



College Solutions

# Admitted Student Questionnaire PLUS™

How to Interpret and Use  
Your ASQ® Reports and Data

## User Guide





# ASQ PLUS™ User Guide

2010-2012

## contents

chapter 1	
Introduction to ASQ PLUS™ Reports . . . . .	<b>1</b>
chapter 2	
ASQ PLUS as Market Research . . . . .	<b>5</b>
chapter 3	
Your Highlights and Detailed Reports . . . . .	<b>11</b>
chapter 4	
Competitor Analysis Report . . . . .	<b>21</b>
chapter 5	
How to Use the Competitor Analysis Report . . . . .	<b>25</b>
chapter 6	
How to Use the ASQ PLUS Data File . . . . .	<b>31</b>
chapter 7	
Suggestions for Local Analyses . . . . .	<b>39</b>
chapter 8	
How to Develop Statistical Models . . . . .	<b>47</b>

---

SPSS Examples .....	<b>55</b>
appendix a	
Record Layout — Admitted Student Questionnaire PLUS™ . . . .	<b>71</b>
appendix b	
Layout for Competitor Subfiles .....	<b>81</b>
appendix c	
Program Listing for PLUS.SPS (SPSS File Layout) .....	<b>87</b>
appendix d	
SPSS Program Listing for Competitor Subfiles. ....	<b>97</b>
appendix e	
SPSS Program Listing for Supplementary Analysis of the Complete Data File. ....	<b>105</b>
appendix f	
SPSS Program Listing for Supplementary Analysis of the Competitor Subfiles .....	<b>111</b>



# chapter 1

## Introduction to ASQ PLUS™ Reports

The ASQ PLUS™ Highlights and Detailed Reports give you insights into the way aspects of your recruiting program are rated by your admitted students. These two reports are discussed in the same chapter in this guide because they complement each other. The Competitor Analysis Report with its five individual sections on the colleges or groups of institutions you asked to be analyzed is discussed in a separate chapter in this guide.

In addition to ASQ PLUS reports, you can do your own research using your data by getting the results of your survey on a CD-ROM. The last part of this guide describes the data files that are available and gives you specific suggestions for doing your own analysis for a wide range of issues.

### How to Use This Guide

After a brief discussion of the marketing approach to college admission in Chapters 1 and 2, Chapter 3 takes you through your Highlights Report section by section, with reference to additional information found in the Detailed Report and the Norms Report. Chapters 4 and 5 consider the information on the five other colleges or sets of colleges in the Competitor Analysis Report. This part of the guide contains a set of research questions that helps you interpret your ASQ PLUS results. Each question is accompanied by a discussion of its marketing implications and analytical steps to help you identify the salient points of each section in the report.

Beginning with chapter 6, the data files that ASQ PLUS users can get are described. Chapters 6 and 7 provide specific suggestions for analyzing ASQ PLUS data in

relation to a wide range of issues. Here you will find discussions of some of the technical details of ASQ PLUS, with listings of SPSS commands that produce the analyses suggested in the discussion.

Chapter 6 also includes a description of ASQAnalyst+, the Windows®-based software program that is included with the ASQ PLUS data files on the CD-ROM. This program gives you access to the data without having to go through a statistical package such as SPSS or SAS. The software lets you reproduce the basic tables in the reports, view your results side by side data from the Norms Report, relate one set of variables from the survey with other sets, and compare student ratings of your college with ratings of other colleges.

The suggestions in this section are useful to admission professionals who have some background in research or to institutional researchers. The discussions of potential areas of investigation are intended to be accessible to all users. However, you need to be able to use computers for statistical analysis in order to carry out the types of analyses described here. You need a working familiarity with data analysis and the use of computer software to understand the specific suggestions that relate to analytical methods.

ASQ PLUS data can be used in programs such as MS Excel, although certain types of statistical analysis are more difficult using spreadsheet programs. Ways to use ASQ PLUS data with these programs are discussed in Appendix A.

## **How to Interpret Your ASQ PLUS Reports**

Your Detailed Report contains the percentages of respondents who gave each response to the survey items on an item-by-item basis. It also shows the number of respondents for which each percentage distribution is calculated—the base numbers. The percentages and base numbers are essential for interpreting and evaluating the information, especially the graphs, in the Highlights Report. The Detailed Report also contains information about questions that are not included in the Highlights Report. For example, Exhibit B-3 shows only the four characteristics for which average ratings by enrolling and nonenrolling students differ the most. The Detailed Report is where you can find items you thought would be significant but didn't turn out to be. If you used the optional "local question" feature of ASQ PLUS, the students' responses to those questions are also included in the Detailed Report.

## **How to Use the Reports**

Start your analysis of the data with the questions that appear at the top of each page in the Highlights and Competitor Analysis Reports. As you read the questions and study the answers in the tables and graphs, compare the results with what you thought might be true based on your experience with students in the market or based on your knowledge of your institution and the competition. Look at the students' ratings of the aspects of your school that are featured in your communications with them.

For example, look at the image data on page 12 of the Highlights Report. These data answer the question: What images are most frequently associated with our college? Look at the images listed at the top of the table:

- Are they the images you try to project in your communications with students?
- Are some images that should be recognized widely, given the nature of your institution, insufficiently represented among your principal images?
- What do these findings about your images say about aspects of your institution that you may want to reinforce through publications or through program policy and budget decisions?

In the Highlights Report, look at your ratings on the characteristics in Exhibits B-2 and B-3. In view of what you know about your competition, and taking into account the degree to which you win or lose your cross-admits, are there factors which might be stressed more in your publications? These are ratings of your institution only, that is, they do not take into account how the students might rate you relative to other institutions to which they applied. In your Competitor Analysis Report these comparisons are made directly between your school and the institutions you specified for inclusion in the report.





## chapter 2

### ASQ PLUS as Market Research

#### **A Marketing Approach to Data Analysis**

Market research is grounded in the methods of the social sciences, but it is not a social science, that is, it is not an attempt to create or test generalized theories of behavior. Market research is a vehicle for expanding, testing, and perhaps challenging knowledge gained from experience about the ways different types of people think and behave. Through market research you can examine the desires and needs of the types of students you already attract as a means to serving them more efficiently. You can examine the attitudes and perceptions of students you would like to attract and find ways of adjusting your programs or your recruiting efforts to become more visible to them. Although much of this guide deals with the expansion of your market through market research, with a focus on the nonenrolling student, it is essential that you understand your present clientele. You do not want to undertake initiatives to expand your market that will *unwittingly erode* your attractiveness to the types of students you now serve.

In addition to understanding the desires and perceptions of groups and subgroups of students, it is important to understand the competition, especially as seen through the eyes of students themselves.

Market research examines the interrelated perspective of:

- What students want in a college
- What you can offer students
- What your competition offers

- What students know about what they want, what you offer, and what the competition offers
- How these phenomena may differ across types of students

## How to Interpret Market Research Data

Market research often focuses on typical (modal) responses given by a group of students or on how different types of students respond. For example, do students with certain perceptions of your college tend to enroll more frequently than other students? Looking for relationships between phenomena such as those above is a basic part of market research. The lack of a relationship, however, can be as important in marketing as a strong relationship between two phenomena. For example, if the way students view you on a particular characteristic has no effect on the likelihood of their enrolling, any decision to invest heavily in the development of that characteristic will need to be made for reasons other than the improvement in your yield of admitted students.

When looking for different behaviors between enrolling and nonenrolling students, focus on those that are sizable and that have marketing implications. Do not give undue attention to minor differences. The ASQ PLUS Highlights and Competitor Analysis Reports employ one mechanism for protecting against such errors: differences that are statistically significant are noted in the tables. Statistical significance, however, does not necessarily mean substantive or marketing significance. The former indicates that given the size of your sample, the difference that appears between two groups is not likely to be due to chance variations in the way the two groups responded. A small difference between two groups in a large number of respondents will result in statistical significance more often than with a small number of respondents. Relatively small percentage differences can be statistically significant in large groups.

Substantively significant differences in market research data, on the other hand, are not a function of sample size but of the likelihood that *different* marketing activities directed toward different groups will produce the same desirable response, such as enrollment in a college at a reasonable cost. This approach to marketing is in contrast to undifferentiated treatment of groups, which produces an uneven response across groups. For example, take a statistically significant difference between two groups, where 56 percent of one group believes that campus setting is important and 45 percent of the other group shares that feeling. This difference may be statistically significant, but it is not substantive. About one-half of each group believes that campus setting is important, and if there were 150 people in each group, the difference between the two groups on this measure would be only 16 people. On the other hand, had the differences been substantive, something like 49 percent and 25 percent, differential treatment might be justified.

Remember that relatively large differences between two groups of students may not be useful for marketing purposes if they reflect behavior or attitudes of a small portion of each group. For example, suppose that 31 percent of your nonenrolling students were concerned about quality of social life, compared with only 15 percent of enrolling students. You may decide that this small segment of your nonenrolling students is a group you wish to cultivate, and that this is the means by which to do it. But an initiative in this area will not be an attraction to a *majority* of your nonenrolling students, even though these students are more than twice as likely as your enrolling students to report quality of social life as very important.

ASQ PLUS data come from students who have not yet attended college. Although student perspectives are critical because they are used to make decisions regarding colleges, these perspectives are not entirely based on actual experience. Therefore, professional responsibility is also essential in determining what an institution should do and how it should educate prospective students about what the school is and what it accomplishes.

## Sharing Data with Decision Makers and Advisory Groups

Although the ASQ PLUS Highlights Report and the Competitor Analysis Report show only key findings of your study, they contain a large volume of data. These reports can be daunting, especially for administrators, faculty, and trustees for whom admission is not a day-to-day concern. The experiences of ASQ PLUS institutions suggest that the information from your study may be most effective when shared in limited doses. We recommend two approaches for dealing with the problems of information overload and its resulting frustrations.

1. *Produce executive summaries based on the Highlights and Competitor Analysis Reports.* Limit each summary to three pages. Report on your four principal images, the four college characteristics that are most important to the students, your five competitors, and a couple of areas in which you excel according to the admitted students. Discuss a few findings you anticipated that did not materialize. Focus on key student characteristics, values, or perceptions that distinguish enrolling from nonenrolling students. If there are particular policy or budgetary issues currently being discussed on campus, focus specific attention on any data that are related to them. (See Example 1.) The third exhibit in each competitor section (Summary of Comparison with this Competitor) displays on a single page the top four or five characteristics, images, etc., that show the largest differences between your college and the competitor.
2. *Prepare topical summaries and distribute them in installments.* The ASQ PLUS Questionnaire and reports are divided into sections, such as images, information sources, individual competitors, etc., each of which is a candidate for a summary. You can distribute one- to two-page summaries in these topical areas, along with appropriate graphs and tables from the reports, a short discussion of their marketing implications and, as appropriate, marketing recommendations from your office. (See Example 2.)

### *Example 1: Admitted Student Questionnaire PLUS™ Executive Summary (extract)*

In the spring of 2009, Sample College surveyed 1,449 students admitted to the college for fall 2009. Eight hundred sixty-seven students responded, for an excellent overall response rate of 60 percent (78 percent for enrolling students, 50 percent for nonenrolling). These response rates are somewhat higher than average for all ASQ PLUS studies.

Three of the four college characteristics of most importance to admitted students concerned academic aspects. The following were marked “very important” by at least 70 percent of both enrolling and nonenrolling students:

**Academic reputation (83% Very Important)**

**Personal attention to students (78%)**

**Availability of majors (74%)**

**Environment of academic excellence (73%)**

**Academic reputation** was somewhat more important to our admitted students than it was to students at baccalaureate institutions in general (79% Very Important), and **Personal attention** was slightly less important to our students (80% Very Important to students admitted to private baccalaureate colleges).

Three of the characteristics of most importance to our admitted students were among those rated most positively:

**Academic reputation (98% Very Good or Excellent)**

**Personal attention (97%)**

**Environment of academic excellence (97%)**

**Special academic programs (94%)**

These ratings compare favorably to those given to private baccalaureate institutions in general:

**Academic reputation (88% overall vs. 98% for Sample College)**

**Personal attention (95% vs. 97%)**

**Environment of academic excellence (92% vs. 97%)**

**Special academic programs (88% vs. 94%)**

For at least 50 percent of our admitted students, Sample College is perceived to be:

**Challenging (marked by 79% of all admitted students)**

**Selective (78%)**

**Intellectual (78%)**

**Prestigious (66%)**

**Isolated (64%)**

**Friendly (57%)**

### *Comparisons with Danube University*

Our college tends to be rated higher than Danube University on social characteristics, and lower on academic factors:

Sample College is rated higher on:

**Student diversity**

**Personal attention**

**Campus attractiveness**

**Extracurricular activities**

and is considered more:

**Isolated**

**Open-minded**

Danube University is rated higher on:

- Challenging**
- Comfortable**
- Quality of social life**
- Academic reputation**
- Recreational facilities**
- Academic facilities**

and is considered more:

- Partying**
- Athletics**
- Prestigious**
- Selective**

Students comparing sources of information about Sample College and Danube University gave higher marks to Sample College for **Contact with coaches, Contact with graduates, and High school visits**, while Danube University was rated higher on Post-admission communication and **On-campus interview**.

*Example 2: Organizing Displays Around a Single Issue*

- How do the ratings of Sample College’s recruiting efforts compare to the ratings for all private liberal arts colleges?
- How does *exposure* to our recruiting efforts compare to exposure for all private liberal arts colleges?
- Can we increase exposure to those experiences where our college is rated particularly high?
- Where Sample College is rated particularly low, should we decrease exposure or try to improve the experience?

	Percent Rating Very Good or Excellent		Percent Rating Information Source (Contact)	
	Our Admitted Students	Baccalaureate Norms Group	Our Admitted Students	Baccalaureate Norms Group
High school visits	60	58	30	37
College-sponsored meetings	59	52	21	29
College publications	79	79	95	95
College videos/CD-ROMs	42	64	10	24
College Web site	75	68	50	47
Financial aid communications	58	59	61	71
Electronic communications	72	66	66	63
Campus visit	81	83	71	75
On-campus interview	79	86	35	48
Post-admit contact	73	75	87	90
Contact with faculty	64	60	42	50
Contact with coaches	70	66	27	30
Contact with graduates	75	66	46	45
Contact with students	72	68	63	66





## chapter 3

### Your Highlights and Detailed Reports

Questions that might be answered by your Highlights and Detailed Reports are included in this chapter. The marketing implications section suggests why you might want these answers, and the analytical steps section explains how to use the reports to answer these questions.

In order to keep the ASQ PLUS Highlights and Detailed Reports manageable, they focus only on the entire admitted applicant pool or on enrolling versus nonenrolling students. However, many other groups, such as racial, gender, or ability groups, are of interest in a market research inquiry. Many relationships between phenomena that are not presented in the standard reports are also important in understanding your markets, your marketing program, and your marketing opportunities. For example, do people who use different information sources tend to have different images of your college? Questions of this type are best answered using the raw data file. See the last part of this user guide for further discussion.

The ASQ PLUS Highlights Report gives you information about how your institution is perceived in important areas by your admitted students. Except for Exhibits B-4 and F-1, the Highlights Report *does not* include ratings of other colleges. The resulting data give you an overview of your strengths and weaknesses as perceived by your enrolling and nonenrolling students.

The following questions are answered in the Highlights Report.

# College Characteristics

---

QUESTION 1. What is important to students we want to enroll but who are choosing to go elsewhere?

---

## *Marketing Implications*

If your enrollments are below capacity, your school can be enhanced by enrolling more students who are admissible. Alternatively, higher yields will permit you to be more selective in whom you admit so that you can have a socioeconomically diverse class or attract students with particular talents or interests. In the event your enrolling and nonenrolling students consider the same things to be important, you will have to look for other clues that distinguish the two groups, such as their relative use of information sources or the importance of college costs and financial aid. On the other hand, if enrolling and nonenrolling students consider different things to be important, you may be able to increase your yield among the latter by addressing their distinctive interests. Be careful to avoid initiatives designed to cultivate nonenrolling students that will alienate the students you already attract.

## *Analytical Steps*

Review the column of nonenrolling students' data in Exhibit B-1 of the Highlights Report and the six pages in the Detailed Report covering college characteristics. Focus on the "Importance" ratings and look for relatively large percentages, for example, 60 percent or higher for very important characteristics. Then compare those percentages with the corresponding figures for enrolling students. Look for relatively large differences, such as 15 percentage points or more. (Differences of less than 15 percent may be statistically significant.) The important characteristics thus identified may include those you could use to cultivate nonenrolling students. In considering these important characteristics, turn to Exhibit F-1 in your Highlights Report to determine if high-achieving students rated these characteristics as very important (look at the right half of the chart). Those that are may be worthy of special attention in your review.

---

QUESTION 2. Are we losing students who consider particular characteristics to be important in a college? Are we especially attractive to students who value other characteristics? Do yield patterns conform to the vision we have of our institution, a vision we want to project?

---

## *Marketing Implications*

If you observe yield patterns that are consistent with your institution's objectives and your own perceptions of your college, you can feel good about your marketing activities. If they are not consistent, you need to determine why you are failing to appeal to the students you want to attract.

## Analytical Steps

Examine the yield rates associated with each characteristic reported in Exhibit B-1 of the Highlights Report. (In this report, yield represents the proportion of students marking a given response that enrolled. The overall yield for your admitted students is on the first line of Exhibit A-1.) A yield rate that is high relative to your college's overall yield suggests that you are attractive to students who value this characteristic, that is, who marked the characteristic "very important." A low yield suggests the opposite.

In Example 1, note that nonenrolling students are likely to report the same things as "very important" that the enrolling students list: "major availability" and "cost of attendance." At the same time, enrolling students are significantly less concerned with "major availability" than are nonenrolling students, and the yield is correspondingly lower among students rating this characteristic "very important."

Yield is highest among the minority of students for whom "quality of social life" is very important, and lowest among students who value "campus attractiveness."

<b>Example 1</b>				
IMPORTANCE OF COLLEGE CHARACTERISTICS	% ALL ADMITTED STUDENTS	% ENROLLING STUDENTS	% NON-ENROLLING STUDENTS	% YIELD
-- Major availability	84	76	88	33
Cost of attendance	71	68	73	34
-- Personal safety on campus	66	57	71	31
-- Academic facilities	64	56	68	32
-- Academic reputation	60	51	65	30
-- Avail of on-campus housing	58	48	63	30
-- Personal attention	57	48	62	30
-- On-campus housing	56	51	59	33
+ Quality of social life	43	49	40	40
-- Surroundings	39	31	43	29
-- Campus attractiveness	37	26	43	25
+ Recreational facilities	36	42	33	41
Extracurr opportunities	36	35	36	35
-- Student/faculty ratio	35	28	38	29
-- Special acad programs	26	21	29	28
Off-campus activities	26	26	27	35

The next step in pursuing this line of inquiry is to investigate how nonmatriculants may differ from enrolling students in their perceptions of your institution. You may also want to do additional research (e.g., surveys, group interviews with current or prospective students, etc.) to see why students with particular interests and concerns fail to find your college as attractive as other students do.

### *Marketing Implications*

Your failure to attract students whom you would find desirable may be due to their placing a high value on characteristics on which your college is not viewed as strong. You need to determine if these students rated you differently than the students who chose to enroll at your institution. Then determine why differences that exist may have occurred and try to reduce differences that are due to lack of information or to incorrect information.

Differences in the ratings of your institution between enrolling and nonenrolling students may be due in part to their different perceptions of you and in part to the two groups making implicit comparisons of you with different sets of institutions. Although the ratings in the Highlights Report are just of your college, they are not made in a vacuum. It is difficult to determine whether differences in the rating given your college by enrolling and nonenrolling students might be due to different institutional frames of reference. It is important, nevertheless, to know where you are perceived as weak or strong and to know where nonenrolling students are especially prone to give you relatively low ratings.

### *Analytical Steps*

Look at the patterns of responses given by enrolling and nonenrolling students to each of the questions in Exhibit B-3. Are the differences between the two groups due to a much larger percentage of one group rating you "poor/fair" or are the differences in the percentages rating you "very good" as opposed to "excellent"? Characteristics that show the latter pattern are perceived as strengths by all your admitted students and might be worth exploiting more fully in your publications and presentations. On the other hand, characteristics rated "poor/fair" by a relatively large minority of nonenrolling students in particular may be perceived as liabilities. In this instance you need to determine whether the characteristics in question are hurting your yield to the extent that corrective steps need to be initiated.

---

QUESTION 4. On what very important characteristics are we rated lower than our competitors? Are these perceptions accurate?

---

### *Marketing Implications*

If you can demonstrate that you are superior on some of the very important characteristics where your superiority is not presently recognized, you have a promotional opportunity and need to determine how to get your message out. On characteristics where you are not superior, which are hurting your yield, you need to determine whether it would be feasible and desirable to become superior through program or policy changes.

### *Analytical Steps*

Look at Exhibit B-4 of the Highlights Report to find the characteristics considered very important by all of your admitted students for which you received lower ratings than your competitors. To determine the accuracy of these ratings, collect information from objective sources that shows how your institution compares with the competition on these characteristics. Examine your publications and other promotional activities,

along with those of your competitors, to see what impressions you and the competitors are giving on these characteristics. (Exhibits B-4 and F-1 are the only displays in the Highlights Report that include ratings of other colleges.)

## Images

Which of the images in your promotional materials are not recognized by at least a majority of your admitted students, especially among nonenrolling students? Are discrepancies in the images associated with your institution related to different types of exposure to you?

---

QUESTION 5. What images of our college that we believe are inaccurate are held by 20 percent or more of our admitted students?

---

### *Marketing Implications*

Here, as in Question 6, the objective is to identify, cultivate, and present images that are accurate, consistent, and favorable in order to help you position your institution favorably in the market.

### *Analytical Steps*

Determine which images included in ASQ PLUS you consider to be the most descriptive of your institution, including those that are featured in your promotional materials. Look at Exhibit B-5 in the Highlights Report to see how frequently those images are associated with your college by enrolling and nonenrolling students. Determine where enrolling and nonenrolling students vary most in their reports of how you are viewed by subtracting the percentage of enrolling students who marked a specific image from the percentage of nonenrolling students who marked that image. Exhibit B-6 is a graphic display of images for which the difference between the enrolling and nonenrolling students marking the image is at least 10 percent (this difference was selected arbitrarily; it may not be statistically significant).

For the images showing a large difference between enrolling and nonenrolling students, determine the means by which the images are conveyed. If nonenrolling students are much less likely to be exposed to a particular source of information (see Question 7), perhaps the sources they do use could be revised to incorporate a greater emphasis on your positive images.

---

QUESTION 6. Which of our images are most inconsistent?

---

### *Analytical Steps*

Look for images in Exhibit B-5 that are marked by 40 to 60 percent of the students; the students who *do not* mark these images view you differently. Look for images that are conceptually opposite (for example, “prestigious” versus “backup school,” or “expensive”

versus “inexpensive,” if you have chosen to include those two among your 20 images) and determine whether sizable numbers of students mark each contrasting image. Review what you say in your publications or other media, interviews, tours, and talks to see if you are providing consistent information. You may also want to conduct some interviews with your current students to get a better idea of what these terms mean to students and what indicators they use to determine whether a particular image applies to a given institution.

## Sources of Information

---

QUESTION 7. To which of your well-rated sources of information do students not have sufficient exposure?

---

### *Marketing Implications*

An important goal of your marketing plan should be to expose as many prospective students as possible to the sources of information that are rated highly by students, especially those that are associated with high yields.

### *Analytical Steps*

Use Exhibit C-2 in the Highlights Report to identify those sources of information for which students give you high ratings, and use Exhibit C-1 to identify those for which exposure is associated with a high yield. Then, from Exhibit C-1, determine if any of these sources of information have a low incidence of usage. Be careful in assessing causality in this type of analysis. Exposure to a given source of information may not produce a higher yield per se, but may reflect a predisposition to enroll. For example, students who are already strongly interested in your college are probably more likely than others to visit your campus.

---

QUESTION 8. Which of our sources of information are rated low by all admitted students? For which sources do enrolling students rate us significantly higher?

---

### *Marketing Implications*

Since sources of information that are highly rated by prospective students should produce superior marketing results, it is important to identify those that need to be reviewed for improvement.

### *Analytical Steps*

Use Exhibit C-2 in the Highlights Report to determine which sources of information receive low ratings from all admitted students. Those rated “good” or “poor/fair” by a total of 40 percent or more would likely benefit from review and improvement. Keep in mind that some sources of information are less subject to dramatic improvement than others are. For example, financial aid communications are almost always among

the lowest rated sources of information because the aid process has become so complex and college costs are often worrisome, even with financial aid.

Use Exhibit C-3 to determine which information sources have the largest differences in mean ratings for enrolling and nonenrolling students. These sources should be examined, especially if a high yield rate for a source rated “excellent” indicates that exposure to that source did have some influence on the students. A low yield rate for a source rated “poor/fair” may support the above interpretation if it is rated unfavorably by a relatively large percentage, such as 10 percent or more, of the total group.

## Financial Aid

---

QUESTION 9. Are we achieving the goals we have established for our financial aid awards?

---

### *Marketing Implications*

Due to the increasing importance of college costs in determining where students decide to apply for admission and, ultimately, where they decide to enroll, it is important to learn whether your financial aid resources for need-based awards will keep you competitive for students who qualify for such aid. In addition, if your institution is offering no-need awards to increase yields for students having superior academic records or other particularly valued attributes, you need to know whether these awards are achieving their objectives.

### *Analytical Steps*

Exhibits D-1 and F-3 of the Highlights Report and the Cost/Aid section of the Detailed Report are designed to help you answer the above questions. However, you will need to compare the data reported with the plans and enrollment estimates you made for need-based students to judge whether you have met your goals. The yields reported in the tables also must be interpreted in light of whether you were able to meet all or only a portion of the students' demonstrated needs. These exhibits from the Highlights Report, and those in the Competitor Analysis Report that focus on financial aid, provide valuable insights on your competitiveness for students seeking need-based aid.

Exhibits D-1 and F-3 of the Highlights Report, and your knowledge of the goals you had for no-need awards—if such awards are part of your marketing plan—will enable you to get a sense of whether you are meeting those goals. If your institution does not offer no-need awards, but some percentage of the students indicated that they received such an award, you may wish to review the need-based award letter that is sent to students. Is it so congratulatory that some students are led to believe that they did receive an “academic” award? Another possibility is that some state or federal grants that come through your institution may be interpreted by the students as college-based no-need awards. Better explanatory materials will avoid some of this confusion.

## Competitors

Exhibits E-1 through E-7, Exhibit F-4, and the Appendix in the ASQ PLUS Highlights Report provide information about your competitors in the student market you want to serve. This information can be particularly helpful in strategic planning for the future and in the evaluation of your current recruiting objectives.

---

QUESTION 10. How does our admission overlap compare with the application overlap for our principal competitors?

---

### *Marketing Implications*

Some institutions make more waves in your applicant pool than others. You may have large numbers of applicants in common with an institution, but your relatively greater selectivity makes you a lesser competitor for admitted students. Expansion of your market share with such an institution would probably come easily if you admitted more students from this overlap pool. On the other hand, such a disparity between common applicants and admitted students may be due to your competitor's greater selectivity. In this case, your competitor can become a threat if it begins to admit a greater proportion of your common applicants.

You may wish to position yourself differently or focus on your relative positioning at different points in the college-selection process for different types of competitors. If you share a large number of applicants with another institution but few common admits because of its greater selectivity, you may want to focus your positioning efforts on the early stages of the recruitment process, when visibility is achieved and interest aroused. Institutions with which you share many common admits present a more challenging problem because they are competitive threats at every stage of the college-selection process.

### *Analytical Steps*

Take time to understand the information presented in Exhibit E-4 (Win-Loss Analysis). For each of the 20 schools with the greatest number of cross-admits, this exhibit displays the percentage enrolling at your college, the percentage enrolling at the given college, and the percentage enrolling at some unspecified other institution. The "Win Percent" is calculated from the number of students choosing to attend either your college or the given college and represents the percentage of those students who are enrolling at your institution. Say, for example, that 200 of your students were cross-admitted with College A. Fifty students plan to enroll at your college, 50 at College A, and the other 100 somewhere else. Your win percentage versus College A would be 50 percent because you have won 50 percent of the 100 students who chose between your college and College A.

