

Web-based Technology Survey Series



Fifth-Grade Students
Eighth-Grade Students
Twelfth-Grade Students

Teacher Technology Survey

2007 Edition

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Introduction to Web-based Technology Survey Series

The National Educational Technology Standards and Indicators for Teachers (NETS for Teachers or NETS.T) were published by ISTE in 2000. These provided the basis for an assessment writing project in which several highly-regarded educators from across the nation examined issues of assessment related to technology. In 2003, the International Society for Technology Initiative Self-Assessment was included in this publication with the purpose of providing a self-assessment of strengths and learning gaps in a teacher's technology skills. It was based on two guiding principles:

- the probability that the tasks or performance could be seen in a majority of schools, and
- a focus on the educational outcomes

A link was developed between the NETS assessment items and the performance indicators.

Purposes of Technology Surveys

One of the most important tasks in administering a survey is developing a clear purpose statement for the use of the results of the survey. Before a survey is administered to students or teachers, the school/district needs to develop succinct answers to the following questions:

- Q** Why are we conducting a survey of our students' and/or teachers' technology knowledge?
- Q** How will the results of these surveys be used?

There are many reasons why schools would use a survey to collect technology related information. Among them are the following:

- to include as a part of the data collected for accreditation purposes
- to take into account the perspectives of the students and teachers in decision making and school improvement planning efforts
- to monitor shifts or trends as students progress through their education or career
- to conduct a longitudinal study of the perspectives of students

Determining the purposes of the survey is a first step in implementing the Technology Surveys.

Student Technology Surveys

Survey Content and Reliability

Technology surveys may be used with any of the AdvancED school improvement products. Responses can be disaggregated by gender, ethnicity, grade in school, and time spent on the computer outside of school. Allow approximately 20 minutes for completion of each of the surveys.

Response Categories for all scaled topics	
A	I can do this well
B	I need a little help to do this
C	I need a lot of help to do this
D	I cannot do this
NA	Does not apply

The following is a listing of topics contained in each of the three Student Technology surveys showing the common items as well as the correlation between the topics and items across these three surveys. The reliability analysis used to determine the extent to which individual items in each topic (subscale) and section relate to each other is alpha (Cronbach's). This model of internal consistency is based on the average inter-item correlation.

TOPIC	Fifth Grade Technology Survey (47 items)	Eighth Grade Technology Survey (49 items)	Twelfth Grade Technology Survey (34 items)
Information about Me			
Gender	Demographic	Demographic	Demographic
Ethnicity	Demographic	Demographic	Demographic
My Grade in School is:	Demographic	Demographic	Demographic
Time Spent on a Computer Outside of School	Demographic	Demographic	Demographic
Basic Operations and Concepts	Items 1-22 (22 items, alpha = .94)	Items 1-22 (22 items, alpha = .95)	Items 1-9 (9 items, alpha = .89)
Social, Ethical, and Human Issues	Items 23-28 (6 items, alpha .86)	Items 23-31 (9 items, alpha = .93)	Items 10-17 (8 items, alpha = .93)
Technology Productivity Tools	Items 29-31 (3 items, alpha = .82)	Items 32-36 (5 items, alpha = .89)	Items 18-21 (4 items, alpha = .85)
Technology Communication Tools	Items 32-39 (8 items, alpha = .87)	Item 37-39 (3 items, alpha = .84)	Items 22-24 (3 items, alpha = .89)
Technology Research Tools	Items 40-43 (4 items, alpha = .83)	Items 40-44 (5 items, alpha = .88)	Items 25-29 (5 items, alpha = .89)
Technology Problem-Solving and Decision Making Tools	Items 44-47 (4 items, alpha = .85)	Items 45-49 (5 items, alpha = .92)	Items 30-34 (5 items, alpha = .91)
*Alpha Reliability Coefficient for each scaled topic	<i>Based on a sample of 315 5th grade students Overall composite: 47 items, alpha = .97</i>	<i>Based on a sample of 241 8th grade students Overall composite: 49 items, alpha *.98</i>	<i>Based on a sample of 1170 12th grade students Overall composite: 34 items, alpha = .97</i>

Chart 1

The Teacher Technology Survey

The purpose of this assessment is to determine teacher competencies in the area of technology.

