

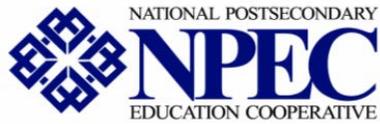
## **NPSAS:12 Computer-Aided Data Extraction Usability Interviews**

*A Research and Development Project Commissioned by the*

*National Postsecondary Education Cooperative – Sample Surveys*

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The National Postsecondary Education Cooperative (NPEC) was established by NCES in 1995 as a voluntary organization that encompasses all sectors of the postsecondary education community including federal agencies, postsecondary institutions, associations and other organizations with a major interest in postsecondary education data collection. NPEC's mission is to "promote the quality, comparability and utility of postsecondary data and information that support policy development at the federal, state, and institution levels." It is composed of two panels: NPEC-IPEDS (NPEC-I) and NPEC-Sample Surveys (NPEC-S).

### *NPEC Panels*

NCES has assigned NPEC-I the specific responsibility for developing a research and development agenda for the Integrated Postsecondary Education Data System (IPEDS). IPEDS is the core postsecondary education data collection program for NCES. NPEC also intermittently produces advisory publications for use by postsecondary data providers, users, and institutional representatives. In contrast, NPEC-S is designed to provide high level guidance on the evolution of a suite of studies that includes the National Postsecondary Student Aid Study (NPSAS), the Beginning Postsecondary Students Longitudinal Study (BPS), the Baccalaureate and Beyond Longitudinal Study (B&B), and other survey and administrative data collections.

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# Summary Report for NPSAS:12 Computer-Aided Data Extraction Usability Interviews

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# Section 1: Introduction

## Purpose of Study

In Fall 2012, the National Center for Education Statistics (NCES) collected student record data from more than 1,700 postsecondary institutions nationwide as part of the 2011–12 National Postsecondary Student Aid Study (NPSAS:12). For most institutions, this involved extracting data from one or more student data systems, including systems managed by registrars (e.g., contact information, application, and enrollment data) and by financial aid administrators (e.g., student aid awards). The data are then provided to NCES’s data collection contractor by uploading a data file to the contractor’s server or it is entered manually by the postsecondary institution.

Westat, a social science research firm in Rockville, MD, was contracted to assist NCES to identify ways in which that data collection could be improved, yielding better, more comparable data for future NPSAS data collection cycles. To do so, Westat collected data from selected postsecondary institutions about their experiences providing data for NPSAS:12 (e.g., usability, burden, and potential improvements for future data collections). This report summarizes postsecondary institutions’ experiences with the NPSAS:12 data collection process.

## Data Collection

NCES provided Westat with contact information for 50 institutional representatives who participated in the NPSAS:12 computer-aided data extraction (CADE) phase.<sup>1</sup> The 50 institutional representatives were then screened to identify 30 respondents, across a mix of respondent types, to participate in a 30- to 60-minute telephone interview (see appendix A for recruitment screener). Recruited participants were then provided the Informed Consent/Assurance of Confidentiality Statement (see appendix B) via email as well as a series of portal screen captures (appendix C) to help refresh respondents’ memories about the CADE method used.

After verifying that the respondent had read and understood the Informed Consent/Assurance of Confidentiality Statement, a Westat researcher conducted and audio recorded a semi-structured telephone

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<sup>1</sup> During this phase, institutions provided detailed information about their individual students who were sampled to participate in NPSAS. The four modes through which institutions could submit their data were the programmer CSV, template, case, and grid. Section 3 contains a description of each of these four CADE modes.

interview with the respondent. This interview protocol was developed by NCES with feedback from the Westat research team. A copy of this protocol can be found in appendix D.

## Profile of Participating Institutions

Telephone interview respondents represented 30 institutions that participated in NPSAS:12, half of whom also participated in the NPSAS:08 study (table 1). Over half of the participating institutions were traditional 4-year colleges or universities that also grant doctoral degrees. Total enrollment data for each participating institution were collected to determine the relative size of each institution. The majority of the sample consisted of small to medium-sized schools with student populations at the upper range of 14,999 students. The respondents also represented a diverse selection of institutions that used the various CADE methods to enter and upload data for NPSAS:12. Of the four CADE options, the grid mode had the smallest representation of institutions (six) and the template mode had the largest (nine).

**Table 1. Characteristics of participating institutions**

Sample characteristic	Participants (n = 30)
<b>Institutional type</b>	
2-year or less .....	7
4-year non-doctorate-granting .....	7
4-year doctorate-granting .....	16
<b>Institution size</b>	
Small .....	11
Medium .....	12
Large .....	7
<b>CADE method</b>	
Case .....	8
Grid .....	6
Programmer CSV .....	7
Template.....	9
<b>NPSAS:08 participant</b>	
No.....	15
Yes .....	15

NOTE: Size is based on total student enrollment: small (4,999 students or less), medium (5,000 – 14,999 students), large (15,000 students or more).

## **Data Analysis**

All interviews were audio recorded, transcribed, and coded. All coding was conducted using NVivo, a qualitative data analysis software package, and the transcripts were independently coded by two analysts. Westat analysts used a set of predetermined codes as the basis of a coding structure. During the coding process, the structure evolved as new themes/codes emerged. New codes were added as interviewee responses were shared and discussed among the analysts and as transcripts were reviewed. The coding structure development process continued until all responses were adequately coded into one or more categories for analysis. Through the coding process, codes were compared and differences were identified and resolved by returning to the original audiotapes. Differences that could not be resolved were adjudicated by discussion with the project team.

To provide a more in-depth perspective of specific themes and to identify trends, selected coded data were cross referenced with sample characteristics (e.g., size, type, NPSAS experience, and CADE method).

## **Organization of the Report**

The following sections describe the findings in two main areas of interest: NPSAS:12 user experiences and preparations for the next NPSAS cycle. Sections 2 and 3 discuss the users' data collection experiences and present feedback on the enrollment list process and the process of providing detailed student records. Section 4 presents general feedback from respondents useful for informing the next NPSAS cycle.



## Section 2: Enrollment List Process

The NPSAS data collection is a two-phase process. In phase one, referred to as the “list collection” phase, staff from sampled institutions provide NCES with a list of all students enrolled at their institution. For NPSAS:12, the list included the name, social security number, date of birth, class level, and major of each student enrolled at the institution between July 2011 and June 2012. The following section addresses respondents’ experiences producing the enrollment list. Topics addressed include how easy or hard the process was and what factors contributed to the level of difficulty. Moreover, interviewees were asked to retrospectively judge the feasibility of adding two data fields to their 2012 enrollment list: a field to indicate if a student attained a bachelor’s degree and a field to indicate if a student had entered a STEM doctoral program (both during the study timeframe).

### Methods for Storing Enrollment Information

When asked which methods respondents used to store enrollment data, almost all participants (29 of 30) reported using at least one commercial student information system product compared to using a product developed by their own institution. As a result, a list of 16 commercial products was compiled. Of this list, the most commonly used programs were Banner (11 participants) and PeopleSoft Inc. (6 participants). Jenzar and Argos were reported to be used by two participants each. The remaining 12 commercial products were each used by only one school each (see appendix E for commercial product descriptions). Within the sample, only one participant indicated that his institution currently used a “homegrown system” developed using a Cobol database to store their student information system but will transition to Banner in two years.

Three of the respondents who used a commercial product to store enrollment data used it in conjunction with an institution-developed system. These institutions might use a product like PeopleSoft to store their student information and Microsoft Access or Sequel Server to store “point and time” or “frozen” enrollment data.<sup>2</sup>

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<sup>2</sup> Number of institutions using both a commercial product and an institution-developed product may be underreported since no specific interview question was asked to collect this information. Respondents either willingly provided this detail or it was uncovered through interviewer probes.

## Ease or Difficulty of Providing Enrollment Data

When providing enrollment list data, participants were asked to provide the name, social security number, date of birth, class level, and major of each student who enrolled at their institution between June 2011 and July 2012. As table 2 shows, the majority of participants (21) indicated that completing the enrollment list process was easy. A smaller number of participants (6) referred to the development of the enrollment list as difficult or hard.

**Table 2. Number of participants indicating ease or difficulty of providing enrollment data**

Level of difficulty	Number of participants
Easy .....	21
Moderate .....	2
Hard .....	6
Not ascertained .....	1

Overall, participants who described the enrollment list process as easy did so because they already had access to the necessary data (8 participants) or they were familiar with filling similar types of tasks or requests and had existing database queries from which to run (7 participants). In fact, one of these participants considered the NPSAS request to be similar to the Integrated Postsecondary Education Data System (IPEDS); therefore, this person was well prepared to complete the enrollment list request. Others were able to submit their enrollment list because they had the necessary technical assistance to complete the task (4 participants). Three additional participants also stated that the request was simple because the data were basic and not complicated.

*Because we have all the data.... Our institution runs what we call a six-day snapshot, and that's what we used to report to [indecipherable] and many other surveys. And so we were going to use our six-day snapshot that was already in Access that contains all of that information that you asked for and pull it into the format that you needed.*

*We got the instructions on about January 9th of '12, and I passed those instructions for the data formatting to my IT people and to my institutional research person for the file layout. And they basically just tied it in, they tied it in and provided me the spreadsheet.*

Of the six participants who expressed challenges with the process, three struggled with reconciling the date range of the requested data with the information stored in their student data systems. The date range of the requested data did not always correspond with the way in which the school year was divided into sessions:

*The term of the study doesn't correspond exactly to terms that we have at the school. So it meant assembling and combining fields or different tables, but that made it more time-consuming.*

Another respondent elaborated on the challenges posed by the school session calendar:

*We have a large number of different terms throughout the years. The undergraduates are on a semester system, and the graduates are on a trimester system. And also we have three summer sessions, and we also have four accelerated sections...that span about half of the semesters. So for our particular situation it was kind of challenging to put together all the data from all the different terms.*

Additionally, three of the six participants indicated that the request was not easy to fill due to an institutional resource limitation, either in technology, staffing, or in current staffs' skills or experience. Lastly, one respondent indicated that the process of linking data fields from multiple tables or from multiple sources in an accurate manner made the task more challenging for them.