Then prepare a graph, as shown in Figure 1, that plots application overlap against common admission. The horizontal axis is divided into equal intervals running from the smallest number of your admitted students who apply to both your college and

a specific competitor to the largest application overlap so measured. The vertical axis plots percentages in the same manner based on students who are admitted to both your college and the competitor:

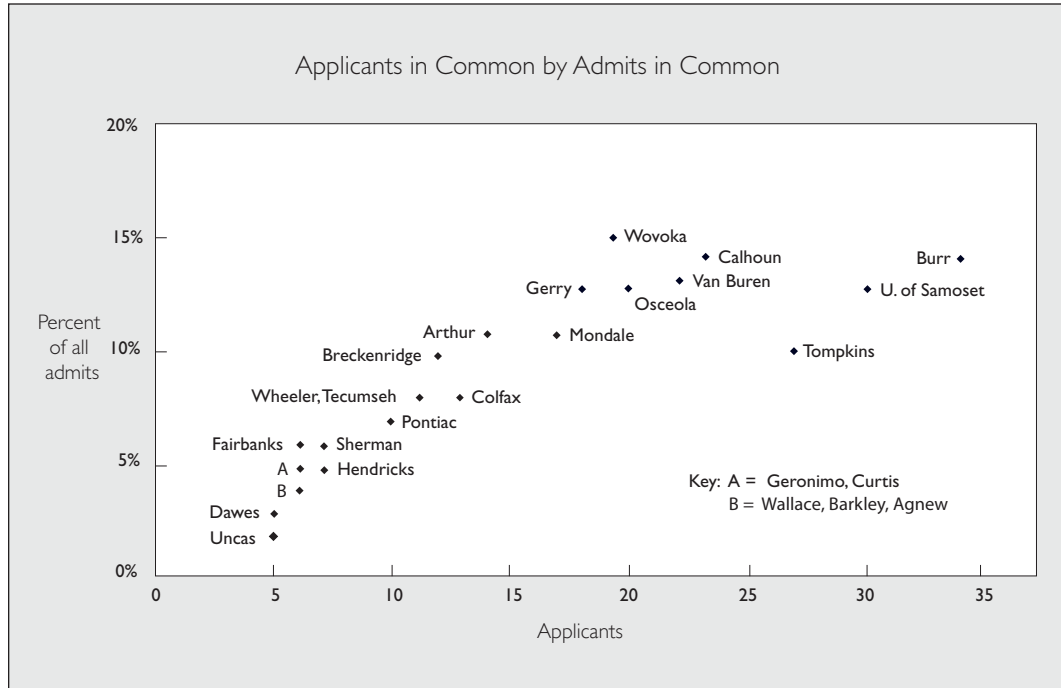


Figure 1.

Figure 2 plots win percentages against common admits in the same manner. Exhibit E-4 shows the win percentages for the 20 colleges with the greatest number of common admits. Win percentages may be calculated for other colleges from the numbers given in the Appendix of the Highlights Report. (The win rate is calculated by dividing the number in the third column of the Appendix table "our college" by the sum of the third and fourth columns.) In order to find marketing opportunities or possible competitive problems, pay particular attention to institutions that deviate from the general pattern.

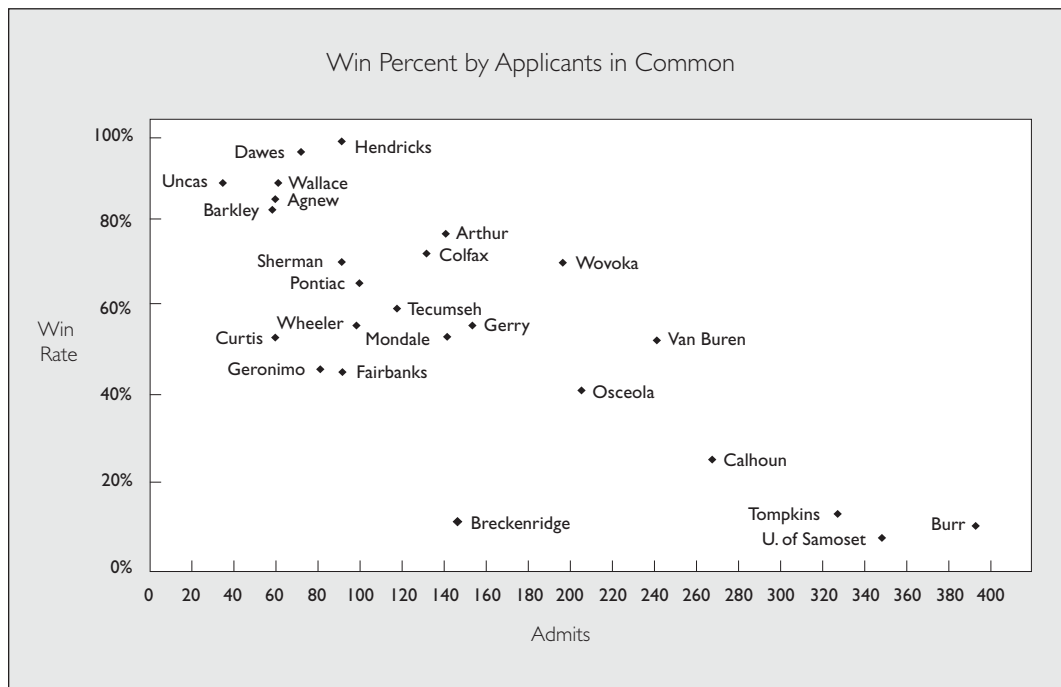


Figure 2.

A college with the competition pattern shown in Figure 1 should pay particular attention to the institutions that deviate from the general pattern, especially Wovoka State. Why is there such a high common admit rate among overlapping applicants? Are the institutions very similar or is Wovoka a “backup” choice that admits most of this college’s applicants, but wins few of them? In Figure 1, the biggest threats are the three institutions at the right side of the graph: Burr; the University of Samoset and, especially, Tompkins. If these institutions begin to admit more of this college’s common applicants, it could be in trouble because they tend to win common admits (see Figure 2). Taking the time to prepare graphs based on the Overlap Appendix in your Highlights Report will help you address these kinds of marketing issues.

A similar mapping of your competitors that plots your application or admission overlap against your win rates will help you determine the competitive situations where you do especially well or especially poorly. You can try to increase the competitive relationships where the former phenomenon occurs, and reduce the incidence of the latter by expanding your recruiting efforts in markets presently served by institutions against which you do especially well. You can also work on improving the conditions that give you a disadvantage against other competitors.

## **The Completeness of Overlap Data**

The fact that not all of your admitted students completed the ASQ PLUS Questionnaire may affect the reports dealing with your competition overlap. The students who do not respond may be disproportionately the applicants you share with specific institutions. Some of your responding admitted students also may have applied to more colleges than the 10 to 13 provided for in the ASQ PLUS Questionnaire. An inquiry conducted in association with the development of the original ASQ with seven institutions that shared substantial overlap in applications indicated that underrepresentation of a given competitor is most likely to occur for highly selective institutions whose applicants apply to large numbers of colleges. The underrepresented applications, however, were likely to be backup choices to the highly selected choices, that is, colleges against which an institution had a high win rate. On the reports of the less selective institutions, the more selective competitors were likely to be represented more completely. Thus, for both highly selective and less selective colleges, the principal competition is likely to be captured in an ASQ PLUS survey.



# chapter 4

## Competitor Analysis Report

### **How ASQ PLUS Competitor Ratings Can Improve Your Marketing**

The ratings that students give you and your competitors in ASQ PLUS are reported in the Competitor Analysis Report for five competitors or groups of competitors you specified. These data provide the basis for the following two essential activities for effective marketing:

1. Understanding your competitive relationships and your position in the market. Characteristics, images, and recruiting activities that are rated significantly higher or lower than your competitors can give you important clues regarding students' decisions to enroll at your college or at a competitor. These data and evidence of areas in which you appear not to differ from other institutions provide important information that can help you target your marketing activities toward students who choose to enroll in specific types of colleges or universities.
2. Developing strategies for improving your competitive standing against specific institutions that are enrolling students you would like to enroll at your institution. Improving your competitive relationship is a means of establishing a desirable position in the market in general.

### **Two Levels of Analyses**

You can gain marketing insights by performing two levels of analyses with the data in your Competitor Analysis Report:

Analyze your *head-to-head* competitive standing in relation to the individual colleges or the groups of colleges that you designated for inclusion in the report. Pay attention not only to the areas in which you are rated superior or inferior to a competitor; but also to areas in which you are not viewed as different. The former provide clues about what may be influencing students to prefer one institution over the other; the latter provide clues in areas in which you might cultivate an advantageous differentiation. You may also discover ways to provide more effective information about differences that do exist, but which are insufficiently appreciated.

Some of the analyses suggested here can also be used (sometimes with adaptations) with the Highlights Report, but the corresponding marketing insights and implications may be more clearly focused when considered in the context of specific competitive relationships. Some of the phenomena tapped by ASQ PLUS are complex and, therefore, may be somewhat ambiguous. These complexities can become more evident by examining the five head-to-head competitive relationships in the Competitor Analysis Report. For example, when you believe your school is erroneously rated inferior to another institution, you need to ask whether students are misinformed, are using different evidence than you would use, or are interpreting the item on the questionnaire differently than you do. (If you believe that students' views of a competitor's superior standing on a particular characteristic are not valid but do not have evidence to support your relative judgments, you should focus your initial efforts on obtaining relevant objective data.) The identification and clarification of further questions regarding marketing phenomena of an ASQ PLUS project are as important an outcome as obtaining answers to the questions posed in this guide. Continue to look for suggestions for further research that can emerge from these data.

A second level of analysis provides a better understanding of your *market position*. This perspective is achieved through examining the scatterplots given in the report of some summary ratings of your institution and all of the competitors you selected for inclusion. These scatterplots provide a more global picture than the head-to-head comparisons permit. At the same time, the details presented in the comparisons of individual institutions are essential for understanding the phenomena that underlie these summary plots.

## Marketing Initiatives

The data in the Competitor Analysis Report can lead to three different types of marketing responses, depending on whether the perceptions of students coincide with other data on the characteristics of the colleges that are being rated. For example, compare data from published sources such as guidebooks, your analysis of competitors' publications and other recruiting materials, the opinions of other informed sources (such as high school counselors), and your visits to competitors' campuses. Interpreting this type of data can lead to marketing responses to:

1. *Provide better information.* To the extent that objective data, or the opinions of better informed judges, do not support the differences that students see in two institutions, the provision of more effective, persuasive, or timely information may correct these misperceptions. Conversely, where students fail to recognize real differences, better information may correct the misperceptions.
2. *Make changes in your institution or solidify existing advantages.* Where students correctly rate your college lower than a competitor that

tends to take the majority of your common admits or a competitor with which you are evenly matched in your win rates, your administration may wish to make changes in the college programs, facilities, policies, etc., if the changes can be achieved at reasonable cost, and if they are consistent with your institutional mission and the values of personnel in the institution. Likewise, where *no differences* are correctly perceived for important phenomena, changes in your institution may improve your market position. Such changes will only have a marketing effect, however, if the characteristics, images, or recruiting activities are important in influencing students' choices.

Where your institution is viewed as *superior* to a competitor that tends to lose common admits to you, you have some clues about aspects of your institution that you may want to reinforce or secure against possible compromise. When changes in your institution are considered, you can be sensitive to their possible impacts on these positive traits. If an institution is gaining ground in your competitive relationship, you can also track changes in your relative ratings on specific characteristics that might be contributing to these shifts through annual or periodic studies.

3. *Use your competitive advantages to enter new markets.* If your institution is widely recognized as superior to your competitors in some areas that are important to students, or to some significant segment of students, these characteristics and images may provide the focal point for expanding into new markets. A general reputation regarding these characteristics will support your marketing initiatives in a synergistic way.

## Differences Between Competitors

Much of the following analysis focuses on differences in how mutual admits rate your college and a competitor. Pay particular attention to *statistically significant* differences that are indicated in the exhibits. Statistically significant differences are unlikely to be due to chance, given the distributions of the ratings of the two institutions being compared *and* the size of the group that gave the ratings. Be wary of any differences that are not marked as statistically significant. Also be cautious about some statistically significant differences as well since they may not be of much consequence for marketing purposes. For example, you might find that 74 percent associated the image *intellectual* with your college, whereas 88 percent associate the image with a competitor against which you have a *disadvantage*. This difference of 14 percentage points is likely to be statistically significant. However, with almost three-quarters of the students already viewing your college or university as *intellectual*, it could be difficult to increase perceptions of your college as possessing that trait, especially at a reasonable cost.

It is also important to remember that the Competitor Analysis Report only examines five of the myriad comparisons possible between your college and specific others or groups of other colleges. Do not over generalize. For example, the overall impression left by comparisons with five *public* institutions will be very different from that left by comparisons with five *private* colleges. The value of ASQ PLUS lies precisely in the opportunity it presents to compare your college with the subset of competing colleges that is of most concern to you. If you wish to take the pulse of your college in the broader marketplace every so often, consider alternating ASQ PLUS with the original ASQ.

## Head-to-Head Analysis

In the following suggested analysis, your relative ratings can be interpreted differently according to your competitive relationships with the particular college(s). The data can reveal different things if the competitor is (a) one that enrolls the majority of your overlapping admits, (b) one against which you enroll the majority, or (c) one against which you are evenly matched. *Such interpretive ratings in the Competitor Analysis Report must be done with caution because the preference of students for your college or for the competitor is ambiguous in the data provided in the report.* Although you know that your enrolling students chose you over the competitor that is being rated, you do not know whether nonenrolling students who enroll at a third college would prefer you over the competitor in question. The ratings from nonenrolling students in your report come from both students who enrolled at the competitor and those who enrolled elsewhere. Some of the latter may find you more attractive than the particular competitor they are rating. (The data files on the optional CD can provide clarification of these preference patterns.) Ratings of groups of institutions may be more difficult to interpret than ratings of individual institutions, especially if you have different competitive relationships with the individual institutions that comprise the group. That is, you lose a majority of common admits to some, win from some, and have an even relationship with some.

For the first type of competitive relationship—where you have a *disadvantage*—focus on your lower relative ratings and try to improve an actual inferiority or overcome misperceptions of inferiority. For the second category, institutions against which you have the *advantage*, focus on your positive ratings and monitor behavior by the competitor that might improve its relative standing in these areas. For all types of institutions, look at characteristics and images on which you are not viewed as different and try either to create differentiation or provide better information about differences that do exist. In general, focus more attention on characteristics that are rated as important by students than on those that are less important.



## chapter 5

### How to Use the Competitor Analysis Report

#### **Market Position Analysis**

Exhibits G-2 through G-4 give you a sense of your general market position. These exhibits plot your ratings and those of each of your designated competitors on three general dimensions, which are summaries of the ratings of each of the specific characteristics that are included in them. Dimensions on which you are toward the top of the rankings can be emphasized when you increase your efforts in markets where you presently do not have a substantial share. Dimensions on which you are in the middle or toward the bottom are those on which improvements in your programs, policies, or circumstances should be considered for those characteristics that can be changed. Improvements in compensating aspects of the institution should be considered for characteristics that cannot be changed; the information you provide should be improved for characteristics where misperceptions by students have made your ratings erroneously lower than other data or an informed, objective opinion indicate they should be.

Since these are summary ratings that are derived from several specific ratings, you need to examine your relative standing on each of the component ratings to understand precisely which aspects of your institution might be changed or presented differently in order to change your relative standing. The head-to-head reports that follow provide a means of developing this type of analysis. The summary graphs show ratings averaged over all students, whereas the head-to-head comparisons include only the ratings given by the subset of students comparing your college to the specified competitor. Thus the numeric value of the mean ratings in Exhibits G-2 through G-4 may differ from the mean ratings in sections H through L.

## Specific Competitor Analyses

Now look at Exhibits H-1 through H-13, the series of exhibits for the first of the five competitors (or competitor groups) that you selected. Not all of the exhibits are given specific treatment in this section of this guide because some are just different perspectives on data given elsewhere. Using the appropriate sets of reports in Exhibits I-1–I-13 through L-1–L-13, repeat the analysis described in this section for each institution against which you have a competitive disadvantage.

1. Get a sense of how complete your information about the competitor is by calculating the percentage of your common admits who rated it as one of the two institutions that they selected for rating. Divide the number on the fifth line of Exhibit H-1 (Number of students rating this competitor) by the number on the second line (Number of students admitted). If the result is less than .5, you have ratings from less than a majority of your admission overlap. Treat the data for this competitive relationship with caution, and consider including a different competitor in the reports you order in future surveys.
2. Begin your analysis by determining whether the students who are rating the competitor are likely to come from distinctive subgroups in your admitted applicant pool. Look for differences of 20 percentage points or more in the bar graphs in the first panel of Exhibit H-2. If such differences exist, this information *may* help you target information to groups that are more likely than others to consider this competitor.
3. Note the yield patterns associated with particular characteristics of students in the second panel of Exhibit H-2. Are the patterns that occur for the students who rated the competitor similar to those that appear for your total pool of admitted students in Exhibit A-1 of the Highlights Report? If there are differences in the patterns of these two exhibits, what might account for them? For example, if the yields for women are different, are the women in this overlap pool different from the women in your total pool? Pay particular attention to the characteristics of students for which you have a relatively *high* yield in this group of students. Can you increase your contact with such students at a reasonable cost? What is it about your relationship with these students that makes them distinctive, that is, are they likely to be interested in a particular set of institutional characteristics? Do you compete against a distinctive set of other competitors for these students? (These questions can be answered most conclusively via exploration of your optional data file.) Which types of students in this overlap pool exhibit relatively *low* yields? What is it about your relationship with these students that makes them distinctive, for example, are they interested in a particular set of institutional characteristics? Do you compete against a distinctive set of competitors for these students? Can you reach these students with better information at a reasonable cost? Are the types of students with distinctive yields in Exhibit H-2 also likely to be distinctive in ways not measured by ASQ PLUS, for example, in religion, in prospective majors, as children of alumni?
4. Look at the shaded square in Exhibit H-4. Do any of the superior ratings for the competitor constitute misperceptions? (In each quadrant the characteristics are listed in decreasing order of the difference between the average rating of your college and that of the competitor, therefore, you should focus on the factors at the top of each list.) Exhibit H-8 gives you a sense of the characteristics

for which the competitor is viewed as *greatly* superior (that is, their rating exceeds yours by at least two points on the four-point scale) by relatively large percentages of students, and it also indicates how large these groups are. Scan the extreme right column for this information. Do data exist or might some other kind of evidence, such as anecdotes or photographs, be given to students that would correct this misperception? For example, if you are rated inferior to a larger institution on your academic facilities, but if you have some cooperative arrangements with other institutions that effectively expand your students' access to facilities, can you describe and show this type of access and how it improves students' academic experiences?

Determine whether your inferior relative standing on any of the characteristics listed in cell C (less important characteristics) is misperceived by these students. The importance of these characteristics might be increased if you marketed them differently. They also may be more important to people who influence students than to the students themselves.

5. Could any of the characteristics on which *you* receive superior ratings (cells A and especially B) be linked to characteristics on which you are rated as inferior to improve the ratings of the latter? For example, if your college is rated higher on personal attention, but lower on quality of majors, can you show how personal attention enhances the benefits that students derive from their majors? Or, if your college is superior on its access to off-campus activities, but inferior on quality of its social life, can you show how groups of students use off-campus resources for social or recreational purposes?
6. In Exhibit H-6, on which of the characteristics that are *not* shown there, that is, those characteristics on which you are not perceived to differ, is your institution really superior to the competitor? How can you get that information to students?
7. In Exhibit H-9, which *positive* images are more likely to be associated with the competitor than with your institution? Which *negative* images are more likely to be associated with your institution? If you have other evidence to indicate that these are misperceptions, you should develop ways to demonstrate the realities more effectively. If the perceptions appear to be accurate, identify the programs, policies, types of people, publicity, etc., that contribute to the different images and develop these phenomena to enhance positive images and diminish negative images.
8. In Exhibit H-10, identify *positive* images that you believe should be more frequently associated with you than with the competitor, but which do not appear in the upper left triangle of this plot. Or, identify positive images that unjustifiably (according to other data) appear in the lower right triangle. Look for ways to cultivate these images through your marketing activities or materials.
9. Look at the large differences at the bottom of the list in Exhibit H-11 to determine whether the competitor uses recruiting media that you do not use. If this competitor wins the majority of your overlapping admits, you may want to increase the students' exposure to these types of sources of information.
10. Highlight the sources of information in Exhibit H-12 to which a majority of the students who rate the competitor have been exposed at your college and at the competitor (Exhibit H-11

gives this information). For which of the highlighted sources does the competitor get a significantly higher rating, for example, 15 percentage points or more rating “excellent”? It is beneficial to ascertain exactly how the competitor is using this higher rated source of information: when students are being exposed to it, what information is being delivered via the sources, etc. If this is a competitor that wins a majority of your common admits, you may want to counter the advantage that these information sources may be giving the competitor by developing these sources or by exploiting another medium more effectively. Also look at sources that are used by less than a majority. In interpreting your findings, take into account the particular subgroup or groups of students who are likely to be exposed to these sources.

11. Students’ perceptions of college cost phenomena can vary in their accuracy, depending on how much they were included in discussions of family financial circumstances and any financial aid offers students receive. Nevertheless, these data provide an important starting point for investigating pricing and its effects. Examine the mean ratings of costs in Exhibit H-13 relative to published costs for the competitor. Examine the ratings separately in the second part of the exhibit for students who report “aid/cost significant” and for those who report “aid/cost not significant.” (Separate analyses for students who did not apply for aid will provide the best means of determining the accuracy of students’ perceptions of published costs, although the possibility of parental refusal to pay for one of the two institutions can distort these costs as far as the *student* is concerned.) Aid award policies or practices may help explain any discrepancies, although student ignorance of costs may also be a factor. (The accuracy of students’ reports of financial aid at your institution should be examined by comparing individual responses as they can be observed with the optional data file in relation to your records of financial aid offers.)

How you interpret the data depends on your competitive relationship with the institution. Does the competitor appear to offer merit aid more frequently than you do? Does it appear to offer more attractive aid packages, for example, relatively more grants and fewer loans and/or work? If the percentages who apply for need-based aid are different, especially if your competitor receives more aid applications, why is this so? Is your aid-related literature or the behavior of your financial aid office a deterrent? If the percentages of aid applicants are similar, but the percentages awarded need-based aid are different, does this reflect different financial aid policies? If students report your costs as lower or your aid levels as higher than a competitor to which you lose a majority of your common admits, then you should look more seriously at other aspects of your college, such as the quality of your programs or your campus life, which may be putting you at a disadvantage.

## Conclusions

Remember that the ratings obtained through ASQ PLUS come from high school students who will have changing perspectives and values as they continue their education. Although these ratings provide valuable information about how these students view several colleges and what may influence their decisions about where to enroll, the ratings should not by themselves determine the management decisions of colleges and universities. The knowledge of educators must also play a role in determining what people in the market need to know about colleges. Some very important characteristics may not differentiate institutions *within* your competitive set, but these characteristics may differentiate this set of institutions from others to which your applicants do not tend to apply. The importance of some institutional characteristics for the educational development of students may not be reflected in these data because prospective students do not yet appreciate the role they can play. Effective marketing by educational institutions requires that the education of students during the recruitment process be a part of marketing concerns.





# chapter 6

## How to Use the ASQ PLUS Data File

### Introduction

Although the ASQ PLUS Highlights and Detailed Reports contain extensive analyses of the data collected by means of the Admitted Student Questionnaire PLUS™, many additional questions of concern or interest to individual colleges can be addressed through local data analyses. For example, these analyses can help you gain a better understanding of:

- Differences among types of students in the values they place on specific college characteristics and in their perceptions of your institution
- How students' views of your institution are related to the types of information to which they were exposed
- Your competitive environment and your specific competitors for different types of students
- Factors that are related to students' decisions to attend or not to attend your institution
- The types of institutions your applicants list as their first choices

Displays in the Competitor Analysis Report compare your institution to the school or schools you designated as each of the five competitors shown in the report. For reasons of space this report does not show all the information that might be of interest to you. For example, you may wish to closely examine:

- The characteristics or images on which your college and the competitor receive similar ratings
- The complete distribution of ratings for the sources of information

- Differences in ratings for students who rate the cost of attending your college higher/the same/lower vis-a-vis the cost of attending the competitor
- The relationship between preference ranking, win percentages, and ratings

This part of the guide describes the data files that users of ASQ PLUS can receive and provides specific suggestions for analyzing ASQ PLUS data in relation to a wide range of issues, including those described above.

These suggestions are most useful to admission professionals who have some background in research or to institutional researchers. The discussions of potential areas of investigation are intended to be accessible to all users. However, a capability to use computers for statistical analysis is necessary to carry out the types of analyses described, and the specific suggestions about analytical methods assume the user is knowledgeable about data analysis that uses statistical computer programs and packages.

Users who do not have access to statistical programs but who wish to explore certain aspects of their data using microcomputer database management programs (such as MS Access) should refer to Appendix A, which contains suggestions concerning use of such programs with ASQ PLUS data.

## Files Supplied on CD-ROM

A data file on CD-ROM is an optional feature of ASQ Plus. Users who order a CD using the Final Transmittal Form that is submitted with the questionnaires for processing receive the data files and all supporting documentation along with their reports. Data files (from the current or any previous year) may also be ordered at any other time by requesting a Supplemental Order Form.

A college's data file contains all of the ASQ PLUS responses for that college's sample, along with student identification numbers (if used), additional geographic data (Enrollment Planning Service state and market codes), and case weights used to adjust for different response rates for enrolling and nonenrolling students. The contents of the data files are fully described in a record layout and code book, which is reproduced in Appendix B.

The CD also includes five separate subfiles, containing all of the responses for students rating each of the competitors. A sixth subfile contains one record for each comparison made; this file provides the data in a format that enables you to compare ratings of your college to the ratings of *all other* colleges combined—not just the five specified competitors. A more detailed explanation is given below. The layout for the competitor subfiles is described in Appendix C. Data files are sent in ASCII format.

In addition to a college's data file and competitor subfiles, the CD includes a file of SPSS commands (PLUS.SPS) that can be used with the SPSS statistical analysis package to define variables for analysis, to define labels for these variables and for their coded values, to set up case weights, and to read the data.

---

These files are included as appendixes to this guide. You can also use any standard text editor or word processor to print out a hard copy of PLUS.SPS and the file containing the SPSS commands describing the competitor subfiles (COMPETITORS.SPS).

---

The CD also includes two SPSS files containing data transformation and procedure commands for some frequently requested additional analyses, including many of the examples described below (such as multiple response analysis of overlap data). One file (SUPPLEMENTAL.SPS) contains commands analyzing the ratings of your college only, such as would be found in the Highlights Report. The second supplementary SPSS file (SUPPLEMENTAL COMPETITORS.SPS) is applicable to data from the competitor subfiles.

The names and four-digit College Board codes for all colleges that are represented in the data file as other colleges to which students applied are included in a file on the CD. In most cases these have been inserted directly into the SPSS file definition (PLUS.SPS) for use as value labels. A similar file contains the descriptive names of all 304 Enrollment Planning Service markets.

## Linking to Other Files

Student identifiers used by colleges on their questionnaires are also present in the ASQ PLUS data file (the ID field is in columns 393–402). This makes it possible to link the ASQ PLUS data file with any other admission or student records files that contain the same identifiers, further expanding research possibilities. For example, students' ASQ PLUS responses might be examined in relation to admission ratings, legacy status, intended major, or specific financial aid data that are present on the file that is linked with the ASQ PLUS data.

## Alternatives for Conducting Data Analyses

As noted earlier, an extensive set of SPSS commands that can be used for data definition and labeling is provided with the ASQ PLUS data file. By adding a relatively small number of procedure statements and any needed data-transformation statements to this set of commands, SPSS users can carry out many analyses, some of which can be extensive and complex. Examples of SPSS transformation and procedure commands needed to carry out specific types of data analyses are in the SPSS Examples section of this guide.

