

Advising at the Millennium: Advisor Satisfaction and Perceived Avenues to Enhancement

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This is the third in a series of three articles in which the results of the NACADA Academic Advising Survey 2000 are presented. In this article, advisor satisfaction and suggested avenues for service and professional enhancement are reported. These factors are examined according to the type, mission, and size of the respondents' institutions. In addition, comparisons are made between faculty advisors and professional staff advisors, between advisors and academic administrators, between respondents from centralized and decentralized advising offices, and between advising offices located in academic units and administrative units.

KEY WORDS: advising profession, NACADA Survey 2000, professional development

The NACADA Academic Advising Survey 2000 was conducted electronically via the National Academic Advising Association Web site (www.nacada.ksu.edu) between April 18, 2000, and May 31, 2000. A total of 2,695 respondents completed surveys. A demographic profile of the survey respondents was presented in the first article in this series (Lynch & Stucky, 2001).

Through 12 survey items, advisor satisfaction, current advising position of the respondents, and several aspects of institutional support were addressed. Advisors were asked to rate the adequacy of advisor staffing; advising support staff; advising facilities; technological, print, and other resources; professional development resources; and operating budget. Advisors were asked to indicate their levels of satisfaction with their current workload in direct service advising, administration of advising and other support programs, and other advising-related activities. In addition, advisors indicated their levels of satisfaction with their advisee load, the extent to which advisor opinions were heeded in institutional decision making, and the level of institutional support for advising at their institutions. Both adequacy and satisfaction were rated on 5-point scales, with adequacy ranging from "quite inadequate" to "exceptional" and satisfaction ranging from "very dissatisfied" to "very satisfied."

In addition to rating the adequacy of and satisfaction with various aspects of their advising situations, respondents were asked to indicate the top

three steps policy makers could take to improve institutional support of advising and advisors. Respondents selected from increase funding, increase the number of advisors, increase support staff for advisors and advising activities, increase technological resources, increase advisor training, and increase professional development resources. Respondents were also requested to indicate which of five activities NACADA could undertake in support of advisors and advising at their institutions. Suggested activities included the provision of additional advisor-training resources, informational workshops and teleconferences, additional professional development opportunities, information pertaining to technological resources, and additional means for networking with colleagues. Respondents indicated which of seven possible workshop or teleconference topics would be of interest. Potential topics included uses of technology in advising, improving advisors' skills, developing advisor-training programs, conducting research in advising, securing additional funding for advising activities, legal issues in advising, and advising special populations.

Respondents' ratings of adequacy and satisfaction and their responses concerning possible institutional steps in support of advisors and advising, recommended NACADA activities, and suggested workshop/teleconference topics are examined according to a variety of institutional and advisor characteristics. Responses are compared according to the respondents' types of institution (public university or college, private university or college, 2-year college), the missions of the respondents' institutions (research university, comprehensive college or university, liberal arts colleges, 2-year college), and the size categories of respondents' institutions (undergraduate enrollment <1,000; 1,000–2,499; 2,500–4,999; 5,000–9,999; 10,000–19,999; $\geq 20,000$).

Comparisons of faculty advisors and professional staff advisors are also made. Survey respondents provided the title of their current positions. The 13-response item included professor or instructor (teaching faculty) and academic advisor or advising specialist. One hundred and sixty-one respondents indicated that they are professors or instructors and are defined as faculty advisors.

One thousand two hundred and nine respondents indicated they are academic advisors or advising specialists and are defined as professional staff advisors.

Additional comparisons are made between academic advisors and academic administrators. For purposes of these comparisons, faculty advisors, academic advisors, and advising specialists are combined ($n = 1,370$) and compared with those holding titles of academic department chairperson; advising coordinator or director; assistant or associate dean of a college or academic affairs; or vice president, dean, or provost of academic affairs ($n = 841$).

Respondents from centralized and decentralized advising offices are also compared. Respondents indicating they work in centralized advising offices in either academic or administrative units are defined as centralized units ($n = 1,300$). Respondents indicating they represented decentralized offices in either academic or administrative units are combined to represent decentralized units ($n = 559$). Advising units were compared according to their administrative placement within the institution. Both centralized and decentralized units were identified as part of an academic unit or administrative unit. In a third category, responses from advisors at centers that serve special populations are included in the analysis.

I used a general linear model one-way analysis-of-variance (ANOVA) to compare the levels of the classification variable on the respondents' ratings of adequacy and satisfaction. The 0.05 alpha level is the standard for significance. In those instances where the ANOVA indicates significant differences among the levels of the classification variable, the Tukey HSD multiple comparison was used to identify the specific differences. Estimated e^2 is reported as a measure of effect size. I used the chi-square analysis to compare levels of the classification variable on respondents' indications of the three institutional-improvement steps in support of advisors and advising, the five suggested NACADA activities, and the workshops or teleconference topics of interest. In those cases where the chi square was significant at $\alpha = 0.05$, I used the standardized residual method to identify the major contributors to the significant chi-square value.