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Response Categories for all scaled topics	
A	Able to teach others
B	Confidently
C	Minimally
D	Not at all
NA	Not applicable

TOPIC	Teacher Technology Survey (32 items)
Information About You	
Gender	Demographic
Ethnicity	Demographic
Role in your school	Demographic
Experience Level	Demographic
Current Grade Levels Taught	Demographic
Do you have a NETS.T Aligned Certification?	Demographic
Technology Operations and Concepts	Items 1-9 (9 items, alpha = .88)
Planning and Designing Learning Environments and Experiences	Items 10-14 (5 items, alpha .88)
Teaching, Learning and the Curriculum	Items 15-19 (5 items, alpha = .86)
Assessment and Evaluation	Items 20-23 (4 items, alpha = .83)
Productivity and Professional Practice	Items 24-27 (4 items, alpha = .79)
Social, Ethical, Legal, and Human Issues	Items 28-32 (5 items, alpha = .90)
*Alpha Reliability Coefficient for each scaled topic	<i>Based on responses of 135 teachers Overall composite. 32 items, alpha = .97</i>

Chart 2

Adding Items to a Survey

An optional feature provided with the Technology Surveys is the opportunity for schools/districts to develop additional demographic, forced-choice, and open-ended items to be included as a part of the survey. Additional items can provide information on certain issues of particular interest or address specific concerns related to unique characteristics associated with the school/district.

Additional Item Options
Unlimited number of demographic items can be included on the survey with up to 7 choices per item.
Unlimited number of ordered forced-choice items could be included on the survey with up to 10 response choices per item.
Unlimited number of open-ended items can be included on the survey. Responses are compiled by item.
Instructions can be changed or added to the survey.
Additional items are reported automatically in the analysis report. The survey administrator has the ability to generate and create sub-group reports with the purchase of Level 2 Reporting.

Chart 3

Technology Surveys are made up of a series of items. The purpose of an item is to elicit a response. Sometimes a set of responses is already provided to choose from (a **forced-choice** response) and other times respondents will generate their own responses (an **open-ended** response).

A forced-choice item that has responses that are not ordered is known as a **categorical or demographic** item. These items use categories for the responses. For example, “Male” and “Female” are the categories of Gender. Male is not greater or higher than Female; they are just different from each other. There are no numeric weights attached to a categorical response. Categorical or demographic items are often used to disaggregate survey responses. The common method for summarizing this data is a frequency count or percent.

An open-ended item is one where the respondent needs to compose a response. This type of item is used to gather information and generate insight. Written responses are not easy to systematically analyze but provide a diversity of perspectives to help further a school’s understanding of a particular topic. An example of an open-ended item is:

“What is one suggestion that you would like to offer to improve your school?”

When adding additional items on web surveys, it is important that they be quality items. The following are some tips for the construction of good survey items:

- The vocabulary used in the item should be free of jargon and any vague or ambiguous terms should be avoided. Avoid the use of abbreviations.
- The items should be relatively short, direct statements.
- Each item should address a specific issue or characteristic of the school.
- Avoid the use of compound statements that address more than one aspect of the school.
- Do not use double negatives.
- Do not bias the statement so that the respondent has to answer in a way that does not reflect his/her view. Emotionally charged items, or those that imply that a person should have done something, should be avoided.
- Examine the order of the statements. Sometimes the response to one item will affect the response to another one.
- Consider writing multiple statements on important topics. Sometimes there is bias in a particular item. Additional questions related to the same topic can help you determine bias in a question.
- Make sure that respondents have adequate background information in order to respond to a question. If more information is needed, provide it with the survey.

Writing Items for Technology Surveys

In addition to some general tips on writing good survey items, there are a number of more specific things to think about with a Technology Survey. You may want to consider these questions as you develop items:

- Q** Can students remember accurately?
Example: GPA vs. grades in school
- Q** Can you find better information from another source?
Example: Participation in special programs such as special education
- Q** Do close-ended items have enough diverse responses to cover all options?
Example: After high school, students: a. Go to college, b. Work full time
- Q** Are the items aligned across surveys to enable comparisons?
Example: Using the term “work” in 8th grade vs. “career” in 12th grade
- Q** Are the vocabulary and concepts appropriate for the grade level?
Example: Eighth grade students may have difficulty responding to an item about employability.

Administering a Technology Survey

Determining the Respondents

The number of respondents who participate in the survey depends on the purpose of the survey you plan to administer. In most cases, schools ask *all* students at a grade level to participate. A number of questions need to be considered in determining who to survey including:

- Q What is the population of students to whom you want to generalize the results?
- Q Do you want to survey an entire class or do you want to sample the class?
- Q Do you want to disaggregate or analyze the survey responses by any subgroups of respondents? (e.g., female students currently in 9th Grade)

In order to answer the first question, you need to define the population. A population is the complete set of individuals who have some common observable characteristic. Usually the population shares some major demographic characteristics. An example of a population is:

- Fifth Grade Students
- Eighth Grade Students
- Female Students

Once the population is defined and can be described, the next task is to determine if you want to survey the entire class or sample the class. The extent to which you would like to generalize, or attribute the findings from the survey to a specific population, is the extent to which you might choose to obtain survey data from an entire group or a sample.

