COACHE

Tenure-Track Faculty Job Satisfaction Survey
Guide to Your Institutional Report

COACHE

The Collaborative on Academic Careers in Higher Education

GUIDE TO YOUR COACHE INSTITUTIONAL REPORT

One of the great strengths of an institution of higher education is its faculty. Research literature demonstrates that the faculty are affected by their perception of the values and rewards in their work environment and that supportive environments promote faculty satisfaction, which can lead to increased productivity and retention. With this understanding, the Collaborative on Academic Careers in Higher Education (COACHE) at the Harvard Graduate School of Education developed the Tenure-Track Faculty Job Satisfaction Survey to be a diagnostic and comparative management tool for college and university policymakers. The first stage of this endeavor consisted of focus groups with pre-tenure faculty designed to elicit information on what comprises workplace and career satisfaction. This work, combined with the extant literature on faculty satisfaction, reviews of institutional satisfaction surveys, and conversations with numerous stakeholders, led to the development of the survey. We have now administered the Tenure-Track Faculty Job Satisfaction Survey at over one hundred colleges and universities, each of whom receives their custom version of this benchmarking report and comparative analysis.

Membership in the Collaborative, however, does not conclude with delivery of this report. Our mission to make the academy a more attractive place to work is advanced only when supported by institutional action. To that end, COACHE is your partner and a resource for maximizing the ability of your data to initiate dialogue, recruit talented new scholars, and further the work satisfaction of all faculty at your institution. Please contact us at any time to discuss the continuing benefits of COACHE participation.

CONTENTS

The data provided in your COACHE Institutional Report tell the unique story of your junior faculty's experiences working at your institution. The report is comprised of an executive summary, a question-by-question analysis of survey results, special analyses, and highly detailed appendices. This guide will acquaint you with the contents and organization of your report as you navigate through its various layers.

I. Executive Summary

The executive summary gives an overview of what your pre-tenure, tenure-track faculty members think about working at your institution. It shows, in a condensed fashion, your institution's strengths and weaknesses, in relation to the five peer institutions you chose for comparison, as well as in relation to all COACHE universities. The Executive Summary is composed of four parts, each of which represents a different aspect of the data or level of analysis. Together, these four components provide a comprehensive distillation of the data.

A. Institutional Profile, by Theme. The survey collects information according to five themes:

- *Tenure:* Clarity and reasonableness of tenure process and criteria
- *Nature of the Work:* Satisfaction with work-related duties and support services
- *Policies and Practices:* Policy importance, effectiveness, and satisfaction
- *Climate, Culture, Collegiality:* Satisfaction with cultural and interpersonal aspects of work environment
- *Global Satisfaction:* Overall satisfaction with the institution as workplace

The institutional profile features an "at-a-glance" bar chart showing your pre-tenure faculty's mean scores among those at your benchmark peers.[1] Each bar in the chart shows the percentage of items within a particular theme on which your institution scored in the a) top third (ranked first or second; green), b) middle third (ranked third or fourth; gray), and c) bottom third (ranked fifth or sixth; red). Mean scores are averages of responses on a five-point Likert-type scale. The names of your five peer institutions appear below the chart.

[1] The results of the survey's demographic questions (1 through 18) are in Appendix A, "Frequency Tables."

B. Results Presented by Theme. This section presents five charts showing the results of the individual survey items by theme. Each chart shows:

1. your junior faculty's mean scores for each survey item;
2. how each mean score ranks relative to your five peers – overall, by gender, and by race; and
3. gender and race differences within your institution.[2]

For each theme, we display the responses to each survey item ranked *highest to lowest* by mean rating on a five-point scale (5 = highest).

Column 1 mean ratings show where your pre-tenure faculty are on average most satisfied and least satisfied.

Columns 2, 3, and *4* show, for each item, how the mean ratings of your pre-tenure faculty rank in relation to the means at your five peers, for faculty overall, grouped by gender, and grouped by race (i.e., white faculty and faculty of color[3]). A plus sign (+) in a cell indicates that your faculty's mean score on that item ranked in the top two out of six peers (your institution plus your five peer institutions). A minus sign (-) indicates that your faculty's mean score on that item ranked in the bottom two out of six peers. A blank cell indicates a score ranking third or fourth among peer scores. For Columns 3 and 4, we used the following symbols: *F = Females, M = Males, W = White Faculty,* and *C = Faculty of Color*. As with the overall scores, a "+" or "-" symbol indicates respectively a mean score in the top or bottom third of your peer group. For example, "F+" indicates that the female faculty at your institution had a mean score on that item ranking in the top two out of six peers (your institution plus your five peer institutions).