Analysis by Type of Institution

In Table 1, I summarize the respondents' ratings of adequacy and satisfaction according to the respondents' types of institution: public university or college, private university or college, or 2-year college. Adequacy ratings on the six areas of advising sup-

port were provided on a 5-point scale with a rating of 1 being "quite inadequate," 2 meaning "inadequate," 3 as "just adequate," 4 standing for "more than adequate," and 5 indicating "exceptional." Respondents rated adequacy with an overall average of 3.0 or higher in only one category: technology, print, and other resources. The overall mean adequacy ratings for the other five areas of support received mean ratings of less than 3.00; the lowest being assigned to adequacy of the operating budget.

I found differences on adequacy ratings on four of the six areas. Respondents from private institutions ($\bar{X} = 2.84$) rated the adequacy of advising staff significantly higher than did respondents from public institutions ($\bar{X} = 2.68$). The difference between ratings of private and 2-year institutions ($\bar{X} = 2.70$) was not significant nor was the difference between ratings of public and 2-year institutions. For the areas of advising support staff, the mean adequacy rating for public universities and colleges ($\bar{X} = 2.69$) was significantly higher than those of both private universities and colleges ($\bar{X} = 2.55$) and 2-year colleges ($\bar{X} = 2.52$). I found an identical pattern of significance on the ratings of adequacy of technology, print, and other resources. Respondents at public universities and colleges ($\bar{X} = 3.46$) rated the adequacy significantly higher than did those at both private colleges and universities ($\bar{X} = 3.23$) and 2-year colleges ($\bar{X} = 3.27$). No differences were found between respondents' ratings of private institutions and 2-year colleges. Public institutions received a significantly higher adequacy rating on the availability of professional development resources ($\bar{X} = 2.94$) than did private institutions ($\bar{X} = 2.76$). No significant differences were found between public and 2-year institutions ($\bar{X} = 2.84$) and private and 2-year institutions.

Respondents from the three types of institutions were also requested to indicate their levels of satisfaction with four aspects of their position workload: direct service, administrative workload, advising-related activity workload, and their advisee load. Respondents also rated their satisfaction with the extent to which the opinions of academic advisors are considered in institutional decision making and the overall level of institutional support for academic advising. Level of satisfaction was indicated on a 5-point scale ranging from 1 meaning "very dissatisfied" to 5 standing for "very satisfied." A rating of 3 indicated that the respondent was "neither satisfied nor dissatisfied." Respondents from the three types of institutions had mean ratings above the 3.0 neutral rating on the four ratings pertaining to workload. The highest ratings were

Table 1 Advisor ratings of adequacy and satisfaction by type of institution

Area Rated	Statistics	Type of Institution			<i>F</i> value	Probability	Estimated ϵ^2
		Public University/ College (<i>n</i> = 1,607)	Private University/ College (<i>n</i> = 481)	2-Year College (<i>n</i> = 509)			
Adequacy of							
Advising staff	\bar{X}	2.68	2.84	2.70	$F_{2,2083} = 3.78$	$p = 0.0230$	0.0027
	<i>SD</i>	1.03	0.91	0.98			
	<i>n</i>	1,294	380	412			
Advising support staff	\bar{X}	2.69	2.55	2.52	$F_{2,2189} = 5.98$	$p = 0.0026$	0.0045
	<i>SD</i>	1.08	0.98	0.96			
	<i>n</i>	1,359	401	432			
Facilities	\bar{X}	2.93	3.00	2.86	$F_{2,2537} = 1.39$	<i>ns</i>	
	<i>SD</i>	1.38	1.35	1.34			
	<i>n</i>	1,572	471	497			
Technology, print, other resources	\bar{X}	3.46	3.23	3.27	$F_{2,1982} = 11.75$	$p < 0.0001$	0.0107
	<i>SD</i>	0.96	0.98	0.95			
	<i>n</i>	1,209	374	402			
Professional development resources	\bar{X}	2.94	2.76	2.84	$F_{2,1928} = 3.99$	$p = 0.0187$	0.0031
	<i>SD</i>	1.10	1.05	1.09			
	<i>n</i>	1,177	365	389			
Operating budget	\bar{X}	2.40	2.48	2.42	$F_{2,1857} = 0.73$	<i>ns</i>	
	<i>SD</i>	1.14	1.14	1.09			
	<i>n</i>	1,145	347	368			
Satisfaction with							
Direct service workload	\bar{X}	3.84	3.86	3.74	$F_{2,2515} = 1.86$	<i>ns</i>	
	<i>SD</i>	1.10	1.07	1.12			
	<i>n</i>	1,556	467	495			
Advising administration workload	\bar{X}	3.54	3.41	3.39	$F_{2,2270} = 4.09$	$p = 0.0168$	0.0027
	<i>SD</i>	1.08	1.05	1.09			
	<i>n</i>	1,407	440	426			
Advising-related activity workload	\bar{X}	3.67	3.53	3.56	$F_{2,2406} = 4.25$	$p = 0.0143$	0.0027
	<i>SD</i>	1.00	0.99	1.00			
	<i>n</i>	1,494	451	464			
Advisee load	\bar{X}	3.37	3.56	3.45	$F_{2,2006} = 4.39$	$p = 0.0125$	0.0034
	<i>SD</i>	1.17	1.08	1.08			
	<i>n</i>	1,227	378	404			
Extent advisor opinions considered	\bar{X}	2.69	2.90	2.75	$F_{2,2356} = 6.57$	$p = 0.0014$	0.0047
	<i>SD</i>	1.06	1.15	1.12			
	<i>n</i>	1,458	431	470			
Institutional support	\bar{X}	2.79	3.02	2.90	$F_{2,2510} = 7.31$	$p = 0.0007$	0.0050
	<i>SD</i>	1.14	1.19	1.18			
	<i>n</i>	1,558	463	492			