When disaggregated by sample characteristics, the enrollment list process experiences were most distinct between those who participated in NPSAS:08 and those who did not (table 3). That is, two thirds of participants who indicated that the process was easy were NPSAS veterans of the '08 cohort, while five out of six participants expressing challenges were new to the NPSAS study in 2012. Moreover, the ease of completing this task did not seem to be influenced by CADE method. Institution size also did not seem to be an important factor for those who reported it was relatively easy to complete this task; although, half of those expressing challenges came from a medium-sized school.

**Table 3. Level of difficulty of the enrollment list process, by sample characteristics**

Sample characteristic	Level of difficulty		
	Easy (n = 21)	Moderate (n = 2)	Hard (n = 6)
<b>Institution size</b>			
Small.....	8	1	2
Medium.....	7	1	3
Large.....	6	0	1
<b>CADE method</b>			
Case.....	6	0	1
Grid.....	5	2	0
Programmer CSV.....	5	0	2
Template.....	5	0	3
<b>Institution type</b>			
2-year or less.....	3	0	2
4-year non-doctorate-granting.....	5	1	2
4-year doctorate-granting.....	13	1	2
<b>NPSAS:08 participant</b>			
No.....	7	1	5
Yes.....	14	1	1

## **Ease or Difficulty of Providing Data Based on Data Type**

Respondents were fairly split when asked if some data were more difficult to provide than others. Thirteen respondents said that no data were more difficult to provide than others, whereas 14 respondents identified at least one data field that was difficult to provide.<sup>3</sup> Student-reported data and institution-related data were identified as the two types of data that were more challenging to provide.

### ***Student-Reported Data***

Ten of 14 participants indicated that data specifically reported by students (e.g., contact information and social security number) were more difficult than others to collect. Social security numbers were particularly challenging for six participants for a few reasons; for example, the fact that their institutions do not require students to report social security numbers or that university/college employees have restricted access to the numbers:

*Our analyses are driven by student ID, which is different from social security number, and that are kind of confidential. So to get that information we had to dig deep and get approval from other [departments], you know, our IT and other departments.*

*Some of the issue is we cannot require students to give us a social security number. We strongly encourage students [to provide their social security number], for many different reasons, such as financial aid, billing.... But we do have some students that will not provide that information. So that's probably the one item that we always seem to have some challenge with. Because we just can't make them give it to us.*

Basic contact information, including phone numbers (5 participants), home addresses (4 participants), and email addresses (1 participant), also proved challenging to collect. These types of data are not always reported by students and, if reported, were not always correct.

### ***Institution-Related Data***

Seven participants identified a variety of institution-related variables that caused challenges during the enrollment list process. Three reiterated the issues they experienced with reconciling the date range of the requested data with the timeframe of their school sessions. One respondent stated that “the rules you have do not take into consideration [an] individual school’s schedule.” As a result, her submitted data did not

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<sup>3</sup> Data for the three remaining participants were not ascertained.

include students registered for May through June. Another respondent *did* have summer term data but it was in the form of three subterms, the data for which were available in one file that was not frozen until the end of the summer. She referred to the process of determining what summer data to include as cumbersome because “there wasn’t a clear definition of what terms to include.” Six other data issues were identified, each by one person:

- Classification of Instructional Program (CIP) codes were difficult to link to majors.
- It was unclear how to record the class level of a student who repeated a year (e.g., a student who repeated their freshman year).
- It was difficult to provide data because “our students don’t fit the model, because they’re adults, because they’re working.”
- It was unclear how to record multiple majors.
- High school graduation rates were not recorded by the institution if a student transferred to the school after their freshman year or they entered the school as a graduate student.
- It was unclear whether or not to double-count a student.

To elaborate on the last concern, the respondent was not sure how to record a student who either enrolled in one program, graduated, and then immediately enrolled in another program, or a student who did an internal transfer (e.g., from Bachelor of Arts program to a Bachelor of Science program). She was unsure if the students in those circumstances should be counted once, overall, or twice, once for each program. To complicate the issue, her student electronic information system, Jenzabar, recorded the most current program of study for each individual student and not necessarily the program the student was enrolled in during the timeframe of the requested data.

### **Hypothetical Degree-Specific Data**

Respondents were asked to judge how easy or hard it would have been for them to add the following two hypothetical data fields to the enrollment list they created for NPSAS:12.

- What students would earn a bachelor’s degree by July 2012, and
- What students would have begun a doctoral program in a science, technology, engineering, or math (STEM) field between June 2011 and July 2012.

A STEM field would be determined from a list of majors or CIP codes that NCES defined as being in a STEM field. Overall, participants indicated that reporting on bachelor's degree attainment would be challenging. However, schools with a STEM doctoral program(s) reported it would be relatively easy to determine who entered the program(s).

**Bachelor's Degree Attainment.** Approximately two thirds of respondents expected that the process of determining who would earn a bachelor's degree would have been difficult. Two main types of challenges were identified: (1) data accuracy, and (2) resource limitations.

According to 13 participants, determining the data field was an obstacle that would affect the accuracy of the data reported. Two respondents did not have access to the data necessary to calculate the field. One respondent indicated that this task would be hard because there were too many uncontrollable variables to take into consideration about the student (e.g., students can take the wrong courses, drop courses, decide to stay for an additional semester, etc.). Similarly, another respondent worked for a nontraditional school and believed that characteristics of the student population would make the process "extremely difficult":

*We serve adults, working adult students. They are often enrolled part-time and they often stop out for a term or two. It can be quite difficult. Even students that come in with a large number of transfer credits don't necessarily complete on time... So the only thing we can look at is where a student is, in terms of how many credits they've earned and what the likelihood [is they will graduate]; we can predict, but we can't be sure.*

Ultimately, respondents without a data field in their existing database for predicted bachelor's degree attainment would be forced to provide a guess, or estimation. Some respondents suggested methods for determining a bachelor's degree attainment field but they indicated these methods had drawbacks that diminished the accuracy of the data. Common responses about challenges to fulfilling this request included:

*If I were going to do that process I would look at all enrolled students who had credit hours above, and I'm just going to pick an arbitrary number and say 120 credit hours on a bachelor's track, that they certainly would have received a bachelor's degree by then. But it would have been arbitrary, it would have not have been scientific.*

*I think [I] would need to have a more refined definition within a period of time added to that. [For example,] who out of this population has the potential to complete a bachelor's degree within a year, within a semester... You'd need to put a little bit more of a filter on it for us to be able to do that.*

*There's no way for me to know that unless they've applied for graduation. I can't tell you that ahead of time... We don't project graduation; we ask the students to give an anticipated graduation date, and then the only real way to know is if they apply for graduation.*

Furthermore, five participants reported that resource limitations would be a roadblock to determining bachelor's degree attainment. Two respondents recognized that deriving these data would be possible, but also burdensome and time-consuming (especially for those at larger schools). Another respondent lacked assistance needed from their Information Technology (IT) department to complete this data request.

On the other hand, some participants reported that determining the bachelor's degree attainment would be easy. These participants indicated that this information would be derived from existing variables (e.g., number of courses completed, number of courses registered for, number of courses needed to finish) to create projected degree attainment data. None of these participants currently has this variable in their database, but they do not believe it would be difficult to create. However, they indicated that the data would be a prediction and likely to be influenced by many other factors (e.g., be able to afford tuition, or other personal circumstances).

Lastly, two participants indicated the task would pose a moderate level of difficulty (for many of the reasons listed above); however, the process for supplying the data would be complete but the data itself would be based on an individual's judgment.

*I don't think it would be necessarily very easy...I would use the number of units that they've completed, and probably, if they've requested any transcripts to be sent to 4-year universities... just a variety of things I think. So it wouldn't necessarily be easy. I'd have to look at a few fields and kind of deduce and, you know, make my judgment.*

**STEM Doctoral Program.** A little more than half of participants indicated that they did not have a doctoral program in a STEM field.<sup>4</sup> Of the nine schools with STEM programs, most (7 of 9) judged that the process of determining who had entered a STEM doctoral program would be easy. For these schools, the data field variable was already available in the schools' databases (3 participants), their staff have experience conducting similar requests (2 participants), or little effort would be required because they had few or very small STEM programs (1 participant). Only two participants indicated that the process would have been either hard or moderately hard:

*Well I think it would have been complicated by the fact that CIP codes would be applied. If the majors didn't coincide with the CIP codes exactly, so it requires some judgment about CIP codes and what majors didn't coincide. So it would take more judgment in making the selection from our data.*

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<sup>4</sup> Data response may be inconsistent with the actual sample characteristics reported in table 1. Data from table 1 were pulled from the NCES database; however, to answer this question we used actual participant responses.



## Section 3: Detailed Student Data

In the second phase of the NPSAS data collection, referred to as the “computer-aided data extraction” or “CADE” phase, NCES provided each institution with a list of students sampled from their larger enrollment list. For each sampled student, institutions provided more detailed information, including student demographics and financial aid data. The detailed student information was submitted through a NPSAS-specific web portal. The web portal supported submission of data through four different CADE modes:

- **Case mode:** Under case mode, each student’s data are entered into a student-specific online web form. All enrollment, academic, and other aid information are answered one student at a time.
- **Grid mode:** Grid mode refers to an online web form in which one type of data is entered for multiple students. After the first data field is completed for all students, the next field is completed, and so forth until all fields are complete.
- **Template mode:** A data template is created for the institution in an Excel file. Data are entered into the template and the completed file is uploaded to the web portal.
- **Programmer CSV mode:** Institutional staff extracts data from their campus data systems into a comma separated values (CSV) file. The file is uploaded to the web portal.