Determining whether or not you can sample because you have a large enough population is based on a number of considerations. A sample is any subset of a population, and the extent that this subset represents the population is also the extent to which you have confidence that you can generalize to the population. A rule of thumb for determining a sample size which has a desired error range at the 95% confidence level and at + or - .05 is:

Sample Size Determination	
Population N	Sample N
100	79
200	132
300	168
500	217
1000	278

Chart 4

Consider including at least 79 respondents in any group that is being surveyed if you are sampling. If you choose to sample the population, there are two broad sampling methods: random and non-random sampling. There is a description of seven different sampling methods in Appendix A. The best sampling approaches are random sampling methods.

Even if a relatively generalizable sampling methodology is chosen, voluntary responses can create sampling error. If there is an 85% to 95% response rate, it will represent the population well. The results from surveys with response rates between 50% and 85% should be examined carefully as to the extent to which the sample represents the population. If the response rate is 50% or less, then a description of the sample becomes important to assess the extent to which it represents the population.

Sometimes you suspect that different respondents might provide different perceptions on a survey and you may want to disaggregate the results. For example, students who have participated in a training program may view their post secondary plans differently than students who have had no training. If you would like to disaggregate the responses by different items, you will need an adequate sample size.

If you plan to disaggregate the survey results by one or more subgroups, you need to consider that there should be a minimum of 15 respondents in any subgroup that you would like to analyze separately. This may impact the size of a sample. In large schools, samples should be great enough to cover the more diverse populations served by these schools. The most important feature of the sample, regardless of sample size, is that it represents the diversity of the population.

Types of Administrations

Some important administration decisions need to be made before a school (or district/system) administers a survey. When a school district/system plans to administer a survey to multiple schools, it can be done in one of two ways:

- **Administration by School**
- **Administration by District/System**

Chart 5 provides a description of the features of a school or district/system administration.


School	District/System
Offers more accurate data per school. (Less chance of errors in school name designation.)	Respondents may accidentally choose wrong school designation or not indicate their school in a district administration.
May require managing multiple administrations (one per school)	One administration
May require training/coordinating multiple survey administrators.	Single administrator
 If you are a large district planning to administer to multiple schools, the method you choose for administration will affect the reporting capabilities that we offer. Please call AdvancED for more information about large district administrations before you begin.	

Chart 5

A second decision a school needs to make is the method used to administer a technology survey. It is important to develop a plan so that you maximize the number of surveys that you receive from the respondents. There are generally two ways a school might administer a survey:

- **Group Administration**
- **Individual Administration**

A group administration is when all the participants gather at a location to take the survey. An individual administration means that the participants complete the survey by themselves, usually on their own time. The following are some examples of different types of administrations.

Scenario 1 – Student Group Administration

On Tuesday morning, the technology teacher at Smith Middle School was given a list of access codes to distribute to the eighth grade students during their class time. Teachers were asked to distribute the access codes on pieces of paper and monitor the survey to ensure that students took the survey seriously. (In most cases, schools choose to administer student surveys (5th, 8th or 12th grades) in a group administration during the school day since staff is available to monitor the implementation and completion of the survey.)

Scenario 2 - Individual Alumni Administration

All seniors at Washington High School received an e-mail announcement from the Washington High School Improvement Team Chair on Monday which asked them to log on to the Internet over the next five days to complete a Twelfth Grade Technology Survey. On Wednesday, a reminder letter was e-mailed to students notifying them that the survey is closing in two days. On Friday, the Team Chair realized that many students had not yet completed the survey and extended the administration to the following Friday. Another e-mail was sent to let the students know the survey stop date had been extended.

An individual administration needs to be monitored carefully because response rate is one of the greatest concerns with this type of administration. Chart 6 lists some advantages and disadvantages of each method of administration.

Advantages	Disadvantages
Group Administration	
Respondents complete the survey at one time, ensuring that other factors do not influence their responses.	Difficult to find time in a busy school to administer a survey.
The seriousness, purpose, and use of the survey can be conveyed to the respondents.	Respondents may talk or copy from each other.
The survey is ready for analysis in a short amount of time.	Interruptions could affect the responses of a large group of respondents.
Administration problems are known and can often be corrected.	A disgruntled survey administrator could impact responses.
A time commitment from the organization signals to the respondent that completing the survey is worthy of their time and commitment.	Finding enough appropriate computers for a large group may be difficult.
Easier to implement when everybody in a particular group is being surveyed.	Difficult to find a location in a school to administer the survey to a group of people.
Individual Administration	
There is more flexibility in gaining access to available computers.	Respondents may not complete their surveys, lowering the response rate.
Respondents may feel special that they were chosen to give their opinions.	Anonymity is often a concern to respondents.
Easier to implement when you are sampling a small group of people from different locations.	The conditions under which a respondent completes the survey may bias responses.
Respondents who need time to think about issues may provide more thoughtful opinions.	Respondents may talk about their perceptions related to the survey, influencing others.
Provides privacy to the respondent.	Respondents may not provide complete information.
Convenience of fitting into the respondent's schedule.	Difficult to get clarification if needed.