Note. Estimated ϵ^2 indicates the proportion of the dependent variable variance, which is explained by the independent variable, in this case the advisors' types of institution. For example, 0.0027 (or 0.27%) of the variance in the adequacy rating of "advising staff" is accounted for by the advisors' type of institution.

assigned to satisfaction with direct service workload: Ratings approached 4.0, and no differences were found among the respondents at the three types of institutions. While respondents from all three institutional types assigned positive ratings of satisfaction to administration of advising and support programs, public colleges and universities ($\bar{X} = 3.54$) had a higher mean rating than did 2-year institutions ($\bar{X} = 3.39$). No differences were found among ratings of respondents at public and private ($\bar{X} = 3.41$) and private and 2-year institutions. A similar pattern of positive satisfaction was found on ratings of advising-related activity workload. Respondents from public institutions ($\bar{X} = 3.67$) indicated a significantly higher mean satisfaction level than did those at private institutions ($\bar{X} = 3.53$); no differences were found between participants at 2-year colleges ($\bar{X} = 3.56$) and those from either public or private institutions. With respect to advisee load, respondents from all three types of institution offered positive satisfaction scores with mean ratings above 3.0. Respondents from private institutions ($\bar{X} = 3.56$) offered a significantly higher mean satisfaction rating than did respondents from public institutions ($\bar{X} = 3.37$). No differences were found between the responses of participants at 2-year colleges ($\bar{X} = 3.45$) and those of either the private or public institution participants.

Respondents offered mean ratings below 3.0 for two areas: the extent to which the opinions of academic advisors are considered in institutional decision making and the level of institutional support for advising. Respondents from private institutions expressed a significantly higher level of satisfaction ($\bar{X} = 2.90$) with the degree to which advisor opinions are considered than did respondents from public institutions ($\bar{X} = 2.69$). No significant differences were found between respondents at 2-year colleges ($\bar{X} = 2.75$) and those from either public or private institutions.

I found a pattern similar to that on consideration of advisor opinion for satisfaction with institutional support for advising. Respondents from private institutions offered a significantly higher mean response ($\bar{X} = 3.02$) than did those from public institutions ($\bar{X} = 2.79$). No significant differences were found among ratings of respondents from 2-year colleges ($\bar{X} = 2.90$) and those from public or private institutions.

To summarize the pattern of differences on the adequacy and satisfaction ratings, I looked at institution types and found differences on 9 of the 12 items. While I have delineated these differences for each of the 9 items, I caution the reader not to over

interpret the statistical analyses. The size of the respondent pool ($N = 2,597$) yields degrees of freedom large enough to allow small differences to reach statistical significance at the .05 alpha level. To assign a degree of practical relevance to these differences, I have reported the estimated Epsilon squared (ϵ^2) for each area where a significant difference was found. The ϵ^2 is reported in Table 1 and can be interpreted as an indication of the percent of rating variance that is associated with the respondents' type of institution. For the 9 ratings that were significant, the actual amount of variability associated with institutional type ranges from 0.3 to 1.1%. Because of these small percentages, the mean ratings are the more useful statistics in terms of describing the respondents' perceptions. The comparisons, while statistically significant, are of limited practical significance.

In addition to providing ratings of adequacy and satisfaction on the 12 aspects of their advising programs, respondents were asked to identify three actions policy makers at their institutions might take to improve academic advising. Respondents were requested to select the three actions from a list of six: increasing funding, the number of advisors, the number of support staff, technical resources, advisor training, and professional development resources. Table 2 indicates the number and percent of respondents who identified each of the six possible actions according to institutional type and gives the overall totals. A small number of survey respondents did not limit themselves to identifying three steps. Therefore, the total number of steps suggested exceeds three times the number of respondents. Because each action is analyzed independently as recommended or not recommended, all indications were included in the analyses.

For the aggregate of 2,597 survey respondents who recommended institutional actions, the percentages of those recommending a particular action ranged from a high of 73% for increasing funding to a low of 35% for increasing technical resources. This finding is congruent with the previously reported adequacy ratings in which respondents rated the availability of technology, print, and other resources the highest and operating budgets the lowest.

I completed chi-square analyses in which I compared the frequency of recommendation by the respondents' institutional types. The frequencies and percentages by institutional type are reported in Table 2. Significant chi-square values and standardized residuals were found for three of the six recommended actions: increases in funding, num-

Table 2 Institutional actions recommended to improve advising by type of institution

Recommended Action	Institution Type							
	Public University/ College (<i>n</i> = 1,607)		Private University/ College (<i>n</i> = 481)		2-Year College (<i>n</i> = 509)		Total (<i>N</i> = 2,597)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Increase funding *	1,230	77	304	63	351	69	1,885	73
Increase number of advisors *	1,030	64	236	49	315	62	1,581	61
Increase support staff	847	53	238	49	262	51	1,347	52
Increase technological resources	538	33	173	36	193	38	904	35
Increase advisor training *	687	43	244	51	270	53	1,201	46
Increase professional development resources	717	45	240	50	255	50	1,212	47

Note. * Indicates a significant chi-square value and one or more significant standardized residuals among the categories.

ber of advisors, and advisor training. The significant chi-square value from the analysis on institutional types and recommended increases in funding, $\chi^2(2, N = 2,597) = 37.137, p < 0.0001$, resulted from a higher than expected frequency from respondents at public institutions and lower than expected ratings from respondents at private institutions. The number of respondents recommending increased funding was as expected in the 2-year college category. A similar pattern to that for increased funding was found among respondents recommending an increase in the number of academic advisors, $\chi^2(2, N = 2,597) = 35.319, p < 0.0001$.