Columns 5 and *6* highlight for each question any disparities *within your institution* based on gender and race. Because each of these columns compares means between two distinct groups on your campus (i.e., men and women; whites and faculty of color), we used a test of statistical significance. The letter designations (e.g., F, M, W, C) in a given cell indicate responses where the difference between the two means is large enough that it is very unlikely (less than 5% chance) to have occurred by chance alone. Where there are no statistically significant differences, the cells are left blank. The letter designations and "greater than" (>) and "less than" (<) symbols indicate which group has the higher score.

C. Policies and Practices Summary. For each of 16 policies, respondents rated how important the policy is or would be to their success and how effective each policy is at their institution. This section of your report consists of two charts. For each policy, the top chart shows the percentage of respondents who indicated that it was both important and effective, whereas the bottom chart shows the percentage who indicated that it was important and ineffective (or not offered). Higher percentages in the top chart indicate relatively successful policies, whereas higher percentages in the bottom chart indicate policies that your junior faculty think would lead to their success, but that are currently absent or not working well at your institution.

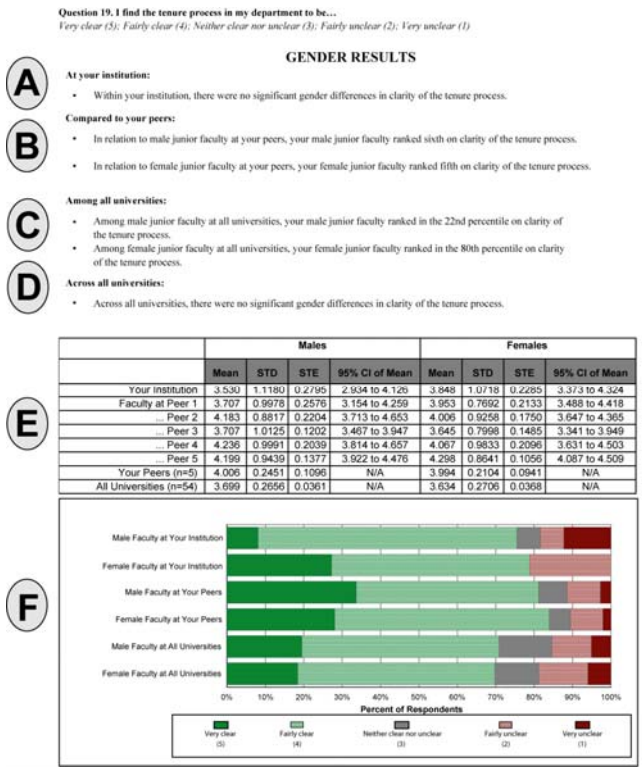
D. Best and Worst Aspects about Working at Your Institution. Respondents saw a list of aspects of working at an institution (e.g., support for teaching; quality of graduate students), and chose the two they perceived to be the "best" at your institution and two they perceived to be the "worst." The table in this section shows the four aspects most frequently mentioned as one of the two best aspects at your institution, and the four most frequently chosen as one of the two worst aspects, overall, by gender, and by race. The two columns to the right show how many other peers (out of 5) and how many other COACHE universities also had the item in their top four best (or worst) aspects. See *Appendix C* for the list of aspects from which respondents made their choices.

[2] Only statistically significant differences are shown here (see below, *Statistical Terms in the Institutional Report*).
[3] To ensure the confidentiality of all responses, "faculty of color" as a category is not further disaggregated by racial and ethnic groups.

II. Survey Results

The survey results begin with the survey response rates, weight scales, and your selected peers. Then, for each survey item (excluding the demographic questions and the *special questions* outlined below), the Report presents, in three pages, the results of pre-tenure faculty respondents as a whole (Overall Results), for males and females separately (Gender Results), and for white faculty and faculty of color (Race Results).

To understand the format of your COACHE survey results, refer to the descriptions below and to the sample page at right.