Chart 6

Group Administration Overview

The tone established by the person who administers the survey and provides directions to the participants is an important factor in conducting the survey. One of the most important elements of the message provided to the survey takers should be the reason(s) the survey is being conducted, why their opinions matter, and how their responses can make a difference.

It should be stressed that there are no right or wrong answers and that responses to the items will be maintained on a confidential basis. Respondents should not sign their names or identify themselves in any way (unless it is predetermined for follow-up purposes). Before participants start completing a survey, allow them the opportunity to ask any questions about how to record their responses. In order to safeguard the validity of the survey, care should be taken to only address issues pertaining to the method of recording responses. Do not discuss or indicate the “desired” selection of responses.

The participants should also be informed about the amount of time it may take to complete the survey. Keep in mind that the times listed in an earlier section of this guide may change if the school includes additional items on the survey.

Group Administration of a Web Survey

When administering a web-based survey to a group, it is important to make sure that the school's computers have Internet Explorer 5.5 or Netscape 7.0 (or above). Other web browsers may be acceptable, but they should be tested prior to the administration.

Each respondent has a unique "access code" that will allow him or her to complete the survey only one time. If a respondent does not complete the survey at one time, he or she can use the access code to re-enter and complete it at a later time—up until the stop date.

The survey administrator assigns a relationship between each access code and one of the following:

- A **name** of a participant (e.g., Abigail Adams)
- An **e-mail** address of a participant (e.g., aadams@lighthouse.us)
- A **generic designation** of a participant (e.g., student)

Depending on how the access codes have been assigned (e.g., name, e-mail, generic designation), the survey administrator can distribute the access codes to each participant in one of the following ways:

- **E-mail** an announcement from the survey administrator containing a link with the participant's unique access code included.
- **Print** an announcement with the name and/or generic designation and unique access code, which can be distributed to participants.
- **Export** a list of names and/or generic designations along with the unique access code to a tab-delimited file that is easily opened in a spreadsheet. Once exported, this information can be used to create labels, generate a roster, or merge into a word processing program.

It is not advisable to send out the access codes for a group administration in advance. When participants enter a computer lab or resource room, they can pick up their access codes along with the website address to begin the survey. One suggestion for distributing access codes is to create a label and place each label on an index card to distribute to the participant. Also, a list of participants can be created, asking participants to copy their access codes. Another possibility is to print letters with the generic designation e.g., (Dear Student,) and give them to each survey participant.

Individual Administration Overview

If a survey is given to participants individually, a letter should be distributed that explains the purpose, states that the surveys are anonymous (unless used for tracking), and encourages the participant to complete the survey. Determining the date for the completion of the survey is also important.

Individual Administration of a Web Survey

It is important to make sure that each participant has Internet Explorer 5.5 or Netscape 7.0 or above. Other web-browsers may be acceptable, but should be tested prior to administration. Each participant has a unique access code that will allow him or her to complete the survey only one time. If a respondent does not complete the survey at one time, he or she can use the access code to enter and complete it at a later time—up until the stop date the administrator has set. There are several different ways of assigning access codes:

- A **name** of a participant (e.g., Abigail Adams)
- An **e-mail** address of a participant (e.g., aadams@lighthouse.us)
- A **generic designation** of a participant (student)

Depending on how the access codes have been defined (e.g., name, e-mail, generic designation), the survey administrator can distribute the access codes to each participant in one of the following ways:

- **E-mail** an invitation from the survey administrator that includes the unique access code.
- **Print** letters with the name and/or generic designation, which can be distributed to participants.
- **Export** a list of names and/or generic designation along with the access code to a spreadsheet. Once exported, this information can be used to create labels or merge into a word processing program, database, or spreadsheet.
- **Generate** a reminder e-mail or letter.

Appendices C and D include some troubleshooting tips to ensure that a web-based administration runs smoothly.

Increasing Response Rate

There are a number of strategies for increasing response rate on web-based surveys. Response rate poses the greatest threat to a school which chooses an individual rather than a group administration. A high response rate is particularly important when a school uses one of the sampling methods described in Appendix A.

The following list describes a number of strategies that have been shown to be successful in increasing the response rate. Using multiple strategies will enhance your ability to gather the opinions of increasing numbers of your respondents.