The third action for which I found a significant chi-square value and standardized residuals was the recommendation to increase advisor training, $\chi^2(2, N = 2,597) = 21.251, p < 0.0001$. Respondents from public institutions were less likely than expected to recommend increased training; those at 2-year colleges were more likely to recommend training; and those from private institutions reported as expected. The chi-square values were not significant for increasing advising support staff and technical resources. The chi square for increasing professional development resources was significant, $\chi^2(2, N = 2,597) = 7.135, p < 0.0282$, but no significant standardized residual was found.

Survey respondents were requested to indicate ways by which NACADA could provide additional support for advising and advisors at their institutions. Respondents could select any or all from the following: additional training resources, informational workshops and teleconferences, professional development opportunities, information on tech-

nological resources, and means for networking with colleagues. The number and percent of respondents responding affirmatively to each of the five options are reported in Table 3.

The numbers and percentages are reported by type of institution and overall. Based upon the chi-square analyses, no significant differences were found among the three types of institutions. Based upon the overall summary of responses, workshops/teleconferences and professional development opportunities were both indicated by 60% of the respondents; providing information about technological resources was indicated by 59%. Means for networking with colleagues was cited by 53% of the respondents and advisor-training resources by 49%.

Respondents were requested to identify, from a list of seven, those topics that would be of interest to them as a workshop or teleconference topic. The topics included uses of technology in advising, improving advisor skills, developing training programs, conducting research in advising, securing additional funds for advising, legal issues in advising, and advising special populations. Table 4 indicates the number and percent of respondents by institutional type and overall who expressed an interest in each topic. The most frequently selected topic was improving advisor skills (62%), followed by developing training programs (57%), and legal issues in advising (57%).

Through the chi-square and standardized-residual values, I identified two of the seven topics in which differences among institutional types were reported. A greater than expected number of

Table 3 Recommended NACADA activities by type of institution

NACADA Activity	Institution Type							
	Public University/ College (<i>n</i> = 1,607)		Private University/ College (<i>n</i> = 481)		2-Year College (<i>n</i> = 509)		Total (<i>N</i> = 2,597)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Advisor training resources	773	48	243	51	266	52	1,282	49
Workshops/teleconferences	948	59	278	58	320	63	1,546	60
Professional development opportunities	978	61	264	55	305	60	1,547	60
Information about technological resources	924	58	288	60	310	61	1,522	59
Means for networking	846	53	257	53	277	54	1,380	53

Table 4 Workshop or teleconference topics of interest by type of institution

Topics	Institution Type							
	Public University/ College (<i>n</i> = 1,607)		Private University/ College (<i>n</i> = 481)		2-Year College (<i>n</i> = 509)		Total (<i>N</i> = 2,597)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Uses of technology in advising	685	43	226	47	255	50	1,166	45
Improving advisor skills	975	61	312	65	324	64	1,611	62
Developing training programs *	869	54	302	63	298	59	1,469	57
Conducting research in advising	771	48	202	42	213	42	1,186	46
Securing additional funding for advising activities *	803	50	192	40	225	44	1,220	47
Legal issues in advising	895	56	291	60	298	59	1,484	57
Advising special populations	832	52	279	58	282	55	1,393	54

Note. * Indicates a significant chi-square value and one or more significant standardized residuals among the categories.

respondents from private institutions expressed an interest in workshops or teleconferences on developing training programs, $\chi^2(2, N = 2,597) = 12.442$, $p = 0.0020$, and a lower than expected number on the topic of securing additional funds for advising, $\chi^2(2, N = 2,597) = 16.972$, $p = 0.0002$. Survey participants from public and 2-year colleges responded as expected in both instances. I found significant chi-square values for the use of technology in advising, $\chi^2(2, N = 2,597) = 9.764$, $p = 0.0076$; conducting research in advising, $\chi^2(2, N = 2,597) = 9.064$, $p = 0.0108$; and advising special populations, $\chi^2(2, N = 2,597) = 6.571$, $p = 0.0374$. However, in these latter three instances, the standardized residuals did not identify any major contributors.

Analysis by Institutional Mission

I conducted a set of analyses like those on institutional type in which I compared respondents' ratings from institutions of varying missions. Respondents' institutions were identified as being a research university, comprehensive college or university, liberal arts college, or 2-year college. I performed a one-way ANOVA on the six adequacy and six satisfaction items used to compare the four categories of institutional mission. In those instances where the ANOVA indicated a significant difference among the mission groups, Tukey HSD multiple comparisons were used to determine the exact location of the differences. Estimated ϵ^2 was computed to determine effect size.