	Males				Females			
	Mean	STD	STE	95% CI of Mean	Mean	STD	STE	95% CI of Mean
Your Institution	3.530	1.1180	0.2795	2.934 to 4.126	3.848	1.0718	0.2285	3.373 to 4.324
Faculty at Peer 1	3.707	0.9978	0.2576	3.154 to 4.259	3.953	0.7692	0.2133	3.488 to 4.418
Peer 2	4.183	0.8817	0.2204	3.713 to 4.653	4.006	0.9258	0.1750	3.647 to 4.365
Peer 3	3.707	1.0125	0.1202	3.467 to 3.947	3.645	0.7998	0.1485	3.341 to 3.949
Peer 4	4.236	0.9991	0.2039	3.814 to 4.657	4.067	0.9833	0.2096	3.631 to 4.503
Peer 5	4.199	0.9439	0.1377	3.922 to 4.476	4.298	0.8641	0.1056	4.087 to 4.509
Your Peers (n=5)	4.006	0.2451	0.1096	N/A	3.994	0.2104	0.0941	N/A
All Universities (n=54)	3.699	0.2656	0.0361	N/A	3.634	0.2706	0.0368	N/A

A. At your institution: Statements under this heading compare the mean scores of sub-groups defined by gender or by race. A *t-test* at the standard $p<.05$ level was used to determine statistically significant differences.[4]

B. Compared to your peers: These statements indicate the rank of your faculty's mean score relative to those at your five COACHE peers (i.e., out of six).

C. Among all universities: These statements indicate the percentile[5] of your faculty's mean score relative to all participating COACHE universities. In the context of this survey, higher percentile ranks indicate strengths; lower ranks indicate weaknesses.

D. Across all universities: These statements compare the mean scores of gender or racial subgroups across all survey respondents at COACHE universities, based on *t-tests* (see "*At your institution*" above).

E. Data table: This table contains the mean ratings of faculty at your institution, at your peer institutions, and across all universities. Further descriptive statistics are provided: standard deviation (SD), standard error (SE), and the 95% confidence interval (CI) of the mean. The rows labeled "Your peers" and "All Universities" indicate the mean of the five peer mean scores and of all COACHE universities, respectively. No CI is given for the mean of your five peers or of all universities, as these means are calculated directly, without the need for statistical inference. Also, means are not reported in demographic categories where there were too few respondents at your institution or at your peers.

F. Frequency chart: This chart illustrates the frequency of each of the five scale points in percentages for faculty at your institution, at your peer institutions, and at all COACHE universities combined. Exact frequencies can be seen in Appendix A, "Frequency Tables."

[4] *Significance tests* were performed to determine whether the difference between group mean scores is *statistically* significant (i.e., there was at most 5% likelihood that the difference between groups occurred by chance alone). However, even when the difference is not statistically significant, it can be meaningful and *practically* significant. For example, differences in means between subgroups with fewer than 30 participants are difficult to detect with statistical tests. Under such circumstances, meaningful differences might exist regardless of these test results.

[5] *Percentile* indicates the percent of scores that fall at or below your institution's score.

Therefore, the pages of results for most COACHE survey questions present the following information:

	Your mean score's rank relative to your peers	Your percentile rank among all universities	Differences between groups within your institution	Differences between groups across all universities	Table of means: your institution, your peers, all universities	Frequency chart: your institution, your peers, all universities
Overall results	●	●			●	●
Gender results	●	●	●	●	●	●
Race results	●	●	●	●	●	●
Academic area results	●	●	●			

Interpreting Results: Means and Frequencies. While a group's mean score on an item gives valuable information about the group's central tendency, the frequency can tell you the extent to which the group is polarized in their responses. For example, consider the following two hypothetical cases:

1) In one case, half of a group of pre-tenure faculty chose "1" on a 5-point scale (e.g., *Very dissatisfied*), and half chose "5" (*Very satisfied*);
2) In the second case, every respondent in the group chose "3" (*Neither satisfied nor dissatisfied*).

In both cases, the mean score is 3.0; however, whereas in the second case the mean reflects individuals' attitudes very accurately, in the first case, the mean (*Neither satisfied nor dissatisfied*) does not actually reflect the attitude of anyone in the group. Rather, this group seems to be made up of two sub-groups with very different attitudes. It is important to take into account the polarization of scores when considering policy changes in order to gain a greater understanding of how faculty members will be affected.

