipt of high school transcript information.

The HSLs:09 weighting process includes four major steps. Using the base weights created during the HSLs:09 base-year study, an adjustment will be applied for nonresponse to the base-year *and* first follow-up main studies to account for those excluded from the 2013 Update and transcript studies. In the second step, base weights will be adjusted for nonresponse in the 2013 Update study. The third step will include a calibration adjustment to the sum of the base-year analysis weights to ensure coverage of the 9th-grade target population. Finally, weights constructed after each adjustment will go through an extensive series of quality control (QC) checks to prevent any computational or procedural errors, and to detect extreme outliers that can decrease the precision in the population estimates. These include review of program logs, verification of weight sums before and after adjustments are applied to the weights, and verification of the final weight sums against weight sums from the HSLs:09 first follow-up. Design effects for a set of important survey estimates will be calculated and reviewed for extreme values, thus creating an iterative process until the final set of efficient weights is produced.

In addition to analyzing design effects, unit bias analyses will be conducted to determine whether additional variables not already included in the nonresponse models should be investigated. Statistical tests will be conducted on a variety of questionnaire items. If non-negligible levels of bias remain, the nonresponse and calibration adjustments will be revisited with the goal of lowering the bias. To estimate bias for a generic population parameter θ , we will calculate the following quantity for a set of variables known for both respondents and nonrespondents:

$$\hat{B}(\hat{\theta}_R) = \hat{\theta}_R - \hat{\theta},$$

where $\hat{\theta}_R$ is the estimated parameter using only the respondent data, and $\hat{\theta} = (1 - \hat{\eta}) \hat{\theta}_R + \hat{\eta} \hat{\theta}_{NR}$, the estimated parameter using both the respondent ($\hat{\theta}_R$) and nonrespondent ($\hat{\theta}_{NR}$) data and the weighted nonresponse rate $\hat{\eta}$. Candidate variables known for all sample cases include those from the original sampling frame as well as survey data collected in a previous rounds of HSLs:09.

All HSLs:09 weight adjustments—including nonresponse and calibration—will be calculated with a design-based model using the WTADJUST procedure in SUDAAN®, statistical software with built-in controls on extreme values. Model variables will be identified as being associated with a set of key analysis variables as well as the differential pattern of unit nonresponse. Classification procedures such as regression tree analysis will be used to identify these variables from a candidate list that includes stratification variables and data collected from previous rounds of HSLs:09.

B.2.d Imputation of Missing Data

Imputation of missing values in the 2013 Update main study will be performed for items commonly used to define analysis domains, items that are frequently used in cross-tabulations, and items needed for weighting. Categorical HSLs:09 items that are subject to imputation will be imputed using logical imputation¹ where applicable, followed by a weighted sequential hot deck procedure.² By incorporating the sampling weights, this method of imputation takes into account the unequal probabilities of selection in the original sample while controlling the expected number of times a particular respondent's answer will be used as a donor. Variables that are statistically associated with either the item being imputed, or the specific pattern of item nonresponse for the item being imputed will be used to form the imputation classes. Statistical tests such as logistic regression and regression tree analysis will be used to determine significant associations. Candidate variables for the imputation classes will be drawn from the current survey as well as information collected in the previous rounds of HSLs:09. Consistency of the imputed values will be verified within and across the rounds of HSLs:09.

B.2.e Variance Estimation

Sets of 200 balanced repeated replication (BRR) weights will be created for the 2013 Update and transcript samples to produce variance estimates. This number is consistent with the number of replicates used for the HSLs:09 base year. The BRR weighting process will replicate the procedures used to generate the full sample weight (section B.2.c) and will follow the steps successfully implemented on a number of studies, including ELS:2002 (<http://nces.ed.gov/surveys/els2002/>), the National Study of Postsecondary Faculty (NSOPF, <http://nces.ed.gov/surveys/nsopf/>), and previous rounds of HSLs:09 (<http://nces.ed.gov/surveys/hsls09>). In addition, analysis strata and primary sampling units (PSUs) created from the sampling PSUs will be included on the electronic code book for analysts wanting to use Taylor series variance estimation rather than BRR weights.

¹ One commonly used example of logical imputation is assigning gender based on name.

² Iannacchione, V.G. (1982). "Weighted Sequential Hot Deck Imputation Macros." *In Proceedings of the Seventh Annual SAS User's Group International Conference* (pp.759–763). Cary, NC: SAS Institute, Inc.

B.3 Methods for Maximizing Response Rates

Procedures for maximizing response rates are based on successful experiences with prior rounds of HSLs:09 and with other education studies. In this section, methods for maximizing response rates for the 2013 Update interview and the high school transcript collection are discussed.

B.3.a 2013 Update

The objective of the HSLs:09 2013 Update is to gather information about students' plans following high school. The data collection period begins on June 1, 2013, when most students have recently graduated or are about to graduate from high school, and continues through October as they embark on their post high school endeavors. Because the study will occur during a time of high student mobility, the questionnaire has been designed to allow for completion by either a student or a parent. A number of methods will be implemented to locate sample members and gain cooperation to maximize response in the HSLs:09 2013 Update.

Locating sample members. A multi-stage locating approach will be implemented to find and collect current contact information for the HSLs:09 sample. The stages of the proposed locating approach are:

- **A Panel Maintenance Update** prior to the 2013 Update collection (already approved by OMB) is currently being conducted (May 2013). The mailing includes information for the sample member to log into the study website and update contact information, and informs them that the next update will begin in June 2013. A hardcopy form is provided along with a business reply envelope to provide sample members with the option of providing updated contact information in hardcopy form. The panel maintenance mailing is sent directly to the student if he/she is aged 18 or older, and to the parents if the student is under age 18.
- **Advance Tracing** includes batch database searches, contact information updates, and advance intensive tracing conducted as necessary.
- **Telephone Locating and Interviewing** includes calling all available telephone numbers and following up on leads provided by parents and other contacts.
- **Pre-Intensive Batch Tracing** consists of the Premium Phone searches that will be conducted between the telephone locating and interviewing stage and the intensive tracing stage.
- **Intensive Tracing** consists of tracers checking all telephone numbers and conducting credit bureau database searches after all current telephone numbers have been exhausted.

Tracing steps will include gathering information for locating both the parent and student, and will be conducted in the listed order. Since the most cost effective steps are first, this plan will result in locating the maximum number of sample members with the least expense.

Gaining Cooperation. Though the information collected for the 2013 Update specifically relates to the student sample member, the 2013 Update questionnaire can be completed by either the student or the parent. Allowing the parent or the student to provide information will result in a higher response rate than would otherwise be achieved with a student-only response restriction. Students and parents will have the option to complete the interview online or on the telephone.

To mitigate challenges experienced in the field test with achieving high response in the early data collection phase, we proposed to begin data collection two weeks earlier to maximize early response rate before students disperse for the summer. Materials will be mailed to both students and parents. Since the vast majority of students will be at least 18 years of age at the time of the 2013 Update data collection, separate materials will be sent directly to students and to parents. For students who are not yet 18 years old, parent permission must be received before contacting the student or allowing the student to participate. As was the protocol for the First Follow-up data collection, the parent mailing will include a sealed student letter when parent permission is required. Parents will also be allowed to provide their permission online or during an outbound computer assisted telephone interview (CATI) call. Once parent permission is obtained, subsequent reminder mailings will be sent directly to the student.

Students and parents will receive a description of the study, a note stating the importance of the 2013 Update, and log-in credentials. Each letter will supply a telephone number to complete a CATI interview or get assistance with the self-administered web questionnaire. Parent letters will also request that they encourage their young adult to participate in the 2013 Update, though both letters will mention that either the student or a parent can complete the questionnaire. Regardless of student's age, the student letters will provide the same information as the parent letters, albeit with different log-in credentials.

Telephone interviewers will be trained using best practices for gaining cooperation from sample members and interviewing sample members. Training will also focus on the background and purpose of HSLS:09 and the questionnaire. A training manual will be provided and referenced throughout training and data collection. Training exercises, mock interviews, and other training aids will be used during the training session.

The incentive plan for the HSLS:09 2013 Update described in detail in section A.9 (Explanation of Payment or Gift to Respondents) will complement the approaches described in this section to maximize participation of sample members. It consists of a phased approach with an important analytic group (cases

identified as having ever dropped out) targeted for a \$40 incentive from the start; a responsive design model to identify cases that are likely to be particularly influential with respect to nonresponse bias to be subjected to a more rigorous protocol including monetary incentives; and the offer of an abbreviated interview for the last three weeks of data collection.

B.3.b Transcripts

Transcript data will be requested for students who participated (or were questionnaire-incapable) in either of the in-school rounds of HSLs:09 from all schools attended since the 2009-10 academic year. A complete transcript from the school will be requested as well as complete transcripts from transfer schools that the students attended, as applicable. Since the success of the transcript collection is closely tied to the active participation of selected schools, the consent and cooperation of the school's coordinator is essential and helps to encourage the timely completion of the transcript collection. If the HSLs:09 coordinators have been involved with the in-school collection, they will be familiar with HSLs:09 and recognize the study's importance. Procedures for working with schools will build upon the rapport developed with schools in the HSLs:09 base year and first follow-up and will be based on successful past procedures. Institutional contactors will use the HSLs:09 Institutional Contacting System (ICS) which will contain information from ongoing communications since the base-year recruitment.

The descriptive materials sent to schools will be clear, concise, and informative about the purpose of the study and the nature of subsequent requests and will include letters from RTI and NCEs and instructions for how to log on to the study's secure website and access information and tools for providing transcripts. Follow-up calls will be made to ensure receipt of the request packet and answer any questions about the study. It is likely that telephone prompting will be required to obtain the desired number of transcripts in addition to e-mail prompts, letters, and postcard prompts.

A seasoned team of Institutional Contactors (ICs) will be assigned responsibility for a set of schools throughout the transcript collection process, which enable Institutional Contactors to build and maintain rapport with school staff and to provide a reliable point of contact at RTI. Institutional Contactors will be thoroughly trained in transcript collection and in the purposes and requirements of the study, which helps them establish credibility with the school staff.