Personalization

- Precede the survey with a personalized e-mail sent by an individual with authority

Survey Form

- Focus on a single topic per item when adding your additional questions
- Don't make the survey too long by adding too many additional items

Survey Administration

- Notify the respondents prior to the survey that they will be asked to complete a survey.
- Send an e-mail letter to survey takers which explains the purpose of the survey, the importance of completing the survey, a discussion of anonymity, and a clear deadline for completion (see Appendix B for a sample e-mail announcement)

Follow-up

- Send a follow-up reminder e-mail to all respondents within 5 to 10 days after survey notification to thank those who responded and prompt others to respond.
- Telephone follow-ups with respondents can increase response rates.
- E-mail the survey reminder a second time.

Incentives

- Provide an incentive that is of value to the respondent (e.g. gift certificate, pizza party for the class that has the most survey responses, personalized pencils, or a drawing for a prize).
- Promised incentives are not as effective as immediate incentives.

Assessing Respondents across Time

One of the benefits of AdvancED Technology Surveys is that they can be used longitudinally to measure changes over time. For instance, a fifth grade student might complete the Fifth Grade Survey, and years later complete the Twelfth Grade Survey. By comparing students to themselves, more meaningful data on change can be gathered.

In order to help a school track students over time, each access code can be related to an ID# or a student name. This ID# will be transparent to the respondent.

Once the data collected on the surveys are related to student IDs, a school can then export the data into a database and merge it with other student data. This might be additional student demographic data, or it might be the AdvancED Technology Survey data from an earlier grade (5th or 8th). If your school would like help with merging data, please contact AdvancED for additional support.

Analyzing Data from Technology Surveys

Analysis, or breaking a whole into parts, is based on comparisons. There are four common types of analyses that can be used with the Technology Surveys.

- **Snapshot Analysis**
An analysis of the variation or distribution of responses on one survey at one administration
- **Longitudinal Analysis**
An analysis of survey responses across time for same item or topic
- **Multiple Variables Analysis**
An analysis of differences in responses within and across groups of respondents
- **Interaction Analysis**
An analysis of the relationships between responses

For more information on these analyses, please go to the AdvancED website (www.advanc-ed.org) and download a free copy of the *Guide to Analyzing AdvancED Survey Findings*.

Snapshot Analysis

A snapshot analysis examines data at one point in time. For instance, a snapshot might portray data from the Fifth Grade Technology Survey *or* data from the Eighth Grade Technology Survey *or* from the Twelfth Grade Technology Survey.

A snapshot analysis only includes data from one point in time for one group. This data can be disaggregated, or broken down, into subgroups.

Survey Type	Year
Fifth Grade Technology Survey	2007-08
Eighth Grade Technology Survey	2007-08
Twelfth Grade Technology Survey	2007-08

Chart 7

Analyze each survey administration by:

- Disaggregation: gender, ethnicity, amount of time spent on the computer outside of school
- Disaggregation: match student ID codes to other student demographics from a student information database (e.g., student characteristics)
- Top and bottom ranked items on continuous scales (e.g., agreement, competency)
- Frequency analysis of categorical items (e.g., **time spent on computer**)

Longitudinal Analysis

A longitudinal analysis is one that compares either the same group of individual students or the same group (grade level) over time.

As a means of determining whether or not there is a change, one strategy is to assess the same students over time. AdvancED Technology Surveys have an option for using ID codes for a particular respondent. This will allow a school to track students over different spans of time, for instance, 8th to 12th grade. Chart 8 shows an illustration of several different longitudinal analyses.

Survey Type	2007-2008	2008-2009	2009-2010
Fifth Grade Technology	5th Grade Class of 2007-2008	5th Grade Class of 2008-2009	5th Grade Class of 2009-2010
Eighth Grade Technology	8th Grade Class of 2007-2008	8th Grade Class of 2008-2009	8th Grade Class of 2009-2010
Twelfth Grade Technology	12th Grade Class of 2007-2008	12th Grade Class of 2008-2009	12th Grade Class of 2009-2010

Chart 8

Analyze each series of survey administrations by:

- Disaggregation: Compare demographics (e.g., gender, ethnicity) across time
- Disaggregation: match the student ID codes to other student demographics from a student information database (e.g., student characteristics, special programs) across time
- Compare different survey administrations (i.e., different students) across time by different subgroups (e.g., gender, ethnicity)
- Analyze items with the greatest positive trend for each group or subgroup
- Analyze items with the greatest negative trend for each group or subgroup
- Analyze the items with no change from the first to the last administration of the survey for each group or subgroup

Multiple Variable Analysis

A feature of the AdvancED Technology Survey Series is the consistency of items across surveys. If your school or district begins administering a Fifth Grade Student Survey and then continues to assess eighth grade students each year, this is the beginning point for this type of analysis. As each eighth grade cohort reaches twelfth grade, there is an abundant number of analyses that would be made possible. Chart 9 shows an example of the group comparisons that would be available.