For actual percentages of each response at your institution, see Appendix A, "Frequency Tables."

New Questions for 2007-08. In response to requests from member institutions, some survey dimensions were added or altered for the 2007-08 survey administration. For these few items, peer comparisons are unavailable. However, we do present your faculty's responses alongside those of faculty at institutions who were administered these new questions.

III. Special Analyses

Importance and Effectiveness of Policies and Practices. For this section (Theme III; Questions 34a and 34b) respondents saw a list of 16 policies common at academic workplaces; for each, they rated how *important* the policy is or would be to their success, and how *effective* it is at their institution. Respondents could also indicate that the policy is not offered at their institution.

The results are summarized in five tables: overall, for males, for females, for white faculty, and for faculty of color. The columns of most interest are those that show the percent of faculty who rated the policy as: *important,* but *ineffective* or *not offered* (Column 2) and the percent who rated it as both *important* and *effective* (Column 3). Policies with higher percentages in Column 2 are working well at your institution, whereas those with higher percentages in Column 3 are working less well, and can perhaps be targeted for improvement.

Best and Worst Aspects of Working at This Institution. For these questions (Theme V; Questions 44a and 44b), respondents saw a list of 28 common attributes of institutions as workplaces, and chose the two they perceived to be the "best" and the two they perceived to be the "worst." The table presented in this section shows (overall, by gender, and by race) the four aspects most frequently mentioned as one of the two *best* aspects, and the four most frequently chosen as one of the two *worst* aspects. The two columns to the right show how many peers (out of 5) and how many other COACHE institutions also had the item in their top four best or worst aspects. See Appendix C ("Survey Instrument") to see the list of aspects from which respondents chose.

The second page of these results lists the responses submitted by faculty who named their own best or worst aspects instead of or in addition to choosing from the list.

Survey Results by Academic Area. This analysis is the result of our efforts to categorize faculty at all COACHE universities into discrete "academic areas" to permit comparison of survey responses across institutions. These definitions arose from a review of structural designations (i.e., schools and colleges, which differ from campus to campus) and CIP codes (which are too narrowly defined for meaningful reporting).

As there is currently no uniform system of nomenclature among the schools and colleges of COACHE institutions, we hope that the following 12 academic areas strike a useful—if imperfect—compromise suitable for this analysis:

Humanities
Visual and Performing Arts
Social Sciences
Physical Sciences
Biological Sciences
Engineering, Computer Science, Mathematics, and Statistics
Agriculture, Natural Resources, and Environmental Science
Business
Education
Health and Human Ecology
Medical Schools and Health Professions
Other Professions, including (among others) Architecture, Journalism, Law, Library

A. **At your institution:** The first set of tables shows the relative performance of the academic areas within your institution. For each item, your pre-tenure faculty's mean scores are shown for 12 academic areas, listed in order from highest to lowest mean. To protect the identity of respondents, cells with fewer than five data points (i.e., mean scores for questions that were answered by fewer than five faculty from an academic area within an institution) are not reported.

B. **Compared to peers and all COACHE universities:** The second set of tables shows, for each item, your pre-tenure faculty's mean score for each academic area as expressed as a ranking among at your peers (rank 1-6) and as a percentile among all universities for that academic area. Again, to protect the identity of respondents, cells with fewer than five data points are not reported.

If your institution would like to receive custom analyses by school or college, please contact COACHE at coache@gse.harvard.edu.

IV. Appendices

Appendix A: Frequency Tables. This appendix shows, for each survey item, the percent of respondents at your institution who chose each response option.

Demographic results include the combined percentage at your five peers and at all universities.

For questions in each of the five themes, percentages of each response option chosen by your pre-tenure faculty are shown for each survey item overall, by gender, and by race. The following percentages are also shown in the frequency tables for each item:

- Percentages at each of your five peers separately
- The mean percentage for all five peers combined
- The mean percentage for all universities

Also included in the Frequency Tables are the mean scores for your institution, for your peers individually, for your peers combined, and for all universities combined. These latter two means may differ from the "mean of the means" reported in the "Survey Results" tables in that the means here are calculated by adding each individual respondent's rating and dividing by the total number of responses at your peers (i.e., the respondent is the unit of analysis). The means in the "Survey Results" tables, on the other hand, are calculated by adding each institution's mean, then dividing by the number of institutions (i.e., the institution is the unit of analysis).