Different options for collecting transcripts for sampled students are offered. Data security procedures for each method of transcript collection are addressed in the HSLs:09 Data Security Plan. The school coordinator is invited to select the method of greatest convenience to the school. School staff will have the option to provide transcript data by: 1) uploading electronic transcripts for sampled students to the secure study website; 2) sending electronic transcripts for sampled students by secure File Transfer

Protocol; 3) sending electronic transcripts as encrypted attachments via email; 4) for schools that already use this method, RTI requesting/collecting electronic transcripts via a dedicated server at the University of Texas at Austin; 5) transmitting transcripts via a secure electronic fax at RTI, after sending a confirmed test page; and as a last resort 6) sending transcripts via an express delivery service after redacting personally identifying information. The majority of schools will likely fax the data, followed closely by those schools that will use FedEx. The numbers will be small for the other modes, but the plan is to set up multiple means to accept the data if the school is willing and able to use the more sophisticated electronic modes. More options promote the likelihood of more timely response. For reference, the recent B&B/BPS Postsecondary Education Transcript Study (PETS) found 66% of the data arrived via fax from colleges. The percentage could be even higher with high school transcripts.

Consent Procedures. Privacy and consent concerns may arise in the collection of high school transcripts. ICs requesting transcripts will be familiar with the Family Educational Rights and Privacy Act of 1974 (FERPA), which permits schools to release student data to the U.S. Department of Education and its authorized agents without consent, and will be prepared to respond to concerns raised by high school staff. If the school requires student consent to release the transcripts, RTI will prepare and mail consent forms to the students (or parents if the student is known to be under age 18). RTI will request that the school provide a letter of support that will be sent along with the consent form to help legitimize the request. Sample text will be provided to the school to facilitate the collection of this letter prior to mailing consent forms to the young adult. Consent forms should be returned directly to RTI, where the consent forms will be packaged and sent to the school with a second request for transcripts. Telephone prompting will be conducted as needed to remind students and parents to send consent forms to RTI. During the field test, the prevalence of schools requiring implied or explicit consent and the rate of return will be evaluated so that procedures may be refined for the main study. During the ELS:2002 high school transcript collection, 5 percent of the schools required explicit consent (i.e., signed consent form) to release transcripts.

In compliance with FERPA, a notation will be made in the student record that the transcript has been collected for use in HSLS:09.

B.3.c Panel Maintenance Prior to Second Follow-up

A panel maintenance mailing is proposed to collect updated contact information prior to the second follow-up collection scheduled to take place in early 2016. Three years will transpire between the most recent update and the second follow-up (2012 to 2015 for the field test and 2013 to 2016 for the main study). Sample members and their parents will receive the panel maintenance mailings. The panel

maintenance update would take place at the mid-point between the two collections, occurring in late 2013 for the field test and late 2014 for the main study.

Our proposal for the panel maintenance activities prior to the second follow-up is modeled after ELS:2002/12, which conducted an experiment with its field test sample that demonstrated the effectiveness of a \$10 incentive offer to increase participation in the panel maintenance. In this experiment, half of the students in the field test sample were offered a \$10 check if they or their parents confirmed or updated their contact information. No incentive was offered to the other half of the sample. A cost-benefit analysis was also conducted to evaluate the difference between the cost of the incentive offer and the difficulty of cases that responded. The impetus behind this analysis was determining if information was received from more difficult cases, as the benefit would be reduced if the “easy-to-track” cases were the ones to respond. Overall, the \$10 treatment group had a higher participation rate (25 percent) than the control group (20 percent, $t=1.90$, $p < .05$). Higher panel maintenance participation for the treatment group as compared with the control group was also observed by various characteristics of cases, such as those with postsecondary education experience, males, and those with a high school diploma. Further evaluation of the data indicates that the contact information provided largely new information not already in the study database; for 82 percent of the responding cases, at least one new address, phone number, or email address was provided for the student, parent, or both. Being able to make direct contact with the sample student during data collection saves time and costs, and is likely to increase interview participation.

The \$10 incentive offer was then implemented with the ELS:2002/12 main study sample based on the field test results. Forty percent of the ELS:2002/12 third follow-up main study sample participated in panel maintenance at some point. Among that group, 97 percent responded to the third follow-up survey compared to a 74 percent response rate among those that did not participate in panel maintenance. Among those that responded to one or more panel maintenance requests, the ELS:2002/12 survey response rate exceeded 90 percent across numerous categories including but not limited to: those without known postsecondary experience (91%), those without a regular high school diploma (93%), males (96%), and ever dropout cases (96%). HSLs:09 proposes to implement the ELS:2002 model for this panel maintenance activity and offer a \$10 incentive to sample members who provide updated contact information.

B.4 Test of Procedures and Methods

The 2013 Update responsive design plan builds on the approaches implemented on other NCES studies which preceded it, specifically NPSAS, B&B, BPS, and ELS. Brief summaries of the responsive

design for each study is provided below, and summarized in exhibit B-1. The design proposed for the 2013 Update is a phased, hybrid approach focused on reducing nonresponse bias in survey variables with targeted interventions.

B.4.a Previous Studies

B.4.a.1 NPSAS:12

The response propensity experiment conducted during the NPSAS:12 field test data collection (March 2011 to June 2011) was designed to reduce nonresponse bias through targeted use of incentives. Using data from NPSAS:04, RTI identified variables available prior to data collection which were predictive of response likelihood, then used the variables to estimate a NPSAS:12 field test sample member's response propensity. Sample members with a low response propensity were sorted at random into either a control group, which was offered the usual \$30 incentive for participation, or an experimental group, which was offered \$45. High response propensity sample members were sorted at random into a control group that was offered \$30 or an experimental group that was offered \$15. Following data collection, RTI evaluated the predictive ability of the response propensity model and determined if bias was reduced in the experimental cases.³

The propensity model successfully distinguished between high and low propensity cases in terms of response rate. The unweighted low propensity response rate was 57.7% and the unweighted high propensity response rate was 67.7%, a statistically significant difference ($\chi^2 = 42.003$, $p < .0001$). However, while the primary goal of the response propensity approach was to reduce bias in key estimates, the weighted estimates in both the low propensity control and treatment groups were virtually identical, suggesting that differential incentives did not have any effect on reducing bias. Although the NPSAS:12 field test experiment was not designed to increase response rates *per se*, response rates by incentive amount within propensity groups were tested. Within the low propensity group, no statistically significant difference between experimental and control groups was noted ($\chi^2 = 2.527$, $p > .05$) while the difference observed between high propensity control and treatment groups was statistically significant, with lower incentives being associated with lower response rates ($\chi^2 = 13.576$, $p < .001$).

Given the equivocal results of the response propensity experiment, RTI adopted a responsive design approach to the NPSAS:12 full-scale data collection (February 2012 to August 2012), dropping pre-data collection modeling of either responses or paradata. Instead, all sample members were offered a \$30 incentive, and the approach to data collection used during the early response phase varied by institution sector (e.g., public, 2-year) as a substitute for response propensity. For example, students in

³ For the NPSAS:12 field test, the institution sample was selected statistically, rather than purposively, as had been done in past NPSAS cycles, in order to allow inferences to be made to the target population, supporting the analytic needs of the field test experiments.

public, 4-year institutions, with historically higher response rates, were handled with the typical data collection plan: three weeks of online-only interviewing followed by outbound calling to nonrespondents. In contrast, student in institutions with historically lower response rates and lower likelihood of responding online, were moved almost immediately to outbound calling, shortening the time to initial contact and, when needed, referral to intensive tracing.

As each wave of the NPSAS:12 sample moved from the early response to the production phase of data collection, the approach taken to encourage response continued to depend on institution sector. Other factors about an individual's experience in data collection were also considered. For example, specialized emails were prepared based on paradata, such as break offs and expressed preference to complete the online interview, and USPS Priority Mail is being used to contact cases sampled as FTBs. As the data collection period ended, cases were offered the abbreviated interview depending on their time in data collection and expressed reluctance to commit time to the interview.

B.4.a.2 B&B:08/12

In the B&B:08/12 field-test (July 2011 to October 2011), RTI targeted cases with a low propensity to respond and a high likelihood of contributing to nonresponse bias in order to increase the response rate and yield less biased survey estimates. To begin, frame data, paradata, and indicators of previous response behavior were used to develop a predictive model of a given sample member's propensity to respond. To build the model, RTI estimated logistic regression coefficients using data from the NPSAS:08 base year to predict response in the first follow-up (B&B:08/09). The resulting model produced odds ratios ranging from 0.99 to 2.65 with an r-squared value of 0.19.

Before the start of data collection, response propensities for all sample members were calculated based on the developed model, then used to divide the sample into low and high response propensity groups. Approximately one-third of the cases were in the high propensity group, and two-thirds were in the low propensity group. The low propensity group was comprised of those less likely to complete and most likely to introduce nonresponse bias if they remained nonrespondents. Within each of the propensity levels, cases were randomly assigned into a control group, which received the same incentive offered in the prior field test round (\$35 or \$55), and an experimental group, whose incentive amounts varied by response propensity: \$20 or \$40 was offered to all cases in the high propensity group, and \$50 or \$70 was offered to cases in the low propensity group, depending on the amount they received in the prior field test, with those receiving \$55 in 2009 receiving \$70 in 2011.

Like the NPSAS:12 field test, evaluation of the field test results showed that the propensity model was able to accurately predict relative likelihood to respond. The proportion of nonrespondents in the low

propensity group (39 percent) was more than three times the proportion in the high propensity group (11 percent; χ^2 , (1, N=1,588)=139.0; $p < .01$). Analyses of response rates for the treatment and control groups indicated that changes in incentives had the strongest impact on response rates for those individuals in the middle of the propensity score range. Observed response rates were higher in the incentive treatment group for those individuals with the highest propensity scores within the low propensity classification (81.4 and 73.3 percent, $t = 2.04$, $df = 539$, $p \leq .05$). Those with the lowest propensity scores within the high propensity classification showed a numerical difference in response rates between treatment and control groups (79 and 89 percent, respectively), but the difference was not statistically significant. However, field test results did not show a reduction in bias as a result of the additional response.

In order to focus on identifying and targeting cases most likely to contribute to nonresponse bias, a revised approach was employed in the B&B:08/12 full-scale data collection that used a responsive design and the Mahalanobis distance measure to identify cases for targeted treatments. For the first three months of data collection, which began in August 2012, all sample members received the same treatment in data collection – the web, online interview option with “CATI-light,” during which a small number of calls were made, mainly to prompt sample members to complete the online interview. Incentive offers during the first three months were determined by a case’s propensity score, calculated prior to the start of data collection. Cases with the highest propensity scores were offered \$20, midrange \$35, and lowest propensity \$55.