The SPSS language is used in this guide and in the supplied program segments because we have found that SPSS is the package most often used by those responsible for local analyses of ASQ PLUS data and because it is available on many campuses. The data file also can be used with other statistical packages but users of these packages will need to create their own file-definition statements. In some cases, the needed statements will closely parallel the SPSS statements and can be created by editing the SPSS files contained on the diskette.

Although it is assumed that users will almost always use some form of statistical program, other approaches to the analysis of ASQ PLUS data are possible. For example:

- **Programs can be written in a general-purpose computer language to analyze ASQ PLUS data.** Since writing programs in these languages is more labor intensive than using a statistical package, these programs would probably be used only when specific kinds of data manipulations or analyses cannot be obtained by other means.

- Database management programs (such as Microsoft Access) can be used for developing counts of response frequencies to specific questions by specific types of students. These programs are generally limited in the kinds of analyses they support, and they are more cumbersome to use than statistical packages for extensive sets of tabulations. A database manager, however, can be helpful in finding answers to a limited set of specific inquiries.
- Spreadsheet programs such as Microsoft Excel can import the data from the ASCII file on the CD, and then you can create graphic presentations or summaries of your information. Note, however, that defining the file this way would be very time-consuming because of the large number of variables represented in the ASQ PLUS data. In fact, the number of individual items in the complete data file exceeds the number of columns available in spreadsheets from versions of Excel earlier than 2007, and compromises would have to be made.

While Excel is limited in its ability to analyze data in the ways described in this User Guide, its data management capabilities can be exploited, particularly in importing data into databases such as MS Access. ASQ Plus data in Excel format can be ordered directly on the Supplemental Order Form. Alternatively, if you have taken advantage of the SPSS syntax files supplied with your ASQ Plus CD to read the ASCII data file, the resulting SPSS data can be saved as an Excel file.

A caution is in order. Versions of Excel earlier than 2007 have a limit of 255 columns (variables) per spreadsheet. The basic ASQ Plus data file (XXXX\_YY.DTA) consists of more than 260 variables, including any local questions you may have added to the survey. If you request your ASQ Plus data in this Excel format the modified Carnegie codes (CTYPE1 to CTYPE12) will be grouped together into a single column, and your local questions may have to be moved to a separate worksheet in the file. Note, however, that the competitor sub files contain fewer than 255 variables, and all local questions will appear in separate columns in the same worksheet as the rest of the competitor data.

This limitation on the number of variables also applies when saving SPSS data into an Excel file (.xls). SPSS will save the first 255 variables, unless you specify which ones to keep.

The ASQAnalyst+ software program will only work with ASCII data, and specifically with data in the same format and with the same file names and extensions as are supplied on the optional ASQ Plus CD. The program also requires a parameter file, which provides information on the characteristics, images, and competitors used in your study. If you have chosen to order your ASQ Plus data in Excel format and decide subsequently to order the ASQ Analyst+ software, the appropriate ASCII data files and the parameter file will be provided at no additional cost.

## Using Case Weights in Analysis

In order to produce results that are comparable to those reported in the standard ASQ PLUS reports, data must be multiplied by the weighting factor (the SPSS variable named CASEWT) that is included on the file. The WEIGHT BY CASEWT found toward the end of the supplied SPSS file definition specifies that all SPSS procedures that follow it use weighted cases for analysis. Once the WEIGHT BY CASEWT command has been given in the program, the weighting remains in effect for all subsequent commands. Any system file created following a WEIGHT BY line will only produce weighted results (unless a new weight, where all cases are weighted by a value of "1," is created before running any analyses).

The weighting procedure used for ASQ PLUS data is described in the introductions to the ASQ PLUS Highlights and Detailed Reports. Weights are used to adjust for differential response rates for enrolling and nonenrolling students. Virtually all colleges obtain a higher response from enrolling than from nonenrolling students. If weighting were not used, certain estimates could be seriously affected. For example, if yields were calculated simply as ratios of *enrolling* ASQ PLUS respondents to *all* ASQ PLUS respondents without use of case weights, estimated yields would be inflated due to the fact that enrolling students are more likely than other students to complete and return the questionnaires.

Remember, however, that since using separate enrolling and nonenrolling case weights entails multiplying responses in each group by a constant, the *within-group* percentages displayed, that is, based on enrolling or nonenrolling students only, are not affected by the case weights.

### Where Can I Find...?

- **The college that a nonenrolling student will attend.**

On the nonenrolling form of the questionnaire (which is also used by colleges sending the same form to all admitted students), question 19a asks the respondents:

Do you plan to enroll in college within the next 12 months?

1 Yes 2 No

If "yes," where? \_\_\_\_\_

The answer to the second part of question 19a (labeled Q19.C1 in the SPSS program) tells you where your nonenrolling respondents plan to enroll.

The name of your institution may only appear in this field if you sent the same form of the questionnaire to all admitted students. If you mailed one version of the questionnaire to enrolling students and the other to nonenrolling students, Q19.C1 is blank for enrolling students.

Your college *may* be listed as one of a student's top three choices. The students are instructed to list their top three choices among the institutions *to which they were admitted*. Some respondents may not have been admitted to their *real* first-choice college. Throughout this guide the "preference rank" of an institution (including yours) refers to the institution's position as first, second, or third choice. A college

(including yours) to which the student was admitted, but which was not included among the top three, is assigned a preference rank of 4.

■ **My locally developed questions.**

The SPSS file definition program includes a field called QLOCAL in columns 337–376. The responses to your local questions have been keyed in this area. The documentation that you receive along with your CD includes a “Supplementary Record Layout,” which describes the position and format of each of your local questions.

■ **My college’s ID number.**

The ID field, in columns 393–402, contains up to 10 bytes of identification information (including the ID used for access to the web survey). The supplied SPSS syntax defines this field as alphanumeric, and the ID is left-justified within the 10 bytes.

■ **Whether the respondent completed the survey on the web.**

The data file includes a five-digit sequence number field called AERID (columns 388-392). The AERID for a web survey will begin with a "5."

■ **Whether or not the respondent is an enrolling student.**

The field called STATUS contains a 1 for enrolling students and a 2 for nonenrolling students. If you mailed the same form of the questionnaire to all admitted students, the STATUS information is derived from the response to Q19a. That is, a student who writes the name of your college in response to Q19a will be assigned a 1 in the status field. A student who writes in the name of another college or who leaves Q19a blank will be assigned a 2. In the case of a respondent who has left Q19a blank, his or her status can be verified against your records prior to processing when an ID number has been included on your questionnaires.

## Using the ASQ Plus Analyst Software Program

Unless you request a CD-ROM containing your ASQ PLUS data file and SPSS command files only, the data file you order will be on a CD as part of the ASQ Plus Analyst program. This Windows-based program gives you access to your data without having to go through a statistical package such as SPSS. ASQ Plus Analyst allows you to:

- Reproduce most of the tables in your Highlights, Detailed, and Competitor Analysis Reports
- Cut and paste tables into other applications
- Segment your admitted students into subgroups based on another question in the survey
- View your college’s data side by side with data from the most recent Norms Report
- Request cross tabulations of any two questions in the survey
- Select certain additional competitor colleges for analysis

The ASQ Plus Analyst program has the following limitations:

- Local questions are not included in the analyses
- The program does not reproduce the graphical displays from the Highlights and Competitor Analysis Reports

Using Windows Explorer to display the contents of the ASQ PLUS CD in any CD-ROM drive, double-click on the InstallASQAnalyst+ application. (Alternatively, RUN the application from the Windows Start menu.) The self-extracting program creates an ASQAnalyst+ directory and copies all of the files from the Data subdirectory of the CD into a new Data subdirectory of ASQAnalyst+. Thus the Data subdirectory will contain the ASQ PLUS data files and the SPSS command files, although the latter are not used by the Analyst program.

During the installation of the program you are asked whether you would like instructions to be displayed at the conclusion of the installation. If you answer "yes," the instructions will appear in a Notepad window, which can then be printed.

At the conclusion of the installation program, an ASQAnalyst+ icon is placed on your desktop. Double-clicking on this icon puts you into the program, where you can choose which year's data you would like to analyze. Although the program analyzes data from any ASQ PLUS year, data files for years prior to 2000 must be renamed to conform to the format expected by the software. In addition, the program also expects a parameter file, containing information on the characteristics, images, and competitors you selected when you placed your order for the given year. Contact the ASQ Hotline for assistance.

Once in the ASQ Plus Analyst program, clicking on the blue "S" button (or choosing "Standard report format" from the Report menu) reproduces the tabular displays found in the ASQ PLUS Highlights and Detailed Reports. These can be copied into other Windows applications, such as Microsoft® Word. The information can be displayed for subsets of your admitted students, such as males or specific Enrollment Planning Service (EPS®) market, by clicking on "Select." Subgroups can be formed from any of the demographic questions on the survey, or on the basis of specific colleges or groups of colleges to which your respondents were also admitted. Remember to return to the Select menu to reset the selection criterion to the entire group.

Clicking on the blue "N" (or selecting "Norms report format" from the Report menu) results in displays of ratings of your college side by side with ratings of all ASQ PLUS participants in the Norms report. To limit the comparison to institutions similar to yours (e.g., Private Doctoral institutions), make a selection from the Group drop-down list at the top of any of the Norms displays.

The Overlap Report (the blue "O") provides more information than is available in the ASQ PLUS Highlights Report in that the displays include 20 colleges, whereas some of those in the Highlights Report only show 12. The breakdown of the students' cross-admit colleges according to Carnegie classification are also located here.

To go beyond the Highlights and Detailed Reports, use the Analyze menu. The "Cross-Tabs" selection displays the results from one variable on the questionnaire across each of the categories of another variable. The first Cross-Tabs panel asks you to select a row variable and a column variable to be displayed. Click on the plus sign (+) next to one of the sets of survey questions to select the particular item you want to analyze (for example, importance of "cost to your family" vs. "how we compare" on the same factor).

Once you have selected the variables to be analyzed, clicking on "Run" displays a cross tabulation where column percentages for all admitted students are the default values in the table. Use the "Display" drop-down list to select other table values for display; use the "Group" list to select enrolling or nonenrolling students only.

Selecting “Examine Yields” from the Analyze menu produces a list of the 16 characteristics and question 59 (rating of cost of attending, net of scholarships and grants), with an indicator of the strength of the relationship between each question and admission yield. Clicking on one of the items produces a cross tabulation of the rating of the item (row variable) against its importance (column), where the cell values displayed are yield percentages. Yield displays can also be produced using the general cross-tabulation menu.

The “Browse Competitors” selection displays the same list of overlap institutions that is in the Appendix of the ASQ PLUS Highlights Report. The list is originally sorted in descending order of the number of cross-applications between your college and the given competitor; but it may also be sorted by cross-admits or students attending. See Question 10 of Chapter 3 for an explanation of “Win Percent.”

Selecting “Competitor” from the Mode menu allows you to compare the admitted students’ ratings of your college with those of selected other colleges, including, but not limited to, those you selected for your Competitor Analysis Report. The “Five Specified Competitors” are those appearing in your report. You can also see the analysis of other individual colleges rated by at least 30 weighted cases; you can specify another college not on that list; or you can compare your college’s ratings with those of all rated colleges grouped according to modified Carnegie categories. The Competitor mode of the ASQAnalyst+ provides a great deal of data beyond what is available in your printed report.

Once you have selected the college to be analyzed, clicking on the blue “P” displays some profile information about the students making the given comparison. Look at the table showing where these cross-admits will attend college.

To display the same types of analysis as those in your Competitor Analysis Report, click on the blue “C.” In addition to distributions of the rating variables for both your college and the competitor, you will also find the calculated differences between the percentages that rate your college and the competitor “Excellent” on each characteristic.



# chapter 7

## Suggestions for Local Analyses

This chapter presents suggestions for analyzing your ASQ PLUS data as a whole to address questions concerning differences among types of students, relationships among ASQ PLUS ratings, factors relating to enrollment choices, and differences between enrolling and nonenrolling students. Suggestions for further analysis of your competitor data are in Chapter 8.

### Differences Among Types of Students

An important use of the ASQ PLUS data file is to obtain frequency distributions and cross tabulations of responses to questions of interest for specific types of students. These fundamental questions are addressed in this type of analysis: (1) Do response frequencies for all students (as shown in the ASQ PLUS Highlights and Detailed Reports) accurately characterize specific subgroups of admitted students as well? For example, do your minority students value the same college characteristics and have the same perceptions of you as students in the general population do? (2) Do certain types of students, especially those whom you would particularly like to attract, differ from others in what is important to them or in how they view your college?

This section describes two ways to focus investigations of differences among students:

1. Define market segments (key subgroups) of interest, and examine ASQ PLUS response frequencies for the subgroups
2. Identify the sets of ratings or perceptions to be studied, and examine the relationships of these to student background variables

Although these approaches differ in orientation, that is, they have different starting points, they lead to similar types of analyses in many cases.

## Segmentation

One of the key tenets of marketing is that people differ in what they want from products and services, in how they go about selecting them, and in how well informed they are when they make their selections. An institution that serves the particular needs and interests of a given type of student most effectively should have an edge in attracting that student. An institution also may need a specific type of student to serve its particular mission effectively or to build its student body in ways that will attract students and other resources in the future. The analysis of ASQ PLUS data for selected types of students contributes to the development of marketing plans that relate specifically to these students. It is also valuable to know when different types of students *do not* differ in their interests or needs; in these cases, the additional costs of differentiated marketing can be avoided with confidence.

In many cases, individuals can be assigned to market segments based on responses to the ASQ PLUS. For example, subgroups defined in terms of the following characteristics may be of interest:

Characteristic	SPSS Variable Name
High school grades and/or admission test scores	Q62, Q63CR, Q63M, Q63W, Q63A
Race/ethnicity	Q64
In-state versus out-of-state residence	Q65
Distance of student's home from your institution	Q66
Type of high school	Q67
Family income	Q68
Specific geographic location (as defined by zip codes or by Enrollment Planning Service markets)	Q69, EPSMKT
Gender	Q70
Financial aid application at your institution	QU55

It is also possible to group students in terms of colleges to which they applied or to which they were admitted (as opposed to colleges that they *rated*). Other subgroups can be defined by responses to local questions or, if the ASQ PLUS data file is linked to other institutional data, by data present on that file.

Conclusions based on small numbers of cases can be very unreliable. Tests of statistical significance that are available in statistics packages help protect against unwarranted conclusions. Some institutions, particularly smaller colleges, may have to combine ASQ PLUS data from two or more years in order to examine certain market segments of interest.

---

SPSS Examples 1 and 2 illustrate use of SPSS frequency and cross-tabulation procedures to examine differences in ASQ PLUS responses for students in defined market segments. (See the section of SPSS examples at the end of this guide.)

---

## Examining Relationships of Student Ratings to Background Variables

The preceding discussion focused on ways of developing information that can help an institution better serve defined market segments. Instead of approaching group differences in this way, one might want to examine in a more exploratory fashion how ASQ PLUS ratings (e.g., student perceptions of college characteristics, use of information media, images, reported aid-application behavior, or ratings of cost) are related to a variety of student background variables and personal characteristics.

The tables in the standard ASQ PLUS Highlights and Detailed Reports can provide insights into modal responses. What are your prevailing images? On what characteristics are you rated high or low? What are the characteristics that are important to most admitted students? Differences among students, however, can be even more illuminating and productive of marketing initiatives than modal or average responses. As other institutions pursue the modal student, you may have a strong market composed of subgroups of students who tend to have distinct sets of values and perceptions. The marketing power derived from these investigations can come from:

- **Devising ways of exploiting patterns that exist.** For example, if a certain type of student finds a particular college characteristic to be especially important and your institution is strong on that characteristic, determine how you can efficiently and effectively reach this type of student.
- **Finding means of altering the observed patterns.** For example, if potentially aid-eligible students from certain backgrounds are not applying for financial aid as frequently as they should be, determine how they can be informed about aid and encouraged to apply for it.

Differences among student subgroups can be studied in relation to their responses to the following sets of ASQ PLUS questions.

Set of Questions	SPSS Variable Name
Importance placed on specific college characteristics	Q1 to Q16
Ratings of your institution in terms of specific characteristics	QU21 to QU36
Perceived images of your institution	QU37.1 to QU37.20
Ratings of the quality of information you provided	QU40 to QU53
Exposure to sources of information about your college	QU40 to QU53 (recoded)
Numbers of applications filed and admission offers received	Q17 and Q18
Importance of aid or college costs in the final enrollment decision	Q54
Aid applications and awards at your institution	QU55 to QU58J
Ratings of your institution's cost	QU59

Another possibility not listed above is the examination of the frequency of application to, admission to, or preference for specific colleges for defined subgroups of students. Analyses relating to other institutions are discussed in a later section.

As the lists of variables and student background factors indicate, an enormous number of breakdowns of student responses can be run. Some prior selection from among these possibilities is essential, particularly if you tend to investigate relationships through cross tabulations of ratings with background variables. Structure your approach by considering particular hypotheses or practical questions of interest. How might ASQ PLUS data provide insights into questions you have about the effectiveness of your communications? What kinds of findings would lead you to make changes in your admission program? In what areas and for what groups do you believe that differentiated marketing may be effective? These kinds of questions may help you structure your analyses:

- What subgroups are expected to exhibit differences in the importance they place on specific college characteristics and in their perceptions of your college? Males and females? High-achieving versus lower-achieving students?
- Are some students more likely than others to be exposed to different types of information, such as campus visits or contact with current students or alumni? Does exposure to specific information sources vary with distance from your college or by specific geographic location? How do students living in key geographic markets rate the quality of information provided through ways such as high school visits, college-sponsored meetings, and contact with graduates?
- For what groups are images of your college likely to differ? Are there stereotypes of your college that you can assess using ASQ PLUS data?
- What percentage of students from low-, middle-, and high-income families indicated that financial aid or college costs were significant factors in their final choice of college? How did these students rate your costs?

In examining these relationships, cross tabulations like those shown in SPSS Examples 1 and 2 can be produced to compare responses of different types of students to ASQ PLUS items of interest. However, running cross tabulations can quickly generate many pages of output and more numbers than can be easily interpreted.

---

SPSS Examples 3 and 4 illustrate the use of two more concise means of studying group differences and relationships in ASQ PLUS data: comparison of mean ratings for subgroups and computation of correlation coefficients.

---

## **Relationships Among ASQ PLUS Ratings and Student Behaviors or Values**

As indicated in the preceding sections, relationships of ASQ PLUS perceptual data to student background variables can provide useful information about the degree to which an institution is succeeding in attracting and communicating with different kinds of students. Similarly, relationships among selected ASQ PLUS ratings themselves can also help in assessing why different students may respond differently to an institution. Examples of questions:

- Are ratings of the characteristics of your institution related to students' exposure to particular information sources? For instance, do students who have visited the campus perceive you differently from nonvisitors in terms of such nonacademic characteristics as access to off-campus activities or quality of social life?
- Does exposure to a particular medium of information increase the probability that a student will associate a particular image with your college?
- What relationships exist between student ratings of importance of college characteristics and ratings of your institution on these characteristics? For which characteristics frequently judged to be very important do you receive low ratings?
- Are certain kinds of behavior reported in ASQ PLUS (such as number of college applications) related to student values or to views of your institution? What characteristics are very important to students who applied only to your institution? In what ways do these students differ from others in what they deem important or in how they view your institution?

The most direct way to address many of these questions is through cross tabulations of the relevant items.

---

SPSS Example 5 illustrates an approach to analyzing the relationship of students' perceptions of your college characteristics to the kinds of information sources to which they were exposed. SPSS Example 6 relates the perceived importance to the rating of your college for each characteristic.

---

## Refined Perspectives on Competition

ASQ PLUS collects information about specific other institutions to which students have applied and to which they have been admitted. Analysis of this information provides new insights concerning your competitive position with respect to other institutions. Questions such as these may be addressed:

- Do you have different competitors for different types of students?
- Who are the main competitors in each of the major markets that you serve?
- What are the characteristics of the competitors most often listed as the students' first choice?
- What are the characteristics of the students who plan to enroll at an institution that was not their first choice?
- Do those students who applied to one or more of your major competitors perceive you differently from other students? (Some of this information may be found in the Competitor Analysis Report.) How are you perceived by nonenrolling admitted students who are planning to attend one of these competitors?
- Do your competitors behave differently (e.g., admission, aid offers) toward different types of students?

These questions can be addressed by means of two analytic approaches:

1. Group students by characteristics of interest (such as high school grades or admission test scores, zip code, or EPS market) and compute frequencies of application and admission to other colleges for these groups. (This is a way to develop answers to the first two questions listed above.)
2. Group students by institutions to which students have applied (or have been admitted) and compute response frequencies to ASQ PLUS items of interest, including student background information.

Since students can name up to 12 colleges to which they applied (although rarely are more than 10 colleges named by respondents), use of data for other colleges is somewhat more complex than other ASQ PLUS data. Instead of tabulating or selecting responses recorded in a single field, it is usually necessary to filter the data so as to work with selected groups of colleges to which students applied.

---

SPSS Example 7 illustrates use of the SPSS Tables procedure to compute frequencies of cross-applications and cross-admission with other colleges for different types of students. SPSS Example 8 describes a method for grouping students in terms of the colleges to which they have applied, to which they have been admitted, and at which they plan to enroll, so that these groups can be isolated for separate analyses of their responses to ASQ PLUS items. It may be particularly informative to examine the ratings provided for students who are **enrolling** in specified colleges or sets of colleges.

---

The data file also contains a variable for each college a student lists that is a modified Carnegie code, called CTYPE1 to CTYPE12 in the SPSS syntax file, which refers to the 12 colleges listed on the college application section of the questionnaire. (A college named as both the college attended and the first choice college would be represented by a modified Carnegie code in CTYPE1 on the file; CTYPE2 would then be blank.) Use these codes (such as public doctoral, private baccalaureate) to examine your ratings for students who have one of these types predominant in their application sets.

## Comparing Ratings of Your College to Ratings of All Other Colleges Combined

Although it is tempting to analyze the ratings of your college in comparison to those of all other colleges rated by the respondents, it is difficult to accomplish such an analysis. Since respondents could have rated up to two colleges in addition to yours, both sets of ratings should be included in any analysis of other colleges. The data file contains the four-digit code for the college named in each of the four major sections of the questionnaire: characteristics (the college code is COMPI.A or COMPI.B in the SPSS listing), images (COMP2.A or COMP2.B), sources of information (COMP3.A or COMP3.B), and financial aid/cost (COMP4.A or COMP4.B). Some students will have rated two competitors for some sections of the survey, for example, the college characteristics, but only one (or even none) for other sections, for example, the questions on financial aid and cost. It is possible for a student to have rated a different college in each section (although such an occurrence is extremely unlikely, since the questionnaire instructions ask for ratings of the same colleges in each section).

The XXXX\_YYT.CMP file on your CD contains one record for each comparison made by each respondent. If a given student has named and rated both College A and College B, this file will contain two records for that student. Responses supplied only once on the questionnaire—demographic information and importance ratings for the college characteristics, and ratings of your college—are identical on both records, but one record will contain ratings of College A for the four major sections of the questionnaire. The other record will only contain ratings for College B. If a student has only rated one college, there will only be one record for that student in the subfile, and the student will be omitted from this subfile if he or she rated your college only.

## Factors Relating to Enrollment Choices

The ASQ PLUS Highlights Report presents a substantial amount of information concerning the yields your institution realized among specific groups of students, but it is not exhaustive. Using your data files:

- Extend the analysis of yield to all relevant subgroups of interest, including groups defined by their background characteristics and/or by their ratings of your institution on specific dimensions
- Identify the variables in the data set that are statistically most related to yield

---

A straightforward way to compute yields for defined subgroups of students is to cross tabulate enrollment status with the student descriptors of interest. A comparable approach, which produces less output, is to create an indicator variable (STATUSR, where enrolling=1, nonenrolling=0) and compute mean values of the indicator for subgroups of interest. Regression methods can also be used to assess how yields vary in relation to combinations of predictor variables. See SPSS Example 9 for illustrations of each of these approaches.

---





## chapter 8

### How to Develop Statistical Models

Statistical techniques that are more sophisticated and complex than those illustrated in the preceding sections of this user guide can also be employed in analyzing your ASQ PLUS data. These techniques can help you:

- Develop simpler and more economical representations of student perceptions of your institution's characteristics and images
- Develop statistical models that account for student behavior, such as matriculation in your school or choice of specific other schools, by using background variables and/or perceptual data as explanatory variables

Several possibilities are described below without detailed examples. You will need the counsel and advice of someone well versed in the appropriate research methods before proceeding with these kinds of investigations. The types of investigation included here are only suggestions; their suitability will depend both on your particular marketing issues and on the nature and quality of the data that you receive in your ASQ PLUS project.

#### Data Simplification

It may be useful to determine whether and how a set of ratings can be reduced to a smaller number of scales. A prime candidate in the ASQ PLUS data set for such treatment is the set of ratings of your institution on 16 college characteristics. *Factor analysis* can assess whether these ratings can be well represented by a smaller number of scales (such as a scale encompassing items relating to academic quality, a scale relating to facilities, a scale based on items dealing with social and recreational opportunities, etc.). Another candidate for factor analysis is the set of 19 college

images, even though the type of factor analysis most often used may not be entirely satisfactory because of the dichotomous (checked versus not checked) nature of the image ratings.

Assuming that the factors emerging from a factor analysis make conceptual sense, one might develop scales either through the use of factor scores or through the simple addition of sets of variables that have high loadings on a given factor. The use of a small set of relatively uncorrelated scales may be particularly useful in modeling student choices, since the methods used in such modeling (for example, regression analysis) will often not lead to stable or readily interpretable results when a relatively large number of intercorrelated ratings are used as independent variables.

---

In SPSS, the FACTOR and the RELIABILITY procedures are useful for conducting analyses relating to scales.

---

## Developing Models of Choice Behavior

Several statistical methods may be used to model student choices in relation to personal characteristics and student values, attitudes, and perceptions. The statistical techniques often used for such modeling are *regression* and *discriminant analysis*. Another technique that has certain advantages over regression analysis in modeling choice behavior is *logit analysis*. This technique is used most often to assess the determinants of binary choices, such as enrollment versus nonenrollment, but can be used in a more general form (multinomial logit analysis) to study choices from among a larger set of alternatives—such as among colleges of different kinds.

---

In SPSS, the REGRESSION, DISCRIMINANT, and LOGLINEAR procedures can be used in estimating different statistical models of student choice.

---

## Local Analysis of Competitor Data

Each of the five competitor subfiles contains data for the students who rated the competitor college—or at least one of the colleges in the competitor group—in any of the four major sections of the questionnaire: college characteristics, images, sources of information, and cost and aid. The competitors are defined according to your specifications. Each student record contains all of the responses to demographic questions and questions relating to your college, and all responses containing ratings for the given competitor *only*. If a student rated the first competitor on the college characteristics but some other college for the images, the image section would be blank for that record. If, however, the other college rated represented another college in the same competitor group, the file would contain a second record for that student. In this case, when the same student is represented twice in the subgroup, the demographic information and the ratings of your college would be duplicated. Therefore, these subfiles *should not* be used to summarize information about your college only.

Because of the complexity of defining the groups and creating the competitor subfiles in such a way as to facilitate analysis, you should be cautious in attempting to analyze data for a competitor other than the five originally specified. Although it is certainly possible for you to create additional competitor subfiles from the file named XXXX\_YYT.CMP, if you do want to analyze additional competitors, one option would be to order additional Competitor Analysis reports, using the Supplemental Order Form enclosed with your reports. Alternatively, you may ask the College Board to create additional subfiles for you (at a nominal charge).

## Using Cross Tabulations to Examine Response Patterns

The Competitor Analysis Report provides information on the group of students rating the competitor who responded to each question on the survey. For example, on which characteristics (images, information sources, etc.) is your school preferred over, that is, rated higher than, the competitor? It may also be helpful to examine more closely the *patterns* of responses given. For example, what percentage marked a particular image for your college only, the competitor only, both colleges, or neither? This can be determined by cross tabulating the image variable for your college against that for the competitor. Of course, if the report shows that an image was marked by a large percentage (for example, 80 percent or more) or by a small percentage (for example, 20 percent or less) for both your college and the competitor, the majority of students will have responded to the question the same way for both colleges.