As explained earlier in this Guide, the relative frequencies of each response for each item can provide crucial information not given by the mean score alone. While a group's mean score on an item gives valuable information about the group's central tendency, the frequency can tell you how polarized the group is in their responses.

Appendix B: Open-ended Responses. This section shows the comments written by your pre-tenure faculty in response to follow-up questions to three survey items and to one open-ended question:

Q27b. On what are tenure decisions in your department primarily based? Subjects were asked this follow-up question if they responded "Somewhat disagree" or "Strongly disagree" to Question 27a ("From what I can gather, tenure decisions here are based primarily on performance rather than on politics, relationships, or demographics.").

Q46a. Who serves as the chief academic officer at your institution? Subjects responding "other" were asked to specify.

Q47. Assuming you achieve tenure, how long do you plan to remain at your institution? Subjects responding "For no more than 5 years after earning tenure" to this question were asked to specify their reasons.

Q51. Please use the space below to tell us the number one thing that you, personally, think your institution should do in order to be a great place to work.

Appendix C: Survey Instrument. For your reference, a "static" version of the web-based instrument is provided in the first appendix. Please note that this medium does not accurately indicate survey "skip" patterns, where some items may be skipped because of responses to previous questions. For information about survey development and validation, see the *COACHE Overview*, below.

Appendix D: Responses to Custom Questions. For institutions that appended additional, custom questions to the COACHE survey, the results are displayed in cross-tabulations and/or open-ended narrative in this section.

METHOD

Background. The principal purposes of the Collaborative on Academic Careers in Higher Education (COACHE) survey are two-fold: (1) to enlighten academic leaders about the experiences and concerns of full-time, tenure-track faculty; and (2) to provide data that lead to informed discussions and appropriate actions to improve the quality of work/life for those faculty. Over time, we hope these steps will make the academy an even more attractive and equitable place for talented scholars and teachers to work.

The core element of COACHE is a web-based survey designed and tested in focus groups and a rigorous pilot study with twelve sites (see *Survey Design* below). The survey asked full-time tenure-track faculty to rate the attractiveness of various terms and conditions of employment and to assess their own level of work satisfaction. While there are many faculty surveys, the COACHE instrument is unique in that it was designed expressly to take account of the concerns and experiences of full-time, pre-tenure, tenure-track faculty, especially with regard to the promotion and tenure process, work-family balance, and organizational climate and culture.

This COACHE Tenure-Track Job Satisfaction Survey provides academic leaders with a powerful lever to enhance the quality of work life for pre-tenure faculty. Each section of the report provides not only interesting data, but also actionable diagnoses. The data are a springboard to workplace improvements, more responsive policies and practices, and an earned reputation as a great place for pre-tenure faculty to work.

Survey Design. The chief aim in developing the COACHE Tenure-Track Faculty Job Satisfaction Survey was to assess, in a comprehensive and quantitative way, pre-tenure faculty's work-related quality of life. The survey addresses multiple facets of job satisfaction and includes specific questions that would yield unambiguous, actionable data on key policy-relevant issues. The COACHE instrument was developed and validated in stages over a period of several years.

First, six focus groups were conducted with a total of 57 tenure-track faculty to learn how they view certain work-related issues, including specific institutional policies and practices, work climate, the ability to balance professional and personal lives, issues surrounding tenure, and overall job satisfaction.

Drawing from the focus groups, prior surveys on job satisfaction among academics and other professionals, and consultation with Harvard University and advisory board experts on survey development, COACHE researchers developed a web-based survey prototype that was then tested in a pilot study of 1,188 pre-tenure faculty members at 12 institutions.

We solicited feedback about the survey by conducting follow-up interviews with a sub-sample of the respondents of the pilot study. The survey was revised in light of this feedback. The current version of the survey was revised further, taking into account feedback provided by respondents in survey administrations since the pilot study.

Survey Administration. All eligible subjects at participating institutions were invited to complete the survey. Eligibility was determined according to the following criteria:

- Full-time
- Tenure-track/ladder rank
- Pre-tenure
- Hired prior to 2007 (new hires are unable to respond meaningfully to many questions)
- Not *clinical* faculty in such areas as Medicine, Dentistry, Nursing, Pharmacy, and Veterinary Medicine
- Not in terminal year after being denied tenure

See "Survey Results" for response rates at your institution by gender and by race.