The following sections address both the process of and the level of difficulty required to submit the data. The process is analyzed in terms of the actions and experiences of collaborating offices, the actions completed by the respondent, and the total amount of time required to submit the data. The section on the level of difficulty focuses on the factors that made the data extraction easy or difficult. Additionally, respondents who participated in NPSAS:08 and those who contacted the NPSAS Help Desk were asked to elaborate on their experiences.

### Process for Completing the Request for Detailed Student Data

All respondents had access to at least some of the data requested on the detailed student list. More than half had access to all of the data, and a few had access to some of the data. Although the majority of the participants had access to all of the data, many relied on assistance from or collaborated with other offices or departments within their institution. Nine of the participants made no mention of work with any other office or department at their institution to compile and submit detailed student records.

## Working Collaboratively With Other Campus Offices

Most of the study participants completed this task by collaborating with other campus offices to obtain detailed student data (table 4). These participants primarily collaborated with the financial aid offices, information technology departments, and/or the Registrar’s office.

**Table 4. Campus offices involved in the data request**

Campus office	(n = 21)
Financial aid .....	14
Information technology department.....	9
Registrar .....	6
Bursar’s office .....	4
Registrar’s office .....	2
Business office.....	2
Student accounts .....	1
Institutional research office.....	1
Research and reports office.....	1
Admissions .....	1

The staff from collaborating offices provided assistance in locating and/or extracting data. In some cases, other campus offices were solely responsible for the data extractions: “I just forwarded the spreadsheets and they filled it out and they just sent it back to me.” In other cases, the data location/extraction process was more collaborative:

*We would have meetings and go through the data... Whenever help was needed, we’d just kind of get together as a group and.... if it was an enrollment question, or we didn’t know how to get the data, or we didn’t know what table [the data] were in, we contacted the department that... gathered that data, and just sat down and went through in an Excel spreadsheet and compared notes.*

Staff from collaborating offices sometimes assisted by providing data related to financial aid, such as the types of grants or loans and amount of aid awarded. A few collaborating offices verified the accuracy of data compiled by the respondent:

*I just sent over an Excel spreadsheet to them, which contained the information that was going to be reported for the financial aid portion of it, and they in turn went through and randomly pulled students. They didn’t verify the entire list; they just picked random students and verified that the information was correct.*

**Concerns of Collaborating Offices.** Of the participants who collaborated with others to complete this task, six worked with collaborators who expressed concerns regarding the request. The primary concerns expressed by staff in collaborating offices centered on the following issues:

- Not enough time or resources;
- No perceived benefit for compiling the information; and
- Potential of violating confidentiality of student data.

Collaborators of two respondents were concerned that their staff did not have enough time to complete the request. According to one respondent, “there [are] never enough hours in a day to do additional requests.” Similarly, one respondent’s school had recently switched to a new student electronic information system and the collaborating offices were concerned that they did not have the resources necessary to complete the request. Other offices were concerned about the large amount of data requested for NPSAS that was not in their databases and the benefit of participating in NPSAS:

*...our departments are so small, and when you get asked by the U.S. Department of Ed. to take part, you want to take part in studies, but you’re weighing that against a one-person department having to give well over a week of his time to a project.*

Finally, another collaborating office questioned whether providing the detailed student records would violate student confidentiality. To alleviate their concern, this participant provided the staff with guidelines from the Family Education Rights and Privacy Act of 1974 (FERPA). She also sent them “correspondence” from prior participation in NPSAS to reaffirm the institution’s commitment to the study.

### **Working Independently of Other Campus Offices**

When asked to describe the process undertaken to complete the detailed student records, nine of the respondents described tasks undertaken independently of other campus offices. Within this group, respondents were mainly responsible for querying their databases to extract the student records data. For some, the extraction process was fairly simple: “I wrote a program to extract the data, and then I brought that data into Excel, put it in a spreadsheet, and I entered it in to the online system.” For others, the process was more labor intensive:

*Basically for each of the students we just queried individually in our system to find the responses to each of the data fields requested. So it was just looking up each student, and one at a time...filling in the blanks for each of them.*

The process was also labor intensive for several respondents that aggregated the data manually, one student at a time:

*After I received the list of specific individuals that needed the financial aid information supplied, I got specific access to their financial records to an online information system, and I looked up each individual student, and then printed out a hard copy of their financial record, and then made whatever calculations I had to make, in terms of summing up individual fees, for example, so I got detailed records and then aggregated it as needed to complete the grid.*

### **Time Spent Compiling Data**

The length of time respondents took to complete the detailed student list was defined as the number of hours from the time they chose which CADE method to use until the time they submitted their data to NCES. Most took less than a week to complete the task; within this range, 6-10 hours was the most commonly reported time requirement. Of the participants that required a longer period of time, five completed the task within 40 hours and three took two or more work weeks, but no more than 100 hours.

One participant indicated that he switched from one CADE method to another in order to complete the request. It took this participant a week (40 hours) to finalize and submit the requested data. However, he did not think that this amount of time was influenced by the need to switch CADE method. Instead, he thought it was just the amount of information requested that made the process time-consuming.

Another influential factor may have been the size of the institution. As detailed in table 5, three respondents indicated that they needed two or more weeks to complete this task and all three respondents work for a large, 4-year nondoctoral degree-granting institution. It is possible that the larger institutions require significantly more time as a result of their larger NPSAS student sample. It is also worthwhile to note that all institutions using the template CADE method reported that they completed the request in less than one week.

**Table 5. Level of difficulty of providing detailed student data, by sample characteristics**

Sample characteristic	Amount of time		
	Less than a week (n = 22)	1 week (n = 5)	2 or more weeks (n = 3)
<b>Institution size</b>			
Small.....	8	3	0
Medium.....	11	1	0
Large.....	3	1	3
<b>CADE method</b>			
Case .....	5	3	0
Grid.....	3	2	1
Programmer CSV.....	5	0	2
Template .....	9	0	0
<b>Institutional type</b>			
2-year or less.....	7	0	0
4-year non-doctorate-granting.....	12	1	3
4-year doctorate-granting.....	3	4	0
<b>NPSAS:08 participant</b>			
No .....	11	3	1
Yes.....	11	2	2

## Ease or Difficulty of Providing Data

Almost half of respondents (14) stated that the detailed student records were difficult to complete whereas approximately one-third (9) considered the task easy (table 6). Some respondents considered the task moderate, or consisting of both easy and difficult aspects. Regardless of how respondents described the level of difficulty, there was little consensus about the factors that contributed to those determinations.

**Table 6. Number of participants indicating ease or difficulty of providing detailed student records**

Level of difficulty	Number of participants
Easy .....	9
Moderate.....	5
Hard .....	14
Not ascertained .....	2

## Difficulties Related to Level of Effort and CADE Method

The 15 respondents who reported the data request as difficult to compile cited reasons primarily related to the level of effort (i.e., time and resources) required to locate multiple types of data that were often stored in more than one office or database and problems with their chosen CADE method.

**Issues Related to Level of Effort.** One respondent thought “[the hardest part] was trying to figure out what we did and didn’t have, and then double-checking to make sure that we didn’t have that in some other place.” Another respondent focused on the number of offices involved in the task and explained, “We have an admission’s office and they contain some of the records, we have a financial aid office and a separate financial aid package that runs off of our system and that contains some of the records, and then the student academic area...contains the records.” In other words, many of the participants could not compile the data “in one fell swoop.”

Moreover, the level of effort (i.e., time, personnel, resources, experience) required to complete the task was particularly challenging for some respondents. For example, one respondent thought the large number of data fields was difficult to pull together. Another participant indicated that the process was hard because of the scope of work or the number of offices she needed to coordinate with to obtain the data. At times, the NPSAS data collection was exacerbated by occurring during an already busy time of the year when respondents did not have enough resources to complete the task in addition to their other responsibilities, or when it was the respondent’s first time completing the task and they needed extra time to familiarize themselves with the task.

A subcategory of obstacles based on level of effort that were identified by respondents focused on the data extraction and data entry phases. At the data extraction phase, several respondents referred to querying their databases as a challenge because there are so many steps involved. According to one respondent, “It’s not like you can push a button and you can do this.” Querying the database involved multiple steps to ensure accuracy:

*I had to use Access, and that meant that I had to not only combine different tables but also extract different...small numbers of fields at a time, and then bring them all together so that the right fields would be in the final table that was needed to respond to the survey. So, it couldn’t all be done in one sweep through a particular table; it required a lot of manual changes ... in order to get the data that answered a few of the fields, and match that with results of other queries so that...each record would answer all the fields that were required for each student. So it was a lot of manual assembling.*

**CADE Method Issues.** Several respondents had difficulty with their chosen CADE methods, which was exacerbated by lack of awareness about other CADE options. One respondent who submitted data using the grid mode thought the mode was “clumsy” when it came to bringing up individual student records. Specifically, she did not like that a search for an individual student record brought up an alphabetical list starting with “A”; “having multiple screens that were subdivided by...alphabetical separations...was not conceptually difficult, just mechanically difficult to move around. This ...forced me to return to [the

screens] multiple times to recheck data to make sure that it had been updated properly.” The second respondent struggled with submitting data using the case mode. She would have preferred a method that did not use “individual filters and drop-downs on each field.” Although both participants would have preferred submitting their data using an Excel template or CSV file, neither was aware that additional CADE methods were available. In fact, one respondent was under the impression that she *had to* submit using her chosen method: “case mode was the only way we could put it in... we didn’t have a second option.”

Respondents also cited errors in the CADE system as challenges to submitting data. “The biggest frustration” for one respondent was that her Excel template had “bad macros”; she was not aware of the problem until she tried to upload the file and received a message that there were errors with her file. When she called the Help Desk she was told that they were already aware of the macro problem. According to this respondent, the Help Desk staff should have “told people, put a note on the website [that] said ‘if you use this please note that you will have issues when you upload.’” The second error reported by one respondent occurred with a pop-up text box on the CADE website. She was unable to scroll down to see the entire text of the pop-up about NPSAS student eligibility requirements and was frustrated that she could not view the entire text.