Table 5 contains the results of the adequacy and satisfaction analyses by institutional mission. I found no significant differences on the six satisfaction items among the respondents from institutions of differing missions. In general, the levels of satisfaction ran higher on those items dealing with workload and advisee load and lower on the extent to which advisors' opinions were considered and the level of institutional support for academic advising. I found two of the six adequacy items to have significant differences among the mission types. Differences among the mission types were present for ratings of the adequacy of advising support staff; however the differences were marginal, so the Tukey HSD failed to identify specific differences among the four means. Significant differences were found among the adequacy ratings of technology, print, and other resources. Respondents from research universities ($\bar{X} = 3.46$) gave this item significantly higher adequacy ratings than did respondents from liberal arts ($\bar{X} = 3.22$) and 2-year colleges ($\bar{X} = 3.27$). No differences were found among respondents from research universities and comprehensive colleges and universities ($\bar{X} = 3.42$) or among ratings of comprehensive colleges and universities, liberal arts colleges, and 2-year colleges.

When I compared respondents from institutions of differing missions, I found significant differences on three of the six recommended actions that policy makers from institutions might take to improve advising. The frequencies and percentages of answers from respondents of the four institutional mission types are given in Table 6. The recommendation to increase funding received an overall endorsement by 73% of the 2,597 respondents. I found the chi-square values, computed by comparing the recommendations of respondents from institutions of various missions, to be significant: $\chi^2(3, N = 2,597) = 10.388, p = 0.0200$. The standardized residuals indicated that respondents from research universities recommended this action with a higher than expected frequency while respondents from institutions with other missions responded as expected.

Fewer than expected respondents from liberal arts colleges recommended an increase in the number of advisors, $\chi^2(3, N = 2,597) = 20.776, p < 0.0001$, while participants from institutions in the other three categories responded as expected. The recommendation to increase advisor training was the third category in which significant differences were found among respondents, $\chi^2(3, N = 2,597) = 25.596, p < 0.0001$. Respondents from research universities recommended this action significantly

less often than expected and those from 2-year colleges more often than expected. Respondents from comprehensive colleges and universities and liberal arts colleges recommended this action at the expected frequency.

Table 7 displays the frequencies and percentages of participants at the institutions as categorized by mission who recommended each of the five NACADA activities for helping to improve and support advising. No significant differences were found among the institutional mission categories. Overall, workshops and teleconferences and professional development activities received the highest endorsement with 60% of the respondents identifying each activity. Providing information about the use of technology in advising was a closely rated recommendation at 59%. The lowest recommended activity was the provision of additional advisor-training resources.

On the related item of suggested workshop or teleconference topics, I found significant differences among the mission categories on two of the seven topics. See Table 8. More than expected respondents from liberal arts institutions recommended the development of training programs, $\chi^2(3, N = 2,597) = 12.256, p = 0.0066$. Those from institutions with other missions rated the development of training programs as expected. Fewer than expected respondents from research universities endorsed the topic of advising special populations, $\chi^2(3, N = 2,597) = 16.356, p = 0.0010$. The level of recommendation was as expected from participants of institutions with other missions. Significant chi-square values were also found for uses of technology in advising, $\chi^2(3, N = 2,597) = 15.142, p = 0.0017$; improving advisor skills, $\chi^2(3, N = 2,597) = 12.873, p = 0.0049$; conducting research in advising, $\chi^2(3, N = 2,597) = 11.071, p = 0.0114$; and securing additional funds for advising, $\chi^2(3, N = 2,597) = 9.570, p = 0.0226$. However, on each of those four topics, the standardized residuals failed to identify a major contributor.

Analysis by Institutional Size

In the third analysis, I made the same comparisons of survey respondents as those made on institutional type and institutional mission but focused upon comparing respondents from institutions of differing size. Institutional size was defined by undergraduate enrollment. Respondents' institutions were placed into one of six size categories: <1,000; 1,000–2,499; 2,500–4,999; 5,000–9,999; 10,000–19,999; and $\geq 20,000$ enrollments. The means, standard deviations, and frequencies are