More detailed knowledge of exposure to the various sources of information might provide insight into the patterns you find for the ratings of characteristics. Cross tabulations similar to those described above, for example, would determine what percentage of the respondents visited your college only, the competitor only, neither college, or both. Using the same technique you may want to determine how many students applied for or were offered financial aid at your college alone, at the competitor alone, at both colleges, or at neither.

---

SPSS Example 6 includes sample commands to produce these cross tabulations.

---

## The Relationship Between Preference Rank and Rating

In a general sense, a college participates in the ASQ PLUS service because it wants to know in what ways students prefer it to other colleges, or to one other college in particular. This question may be answered by an examination of the relative ratings of your college and the competitor(s).

ASQ PLUS also provides information on *whether* students prefer your college to others. Students are asked to list their top three college choices in order of their preference for each. The relationship between this preference rank and the relative ratings can be expressed by the grid shown below.

Your college was *rated* higher if it received a higher number on the four-point rating scale than the competitor did for a given question. The college listed as the student's

first choice may be assigned a rank number of 1; the second-choice college's rank number would be 2; and the third choice number would be 3. A college not listed among the top three choices would be assigned a rank number of 4. Your college was *ranked* higher if its rank number (1, 2, 3, or 4) was lower than that of the competitor. Your college's rank would only be the same as that of the competitor if neither were listed among the top three choices (that is, both colleges would have a rank of 4). For most of the following suggestions all 16 college characteristics will be accounted for in each *row* of the grid.

		RATINGS			
RANKINGS		Our college rated higher	Our college rated the same	Competitor rated higher	
	Our college ranked higher	A	B	C	X <sup>1</sup>
	Our college ranked the same	D	E	F	Y <sup>1</sup>
	Competitor ranked higher	G	H	I	Z <sup>1</sup>
		X	Y	Z	

---

SPSS Example 12 shows how to create the rank variable for your college and the competitor.

---

The above grid provides a useful starting point for additional analyses of your competitor data, for example:

- What percentage of the students rating the competitor **ranked** your college higher/the same/lower vis-à-vis the competitor? The row total percentages (X<sup>1</sup>, Y<sup>1</sup>, Z<sup>1</sup>) answer this question.
- For how many of the college characteristics was your college **rated** higher/the same/lower compared to the competitor? This question can be answered using a mean difference (either the mean rating of your college minus the mean rating for the competitor, or the mean of the respondents' difference scores) or a percentage, for example, a higher percentage rating your college Very Good or Excellent. The column total percentages (X, Y, Z) answer the question: What percentage of the students **rated** your college higher/the same/lower vis-à-vis the competitor?

For the students *ranking* our college higher than the competitor, how many of the characteristics were *rated* higher? This information might be entered in cell A of the grid, and similar comparisons could be entered in the other eight cells. One might expect that the characteristics would tend to be distributed along the diagonal: that students ranking your college higher would tend to rate it higher; students ranking your college the same would also rate it the same, and so forth. Large deviations from this tendency might be explained by differences in the importance attributed to particular characteristics. For example, if 15 characteristics appeared in cell G (your

college rated higher but the competitor ranked higher) and only Cost of Attendance appeared in cell I, it may be that cost is so important as to outweigh all other considerations in determining rank. For characteristics appearing in the same column on each row (for example, in cells A, D, and G) or in the same row in each column (for example, in cells A, B, and C), the ranking of your college is not particularly related to the rating of the characteristic.

## Relating Preference Rank and Win Percentage

You will recall that several exhibits in the Highlights Report display your college's *win percentage* versus another college. The win percentage represents the percentage of respondents who, given that they enroll either at your college or at the given college, enroll at your college. A formulaic representation of the win percentage would be:

$$\frac{\text{Number enrolling at your college}}{\text{Number enrolling at your college plus number enrolling at given college}}$$

There is a third group of students unaccounted for in this formula—namely those who were cross-admitted to the school in question but who enrolled somewhere else entirely, that is the “other” (or third) college group.

The win percentage and the size of the third college group shed more light on the relationship between preference rank and ratings. When the third college group is relatively small (under 45 percent) and your win percentage versus the competitor under scrutiny is moderate (35–65 percent), your college and the competitor are both under serious consideration by the students, and the ratings-versus-ranking analysis may ultimately help you find ways to increase your win percentage—to attract more of these cross-admits.

If your win percentage is high (and the third group is low), this competitor is not really a serious rival, and it may even be that nonenrolling students are no more likely to attend the competitor than to choose any other individual college. You may want to pay attention to characteristics in cells C, F, or I of the grid described above that may be potential trouble spots. However, since your college is consistently chosen over the competitor, there are not likely to be very many characteristics for which the *majority* of students give the competitor a higher rating. Even in instances where your college dominates the relationship, you will want to monitor changes in relative ratings (narrowing of differences) over time.

On the other hand, if your win percentage is low versus this competitor (and the third group is also low), you are not really a serious rival to the competitor at this point. Characteristics in cells A, D, and especially G may represent strengths of your college that could be emphasized during recruitment. Characteristics in Cell I may represent the bottom line: What it is about the competitor that makes it irresistible to your cross-admits.

If the third group is *high*, then neither your college nor the competitor is at the top of the students' list, and the cross-admits may not, in fact, see much of a reason to choose between you. If your win percentage is high among the relatively small number of students who attend either your college or the competitor, you may be able to capitalize on the characteristics for which your college receives higher ratings.

If your win percentage is low, there may be some room for improvement on the characteristics for which your college receives lower ratings. Be careful about jumping to conclusions about this comparison because the students may not have extensive knowledge about either you or the competitor.

Calculate your win percentage among the students rating this competitor (see SPSS Example 13) and compare it to your overall win percentage (see Exhibit E-4 of your Highlights Report or the Overlap Appendix). If the win percentage is substantially higher among the students who rate this competitor, the latter is disproportionately likely to be rated by your enrolling students. By implication, your enrolling students are more likely to list it among their top three choices, since almost all respondents rate competitors that are among their top three. Similarly, a much lower win percentage within the rating group indicates that disproportionately more nonenrolling students rated the competitor. If enrolling students are overrepresented in the rating group, the ratings of your college are likely to be inflated (compared to the ratings of your college by all admitted students), as are the ratings of the competitor if nonenrolling students are overrepresented.

## Comparing Data Across the Five Competitors

Before trying to make detailed comparisons across the five competitors you specified for inclusion in the Competitor Analysis Report, look at the similarities and differences between the competitor colleges themselves. For example:

- **Do all the competitors consist of a single institution? Interpretation of data for a competitor group is a much more complex proposition, and the larger and more heterogeneous the group, the more difficult the task.**
- **Are all the competitors private? All public?**
- **Are they similar in their degree of selectivity?**
- **Are they located in the same part of the country?**

Then compare the profiles of the students rating the five competitors, using Exhibit 2 of sections H-L in the report. Do the five respondent groups share similar demographic characteristics? If not, observed differences between ratings of the competitors may be confounded with differences in the raters themselves. Examination of Exhibit 5 in each section tells you how the rating groups differ in the importance they ascribe to each of the college characteristics. Ideally, the five competitors would have similar institutional characteristics, similar rater profiles, and a similar pattern of importance ratings. Direct comparisons could then be made among the ratings given all the competitors.

Since the ideal situation is unlikely to occur frequently, be cautious about comparing, for example, a 3.5 rating on personal attention for competitor 1 to a 2.5 rating on the same characteristic for competitor 2. If enough students have rated the same two competitors, however, it is possible to compare those two colleges directly. (This could be done using the complete data file but is simpler if the competitor subfiles are used instead.)

---

See SPSS Example 14 for a method of matching two competitor subfiles to analyze differences between the colleges' ratings.

---

Assuming that the number of students comparing the two colleges is large enough to make the comparison meaningful, analyses can be performed on the differences among the competitors and among the competitors and your college. Most of the questions you would ask of the data comparing your college to a single competitor are still appropriate. Additional areas of interest might include:

- Can one of the two competitors be characterized as “better” than the other, based on the students’ ratings?
- How is our college perceived by students who rate these particular colleges?
- What can we do to make our college more attractive to the type of student who is likely to attend either one of the competitors in preference to our college? In other words, if our college is third choice for the respondents rating these two competitors, what can we do to move up to second choice, or even first?

## Conclusions

The suggestions in this guide do not include all types of analyses to which ASQ PLUS data can be subjected; nor do they discuss other data systems within an institution that can be used to improve (alone or in combination with ASQ PLUS) the marketing of a college. The ideas contained herein, however, should help you begin to market your institution effectively.





# SPSS Examples

## General Notes

The commands in this section conform to the conventions of SPSS version 12.0.1 for Windows. This User Guide is not intended to serve as an introduction to SPSS, and assumes basic knowledge of SPSS terminology and procedures. Consult your SPSS user guides for further information.

This section provides SPSS procedures applicable to the specific examples of additional analyses discussed here. Other types of analyses are possible. In order to facilitate the task of conducting analyses such as these, most of the SPSS procedure statements shown below, with the associated variable transformations, have been combined into two supplementary files on your CD for analyses using the entire data file and analyses using competitor data. The complete set of commands applicable to the total data file (in ASCII format) is reproduced in Appendix E. Appendix F contains supplementary analyses of competitor data.

The commands as you would type them are shown in uppercase letters. However, unless you are using SPSS-X for the mainframe, your SPSS program will accept either upper or lowercase commands. Similarly, most SPSS commands can be abbreviated to three or four letters.

Although each of the SPSS examples includes the `WEIGHT BY CASEWT` command, remember that it is only necessary to execute this command once. All subsequent procedures executed during the same SPSS session will use weighted data. If your data file is saved as an SPSS file at the end of a session that has used weighted data, all subsequent applications will also use weighted data.

The files of supplementary SPSS commands that are included on your CD contain more analyses than most people would use at one time. For example, a request for cross tabulations of all 16 ratings of your college against enrollment status for each category in the seven demographic variables, all of which would permit you

to analyze the admission yield for each rating for each demographic subgroup, would produce 528 tables! Before you run any of these procedures, carefully consider which analyses are of most interest to you.

### *Example 1: Analyzing ASQ PLUS Responses of Women and Men*

The following SPSS commands produce frequency distributions of the responses of women (Q70=1) to ASQ PLUS questions concerned with the importance of college characteristics, ratings of your college for the characteristics and information sources, college images, and ratings of the cost of attending your college. Missing data is also shown in the output to this command.

```
WEIGHT BY CASEWT.  
TEMP.  
SELECT IF (Q70 = 1).  
FREQUENCIES VARIABLES=Q1 TO Q16, QU21 TO QU36, QU37.1 TO  
QU37.20, QU40 TO QU53,QU59.
```

Often the cross-tabulation procedure is more efficient than the frequency procedure in analyzing response frequencies for subgroups. For example, the following commands produce tables of responses by women and men to the questions analyzed in the preceding example.

```
WEIGHT BY CASEWT.  
CROSSTABS TABLES=Q1 TO Q16, QU21 TO QU36,QU37.1 TO  
QU37.20,QU40 TO QU53, QU59 BY Q70/CELL COUNT COLUMN.
```

There is no SELECT IF statement in this example. Instead of selecting women for analysis, the cross tabulations display the frequencies for women and men in separate columns of the table. Since Q70 is named after the word BY in the CROSSTABS command, the values for this variable (Female, Male) are shown in the columns of the tables produced, while the values of the other variables are shown in the rows. CELL COUNT COLUMN specifies that the tables display the number of cases in that combination of categories, along with percentages based on column totals, that is, based on Q70.

A chi-square test of the statistical significance of the differences in response percentages of women and men in each table could have been requested in this example by adding the subcommand: /STATISTICS CHISQ. It should be noted, however, that SPSS uses weighted numbers in computing test statistics and thus does not report correct significance levels in analyses with weighted data. If statistical tests are needed, analyses should be run without weighting. However, values of chi-square using weighted data may still be used as a convenient way to flag tables showing large group differences, even though the reported significance levels are incorrect.

### *Example 2: Segmenting by Geographic Markets*

Identifying students by geographic markets often requires recoding. For example, suppose a college wanted to examine the following groups:

Code	Description
1	Students living in zip codes starting with 999
2	All other in-state students
3	All out-of-state students

The following statements create a variable—MKTGRP—to be used for this subgrouping and then cross tabulate ASQ PLUS ratings relating to college characteristics against it.

```
RECODE Q65 (1=2) (2=3) INTO MKTGRP.  
COMPUTE ZIP3=TRUNC(Q69/100).  
IF (ZIP3 EQ 999) MKTGRP=1.  
VARIABLE LABELS MKTGRP "MARKET AREA".  
VALUE LABELS MKTGRP 1 "Zip3=999" 2 "In-state/Not 999" 3 "Out-of-  
state".  
WEIGHT BY CASEWT.  
CROSSTABS TABLES=Q1 TO Q16, QU21 TO QU36 BY MKTGRP /  
CELLS=COUNT COLUMN.
```

Alternatively students can be grouped by Enrollment Planning Service markets. Assume, for example, that an institution wants to study the following three segments:

Code	Description
1	Students in Alaska: market 1
2	Students in Alaska: market 2
3	All other students

In this case, MKTGRP could be created as follows:

```
COMPUTE MKTGRP=3.  
IF (EPSMKT='AK 1') MKTGRP=1.  
IF (EPSMKT='AK 2') MKTGRP=2.
```

Your top 12 EPS markets, and the percentages of students in each, are shown in Exhibit A-2 of your Highlights Report; Exhibit D-3 relates EPS markets to financial aid and college selection. These exhibits can guide you in selecting EPS markets for further analysis. Contact the College Board for more information on the Enrollment Planning Service.

### *Example 3: Computing Average Ratings by Test Score Group*

For rating scales, average ratings provide a more concise means of comparing subgroups of interest than do response frequencies. In this example, average ratings of college characteristics at your college (QU21 to QU36) are computed for students at three levels of SAT scores: SAT scores (critical reading plus mathematical) below 1000, between 1000 and 1190, and 1200 or higher.

```
COMPUTE SATLEVEL=Q63CR+Q63M.  
RECODE SATLEVEL (LO THRU 990=1) (1000 THRU 1190=2) (1200 THRU HI=3).  
VARIABLE LABELS SATLEVEL "SAT CR+M SCORE INTERVAL".  
VALUE LABELS SATLEVEL 1 "Below 1000" 2 "1000 to 1190" 3 "1200 and over".  
WEIGHT BY CASEWT.  
MEANS TABLES=QU21 TO QU36 BY SATLEVEL.
```

The MEANS command can also be used to compute means for students grouped on more than one characteristic. For example, the following command produces tables of mean college characteristic ratings for students grouped by SAT level and by matriculation status (enrolling versus nonenrolling).

**WEIGHT BY CASEWT.**

**MEANS VARIABLES=QU21 TO QU36, SATLEVEL, STATUS/  
CROSSBREAK=QU21 TO QU36 BY SATLEVEL BY STATUS/CELLS MEAN  
COUNT.**

The display format for CROSSBREAK resembles tables produced by CROSSTABS but shows *means* for the variables named before the first BY rather than response counts. CELLS requests that only the number of cases and the mean rating for each cell be printed (suppressing the sums and standard deviations) and leads to a less cluttered table.

*Example 4: Using Indicator Variables for Exploratory Analyses of Group Differences*

Correlational methods provide highly concise measures of relationship, but they generally require that variables be scaled. For example, it would not be meaningful to compute correlations of ASQ PLUS rating data with Q64 (race/ethnicity) since the code numbers used to represent groups are arbitrary and do not form a scale. However, correlational methods can be used with group membership variables if they form a dichotomy (e.g., 1=membership, 0=nonmembership). For example, the analysis could include “African Americans vs. all others,” “Asians vs. all others,” etc.

In the following statements, a number of group membership “indicator variables” are created. (In the main program, the ratings of images for your college—QU37.1 to QU37.20—are also recoded so that codes of 1 represent an image being marked and codes of 0 represent an image not being marked.) The CORRELATION command below requests correlations between the image ratings and the indicator variables (with detailed output of pairwise numbers of cases suppressed).

```
DO REPEAT V1=Q62,Q65,Q67,Q68,QU55,Q70/  
V2=AGRADES,INSTATE,  
PUBLIC,LOWINC,AIDAPP,FEMALE.  
RECODE V1 (1=1) (ELSE=0) INTO V2.  
END REPEAT.  
COMPUTE SAT1200=Q63CR+Q63M.  
RECODE SAT1200 (1200 THRU HI=1) (ELSE=0).  
RECODE Q62 (2=1) (ELSE=0) INTO ASIAN.  
RECODE Q62 (3,4,5=1) (ELSE=0) INTO HISPANIC.  
RECODE Q62 (6=1) (ELSE=0) INTO AFRAM.  
RECODE Q65 (2=1) (ELSE=0) INTO INDEP.  
RECODE Q65 (3=1) (ELSE=0) INTO CATHOLIC.  
RECODE Q66 (6,7,8=1) (ELSE=0) INTO HIGHINC.  
WEIGHT BY CASEWT.  
CORRELATION QU37.1 TO QU37.20 WITH AGRADES TO  
AIDAPP/ PRINT=NOSIG.
```

The DO REPEAT...END REPEAT commands represent a shorthand way to describe multiple RECODE commands, all of which accomplish the same type of transformation (in this case, recoding to 0 everything except the first response to each question).

This analysis produces a single 23-by-13 correlation matrix that could be scanned to assess where there are sizable positive or negative associations of images with group membership. Where associations appear to exist, cross tabulations using the original background variables can then be run to obtain more readily interpretable representations of the relationships.

The correlations computed by the above commands are phi coefficients—correlations between dichotomous variables. The values of phi coefficients are sensitive to the distributions of cases in the variables (departures from a 50-50 split leading to lower coefficients) and are not entirely comparable to correlations computed for variables that are less discrete. For this reason, the technique described here is suggested as an exploratory method—as a way of quickly assessing where relatively large associations appear to exist.

#### *Example 5: Relating Perceptions to Information Sources Used*

The following commands produce cross tabulations of ratings of college characteristics with exposure to selected information sources. Ratings of quality of information (QU40 to QU53) are recoded into new variables (QUE40 to QUE53) for which values of 1 indicate exposure and 2 indicate no exposure.

```
RECODE QU40 TO QU53 (1 THRU 5=1) (0=2) (SYSMIS=2) INTO QUE40
      TO QUE53.
WEIGHT BY CASEWT.
CROSSTABS TABLES=QU21 TO QU36 BY QUE44
      /QU21 TO QU36 BY QUE47
      /QU21 TO QU36 BY QUE52
      /QU21 TO QU36 BY QUE53
      /CELLS COUNT COLUMN.
```

This example focuses on ratings of college characteristics in relation to use of four selected information sources: college Web site (QUE44), campus visits (QUE47), contact with graduates (QUE52), and contact with students (QUE53). If ratings of college characteristics were cross tabulated with measures of exposure to all 14 information sources, 224 tables would result.

A smaller set of college characteristics might also be selected for study. For example, attention might be limited to characteristics most often rated as very important (as determined by your own analysis or by reference to Exhibit B-I in the ASQ PLUS Highlights Report).

#### *Example 6: Relating Perceptions of Your College to the Importance of and Exposure to Sources of Information*

The following SPSS commands produce cross tabulations of the ratings of importance and the ratings of your college for several of the college characteristics.

```
WEIGHT BY CASEWT.
CROSSTABS TABLES=QU21 BY Q1/QU24 BY Q4/QU30
      BY Q10/CELL COUNT COLUMN.
```

This analysis produces one cross tabulation for each of three college characteristics—academic reputation, personal attention, and cost of attendance. The request for column percentages allows you to determine how you were perceived by students ascribing various levels of importance to each characteristic. The command as shown associates the importance variable for each characteristic with its corresponding rating. The following command matches each rating variable with *all* importance variables, producing a total of 256 tables:

```
CROSSTABS TABLES=QU21 TO QU36 BY Q1 TO Q16/CELL COUNT
COLUMN.
```

The question of interest may concern the relationship between importance and rating for enrolling and nonenrolling students separately. A third dimension may be added to the original cross tabulations:

```
WEIGHT BY CASEWT.
```

```
CROSSTABS TABLES=QU21 BY Q1 BY STATUS/QU24 BY Q4 BY STATUS/
QU30 BY Q10 BY STATUS/CELL COUNT COLUMN.
```

Similar commands may be used to examine the effect of exposure to sources of information about your college on particular characteristics. The following relates exposure to college Web site to perception of the availability of majors of interest, availability of special academic programs, personal attention, and quality of academic facilities. The first step is to create variables representing whether or not the student had some contact with the information sources (defined as giving an information source a rating of 1 to 4).

```
WEIGHT BY CASEWT.
```

```
RECODE QU40 TO QU53 (MISSING,SYSMIS=0) (ELSE=1) INTO
QUE40 TO QUE53.
```

```
VAR LAB  QUE40  "HIGH SCHOOL VISITS"
          QUE41  "COLLEGE-SPONSORED MEETINGS"
          QUE42  "PUBLICATIONS"
          QUE43  "VIDEOS/CDS"
          QUE44  "WEB SITE"
          QUE45  "FINANCIAL AID COMMUNICATIONS"
          QUE46  "ELECTRONIC COMMUNICATIONS"
          QUE47  "CAMPUS VISIT"
          QUE48  "INTERVIEW"
          QUE49  "POST-ADMIT CONTACT"
          QUE50  "CONTACT WITH FACULTY"
          QUE51  "CONTACT WITH COACHES"
          QUE52  "CONTACT WITH GRADUATES"
          QUE53  "CONTACT WITH STUDENTS".
```

```
CROSSTABS TABLES=QU22 TO QU25 BY QUE44/QU22 TO QU25 BY
QUE44 BY STATUS/CELL COUNT COL.
```

### Example 7: Computing Cross-Applications and Cross-Admits for Selected Student Groups

Codes for colleges applied to can appear in any of 11 fields for enrolling students, and 12 fields for nonenrolling students: the college attended (Q19.C1; blank for enrolling students), the first-, second-, or third-choice college (Q19.C2, Q19.C3, Q19.C4), or the eight fields for other colleges applied to (Q20.C1 to Q20.C8). Usually the college attended is listed among the student's top three choices, including your college for the enrolling students. Therefore, it is necessary to check for duplication before analyzing cross-applications and cross-admits.

Because a given college can appear in any of the 12 fields, ordinary frequency and cross-tabulation procedures are not suitable for computing cross-admissions. This example illustrates use of the TABLES procedure available in SPSS to tabulate cross-application frequencies by SAT CR+M INTERVAL.

```
COMPUTE SATLEVEL=Q63CR+Q63M.
RECODE SATLEVEL (LO THRU 990=1) (1000 THRU 1190=2)
      (1200 THRU HI=3).
DO REPEAT V1=Q19.C1 TO Q19.C4,Q20.C1 TO Q20.C8/V2=APCOL1
      TO APCOL12.
COMPUTE V2=V1.
IF (V1 EQ COLLCODE) V2=0.
END REPEAT.
DO REPEAT V1=APCOL2 TO APCOL4.
IF (V1=Q19.C1) V1=0.
END REPEAT.
MISSING VALUES APCOL1 TO APCOL12 (0).
VARIABLE LABELS  SATLEVEL  "SAT CR+M INTERVAL"
      APCOL1 "COLLEGE APPLIED TO: 1"
      APCOL2 "COLLEGE APPLIED TO: 2"
      APCOL3 "COLLEGE APPLIED TO: 3"
      APCOL4 "COLLEGE APPLIED TO: 4"
      APCOL5 "COLLEGE APPLIED TO: 5"
      APCOL6 "COLLEGE APPLIED TO: 6"
      APCOL7 "COLLEGE APPLIED TO: 7"
      APCOL8 "COLLEGE APPLIED TO: 8"
      APCOL9 "COLLEGE APPLIED TO: 9"
      APCOL10 "COLLEGE APPLIED TO: 10"
      APCOL11 "COLLEGE APPLIED TO: 11"
      APCOL12 "COLLEGE APPLIED TO: 12".
VALUE LABELS  SATLEVEL 1 "Below 1000" 2 "1000 to 1190"
      3 "1200 and over".
WEIGHT BY CASEWT.
```

## TABLES

```
/FTOTAL+T1 "TOTAL"  
/MRGROUP=CROSSAPS 'COLLEGES APPLIED TO' APCOL1 to APCOL12  
/TABLE=CROSSAPS + T1 BY SATLEVEL + T1  
/STAT=COUNT("") CPCT ((PCT3)": SATLEVEL).
```

If cross-admissions are to be tabulated, then variables are needed that contain codes for colleges admitted to (that is, colleges for which the relevant status variable is equal to 1). The following statements are one way to create these variables (ADCOL1 to ADCOL12) and to compute cross-admissions frequencies for subgroups. This example assumes that the recodes shown above have already been performed.

```
DO REPEAT V1=ADCOL1 TO ADCOL4/V2=APCOL1 TO APCOL4.  
COMPUTE V1=V2.  
END REPEAT.  
DO REPEAT V1=Q20.S1 TO Q20.S8/V2=APCOL5 TO  
APCOL12/V3=ADCOL5 TO ADCOL12.  
COMPUTE V3=0.  
IF (V1 EQ 1) V3=V2.  
END REPEAT.  
MISSING VALUES ADCOL1 TO ADCOL12 (0).
```

```
VARIABLE LABELS  ADCOL1    "COLLEGE ADMITTED TO: 1"  
                  ADCOL2    "COLLEGE ADMITTED TO: 2"  
                  ADCOL3    "COLLEGE ADMITTED TO: 3"  
                  ADCOL4    "COLLEGE ADMITTED TO: 4"  
                  ADCOL5    "COLLEGE ADMITTED TO: 5"  
                  ADCOL6    "COLLEGE ADMITTED TO: 6"  
                  ADCOL7    "COLLEGE ADMITTED TO: 7"  
                  ADCOL8    "COLLEGE ADMITTED TO: 8"  
                  ADCOL9    "COLLEGE ADMITTED TO: 9"  
                  ADCOL10   "COLLEGE ADMITTED TO: 10"  
                  ADCOL11   "COLLEGE ADMITTED TO: 11"  
                  ADCOL12   "COLLEGE ADMITTED TO: 12".
```

WEIGHT BY CASEWT.

## TABLES

```
/FTOTAL+T1 "TOTAL"  
/MRGROUP=CROSSADS 'COLLEGES ADMITTED TO' ADCOL1 to ADCOL12  
/TABLE=CROSSADS + T1 BY SATLEVEL + T1  
/STAT=COUNT("") CPCT ((PCT3)": SATLEVEL).
```

The names corresponding to the college codes shown in the tables that these commands produce can be found in a code list on your CD. For your convenience this file has been inserted into your SPSS syntax file as value labels for Q19.C1 to Q20.C8. Once APCOL1 to APCOL12 and ADCOL1 to ADCOL12 have been created, a new VAL LABELS command should be run to apply the college names to these new variables.