## **Difficulties Related to Ambiguous or Inadequate Definitions**

Three respondents reported being challenged by unclear or inadequate definitions relating to how to categorize data. Multiple examples of data that required clarification or expanded categories included:

- How to distinguish between federal work study that was “accepted” versus federal work study that was “earned.” The respondent understood that work study can be accepted but not earned, so they were unsure how to address this type of situation.
- Confusion about why the instructions [for completing the NPSAS request] indicated institutions should report yellow ribbon benefits as financial aid since the respondent thought veterans’ educational benefits were no longer considered financial aid.
- Definition for “aid awarded.” This respondent’s Banner system only had fields for aid offered, aid accepted, and aid dispersed; therefore, she was unclear how these fields related to “aid awarded.”
- Not enough categories to report cost of attendance (e.g., part-time fall, full-time spring). Additionally, it was not clear based on the instructions that cost of attendance was not required for all students.

- Inadequate “institutional aid categories that exclude several types of institutional aid.” For example, the respondent’s institution has a marching band scholarship that did not qualify as a merit, need, or athletic scholarship. This respondent was unsure how to categorize the type of aid given the available options.
- Inadequate categories for outside scholarship (need or merit). The respondent indicated that if it is an outside scholarship, the institution does not always know if it is need or merit-based. Therefore, the respondent wanted an “unknown” option.
- How to report aid awarded when a “Return to Title IV” was performed and an amount of aid was returned (e.g., when a student withdrew).

### **Other Data-Specific Difficulties**

Respondents identified additional data-specific issues that made the NPSAS process difficult. One respondent had difficulty reconciling the timeframe of the requested data with the timeframe of the school terms/sessions. Another respondent had difficulty when querying data for full-time and part-time students. She had to be particularly careful when linking multiple tables based on full-time or part-time status because “one table might distinguish full-time and part-time, but that doesn’t mean that another table of students would do the same thing.” Multiple majors were difficult to record in the NPSAS system for one respondent, especially “in those situations where the...students have multiple majors, and sometimes their multiple majors are not just in one college, but they’re in multiple colleges.” Further, international addresses “presented some challenges” for one respondent; the nonstandard format of international addresses was not accounted for in the NPSAS system and therefore difficult to enter.

### **Ease of Providing Data**

Some participants (9 of 30) considered the detailed student records task to be easy because they or their staff had access to and were knowledgeable about their data and databases, they had little information to enter, or because they believed they chose an appropriate method to enter and upload their data.

Respondents’ most commonly cited factor that contributed to an easy NPSAS process was being able to effortlessly pull the requested data (5 participants) because “we have everything electronically...I know where to find the data. I don’t have to ask around [to find] the data.” Another respondent indicated that once data were located, it was easy to upload and submit. For another participant, merely having a small sample size was enough to make the process easy.

The data entry and upload process also played a role in respondents' descriptions of how easy it was to provide the data. One respondent thought highly of the Excel template used for uploading data: "In the Excel spreadsheet it is not hard at all. It is actually nice when you do the [validation] on the Excel sheet; it actually gives us errors if there is anything wrong, which is good. I mean it was easy."

**Level of Difficulty of Providing the Data: NPSAS:2012 Compared to NPSAS:2008**

Of the 15 respondents that participated in the NPSAS data collection in both 2008 and 2012, a little over half (9) thought that the 2012 collection was easier (table 7). The most common reason cited by respondents was due to factors internal to the institution as well as having the CADE options.

**Table 7. Comparison of level of difficulty in responding to NPSAS:12 and NPSAS:08**

Comparison	Number of participants (n=15)
NPSAS:08 was easier .....	2
NPSAS:12 was easier .....	9
Mixed experience.....	1
Don't remember.....	3

Four institutions improved their electronic student information systems and therefore enhanced their capacity to access and acquire data. For example, one respondent commented: "It was much easier because we were in a student information system that actually had all of the data together. Our previous data system was kind of like a homegrown one, and the information was very difficult to get out." Before the upgrade, the respondent had to enter "data for each and every student by hand," a task that took "an immense amount of time." Another respondent indicated they were more familiar with the task in 2012.

Two additional respondents stated that the 2012 NPSAS data collection was easier because the CADE options and system were easier to use. Specifically, in 2012 there was more "electronic support available...it was like night and day." The older system was "very clunky...and even going from screen to screen and saving [was] painful." One respondent particularly liked having the option of using the Excel template over the grid mode. Similarly, another respondent viewed the process as more streamlined. Specifically, it was "cumbersome" in 2008 to provide a student "record for every semester"; it was "a whole lot cleaner for us" in 2012 to provide one student record for the year.

One respondent considered the 2012 collection to be easier in some ways and harder in others. It was easier because the student data were more readily accessible but she experienced difficulty uploading her data. The reverse was true in 2008: the data were less accessible but she uploaded the data easily.

Only two respondents considered the 2008 collection to be easier. One of the two respondents was more familiar with the 2008 collection and had difficulty updating her procedures; a number of changes to the format of required data contributed to the problem. The second respondent thought that 2008 was easier because less data were required. Three respondents could not remember if NPSAS 2008 was harder or easier than NPSAS 2012.

## **NPSAS Help Desk**

A Help Desk was available throughout the NPSAS process to assist postsecondary institutions as they collect and upload student data. Of the 30 respondents, more than half (19) used the Help Desk. One of the main reasons respondents contacted the Help Desk was to obtain technical assistance (6 participants) in the following areas:

- changing records with errors,
- navigating the website,
- downloading the Excel template,
- determining which students to include (based on the timeline of the requested data), and
- troubleshooting internet browser issues and programming errors.

Another purpose of contacting the Help Desk was for assistance with uploading, entering, or defining their data (6 participants). In general, the Help Desk responded to “questions about some of the data definition[s]...exactly what they were looking for in certain fields.” Some examples included determining correct “amounts” to enter for specific financial aid questions, how to code a “band scholarship,” and how to enter multiple majors.

Overall, participants reported that the Help Desk was responsive to respondents’ questions. Of the 19 respondents that contacted the Help Desk, 16 reported that the Help Desk was able to resolve their problems. Problems were not resolved for a few of the participants. In these instances, Help Desk staff were unable to help one respondent classify a marching band scholarship. The other respondent struggled with the case mode and was told “that there wasn’t another option for us to upload the data.”

## **Section 4: Preparing for NPSAS:16**

The interviews with institution staff that participated in NPSAS:12 served not only to provide insight into the enrollment list and detailed student information processes, but also to provide feedback on how the overall data collection could be improved for NPSAS:16. Feedback was provided in terms of both the type of CADE methods participants would prefer to use as well as direct suggestions to improve the data collection and advice for future, sampled institutions.

### **CADE Method Participants Would Choose for NPSAS:2016**

More than half of respondents indicated that they would choose the same method to submit their data if they were chosen to participate in NPSAS:16. However, many others were unsure and only two participants were certain that they would switch methods if asked to participate again.

Of the 16 respondents that would continue to use the same CADE method, most thought that doing so would be easiest because there is no reason “to reinvent the wheel.” Some respondents thought that their CADE method made it easier for them to review, validate, and correct errors or typos in their submissions. One respondent was too familiar with the NPSAS CADE process to change it: “it’s the process that I’m familiar with, that I’ve worked with, and the financial aid office has already been through it, and it worked. So why change it.” Another thought receiving a pre-created Excel template was helpful because it cut down on her work. Others thought that their CADE method worked well for their data, worked well based on their personal work preferences, was flexible, was user-friendly, and coordinated well with the institution’s database.

A number of respondents (10 respondents) were not ready to make a decision regarding what they would or would not do in 2016. Some of these respondents could not decide because it is a decision based on many factors that could change between now and 2016. For example, the skills of available staff would determine the type of method they could or could not use. For one respondent it would depend on the complexity of the request and sample size: “it would depend on the sample size, and the level of complexity of the data we’d need to provide for that sample size.”

The two respondents who did not want to use the same method again would rather use Excel or CSV mode. Before the interview, neither respondent was aware that other submission methods were available.

They had previously submitted using case and grid mode and both thought Excel or CSV would be much easier to use.

## Respondents' Suggestions for Improving the Data Collection Process

To inform future NPSAS data collections, respondents were asked what information could have been provided to them at the beginning of the collection to improve the process. Based on their responses, they sought additional information to explain: (1) how the data collection process is scheduled and instructions are communicated; (2) how to determine requested data fields; and (3) how participation is determined, why it is important for schools to participate in the study, and how the study data are used.

### Suggestions Related to the Process

Twelve respondents requested more information about how the data collection process is scheduled (6 respondents) and instructions are communicated (7 respondents). Some of these respondents requested more information be provided while others offered suggestions for improving the overall process.

**Scheduling.** The three respondents that highlighted the data collection schedule wanted the schedule changed to better fit their respective school calendars. They agreed that completing NPSAS in the spring, as currently scheduled, was a burden. Conflicting tasks in the spring include “trying to clear students for graduation,” “the spring is heavy on IPEDS reports,” and “finishing up one academic year and well underway starting the process for the next academic year [by] admitting students and preparing financial aid awards, etc.” In other words, “anything being done in the spring is being shoehorned into a lot of competing priorities.” A few respondents indicated that their staff would be better able to devote time and energy to the task if the majority of the NPSAS collection was completed or due in the summer (two respondents) or fall (one respondent).