Subjects first received a letter about the survey from a senior administrator (e.g., president, provost, or dean) at their institution. Next, subjects received an email from COACHE (coache@gse.harvard.edu) inviting them to complete the survey. Participants accessed a secure web server through their own unique link provided by COACHE and responded to a series of multiple-choice and open-ended questions (see *Appendix C*). The average survey completion time was approximately 20 minutes.

Data Conditioning. For a participant's responses to be included in the data set, s/he had to provide at least one meaningful response for Questions 19 through 51. The responses of faculty who either terminated the survey before Question 19 or chose only *NA* or *Decline to Respond* for all questions were removed from the data set.

A weighting scale was developed for each institution to adjust for the under- or over-representation in the data set of subgroups defined by race and gender (e.g., White males, Asian females, etc.). Applying these weights to the data thus allowed the relative proportions of subgroups in the data set for each institution to more accurately reflect the proportions in that institution's actual population of pre-tenure faculty. (See "Survey Results" below for your institution's weight scale.)

In responses to open-ended questions (Appendix B), individually-identifying words or phrases that would compromise the respondent's anonymity were either excised or emended by COACHE analysts. Where this occurred, the analyst substituted that portion of the original response with brackets containing an ellipsis or alternate word or phrase (e.g., [...] or [under-represented minority]).

STATISTICAL TERMS IN THE INSTITUTIONAL REPORT

95% Confidence Interval of the Mean (C.I.). A range of numbers within which the mean score of a *population* (e.g., all pre-tenure faculty at an institution, including both respondents and non-respondents) is 95% likely to fall. For example, suppose that on a survey item the mean score of your female pre-tenure faculty respondents were 3.00, and the 95% C.I. interval were 2.00 to 4.00. The mean score of all your female pre-tenure faculty (if they were to respond to the survey) would be 95% likely to fall within that range. This range is influenced by the respondent group's mean score and the variability of scores, as well as by the number of respondents in the group. Given the same mean score, smaller intervals around the mean score reflect more certainty than do larger intervals that the respondent group's mean score is close to that of the group's population.

In the tables of means for each question in the report, C.I.'s are provided for the mean scores of respondent groups at an institution. However, the average of your peer institutions' mean scores and that of all COACHE colleges or universities can be calculated directly, so C.I.s are not necessary there.

Data Weighting (Weight Scale). The purpose of "weighting" data is to adjust for the under- or over-representation in the data set of subgroups defined by race and gender (e.g., white males, Asian females, etc.). The weight scale for a set of data is based on the difference between the proportion of each race/gender subgroup in the respondent group with the proportion of the subgroup in the institution's population of pre-tenure faculty as a whole. Applying these weights to the data thus allows the relative proportions of subgroups in the data set for each institution to more accurately reflect the proportions in that institution's actual population of pre-tenure faculty. (See "Survey Results" for your institution's weight scales.)

Response Rate. The percent of pre-tenure faculty at an institution who responded to the survey. Response rate is calculated here for each of the categories defined by the intersection of gender and race (e.g., white males, Hispanic/Latino females, Black males). These response rates determine the weight scale used to balance the sample.

Standard Deviation (s.d.). A measure of the "spread" of scores from a group of respondents. Literally, s.d. reflects the average difference between individuals' scores and the mean score of the group. A larger s.d. indicates greater variation in a group's scores, whereas a smaller s.d. indicates less variation.

Standard Error of the Mean (s.e.). A measure of the certainty with which the mean score of a respondent group (e.g., the subset of an institution's faculty of color that completed the survey) can be considered to reflect the mean score of the population (e.g., all faculty of color at an institution) from which the respondent group came.

(Statistically) Significant Difference. A difference in the mean scores of two *groups of respondents* (e.g., men versus women respondents at an institution) that is at most 5% likely to have occurred by chance alone. A statistically significant difference between groups is considered to reflect an actual difference in the groups' *populations* (e.g., mean score of all men versus that of all women at an institution, including non-respondents). Significance tests of group differences are swayed partially by the number of subjects in each group, with differences between larger groups being easier to achieve statistical significance than those between smaller groups. Therefore, when differences between small groups fail to achieve *statistical* significance, as is often the case with gender and race differences within institutions, they nevertheless can be meaningful and *practically* significant.