The B&B full-scale sample was split into a treatment and a control group at random and, in Month 3 (November 2012), Mahalanobis values of treatment group nonrespondents were calculated. Cases above a threshold value (high-distance) were offered another \$15 in addition to their original incentive offer of \$20, \$35, or \$55 (once a case became eligible for the additional \$15, it remained eligible for the \$15). All other treatment group and control group members continued at their initial incentive level.

After an additional month of data collection (December 2012), Mahalanobis values were reevaluated for the remaining treatment group nonrespondents. Those above a new cut point (determined based on the remaining nonrespondents at Month 4) received a \$5 prepaid incentive. The high-distance nonrespondents in the control group and all low-distance nonrespondents did not receive this incentive.

In Month 6 (February 2013), Mahalanobis values were evaluated again for remaining nonrespondents, and those above the cut point (determined based on the remaining nonrespondents at month 6) were offered an abbreviated interview. The high-distance nonrespondents in the control group and all low-distance nonrespondents received an abbreviated interview, but on the regular schedule (i.e., 6 weeks later).

B.4.a.3 ELS:2002/12

For the ELS third follow-up field test (July 2011 to September 2011), sample members with the lowest response propensities were empirically identified, then targeted with interventions in an attempt to encourage participation. A logistic regression model was fitted with the sample member's ELS:2002 second follow-up field test response status as the dependent variable. As independent variables, a range of information known for *all* respondents and nonrespondents from each prior wave of the longitudinal field test, including information from panel maintenance activities were examined for significance.

Predicted probabilities derived from the logistic regression model were used to get an estimate of a case's response propensity for the field test. Cases were split into two groups of equal size. Field test sample members above the median response propensity were classified as high propensity (528 cases), and those below the median as low propensity (527 cases). For the implementation of the experiment, the low propensity cases were randomly split into experimental and control groups. Low propensity experimental group cases were offered a higher incentive of \$45 at the start of data collection (weeks 1-9), increasing to \$55 starting at week 10. High propensity and low propensity control group cases were offered \$25 until week 10 of data collection, after which the incentive increased to \$35.

The predictive model developed ahead of the field test data collection effectively predicted the eventual response outcome for sample members. The high propensity group's response rate (67.4%) was significantly higher than that of the low propensity control group (45.4%). This difference was statistically significant ($\chi^2 = 34.9$; $p < .0001$). In examining the effect of the higher incentive treatment for low propensity cases, a numerical difference in participation (51.6% for treatment cases vs. 45.4%) was observed, however, the difference was not statistically significant. The small ELS:2002 field test sample size and the brevity of the data collection period may have contributed to the inability to detect a significant difference in the results. In reviewing the mean relative bias, it appeared that including low propensity cases in the dataset may have helped reduce bias, if only slightly, and the higher incentive for the low propensity experimental cases may have lowered the bias relative to the low propensity control group.

For the ELS:2002/12 full scale study (July 2012 to February 2013), an alternative approach, like that being used for the B&B:08/12 full-scale data collection, was implemented. Mahalanobis distances were calculated to identify those nonrespondent cases which are most unlike existing respondents and, therefore most likely to contribute to response bias. Substantive data (*e.g.*, enrollment status, parent's education, high school completion status) and paradata (*e.g.*, response status, number of contact attempts in the early data collection period) already available from the base year and first and second follow-ups were used to calculate the Mahalanobis distances.

Distance functions were measured at three points during data collection: 4 weeks and 9 weeks after the start of data collection (Phases 1 and 2, respectively), and at 8 weeks prior to the end of data collection (Phase 3). Most cases were offered an initial incentive of \$25. Cases with the largest calculated distance scores at each time point were offered an increased incentive of \$55 (once at \$55, the incentive offer did not decrease). Additional activities were conducted to locate and interview targeted cases including, at Time 2, performing pre-data collection intensive tracing and pursuing the cases in person with field locator/interviewers and, at Time 3, including a \$5 prepaid incentive with the mailing.

The ELS:2002/12 data collection ended in February 2013 and results are pending.

B.4.a.4 BPS:12/14 Field Test

With data collection beginning in March 2013, the BPS:12/14 responsive design built on the work currently being conducted in B&B:08/12 and ELS:2002. The basic design is the same – Mahalanobis distances will be calculated at several time points and specific treatments applied to encourage response among sample members likely to contribute the most to bias if they do not participate. Given the heterogeneous nature of the BPS cohort, which has no common postsecondary experience and will not be the same age, the collection could result in considerably different Mahalanobis distance distributions, and data collection outcomes. Thus, the BPS:12/14 field test embedded an experiment to measure the effectiveness of the responsive design.

All NPSAS:12 base year interview respondents, and all nonrespondents who were potential FTBs, will be included in the BPS:12/14 field test data collection experiment. Data collection will occur in two main phases, an early response phase, during the first 3 weeks of data collection, followed by the main, production interviewing phase. The early response phase will continue for 3 weeks, with all base year nonrespondents receiving a \$30 check for a completed interview. Following the 3-week early response phase, all sample members who did not respond will be made available to RTI's Call Center Services (CCS) for outbound calling.

At the end of the first two weeks of the production phase, remaining nonrespondents will be divided into control and experimental groups. Each group will have an equal number of base year respondents, base year nonrespondents offered the full interview, and base year nonrespondents offered the modified interview from the early phase.

Time 1 Mahalanobis Calculation. At the end of the first two weeks of production interviewing, a Mahalanobis distance will be calculated across all sample members in the control and experimental groups. Cases with the highest Mahalanobis values will be identified as Time 1 high distance cases, irrespective of group assignment although, with random assignment, we anticipate an approximately equal

number of high distance cases in both groups. Those sample members assigned to the control group will be tracked as either Control-High Distance or Control-Normal Distance but, otherwise, data collection will continue as in the production interviewing phase, with sample members able to complete the interview online or by telephone. Those in the control group who complete the interview will receive a \$30 check.

In the Experimental group, Experimental-Normal Distance cases will be treated like the control group in that they will be able to complete the interview online or by telephone, and will receive a \$30 check for a completed interview. The Experimental-High Distance cases will, like the other three groups, be able to complete the interview online or by telephone, and the frequency with which they are contacted will be the same. However, those Experimental-High Distance cases completing the interview will receive a check for \$55, instead of \$30.

Time 2 Mahalanobis Calculation. After the 3 weeks of outbound calling, Mahalanobis values for all remaining BPS interview nonrespondents will be recalculated. From the Control-Normal Distance and Experimental-Normal Distance groups, a subsample of new high-distance nonrespondent cases will be identified. Sample members in the Control-High Distance group will still receive \$30 for a completed interview; sample members in the Experimental-High Distance group will have their incentive offer increased to \$55. Cases already offered the higher \$55 incentive at Time 1 will continue at that incentive level while all others will continue to be offered \$30 for a completed interview whether in the Control-High Distance or Normal Distance group. Production interviewing following the Time 2 Mahalanobis calculation will continue for another 3 weeks.

Mahalanobis Calculations, Time X_{3,4}. Mahalanobis values for all remaining interview nonrespondents will be recalculated after two additional 3-week periods of outbound calling, for a total of 4 calculations covering 12 weeks of data collection. As in prior weeks, nonrespondents with the highest Mahalanobis distances will be assigned to either the Control- High Distance or the Experimental-High Distance group (\$55).

Analysis of experimental design. With the assumption that increasing the rate of response among high-distance cases will reduce nonresponse bias, the BPS:12/14 field test responsive design experiment will explore the following research questions:

Do response rates differ between high-distance cases in the experimental and control groups?

Do estimates of key variables differ between high-distance and low-distance cases?

Does treatment of high-distance cases reduce nonresponse bias?

B.4.a.5 HSLs:09 2012 Update field test

The HSLs:09 2012 Update field test also included a responsive design to reduce bias in the final estimates. After a two-week web-only period and three weeks of CATI data collection, the Mahalanobis distance function was calculated to determine the target cases for nonresponse follow-up. High distance cases received a \$5 pre-paid cash incentive in a reminder mailing, along with an additional \$10 upon completion of the questionnaire. All other cases received no monetary incentive.

After calculation of Mahalanobis distances, high distance cases and all other cases had response rates that were not statistically different ($\chi^2 = 1.08$, $p = .2996$), which may suggest that the pre-paid \$5 incentive with the offer of \$10 more upon completion may have had some effect in encouraging participation from the high distance cases, given that they were likely more challenging. Furthermore, an examination of the survey estimates shows that high distance cases who responded were less likely than the non-high distance cases to have earned a high school diploma, less likely to be taking college or university classes, less likely to have applied to a postsecondary institution, less likely to have completed a FAFSA, and more likely to be working. All these differences in point estimates were significant at the .05 level. Thus, the Mahalanobis distance function identified cases that were different, but importantly, these identified and targeted cases appear different in their survey responses. Additional information about the design and the findings can be found in Appendix 5.