Table 5 Advisor ratings of adequacy and satisfaction by institutional mission

Area Rated	Statistics	Institutional Mission				F Value	Probability	Estimated ϵ^2
		Research University (n = 1,211)	Comprehensive College/ University (n = 564)	Liberal Arts College (n = 313)	2-Year College (n = 509)			
Adequacy of Advising staff	\bar{X} <i>SD</i> <i>n</i>	2.67 1.02 963	2.76 1.00 458	2.82 0.99 253	2.70 0.98 412	$F_{3,2082} = 1.83$	<i>ns</i>	
Advising support staff	\bar{X} <i>SD</i> <i>n</i>	2.68 1.06 1,023	2.68 1.07 472	2.58 1.01 265	2.52 0.96 432	$F_{3,2188} = 2.78$	$p = 0.0398$	0.0024
Facilities	\bar{X} <i>SD</i> <i>n</i>	2.93 1.40 1,186	2.99 1.33 548	2.92 1.36 309	2.86 1.34 497	$F_{3,2536} = 0.88$	<i>ns</i>	
Technology, print, other resources	\bar{X} <i>SD</i> <i>n</i>	3.46 1.00 906	3.42 0.90 431	3.22 0.98 246	3.27 0.95 402	$F_{3,1981} = 6.09$	$p = 0.0004$	0.0076
Professional development resources	\bar{X} <i>SD</i> <i>n</i>	2.90 1.12 875	2.96 1.03 422	2.76 1.08 245	2.84 1.09 389	$F_{3,1927} = 2.01$	<i>ns</i>	
Operating budget	\bar{X} <i>SD</i> <i>n</i>	2.39 1.16 846	2.47 1.09 408	2.43 1.12 238	2.42 1.09 368	$F_{3,1856} = 0.39$	<i>ns</i>	
Satisfaction with Direct service workload	\bar{X} <i>SD</i> <i>n</i>	3.84 1.12 1,165	3.88 1.04 553	3.80 1.10 305	3.74 1.12 495	$F_{3,2514} = 1.56$	<i>ns</i>	
Advising administration Workload	\bar{X} <i>SD</i> <i>n</i>	3.53 1.09 1,077	3.49 1.06 490	3.43 1.07 280	3.39 1.09 426	$F_{3,2269} = 1.97$	<i>ns</i>	
Advising-related activity workload	\bar{X} <i>SD</i> <i>n</i>	3.66 1.02 1,139	3.65 0.97 520	3.51 1.00 286	3.56 1.00 464	$F_{3,2405} = 2.41$	<i>ns</i>	
Advisee load	\bar{X} <i>SD</i> <i>n</i>	3.36 1.19 914	3.49 1.10 443	3.50 1.11 248	3.45 1.08 404	$F_{3,2005} = 1.92$	<i>ns</i>	
Extent advisor opinions considered	\bar{X} <i>SD</i> <i>n</i>	2.69 1.07 1,093	2.74 1.06 510	2.88 1.15 286	2.75 1.12 470	$F_{3,2355} = 2.39$	<i>ns</i>	
Institutional support	\bar{X} <i>SD</i> <i>n</i>	2.81 1.14 1,178	2.88 1.17 542	2.92 1.17 301	2.90 1.18 492	$F_{3,2509} = 1.14$	<i>ns</i>	

Table 6 Institutional actions recommended to improve advising by institutional mission

Recommended Action	Institutional Mission									
	Research University (<i>n</i> = 1,211)		Comprehensive College/ University (<i>n</i> = 564)		Liberal Arts College (<i>n</i> = 313)		2-Year College (<i>n</i> = 509)		Total (<i>N</i> = 2,597)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Increase funding *	918	76	400	71	216	69	351	69	1,885	73
Increase number of advisors *	771	64	328	58	158	50	314	62	1,571	60
Increase support staff	651	54	282	50	152	49	262	51	1,347	52
Increase technological resources	393	32	207	37	111	35	193	38	904	35
Increase advisor training *	501	41	267	47	163	52	270	53	1,201	46
Increase professional development resources	558	46	252	45	147	47	255	50	1,212	47

Note. * Indicates a significant chi-square value and one or more significant standardized residuals among the categories.

Table 7 Recommended NACADA activities by institutional mission

NACADA Activity	Institutional Mission									
	Research University (<i>n</i> = 1,211)		Comprehensive College/ University (<i>n</i> = 564)		Liberal Arts College (<i>n</i> = 313)		2-Year College (<i>n</i> = 509)		Total (<i>N</i> = 2,597)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Advisor training resources	576	48	276	49	164	52	266	52	1,282	49
Workshops/teleconferences	695	57	338	60	193	62	320	63	1,546	60
Professional development opportunities	735	61	335	59	172	55	305	60	1,547	60
Information about technological resources	684	56	349	62	179	57	310	61	1,522	59
Means for networking	649	54	290	51	164	52	277	54	1,380	53

reported by size category in Table 9. I also report the results of the one-way ANOVA and the estimated ϵ^2 in those instances where significance was found.

I found significant differences on four of the six adequacy ratings: adequacy of advising staff; advising support staff; technology, print, and other resources; and professional development resources. With respect to adequacy of advising staff, respondents from institutions of between 1,000 and 2,499 undergraduates had the highest mean rating of 2.92 on the 5-point scale, which was significantly higher than the ratings offered by respondents from institutions with 5,000 or more undergraduates. No

other significant differences were found among the six size categories. The ANOVA for adequacy of support staff was significant; however the magnitude of the differences among the category means were not large enough to be detected by the Tukey HSD multiple comparison.

The highest mean adequacy rating on technology, print, and other resources was obtained from respondents from institutions in the 10,000–19,999 enrollment range: 3.50 in the 5-point scale. The rating was significantly higher than those offered by the respondents of the smallest institutions, <1,000 and 1,000–2,499 enrollments, and from those in

Table 8 Workshop or teleconference topics of interest by institutional mission

Topics	Institutional Mission									
	Research University (<i>n</i> = 1,211)		Comprehensive College/ University (<i>n</i> = 564)		Liberal Arts College (<i>n</i> = 313)		2-Year College (<i>n</i> = 509)		Total (<i>N</i> = 2,597)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Uses of technology in advising	506	42	275	49	130	42	255	50	1,166	45
Improving advisor skills	709	59	367	65	211	67	324	64	1,611	62
Developing training programs *	654	54	315	56	202	65	298	59	1,469	57
Conducting research in advising	592	49	253	45	128	41	213	42	1,186	46
Securing additional funding for advising activities	608	50	247	44	140	45	225	44	1,220	47
Legal issues in advising	677	56	327	58	182	58	298	59	1,484	57
Advising special populations *	600	50	328	58	183	58	282	55	1,393	54

Note. * Indicates a significant chi-square value and one or more significant standardized residuals among the categories.

institutions of 5,000–9,999 enrollments. While higher than the ratings offered from respondents of the 2,500–4,999 and $\geq 20,000$ sized schools, it was not significantly higher. In addition to offering ratings significantly lower than did those from the 10,000–19,999 sized institutions, respondents from the smallest institutions (<1,000) provided ratings that were also significantly lower than those offered by advisors from institutions with enrollments of 2,500–4,999 and $\geq 20,000$.