One respondent suggested that the NPSAS schedule be extended in order to build more time into completing the task. Schools need “60–90 days” notice:

*because there are just different cycles of...processing and they don't always match up....Financial aid is busy at a certain time of year, but then the programmers are busy on another time...*

Comments relating to changes to the NPSAS schedule highlight some respondents' sense of being overwhelmed by having to complete another data request:

*Given all the burden of reporting to not only our federal government...[but also] all our state, county, city – you name it...this type of report takes a lot of time on our part...because this is really detailed and [you are] asking for items that are not easy to get, and not available, nor reliable.*

A respondent who indicated being a “one-person department” commented:

*Anytime we take these projects on we kind of have to weigh them against what we are currently working on.*

To help plan and arrange for the collection, one respondent suggested that NCES provide a timeline of her institution's NPSAS responsibilities should she be asked to provide NPSAS data in the future. According to one respondent, it would have been helpful if “there was a guide that kind of spelled out the entire process, and what was going to happen at each of the processes, or what kind of information I would need to start collecting.” Another respondent wanted as much information upfront about the data that would be requested at each stage of the NPSAS process. This respondent reported that the process would have been easier for and enabled them to provide the data in a more timely manner had they known the sampled student data fields when they pulled their initial enrollment list for all students. The earlier the respondents had the information, the more time they would have to do “pre-planning.”

**Communication.** Other suggestions for improving the data collection process related to communication (eight respondents). Some respondents wanted more instructions, for example, step-by-step instructions that specifically laid out the different phases of the data collection and what each phase entailed. This type of knowledge would help to schedule the data collection, coordinate tasks with other offices, and prepare for the types of data requested. One respondent was not aware that there were other CADE methods; she wanted more instructions about each CADE method and how to choose one for her institution. Other suggestions to communicate more effectively were varied and included:

- Notify participants if there is an issue with the CADE website (e.g., if there is a systematic issue with uploading data) through a message on the website.
- Include the name of the person who completed the previous NPSAS data request on the notification letter sent by NCES to the school chancellor.

- Update the NPSAS email list so that the initial data request is sent to the correct person at the institution.
- Designate a Department of Education contact who can answer questions for a given school.
- Email copies of study notifications/instructions, instead of sending hard copy materials.

**Positive process-related feedback.** Lastly, it may be worth noting that seven participants had positive feedback about the current process, describing it as “manageable,” “straightforward,” and “relatively easy.” According to one participant, “it was easy to understand, and it wasn’t too difficult, so that was good.” The process was easy for three participants because of the help and feedback they received: “that’s the bright and shining star of having to go through all this hassle – they are good people to work with.” Flexibility regarding the deadline for submission was especially appreciated: “I know because of the demands in our office and the limited resources, I think we did get an extension or two, but people were very cooperative and helped us with that, and we got things in.”

### **More Information Needed About the Requested Data**

More information about the requested data fields would have improved the process for 12 respondents. Some respondents wanted more information about all data fields, in general, whereas others identified specific fields, such as fields for financial aid and CIP codes.

**Clearer data definitions.** Four respondents wanted more clarification about how to generally define and categorize the requested data fields. For instance, one of the four respondents needed more guidance on how to address missing data (e.g., the proper action to take if you know the student address you have for the student is invalid). Another respondent wanted a downloadable, online data book, or code book, that defined all the variables and contained data specifications. Along similar lines, two of the respondents voiced concern that the data definitions provided were not specific enough: “the more you can become exact with all your definitions, and [provide] some real detailed background on what you’re really looking for, that would be helpful...try and get very, very precise about what exactly you want.” Both respondents concerned with data definitions wanted more information to ensure that all sampled institutions were reporting the *same type* of data in the *same way* for each data field. One respondent expressed her concerns this way:

*As a researcher, when I’m doing research here for our university, I try to make sure...if we’re gathering a piece of information from...multiple sources, that our definitions are the same at each one of those sources.... If participating universities are not interpreting the definitions the same,*

*then that will affect the accuracy of what you are researching, and then your outcomes, and what you are trying to say.*

**Clearer instructions.** Two specific data fields that respondents needed additional information on were fields for CIP codes and financial aid data. For one respondent, “more upfront information about how to convert their school’s majors to CIP codes would have been helpful.” Financial aid data were challenging for two different respondents. One respondent thought that some of the financial aid data being requested were out of date because she received error notifications when entering Pell Grant funding amounts. According to this respondent, students could receive up to \$5,000 in 2011-12, but NCES “had it capped at whatever it was four years earlier, which might have been \$3,050 - so every one of [their] students that got \$4,000 was an error.” As a result, this participant thought that the amount of aid eligible to institutions should be checked and updated prior to every data collection request. The second respondent wanted more information about whether they should record financial aid ‘offered’ versus financial aid ‘accepted.’ This respondent indicated the distinction was very important because:

*‘Accepted’ is one step on the way to getting [financial aid, but] that doesn’t mean you get it. So I can offer you a loan [and] you can accept the loan, but you might not get the loan – those dollars might not ever float to you, for whatever reason.*

It was also very important to her to know *why* specific types of data were being requested; she would have liked to have a conversation about what financial aid figures NCES collects and why they are collected. The respondent also thought the overall data collection could be improved if it were reviewed by financial aid researchers and experts, such as Mark Kanterwitz from [finaid.org](http://finaid.org), before each collection cycle.

One respondent wanted more clarification about how to reconcile the difference between the school semester calendar and the required data timeframe. According to the respondent, NCES needed to be “more specific about what semesters they wanted included...if you say you want the summer..., fall, and spring semester that would make it consistent across the board for all other campuses... involved in the study...It would be easier if it was laid out a little bit more directly.”

## **More Information Needed About the Study**

Eight participants would have benefited from more information about the purpose of the study, the results, and how the data are used. Most of these participants wanted to know how the data were being used and what impact its use had on either their institution or their students. This type of information would help encourage participation: “I think that if we had a better understanding of what this data was

going to be used for, and how that collected data was going to help students, we would be much more energetic in participating...It would help to reduce school's frustration of being asked to participate if they knew what the benefit might be to themselves or others by participating."

In a similar vein, four participants would have benefited from receiving additional information about how each institution's NPSAS participation is determined and what it entails. Two of the four wanted to know how they were selected to participate. Two participants also wanted to know "if there was some type of estimate on time [because] it would have been nice to have been able to give that to people...to actually know the amount of time that this would take." Additionally, one participant wanted to know whether participation was mandatory or voluntary.

Two respondents wanted to know more about how the NPSAS data collection differed from IPEDS to alleviate their concerns that there was redundancy between the two collections: "There is so much data that is already being collected through IPEDS, and this really duplicates that."

Two respondents wanted to know about the results of NPSAS:12 (perhaps similar to the information that is provided in the IPEDS Data Feedback Reports): "it would...be helpful if at the end of it you provided some feedback to the school as to...the results of [the study for the purpose of] institutional advancement." The other respondent would have been satisfied by an email that communicated "this is your research, this is the information you provided us for our analysis, and here's what we found."

One respondent did not request more information about the study, but rather, thought that the study should consist of a follow-up interview or survey conducted immediately after their data submission was completed. The survey or interview would allow respondents to provide immediate feedback to NCES about their participation in the study.

## **Advice to Future Participants**

To further provide feedback to NCES on how to improve future NPSAS collections, respondents were asked what advice they would offer to colleagues from sampled institutions that were similar to their own about how to best complete the request. Only three respondents did not offer any advice. For those who did, suggestions fell into three categories: (1) how to coordinate staff resources and schedule tasks; (2) how to effectively pull the data; (3) and which CADE options should be used.

## **Coordinating Staff Resources and Scheduling Tasks**

Respondents advised others to start with realistic expectations of the time involved (five respondents) and to pre-plan (four respondents). Regarding the time involved, respondents advised that it is best to “set aside enough time to complete the request [because] it is fairly detailed.” One respondent suggested that their colleagues should “do it as fast as you can to get it off your plate.” It is also important that, “as soon as they got the request, they need to start working on it and gathering up the appropriate resources on campus.” They outlined the pre-planning:

*One, make sure you understand what it is being requested of you. And then if you have questions please just be sure not to hesitate to call people...and get any issues resolved ahead of time before you begin the process. And then once you fully understand the process, determine...the best route for your institution to take, in terms of gathering the data, and then what mechanism do you want to use to report the data back to [NCES]....Don't just jump into it...*

In terms of coordinating staff resources, a few respondents suggested that their colleagues start by reaching “out to other offices in the university that they think they’ll need to collaborate with.” One respondent reported they “would probably just tell them to get in touch with their student financial services office, and their registrar’s office to pull any information they could get on their students, and then have somebody input the data, just the way we did.” One respondent suggested that process could also be done by committee: “I would recommend that they form a small team or committee of people so one person doesn’t have the burden of this, [so] that multiple offices can provide data and have input.”

For smaller departments with fewer staff resources, one respondent would “recommend them to do [the NPSAS data collection] just because it gets our name out there—‘that we participated in it.’ Plus you kind of want to know how you rank against your peers, the rest of the country.”

## **Extracting Data Effectively**

Four respondents suggested that their colleagues work closely with their programmers to pull the requested data effectively. Programmers can be helpful when completing the data request; however, as reported by one respondent, it is very important to “make sure that they know what each of the fields are requesting, and ...what the terminology means, and just to work closely with them.” One respondent further suggested that a colleague have their programmers run a “test” data query on a small number of students to check that the pulled data are accurate before running the query on all students.

Eight respondents advised that using proper procedures and instructions is also essential during the data extraction phase. Four respondents suggested that it would help their colleagues if they could give them their own procedures for querying their databases and fulfilling the request. One respondent thought it would be worthwhile to reference the schools' existing procedures for IPEDS because it is similar to NPSAS. Other resources mentioned were the downloadable manual from the NPSAS website and the NPSAS Help Desk.

### **Choosing Appropriate CADE Options**

Six respondents suggested specific CADE methods for their colleagues. The most popular CADE method mentioned was the template mode. Four respondents suggested that their colleagues use the template to submit their data: "I do like the template mode, only because it's all there at once, and I can work on it at my own pace and when I'm ready I can just upload it. And I think there was a place where you could validate everything to make sure it was correct...It seemed the least time consuming, so that's probably what I would suggest." One respondent advised that large institutions with correspondingly large sample sizes should not use the case mode. In the end, however, as suggested by one respondent, the decision for which CADE method to use should depend "on what system they are using and their level of sophistication using it and what manpower they have...that's entirely depending on the resources at each school."