Exhibit B-1. Summary of Field Test and Full-Scale Responsive Designs, by Study

Study	Field Test	Full Scale
NPSAS:12	<ul style="list-style-type: none"> • Sample sorted by modeled response propensity into 4 groups: <ul style="list-style-type: none"> ▪ High propensity: \$15 (E) \$30 (C) ▪ Low propensity: \$45 (E) \$30 (C) • Modeling successfully differentiated groups by propensity • Response rate differences observed only in high propensity group • No effect on bias reduction 	<ul style="list-style-type: none"> • \$30 for all sample members • Institution sector used as proxy for response propensity • Different data collection strategies applied depending on institution sector
B&B:08/12	<ul style="list-style-type: none"> • Sample sorted by modeled response propensity into 4 groups: <ul style="list-style-type: none"> ▪ High propensity: \$20/\$40 (E) \$35/\$55 (C) ▪ Low propensity: \$70 (E) \$35/\$55 (C) • Modeling successfully differentiated groups by propensity • Response rate differences observed only in low propensity group among highest propensity scores • No effect on bias reduction 	<ul style="list-style-type: none"> • Calculated response propensities and Mahalanobis distances for all sample members. Sorted sample into experimental and control groups within 3 propensity groups: <ul style="list-style-type: none"> ▪ High propensity: \$20 ▪ Medium propensity: \$35 ▪ Low propensity: \$55 • At Time 1, Mahalanobis recalculated for experimental group – greatest distance cases offered an additional \$15 • At Time 2, Mahalanobis recalculated for experimental group – greatest distance cases received \$5 prepaid incentive • At Time 3, Mahalanobis recalculated for experimental group – greatest distance cases offered abbreviated interview early

Study	Field Test	Full Scale
ELS:2002/12	<ul style="list-style-type: none"> • Sample sorted by modeled response propensity into 3 groups: <ul style="list-style-type: none"> ▪ High propensity: \$25 (\$35 in Week 10) ▪ Low propensity: \$45 (E; \$55 in Week 10) \$25 (C; \$35 in Week 10) • Modeling successfully differentiated groups by propensity • Response rate differences observed only in high propensity group • Slight reduction of bias among low propensity group receiving higher incentive 	<ul style="list-style-type: none"> • \$25 base incentive offered to all sample members • Mahalanobis distance calculated at 3 time points: <ul style="list-style-type: none"> ▪ Time 1: Highest distance cases offered additional \$30 ▪ Time 2: New “highest distance” cases offered additional \$30; all highest distance cases will receive intensive tracing and limited field interviewing ▪ Time 3: New “highest distance” cases offered additional \$30; all highest distance cases will receive \$5 prepaid incentive • FINDINGS: Forthcoming
BPS:12/14	<ul style="list-style-type: none"> • Using Mahalanobis distances, sampled sorted into experimental and control groups at week 6. <ul style="list-style-type: none"> • Experimental-High distance:\$55 • Experimental-Normal:\$30 • Control-High distance: :\$30 • Control-Normal: :\$30 • Mahalanobis recalculated at 3 week intervals (week 6, 9,12,15) • Mailings to four groups will follow standard schedule of contacts • Differential burden experiment overlaid on responsive design 	<ul style="list-style-type: none"> • Forthcoming
HSLs:09 2013 Update	<ul style="list-style-type: none"> • Mahalanobis distance calculated for nonrespondents at week 6 for all nonrespondents. Cases sorted into two groups: <ul style="list-style-type: none"> • High distance cases: \$5 pre-pay and \$10 contingency • Non-high distance: No incentive • During responsive design phase, response rates between high distance cases and non-high distance cases were not significantly different. • Point estimates of key interest were significantly different between high distance cases and non-high distance cases. 	<ul style="list-style-type: none"> • Phase 1 (3 weeks): self-administration and inbound calls; \$40 offer to ever dropout cases. • Phase 2 (5 weeks): outbound calls • Phase 3 (4 weeks): at start of phase, identify targeted cases using stepwise logistic regression predicting survey outcome likelihood with substantive/demographic variables from prior waves and from sampling frame. Prepaid \$5 incentive to targeted cases and ever dropout cases. • Phase 4 (4 weeks): at start of phase, re-run the predicted likelihood model to identify important cases to pursue. Targeted cases will receive \$15 incentive offer. • Phase 5 (3 weeks): at start of phase, re-run the predicted likelihood model to identify important cases to pursue. Targeted cases will receive \$25 incentive offer. • Phase 6 (3 weeks): abbreviated interview offered to all nonrespondents.

(E) = Experimental Group; (C) = Control Group

B.4.b 2013 Update

For the main study 2013 Update, the data collection includes a responsive design strategy aimed at reducing bias in the final estimates. The 2013 Update design will consist of a 6-phase approach that immediately targets sample members identified as ever having dropped out of school, employs a responsive design model that will be calculated/implemented at multiple stages during collection to select cases for incentives, and in the end offers an abbreviated survey to all nonrespondents.

We propose a 6-phase approach that immediately targets students identified as ever having dropped out of school and also, 8 weeks into the data collection period and 2 additional time points thereafter, targets nonresponding cases who are under-represented among those who already responded and whose survey values (when interviewed) would likely be different from those who responded. The 6 phases are the following:

1. Phase 1: A three-week web collection period. At the start of the first phase of data collection, each of the parents and students in the 2013 Update sample⁴ will receive a letter asking them to log onto the web to complete the questionnaire. Students identified as ever dropping out of school⁵ will be offered a \$40 incentive for participating because this group has high analytical value and yet a small sample size, making high response rate particularly important. The extra incentive was found to be effective in ELS:2002 and is the same amount that was offered to this group for completing the first follow-up survey.⁶
2. Phase 2: A five-week web plus CATI data collection period. The addition in phase 2 is the CATI component. After the three-week web data collection period (phase 1), in addition to the web remaining an option, outbound calling to sample members will commence and continue for five weeks. The \$40 incentive to students who had ever dropped out will continue to be offered.
3. Phase 3: First stage of a targeted nonresponse follow-up period. After phase 1 and phase 2, predicted-likelihood values will be determined for all nonrespondents (other than ever dropout cases). Cases with the highest predicted-likelihood values (i.e., those who may have the greatest influence on nonresponse bias) will be identified for special intervention. These targeted cases will be given a \$5 prepaid incentive. Those cases who have ever dropped out will also receive the \$5 prepaid incentive and will continue to be offered \$40 to complete the Update. All other cases will receive no incentive.
4. Phase 4: Second stage of a targeted nonresponse follow-up period. Four weeks after the start of Phase 3, predicted-likelihood values will be determined again (recalculated) for remaining nonresponding cases. Phase-4-targeted cases will be offered a \$15 incentive conditional on completing the survey. Those cases who have ever dropped out will continue to be offered \$40 to complete the Update. All other cases will receive no incentive.
5. Phase 5: Third stage of a targeted nonresponse follow-up period. Four weeks after the start of Phase 4, which is 6 weeks before the end of the data collection period, predicted-likelihood values will be recalculated again for remaining nonresponding cases. Phase-5-targeted cases will be offered a \$25 incentive conditional on completing the Update. Nonresponding phase-

⁴ The 2013 Update sample excludes 2,890 sample members who have withdrawn from the study, are deceased, have been determined to be study ineligible, have been determined to be questionnaire incapable (QI) in the first follow-up after being a nonrespondent or QI in the base year, or have participated in neither the base year study nor the first follow-up data collections.

⁵ Students are classified as those who have “ever dropped out” if they report having missed more than 4 weeks of school not for reasons of school breaks, illness, injury, or vacation. Students are identified as ever dropping out in 1 of 3 ways: (1) the school-provided status on the enrollment status update; (2) student-provided information on the first follow-up questionnaire; (3) parent-provided information on the first follow-up questionnaire.

⁶ An additional \$10 was offered for completing the mathematics assessment.

4-targeted cases who are not targeted for phase 5 will continue to be offered \$15 to complete the Update. Those cases who have ever dropped out will continue to be offered \$40 to complete the Update. All other cases will receive no incentive.

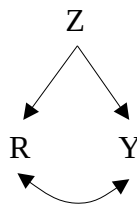
6. Phase 6: for the final 3 weeks of data collection, all nonresponding sample members will be offered an abbreviated questionnaire that can be completed in 5 minutes. The offered incentive, if any, as determined in previous phase(s), will apply for this phase as well.

For cases eligible for an incentive, student respondents would receive the incentive upon completion of the questionnaire. Parent respondents would be presented with the option of receiving the incentive money or having the check made payable to the student sample member.

Description of the Responsive Design Model

In order to reduce nonresponse bias in survey variables by directing effort and resources during data collection, two related conditions have to be met: (1) the targeted cases have to be under-represented among those who already responded, and (2) their survey values, when interviewed, should be different from those who responded. It is important to note that neither condition alone is sufficient. First, targeting cases based on response propensities may reduce nonresponse bias, but it also may fail if the predicted propensities are unrelated to the survey variables of interest. Second, a survey may also achieve unbiased estimates in the initial phase of data collection; targeting cases based on how different they are on survey variables can lead to increasing bias in the final survey estimates. A third option resolves these problems by targeting cases based on propensity and survey variables using separate models. We propose a similar but simpler in implementation fourth option that incorporates the propensity and survey variable models into a single model.

A desirable model to identify cases to be targeted would use covariates (**Z**) that are strongly related to the survey variables of interest (**Y**), to identify sample members that are under-represented (using a response indicator, **R**) *with regard to these covariates*. We then have the following relationships, using a single **Z** and **Y** for illustration:



Nonresponse bias arises when there is a relationship between **R** and **Y**. Just as in adjustment for nonresponse bias (see [Little and Vartivarian, 2005](#)), a **Z**-variable cannot be effective in nonresponse bias reduction if $\text{corr}(Z, Y)$ is weak or nonexistent, even if $\text{corr}(Z, R)$ is substantial. That is, selection of **Z**-

variables based only on their correlation with R may not help to identify cases that contribute to nonresponse bias. The goal is to identify sample cases that have Y-variable values that are associated with lower response rates, as this is the most direct way to reduce nonresponse bias in an estimate of a mean, for example.

The key Z-variable selection criterion should then be association with Y. Good candidate Z-variables would be the Y-variables measured in a prior wave and any correlates of change in estimates over time. A second set of useful Z-variables would be those used in weighting and those used to define subdomains for analysis – such as demographic variables. This should help to reduce the variance inflation due to weighting and nonresponse bias in comparisons across groups. Key, however, is the exclusion of variables that are highly predictive of R but quite unrelated to Y. These variables, such as the number of prior contact attempts and prior refusal, can dominate in a model predicting the likelihood of participation and mask the relationship of Z variables that are associated with Y.

Analogous to the responsive design implemented in the National Survey of Family Growth, starting in cycle 6 ([Lepkowski et al., 2010](#)), the model predicting the likelihood to contribute to nonresponse bias (if not interviewed) will be estimated after the first two phases of data collection and used to target cases with increased incentives.

At the end of the first eight weeks of data collection, just prior to the start of phase 3 of data collection, we will estimate a stepwise logistic regression predicting the survey outcome (R) using only substantive and demographic variables from the prior waves and from the sampling frame (Z), and select two-way interactions. The goal is not to maximize the ability to predict survey outcome, but to obtain a predicted likelihood of a completed interview that identifies nonrespondent cases that would reduce nonresponse bias if successfully interviewed. Because of this key difference, we refer to the case-level predictions as predicted likelihood to contribute to nonresponse bias, rather than response propensities.