In rating the adequacy of professional development resources, respondents from the smallest institutional category rated their resources lower than did the respondents from all other size categories. Their mean rating of 2.55 was significantly lower than those from the 2,500–4,999 sized institutions and those from institutions with undergraduate enrollments of 10,000 or more.

When I compared the mean satisfaction ratings among the six institutional size categories, I identified no significant differences on the workload and advisee load items. Significant differences were found on the extent to which advisor opinions are considered and satisfaction with institutional support of academic advising. With respect to the extent to which advisor opinions are considered in institutional decision making, respondents from institutions of <1,000 undergraduates had the highest rating (3.05) among those in the six institutional size categories. Their mean rating was significantly

higher than those of respondents from institutions with 5,000 or more undergraduates. Respondents in the 1,000–2,499 category also offered significantly higher ratings than did those from the largest institutions ($\geq 20,000$). With minor variations, the general trend was that the larger the institution, the lower the level of respondent satisfaction.

I found a somewhat similar pattern for respondent satisfaction with institutional support for advising. Again, respondents from institutions with fewer than 1,000 undergraduates had the highest mean satisfaction rating. This mean satisfaction rating of 3.16 was significantly higher than the rating from respondents whose institutions enrolled 10,000 or more undergraduates. While no other mean differences were significant, the general trend was that as institutional size increased, respondent satisfaction trended lower.

I also compared respondents from the six institutional size categories on actions they recommended their institutions take to improve academic advising. The number and percent of respondents from each institutional size category and overall are reported in Table 10. I made statistical comparisons of the institutional size categories by using chi-square analysis followed by computations of standardized residuals when the chi-square value was significant. I found significant differences among respondents from the different size categories on three of the six actions: recommendations

Table 9 Advisor ratings of adequacy and satisfaction by size of institution

Area Rated	Statistics	Size of Undergraduate Enrollment						F value	Probability	Estimated ϵ^2
		<1,000 (n = 124)	1,000– 2,499 (n = 361)	2,500– 4,999 (n = 347)	5,000– 9,999 (n = 427)	10,000– 19,999 (n = 703)	≥20,000 (n = 642)			
Adequacy of Advising staff	\bar{X}	2.85	2.92	2.75	2.64	2.71	2.62	$F_{5,2081} = 4.23$	$p = 0.0008$	0.0077
	SD	1.01	0.96	1.02	0.97	1.01	1.02			
	n	97	288	277	339	563	523			
Advising support staff	\bar{X}	2.40	2.60	2.52	2.65	2.72	2.65	$F_{5,2192} = 2.62$	$p = 0.0227$	0.0034
	SD	1.01	1.02	0.98	1.00	1.06	1.09			
	n	93	305	291	362	592	555			
Facilities	\bar{X}	3.08	2.96	2.84	2.93	2.97	2.89	$F_{5,2541} = 0.85$	ns	
	SD	1.33	1.36	1.35	1.31	1.41	1.40			
	n	120	352	340	418	685	632			
Technology, print, other resources	\bar{X}	2.99	3.28	3.36	3.30	3.50	3.47	$F_{5,1983} = 6.61$	$p = 0.0001$	0.0139
	SD	0.95	0.90	0.97	0.95	0.95	1.01			
	n	96	280	267	324	534	488			
Professional development resources	\bar{X}	2.55	2.82	2.98	2.83	2.97	2.92	$F_{5,1927} = 3.27$	$p = 0.0061$	0.0058
	SD	1.01	1.00	1.07	1.06	1.13	1.12			
	n	95	272	258	312	519	477			
Operating budget	\bar{X}	2.35	2.48	2.51	2.46	2.35	2.41	$F_{5,1860} = 1.04$	ns	
	SD	1.07	1.13	1.07	1.15	1.09	1.19			
	n	97	267	256	319	486	441			
Satisfaction with Direct service workload	\bar{X}	3.80	3.82	3.74	3.78	3.85	3.87	$F_{5,2519} = 0.86$	ns	
	SD	1.13	1.04	1.10	1.13	1.13	1.07			
	n	120	354	340	408	680	623			
Advising administration workload	\bar{X}	3.40	3.43	3.42	3.42	3.53	3.58	$F_{5,2274} = 1.72$	ns	
	SD	1.06	1.06	1.06	1.12	1.07	1.08			
	n	113	315	316	368	600	568			
Advising-related activity workload	\bar{X}	3.49	3.54	3.54	3.64	3.67	3.67	$F_{5,2410} = 1.88$	ns	
	SD	1.04	0.99	0.99	0.96	1.01	1.03			
	n	113	327	325	399	642	610			
Advisee load	\bar{X}	3.46	3.52	3.55	3.31	3.41	3.38	$F_{5,2006} = 1.96$	ns	
	SD	1.10	1.10	1.05	1.14	1.15	1.20			
	n	95	287	269	336	542	483			
Extent advisor opinions considered	\bar{X}	3.05	2.89	2.81	2.68	2.69	2.66	$F_{5,2363} = 4.48$	$p = 0.0005$	0.0073
	SD	1.17	1.11	1.10	1.05	1.05	1.10			
	n	119	324	315	389	638	583			
Institutional support	\bar{X}	3.16	2.91	2.93	2.82	2.83	2.78	$F_{5,2515} = 2.71$	$p = 0.0188$	0.0034
	SD	1.18	1.15	1.18	1.18	1.15	1.15			
	n	118	351	334	414	677	627			