## **Appendix A**

### **Participant Recruitment Screener**



**NPSAS:12 Interview Recruiting and Screening Protocol  
May 28, 2013**

1. *Hi, my name is \_\_\_\_\_ and I'm calling on behalf of the U.S. Department of Education's National Center for Education Statistics. Have I reached {target}?*

**If yes, proceed to 2.**

**If no, follow up to identify whether the target remains employed at the same institution, and if so, gather his or her contact information. Update contacting information and attempt new contact.**

**If the target is no longer employed at the institution, close the case and mark the respondent as ineligible.**

2. *Great. I work with Westat, a social science company in Rockville, Maryland. NCES has hired Westat to conduct a follow-up interview with a select group of individuals who helped the Department by participating in the 2011-12 National Postsecondary Student Aid Study, or NPSAS. The goal of the interview is to get your feedback on how we could have improved the process of providing your student data to the Department.*

*2a. Our records show that {institution} participated in NPSAS and that you were the NPSAS contact. Is that correct?*

**If target is contact (yes), proceed to 2b.**

**If target is not the contact, identify whether the target remembers participating OR whether work was delegated.**

**If target, does not remember participating, go to 2c.**

**If work was delegated, say:** *If possible, I'd like to follow up with {new target} about their experiences with NPSAS. Can you tell me how to reach them?*

Contact: \_\_\_\_\_ Phone \_\_\_\_\_

Email: \_\_\_\_\_

**If delegated contact found, thank respondent and initiate new contact.**

**If delegated target unknown, make case a refusal.**

*2b. Were you also the person who gathered or provided the NPSAS data to NCES?*

**If target provided the data, (yes) proceed to 3.**

**If target did not provide the data (no), identify the person who provided data. (Thank contact for providing the data provider and initiate new contact.)**

Data

Provider: \_\_\_\_\_ Phone \_\_\_\_\_

Email address \_\_\_\_\_

**2c. If target doesn't remember participating.** *You might remember that data were provided in the Winter of 2011 through the Spring/Summer of 2012. As part of NPSAS data collection, you were contacted by RTI International, a research firm working with NCES. In the first phase of data collection, you or colleagues at your institution would have provided a list of students enrolled during the 2011-2012 school year and then, for a subset of those students, provided information about those students' enrollment histories, financial aid awards, and other student data. Does that sound familiar?*

**If yes, proceed to 3.**

**If no, thank respondent for their time and mark case as ineligible.**

*3. Wonderful. NCES is making plans for how it can improve the next round of the NPSAS data collection, and getting information about what worked well for schools and what didn't work so well is an important part of that effort.*

*Would you be willing to participate? It should take about an hour, and can be done whenever it is most convenient for you.*

**If yes:**

- a) identify an hour long block in the next three business weeks that works best for the respondent and place on interviewer schedule;
- b) identify contact number at that date and time;
- c) advise: *Great. In advance of your interview, you will be receiving an email from the interviewer reminding you of the interview's date and time. Included with that email will be our Informed Consent Form, which outlines how Westat and NCES will protect your responses, and provides more information about the research and your rights as a participant. What email address should we send that information to?*
- d) Reconfirm date, time, and all contacting information, and thank respondent for their willingness to participate.

**If no, use best judgment about refusal conversion. If concerns can be resolved, do so and schedule as above. If not, mark case as refusal.**



## **Appendix B**

### **Informed Consent/Assurance of Confidentiality Statement**



NPSAS 12: Interview Informed Consent Form

**Consent to Participate in a Telephone Interview**  
**Revised June 4, 2013**

Title of Research:

*2011-2012 National Postsecondary Student Aid Study Computer-Aided Data Extraction Usability Interviews, 2013*

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**Introduction**

You are being asked to participate in an interview which is part of a larger research study sponsored by the National Center for Education Statistics (NCES) of the U.S. Department of Education. This interview is designed to gather data about your experiences as an institutional representative during the 2011-2012 National Postsecondary Student Aid Study, in particular how easy or difficult you found it to provide student records data to NCES.

Before you decide if you want to take part in this study, you need to read this Informed Consent form so that you understand what the interview is about and what you will be asked to do. This form also tells you who can participate in the interviews, the risks and benefits of participating, how we will protect your information, and who you can call if you have questions. Please ask the researcher to explain anything you don't understand before you make your decision.

**Purpose**

The interview is being conducted by Westat, Inc., a research organization located in Rockville, Maryland.

Participation will involve answering questions about your experiences providing data to NCES and its data collection contractor, RTI International, about students enrolled in the 2011-2012 school year. You will be asked about how easy or how difficult it was to provide lists of enrolled students to RTI, and then how easy or difficult it was to provide additional detailed data about students sampled from your institution to participate. Your answers will help us improve data collection techniques for the 2015-2016 National Postsecondary Student Aid Study, which is currently being designed.

## **Procedures**

You are one of approximately 30 individuals participating in these interviews. The interview will be audio recorded to make sure we don't miss anything that you say and to help us write a report summarizing the results of the interviews. Upon completion of the written report, the recording will be destroyed. Your name will never be used in the report that we write.

## **Study Duration**

Your participation in the interview will take approximately 60 minutes.

## **Possible Risks or Discomforts**

We do not anticipate that any of the discussion topics will make you uncomfortable or upset. However you may refuse to answer any question or take a break at any time.

## **Benefits**

**Your Benefits** There are no direct benefits to you from participating in this study.

**Benefits for Other People** However, we hope that this study will identify issues that can inform the U.S. Department of Education as it seeks to improve its NPSAS data collection protocols.

## **Confidentiality**

Westat, Inc. is conducting this study for the National Center for Education Statistics (NCES) of the U.S. Department of Education. This study is authorized by law under the Education Sciences Reform Act (ESRA 2002). Your participation is voluntary. Your responses are protected by federal statute (20 U.S.C., § 9573) and may be used only for statistical purposes and may not be disclosed, or used, in identifiable form for any other purpose except as required by law.

## **Future Contacts**

We will not contact you in the future about this topic.

## **Your Rights**

Your decision to take part in this research study is completely voluntary. You can refuse any part of the study and you can stop participating at any time. You can refuse to answer any question.

## ***Your Questions***

If you have any questions about the study, you may call Denise Glover at Westat (301-251-2269) or Matthew Soldner at NCES (202-219-7025).

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### **YOU SHOULD KEEP A COPY OF THIS FORM FOR YOUR RECORDS.**

Your participation in the telephone interview indicates that you have read the information provided above, have received answers to any questions that you may have, and have freely decided to participate in this research. By agreeing to participate in this research, you are not giving up any of your legal rights.

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## **Appendix C**

### **Portal Screen Captures**



# Portal Screen Captures

(Reduced Size)

The screenshot shows the homepage of the National Postsecondary Student Aid Study (NPSAS). At the top, there is a blue header with the NPSAS logo on the left and a navigation menu on the right containing links for Home, Purpose of the Study, About This Website, Forms/Instructions, FAQs, Contact Us, and Help. Below the header, the main content area features a large heading: "Welcome to the 2011-12 National Postsecondary Student Aid Study (NPSAS:12) website!". To the right of this heading is a 3D illustration of a stack of colorful books. Below the heading is a paragraph of introductory text. Further down is a login section with two input fields labeled "IPEDS UNITID" and "PASSWORD", a "LOGIN" button, and a "GET STARTED!" button with a left-pointing arrow. Below the login section is a link to the help desk: "Forgot your password? Contact the Help Desk at [NPSASschool@rti.org](mailto:NPSASschool@rti.org) or 1-888-NPSAS411." At the bottom left of the main content area is the Norton Secured logo, which includes a checkmark icon and the text "Norton SECURED powered by VeriSign". At the very bottom of the page, there is a footer with links for "Paperwork Reduction Act Info", "Endorsements", and "Legal Authority", followed by the address: "National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, 1990 K Street, NW, Washington, DC 20006 USA".

 **Step 1: Provide Student Records Data**

Please select one option below for providing Student Records Data.

Note: You can switch between Case Mode and Grid Mode at any time. If you choose to upload data, you can view or edit data you have uploaded in Grid Mode or Case Mode.

**Option A:** Manually key student records data online one student at a time.

[Case Mode](#)

**Option B:** Manually key student records data online in a format resembling a spreadsheet.

[Grid Mode](#)

**Option C:** Key or cut and paste data into an Excel template we will create for you and then upload the data.

[Request Your Excel Template](#)

Note: Clicking the button above alerts us to create a custom template for your institution. The following day, the name of the button will change to "Download Your Excel Template" when the template is ready. We will also send an e-mail alert to the coordinator. Click the button to download the template and save it to your computer for entering the data.

**Option D:** You or a programmer can create data files using our specifications and then upload the data.

[View File Specs for Data File Upload](#)

If you use Option C or D, click this button when you are ready to upload.

[Upload](#)

1 Select the student you want to start with in this session.

Selected Student	Study ID	Student ID	First Name	Middle Name	Last Name	SSN
<input type="radio"/>	60100002		02 first	A	Drennen	
<input type="radio"/>	60100003	11079211	03 first	03 middle	03 last	
<input type="radio"/>	60100004	10284409	04 first	04 middle	04 last	
<input type="radio"/>	60100005	10286086	05 first		Slaby	
<input type="radio"/>	60100006	10287887	06 first	L3	I3	
<input type="radio"/>	60100007	10288390	07 first	X3	x3	
<input type="radio"/>	60100008	11023043	08 first	W2	w2	

2 Select the section you want to work on.

- [Contact Information](#)
- [Student Info and Budget](#)
- [Enrollment](#)
- [Aid Awarded](#)

Please verify and correct (if necessary) any information that may already appear in each field below. Go to Next

Student Section

02 first Drennen

Previous

Save

Save and Go to Next Student

Permanent Contact Information	Permanent Address (Line 1)	02 perm 1
	Permanent Address (Line 2)	02 perm 2
	Permanent City	02 perm city
	Permanent State or Province	02
	Permanent ZIP 	02 perm z
	Permanent Country (if not USA)	02 perm country
	Permanent E-Mail 	02 perm email
	Permanent Phone 	02 perm phon
Permanent International Phone 	02 perm intl p	
<a href="#">Copy Permanent Address</a>		
Local Contact Information	Local Address (Line 1)	02 local 1
	Local Address (Line 2)	02 local 2
	Local City	02 local city
	Local State	02
	Local ZIP 	02 local
Campus E-Mail 	02 local email	

Return to [Case Mode Home](#) to select a different student and/or section as a starting point.