### Example 8: Selecting Applicants or Admits to Specified Colleges for Analysis

The following statements assume that one wants to identify all students who have applied to colleges with codes 9001, 9002, 9003, or 9004. [Note that the file XXXX\_YY.LST, where XXXX is the four-digit code representing your institution and YY represents the study year, contains a code and name for every college mentioned on any of your admitted students' responses.] These students will have one or more of these codes in fields Q19.C1 to Q19.C4 or Q20.C1 to Q20.C8. Several approaches could be used. The following approach is easy to enter, read, and modify if the set of colleges of interest changes.

```
COMPUTE APTEST=2.
IF (ANY(9001,Q19.C1 TO Q19.C4, Q20.C1 TO Q20.C8)) APTEST=1.
IF (ANY(9002,Q19.C1 TO Q19.C4, Q20.C1 TO Q20.C8)) APTEST=1.
IF (ANY(9003,Q19.C1 TO Q19.C4, Q20.C1 TO Q20.C8)) APTEST=1.
IF (ANY(9004,Q19.C1 TO Q19.C4, Q20.C1 TO Q20.C8)) APTEST=1.
```

To identify students *admitted* to any one of these four colleges of interest, the following can be used:

```
COMPUTE ADCOL1=Q19.C1.
COMPUTE ADCOL2=Q19.C2.
COMPUTE ADCOL3=Q19.C3.
COMPUTE ADCOL4=Q19.C4.
DO REPEAT V1=Q20.S1 TO Q20.S8/V2=Q20.C1 TO Q20.C8/V3=ADCOL5
  TO ADCOL12.
IF (V1 EQ 1) V3=V2.
END REPEAT.
COMPUTE ADMTEST=2.
IF (ANY(9001,ADCOL1 TO ADCOL12)) ADMTEST=1.
IF (ANY(9002,ADCOL1 TO ADCOL12)) ADMTEST=1.
IF (ANY(9003,ADCOL1 TO ADCOL12)) ADMTEST=1.
IF (ANY(9004,ADCOL1 TO ADCOL12)) ADMTEST=1.
```

For some analyses, attention may be focused on nonenrolling students who are attending specified colleges. Nonenrolling students are identified by a value of 2 for the variable STATUS. Codes for the colleges they plan to attend are in field Q19.C1. Thus nonenrolling students who will attend colleges 9001, 9002, 9003, or 9004 can be identified by:

```
COMPUTE LOSETEST=2.
IF (STATUS = 2 AND ANY(Q19.C1,9001,9002,9003,9004)) LOSETEST=1.
WEIGHT BY CASEWT.
CROSSTABS TABLES=Q1 TO Q16,QU21 TO QU36 BY APTEST
  /Q1 TO Q16,QU21 TO QU36 BY ADMTEST
  /Q1 TO Q16,QU21 TO QU36 BY LOSETEST
  /CELL COUNT COLUMN.
```

### Example 9: Computing Win Percentage for Subgroups of Students

Exhibit E-4 of the Highlights Report shows your win/loss analysis for the 20 colleges with the greatest number of cross-admissions with your college. The following commands perform the same analysis for a subgroup of students, in this case students with high ACT scores who were admitted to colleges 9001 or 9002. The set of commands is repeated for each college of interest. These commands assume that the ADCOL variables have been created as shown in Example 7.

```
WEIGHT BY CASEWT.
IF (STATUS = 1) ATTEND=COLLCODE.
IF (STATUS = 2) ATTEND=Q19.C1.
IF (STATUS = 1 AND ANY(9001,ADCOL1 TO ADCOL12)) WIN9001=1.
IF (STATUS = 2 AND ANY(9001,ADCOL1 TO ADCOL12)) WIN9001=2.
IF (STATUS = 1 AND ANY(9002,ADCOL1 TO ADCOL12)) WIN9002=1.
IF (STATUS = 2 AND ANY(9002,ADCOL1 TO ADCOL12)) WIN9002=2.
RECODE Q63A (30 THRU HI=1) (ELSE=0) INTO HIACT.
DO REPEAT V1=TEST9001,TEST9002.
COMPUTE V1=0.
END REPEAT.
IF (ANY(9001,ADCOL1 TO ADCOL12) AND HIACT EQ 1) TEST9001=1.
IF (ANY(9002,ADCOL1 TO ADCOL12) AND HIACT EQ 1) TEST9002=1.
TEMPORARY.
SELECT IF (TEST9001=1).
CROSSTABS TABLES=ATTEND,WIN9001 BY STATUS/CELL COUNT TOTAL.
TEMPORARY.
SELECT IF (TEST9002=1).
CROSSTABS TABLES=ATTEND,WIN9002 BY STATUS/CELL COUNT TOTAL.
```

The percentage shown in the cell for enrolling students at your college in the ATTEND BY STATUS table represents the third column of Exhibit E-4 ("Percentage of Cross-Admits Enrolled by Our College"). The percentage shown in the cell for nonenrolling students at college 9001 represents the fourth column of the table ("Percentage of Cross-Admits Enrolled by Listed College"), and the sum of the percentages in the rest of the cells for nonenrolling students represents the fifth column ("Percentage of Cross-Admits Enrolled by Other College").

The percentage shown in the cell for enrolling students in the WIN9001 BY STATUS table represents your college's win percentage versus college 9001. (This is a one-dimensional table, in effect a frequency distribution. Including it as part of the CROSSTABS command avoids having to specify the temporary selection criteria again.)

### Example 10: Analyzing Yields

The following cross tabulation shows the yields for students who marked and who did not mark each of the college images:

WEIGHT BY CASEWT.

CROSSTABS TABLES=QU37.1 TO QU37.20 BY STATUS/CELL COUNT  
ROW.

Note the use of CELL ROW to obtain row percentages, since the yields (percent of all students who enrolled) are row percentages in the tables produced by the above commands.

Yields (expressed as proportions) can also be computed by recoding enrollment status to an indicator variable with values of 1 and 0, and then computing means as shown in the following example. The higher the resulting mean shown for a given value, the higher the yield.

RECODE STATUS (1=1) (2=0).

WEIGHT BY CASEWT.

MEANS TABLES=STATUS BY QU37.1 TO QU37.20.

Yields can also be examined in relation to combinations of background variables, using regression methods and indicator variables of the kind described in Example 4. The following statements produce an analysis of how yield varies jointly with sex, high SAT CR+M scores, in-state residence, public school attendance, and aid application status. The unstandardized regression weight (B weight) of each predictor can be interpreted as the yield difference that is associated with that characteristic, holding the other predictors constant.

RECODE STATUS (1=1)(2=0).

COMPUTE SAT1200=Q63CR+Q63M.

RECODE SAT1200 (1200 THRU HI=1) (ELSE=0).

RECODE Q65 (1=1) (ELSE=0) INTO INSTATE.

RECODE Q67 (1=1) (ELSE=0) INTO PUBLIC.

RECODE Q70 (1=1) (ELSE=0) INTO FEMALE.

RECODE QU53 (1=1) (ELSE=0) INTO AIDAPP.

WEIGHT BY CASEWT.

REGRESSION VARIABLES=STATUS,SAT1200 TO AIDAPP  
/DEPENDENT=STATUS  
/ENTER=SAT1200 TO AIDAPP.

### *Example 11: Cross Tabulations of Competitor Data*

This example uses a subfile created for one of the five colleges or groups of colleges you selected for your Competitor Analysis Report. Ratings of your college for selected variables are cross tabulated against the associated ratings of the competitor. Because of the way the file is defined, each individual table must be requested separately.

WEIGHT BY CASEWT.

TEMPORARY.

RECODE QU21 TO QU36,QC21 TO QC36,QU40 TO QU53,QC40 TO  
QC53 (3,4=1) (ELSE=2).

CROSSTABS TABLES=QU21 BY QC21/QU24 BY QC24

```
/QU32 BY QC32/QU49 BY QC49
```

```
/QU50 BY QC50/QU53 BY QC53
```

```
/CELL COUNT TOTAL.
```

```
CROSSTABS TABLES=QU37.2 BY QC38.2/QU37.11 BY QC38.11
```

```
/QU37.16 BY QC38.16/QU55 BY QC55
```

```
/QU56 BY QC56/QU57 BY QC57
```

```
/CELL COUNT TOTAL.
```

In the above example the ratings for characteristics and sources of information are first recoded into dichotomous variables to simplify interpretation. The TEMPORARY command preceding the RECODE operation puts these recodes into effect only for the procedure immediately following the recode, in this case the first CROSSTABS command.

The first set of cross tabulations displays two-by-two tables showing the ratings of your college and the competitor on academic reputation, personal attention to students, off-campus opportunities, post-admit contact, contact with faculty, and contact with students. Requesting the TOTAL percent in each cell enables you to determine what percentage of the group rating you and this competitor rated both colleges high (very good or excellent) or low (poor/fair or good), or did not give the two colleges the same rating. The second CROSSTABS command (for which the temporary recode is no longer in effect) looks at three images and three questions dealing with financial aid applications and awards.

### *Example 12: Using the Preference Rank Information*

In your original data there is no field that represents the rank any given college, including your own, holds among the respondent's top choices. Instead, the rank is associated with the *field* (first choice, second choice, third choice, or none of those) where the code for the college of interest is found. The following commands create a rank variable for your college and for the competitor, and a variable representing the difference between your college's rating and the competitor's rating on each characteristic and each information source.

```
COMPUTE RANKUS=4.
```

```
COMPUTE RANKTHEM=4.
```

```
DO IF (SYSMIS(Q19.C2) AND SYSMIS(Q19.C2) AND SYSMIS(Q19.C3)).
```

```
COMPUTE RANKUS=0.
```

```
COMPUTE RANKTHEM=0.
```

```
ELSE.
```

```
DO REPEAT V1=Q19.C2,Q19.C3,Q19.C4/V2=1,2,3.
```

```
IF (V1 EQ COLLCODE) RANKUS=V2.
```

```
IF (ANY(V1,COMP.1,COMP.2,COMP.3,COMP.4)) RANKTHEM=V2.
```

```
END REPEAT.
```

```
END IF.
```

```
MISSING VALUE RANKUS,RANKTHEM (0).
```

```
COMPUTE RANKDIFF=RANKUS-RANKTHEM.
```

```

DO REPEAT V1=QU21 TO QU36, QU40 TO QU53
  /V2=QC21 TO QC36, QC40 TO QC53/
  /V3=DIFFC1 TO DIFFC16, DIFFS1 TO DIFFS14
  /V4=DC1 TO DC16, DS1 TO DS14.
COMPUTE V3=V1-V2
RECODE V3 (LO THRU -1=3) (0=2) (1 THRU HI=1) INTO V4
END REPEAT.
RECODE RANKDIFF (LO THRU -1=3) (0=2) (1THRU HI=1).
VALUE LABELS DC1 TO DS14
    1 "OURS RATED HIGHER"
    2 "OURS RATED SAME"
    3 "OURS RATED LOWER"/
RANKDIFF
    1 "OURS RANKED HIGHER"
    2 "OURS RANKED SAME"
    3 "OURS RANKED LOWER"/
RANKUS,RANKTHEM
    1 "FIRST CHOICE"
    2 "SECOND CHOICE"
    3 "THIRD CHOICE"
    4 "FOURTH OR LOWER".
WEIGHT BY CASEWT.
CROSSTABS TABLES=RANKUS BY RANKTHEM/CELL COUNT COLUMN
ROW.

```

The rank variable is not present if the student gave no indication of preference, that is, did not list any college as first, second, or third choice. Otherwise, if your college or the competitor is not listed as one of the top three, it is assigned a rank of 4. The CROSSTABS command may be used to determine what percentage of the respondents listing your college as their first choice listed the competitor as their second/third/lower choice (shown by the row percent in each cell). Similarly, you could determine through the column percents how your college was ranked by those listing the competitor as their first choice.

```

WEIGHT BY CASEWT.
FREQUENCIES VARIABLES=DIFFC1 TO DIFFS14.
CROSSTABS TABLES=RANKDIFF BY DIFFC2/CELLS=COUNT TOTAL.
MEANS TABLES=DIFFC1 TO DIFFC16 BY RANKDIFF.

```

The FREQUENCIES command requests a frequency distribution for the difference scores (recoded as shown earlier) for all 16 college characteristics and 14 information sources. The CROSSTABS command will produce a three-by-three table, similar to that shown in Chapter 8, section VI, for the single characteristic, availability of majors of interest.

The remaining commands shown here represent one way to determine how many characteristics there are in which your college is rated higher than the competitor by the majority of respondents. The MEANS command displays the mean difference for each of the 16 characteristics. You should determine for yourself what mean score would indicate that the majority rated your college higher (or lower). For example, a mean of  $-3.0$  to  $-.26$  might be the range for "rated lower,"  $-.25$  to  $.25$  would represent "rated the same," and  $.26$  or higher would constitute "rated higher." The characteristics showing a mean difference greater than  $.25$  for respondents ranking your college higher than the competitor would go into cell A of the grid described in Chapter 8, section VI.

### *Example 13: Calculating the Win Percentage for the Competitor Subgroup*

The following commands are similar to those shown in Example 9, but they reflect the restricted nature of the subfile.

```
WEIGHT BY CASEWT.
COMPUTE ATTEND=3.
IF (STATUS EQ 1) ATTEND=1.
IF (STATUS EQ 2 AND ANY(Q19.C1,COMP.1,COMP.2,COMP.3,COMP.4))
  ATTEND=2.
MISSING VALUES ATTEND (3).
VALUE LABELS ATTEND
  1 "OUR COLLEGE"
  2 "THIS COMPETITOR"
  3 "ANY OTHER COLLEGE".
FREQUENCIES VARIABLES=ATTEND.
```

The output from the FREQUENCIES command includes percentages based both on the total group and on nonmissing cases. When respondents with a value of 3 for the ATTEND variable are included in the base, they represent the "other college" group. Your win percentage versus this competitor is the percentage with a value of 1 when a value of 3 is considered missing.

### *Example 14: Analyzing Matched Competitor Subfiles*

Matching two competitor subfiles makes sense under either of the following two conditions: 1) ratings of College A can be compared as a whole with the ratings of College B as a whole, regardless of how much overlap there is between the two groups of students providing those ratings; 2) there are a number of respondents who rated both competitors, so ratings of your college, College A (in effect), and College B can be compared to make a single subgroup of students. It is best to conduct the former analysis using the total competitor subfile (called XXXX\_YYT.CMP, where XXXX should be replaced with your college's four-digit code, and YY with the year in question). If XXXX\_YYT.CMP has been read into SPSS using the file COMPET.SPS, the following commands will compare the mean ratings of the characteristics for colleges 9001 and 9002.

```
IF (COMP.1=9001) CGROUP=1.
IF (COMP.1=9002) CGROUP=2.
```

T-TEST GROUPS=CGROUP(1,2)/VARS=QC21 TO QC36.

The second circumstance assumes the following conditions:

1. Each competitor consists of a single college.
2. Enough respondents have rated both colleges to provide a meaningful comparative analysis.
3. Both of the subfiles have been sorted by the STATUS and AERID fields and then saved as SPSS system files (with a .SAV extension); the full path and file name of each file are to be substituted following the equals signs in the MATCH FILES command below.
4. The QC variables in one of the files have been renamed (in this example it is assumed that rating variables in the second file begin with QD); refer to your SPSS user guide for a detailed explanation of joining system files.
5. The key variables used to match the two files are the STATUS variable and the sequence number assigned each questionnaire by AER at the time of receipt (AERID; this number is sequential within each value of status). If you have assigned your own ID to every student in the file, you may also match on the field called COLLID.

```
MATCH FILES FILE=(first subfile)/IN=FILE1  
/FILE=(second subfile) /IN=FILE2/BY=STATUS AERID.
```

```
SELECT IF (FILE1 AND FILE2).
```

```
WEIGHT BY CASEWT.
```

```
T-TEST PAIRS=QC21 TO QC36 WITH QD21 TO QD36 (PAIRED).
```

```
CROSSTABS TABLES=QC38.9 BY QD38.9 BY QU37.9/CELL COUNT  
TOTAL.
```

On the MATCH FILES command every case is assigned a value of 1 for FILE1 if it is present in the first subfile, and a 1 for FILE2 if it is present in the second subfile. The SELECT IF command then selects only those cases that are present in *both* files, that is, students who rated both competitors on any of the four major sections of the survey.

The paired t-tests requested in the T-TEST command test the difference between the mean ratings for each pair of college characteristics specified (QC21 and QD21, QC22 and QD22, etc.). Only those students who rated both competitors on a given characteristic are included in that test.

The CROSSTABS command produces a three-way cross tabulation of the "selective" image for the two competitors and your college. This enables you to determine what percentage of the students marking "selective" for your college also marked that image for both, neither, or one of the two competitors. This analysis can also be performed using the optional TABLES procedure.



# appendix a

## Record Layout—Admitted Student Questionnaire PLUS™

Fields starting with “Q” are responses to the given question number of the questionnaire. (See questionnaire copy.) Fields with “U” as the second character contain ratings of our college (“us”). Fields with “A” as the second character contain the ratings for the college listed as College A, and fields containing “B” refer to College B. The four-digit code for the competitor rated in each section may be found in the fields COMP.1A or COMP.1B (the competitors rated on college characteristics), COMP.2A or COMP.2B (images), COMP.3A or COMP.3B (sources of information), and COMP.4A or COMP.4B (financial aid or cost).

COLUMNS	FIELD	DESCRIPTION
1	Q1	Academic Reputation – Importance
2	Q2	Majors of Interest – Importance
3	Q3	Special Academic Programs – Importance
4	Q4	Personal Attention – Importance
5	Q5	Academic Facilities – Importance
6	Q6	Recreational Facilities – Importance
7	Q7	On-Campus Housing – Importance
8	Q8	Surroundings – Importance
9	Q9	Campus Attractiveness – Importance
10	Q10	Cost of Attendance – Importance
11	Q11	Quality of Social Life – Importance
12	Q12	Off-Campus Activities – Importance

13	Q13	Extracurricular Opportunity – Importance
14	Q14	Optional Characteristic 1 – Importance
15	Q15	Optional Characteristic 2 – Importance
16	Q16	Optional Characteristic 3 – Importance
17–18	Q17	Number of Colleges Applied To
19–20	Q18	Number of Colleges Admitted To
21	Q19.S1	Plan to Attend College in Next 12 Months
22–25	Q19.C1	Code for College Student Will Attend
26–29	Q19.C2	First Choice College to Which Admitted
30–33	Q19.C3	Second Choice College to Which Admitted
34–37	Q19.C4	Third Choice College to Which Admitted
38	Q20.S1	Admission Status – Other College 1
39–42	Q20.C1	Code for Other College 1
43	Q20.S2	Admission Status – Other College 2
44–47	Q20.C2	Code for Other College 2
48	Q20.S3	Admission Status – Other College 3
49–52	Q20.C3	Code for Other College 3
53	Q20.S4	Admission Status – Other College 4
54–57	Q20.C4	Code for Other College 4
58	Q20.S5	Admission Status – Other College 5
59–62	Q20.C5	Code for Other College 5
63	Q20.S6	Admission Status – Other College 6
64–67	Q20.C6	Code for Other College 6
68	Q20.S7	Admission Status – Other College 7
69–72	Q20.C7	Code for Other College 7
73	Q20.S8	Admission Status – Other College 8
74–77	Q20.C8	Code for Other College 8
78	QU21	Academic Reputation – Rating of Us
79	QU22	Majors of Interest – Rating of Us
80	QU23	Special Academic Programs – Rating of Us
81	QU24	Personal Attention – Rating of Us
82	QU25	Academic Facilities – Rating of Us
83	QU26	Recreational Facilities – Rating of Us
84	QU27	On-Campus Housing – Rating of Us
85	QU28	Surroundings – Rating of Us
86	QU29	Campus Attractiveness – Rating of Us
87	QU30	Cost of Attendance – Rating of Us
88	QU31	Quality of Social Life – Rating of Us
89	QU32	Off-Campus Activities – Rating of Us

90	QU33	Extracurricular Opportunity – Rating of Us
91	QU34	Optional Characteristic 1 – Rating of Us
92	QU35	Optional Characteristic 2 – Rating of Us
93	QU36	Optional Characteristic 3 – Rating of Us
94–97	COMP.1A	College Rated for QA21-QA36
98	QA21	Academic Reputation – Rating of A
99	QA22	Majors of Interest – Rating of A
100	QA23	Special Academic Programs – Rating of A
101	QA24	Personal Attention – Rating of A
102	QA25	Academic Facilities – Rating of A
103	QA26	Recreational Facilities – Rating of A
104	QA27	On-Campus Housing – Rating of A
105	QA28	Surroundings – Rating of A
106	QA29	Campus Attractiveness – Rating of A
107	QA30	Cost of Attendance – Rating of A
108	QA31	Quality of Social Life – Rating of A
109	QA32	Off-Campus Activities – Rating of A
110	QA33	Extracurricular Opportunity – Rating of A
111	QA34	Optional Characteristic 1 – Rating of A
112	QA35	Optional Characteristic 2 – Rating of A
113	QA36	Optional Characteristic 3 – Rating of A
114–117	COMP.1B	College Rated for QB21-QB36
118	QB21	Academic Reputation – Rating of B
119	QB22	Majors of Interest – Rating of B
120	QB23	Special Academic Programs – Rating of B
121	QB24	Personal Attention – Rating of B
122	QB25	Academic Facilities – Rating of B
123	QB26	Recreational Facilities – Rating of B
124	QB27	On-Campus Housing – Rating of B
125	QB28	Surroundings – Rating of B
126	QB29	Campus Attractiveness – Rating of B
127	QB30	Cost of Attendance – Rating of B
128	QB31	Quality of Social Life – Rating of B
129	QB32	Off-Campus Activities – Rating of B
130	QB33	Extracurricular Opportunity – Rating of B
131	QB34	Optional Characteristic 1 – Rating of B
132	QB35	Optional Characteristic 2 – Rating of B
133	QB36	Optional Characteristic 3 – Rating of B
134	QU37.1	Image of Us: Isolated

135	QU37.2	Image of Us: Prestigious
136	QU37.3	Image of Us: Fun
137	QU37.4	Image of Us: Intellectual
138	QU37.5	Image of Us: Career-Oriented
139	QU37.6	Image of Us: Not Well-Known
140	QU37.7	Image of Us: Comfortable
141	QU37.8	Image of Us: Backup School
142	QU37.9	Image of Us: Selective
143	QU37.10	Image of Us: Athletics
144	QU37.11	Image of Us: Friendly
145	QU37.12	Image of Us: Partying
146	QU37.13	Image of Us: Average
147	QU37.14	Image of Us: Challenging
148	QU37.15	Image of Us: Option 1
149	QU37.16	Image of Us: Option 2
150	QU37.17	Image of Us: Option 3
151	QU37.18	Image of Us: Option 4
152	QU37.19	Image of Us: Option 5
153	QU37.20	Image of Us: Other
154–157	COMP.2A	College Rated for QA38.1-QA38.20
158	QA38.1	Image of A: Isolated
159	QA38.2	Image of A: Prestigious
160	QA38.3	Image of A: Fun
161	QA38.4	Image of A: Intellectual
162	QA38.5	Image of A: Career-Oriented
163	QA38.6	Image of A: Not Well-Known
164	QA38.7	Image of A: Comfortable
165	QA38.8	Image of A: Backup School
166	QA38.9	Image of A: Selective
167	QA38.10	Image of A: Athletics
168	QA38.11	Image of A: Friendly
169	QA38.12	Image of A: Partying
170	QA38.13	Image of A: Average
171	QA38.14	Image of A: Challenging
172	QA38.15	Image of A: Option 1
173	QA38.16	Image of A: Option 2
174	QA38.17	Image of A: Option 3
175	QA38.18	Image of A: Option 4

176	QA38.19	Image of A: Option 5
177	QA38.20	Image of A: Other
178–181	COMP.2B	College Rated for QB39.1-QB39.20
182	QB39.1	Image of B: Isolated
183	QB39.2	Image of B: Prestigious
184	QB39.3	Image of B: Fun
185	QB39.4	Image of B: Intellectual
186	QB39.5	Image of B: Career-Oriented
187	QB39.6	Image of B: Not Well-Known
188	QB39.7	Image of B: Comfortable
189	QB39.8	Image of B: Backup School
190	QB39.9	Image of B: Selective
191	QB39.10	Image of B: Athletics
192	QB39.11	Image of B: Friendly
193	QB39.12	Image of B: Partying
194	QB39.13	Image of B: Average
195	QB39.14	Image of B: Challenging
196	QB39.15	Image of B: Option 1
197	QB39.16	Image of B: Option 2
198	QB39.17	Image of B: Option 3
199	QB39.18	Image of B: Option 4
200	QB39.19	Image of B: Option 5
201	QB39.20	Image of B: Other
202	QU40	High School Visits – Rating of Us
203	QU41	College Sponsored Meetings – Rating of Us
204	QU42	College Publications – Rating of Us
205	QU43	College Videos/CD-ROMs – Rating of Us
206	QU44	College Web Site – Rating of Us
207	QU45	Fin. Aid Communications – Rating of Us
208	QU46	Electronic Communication – Rating of Us
209	QU47	Visit to Campus – Rating of Us
210	QU48	On-Campus Interview – Rating of Us
211	QU49	Post-Admit Communication – Rating of Us
212	QU50	Contact with Faculty – Rating of Us
213	QU51	Contact with Coaches – Rating of Us
214	QU52	Contacts with Grads – Rating of Us
215	QU53	Contact with Students – Rating of Us
216–219	COMP.3A	College Rated for QA40-QA51

220	QA40	High School Visits – Rating of A
221	QA41	College Sponsored Meetings – Rating of A
222	QA42	College Publications – Rating of A
223	QA43	College Videos/CD-ROMs – Rating of A
224	QA44	College Web Site – Rating of A
225	QA45	Fin. Aid Communications – Rating of A
226	QA46	Electronic Communication – Rating of A
227	QA47	Visit to Campus – Rating of A
228	QA48	On-Campus Interview – Rating of A
229	QA49	Post-Admit Communication – Rating of A
230	QA50	Contact with Faculty – Rating of A
231	QA51	Contact with Coaches – Rating of A
232	QA52	Contacts with Grads – Rating of A
233	QA53	Contact with Students – Rating of A
234–237	COMP.3B	College Rated for QB40-QB51
238	QB40	High School Visits – Rating of B
239	QB41	College Sponsored Meetings – Rating of B
240	QB42	College Publications – Rating of B
241	QB43	College Videos/CD-ROMs – Rating of B
242	QB44	College Web Site – Rating of B
243	QB45	Fin. Aid Communications – Rating of B
244	QB46	Electronic Communication – Rating of B
245	QB47	Visit to Campus – Rating of B
246	QB48	On-Campus Interview – Rating of B
247	QB49	Post-Admit Communication – Rating of B
248	QB50	Contact with Faculty – Rating of B
249	QB51	Contact with Coaches – Rating of B
250	QB52	Contacts with Grads – Rating of B
251	QB53	Contact with Students – Rating of B
252	Q54	Were Aid/Cost Significant Factors?
253	QU55	Applied for Financial Aid – Us
254	QU56	Offered Need-Based Financial Aid – Us?
255	QU57	Offered No-Need Financial Aid – Us?
256	QU58G	Financial Aid Included Grant – Us
257	QU58L	Financial Aid Included Loan – Us
258	QU58J	Financial Aid Included Job – Us
259	QU59	Net Cost – Rating of Us (1 To 8 Scale)
260–263	COMP.4A	College Rated for QA53 – QA57
264	QA55	Applied for Financial Aid – A

265	QA56	Offered Need-Based Financial Aid – A?
266	QA57	Offered No-Need Financial Aid – A?
267	QA58G	Financial Aid Included Grant – A
268	QA58L	Financial Aid Included Loan – A
269	QA58J	Financial Aid Included Job -A
270	QA59	Net Cost – Rating of A (1 To 8 Scale)
271–274	COMP.4B	College Rated for QB53-QB57
275	QB55	Applied for Financial Aid – B
276	QB56	Offered Need-Based Financial Aid – B?
277	QB57	Offered No-Need Financial Aid – B?
278	QB58G	Financial Aid Included Grant – B
279	QB58L	Financial Aid Included Loan – B
280	QB58J	Financial Aid Included Job -B
281	QB59	Net Cost – Rating of B (1 To 8 Scale)
282	Q60A	Applied-Received Aid?
283–287	Q60W	Amount of Work Aid
288–292	Q60L	Amount of Loan Aid
293–297	Q60N	Amount of Need Based Aid
298–302	Q60M	Amount of Merit Aid
303–307	Q60T	Total Amount of Aid
308	Q61A	From Income
309	Q61B	From Savings
310	Q61C	From Education
311	Q61D	From Other Loans
312	Q61E	Help From Friends
313	Q61F	From Tuition Benefit
314	Q62	Average Grades in High School
315–317	Q63CR	SAT Critical Reading Score
318–320	Q63M	SAT Mathematical Score
321–323	Q63W	SAT Writing Score
324–325	Q63A	ACT Composite Score
326	Q64	Race/Ethnic Background
327	Q65	Resident of Same State As Our College?
328	Q66	Distance of College From Home
329	Q67	Type of High School Attended
330	Q68	Parents' Income
331–335	Q69	Home Zip Code
336	Q70	Gender
337–376	QLOCAL	*Available for Local Questions If Used