Survey Type	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Fifth Grade Survey	5 th Grade Class of 2006-07								
Eighth Grade Survey	8 th Grade Class of 2007-08								
Twelfth Grade Survey					Students of the 8 th Grade Class of 2007-2008 and 12 th Grade Class of 2011-2012				Students of the 5 th Grade Class of 2011-12 and 8 th Grade Class of 2015-16

Chart 9

- Analyze the effects of eighth grade on twelfth grade
- Analyze the effects of the Eighth Grade Survey with the Twelfth Grade Survey for the same students, matched by student ID.

Interaction Analysis

Examining demographic groups (such as male or female) in terms of their access, opportunities, aspirations and accomplishment is also an important analysis to determine impact of the school or district in a student's education. See charts below for illustrations of different interaction analysis for the Eighth Grade Exit Survey.

Survey Items					
Demographics		Basic Operations	Social, Ethnic	Tech Product	Tech Comm
	Time on Computer	Effect of Gender on Access	Effect of Gender on Opportunity	Effect of Gender on Aspirations	Effect of Gender on Accomplishment
		Effect of Ethnicity on Access	Effect of Ethnicity on Opportunity	Effect of Ethnicity on Aspirations	Effect of Ethnicity on Accomplishment
		Effect of Grade Entered on Access	Effect of Grade Entered on Opportunity	Effect of Grade Entered on Aspirations	Effect of Grade Entered on Accomplishment
		Effect of Year Attended on Access	Effect of Year Attended on Opportunity	Effect of Year Attended on Aspirations	Effect of Year Attended on Accomplishment
		Effect of Additional Disaggregations on Access	Effect of Additional Disaggregations on Opportunity	Effect of Additional Disaggregations on Aspirations	Effect of Additional Disaggregations on Accomplishment

Chart 10

Analyze pairs of survey items:

- Disaggregation: gender, ethnicity
- Disaggregation: match the student ID field data from a student information system (SIS) for more disaggregation variables

Survey Items				
Student Accomplishments		Access	Opportunities	Aspirations
	Academic Skills	Effect of Academic Skills on Access	Effect of Academic Skills on Opportunities	Effect of Academic Skills on Aspirations
	Abilities	Effect of Abilities on Access	Effect of Abilities on Opportunities	Effect of Abilities on Aspirations
	Work Status	Effect of Work Status on Access	Effect of Work Status on Opportunities	Effect of Work Status on Aspirations
	Academic Degrees	Effect of Academic Degrees on Access	Effect of Academic Degrees on Opportunities	Effect of Academic Degrees on Aspirations
	Grades	Effect of Grades on Access	Effect of Grades on Opportunities	Effect of Grades on Aspirations

Chart 11

Analyze pairs of survey items:

- Disaggregation:
- Disaggregation: using the student ID field match data from a student information system (SIS) for more disaggregation variables

Appendix A

Sampling Methods

Random: ***Simple Random Sampling***

Every member of the population has an equal and independent chance to be selected for the sample. A random number table or putting numbers in a jar, shaking them up and picking out numbers are two ways to create a random sample.

Example: Sample 100 students from the Student Directory by numbering each student's name and using a random number table to select them.

Random: ***Stratified Random Sampling***

Individuals in certain subgroups, or strata, are selected for the sample in the same proportion, as they exist in the population. Randomly choose a sample that contains the same distribution of respondents as exists in the population.

Example: Participants in a technology innovation were 80% males and 20% females. Randomly sample 100 students with 80% of the individuals being males, and 20% females.

Random: ***Cluster Random Sampling***

Rather than using the population as the basis for sampling, smaller groups or clusters of respondents are sampled.

Example: At a specified hour in the school's schedule, classes are randomly selected to receive a survey. Classes may be listed in any order and numbered. A table of random numbers can then be applied to select the classes.

Random: ***Two-stage Random Sampling***

This approach combines cluster random sampling with individual random sampling.

Example: Randomly sample twenty 8th grade classrooms in the district. Then use a simple random sampling procedure to select 100 students to participate in the sample.

Non-Random: ***Systematic Sampling***

In this sampling approach, every "nth" individual in the population list is selected into the sample. To avoid bias, one might put the numbers 1 to 10 into a hat and draw a number out which will be the number that begins the sample.

Example: Arrange students' names alphabetically. Then, beginning with any of the first five names as the first student in the sample, take every fifth name following the first one selected. This will produce a 20% sample that should include all constituencies proportionally.

Non-Random: ***Convenience Sampling***

A convenience sample is a group of 12th grade students who are conveniently available for study. This will most likely create a biased sample, which cannot be considered representative of any population.

Example: Administer a Twelfth Grade Survey during a computer lab class in the school.