Please verify and correct (if necessary) any information that may already appear in each field below. Go to Next

**Student** Section

02 first Drennen

Previous Save Save and Go to Next Student

Personal Information	First Name	02 first
	Middle Name	A
	Last Name	Drennen
	Suffix	
	Date of Birth (mm/yyyy)	/
	Social Security Number	
	Gender	Select
Driver's License	Drivers License Number	
	Drivers License State	
Marital Status <i>(Maiden and spouse name only applicable for married students)</i>	Marital Status	Select
	Maiden Name	
	Spouse First Name	
	Spouse Middle Name	
High School Information	Spouse Last Name	
	High School Degree	Select
	Year of High School Degree	

Please verify and correct (if necessary) any information that may already appear in each field below. Go to Next **Student** Section

02 first Drennen

Previous Save Save and Go to Next Student

Degree Program and Progress	Degree Program	Enrolled in undergraduate courses, not in a degree program	
	Associate's Type <small>(Only applicable if degree program is Associate's)</small>	Select	
	Master's Type <small>(Only applicable if degree program is Master's)</small>	Select	
	Doctoral Type <small>(Only applicable if degree program is Doctoral)</small>	Select	
	Class Level	1st Year/Freshman	
	Expected to complete degree requirements by 06/30/2012?	<input checked="" type="checkbox"/>	
Cumulative (Unweighted) GPA	2.22		
Baccalaureate Degree <small>(Only applicable for Graduate Students)</small>	Received Baccalaureate Degree?	<input checked="" type="checkbox"/>	
Major <small>(Only complete one)</small>	Date Received (mm/yyyy)	02	2002
	CIP Code	222222	
	Current Major	02 major	
Initial Enrollment	Undeclared	<input type="checkbox"/>	
	First Enrolled at this Institution (mm/yyyy)	02	2002
	First-time Beginning Student?	<input checked="" type="checkbox"/>	

Please verify and correct (if necessary) any information that may already appear in each field below. Go to Next

**Student** Section

02 first Drennen

Previous

Save

Save and Go to Next Student

Federal Aid Awarded	Pell Grant	1
	Subsidized Stafford Loan	2
	Unsubsidized Stafford Loan	3
	Parent PLUS Loan	4
	Graduate PLUS Loan	5
	Federal TEACH Grant	6
	Perkins Loan	7
	Federal SEOG Grant	8
	Federal Work-Study	9
	Iraq & Afghanistan Service Grant	10
	Veteran Benefits	11
	Federal Health Professions Loan	12
	Federal Health Professions Disadvantaged Loan	13
State Aid 1 Program	-- Select one --	
State Aid 1 Amount	15	
State Aid 2 Program	-- Select one --	

Return to [Case Mode Home](#) to select a different student and/or section as a starting point.

Case Details <i>Use the boxes below to filter by Study ID, Student ID, or Full Name.</i>			Permanent Contact Information								
Study ID	Student ID	Full Name	Address 1	Address 2	City	State	Zip 	Country (if not USA)	Email 	Phone 	International Phone
<input type="text"/>	<input type="text"/>	<input type="text"/>									
60100002		Drennen, 02 first A	02 perm 1	02 perm 2	02 perm city	02	02 perm z	02 perm countr	02 perm email	02 perm phone	02 perm intl phone

1 Records from 1 to 1 of 1

You can view and download the [list of students](#) who are sampled for NPSAS from your institution. You may wish to use the download feature as a starting point for creating datafiles.

View the file specs for the following section:  Contact Information  Student Info and Budget  Enrollment  Aid Awarded [print](#)

All files should contain one row per student.

"Data Type" Key:

A = Upper and lowercase letters only

N = Numeric data only

C = Numeric, upper and lower case letters, and special characters accepted

## Contact Information

Consists of names and addresses of any contacts you might have for the students including the students themselves.

Field #	Max Length	Data Type	Field Description	Notes / Valid Values
1	8	N	NPSAS Identifier	8 digit study ID, provided by RTI in the student sample file
2	40	C	Student's permanent address field 1	
3	40	C	Student's permanent address field 2	
4	40	A	Student's permanent city of residence	
5	2	A	Student's permanent state of residence	2 letter state postal code
6	9	C	Student's permanent zipcode	
7	40	A	Student's permanent country of residence	
8	100	C	Student's permanent email address	
9	15	N	Student's permanent phone number	No parentheses, dashes or spaces



## **Appendix D**

### **Interview Protocol**



**NPSAS 2012 Revised Interview Protocol**  
**Revised June 6, 2013**

- 1) *Thank you again for agreeing to speak with me. My name is \_\_\_\_\_ and I'm calling from Westat to conduct an interview on behalf of the U.S. Department of Education. Earlier this week I sent you a confirmation email entitled NPSAS Interviews with an Informed Consent Form attached. Have you had a chance to read it?*

**If yes, proceed to 2.**

**If no:**

- a) **Ask:** *Do you still have a copy of the email, or can I send it to you again?*  
**If needed, resend informed consent email after verifying email.**
- b) **Ask:** *I just sent the email again. Can you go ahead and check your inbox to see if it has been received? **Wait as needed. Once received:***
- c) **Ask:** *Great. Have you had a chance to read it?***[Also be prepared to send R the screen shots to jog their memory.]**

- 2) *Do you have any questions?*

**If yes, address questions.**

**If no, proceed to 3.**

- 3) *Thanks. As a reminder, this interview should last no more than sixty minutes. As we indicated in the email, we would like to record the interview so we have a record for quality assurance purposes. I'd like your permission to digitally tape our interview. Is that OK?*

**If no, attempt to identify source of concern and attempt to resolve. If a firm refusal, note taker or you will take notes to the best of your ability.**

**If yes:**

- a) **Turn on recording system.**

b) *Thanks, {target} for agreeing to allow me to record. Now that we've addressed informed consent {and answered your questions}, let's get started.*

4) *Alright. As we mentioned when you were first contacted, the purpose of the interview is to provide information to the U.S. Department of Education's National Center for Education Statistics, or NCES, about your experiences providing data for the 2011-2012 National Postsecondary Student Aid Study, or NPSAS.*

*I will ask you about your experience with NPSAS in two phases. First, I want to address what we call "list collection." As you might remember, list collection was the first activity you completed for us, where you provided us a list of all students enrolled at your institution between July of 2011 and June of 2012, along with certain student characteristics.*

*The second phase is what we call computer-aided data extraction, or CADE. CADE is where you provided us very detailed information about individual students on your campus who were sampled to participate in NPSAS. You completed CADE by:*

**INTERVIEWER: Only read the description below for the mode used by the respondent. NOTE NCES records only indicate the mode in which the respondent submitted their data. A respondent may tell you during the interview that they switched between modes (e.g., they began submitting CADE by case mode and then switched to and completed it in grid mode).**

- *extracting data from your campus data systems into a CSV (comma separated values) file and uploading it to our web portal. I will refer to this as "programmer CSV mode."*
- *filling in data into an Excel template and then uploading that file to our web portal. I will refer to this as "template mode."*

- *filling out an online web form for each student where you worked on providing data one student at a time – that is, you provided all the enrollment, academic, and other aid information we asked for about Jane Doe before moving on to another student. I will refer to this as “case mode.”*
- *Filling out an online web form for each student where you worked on providing data for multiple students – that is, you provided all the enrollment information we asked about for all sampled students, then you provided all academic information for those students, and so forth until you were finished. I will refer to this as “grid mode.”*

*Let’s begin with the enrollment list process.*

**INTERVIEWER: All participants respond to the questions below related to the enrollment list. Probe with follow-ups as appropriate to elicit complete responses.**

- 1) *Do you keep your enrollment information in an electronic student information system, or in some other way?*

**If electronic:**

- a) *What is the name of the system you use?*
  - b) **If not Peoplesoft, Datatel, Banner, or Jenzabar:** *Is that a commercial product or a system developed for your institution?*
    - **If developed by their institution:** *Do you know if it was developed using a database like Sequel Server or Microsoft Access, or was it something else?*
  - d) **If some other way:** *Can you describe how those records are stored?*
- 2) *When you provided your enrollment list, you were asked to provide the name, social security number, date of birth, class level, and major of each student who enrolled at your institution between June 2011 and July 2012.*
    - a. *How easy or hard was that activity for you?*

- b. *What made it easy/hard?*
- c. **Probe if not mentioned:** *Were some data more difficult to provide than others? Which ones and why?*
- 3) *If you had been asked to indicate which of the students on that list you believed would earn a bachelor's degree by July 2012, how easy or hard would that have been for you? What made it easy/hard?*
- 4) *If you had been given a list of majors or Classification of Instructional Program (CIP) codes that NCES defined as being a science, technology, engineering, or math field—a so-called “STEM field”—and then we asked you to indicate which of the students on that list had begun a doctoral program in a STEM field that year, how easy or hard would that have been for you? What made it easy/hard?*
- 5) *Is there anything else you would like to tell me about the enrollment list process?*

*Thank you. Now, let's talk about how easy or how hard it was for you to provide the detailed student records we asked you to provide about students sampled for NPSAS:12. According to our records, you completed CADE by {method}, which means you {insert description here}. Is that correct?*

**If respondent indicated they switched modes, keep that in mind as you are proceeding through the interview.**

**INTERVIEWER: The questions below are meant to guide your conversation. As a reminder, the goal is to get a clear picture of how the respondent completed the NPSAS CADE request and what made it harder or easier. Please probe as appropriate.**