377–380	EPSMKT	EPS Market – Two-Letter Postal Code + Two-Digit Market Number Within State
381	STATUS	Enrollment Status (Enrolling/Nonenrolling)
382–383	YEAR	Year Study Conducted
384–387	DICODE	Code for College Conducting Study
388–392	AERID	AER Identification Number
393–402	COLLID	College Identification Number
403–409	CASEWT	Case Weight
410	CTYPE1	Modified Carnegie Code – College 1
411	CTYPE2	Modified Carnegie Code – College 2
412	CTYPE3	Modified Carnegie Code – College 3
413	CTYPE4	Modified Carnegie Code – College 4
414	CTYPE5	Modified Carnegie Code – College 5
415	CTYPE6	Modified Carnegie Code – College 6
416	CTYPE7	Modified Carnegie Code – College 7
417	CTYPE8	Modified Carnegie Code – College 8
418	CTYPE9	Modified Carnegie Code – College 9
419	CTYPE10	Modified Carnegie Code – College 10
420	CTYPE11	Modified Carnegie Code – College 11
421	CTYPE12	Modified Carnegie Code – College 12

# Code Book

FIELDS	CODING
Q1 TO Q16	1 Not Important 2 Somewhat Important 3 Very Important
Q20.S1,Q20.S2,Q20.S3, Q20.S4,Q20.S5,Q20.S6, Q20.S7,Q20.S8	1 Admitted
QU21 TO QU36, QA21 TO QA36, QB21 TO QB36	1 Poor/Fair 2 Good 3 Very Good 4 Excellent 0 Can't Rate
QU37.1 TO QU37.20, QA38.1 TO QA38.20, QB39.1 TO QB39.20	0 Not Marked 1 Marked
QU40 TO QU53, QA40 TO QA53, QB40 TO QB53	1 Poor/Fair 2 Good 3 Very Good 4 Excellent 0 Not Used
Q19.S1, Q54, QU55 TO QU58j, QA55 TO QA58j, QB55 TO QB58j	1 Yes 2 No
QU59, QA59, QB59	8 Very High 1 Very Low
Q60A	1 Did Not Apply 2 Applied But Did Not Receive
Q61A TO Q61F	0 Not Marked 1 Marked
Q62	1 A (90–100) 2 B (80–89) 3 C (70–79) 4 D or below (69 or below)
Q64	1 American Indian or Alaskan Native 2 Asian, Asian American, Pacific Islander 3 Mexican American or Chicano 4 Puerto Rican

	5	Latin American, South American, Central American, or Other Hispanic
	6	Black or African American
	7	White
	8	Other
Q65	1	Yes
	2	No
Q66	1	Under 50 Miles
	2	51 to 100 Miles
	3	101 to 300 Miles
	4	301 to 500 Miles
	5	More than 500 Miles
Q67	1	Public
	2	Independent, Not Religiously Affiliated
	3	Independent, Catholic
	4	Other Independent, Religiously Affiliated
Q68	1	Below \$30,000
	2	\$30,000–\$39,999
	3	\$40,000–\$59,999
	4	\$60,000–\$79,999
	5	\$80,000–\$99,999
	6	\$100,000–\$149,999
	7	\$150,000–\$199,999
	8	\$200,000 and Over
Q70	1	Female
	2	Male
EPSMKT		Two-Letter Postal Code + EPS Market Number within State
STATUS	1	Enrolling
	2	Nonenrolling
YEAR		Constant: Year Study Conducted
DICODE		Constant: College Board Code for College Conducting Study
CASEWT		The ratio of students responding to students surveyed, calculated separately for enrolling and nonenrolling students
CTYPE1 TO CTYPE12	1	Public: Doctoral
	2	Public: Other Four-year
	3	Private: Doctoral
	4	Private: Master's
	5	Private: Baccalaureate
	6	Other



## appendix b

### Layout for Competitor Subfiles

The data contained in the competitor group subfiles represents a subset of your complete data file. The first subfile contains records for any student who rated the college (or any of the group of colleges) you specified as your first competitor; the second subfile contains ratings of the second competitor, and so on. The field names are virtually identical to those in the complete data file, but their positions on each record have been changed. These are additional differences between the subfiles and the complete file:

1. In each of the subfiles there is one record for *each* comparison made. (This is relevant when your competitor group consists of more than one college.) If a given student did not rate the competitor in any section of the questionnaire, he or she is not present in the subfile at all. If the student rated the competitor in any of the four sections (characteristics, images, sources of information, cost and aid), his or her record will contain all of the ratings of your college and all of the ratings of the competitor. Any section where another college, not part of the competitor group, was rated will be blanked out. If the student rated more than one member of the competitor group, he or she will be represented by one record for the first comparison made and one record for the second.
2. In the subfiles the field names for ratings of the competitor begin with QC, rather than QA or QB. In other words, no distinction is made between a competitor rated as College A and the same competitor rated as College B.
3. The information on other colleges applied to (Q20.C1 to Q20.C8) is not meaningful in analyses of the five competitor groups and is not carried on the subfiles.

4. Questionnaire data not related to ratings of the competitor (importance, ratings of our college, demographic information, etc.) are duplicated when the competitor consists of more than one college. *These subfiles should not be used to analyze data relating to your college alone.*

COLUMNS	FIELD	DESCRIPTION
1	Q1	Academic Reputation - Importance
2	Q2	Majors of Interest - Importance
3	Q3	Special Academic Programs - Importance
4	Q4	Personal Attention - Importance
5	Q5	Academic Facilities - Importance
6	Q6	Recreational Facilities - Importance
7	Q7	On-Campus Housing - Importance
8	Q8	Surroundings - Importance
9	Q9	Campus Attractiveness - Importance
10	Q10	Cost of Attendance - Importance
11	Q11	Quality of Social Life - Importance
12	Q12	Off-Campus Activities - Importance
13	Q13	Extracurricular Opportunity - Importance
14	Q14	Optional Characteristic 1 - Importance
15	Q15	Optional Characteristic 2 - Importance
16	Q16	Optional Characteristic 3 - Importance
17--18	Q17	Number of Colleges Applied To
19--20	Q18	Number of Colleges Admitted To
21	Q19.S1	Plan to Attend College in Next 12 Mos
22--25	Q19.C1	Code for College Student Will Attend
26--29	Q19.C2	First Choice College to Which Admitted
30--33	Q19.C3	Second Choice College to Which Admitted
34--37	Q19.C4	Third Choice College to Which Admitted
38	QU21	Academic Reputation - Rating of Us
39	QU22	Majors of Interest - Rating of Us
40	QU23	Special Academic Programs - Rating of Us
41	QU24	Personal Attention - Rating of Us
42	QU25	Academic Facilities - Rating of Us
43	QU26	Recreational Facilities - Rating of Us
44	QU27	On-Campus Housing - Rating of Us
45	QU28	Surroundings - Rating of Us
46	QU29	Campus Attractiveness - Rating of Us
47	QU30	Cost of Attendance - Rating of Us

48	QU31	Quality of Social Life - Rating of Us
49	QU32	Off-Campus Activities - Rating of Us
50	QU33	Extracurricular Opportunity - Rating of Us
51	QU34	Optional Characteristic 1 - Rating of Us
52	QU35	Optional Characteristic 2 - Rating of Us
53	QU36	Optional Characteristic 3 - Rating of Us
54–57	COMP.1	College Rated for QC21-QC36
58	QC21	Academic Reputation - Rating of Other College
59	QC22	Majors of Interest - Rating of Other College
60	QC23	Special Academic Programs - Rating of Other College
61	QC24	Personal Attention - Rating of Other College
62	QC25	Academic Facilities - Rating of Other College
63	QC26	Recreational Facilities - Rating of Other College
64	QC27	On-Campus Housing - Rating of Other College
65	QC28	Surroundings - Rating of Other College
66	QC29	Campus Attractiveness - Rating of Other College
67	QC30	Cost of Attendance - Rating of Other College
68	QC31	Quality of Social Life - Rating of Other College
69	QC32	Off-Campus Activities - Rating of Other College
60	QC33	Extracurricular Oppty - Rating of Other College
71	QC34	Opt. Characteristic 1 - Rating of Other College
72	QC35	Opt. Characteristic 2 - Rating of Other College
73	QC36	Opt. Characteristic 3 - Rating of Other College
74	QU37.1	Image of Us: Isolated
75	QU37.2	Image of Us: Prestigious
76	QU37.3	Image of Us: Fun
77	QU37.4	Image of Us: Intellectual
78	QU37.5	Image of Us: Career-Oriented
79	QU37.6	Image of Us: Not Well-Known
80	QU37.7	Image of Us: Comfortable
81	QU37.8	Image of Us: Backup School
82	QU37.9	Image of Us: Selective
83	QU37.10	Image of Us: Athletics
84	QU37.11	Image of Us: Friendly
85	QU37.12	Image of Us: Partying
86	QU37.13	Image of Us: Average
87	QU37.14	Image of Us: Challenging
88	QU37.15	Image of Us: Option 1
89	QU37.16	Image of Us: Option 2

90	QU37.17	Image of Us: Option 3
91	QU37.18	Image of Us: Option 4
92	QU37.19	Image of Us: Option 5
93	QU37.20	Image of Us: Other
94–97	COMP.2	College Rated For QC38.1-QC38.20
98	QC38.1	Image of Other Coll: Isolated
99	QC38.2	Image of Other Coll: Prestigious
100	QC38.3	Image of Other Coll: Fun
101	QC38.4	Image of Other Coll: Intellectual
102	QC38.5	Image of Other Coll: Career-Oriented
103	QC38.6	Image of Other Coll: Not Well-Known
104	QC38.7	Image of Other Coll: Comfortable
105	QC38.8	Image of Other Coll: Backup School
106	QC38.9	Image of Other Coll: Selective
107	QC38.10	Image of Other Coll: Athletics
108	QC38.11	Image of Other Coll: Friendly
109	QC38.12	Image of Other Coll: Partying
110	QC38.13	Image of Other Coll: Average
111	QC38.14	Image of Other Coll: Challenging
112	QC38.15	Image of Other Coll: Option 1
113	QC38.16	Image of Other Coll: Option 2
114	QC38.17	Image of Other Coll: Option 3
115	QC38.18	Image of Other Coll: Option 4
116	QC38.19	Image of Other Coll: Option 5
117	QC38.20	Image of Other Coll: Other
118	QU40	High School Visits - Rating of Us
119	QU41	College-Sponsored Meetings - Rating of Us
120	QU42	College Publications - Rating of Us
121	QU43	College Videos/CD-ROMs - Rating of Us
122	QU44	College Web Site – Rating of Us
123	QU45	Fin. Aid Communications - Rating of Us
124	QU46	Electronic Communication – Rating of Us
125	QU47	Visit to Campus - Rating of Us
126	QU48	On-Campus Interview - Rating of Us
127	QU49	Post-Admit Communication - Rating of Us
128	QU50	Contact with Faculty - Rating of Us
129	QU51	Contact with Coaches - Rating of Us
130	QU52	Contacts with Grads - Rating of Us
131	QU53	Contact with Students - Rating of Us

132–135	COMP.3	College Rated for QC40-QC51
136	QC40	High School Visits - Rating of Other College
137	QC41	College Sponsored Meetings - Rating of Other College
138	QC42	College Publications - Rating of Other College
139	QC43	College Videos/CD-ROMs - Rating of Other College
140	QC44	College Web Site – Rating of Other College
141	QC45	Fin. Aid Communications - Rating of Other College
142	QC46	Electronic Communication – Rating of Other College
143	QC47	Visit to Campus - Rating of Other College
144	QC48	On-Campus Interview - Rating of Other College
145	QC49	Post-Admit Communication - Rating of Other College
146	QC50	Contact with Faculty - Rating of Other College
147	QC51	Contact with Coaches - Rating of Other College
148	QC52	Contacts with Grads - Rating of Other College
149	QC53	Contact with Students - Rating of Other College
150	Q54	Were Aid/Cost Significant Factors?
151	QU55	Applied for Financial Aid - Us
152	QU56	Offered Need-Based Financial Aid - Us?
153	QU57	Offered No-Need Financial Aid - Us?
154	QU58G	Financial Aid Included Grant - Us
155	QU58L	Financial Aid Included Loan - Us
156	QU58J	Financial Aid Included Job -Us
157	QU59	Net Cost - Rating of Us (1 To 8 Scale)
158–161	COMP.4	College Rated for QC53-QC57
162	QC55	Applied for Financial Aid - Other College
163	QC56	Offered Need-Based Financial Aid - Other College
164	QC57	Offered No-Need Financial Aid - Other College
165	QC58G	Financial Aid Included Grant - Other College
166	QC58L	Financial Aid Included Loan - Other College
167	QC58J	Financial Aid Included Job - Other College
168	QC59	Net Cost - Rating of Other College (1 to 8 Scale)
169	Q60	Applied-Received Aid
170–174	Q60W	Amount of Work Aid
175–179	Q60L	Amount of Loan Aid
180–184	Q60N	Amount of Need-Based Grant
185–189	Q60M	Amount of Merit Grant
190–194	Q60T	Total Amount of Aid
195	Q61A	From Income
196	Q61B	From Savings

197	Q61C	From Education Loans
198	Q61D	From Other Loans
199	Q61E	Help from Friends
200	Q61F	From Tuition Benefit
201	Q62	Average Grades in High School
202–204	Q63CR	SAT Critical Reading Score
205–207	Q63M	SAT Mathematical Score
208–210	Q63W	SAT Writing Score
211–212	Q63A	ACT Composite Score
213	Q64	Race/Ethnic Background
214	Q65	Resident of Same State As Our College?
215	Q66	Distance of College from Home
216	Q67	Type of High School Attended
217	Q68	Parents' Income
218–222	Q69	Home Zip Code
223	Q70	Gender
224–263	QLOCAL	*Available for Local Questions If Used
264–267	EPSMKT	EPS State and Market Number
268	STATUS	Enrollment Status (Enrolling/Nonenrolling)
269–270	YEAR	Year Study Conducted
271–274	DICODE	Code for College Conducting Study
275–279	AERID	AER Identification Number
280–289	COLLID	College Identification Number
290–296	CASEWT	Case Weight
298	GROUP	Comparison Number (1–5)



# appendix c

## Program Listing for PLUS.SPS (SPSS File Layout)

### Admitted Student Questionnaire PLUS

The file called NNNN\_YY.LST (where NNNN is the four-digit College Board code for your college) should be inserted at the end of the VAL LABELS command. The file called EPSMKT.LST may also be inserted before the period at the end of that command.

\*\*\*THIS FILE CONTAINS THE SYNTAX COMMANDS THAT WILL READ YOUR DATA AND  
\*\*\*CREATE VARIABLE AND VALUE LABELS

\*\*\*.

\*\*\*THE FOLLOWING COMMAND ASSUMES YOUR DATAFILE IS TO BE READ FROM THE CD  
\*\*\*CORRECT THE PATH NAME IF THE DATAFILE IS LOCATED ELSEWHERE.

\*\*\*.

DATA LIST FILE='D:\DATA\nnnn\_yy.DTA'

Q1 TO Q16	1-16
Q17	17-18
Q18	19-20
Q19.S1	21
Q19.C1	22-25
Q19.C2	26-29
Q19.C3	30-33
Q19.C4	34-37
Q20.S1	38
Q20.S2	43
Q20.S3	48
Q20.S4	53
Q20.S5	58
Q20.S6	63
Q20.S7	68
Q20.S8	73

Q20.C1	39-42
Q20.C2	44-47
Q20.C3	49-52
Q20.C4	54-57
Q20.C5	59-62
Q20.C6	64-67
Q20.C7	69-72
Q20.C8	74-77
QU21 TO QU36	78-93
COMP.1A	94-97
QA21 TO QA36	98-113
COMP.1B	114-117
QB21 TO QB36	118-133
QU37.1 TO QU37.20	134-153
COMP.2A	154-157
QA38.1 TO QA38.20	158-177
COMP.2B	178-181
QB39.1 TO QB39.20	182-201
QU40 TO QU53	202-215
COMP.3A	216-219
QA40 TO QA53	220-233
COMP.3B	234-237
QB40 TO QB53	238-251
Q54	252
QU55	253
QU56	254
QU57	255
QU58G	256
QU58L	257
QU58J	258
QU59	259
COMP.4A	260-263
QA55	264
QA56	265
QA57	266
QA58G	267
QA58L	268
QA58J	269
QA59	270
COMP.4B	271-274
QB55	275
QB56	276
QB57	277
QB58G	278
QB58L	279
QB58J	280
QB59	281
QB60A	282
QB60W	283-287
QB60L	288-292
QB60N	293-297
QB60M	298-302
QB60T	303-307

QB61A	308
QB61B	309
QB61C	310
QB61D	311
QB61E	312
QB61F	313
Q62	314
Q63CR	315-317
Q63M	318-320
Q63W	321-323
Q63A	324-325
Q64	326
Q65	327
Q66	328
Q67	329
Q68	330
Q69	331-335
Q70	336
QLOCAL	337-376 (A)
EPSMKT	377-380 (A)
STATUS	381
YEAR	382-383
DICODE	384-387
AERID	388-392
COLLID	393-402 (A)
CASEWT	403-409 (4)
CTYPE1 TO CTYPE12	410-421.

MISSING VALUE QU21 TO QU36, QA21 TO QA36, QB21 TO QB36, QU40 TO QU53,  
QA40 TO QA53, QB40 TO QB53 (0).

RECODE QU37.1 TO QU37.20, QA38.1 TO QA38.20, QB39.1 TO QB39.20 (SYSMIS=0).

COMPUTE CASE1=1.

VARIABLE LABELS

Q1	"ACADEMIC REPUTATION - IMPORTANCE"
Q2	"MAJORS OF INTEREST - IMPORTANCE"
Q3	"SPECIAL ACADEMIC PROGRAMS - IMPORTANCE"
Q4	"PERSONAL ATTENTION - IMPORTANCE"
Q5	"ACADEMIC FACILITIES - IMPORTANCE"
Q6	"RECREATIONAL FACILITIES - IMPORTANCE"
Q7	"ON-CAMPUS HOUSING - IMPORTANCE"
Q8	"SURROUNDINGS - IMPORTANCE"
Q9	"CAMPUS ATTRACTIVENESS - IMPORTANCE"
Q10	"COST OF ATTENDANCE - IMPORTANCE"
Q11	"QUALITY OF SOCIAL LIFE - IMPORTANCE"
Q12	"OFF-CAMPUS ACTIVITIES - IMPORTANCE"
Q13	"EXTRACURRICULAR OPPTY - IMPORTANCE"
Q14	"OPTIONAL CHARACTERISTIC 1 - IMPORTANCE"
Q15	"OPTIONAL CHARACTERISTIC 2 - IMPORTANCE"
Q16	"OPTIONAL CHARACTERISTIC 3 - IMPORTANCE"
Q17	"NUMBER OF COLLEGES APPLIED TO"
Q18	"NUMBER OF COLLEGES ADMITTED TO"
Q19.S1	"PLAN TO ATTEND COLLEGE IN NEXT 12 MOS"
Q19.C1	"CODE FOR COLLEGE STUDENT WILL ATTEND"
Q19.C2	"FIRST CHOICE COLLEGE TO WHICH ADMITTED"

Q19.C3	"SECOND CHOICE COLLEGE TO WHICH ADMITTED"
Q19.C4	"THIRD CHOICE COLLEGE TO WHICH ADMITTED"
Q20.S1	"ADMISSION STATUS - OTHER COLLEGE 1"
Q20.C1	"CODE FOR OTHER COLLEGE 1"
Q20.S2	"ADMISSION STATUS - OTHER COLLEGE 2"
Q20.C2	"CODE FOR OTHER COLLEGE 2"
Q20.S3	"ADMISSION STATUS - OTHER COLLEGE 3"
Q20.C3	"CODE FOR OTHER COLLEGE 3"
Q20.S4	"ADMISSION STATUS - OTHER COLLEGE 4"
Q20.C4	"CODE FOR OTHER COLLEGE 4"
Q20.S5	"ADMISSION STATUS - OTHER COLLEGE 5"
Q20.C5	"CODE FOR OTHER COLLEGE 5"
Q20.S6	"ADMISSION STATUS - OTHER COLLEGE 6"
Q20.C6	"CODE FOR OTHER COLLEGE 6"
Q20.S7	"ADMISSION STATUS - OTHER COLLEGE 7"
Q20.C7	"CODE FOR OTHER COLLEGE 7"
Q20.S8	"ADMISSION STATUS - OTHER COLLEGE 8"
Q20.C8	"CODE FOR OTHER COLLEGE 8"
QU21	"ACADEMIC REPUTATION - RATING OF US"
QU22	"MAJORS OF INTEREST - RATING OF US"
QU23	"SPECIAL ACADEMIC PROGRAMS - RATING OF US"
QU24	"PERSONAL ATTENTION - RATING OF US"
QU25	"ACADEMIC FACILITIES - RATING OF US"
QU26	"RECREATIONAL FACILITIES - RATING OF US"
QU27	"ON-CAMPUS HOUSING - RATING OF US"
QU28	"SURROUNDINGS - RATING OF US"
QU29	"CAMPUS ATTRACTIVENESS - RATING OF US"
QU30	"COST OF ATTENDANCE - RATING OF US"
QU31	"QUALITY OF SOCIAL LIFE - RATING OF US"
QU32	"OFF-CAMPUS ACTIVITIES - RATING OF US"
QU33	"EXTRACURRICULAR OPPTY - RATING OF US"
QU34	"OPTIONAL CHARACTERISTIC 1 - RATING OF US"
QU35	"OPTIONAL CHARACTERISTIC 2 - RATING OF US"
QU36	"OPTIONAL CHARACTERISTIC 3 - RATING OF US"
COMP.IA	"COLLEGE RATED FOR QA21-QA36"
QA21	"ACADEMIC REPUTATION - RATING OF A"
QA22	"MAJORS OF INTEREST - RATING OF A"
QA23	"SPECIAL ACADEMIC PROGRAMS - RATING OF A"
QA24	"PERSONAL ATTENTION - RATING OF A"
QA25	"ACADEMIC FACILITIES - RATING OF A"
QA26	"RECREATIONAL FACILITIES - RATING OF A"
QA27	"ON-CAMPUS HOUSING - RATING OF A"
QA28	"SURROUNDINGS - RATING OF A"
QA29	"CAMPUS ATTRACTIVENESS - RATING OF A"
QA30	"COST OF ATTENDANCE - RATING OF A"
QA31	"QUALITY OF SOCIAL LIFE - RATING OF A"
QA32	"OFF-CAMPUS ACTIVITIES - RATING OF A"
QA33	"EXTRACURRICULAR OPPTY - RATING OF A"
QA34	"OPTIONAL CHARACTERISTIC 1 - RATING OF A"
QA35	"OPTIONAL CHARACTERISTIC 2 - RATING OF A"
QA36	"OPTIONAL CHARACTERISTIC 3 - RATING OF A"
COMP.IB	"COLLEGE RATED FOR QB21-QB36"
QB21	"ACADEMIC REPUTATION - RATING OF B"
QB22	"MAJORS OF INTEREST - RATING OF B"

QB23	"SPECIAL ACADEMIC PROGRAMS - RATING OF B"
QB24	"PERSONAL ATTENTION - RATING OF B"
QB25	"ACADEMIC FACILITIES - RATING OF B"
QB26	"RECREATIONAL FACILITIES - RATING OF B"
QB27	"ON-CAMPUS HOUSING - RATING OF B"
QB28	"SURROUNDINGS - RATING OF B"
QB29	"CAMPUS ATTRACTIVENESS - RATING OF B"
QB30	"COST OF ATTENDANCE - RATING OF B"
QB31	"QUALITY OF SOCIAL LIFE - RATING OF B"
QB32	"OFF-CAMPUS ACTIVITIES - RATING OF B"
QB33	"EXTRACURRICULAR OPPTY - RATING OF B"
QB34	"OPTIONAL CHARACTERISTIC 1 - RATING OF B"
QB35	"OPTIONAL CHARACTERISTIC 2 - RATING OF B"
QB36	"OPTIONAL CHARACTERISTIC 3 - RATING OF B"
QU37.1	"IMAGE OF US: ISOLATED"
QU37.2	"IMAGE OF US: PRESTIGIOUS"
QU37.3	"IMAGE OF US: FUN"
QU37.4	"IMAGE OF US: INTELLECTUAL"
QU37.5	"IMAGE OF US: CAREER-ORIENTED"
QU37.6	"IMAGE OF US: NOT WELL-KNOWN"
QU37.7	"IMAGE OF US: COMFORTABLE"
QU37.8	"IMAGE OF US: BACKUP SCHOOL"
QU37.9	"IMAGE OF US: SELECTIVE"
QU37.10	"IMAGE OF US: ATHLETICS"
QU37.11	"IMAGE OF US: FRIENDLY"
QU37.12	"IMAGE OF US: PARTYING"
QU37.13	"IMAGE OF US: AVERAGE"
QU37.14	"IMAGE OF US: CHALLENGING"
QU37.15	"IMAGE OF US: OPTION 1"
QU37.16	"IMAGE OF US: OPTION 2"
QU37.17	"IMAGE OF US: OPTION 3"
QU37.18	"IMAGE OF US: OPTION 4"
QU37.19	"IMAGE OF US: OPTION 5"
QU37.20	"IMAGE OF US: OTHER"
COMP2A	"COLLEGE RATED FOR QA38.1-QA38.20"
QA38.1	"IMAGE OF A: ISOLATED"
QA38.2	"IMAGE OF A: PRESTIGIOUS"
QA38.3	"IMAGE OF A: FUN"
QA38.4	"IMAGE OF A: INTELLECTUAL"
QA38.5	"IMAGE OF A: CAREER-ORIENTED"
QA38.6	"IMAGE OF A: NOT WELL-KNOWN"
QA38.7	"IMAGE OF A: COMFORTABLE"
QA38.8	"IMAGE OF A: BACKUP SCHOOL"
QA38.9	"IMAGE OF A: SELECTIVE"
QA38.10	"IMAGE OF A: ATHLETICS"
QA38.11	"IMAGE OF A: FRIENDLY"
QA38.12	"IMAGE OF A: PARTYING"
QA38.13	"IMAGE OF A: AVERAGE"
QA38.14	"IMAGE OF A: CHALLENGING"
QA38.15	"IMAGE OF A: OPTION 1"
QA38.16	"IMAGE OF A: OPTION 2"
QA38.17	"IMAGE OF A: OPTION 3"
QA38.18	"IMAGE OF A: OPTION 4"