The predicted likelihoods will be used to identify cases that could be particularly influential with respect to nonresponse bias to be subjected to a more rigorous protocol including monetary incentives, with an incentive structure that is based on the predicted likelihoods. The plan is to start with the nonrespondent with the highest predicted-likelihood to contribute to nonresponse bias unless interviewed and then take as many nonrespondents with lower predicted-likelihoods (sequentially, from highest to lowest) as can be afforded at the start of a given phase, based on the actual data collection experience to that point. We will not a priori specify a predicted-likelihood cutpoint/threshold.

The same process (stepwise logistic regression) will be performed just prior to the start of phase 4 and just prior to the start of phase 5. It is expected that there will be heavy overlap in the cases identified among phases 3, 4, and 5.

Variables to be used in the responsive design model are expected to come from base-year survey responses, first follow-up survey responses, base-year and first follow-up assessments, school characteristics, and sampling frame information. It is important to note that paradata, particularly those variables that are highly predictive of response but quite unrelated to the survey variables of interest, will be excluded from the model. Potential variables for the model include, but are not limited to:

- Student expected level of education;
- Highest math course taken;
- Timing (grade-level) of when algebra I taken;
- Parents' level of education;
- Enrollment status as of first follow-up;
- Whether sample member was still at base-year school as of first follow-up;
- Grade-level as of first follow-up;
- Race/ethnicity;
- Sex;
- Whether repeated a grade;
- School geographic locale;
- Math assessment scores (base-year and first follow-up);
- Whether took a math and/or science class in 2011-2012;
- Whether took a math and/or science class in 2009-2010.

Analysis plan for responsive design approach

Our analysis plan is based upon the three premises of the responsive design approach: (1) sample cases that contribute to nonresponse bias can be identified at the beginning of the third and subsequent data collection phases, (2) the interventions in the different phases of the data collection design are effective at increasing participation, and (3) increasing response rates among the targeted cases will reduce nonresponse bias. We intend to examine these three aspects of the responsive design and its implementation for the HSLS:09 2013 Update as follows:

1. *Evaluate the model used to identify which cases to target.*

To maximize the effectiveness of the approach, sample cases need to be identified with survey responses that are underrepresented among the respondents. The auxiliary data available in HSLS:09 include numerous variables from the sampling frame and prior survey administrations, but of particular interest is to identify which relevant variables are affected by nonresponse and to what extent. We will estimate the bias in the variables that remain in the final models that are fit prior to each phase. This will show the types of variables that exhibit bias at each point and the size of the bias that remains to be reduced through the intervention.

2. *Evaluate the effectiveness of each phase of data collection in increasing participation.*

The second key component of this responsive design is the effectiveness of the changes in the survey protocol in increasing participation. Each phase introduces a feature – prepaid incentives, promised incentives, increased amount of promised incentives, and abbreviated instrument. Evaluation of these interventions in the absence of a control group requires an analysis over time. We will estimate response rates during the course of data collection, expecting a disproportionate increase at the start of phases that include effective interventions. Smaller increases in response rates are expected in later phases as each phase is conditional on the previous one (diminishing returns) but it can still show evidence for which interventions are more effective. Furthermore, the cases that are not targeted with incentives will serve as a baseline for the pattern of responding over the course of the survey. Participation is expected to increase with each phase relative to the group that receives only outbound telephone calls.

3. *Evaluate the ability to reduce nonresponse bias.*

The rich frame, administrative, and prior wave data used in determining which cases to target for nonresponse bias reduction can, in turn, be used to evaluate (1) nonresponse bias in the final estimates, and (2) changes in nonresponse bias over the course of data collection. Unweighted and weighted (using design weights) estimates of absolute relative nonresponse bias will be computed for each variable used in the models:

$$\left| \frac{\bar{y}_r - \bar{y}_s}{\bar{y}_s} \right|$$

where \bar{y}_r is the respondent mean and \bar{y}_s is the full sample mean

The mean of these bias estimates can be tracked during the course of the survey. Particular attention will be devoted to changes in the mean bias at each phase of data collection to further support the identification of effective interventions.

B.5 Study Contacts

Elise Christopher and Jeff Owings are the primary contacts for the HSLs:09 study at NCES. The RTI contractor-affiliated consultants on statistical aspects of HSLs:09 are: James Chromy, Steven J. Ingels, Jill A. Dever, Andy Peytchev, Daniel J. Pratt, John Riccobono, and David Wilson.

Part C: 2013 Update Questionnaire - Justifications

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUHSCRED / CUHSCRED TYPE	2012 Update Question 1	Revised	[Have/Has] [you/teenager] earned a regular high school diploma, GED, or other high school credential? 1=Yes, a high school diploma 2=Yes, a GED or other high school credential 3=No	[Have/Has] [you/your teenager] earned a high school diploma, GED or equivalency, or a certificate of attendance? 1=Yes 0=No What type of high school credential [have/has] [you/he/she] earned? 1=High school diploma 2=GED or equivalency 3=Certificate of attendance	Split questions because first question is phrased as a yes/no question. Removed “regular” qualifier on “high school diploma” to avoid confusion for the majority of respondents. Added certificate of attendance as an explicit response option for comprehensiveness. Added help text
CUHSCRED DATE	2012 Update Question 3	Revised	In what month and year did [you/he/she] receive [your/his/her] [high school diploma/GED or other high school credential]?	In what month and year did [you/he/she] receive [your/his/her] [high school diploma/GED or equivalency/certificate of attendance]?	Added wording for those with a certificate of attendance.
CUHSPLAN	ELS:2002 F2A09	Added	Not Asked	[Do/Does] [you/he/she] plan to get a GED, high school diploma, or certificate of attendance? 1=Yes 0=No	Added to fill a gap in content.
CUHSCRED PLAN	Based on CUHSCREDTYPE	Added	Not Asked	What type of high school credential [do/does] [you/he/she] plan to earn? 1=High school diploma 2=GED or equivalency 3=Certificate of attendance	Added to fill a gap in content.
CUHSCOMP	ELS:2002 F2A10	Added	Not Asked	About what month and year [do/does] [you/he/she] expect to [receive a high school diploma/ receive a certificate of attendance/take the examination for the GED or other high school equivalency exam/receive a high school diploma or certificate of attendance or to take the examination for the GED or other high school equivalency exam]?	Added to fill a gap in content.

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CULASTHS NAME	2012 Update Question 5	Revised	What is the full name, city, and state of the high school [from which [you/he/she] received a diploma]/ [you/he/she] last attended]? (Do not enter abbreviations.)	What is the full name, city, and state of the high school [from which [you/he/she] received a diploma]/ [you/he/she] last attended/ [you/he/she] is currently attending]? (Do not enter abbreviations.)	Added wording for those who are enrolled in high school at the time of survey administration.
CUOTHHS	2012 Update Question 6	Revised	[So far we know that [you/teenager] [have/has] attended these high schools since [you/he/she] [were/was] a 9th-grader in the fall of 2008: [LAST HIGH SCHOOL ATTENDED NAMED IN CULASTHSNAME] [FIRST FOLLOW-UP HIGH SCHOOL] [BASE YEAR HIGH SCHOOL] [Have/Has] [you/teenager] attended any other high school besides [BASE YEAR HIGH SCHOOL]/these]?	[So far we know that [you/your teenager] [have/has] attended these high schools since [you/he/she] [were/was] a 9th-grader in the fall of 2009: [LAST HIGH SCHOOL ATTENDED NAMED IN CULASTHSNAME] [FIRST FOLLOW-UP HIGH SCHOOL] [BASE YEAR HIGH SCHOOL] [Have/Has] [you/your teenager] attended any other high school besides [[BASE YEAR HIGH SCHOOL]/these] since [you/he/she] [were/was] a 9th-grader in the fall of 2009? 1=Yes 0=No	Added “since [you/he/she] [were/was] a 9th-grader in the fall of 2009” for clarity.
CUOTHERH S	2012 Update Question 6	Revised	[So far we know that [you/teenager] [have/has] attended these high schools since [you/he/she] [were/was] a 9th-grader in the fall of 2008: [OTHER HIGH SCHOOLS NAMED IN CUOTHHSNAME] [LAST HIGH SCHOOL ATTENDED NAMED IN CULASTHSNAME] [FIRST FOLLOW-UP HIGH SCHOOL] [BASE YEAR HIGH SCHOOL] [Have/Has] [you/your teenager] attended any other high school besides these? 1=Yes 0=No	[So far we know that [you/your teenager] [have/has] attended these high schools since [you/he/she] [were/was] a 9th-grader in the fall of 2009: [OTHER HIGH SCHOOLS NAMED IN CUOTHHSNAME] [LAST HIGH SCHOOL ATTENDED NAMED IN CULASTHSNAME] [FIRST FOLLOW-UP HIGH SCHOOL] [BASE YEAR HIGH SCHOOL] [Have/Has] [you/your teenager] attended any other high school besides these since [you/he/she] [were/was] a 9th-grader in the fall of 2009? 1=Yes 0=No	Added “since [you/he/she] [were/was] a 9th-grader in the fall of 2009” for clarity.

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUANYCLG CRED	Based on 2012 Update Question 7	Added	Not Asked	[Did/[Have/Has]] [you/your teenager] [take/taken] any high school courses for college credit [when [you/he/she] [were/was] in high school] including AP courses, IB courses, and other courses for college credit? [Include any courses that [you/he/she] [is/are] taking now.] 1=Yes 0=No	On advice from TRP, expanded this series of questions about courses for college credit to include AP and IB courses. Previously, only dual enrollment courses were captured.
CUCLGCRE DTYPE	NPSAS draft question N12AP1	Added	Not Asked	Which of the following types of courses for college credit [did/have/has] [you/your teenager] [take/taken] [when [you/he/she] [were/was] in high school]? Advanced Placement (AP) courses International Baccalaureate (IB) courses Any other course for college credit such as dual or concurrent enrollment courses 1=Yes 2=No 3=Don't know	Expanded to include AP and IB based on TRP recommendation.
CUAPSUBJ	Based on 2012 Update question 7	Added	Not Asked	In which of the following subjects [did/have/has] [you/your teenager] [take/taken] AP courses? Math Science Another subject 1=Yes 0=No	Expanded to include AP and IB based on TRP recommendation.
CUIBSUBJ	Based on 2012 Update question 7	Added	Not Asked	In which of the following subjects [did/have/has] [you/your teenager] [take/taken] IB courses? Math Science Another subject 1=Yes 0=No	Expanded to include AP and IB based on TRP recommendation.