- 6) *From beginning to end, or from the time you chose which CADE method to use until the time you submitted your data to NCES, about how many hours did you spend providing us the detailed student information we requested?*

**ONLY IF RESPONDENT INDICATED THEY SWITCHED MODES,  
ASK Q6a:**

**6a.** *Did you think it took longer, shorter, or about the same amount of time to complete the data request because of the switch?*

7) *As part of our request, we asked for student demographic information and student financial aid data. In your role at {institution}, did you have access to all of the information we requested, some of the information, or none of the information?*

8) *Given that you had access to {all/some/none} of the information, can you describe how you fulfilled the request?*

**INTERVIEWER: Based on response to #8, probe as appropriate to get a complete sense of the parties involved in fulfilling our request and the steps taken by each. Probe as appropriate:**

*8a. What other campus offices did you collaborate with to fulfill the NPSAS data request?*

- **If not mentioned, probe on whether the IT department helped fill the request.**

*8b. Can you describe the processes undertaken by others on campus to fulfill the request, as you recall them?*

*8c. Did any collaborators express concerns about the request? If so:*

- *What was the concern?*
- *How was it resolved?*

9) *How easy or hard was it for you to fulfill the NPSAS data request? What made the process {easy/hard} for you?*

*9a. Did you seek out the assistance of others on campus? If so:*

- *Who did you seek assistance from?*
- *Were they able to assist you?*
- *How did they help you?*

9b. *Did you need to contact the NPSAS School Help Desk for assistance? If so:*

- *Do you recall what you needed help with?*
- *How did the Help Desk assist you?*
- *Were they able to resolve your concern?*
  - *If not, what did you do?*

**ONLY IF RESPONDENT SWITCHED BETWEEN TWO MODES, ASK**

**Q10:**

10) *You indicated you switched between case and grid modes. Please tell me more about this. What made you switch between the two modes?*

**ASK Q11 ONLY IF SAME RESPONDENT PARTICIPATED IN NPSAS**

**2008:**

11) *ED's records show you participated in NPSAS in 2008. Can you offer any impressions about whether the 2011/12 data collection process was easier or harder than the 2008 data collection? What made it easier or harder?*

12) *If you were sampled for NPSAS again, would you choose the same method(s) for submitting your data? What makes you say that?*

13) *In retrospect, what information could NCES have provided you at the beginning of the NPSAS data collection that would have made it easier for you?*

**a. Probe on how it would have made it easier, if not mentioned.**

14) *If a colleague at an institution like yours called you and said their institution had been sampled for NPSAS and asked your advice on how they should best proceed in fulfilling the Department's request, what advice would you give them?*

15) *Is there any additional feedback you would like to offer NCES as they prepare for NPSAS:16, about this or any other part of the study?*

16) *What else you would like me to know before we wrap up?*

*Thank you so much for your time. The next step in our research process is for my colleagues and me to synthesize responses from all of our respondents and prepare a report for NCES and its data collection contractor. At no time will your responses be specifically attributed to you. Do you have any final questions?*

**If yes, address remaining questions.**

*Thank you again. This concludes our interview. Have a good day.*



## **Appendix E**

### **Commercial Product Descriptions**



## Commercial Product Descriptions<sup>1</sup>

- **Argos**

<http://www.evisions.com/Products/ArgosEnterpriseReporting/Overview.aspx>

- Argos is a program offered by Evisions, Inc. Argos is a reporting tool used on an everyday basis that produces reports in a simple format to retrieve needed information from various enterprise reporting systems. The application can communicate between multiple systems to combine and compare information. Argos meets reporting needs from simple ad hoc queries to advanced dashboards and data cubes while taking the majority of the workload off of an institution's IT department.

- **Banner**

<http://www.ellucian.com/student-information-system/>

- The Banner Student Information System is a database of student records and information. The system consists of multiple integrated systems: Admissions, Registration, Billing/Accounts Receivable, Financial Aid, and Graduate Student Data. Banner is an administrative software application developed specifically for higher education institutions by Systems and Computer Technology Corporation (SCT). Banner maintains student, alumni, financial, and personnel data.

- **Colleague – By Ellucian, used to be Datatel**

<http://www.ellucian.com/Solutions/Colleague-by-Ellucian/>

- Colleague by Ellucian provides both the back-end information sharing and efficiencies needed for front-end services and familiar interfaces for ease of productivity. Colleague eliminates the need to navigate multiple networks and systems by offering every constituent (on campus and off) with a personalized portal. Colleague also offers built-in workflows and automated processes that increase self-service and productivity.

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<sup>1</sup> Product descriptions were taken directly from the product websites, with some of the language being edited for this report. Alliance and CLASS were two programs institutions also cited as using; however, we were unable to locate information on those particular programs because there are several other systems with the same name. Therefore, their descriptions are not included here.

- **Datatel**

<http://www.ellucian.in/News/Ellucian-New-Company-Name-Announced-for-Datatel-and-SunGard-Higher-Education-Combination/>

- Datatel focuses on building Strategic Academic Enterprises for colleges and universities that support five cross-functional areas essential for achieving institutional and student success: Strategic Enrollment Management, Strategic Planning, Institutional Advancement and Marketing, Teaching and Learning through its Intelligent Learning Platform, and Performance and Operational Management. Datatel, Inc. was a private company that provided fully integrated software and professional services to build Enterprise Education Platforms for higher education until it combined with its competitor SunGard Higher Education to form Ellucian. (Any [www.datatel.com](http://www.datatel.com) links automatically forward to [www.ellucian.com](http://www.ellucian.com).)

- **Edline**

<http://www.edline.com/solutions/overview/>

- Designed specifically for K-12 learning communities, the LCMS (Learning Community Management System) exists at its core as an all-in-one website solution. The LCMS combines the features of a Content Management System (web design, editing, permissions, templates, content publishing, site navigation, etc.) and a Learning Management System (grade book, quizzes, homework hand-in, wikis, discussions, etc.) with the added capabilities of outbound communication (email, text, and voice notification). It provides district, school, and classroom-level website support for administrators, parents, teachers, and students.

- **GradeQuick**

<http://www.edline.com/solutions/gradebook-solutions/gradequick/>

- GradeQuick is a product offered by Edline. GradeQuick is a web-based solution for web, network, and mobile applications; GradeQuick provides functionality to ensure that all stakeholders have access to secure grading and student information.

- **Jenzabar**

<http://www.jenzabar.com/higher-ed-solutions/enterprise-resource-planning-erp>

- Jenzabar has the capability to integrate data through all stages of the “student life cycle”: admissions, financial aid, registration, student life, student records, advising, and alumni development. This system can be used as stand-alone solutions or added to extend the functionality of other systems. Jenzabar is a provider of software, strategies, and services for higher education institutions.

- **Matrix**  
[http://schooleffects.com/contentm/easy\\_pages/view.php?sid=92&page\\_id=436](http://schooleffects.com/contentm/easy_pages/view.php?sid=92&page_id=436)
  - Matrix ties together student performance on tests with data held in a student information system (e.g., gender, ethnicity, and meal-plan status). Matrix also allows teachers to look at their current roster of students and see their past performance. Matrix easily integrates with various student information systems and different types of tests.
  
- **PeopleSoft**  
<http://www.oracle.com/us/products/applications/peoplesoft-enterprise/campus-solutions/overview/index.html>
  - PeopleSoft, Inc. was a company that provided Human Resource Management Systems (HRMS), Financial Management Solutions (FMS), Supply Chain Management (SCM) and customer relationship management (CRM), Enterprise Performance Management software (EPM), as well as software solutions for manufacturing, enterprise performance management, and student administration, to large corporations, governments, and organizations. It existed as an independent corporation until its acquisition by Oracle Corporation in 2005. The PeopleSoft name and product line are now marketed by Oracle. The program integrates enrollment and degree planning, student financing, learning management integration, mobile campus, oracle campus analytics, and alumni management and fundraising.
  
- **PowerCampus**  
<http://www.ellucian.com/Solutions/PowerCampus-Student/>
  - PowerCampus™ Student is a product of Ellucian. It delivers a student-centered solution that assists with meeting enrollment goals. PowerCampus Student allows recruiting and admissions staff to create admissions campaigns, target and recruit prospective students, and manage more tailored communications with them throughout the admissions process. It allows a registrar's office to support registration, calendaring, and transcript activities for both traditional and nontraditional students. The financial services offices are able to track tuition bills and payments, housing assessments, and other institution-defined fees and student transactions. It allows institutions to more easily report on enrollment trends, academic progress, and retention.

- **PowerFAIDS**  
<http://www.powerfaids.org/> and  
<http://www.ellucian.com/Solutions/College-Board-PowerFAIDS/>
  - PowerFAIDS, which is from the College Board, helps schools and administrators award, communicate, report, and track financial aid. PowerCampus® by Ellucian users are part of the more than 600 institutions that rely on them to automate the entire financial aid process from need analysis calculations, awards, and communications, to reporting. PowerFAIDS integrates with the various financial aid packages available from private organizations and the Department of Education, creating a single source of up-to-date information that staff members can use to serve both students and administrators.
  
- **ProSAM**  
<http://www.sigmasys.com/productsAndSolutions.html>
  - ProSAM is a complete financial aid solution for postsecondary educational institutions. It is designed to use flexible and secure client/server technology and integrate with institutional student information systems as well as other enterprise applications. It offers a combination of immediate online processing and back-office functionality.
  
- **SchoolDESX**  
<http://www.soonermicro.com/schooldesx/SDBasicsBlk.htm>
  - SchoolDESX is the latest product from SchoolDESX Technologies, LLC (formally SMS-Sooner Micro Systems). SchoolDESX provides software tools for managing students, teachers, facilities, and other accountability needs. There are many aspects within the program such as course catalog, resources for facilities/staff services, scheduling, class information, calendar, student information, enrollment, class activity, attendance, and grades/progress.