QA38.19	"IMAGE OF A: OPTION 5"
QA38.20	"IMAGE OF A: OTHER"
COMP:2B	"COLLEGE RATED FOR QB39.1-QB39.20"
QB39.1	"IMAGE OF B: ISOLATED"
QB39.2	"IMAGE OF B: PRESTIGIOUS"
QB39.3	"IMAGE OF B: FUN"
QB39.4	"IMAGE OF B: INTELLECTUAL"
QB39.5	"IMAGE OF B: CAREER-ORIENTED"
QB39.6	"IMAGE OF B: NOT WELL-KNOWN"
QB39.7	"IMAGE OF B: COMFORTABLE"
QB39.8	"IMAGE OF B: BACKUP SCHOOL"
QB39.9	"IMAGE OF B: SELECTIVE"
QB39.10	"IMAGE OF B: ATHLETICS"
QB39.11	"IMAGE OF B: FRIENDLY"
QB39.12	"IMAGE OF B: PARTYING"
QB39.13	"IMAGE OF B: AVERAGE"
QB39.14	"IMAGE OF B: CHALLENGING"
QB39.15	"IMAGE OF B: OPTION 1"
QB39.16	"IMAGE OF B: OPTION 2"
QB39.17	"IMAGE OF B: OPTION 3"
QB39.18	"IMAGE OF B: OPTION 4"
QB39.19	"IMAGE OF B: OPTION 5"
QB39.20	"IMAGE OF B: OTHER"
QU40	"HIGH SCHOOL VISITS - RATING OF US"
QU41	"COLLEGE SPONSORED MTGS - RATING OF US"
QU42	"COLLEGE PUBLICATIONS - RATING OF US"
QU43	"COLLEGE VIDEOS/CD-ROMS - RATING OF US"
QU44	"COLLEGE WEB SITE - RATING OF US"
QU45	"FIN. AID COMMUNICATIONS - RATING OF US"
QU46	"ELECTRONIC COMMUNICATION- RATING OF US"
QU47	"VISIT TO CAMPUS - RATING OF US"
QU48	"ON-CAMPUS INTERVIEW - RATING OF US"
QU49	"POST-ADMIT COMMUNICATION - RATING OF US"
QU50	"CONTACT WITH FACULTY - RATING OF US"
QU51	"CONTACT WITH COACHES - RATING OF US"
QU52	"CONTACTS WITH GRADS - RATING OF US"
QU53	"CONTACT WITH STUDENTS - RATING OF US"
COMP:3A	"COLLEGE RATED FOR QA40-QA51"
QA40	"HIGH SCHOOL VISITS - RATING OF A"
QA41	"COLLEGE SPONSORED MTGS - RATING OF A"
QA42	"COLLEGE PUBLICATIONS - RATING OF A"
QA43	"COLLEGE VIDEOS/CD-ROMS - RATING OF A"
QA44	"COLLEGE WEB SITE - RATING OF A"
QA45	"FIN. AID COMMUNICATIONS - RATING OF A"
QA46	"ELECTRONIC COMMUNICATION- RATING OF A"
QA47	"VISIT TO CAMPUS - RATING OF A"
QA48	"ON-CAMPUS INTERVIEW - RATING OF A"
QA49	"POST-ADMIT COMMUNICATION - RATING OF A"
QA50	"CONTACT WITH FACULTY - RATING OF A"
QA51	"CONTACT WITH COACHES - RATING OF A"
QA52	"CONTACTS WITH GRADS - RATING OF A"
QA53	"CONTACT WITH STUDENTS - RATING OF A"
COMP:3B	"COLLEGE RATED FOR QB40-QB51"
QB40	"HIGH SCHOOL VISITS - RATING OF B"

QB41	"COLLEGE SPONSORED MTGS - RATING OF B"
QB42	"COLLEGE PUBLICATIONS - RATING OF B"
QB43	"COLLEGE VIDEOS/CD-ROMS - RATING OF B"
QB44	"COLLEGE WEB SITE - RATING OF B"
QB45	"FIN. AID COMMUNICATIONS - RATING OF B"
QB46	"ELECTRONIC COMMUNICATION- RATING OF B"
QB47	"VISIT TO CAMPUS - RATING OF B"
QB48	"ON-CAMPUS INTERVIEW - RATING OF B"
QB49	"POST-ADMIT COMMUNICATION - RATING OF B"
QB50	"CONTACT WITH FACULTY - RATING OF B"
QB51	"CONTACT WITH COACHES - RATING OF B"
QB52	"CONTACTS WITH GRADS - RATING OF B"
QB53	"CONTACT WITH STUDENTS - RATING OF B"
Q54	"WERE AID/COST SIGNIFICANT FACTORS?"
QU55	"APPLIED FOR FINANCIAL AID - US"
QU56	"OFFERED NEED-BASED FINANCIAL AID - US"
QU57	"OFFERED NO-NEED FINANCIAL AID - US"
QU58G	"FINANCIAL AID INCLUDED GRANT - US"
QU58L	"FINANCIAL AID INCLUDED LOAN - US"
QU58J	"FINANCIAL AID INCLUDED JOB - US"
QU59	"NET COST - RATING OF US (1 TO 8 SCALE)"
COMP:4A	"COLLEGE RATED FOR QA53-QA57"
QA55	"APPLIED FOR FINANCIAL AID - A"
QA56	"OFFERED NEED-BASED FINANCIAL AID - A"
QA57	"OFFERED NO-NEED FINANCIAL AID - A"
QA58G	"FINANCIAL AID INCLUDED GRANT - A"
QA58L	"FINANCIAL AID INCLUDED LOAN - A"
QA58J	"FINANCIAL AID INCLUDED JOB - A"
QA59	"NET COST - RATING OF A (1 TO 8 SCALE)"
COMP:4B	"COLLEGE RATED FOR QB53-QB57"
QB55	"APPLIED FOR FINANCIAL AID - B"
QB56	"OFFERED NEED-BASED FINANCIAL AID - B"
QB57	"OFFERED NO-NEED FINANCIAL AID - B"
QB58G	"FINANCIAL AID INCLUDED GRANT - B"
QB58L	"FINANCIAL AID INCLUDED LOAN - B"
QB58J	"FINANCIAL AID INCLUDED JOB - B"
QB59	"NET COST - RATING OF B (1 TO 8 SCALE)"
Q60A	"APPLIED-RECEIVED AID?"
Q60W	"WORK AMOUNT AWARDED"
Q60L	"LOAN AMOUNT AWARDED"
Q60N	"NEED-BASED GRANT AWARDED"
Q60M	"MERIT GRANT AWARDED"
Q60T	"TOTAL AID AMOUNT AWARDED"
Q61A	"FROM INCOME"
Q61B	"FROM SAVINGS"
Q61C	"FROM EDUCATION LOANS"
Q61D	"FROM OTHER LOANS"
Q61E	"HELP FROM RELATIVES"
Q61F	"FROM TUITION BENEFIT"
Q62	"AVERAGE GRADES IN HIGH SCHOOL"
Q63CR	"SAT CRITICAL READING SCORE"
Q63M	"SAT MATHEMATICAL SCORE"
Q63W	"SAT WRITING SCORE"
Q63A	"ACT COMPOSITE SCORE"

Q64	"RACE/ETHNIC BACKGROUND"
Q65	"RESIDENT OF SAME STATE AS OUR COLLEGE?"
Q66	"DISTANCE OF COLLEGE FROM HOME"
Q67	"TYPE OF HIGH SCHOOL ATTENDED"
Q68	"PARENTS' INCOME"
Q69	"HOME ZIPCODE"
Q70	"GENDER"
EPSMKT	"EPS MARKET"
STATUS	"ENROLLMENT STATUS"
YEAR	"YEAR STUDY CONDUCTED"
COLLCODE	"COLLEGE CODE"
ID	"AER IDENTIFICATION NUMBER"
COLLID	"COLLEGE IDENTIFICATION NUMBER"
CASEWT	"CASE WEIGHT"
CTYPE1	"MOD. CARNEGIE CODE - COLLEGE ATTENDING"
CTYPE2	"MOD. CARNEGIE CODE - 1ST CHOICE COLLEGE"
CTYPE3	"MOD. CARNEGIE CODE - 2ND CHOICE COLLEGE"
CTYPE4	"MOD. CARNEGIE CODE - 3RD CHOICE COLLEGE"
CTYPE5	"MOD. CARNEGIE CODE - OTHER COLLEGE 1"
CTYPE6	"MOD. CARNEGIE CODE - OTHER COLLEGE 2"
CTYPE7	"MOD. CARNEGIE CODE - OTHER COLLEGE 3"
CTYPE8	"MOD. CARNEGIE CODE - OTHER COLLEGE 4"
CTYPE9	"MOD. CARNEGIE CODE - OTHER COLLEGE 5"
CTYPE10	"MOD. CARNEGIE CODE - OTHER COLLEGE 6"
CTYPE11	"MOD. CARNEGIE CODE - OTHER COLLEGE 7"
CTYPE12	"MOD. CARNEGIE CODE - OTHER COLLEGE 8"
VALUE LABELS	
Q1 TO Q16	1 "Not Important" 2 "Somewhat Important" 3 "Very Important" /
Q20.S1, Q20.S2, Q20.S3, Q20.S4, Q20.S5, Q20.S6, Q20.S7, Q20.S8	1 "Admitted" /
QU21 TO QU36, QA21 TO QA36, QB21 TO QB36	1 "Poor/Fair" 2 "Good" 3 "Very Good" 4 "Excellent" 0 "Can't Rate" /
QU37.1 TO QU37.20, QA38.1 TO QA38.20, QB39.1 TO QB39.20, Q61A TO Q61F	0 "Not Marked" 1 "Marked" /
QU40 TO QU53, QA40 TO QA53, QB40 TO QB53	1 "Poor/Fair" 2 "Good" 3 "Very Good" 4 "Excellent" 0 "Not Used" /
Q19.S1, Q54, QU55 TO QU58J, QA55 TO QA58J, QB55 TO QB58J	1 "Yes" 2 "No" /
QU59, QA59, QB59	8 "Very High" 1 "Very Low" /
Q60A	1 "Did Not Apply" 2 "Applied, Did Not Receive" /

Q62	1 "A (90-100)" 2 "B (80-89)" 3 "C (70-79)" 4 "D or below" /
Q64	1 "Am Indian/Native" 2 "Asian/Pac Islander" 3 "Mexican American" 4 "Puerto Rican" 5 "Other Hispanic" 6 "Black/African American" 7 "White" 8 "Other" /
Q65	1 "Yes" 2 "No" /
Q66	1 "Under 50 Miles" 2 "51 to 100 Miles" 3 "101 to 300 Miles" 4 "301 to 500 Miles" 5 "More than 500 Miles" /
Q67	1 "Public" 2 "Indep, Not Religious" 3 "Catholic" 4 "Indep, Oth Religious" /
Q68	1 "Below \$30,000" 2 "\$30,000-\$39,999" 3 "\$40,000-\$59,999" 4 "\$60,000-\$79,999" 5 "\$80,000-\$99,999" 6 "\$100,000-\$149,999" 7 "\$150,000-\$199,999" 8 "\$200,000 & Over" /
Q70	1 "Female" 2 "Male" /
STATUS	1 "Enrolling" 2 "Nonenrolling" /
CTYPE1 TO CTYPE12	1 "Public: Doctoral" 2 "Public: Other Four-Year" 3 "Private: Doctoral" 4 "Private: Master's" 5 "Private: Baccalaureate" 6 "Other".
WEIGHT BY CASEWT. FRE STATUS.	

Variables starting with “Q” are responses to the given question number on the questionnaire. For the ratings of our college and two competitors, the responses for our college are designated “QU”, responses for the first competitor are designated “QA”, and responses for the second competitor are designated “QB”.

College codes for the rated competitors are in fields COMP1A and COMP1B (for questions 21-36), COMP2A and COMP2B (for questions 38-39), COMP3A and COMP3B (for questions 40-53), and COMP4A and COMP4B (for questions 55-59).

Student status is indicated by the variable STATUS (1 = enrolling, 2 = nonenrolling).

The information on other colleges that students provided in response to questions 19 and 20 is contained in the fields described below.

—For nonenrolling students (STATUS = 2) who are going to college this year, Q19.S1 is equal to 1 and Q19.C1 is the code for the college that the student will attend. For enrolling students who completed the enrolling student form of the questionnaire, Q19.S1 and Q19.C1 are blank.

— For enrolling students who completed the all-student form of the questionnaire, Q19.S1 is equal to 1 and Q19.C1 is equal to the code for our college.

—Q19.C2, Q19.C3, and Q19.C4 are the colleges listed by the student as first, second, and third choices. Students were asked to rank only colleges to which they had been admitted. The code for our college will appear if our college was listed as one of the student's top three choices. For nonenrolling students who listed the college that they will attend as one of their top three choices, the code for the college they will attend will appear in Q19.C2 or Q19.C3 or Q19.C4, as well as in Q19.C1.

—Q20.C1 to Q20.C8 are codes for other colleges applied to, and Q20.S1 to Q20.S8 are admission status codes for these colleges.

Standard 4-digit College Board codes have been used with the following additions: 9999 = uncodable domestic; 9998 = uncodable foreign.

DICODE is the College Board code for our college, and will be constant throughout the data file. YEAR is the year the study was conducted and is constant. AERID is a control number used in processing. COLLID is the ID number used by our college on the questionnaires. Note that the college ID is read above in alphanumeric (A) format to allow for possible non-numeric ID information.

CASEWT contains the case weights used in producing ASQ PLUS reports. These weights are equal to the ratios of numbers of questionnaires sent to numbers of questionnaires received, calculated separately for the enrolling and nonenrolling groups.

The MISSING VALUE command following the data list defines responses of zero (“0”) as user-missing for those questions where a response of zero means CAN'T RATE or NOT USED. User-missing values are treated just like actual missing values for most procedures. Many procedures also have options that allow user-missing values to be included in analyses if desired.

Questions 37.1 to 39.20 — college images — have a value of one (“1”) if an image was marked and are missing if the image was not marked. The RECODE command following the data list recodes missing values for these variables to zero, so that frequency distributions and crosstabs will show percentages marked and not marked.

CTYPE1 to CTYPE12 contain modified Carnegie classifications for Q19.C1 to Q19.C4 and for Q20.C1 to Q20.C8. See the value labels below for the meaning of these modified codes.

In the variable labels, ratings of our college are designated “Rating of us.” Ratings of other colleges are designated “Rating of A” or “Rating of B.”

# appendix d

## SPSS Program Listing for Competitor Subfiles

### **Admitted Student Questionnaire PLUS**

This SPSS syntax file will read one of the subfiles containing information on the colleges or groups of colleges you selected for your Competitor Analysis Report. The subfiles take the form XXXX\_YYN .CMP, where "XXXX" is the four-digit code for your institution, YY is the study year. If "N" is a number between 1 and 5, the file will contain data for one of the five competitors you selected. If "N" is a "T", the file will contain data for all comparisons made.

\*\*\*THIS FILE CONTAINS THE SYNTAX COMMANDS THAT WILL READ THE DATA FROM  
\*\*\*COMPETITOR SUBFILES AND CREATE VARIABLE AND VALUE LABELS.

\*\*\*.

\*\*\*THE FOLLOWING COMMAND ASSUMES YOUR DATAFILE IS TO BE READ FROM THE CD.  
\*\*\*CORRECT THE PATH NAME IF THE DATAFILE IS LOCATED ELSEWHERE.

\*\*\*.

DATA LIST FILE="D:\DATA\xxxx\_yn.CMP" /

Q1 TO Q16	1-16
Q17	17-18
Q18	19-20
Q19.S1	21
Q19.C1	22-25
Q19.C2	26-29
Q19.C3	30-33
Q19.C4	34-37
QU21 TO QU36	38-53
COMP.1	54-57
QC21 TO QC36	58-73
QU37.1 TO QU37.20	74-93
COMP.2	94-97

QC38.1 TO QC38.20	98-117
QU40 TO QU53	118-131
COMP:3	132-135
QC40 TO QC53	136-149
Q54	150
QU55	151
QU56	152
QU57	153
QU58G	154
QU58L	155
QU58J	156
QU59	157
COMP:4	158-161
QC55	162
QC56	163
QC57	164
QC58G	165
QC58L	166
QC58J	167
QC59	168
Q60A	169
Q60W	170-174
Q60L	175-179
Q60N	180-184
Q60M	185-189
Q60T	190-194
Q61A	195
Q61B	196
Q61C	197
Q61D	198
Q61E	199
Q61F	200
Q62	201
Q63CR	202-204
Q63M	205-207
Q63W	208-210
Q63A	211-212
Q64	213
Q65	214
Q66	215
Q67	216
Q68	217
Q69	218-222
Q70	223
QLOCAL	224-263 (A)
EPSMKT	264-267 (A)
STATUS	268
YEAR	269-270
COLLCODE	271-274
ID	275-279
COLLID	280-289 (A)
CASEWT	290-296 (4)
GROUP	298.
MISSING VALUE QU21 TO QU36, QC21 TO QC36, QU40 TO QU53, QC40 TO QC53 (0).	
RECODE QU37.1 TO QU37.20, QC38.1 TO QC38.20 (SYSMIS=0).	

VARIABLE LABELS

Q1	"ACADEMIC REPUTATION - IMPORTANCE"
Q2	"MAJORS OF INTEREST - IMPORTANCE"
Q3	"SPECIAL ACADEMIC PROGRAMS - IMPORTANCE"
Q4	"PERSONAL ATTENTION - IMPORTANCE"
Q5	"ACADEMIC FACILITIES - IMPORTANCE"
Q6	"RECREATIONAL FACILITIES - IMPORTANCE"
Q7	"ON-CAMPUS HOUSING - IMPORTANCE"
Q8	"SURROUNDINGS - IMPORTANCE"
Q9	"CAMPUS ATTRACTIVENESS - IMPORTANCE"
Q10	"COST OF ATTENDANCE - IMPORTANCE"
Q11	"QUALITY OF SOCIAL LIFE - IMPORTANCE"
Q12	"OFF-CAMPUS ACTIVITIES - IMPORTANCE"
Q13	"EXTRACURRICULAR OPPTY - IMPORTANCE"
Q14	"OPTIONAL CHARACTERISTIC 1 - IMPORTANCE"
Q15	"OPTIONAL CHARACTERISTIC 2 - IMPORTANCE"
Q16	"OPTIONAL CHARACTERISTIC 3 - IMPORTANCE"
Q17	"NUMBER OF COLLEGES APPLIED TO"
Q18	"NUMBER OF COLLEGES ADMITTED TO"
Q19.S1	"PLAN TO ATTEND COLLEGE IN NEXT 12 MOS"
Q19.C1	"CODE FOR COLLEGE STUDENT WILL ATTEND"
Q19.C2	"FIRST CHOICE COLLEGE TO WHICH ADMITTED"
Q19.C3	"SECOND CHOICE COLLEGE TO WHICH ADMITTED"
Q19.C4	"THIRD CHOICE COLLEGE TO WHICH ADMITTED"
QU21	"ACADEMIC REPUTATION - RATING OF US"
QU22	"MAJORS OF INTEREST - RATING OF US"
QU23	"SPECIAL ACADEMIC PROGRAMS - RATING OF US"
QU24	"PERSONAL ATTENTION - RATING OF US"
QU25	"ACADEMIC FACILITIES - RATING OF US"
QU26	"RECREATIONAL FACILITIES - RATING OF US"
QU27	"ON-CAMPUS HOUSING - RATING OF US"
QU28	"SURROUNDINGS - RATING OF US"
QU29	"CAMPUS ATTRACTIVENESS - RATING OF US"
QU30	"COST OF ATTENDANCE - RATING OF US"
QU31	"QUALITY OF SOCIAL LIFE - RATING OF US"
QU32	"OFF-CAMPUS ACTIVITIES - RATING OF US"
QU33	"EXTRACURRICULAR OPPTY - RATING OF US"
QU34	"OPTIONAL CHARACTERISTIC 1 - RATING OF US"
QU35	"OPTIONAL CHARACTERISTIC 2 - RATING OF US"
QU36	"OPTIONAL CHARACTERISTIC 3 - RATING OF US"
COMP.1	"COLLEGE RATED FOR QA21-QA36"
QC21	"ACADEMIC REPUTATION - RATING OF OTHER COLL"
QC22	"MAJORS OF INTEREST - RATING OF OTHER COLL"
QC23	"SPECIAL ACADEMIC PROGRAMS - RATING OF OTHER COLL"
QC24	"PERSONAL ATTENTION - RATING OF OTHER COLL"
QC25	"ACADEMIC FACILITIES - RATING OF OTHER COLL"
QC26	"RECREATIONAL FACILITIES - RATING OF OTHER COLL"
QC27	"ON-CAMPUS HOUSING - RATING OF OTHER COLL"
QC28	"SURROUNDINGS - RATING OF OTHER COLL"
QC29	"CAMPUS ATTRACTIVENESS - RATING OF OTHER COLL"
QC30	"COST OF ATTENDANCE - RATING OF OTHER COLL"
QC31	"QUALITY OF SOCIAL LIFE - RATING OF OTHER COLL"
QC32	"OFF-CAMPUS ACTIVITIES - RATING OF OTHER COLL"

QC33	"EXTRACURRICULAR OPPTY - RATING OF OTHER COLL"
QC34	"OPTIONAL CHARACTERISTIC 1 - RATING OF OTHER COLL"
QC35	"OPTIONAL CHARACTERISTIC 2 - RATING OF OTHER COLL"
QC36	"OPTIONAL CHARACTERISTIC 3 - RATING OF OTHER COLL"
QU37.1	"IMAGE OF US: ISOLATED"
QU37.2	"IMAGE OF US: PRESTIGIOUS"
QU37.3	"IMAGE OF US: FUN"
QU37.4	"IMAGE OF US: INTELLECTUAL"
QU37.5	"IMAGE OF US: CAREER-ORIENTED"
QU37.6	"IMAGE OF US: NOT WELL-KNOWN"
QU37.7	"IMAGE OF US: COMFORTABLE"
QU37.8	"IMAGE OF US: BACKUP SCHOOL"
QU37.9	"IMAGE OF US: SELECTIVE"
QU37.10	"IMAGE OF US: ATHLETICS"
QU37.11	"IMAGE OF US: FRIENDLY"
QU37.12	"IMAGE OF US: PARTYING"
QU37.13	"IMAGE OF US: AVERAGE"
QU37.14	"IMAGE OF US: CHALLENGING"
QU37.15	"IMAGE OF US: OPTION 1"
QU37.16	"IMAGE OF US: OPTION 2"
QU37.17	"IMAGE OF US: OPTION 3"
QU37.18	"IMAGE OF US: OPTION 4"
QU37.19	"IMAGE OF US: OPTION 5"
QU37.20	"IMAGE OF US: OTHER"
COMP2	"COLLEGE RATED FOR QA38.1-QA38.20"
QC38.1	"IMAGE OF OTHER COLL: ISOLATED"
QC38.2	"IMAGE OF OTHER COLL: PRESTIGIOUS"
QC38.3	"IMAGE OF OTHER COLL: FUN"
QC38.4	"IMAGE OF OTHER COLL: INTELLECTUAL"
QC38.5	"IMAGE OF OTHER COLL: CAREER-ORIENTED"
QC38.6	"IMAGE OF OTHER COLL: NOT WELL-KNOWN"
QC38.7	"IMAGE OF OTHER COLL: COMFORTABLE"
QC38.8	"IMAGE OF OTHER COLL: BACKUP SCHOOL"
QC38.9	"IMAGE OF OTHER COLL: SELECTIVE"
QC38.10	"IMAGE OF OTHER COLL: ATHLETICS"
QC38.11	"IMAGE OF OTHER COLL: FRIENDLY"
QC38.12	"IMAGE OF OTHER COLL: PARTYING"
QC38.13	"IMAGE OF OTHER COLL: AVERAGE"
QC38.14	"IMAGE OF OTHER COLL: CHALLENGING"
QC38.15	"IMAGE OF OTHER COLL: OPTION 1"
QC38.16	"IMAGE OF OTHER COLL: OPTION 2"
QC38.17	"IMAGE OF OTHER COLL: OPTION 3"
QC38.18	"IMAGE OF OTHER COLL: OPTION 4"
QC38.19	"IMAGE OF OTHER COLL: OPTION 5"
QC38.20	"IMAGE OF OTHER COLL: OTHER"
QU40	"HIGH SCHOOL VISITS - RATING OF US"
QU41	"COLLEGE SPONSORED MTGS - RATING OF US"
QU42	"COLLEGE PUBLICATIONS - RATING OF US"
QU43	"COLLEGE VIDEOS/CD-ROMS - RATING OF US"
QU44	"COLLEGE WEB SITE - RATING OF US"
QU45	"FIN. AID COMMUNICATIONS - RATING OF US"
QU46	"ELECTRONIC COMMUNICATION - RATING OF US"
QU47	"VISIT TO CAMPUS - RATING OF US"

QU48	"ON-CAMPUS INTERVIEW - RATING OF US"
QU49	"POST-ADMIT COMMUNICATION - RATING OF US"
QU50	"CONTACT WITH FACULTY - RATING OF US"
QU51	"CONTACT WITH COACHES - RATING OF US"
QU52	"CONTACTS WITH GRADS - RATING OF US"
QU53	"CONTACT WITH STUDENTS - RATING OF US"
COMP3	"COLLEGE RATED FOR QA40-QA51"
QC40	"HIGH SCHOOL VISITS - RATING OF OTHER COLL"
QC41	"COLLEGE SPONSORED MTGS - RATING OF OTHER COLL"
QC42	"COLLEGE PUBLICATIONS - RATING OF OTHER COLL"
QC43	"COLLEGE VIDEOS/CD-ROMS - RATING OF OTHER COLL"
QC44	"COLLEGE WEB SITE - RATING OF OTHER COLL"
QC45	"FIN. AID COMMUNICATIONS - RATING OF OTHER COLL"
QC46	"ELECTRONIC COMMUNICATION- RATING OF OTHER COLL"
QC47	"VISIT TO CAMPUS - RATING OF OTHER COLL"
QC48	"ON-CAMPUS INTERVIEW - RATING OF OTHER COLL"
QC49	"POST-ADMIT COMMUNICATION - RATING OF OTHER COLL"
QC50	"CONTACT WITH FACULTY - RATING OF OTHER COLL"
QC51	"CONTACT WITH COACHES - RATING OF OTHER COLL"
QC52	"CONTACTS WITH GRADS - RATING OF OTHER COLL"
QC53	"CONTACT WITH STUDENTS - RATING OF OTHER COLL"
Q54	"WERE AID/COST SIGNIFICANT FACTORS?"
QU55	"APPLIED FOR FINANCIAL AID - US"
QU56	"OFFERED NEED-BASED FINANCIAL AID - US"
QU57	"OFFERED NO-NEED FINANCIAL AID - US"
QU58G	"FINANCIAL AID INCLUDED GRANT - US"
QU58L	"FINANCIAL AID INCLUDED LOAN - US"
QU58J	"FINANCIAL AID INCLUDED JOB - US"
QU59	"NET COST - RATING OF US (1 TO 8 SCALE)"
COMP4	"COLLEGE RATED FOR QA53-QA57"
QC55	"APPLIED FOR FINANCIAL AID - OTHER COLL"
QC56	"OFFERED NEED-BASED FINANCIAL AID - OTHER COLL"
QC57	"OFFERED NO-NEED FINANCIAL AID - OTHER COLL"
QC58G	"FINANCIAL AID INCLUDED GRANT - OTHER COLL"
QC58L	"FINANCIAL AID INCLUDED LOAN - A"
QC58J	"FINANCIAL AID INCLUDED JOB - OTHER COLL"
QC59	"NET COST - RATING OF A (1 TO 8 SCALE)"
Q60A	"APPLIED-RECEIVED AID?"
Q60W	"WORK AMOUNT AWARDED"
Q60L	"LOAN AMOUNT AWARDED"
Q60N	"NEED-BASED GRANT AWARDED"
Q60M	"MERIT GRANT AWARDED"
Q60T	"TOTAL AID AMOUNT AWARDED"
Q61A	"FROM INCOME"
Q61B	"FROM SAVINGS"
Q61C	"FROM EDUCATION LOANS"
Q61D	"FROM OTHER LOANS"
Q61E	"HELP FROM RELATIVES"
Q61F	"FROM TUITION BENEFIT"
Q62	"AVERAGE GRADES IN HIGH SCHOOL"
Q63CR	"SAT CRITICAL READING SCORE"
Q63M	"SAT MATHEMATICAL SCORE"
Q63W	"SAT WRITING SCORE"

Q63A	"ACT COMPOSITE SCORE"
Q64	"RACE/ETHNIC BACKGROUND"
Q65	"RESIDENT OF SAME STATE AS OUR COLLEGE?"
Q66	"DISTANCE OF COLLEGE FROM HOME"
Q67	"TYPE OF HIGH SCHOOL ATTENDED"
Q68	"PARENTS' INCOME"
Q69	"HOME ZIPCODE"
Q70	"GENDER"
EPS.ST	"EPS STATE - TWO-LETTER POSTAL CODE"
EPS.MKT	"EPS MARKET NUMBER WITHIN STATE"
STATUS	"ENROLLMENT STATUS"
YEAR	"YEAR STUDY CONDUCTED"
COLLCODE	"COLLEGE CODE"
AERID	"AER IDENTIFICATION NUMBER"
ID	"COLLEGE IDENTIFICATION NUMBER"
CASEWT	"CASE WEIGHT"
CTYPE	"MOD. CARNEGIE CODE - COLLEGE RATED THIS RECORD"
GROUP	"COMPARISON GROUP".