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUDUALSU BJ	2012 Update Question 7	Revised	Not including AP (Advanced Placement) and IB (International Baccalaureate) courses, [did/ [have/has] [you/teenager] [take/taken] any high school courses for college credit [when [you/he/she] [were/was] in high school]? [Include any courses for college credit that [you/he/she] [are/is] taking now.] Math course Science course Another course 1=Yes 0=No	In which of the following subjects [did/have/has] [you/your teenager] [take/taken] courses for college credit other than AP and IB? Math Science Another subject 1=Yes 0=No	Question rephrased given that it is already known that the dual enrollment courses have been taken.
CUHSCOUN SEL	2012 Update Question 43	Revised	How well have [your/your teenager's] high school counselors prepared [you/him/her] for each of the following? To gain admission to a college or university To apply for financial aid To find a job 1=Extremely well 2=Somewhat well 3=Not well 4=Not at all 5=Don't know	Did [you/your teenager] meet one-on-one with a high school counselor in the 2012 – 2013 school year about... gaining admission to a college or university applying for financial aid finding a job 1=Yes 2=No 3=Don't know	Based on TRP recommendation, revised to collect more factual information that parents could answer more accurately.
CUCLGINFL U	HSLs First Follow-up S2CLGINFLU	Added	Not Asked	Who has had the most influence on [your/your teenager's] thinking about education after high school, if anyone? 1=A high school counselor 2=A counselor hired by your family to help [you/your teenager] prepare for college admission 3=A teacher 4=[Your/His/Her] parents 5=Another family member 6=[Your/His/Her] friends 7=[Your/His/Her] employer 8=A military recruiter 9=A coach or scout 10=[Yourself/Himself/Herself] 11=No one in particular 12=Don't know	Added to fill gap in content.

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUAIDINFL U	Based on HSLs First Follow-up S2CLGINFLU and S2CAREERIN FLU	Added	Not Asked	Who has had the most influence on [your/your teenager's] thinking about financial aid, if anyone? 1=A high school counselor 2=A counselor hired by your family to help [you/your teenager] prepare for college admission 3=A teacher 4=[Your/His/Her] parents 5=Another family member 6=[Your/His/Her] friends 7=[Your/His/Her] employer 8=A military recruiter 9=A coach or scout 10=[Yourself/Himself/Herself] 11=No one in particular 12=Don't know	Added to fill gap in content. Recommended by TRP.
CUCAREERI NFLU	HSLs First Follow-up S2CAREERIN FLU	Added	Not Asked	Who has had the most influence on [your/your teenager's] thinking about careers, if anyone? 1=A high school counselor 3=A teacher 4=[Your/His/Her] parents 5=Another family member 6=[Your/His/Her] friends 7=[Your/His/Her] employer 8=A military recruiter 9=A coach or scout 10=[Yourself/Himself/Herself] 11=No one in particular 12=Don't know	Added to fill gap in content.

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUFALL2013	2012 Update Question 8	Revised	<p>Which of the following activities [are/is] [you/teenager] doing this fall?</p> <p>Taking classes at a college or university</p> <p>Taking classes at a school that provides occupational training (e.g., cosmetology school or a school of culinary arts)</p> <p>Studying for an industry certification or license (e.g., Microsoft Systems Engineer or real estate license)</p> <p>Participating in an apprenticeship program</p> <p>Another form of training (please specify)</p> <p>Working</p> <p>Serving in the military</p> <p>Starting a family or taking care of [your/his/her] children</p> <p>Attending high school</p> <p>Attending a GED completion course 1=Yes 2=No 3=Don't know</p>	<p>Which of the following activities will [you/your teenager] be doing on or around November 1st?</p> <p>Taking classes from a college, university, community college, trade school or other occupational school (such as a cosmetology school or school of culinary arts)</p> <p>Participating in an apprenticeship program</p> <p>Working for pay</p> <p>Serving in the military including ROTC</p> <p>Starting a family or taking care of [your/his/her] children</p> <p>Attending high school</p> <p>Attending a GED completion course 1=Yes 2=No 3=Don't know</p>	<p>Based on TRP recommendation, revised wording to refer to “on or around November 1st”. This allows all question wording to be in the future tense. Combined the first two options into one and added “community college” and “trade school” for comprehensiveness.</p> <p>Eliminated the “studying for an industry certification or license” option due to concerns about misinterpretation and false positives.</p> <p>Eliminated “another form or training” based on review of other specifics.</p> <p>Added “for pay” to the working item for clarity.</p> <p>Added “including ROTC” to the military item for clarity.</p> <p>Added help text</p>

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUFOCUS	2012 Update Question 9	Revised	<p>What [will be/is] [your/his/her] main focus this fall?</p> <p>1=Taking classes at a college or university 2=Taking classes at a school that provides occupational training (e.g., cosmetology school or a school of culinary arts) 3=Studying for an industry certification or license (e.g., Microsoft Systems Engineer or real estate license) 4=Enrolling in an apprenticeship program 5=Another form of training 6=Working 7=Serving in the military 8=Starting a family or taking care of [your/his/her] children 9=Attending high school 10=Attending a GED completion course</p>	<p>What will be [your/his/her] main focus?</p> <p>1= Taking classes from a college, university, community college, trade school or other occupational school (such as a cosmetology school or school of culinary arts)? 2=Participating in an apprenticeship program 3=Working for pay 4=Attending high school 5=Attending a GED completion course 6=[You/He/She] will be equally focused on both</p>	<p>Question has been limited to those who will be pursuing some form of education (postsecondary or high school) and working (working for pay or apprenticeship).</p> <p>Response options now allow for equal emphasis.</p> <p>Added help text</p>
CUCLGFT	2012 Update Question 11	Revised	<p>[Will [you/teenager] enroll/[Are/Is] [you/teenager] enrolled] full-time or part-time this fall?</p> <p>1=Full-time 2=Part-time 3=Don't know</p>	<p>Will [you/your teenager] be enrolled full-time or part-time as of November 1st?</p> <p>1=Full-time 2=Part-time 3=Don't know</p>	<p>Revised to refer to November 1st.</p> <p>Added help text</p>
CUWORKFT	2012 Update Question 14	Revised	<p>[Are/Is] [you/teenager] working full-time or part-time this fall?</p> <p>1=Full-time 2=Part-time 3=Don't know</p>	<p>Will [you/your teenager] be working full-time, that is 35 hours or more per week, as of November 1st?</p> <p>1=Full-time 2=Part-time 3=Don't know</p>	<p>Revised to refer to November 1st. Definition of full-time employment provided in question wording for clarity.</p>
CUMILBRANCH	2012 Update Question 15	Revised	<p>[Are/Is] [you/teenager] on active military duty this fall?</p> <p>1=Yes 2=No 3=Don't know</p>	<p>In which branch of the military will [you/he/she] be serving as of November 1st?</p> <p>1=Army 2=Navy 3=Air Force 4=Marine Corps 5=Coast Guard</p>	<p>Based on TRP recommendation, changed focus of the question from active duty to branch of the military.</p>
CUFALLCLG	2012 Update Question 12	Revised	<p>What is the name, city and state of the school or college [you/teenager] [are/is] attending this fall?</p>	<p>What is the name, city and state of the school or college [you/your teenager] will be attending as of November 1st?</p>	<p>Revised to refer to November 1st.</p>

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CULEVEL	2012 Update Question 10	Revised	<p>What type of program [will [you/teenager] enroll/ [are/is] [you/teenager] enrolled] in this fall?</p> <p>Bachelor's degree program (usually a 4-year degree)</p> <p>Associate's degree program (usually a 2-year degree) with plans to transfer to a Bachelor's degree program</p> <p>Associate's degree program (usually a 2-year degree) with no plans to transfer to a Bachelor's degree program</p> <p>Certificate or diploma program from a school that provides occupational training (usually takes 2 years or less to complete, often leading to a license, such as cosmetology)</p> <p>No specific program, but [you/he/she] [are/is] taking courses (please specify)</p> <p>You don't know 1=Yes 0=No</p>	<p>What type of program will [you/your teenager] be enrolled in?</p> <p>1=Bachelor's degree program (usually a 4-year degree) 2=Associate's degree program (usually a 2-year degree) 3=Certificate or diploma program from a school that provides occupational training (usually takes 2 years or less to complete, often leading to a license, such as cosmetology) 4=No specific program, but [you/he/she] will be taking courses 5=Other 6=You don't know</p>	<p>Change to future tense.</p> <p>Changed from multiple response format to single response format given low prevalence of multiple responses in field test.</p> <p>Combined Associate's degree options to simplify question.</p> <p>Added help text</p>
CUBATYPE	Based on response option in N12ASSOC	Added	Not Asked	<p>Will you complete an Associate's degree program before transferring to a Bachelor's degree program? 1=Yes 0=No</p>	Based on response patterns and anecdotal respondent confusion, added clarifying question to verify that the respondent is entering a Bachelor's program directly.
CUAATYPE	From 2012 Update CULEVEL, based response option in N12ASSOC	Added	Not Asked	<p>Is this an Associate's degree program designed for transfer to a Bachelor's degree program? 1=Yes 0=No</p>	Split from CULEVEL.
CUFIELD	2012 Update Question 13	Revised	What major or program [are/is] [you/he/she] considering?	What field of study or program will [you/he/she] be considering?	Future tense.