Non-Random: ***Purposive Sampling***

In this case, the survey administrator chooses the sample by using their knowledge of the population. The administrator believes that they can choose an adequate sample to represent the population.

Example: Choose 12th grade students who were invited to be on the principal's Advisory Committee.



Sample e-mail Announcement Technology Surveys

The following letter is the default announcement that is included with the web-based surveys. It is included for your convenience and may be modified to fit your specific needs. Some things to keep in mind are the insertion of the < > characters. This means that those fields are automatically pulled from the information attached to your survey administration. For example, <start date> and <stop date> will be filled in from the date you have selected as your survey start and stop date.

The <access code> will be unique random letters inserted into each announcement. The fields of name, title, and school are changeable fields, but will default to the information given to AdvancED at time of purchase of the web-based surveys.

Important: Do not delete or change any information contained within < > characters.

Dear <respondent name>,

Thank you for agreeing to participate in your high school's long-term educational study. Together <school> and AdvancED are working to provide your educational community with information about the effects of the local high school education on its students.

In order to complete your survey, please go to: <http://www.nsse.org/surveys> and enter <access code> to begin taking the survey.

If the above link is not active, please copy and paste it into your browser's address window. The survey start date is <start date> and the end date is <stop date>.

We appreciate your time and efforts to complete the survey in its entirety. Please respond to the survey with your candid opinions. We thank you for sharing your opinions with us.

If you need technical assistance to complete this survey, please e-mail AdvancED at surveys@advanc-ed.org or call 1-800-843-6773, Monday–Friday, 8:30 a.m.–5:00 p.m., Central Time.

Thank you,

<name>

<title>

<phone> or <email>

Appendix C



Troubleshooting Tips for ADMINISTRATORS		
 Please download and read the "Quick Start Guide" from the Login Screen 		
STEPS	PROBLEM	SOLUTION
Logging In	The admin login screen does not display	Go to your browser's settings (under Tools); delete all cookies and temporary files. Check the URL—it should be: http://web.nsse.org/nsse-surveys/src/nsse-surveys.php
	An administrator cannot log in	Check the user name and password to make sure they are lower case. Extra spaces can also cause problems. If your survey administrator information is wrong, contact AdvancED at 1-800-843-6773.
Previewing Surveys	Multiple administrations have been started	To see a survey, click on the word " Preview " next to the survey title. DO NOT click on the survey title—this will result in opening multiple administrations. If this happens, delete an unused administration by closing it (providing there is no data entered). Check your survey log to see if you have accidentally started multiple administrations of the same survey.
1. Setup	Instructions not read carefully (call AdvancED for all District Administration)	This is where you enter your additional items (if you choose to do this) and edit survey instructions.
2. Preview the Survey	"Preview the survey" does not display	Disable any "pop-up" blocker software. Make sure Adobe Acrobat Reader® software is loaded on computer.
3. Administer the Survey	Date does not enter	Click on "Update." Be sure to use the required format—mm/dd/yyyy.
4. Distribute Survey Access Codes	Announcement letter doesn't format correctly	Use the enter or return key to space down appropriately. Click Update. Caution: <i>Information contained between the < and > is merged from information in your database. Deleting < > will lose this information, including the unique access code and start and stop dates.</i>
	Names or e-mail addresses imported with strange characters	A different type of file format (such as Excel) was imported. Immediately delete the incorrect names/e-mail addresses. Be sure to save your Excel® file as a single column in a text (tab-delimited) file and re-import.
	Access codes are not exported correctly	You may not be able to see the browser window. At the Explorer tool bar, click on windows to display other open windows. Be sure to right click on the export link and choose Save Target in a place you will remember on your computer.
5. Review Survey Administration	Survey needs to be reopened	If the survey has been accidentally closed and needs to be reopened, and if there are no retired access codes, call AdvancED.
6. Print Analysis Reports	Reports do not generate	Be sure any pop-up blocking software has been disabled and that you have Adobe Acrobat Reader or Standard® on your computer.
If you need further technical assistance with Steps 1-6, please call AdvancED at 1-800-843-6773		