VALUE LABELS

Q1 TO Q16	1	"Not Important"
	2	"Somewhat Important"
	3	"Very Important" /
Q20.S1, Q20.S2, Q20.S3, Q20.S4, Q20.S5, Q20.S6, Q20.S7, Q20.S8	1	"Admitted" /
QU2I TO QU36, QC2I TO QC36	1	"Poor/Fair"
	2	"Good"
	3	"Very Good"
	4	"Excellent"
	0	"Can't Rate" /
QU37.I TO QU37.20, QC38.I TO QC38.20, Q6IA TO Q6IF	0	"Not Marked"
	1	"Marked" /
QU40 TO QU53, QC40 TO QC53	1	"Poor/Fair"
	2	"Good"
	3	"Very Good"
	4	"Excellent"
	0	"Not Used" /
Q19.S1, Q54, QU55 TO QU58J, QC55 TO QC58J	1	"Yes"
	2	"No" /
QU59, QC59	8	"Very High"
	1	"Very Low" /
Q60A	1	"Did Not Apply"
	2	"Applied-Did Not Receive" /
Q62	1	"A (90-100)"
	2	"B (80-89)"
	3	"C (70-79)"
	4	"D or below" /
Q64	1	"Am Indian/Native"
	2	"Asian/Pac Islndr"
	3	"Mexican American"
	4	"Puerto Rican"
	5	"Other Hispanic"
	6	"Black/African Amer"

	7	"White"
	8	"Other" /
Q65	1	"Yes"
	2	"No" /
Q66	1	"Under 50 Miles"
	2	"51 to 100 Miles"
	3	"101 to 300 Miles"
	4	"301 to 500 Miles"
	5	"More than 500 Miles"/
Q67	1	"Public"
	2	"Indep, Not Relig"
	3	"Catholic"
	4	"Indep, Oth Relig" /
Q68	1	"Below \$30,000"
	2	"\$30,000-\$39,999"
	3	"\$40,000-\$59,999"
	4	"\$60,000-\$79,999"
	5	"\$80,000-\$99,999"
	6	"\$100,000-\$149,999"
	7	"\$150,000-\$199,999"
	8	"\$200,000 & Over" /
Q70	1	"Female"
	2	"Male" /
STATUS	1	"Enrolling"
	2	"Nonenrolling" .
WEIGHT BY CASEWT.		
FRE COMP1.		

Variables starting with "Q" are responses to the given question number on the questionnaire. For the ratings of our college and the competitor, the responses for our college are designated "QU", responses for the competitor are designated "QC".

College codes for the rated competitors are in fields COMP1 (for questions 21-36), COMP2 (for questions 38-39), COMP3 (for questions 40-53), and COMP4 (for questions 55-59).

Student status is indicated by the variable STATUS (1 = enrolling, 2 = nonenrolling).

The information on other colleges that students provided in response to questions 19 and 20 is contained in the fields described below.

—For nonenrolling students (STATUS = 2) who are going to college this year, Q19.S1 is equal to 1 and Q19.C1 is the code for the college that the student will attend. For enrolling students who completed the enrolling student form of the questionnaire, Q19.S1 and Q19.C1 are blank.

—For enrolling students who completed the all-student form of the questionnaire, Q19.S1 is equal to 1 and Q19.C1 is equal to the code for our college.

—Q19.C2, Q19.C3, and Q19.C4 are the colleges listed by the student as first, second, and third choices. Students were asked to rank only colleges to which they had been admitted. The code for our college will appear if our college was listed as one of the student's top three choices. For nonenrolling students who listed the college that they will attend as one of their top three choices, the code for the college they will attend will appear in Q19.C2 or Q19.C3 or Q19.C4, as well as in Q19.C1.

—Q20.C1 to Q20.C8 are codes for other colleges applied to, and Q20.S1 to Q20.S8 are admission status codes for these colleges.

Standard 4-digit College Board codes have been used with the following additions: 9999 = uncodable domestic; 9998 = uncodable foreign.

DICODE is the College Board code for our college, and will be constant throughout the data file. YEAR is the year the study was conducted and is constant. AERID is a control number used in processing. COLLID is the ID number used by our college on the questionnaires. Note that the college ID is read above in alphanumeric (A) format to allow for possible non-numeric ID information.

GROUP contains the code for the specific comparison group comprising this subfile. A value of "1" refers to the first competitor listed in the Competitor Analysis Report, etc.

CASEWT contains the case weights used in producing ASQ PLUS reports. These weights are equal to the ratios of numbers of questionnaires sent to numbers of questionnaires received, calculated separately for the enrolling and nonenrolling groups.

The MISSING VALUE command following the data list defines responses of zero ("0") as user-missing for those questions where a response of zero means CAN'T RATE or NOT USED. User-missing values are treated just like actual missing values for most procedures. Many procedures also have options that allow user-missing values to be included in analyses if desired.

Questions 37.1 to 38.20—college images—have a value of one ("1") if an image was marked and are missing if the image was not marked. The RECODE command following the data list recodes missing values for these variables to zero, so that frequency distributions and cross tabs will show percentages marked and not marked.

In the variable labels, ratings of our college are designated "Rating of us". Ratings of other colleges are designated "Rating of other coll".

The WEIGHT BY CASEWT statement above will cause SPSS procedures to weight cases in analyses according to the value of CASEWT for each case. This will result in analyses comparable to those in the ASQ PLUS reports. If weighting is not desired, delete the WEIGHT BY CASEWT command.

To analyze the data, enter SPSS procedure commands following WEIGHT BY CASEWT.



## appendix e

### SPSS Program Listing for Supplementary Analysis of the Complete Data File

This file contains SPSS commands to conduct the analyses described in SPSS Examples 1 to 10. Commands or procedures that were repeated from example to example are only shown once here.

```
COMPUTE TOTALSAT=Q63CR+Q63M.
```

```
RECODE TOTALSAT (LO THRU 990=1) (1000 THRU 1190=2) (1200  
THRU HI=3) INTO SATLEVEL/  
TOTALSAT (1200 THRU HI=1) (ELSE=0) INTO SAT1200.
```

```
RECODE Q61A (30 THRU HI=1) (ELSE=0) INTO HIACT.
```

```
RECODE Q62 (1=1) (ELSE=0) INTO AGRADES  
/Q64 (2=1) (ELSE=0) INTO ASIAN  
/Q64 (3,4,5=1) (ELSE=0) INTO HISPANIC  
/Q64 (6=1) (ELSE=0) INTO AFRAM  
/Q65 (1=1) (ELSE=0) INTO INSTATE  
/Q67 (1=1) (ELSE=0) INTO PUBLIC  
/Q67 (2=1) (ELSE=0) INTO INDEP  
/Q67 (3=1) (ELSE=0) INTO CATHOLIC  
/Q68 (1=1) (ELSE=0) INTO LOWINC  
/Q68 (7,8=1) (ELSE=0) INTO HIGHINC  
/Q70 (1=1) (ELSE=0) INTO FEMALE  
/QU55 (1=1) (ELSE=0) INTO AIDAPP.
```

```
RECODE QU40 TO QU53 (MISSING,SYSMIS=0) (ELSE=1) INTO QUE40  
TO QUE53.
```

```
*****
```

```
** CREATES COLLEGES APPLIED TO — NO DUPLICATES
```

```
*****
```

```
DO REPEAT V1=Q19.C1 TO Q19.C4,Q20.C1 TO Q20.C8/V2=APCOL1 TO
APCOL12.
```

```
COMPUTE V2=V1.
```

```
IF (V1 EQ COLLCODE) V2=0.
```

```
END REPEAT.
```

```
DO REPEAT V1=APCOL2 TO APCOL4.
```

```
IF (V1=Q19.C1) V1=0.
```

```
END REPEAT.
```

```
*****
```

```
** CREATES COLLEGES ADMITTED TO — NO DUPLICATES
```

```
*****.
```

```
COMPUTE ADCOL1=APCOL1.
```

```
COMPUTE ADCOL2=APCOL2.
```

```
COMPUTE ADCOL3=APCOL3.
```

```
COMPUTE ADCOL4=APCOL4.
```

```
DO REPEAT V1=Q20.S1 TO Q20.S8/V2=APCOL5 TO APCOL12/
V3=ADCOL5 TO ADCOL12.
```

```
COMPUTE V3=0.
```

```
IF (V1 EQ 1) V3=V2.
```

```
END REPEAT.
```

```
MISSING VALUES APCOL1 TO APCOL12,ADCOL1 TO ADCOL12 (0).
```

```
IF (STATUS=1) ATTEND=COLLCODE.
```

```
IF (STATUS=2) ATTEND=Q19.C1.
```

```
VARIABLE LABELS
```

```
TOTALSAT "SAT CR+M INTERVAL"
```

```
SAT1200 "SAT CR+M CUT AT 1200"
```

```
QUE40 "EXPOSURE TO HS VISITS: OUR COLLEGE"
```

```
QUE41 "EXPOSURE TO MEETINGS: OUR COLLEGE"
```

```
QUE42 "EXPOSURE TO PUBLICATIONS: OUR COLLEGE"
```

```
QUE43 "EXPOSURE TO VIDEOS/CD-ROMS: OUR COLLEGE"
```

```
QUE44 "EXPOSURE TO WEB SITE: OUR COLLEGE"
```

```
QUE45 "EXPOSURE TO FIN. AID COMMUNIC: OUR COLLEGE"
```

```
QUE46 "EXPOSURE TO ELECT COMMUNIC: OUR COLLEGE"
```

```
QUE47 "EXPOSURE TO CAMPUS VISIT: OUR COLLEGE"
```

```
QUE48 "EXPOSURE TO INTERVIEW: OUR COLLEGE"
```

```
QUE49 "EXPOSURE TO POST-ADMIT CONTACT: OUR COLLEGE"
```

```
QUE50 "EXPOSURE TO FACULTY: OUR COLLEGE"
```

```
QUE51 "EXPOSURE TO COACHES: OUR COLLEGE"
```

QUES2	"EXPOSURE TO GRADUATES: OUR COLLEGE"
QUES3	"EXPOSURE TO STUDENTS: OUR COLLEGE"
APCOL1	"COLLEGE APPLIED TO: 1"
APCOL2	"COLLEGE APPLIED TO: 2"
APCOL3	"COLLEGE APPLIED TO: 3"
APCOL4	"COLLEGE APPLIED TO: 4"
APCOL5	"COLLEGE APPLIED TO: 5"
APCOL6	"COLLEGE APPLIED TO: 6"
APCOL7	"COLLEGE APPLIED TO: 7"
APCOL8	"COLLEGE APPLIED TO: 8"
APCOL9	"COLLEGE APPLIED TO: 9"
APCOL10	"COLLEGE APPLIED TO: 10"
APCOL11	"COLLEGE APPLIED TO: 11"
APCOL12	"COLLEGE APPLIED TO: 12"
ADCOL1	"COLLEGE ADMITTED TO: 1"
ADCOL2	"COLLEGE ADMITTED TO: 2"
ADCOL3	"COLLEGE ADMITTED TO: 3"
ADCOL4	"COLLEGE ADMITTED TO: 4"
ADCOL5	"COLLEGE ADMITTED TO: 5"
ADCOL6	"COLLEGE ADMITTED TO: 6"
ADCOL7	"COLLEGE ADMITTED TO: 7"
ADCOL8	"COLLEGE ADMITTED TO: 8"
ADCOL9	"COLLEGE ADMITTED TO: 9"
ADCOL10	"COLLEGE ADMITTED TO: 10"
ADCOL11	"COLLEGE ADMITTED TO: 11"
APCOL12	"COLLEGE ADMITTED TO: 12"
ATTEND	"COLLEGE ATTENDING".

VALUE LABELS

SATLEVEL	1 "Below 1000"
	2 "1000 to 1190"
	3 "1200 and over"
/QUE40 TO QUE51	1 "Exposed"
	2 "Not exposed"
/SAT1200	1 "1200 and up"
	0 "Below 1200"
/HIACT	1 "30 and up"
	0 "Below 30".

\*\*\*\*\*

\*\* RATINGS BY DEMOGRAPHIC VARIABLES

\*\*\*\*\*.

CROSSTABS TABLES=Q1 TO Q16,QU21 TO QU36,QU37.1 TO  
QU37.20,QU40 TO QU53,Q54,QU59 BY Q70,Q64/CELLS=COUNT  
COLUMN.

CROSSTABS TABLES=Q1 TO Q16,QU21 TO QU36,QU37.1 TO  
QU37.20,QU40 TO QU53,Q54,QU59 BY SATLEVEL,Q65/  
CELLS=COUNT COLUMN.

CROSSTABS TABLES=Q1 TO Q16,QU21 TO QU36,QU37.1 TO  
QU37.20,QU40 TO QU53,Q54,QU59 BY Q67,Q68/CELLS=COUNT  
COLUMN.

\*\*\*\*\*

\*\* RATINGS BY DEMOGRAPHIC VARIABLES BY STATUS

\*\*\*\*\*.

CROSSTABS TABLES=Q1 TO Q16,QU21 TO QU36,QU37.1 TO  
QU37.20,QU40 TO QU53,Q54,QU59 BY Q70,Q64 BY STATUS/  
CELLS=COUNT COLUMN.

CROSSTABS TABLES=Q1 TO Q16,QU21 TO QU36,QU37.1 TO  
QU37.20,QU40 TO QU53,Q54,QU59 BY SATLEVEL,Q65 BY STATUS/  
CELLS=COUNT COLUMN.

CROSSTABS TABLES=Q1 TO Q16,QU21 TO QU36,QU37.1 TO  
QU37.20,QU40 TO QU53,Q54,QU59 BY Q67,Q68 BY STATUS/  
CELLS=COUNT COLUMN.

\*\*\*\*\*

\*\* MEAN RATINGS BY SAT LEVEL

\*\*\*\*\*.

MEANS TABLES=QU21 TO QU36 BY SATLEVEL.

\*\*\*\*\*

\*\* CROSSBREAK: MEAN RATINGS BY SAT LEVEL BY STATUS

\*\*\*\*\*.

MEANS VARIABLES=QU21 TO QU36, SATLEVEL STATUS  
/CROSSBREAK=QU21 TO QU36 BY SATLEVEL BY STATUS  
/CELLS=MEAN COUNT.

\*\*\*\*\*

\*\* CORRELATIONS: IMAGES WITH DEMOGRAPHIC DUMMY VARIABLES

\*\*\*\*\*.

CORRELATIONS QU37.1 TO QU37.20 WITH AGRADES TO AIDAPP/  
PRINT=NOSIG.

\*\*\*\*\*

\*\* RATINGS AND IMAGES BY EXPOSURE TO SELECTED INFORMATION  
SOURCES

\*\*\*\*\*.

```
CROSSTABS TABLES=QU21 TO QU36 BY QUE47,QUE50,QUE52,QUE53
/QU37.1 TO QU37.19 BY QUE47,QUE50,QUE52,QUE53/
CELLS=COUNT COLUMN.
```

```
*****
```

```
** COLLEGES APPLIED TO AND ADMITTED TO BY SELECTED
DEMOGRAPHIC VARIABLES
```

```
*****.
```

```
*****.
```

```
TABLES
```

```
  / FTOTAL=T1 "TOTAL"
```

```
  / MRGOU P=CROSSADS 'COLLEGES ADMITTED TO' ADCOL1 TO
ADCOL12
```

```
  / MRGROUP=CROSSAPS 'COLLEGES APPLIED TO' APCOL1 TO
APCOL12
```

```
  / TABLE=CROSSAPS + T1 BY SATLEVEL + T1
```

```
  / STAT=COUNT("") CPCT((PCT3)":SATLEVEL)
```

```
  / TABLE=CROSSADS + T1 BY Q70 + T1
```

```
  / STAT=COUNT("") CPCT((PCT3)":Q70).
```

```
*****
```

```
** WIN PERCENTAGE: HIGH ACT STUDENTS ADMITTED TO COLLEGE
9001 OR 9002
```

```
** (THIS SET OF COMMANDS WOULD BE REPEATED FOR EACH COLLEGE
OF INTEREST)
```

```
*****.
```

```
IF (STATUS EQ 1 AND ANY(9001,ADCOL1 TO ADCOL12)) WIN9001=1.
```

```
IF (STATUS EQ 2 AND ANY(9001,ADCOL1 TO ADCOL12)) WIN9001=2.
```

```
IF (STATUS EQ 1 AND ANY(9002,ADCOL1 TO ADCOL12)) WIN9002=1.
```

```
IF (STATUS EQ 2 AND ANY(9002,ADCOL1 TO ADCOL12)) WIN9002=2.
```

```
DO REPEAT V1=TEST9001,TEST9002.
```

```
COMPUTE V1=0.
```

```
END REPEAT.
```

```
IF (ANY(9001,ADCOL1 TO ADCOL12) AND HIACT=1) TEST9001=1.
```

```
IF (ANY(9002,ADCOL1 TO ADCOL12) AND HIACT=1) TEST9002=1.
```

```
** ANALYSIS FOR COLLEGE 9001.
```

```
TEMPORARY.
```

```
SELECT IF (TEST9001=1).
```

```
SUBTITLE "Win/Loss Analysis: High ACT Admitted to College 9001".
```

```
CROSSTABS TABLES=ATTEND,WIN9001 BY STATUS/CELLS=COUNT
TOTAL.
```

```
** ANALYSIS FOR COLLEGE 9002.
```

```
TEMPORARY.
```

```
SELECT IF (TEST9002=1).
SUBTITLE "Win/Loss Analysis: High ACT Admitted to College 9002".
CROSSTABS TABLES=ATTEND,WIN9002 BY STATUS/CELLS=COUNT
TOTAL.
*****
** REGRESSION: STATUS AND DEMOGRAPHIC VARIABLES
*****.
RECODE STATUS (1=1) (2=0) INTO DSTAT.
REGRESSION VARIABLES=STATUS,SAT1200 TO AIDAPP
  /DEPENDENT=STATUS
  /ENTER=SAT1200,AGRADES TO AIDAPP.
*****
** BASIC FACTOR ANALYSIS OF CHARACTERISTICS
*****.
FACTOR VARIABLES=QU21 TO QU36/MISSING=INCLUDE/SAVE (ALL
CHAR).
```



## appendix f

### SPSS Program Listing for Supplementary Analysis of the Competitor Subfiles

This file contains SPSS commands to conduct the analyses described in SPSS Examples 11 to 14. Commands or procedures that were repeated from example to example are shown only once here.

\*\*\*\*\*

\*\* CREATES VARIABLE USED FOR CALCULATING WIN PERCENTAGE VS THIS COMPETITOR

\*\*\*\*\*

COMPUTE ATTEND=3.

IF (STATUS EQ 1) ATTEND=1.

IF (STATUS EQ 2 AND ANY(Q19.C1,COMP.1,COMP.2,COMP.3,COMP.4)) ATTEND=2.

MISSING VALUES ATTEND (3).

\*\*\*\*\*

\*\* CREATES RANK VARIABLES

\*\*\*\*\*

COMPUTE RANKUS=4.

COMPUTE RANKTHEM=4.

DO IF (SYSMIS(Q19.C2) AND SYSMIS(Q19.C2) AND SYSMIS(Q19.C3)).

COMPUTE RANKUS=0.

COMPUTE RANKTHEM=0.

ELSE.

```

DO REPEAT V1=Q19.C2,Q19.C3,Q19.C4/V2=1,2,3.
IF (V1 EQ DICODE) RANKUS=V2.
IF (ANY(V1,COMP.1,COMP.2,COMP.3,COMP.4)) RANKTHEM=V2.
END REPEAT.
END IF.
MISSING VALUES RANKUS,RANKTHEM (0).
COMPUTE RANKDIFF=RANKUS-RANKTHEM.
*****
** CREATES DIFFERENCE SCORE FOR CHARACTERISTICS, INFO SOURCES,
   AND RANK
*****.
DO REPEAT  V1=QU21 TO QU36,QU40 TO QU53/
           V2=QC21 TO QC36,QC40 TO QC53/
           V3=DIFFC1 TO DIFFC16,DIFFS1 TO DIFFS14/
           V4 = DC1 TO DC16, DS1 TO DS14.

COMPUTE V3=V1-V2.
RECODE V3 (LO THRU -1=3) (0=2) (1 THRU HI=1) INTO V4.
END REPEAT.
RECODE RANKDIFF (LO THRU -1=1) (0=2) (1 THRU HI=3).
VAR LABELS
    DIFFC1      "RATING DIFF: REPUTATION"
    DIFFC2      "RATING DIFF: MAJOR AVAILABILITY"
    DIFFC3      "RATING DIFF: SPECIAL PROGRAMS"
    DIFFC4      "RATING DIFF: PERSONAL ATTENTION"
    DIFFC5      "RATING DIFF: ACADEMIC FACILITIES"
    DIFFC6      "RATING DIFF: RECREATIONAL FACILITIES"
    DIFFC7      "RATING DIFF: QUALITY OF HOUSING"
    DIFFC8      "RATING DIFF: SURROUNDINGS"
    DIFFC9      "RATING DIFF: CAMPUS ATTRACTIVENESS"
    DIFFC10     "RATING DIFF: COST OF ATTENDANCE"
    DIFFC11     "RATING DIFF: SOCIAL LIFE"
    DIFFC12     "RATING DIFF: OFF-CAMPUS ACTIVITIES"
    DIFFC13     "RATING DIFF: EXTRACURRICULAR ACTIVITIES"
    DIFFC14     "RATING DIFF: OPTION 1"
    DIFFC15     "RATING DIFF: OPTION 2"
    DIFFC16     "RATING DIFF: OPTION 3"
    DIFFS1      "RATING DIFF: HIGH SCHOOL VISITS"
    DIFFS2      "RATING DIFF: COLLEGE-SPONSORED MEETINGS"
    DIFFS3      "RATING DIFF: PUBLICATIONS"

```

DIFFS4	"RATING DIFF: COLLEGE VIDEOS/CD-ROMS"
DIFFS5	"RATING DIFF: COLLEGE WEB SITE"
DIFFS6	"RATING DIFF: FINANCIAL AID COMMUNICATIONS"
DIFFS7	"RATING DIFF: ELECT COMMUNICATION"
DIFFS8	"RATING DIFF: CAMPUS VISIT"
DIFFS9	"RATING DIFF: ON-CAMPUS INTERVIEW"
DIFFS10	"RATING DIFF: POST-ADMIT CONTACT"
DIFFS11	"RATING DIFF: CONTACT WITH FACULTY"
DIFFS12	"RATING DIFF: CONTACT WITH COACHES"
DIFFS13	"RATING DIFF: CONTACT WITH GRADUATES"
DIFFS14	"RATING DIFF: CONTACT WITH STUDENTS"
DC1	"RATING DIFF: REPUTATION"
DC2	"RATING DIFF: MAJOR AVAILABILITY"
DC3	"RATING DIFF: SPECIAL PROGRAMS"
DC4	"RATING DIFF: PERSONAL ATTENTION"
DC5	"RATING DIFF: ACADEMIC FACILITIES"
DC6	"RATING DIFF: RECREATIONAL FACILITIES"
DC7	"RATING DIFF: QUALITY OF HOUSING"
DC8	"RATING DIFF: SURROUNDINGS"
DC9	"RATING DIFF: CAMPUS ATTRACTIVENESS"
DC10	"RATING DIFF: COST OF ATTENDANCE"
DC11	"RATING DIFF: SOCIAL LIFE"
DC12	"RATING DIFF: OFF-CAMPUS ACTIVITIES"
DC13	"RATING DIFF: EXTRACURRICULAR ACTIVITIES"
DC14	"RATING DIFF: OPTION 1"
DC15	"RATING DIFF: OPTION 2"
DC16	"RATING DIFF: OPTION 3"
DS1	"RATING DIFF: HIGH SCHOOL VISITS"
DS2	"RATING DIFF: COLLEGE-SPONSORED MEETINGS"
DS3	"RATING DIFF: PUBLICATIONS"
DS4	"RATING DIFF: COLLEGE VIDEOS/CD-ROMS"
DS5	"RATING DIFF: COLLEGE WEB SITE"
DS6	"RATING DIFF: FINANCIAL AID COMMUNICATIONS"
DS7	"RATING DIFF: ELECT COMMUNICATION"
DS8	"RATING DIFF: CAMPUS VISIT"
DS9	"RATING DIFF: ON-CAMPUS INTERVIEW"
DS10	"RATING DIFF: POST-ADMIT CONTACT"
DS11	"RATING DIFF: CONTACT WITH FACULTY"

DS12 "RATING DIFF: CONTACT WITH COACHES"  
DS13 "RATING DIFF: CONTACT WITH GRADUATES"  
DS14 "RATING DIFF: CONTACT WITH STUDENTS".

VALUE LABELS

ATTEND 1 "Our college"  
2 "This competitor"  
3 "Any other college"/  
DC1 TO DS14 1 "Ours rated higher"  
2 "Ours rated same"  
3 "Ours rated lower"/  
RANKDIFF 1 "Ours ranked higher"  
2 "Ours ranked same"  
3 "Ours ranked lower"/  
RANKUS,RANKTHEM 1 "First choice"  
2 "Second choice"  
3 "Third choice"  
4 "Fourth or lower".

WEIGHT BY CASEWT.

FREQUENCIES VARIABLES=ATTEND,RANKUS,RANKTHEM,DC1 TO DS14.

CROSSTABS TABLES=RANKUS BY RANKTHEM/CELLS=COUNT COLUMN ROW.

CROSSTABS TABLES=RANKDIFF BY DC1 TO DS14/CELLS=COUNT TOTAL.

TEMPORARY.

SELECT IF (RANKDIFF EQ 1).

SUBTITLE "OUR COLLEGE RANKED HIGHER".

DESCRIPTIVES DIFFC1 TO DIFFC16.

TEMPORARY.

SELECT IF (RANKDIFF EQ 2).

SUBTITLE "OUR COLLEGE RANKED THE SAME".

DESCRIPTIVES DIFFC1 TO DIFFC16.

TEMPORARY.

SELECT IF (RANKDIFF EQ 3).

SUBTITLE "OUR COLLEGE RANKED LOWER".

DESCRIPTIVES DIFFC1 TO DIFFC16.

SUBTITLE.

TEMPORARY.

RECODE QU21 TO QU36, QC21 TO QC36, QU40 TO QU53, QC40 TO QC53  
(3,4=1) (ELSE=2).

CROSSTABS TABLES=QU21 BY QC21/QU22 BY QC22/QU23 BY QC23  
/QU24 BY QC24/QU25 BY QC25/QU26 BY QC26  
/QU27 BY QC27/QU28 BY QC28/QU29 BY QC29  
/QU30 BY QC30/QU31 BY QC31/QU32 BY QC32  
/QU33 BY QC33/QU34 BY QC34/QU35 BY QC35  
/QU36 BY QC36/QU40 BY QC40/QU41 BY QC41  
/QU42 BY QC42/QU43 BY QC43/QU44 BY QC44  
/QU45 BY QC45/QU46 BY QC46/QU47 BY QC47  
/QU48 BY QC48/QU49 BY QC49/QU50 BY QC50  
/QU51 BY QC51/QU52 BY QC52/QU53 BY QC53  
/CELLS=COUNT TOTAL.

CROSSTABS TABLES=

QU37.1 BY QC38.1/QU37.2 BY QC38.2/QU37.3 BY QC38.3  
/QU37.4 BY QC38.4/QU37.5 BY QC38.5/QU37.6 BY QC38.6  
/QU37.7 BY QC38.7/QU37.8 BY QC38.8/QU37.9 BY QC38.9  
/QU37.10 BY QC38.10/QU37.11 BY QC38.11/QU37.12 BY QC38.12  
/CELLS=COUNT TOTAL.

CROSSTABS TABLES=

QU37.13 BY QC38.13/QU37.14 BY QC38.14/QU37.15 BY QC38.15  
/QU37.16 BY QC38.16/QU37.17 BY QC38.17/QU37.18 BY QC38.18  
/QU57 BY QC57/QU58 BY QC58/QU59 BY QC59  
/CELLS=COUNT TOTAL.