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUWHERELIVE	2012 Update Question 31	Revised	Where [will [you/teenager] live/[are/is] [you/teenager] living] while attending school this fall? 1=On campus or in college-owned housing (for example, a dorm or residence hall) 2=With parent(s), relative(s), or guardian(s) 3=Off campus (not college-owned housing)	Where [will [you/your teenager] be living on or around November 1st? 1=On campus or in college-owned housing (for example, a dorm or residence hall) 2=With parent(s), relative(s), or guardian(s) 3=Off campus (not college-owned housing)	Revised to refer to November 1 st . Added help text
CUAPPCLG	2012 Update Question 16	Dropped	[Besides [fall 2012 college], [have/has] [you/teenager]/[Have/Has] [you/teenager]] applied to any [other] schools that provide occupational training, 2-year colleges, or 4-year colleges? Include schools that register or admit all students who apply, or that don't require an application separate from registration. 1=Yes 0=No	Dropped	Eliminated based on TRP recommendation.
CUCLGAPPNUM	2012 Update Question 17	Revised	To how many [others] did [you/he/she] apply?	[Including [Nov 1 school], how /How] many colleges or schools [have/has][you/your teenager] applied to or registered at, if any?	Revised to include the school or college the teenager will be attending. Wording revised to include schools that do not require an application.
CUCLGAPPS	2012 Update Question 18	Revised	[Now, among these [CUCLGAPPNUM] [other] schools where [you/he/she] applied, think about the two schools that [you/he/she] most seriously considered attending.] What is the name, city and state of [the other school [you/he/she] applied to/the school [you/he/she] applied to/one of the other schools [you/he/she] applied to/one of these schools]?	[Not including [Nov 1 school], think/Think] about the two schools [you/he/she] most seriously considered.]] What is the name, city and state of [the school [you/he/she] applied to or registered at?/the other school [you/he/she] applied to or registered at?/one of the schools [you/he/she] applied to or registered at?/one of these schools?]	Given that CUCLGAPPNUM now represents the total number of schools applied to including the one that the student will attend, the wording needed to be revised. Wording revised to include schools that do not require an application. Wording changed to “most seriously considered” from “most seriously considered attending.”

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUCLGAPP S2	2012 Update Question 18	Revised	What is the name, city and state of the other school [you/he/she] [applied to/ most seriously considered attending]?	What is the name, city and state of the other school [you/he/she] [applied to or registered at/ most seriously considered]?	Wording revised to include schools that do not require an application. Wording changed to “most seriously considered” from “most seriously considered attending.”
CUAPPSTAT US	2012 Update Question 20	Revised	[Were/Was] [you/he/she] accepted, wait-listed or rejected at [FIRST SCHOOL APPLIED TO]? (For schools that admit anyone who registers, answer “accepted.”)/ For each of the following schools, indicate if [you/he/she] [were/was] accepted, waitlisted or rejected. (For schools that admit anyone who registers, answer “accepted.”)/ [Were/Was] [you/he/she] accepted, waitlisted or rejected at [SECOND SCHOOL APPLIED TO]? (For schools that admit anyone who registers, answer “accepted.”) [FIRST SCHOOL APPLIED TO] [SECOND SCHOOL APPLIED TO] 1=Accepted 2=Waitlisted 3=Rejected	[Were/Was] [you/he/she] accepted, wait-listed or rejected at [FIRST SCHOOL APPLIED TO]? For schools that admit anyone who registers, answer “accepted.” / For each of the following schools, indicate if [you/he/she] [were/was] accepted, waitlisted or rejected. For schools that admit anyone who registers, answer “accepted.” / [Were/Was] [you/he/she] accepted, waitlisted or rejected at [SECOND SCHOOL APPLIED TO]? For schools that admit anyone who registers, answer “accepted.” [FIRST SCHOOL APPLIED TO] [SECOND SCHOOL APPLIED TO] 1=Accepted 2=Waitlisted 3=Rejected	Added help text

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUQUALITY	2012 Update Question 30	Revised	<p>How important to [you/teenager] [were/was] each of the following characteristics when choosing to attend [fall school]?</p> <ul style="list-style-type: none"> Academic quality or reputation Cost of attendance Close to home Far from home A good record of placing graduates in jobs A good record of placing graduates in graduate or professional schools A good record of placing graduates in 4-year Bachelor's degree programs Opportunity to play sports Recommended by family or friends or a family member went there Offers a particular program of study Good social life, sports team, or school spirit <ul style="list-style-type: none"> 1=Very important 2=Somewhat important 3=Not at all important 4=Don't know 	<p>How important to [you/your teenager] [were/was] each of the following characteristics when choosing to attend [Nov 1 school]?</p> <ul style="list-style-type: none"> Academic quality or reputation Cost of attendance Distance from home A good reputation of placing students in jobs A good reputation of placing students in graduate or professional schools A good reputation of placing students in 4-year Bachelor's degree programs Opportunity to play sports Recommended by family or friends or a family member went there Offers a particular program of study Good social life, sports team or school spirit Offers online courses Students there are like [you/him/her] <ul style="list-style-type: none"> 1=Very important 2=Somewhat important 3=Not at all important 4=Don't know 	<p>Item wording revised based on feedback from TRP.</p> <p>Two new items added based on TRP recommendation: Offers online courses, Students there are like [you/him/her]</p>
CUAPPAFA	2012 Update Question 22	Revised	<p>Did [you/teenager] or another family member complete a FAFSA (Free Application for Federal Student Aid) for [your/his/her] education?</p> <ul style="list-style-type: none"> 1=Yes 2=No 3=You don't know what a FAFSA is 4=You don't know if [you/teenager] or another family member completed a FAFSA 	<p>Did [you/your teenager] or another family member complete a FAFSA, that is the Free Application for Federal Student Aid, for [your/his/her] education?</p> <ul style="list-style-type: none"> 1=Yes 2=No 3=You don't know what a FAFSA is 4=You don't know if [you/your teenager] or another family member completed a FAFSA 	<p>“Free Application for Federal Student Aid” removed from parentheses so it is read to and by all respondents.</p> <p>Added help text</p>

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUNOFAFS A	2012 Update Question 23	Revised	<p>What are the reasons [you/he/she] did not complete a FAFSA?</p> <p>You or your family do not want to take on debt</p> <p>You or your family can afford school or college without financial aid</p> <p>You or your family thought [you/teenager] may be ineligible or may not qualify</p> <p>You or your family did not have enough information about how to complete a FAFSA</p> <p>You or your family thought the FAFSA forms were too much work or too time-consuming</p> <p>You or your family did not know you could complete a FAFSA</p> <p>[You/teenager] [do/does] not plan to continue [your/his/her] education after high school 1=Yes 0=No</p>	<p>What are the reasons [you/he/she] did not complete a FAFSA? Would you say [you/her/she] did not complete a FAFSA...</p> <p>because you or your family do not want to take on debt</p> <p>because you or your family can afford school or college without financial aid</p> <p>because you or your family thought [you/your teenager] may be ineligible or may not qualify</p> <p>because you or your family did not have enough information about how to complete a FAFSA</p> <p>because you or your family thought the FAFSA forms were too much work or too time-consuming</p> <p>because you or your family did not know you could complete a FAFSA</p> <p>because [you/your teenager] [do/does] not plan to continue [your/his/her] education after high school 1=Yes 0=No</p>	<p>“Because” added to each item to emphasize that the question is asking if these are reasons, not simply asking if these stand alone statements are true or false</p> <p>Added help text</p>

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUNOQUAL RSN	2012 Update Question 24	Revised	<p>Why did you think [you/teenager] would not qualify for FAFSA financial aid? Was it because...</p> <p>another family member did not qualify? you have concerns about a credit score? your family's income is too high? [your/teenager's] grades or test scores are too low? [you/teenager] [[are/is] attending/would have attended] school or college part-time? other reason? (please specify) 1=Yes 0=No</p>	<p>Why did you think [you/your teenager] would not qualify for FAFSA financial aid? Was it ...</p> <p>because another family member did not qualify? because you have concerns about a credit score? because your family's income is too high? because [your/your teenager's] grades or test scores are too low? because [you/your teenager] [[is/are] attending/would have attended] school or college part-time? 1=Yes 0=No</p>	<p>“Because” added to each item to emphasize that the question is asking if these are reasons, not simply asking if these stand alone statements are true or false</p> <p>Added help text</p>
CUAPPOTH AID	2012 Update Question 25	Dropped	<p>Did [you/teenager] or another family member complete any other financial aid applications besides the FAFSA (Free Application for Federal Student Aid)?</p> <p>1=Yes 2=No 3=Don't know</p>	Dropped	Question is unclear.
CUCOSTFA LLCLG	2012 Update Question 28	Revised	<p>About how much is the total cost of [fall school] for the 2012-2013 school year? Include tuition and mandatory fees, room and board, and miscellaneous expenses.</p>	<p>About how much is the total cost of [part-time] enrollment at [Nov 1 school] for the 2013 - 2014 school year before financial aid? Include tuition and mandatory fees[, room and board/, off campus housing expenses], and miscellaneous expenses.</p>	<p>Question customized to the student's enrollment intensity and housing situation.</p> <p>Question clarified to refer to sticker price before financial aid.</p> <p>Added help text</p>

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUFALLBORROW/ CUFALLGRANT	2012 Update Question 29	Revised	Now, to pay for the 2012-2013 school year at [fall school], about how much are you and [your family/teenager] borrowing and about how much [are/is] [you/teenager] receiving in scholarships and grants that do not have to be repaid? Borrow in the 2012-2013 year Scholarships and grants in the 2012-2013 year	Now, to pay for the 2013 - 2014 school year at [Nov 1 school], about how much are you and [your family/your teenager] borrowing? For the 2013 - 2014 school year at [Nov 1 school], about how much are you and [your family/your teenager] receiving in scholarships and grants that do not have to be repaid?	Questions split into two for ease of administration and response. Added help text
CUAIDFALL CLG	2012 Update Question 26	Revised	What kind of financial aid did [fall school] offer [you/him/her] for the first academic year, if any? Stafford loan Any other type of loan including private loans Work-study job Pell grant Any other type of scholarship or grant Other financial aid (please specify) [fall school] did not offer [you/teenager] financial aid 1=Yes 2=No 3=Don't know	[Were/Was] [you/he/she] offered any of the following types of financial aid to attend [Nov 1 school] for the first academic year? Stafford loan or any other type of loan, including private loans Work-study job Pell grant or any other grant or scholarship Other financial aid 1=Yes 2=No 3=Don't know	Question broadened beyond aid that the college offered. Question wording revised so it does not assume financial aid was offered. Loan items combined into one for simplicity and accuracy of response in case respondents do not know what a Stafford loan is Scholarship/grant items combined into one for simplicity and accuracy of response in case respondents do not know what a Pell grant is Last item removed because it can be inferred from other responses and was extremely confusing to respondents Added help text

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUCOSTCHOICE	2012 Update Question 28	Revised	About how much is the total cost of [FIRST CHOICE AMONG ACCEPTED SCHOOLS] for the 2012-2013 school year? Include tuition and mandatory fees, room and board, and miscellaneous expenses.	About how much is the total cost of [part-time] enrollment at [FIRST CHOICE AMONG ACCEPTED SCHOOLS] for the 2013 - 2014 school year before financial aid? Include tuition and mandatory fees, room and board or housing expenses as applicable, and miscellaneous expenses.	Question customized to the student's enrollment intensity. Question clarified to refer to sticker price before financial aid. Added help text
CUCHBORROW/ CUCHSCHOLAR	2012 Update Question 29	Dropped	Now, to pay for the 2012-2013 school year at [FIRST CHOICE AMONG ACCEPTED SCHOOLS], about how much would you and [your family/teenager] have borrowed and about how much would [you/teenager] have received in scholarships and grants that do not have to be repaid? Borrow in the 2012-2013 year Scholarships and grants in the 2012-2013 year	Dropped	Deemed to be too hypothetical to be answered with accuracy.