Chart 13

Appendix D

Troubleshooting Tips for RESPONDENTS																																			
STEPS	PROBLEM	SOLUTION																																	
Accessing Survey	Link in the e-mail doesn't work	<p>If the e-mail link is not active, copy the entire link and paste it into the browser's address bar at the top of the screen.</p> <p>If link is active, but doesn't go to the correct login page, the link is wrapping in the e-mail. Copy the entire link and paste it in the browser's address bar at the top of the screen.</p>																																	
	Access code doesn't work	<p>If the access code is not valid, retype the access code—remember to use the hyphen.</p> <p>If the access code says that survey is stopped or closed, contact the survey administrator at the school.</p>																																	
	Respondent is on the wrong login screen	<p>If the screen is asking for a username and password, you are at the Survey Administrator's login screen—not the respondent access screen. Go to http://www.nsse.org/surveys. If you are returned to the admin login screen, delete Cookies from the Tools menu of your browser following the sequence that applies to your computer:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #f4a460;"> <th colspan="2" style="padding: 2px;">Internet Explorer</th> <th colspan="2" style="padding: 2px;">Netscape</th> </tr> </thead> <tbody> <tr><td style="padding: 2px;">1.</td><td style="padding: 2px;">Tools</td><td style="padding: 2px;">1.</td><td style="padding: 2px;">Options</td></tr> <tr><td style="padding: 2px;">2.</td><td style="padding: 2px;">Internet Options</td><td style="padding: 2px;">2.</td><td style="padding: 2px;">Privacy</td></tr> <tr><td style="padding: 2px;">3.</td><td style="padding: 2px;">General</td><td style="padding: 2px;">3.</td><td style="padding: 2px;">Cookies</td></tr> <tr><td style="padding: 2px;">4.</td><td style="padding: 2px;">Browser History</td><td style="padding: 2px;">4.</td><td style="padding: 2px;">Clear</td></tr> <tr><td style="padding: 2px;">5.</td><td style="padding: 2px;">Delete Cookies</td><td style="padding: 2px;">5.</td><td style="padding: 2px;">Remove All Cookies (or remove AdvancED cookies)</td></tr> <tr><td style="padding: 2px;">6.</td><td style="padding: 2px;">Yes</td><td style="padding: 2px;">6.</td><td style="padding: 2px;">OK</td></tr> <tr><td style="padding: 2px;">7.</td><td style="padding: 2px;">OK</td><td></td><td></td></tr> </tbody> </table>		Internet Explorer		Netscape		1.	Tools	1.	Options	2.	Internet Options	2.	Privacy	3.	General	3.	Cookies	4.	Browser History	4.	Clear	5.	Delete Cookies	5.	Remove All Cookies (or remove AdvancED cookies)	6.	Yes	6.	OK	7.	OK		
Internet Explorer		Netscape																																	
1.	Tools	1.	Options																																
2.	Internet Options	2.	Privacy																																
3.	General	3.	Cookies																																
4.	Browser History	4.	Clear																																
5.	Delete Cookies	5.	Remove All Cookies (or remove AdvancED cookies)																																
6.	Yes	6.	OK																																
7.	OK																																		
Completing the Survey	Respondent is returned to login when "continue" is clicked	<p>If you are returned to the login screen, enable Cookies in the Internet options of your browser following the sequence that applies to your computer:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #f4a460;"> <th colspan="2" style="padding: 2px;">Internet Explorer</th> <th colspan="2" style="padding: 2px;">Netscape</th> </tr> </thead> <tbody> <tr><td style="padding: 2px;">1.</td><td style="padding: 2px;">Tools</td><td style="padding: 2px;">1.</td><td style="padding: 2px;">Edit</td></tr> <tr><td style="padding: 2px;">2.</td><td style="padding: 2px;">Internet Options</td><td style="padding: 2px;">2.</td><td style="padding: 2px;">Options</td></tr> <tr><td style="padding: 2px;">3.</td><td style="padding: 2px;">Privacy</td><td style="padding: 2px;">3.</td><td style="padding: 2px;">Security and Privacy</td></tr> <tr><td style="padding: 2px;">4.</td><td style="padding: 2px;">Accept all Cookies</td><td style="padding: 2px;">4.</td><td style="padding: 2px;">Site Controls</td></tr> <tr><td style="padding: 2px;">5.</td><td style="padding: 2px;">Apply</td><td style="padding: 2px;">5.</td><td style="padding: 2px;">Allow Cookies</td></tr> <tr><td style="padding: 2px;">6.</td><td style="padding: 2px;">OK</td><td style="padding: 2px;">6.</td><td style="padding: 2px;">OK</td></tr> <tr><td></td><td></td><td style="padding: 2px;">7.</td><td style="padding: 2px;">After taking survey, reset to desired security level</td></tr> </tbody> </table>		Internet Explorer		Netscape		1.	Tools	1.	Edit	2.	Internet Options	2.	Options	3.	Privacy	3.	Security and Privacy	4.	Accept all Cookies	4.	Site Controls	5.	Apply	5.	Allow Cookies	6.	OK	6.	OK			7.	After taking survey, reset to desired security level
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6.	OK	6.	OK																																
		7.	After taking survey, reset to desired security level																																
Error messages		<p>Do not use back or forward buttons of web browser—you will get the message "Error web page has expired."</p> <p>If you receive "An error has occurred" message, contact AdvancED right away. Please include the access code, survey title, school name, and time when the error screen displayed.</p>																																	

Chart 14