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUAIDCHOICE	2012 Update Question 26	Revised	<p>What kind of financial aid did [FIRST CHOICE AMONG ACCEPTED SCHOOLS] offer [you/him/her] for the first academic year, if any?</p> <p>Stafford loan Any other type of loan including private loans Work-study job Pell grant Any other type of scholarship or grant Other financial aid (please specify) [first choice among accepted college] did not offer [you/teenager] financial aid</p> <p>1=Yes 2=No 3=Don't know</p>	<p>[Were/Was] [you/he/she] offered any of the following kinds of financial aid to attend [FIRST CHOICE AMONG ACCEPTED SCHOOLS] for the first academic year?</p> <p>Stafford loan or any other type of loan, including private loans Work-study job Pell grant or any other grant or scholarship Other financial aid</p> <p>1=Yes 2=No 3=Don't know</p>	<p>Question broadened beyond aid that the college offered.</p> <p>Question wording revised so it does not assume financial aid was offered.</p> <p>Loan items combined into one for simplicity and accuracy of response in case respondents do not know what a Stafford loan is</p> <p>Scholarship/grant items combined into one for simplicity and accuracy of response in case respondents do not know what a Pell grant is</p> <p>Last item removed because it can be inferred from other responses and was extremely confusing to respondents</p> <p>Added help text</p>
CUAIDANYCLG	2012 Update Question 27	Dropped	<p>[Apart from any aid offers from this school [were/was],/Apart from any aid offers from these schools, [were/was]/ [Were/Was] [you/teenager] offered any [other] forms of financial aid? Examples would be scholarships to attend a college within your state, a ROTC scholarship, or a grant that [you/he/she] received from [your/his/her] high school, a community group, or place of worship to attend the school of [your/his/her] choice.</p> <p>1=Yes 2=No 3=Don't know</p>	Dropped	<p>TRP recommended eliminating this item because it will be accounted for in CUAIDFALLCLG and CUAIDCHOICE</p>

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUYNOTAT TEND	2012 Update Question 32	Revised	Which of the following are reasons why [you/teenager] [are/is] not attending school this fall? Would you say [you/he/she] [are/is] not attending school... because [you/he/she] [do/does] not like school? because [you/he/she] didn't do well enough in high school to get into or do well in college? because [you/he/she] can't afford to go on to school? because [you/he/she] [need/needs] to or would rather work? because [you/he/she] [were/was] not accepted at the school(s) where [you/he/she] wanted to go? because [you/he/she] [do/does] not want to attend the school(s) that accepted [you/him/her]? because [you/he/she] [are/is] deferring enrollment? because [you/he/she] didn't receive enough financial aid? for other reasons? (please specify) 1=Yes 2=No 3=Don't know	Which of the following are reasons why [you/your teenager] will not be attending school as of November 1st? Would you say [you/he/she] will not be attending school... because [you/he/she] [do/does] not want to go to school? because [you/he/she] did not get in? because [you/he/she] cannot afford to go to school? for other reasons? 1=Yes 2=No 3=Don't know	Based on TRP recommendation, the set of items has been greatly reduced and simplified.
CUYNOTM AIN	CUYNOTAT TEND	Added	Not Asked	Which of these is the main reason? Would you say... 1= because [you/he/she] [do/does] not want to go to school? 2= because [you/he/she] did not get in? 3= because [you/he/she] cannot afford to go to school? 4= because of another reason (please specify)?	Based on TRP recommendation, this follow-up collects the main reason and allows those who have an "other" main reason to report it here.
CUJOBNOW	2012 Update Question 33	Revised	[Are/Is] [you/teenager] currently working for pay, not counting work around the house? Include apprenticeships. 1=Yes 0=No	[Are/Is] [you/your teenager] currently working for pay, not counting work around the house? Include apprenticeships. 1=Yes 0=No	Added help text

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUJOBEN	2012 Update Question 40	Revised	How much [do/does] [you/teenager] earn before taxes are taken out? 1=hour 2=day 3=week 4=month 5=year	On this job, how much [do/does] [you/your teenager] currently earn before taxes are taken out? 1=hour 2=week	“On this job” added to clarify that we are referring to the job at which the teenager works the most hours. Added currently to clarify time point. Reduced set of unit options to the two chosen by the vast majority of respondents in the field test.
CUJOBHRS	HSLs First Follow-up S2HSJOBHR	Added	Not Asked	On this job, how many hours [do/does] [you/her/she] usually work per week?	Added to fill gap. Information is essential for those interested in work and career trajectories. Also, needed to standardize earnings reported in previous question.
CUJOBHRS CAT	Based on 2012 Update Question 14	Added	Not Asked	[Do/Does] [you/her/she] work full-time (35 hours or more per week) or part-time on this job (less than 35 hours per week)? 1=Full-time 2=Part-time 3=Don't know	Back up question for parents who do not know the precise number of hours.
CUAPPREN TSH P	2012 Update Question 36	Revised	Is this a formal apprenticeship in which [you/he/she] [are/is] mastering occupational skills while working on the job? 1=Yes 0=No	Is this a formal apprenticeship in which [you/he/she] [receive/receives] both instruction and on-the-job training and [are/is] paid a training salary? 1=Yes 2=No 3=Don't know	Revisions from NATES questionnaire.
CULICENSE HRS	2012 Update Question 37	Dropped	On this job, [are/is] [you/he/she] accumulating hours needed for licensure in [your/his/her] occupational field? 1=Yes 2=No 3=Don't know	Dropped	Too infrequent to collect meaningful data at this time point. Also, panelists were concerned about the wording and misinterpretation.
CUJOBSTAR T	2012 Update Question 38	Revised	Is this a job [you/he/she] started when [you/he/she] [were/was] in high school? 1=Yes 0=No	What month and year did [you/he/she] start this job?	Researchers interested in work and career trajectories want to know the duration of the employment.

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUHOWGO TJOB	2012 Update Question 39	Revised	Did [you/he/she] get this job through... a high school-arranged program, such as an internship or co-op program? other assistance from [your/his/her] high school such as from a teacher or counselor? 1=Yes 0=No	Did [you/he/she] get this job with assistance from a school staff member or from a school-arranged program, such as an internship or co-op program? 1=Yes 0=No	Prevalence of these is low so they were combined. "Teacher or counselor" broadened to "school staff member." Added help text
CUOTHJOB NOW	Based on 2012 Update Question 33	Added	Not asked	[Are/Is] [you/your teenager] currently working any other jobs for pay, not counting work around the house? Include apprenticeships. 1=Yes 0=No	Panelists requested complete information on job earnings and hours for those who hold more than one job. Added help text
CUOTHJOB EARN	Based on 2012 Update question 40	Added	Not asked	About how much [do/does] [you/he/she] earn per week on all other jobs besides [CURRENT JOB]?	Panelists requested complete information on job earnings and hours for those who hold more than one job.
CUOTHJOB HRS	HSLs First Follow-up S2HSJOBHR	Added	Not asked	How many hours [do/does] [you/he/she] usually work per week on all other jobs?	Panelists requested complete information on job earnings and hours for those who hold more than one job.
CUOTHJOB FT	Based on 2012 Update Question 14	Added	Not asked	[Do/Does] [you/her/she] work 35 hours or more per week on all other jobs? 1=Yes 0=No	Panelists requested complete information on job earnings and hours for those who hold more than one job.
CUJOBPLA N	2012 Update Question 41	Revised	[Do/Does] [you/teenager] plan to be working at this job on November 1st? 1=Yes 0=No	[Do/Does] [you/your teenager] plan to be working at this job as a [CURRENT JOB] on or around November 1st? 1=Yes 0=No	Inserted job title collected in CUCURRENTJOB to clarify.

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUTEENSS N	HSLs First Follow-up Parent	Added	Not asked	<p>Next we ask you to provide [your/your teenager's] social security number. [Your/His/Her] SSN will be used to help us find [you/him/her] for future follow-up.</p> <p>(The National Center for Education Statistics is required to follow strict procedures to protect the confidentiality of persons in the collection, reporting, and publication of data. All individually identifiable information supplied by individuals or institutions to a federal agency may be used for statistical purposes only and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (Public Law 107-279, Section 183). However, giving us your Social Security number is completely voluntary and there is no penalty for not disclosing it.)</p> <p>What is [your/your teenager's] SSN?</p>	<p>Needed for future locating efforts. Will only be asked of teenager respondents if a valid SSN has not been collected previously.</p>

Item	Source	Status	Old Wording (if revised)	New Item Wording	Justification
CUPARSSN	HSLs First Follow-up Parent	Added	Not Asked	<p>Next we ask you to provide your social security number. Your SSN will be used to help us find your teenager for future follow-up.</p> <p>(The National Center for Education Statistics is required to follow strict procedures to protect the confidentiality of persons in the collection, reporting, and publication of data. All individually identifiable information supplied by individuals or institutions to a federal agency may be used for statistical purposes only and may not be disclosed, or used, in identifiable form for any other purpose except as required by law (Public Law 107-279, Section 183). However, giving us your Social Security number is completely voluntary and there is no penalty for not disclosing it.)</p> <p>What is your SSN?</p>	<p>Needed for future locating efforts. Will only be asked if a valid SSN has not been collected previously.</p>