Table 10 Institutional actions recommended to improve advising by size of institution

Recommended Action	Size of Undergraduate Enrollment													
	<1,000		1,000–2,499		2,500–4,999		5,000–9,999		10,000–19,999		≥20,000		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Increase funding *	80	65	234	65	236	68	303	71	527	75	505	79	1,885	72
Increase number of advisors *	59	48	176	49	200	58	255	60	468	67	426	66	1,584	61
Increase support staff	61	49	162	45	199	57	201	47	372	53	355	55	1,350	52
Increase technological resources	52	42	128	35	121	35	146	34	256	36	205	32	908	35
Increase advisor training *	75	60	199	55	168	48	199	47	290	41	270	42	1,201	46
Increase professional development resources	68	55	178	49	159	46	202	47	307	44	295	46	1,209	46

Notes. * Indicates a significant chi-square value and one or more significant standardized residuals among the categories.

to increase funding, increase the number of advisors, and increase advisor training.

Fewer than expected respondents from institutions in the 1,000–2,499 size category and more than expected in the ≥20,000 category recommended increasing funding for academic advising, $\chi^2(5, N = 2,604) = 33.071, p < 0.0001$. The distributions of responses from those in the other size categories were as expected. Fewer than expected respondents from the <1,000 and 1,000–2,499 categories and more than expected from the 10,000–19,999 and ≥20,000 categories, $\chi^2(5, N = 2,604) = 50.778, p < 0.0001$, recommended increasing the number of advisors. Respondents from the 2,500–4,999 and 5,000–9,999 categories responded as expected. Respondents from institutions in the two smallest size categories were more likely than expected to recommend increases in advisor training, $\chi^2(5, N = 2,604) = 33.822, p < 0.0001$. Responses from those in other sized institutions were as expected. A significant chi-square value was found on the recommendation to increase advising support staff, $\chi^2(5, N = 2,604) = 18.864, p = 0.0020$, but the standardized residuals failed to identify any major contributors.

Respondent recommendations for the five NACADA activities that might be provided in support of academic advising are summarized in Table 11. No significant chi-square values were found when I compared responses from those in the dif-

ferent institutional size categories. Overall, the most frequently recommended NACADA activities were the provision of workshops and teleconferences (59% recommended), professional development opportunities (59% recommended), and information about technological resources (58% recommended).

I found a significant chi-square value and standardized residual for responses on only one of the seven possible topics for workshops or teleconferences. Developing training programs was endorsed by fewer than expected respondents in the 10,000–19,999 institutional size category, $\chi^2(5, N = 2,604) = 19.883, p = 0.0013$. Responses in the other categories were as expected. The chi-square values for both securing additional funds for advising, $\chi^2(5, N = 2,604) = 17.198, p = 0.0041$, and advising special populations, $\chi^2(5, N = 2,604) = 14.739, p = 0.0115$, were significant but failed to produce significant standardized residuals. The number and percentage of respondents recommending each of the seven topics by institutional size and overall are reported in Table 12.

In addition to the previously discussed comparisons of respondents according to their institutional type, mission, and size, I also compared faculty advisors with professional and staff advisors and academic advisors with academic administrators. For these comparisons, respondents were compared on their ratings of adequacy and satisfaction

Table 11 Recommended NACADA activities by size of institution

NACADA Activity	Size of Undergraduate Enrollment													
	<1,000		1,000–2,499		2,500–4,999		5,000–9,999		10,000–19,999		≥20,000		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Adviser training resources	71	57	190	53	174	50	209	49	323	46	317	49	1,284	49
Workshops/teleconferences	83	67	227	63	210	61	249	58	416	59	361	56	1,546	59
Professional development opportunities	80	65	204	57	191	55	242	57	431	61	399	62	1,547	59
Information about technological resources	76	61	214	59	210	61	260	61	396	56	367	57	1,523	58
Means for networking	56	45	197	55	186	54	227	53	368	52	342	53	1,376	53

Table 12 Workshop or teleconference topics of interest by size of institution

Topics	Size of Undergraduate Enrollment													
	<1,000		1,000–2,499		2,500–4,999		5,000–9,999		10,000–19,999		≥20,000		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Uses of technology in advising	58	47	167	46	170	49	204	48	301	43	266	41	1,166	45
Improving advisor skills	82	66	244	68	213	61	248	58	437	62	385	60	1,609	62
Developing training programs *	84	68	220	61	212	61	237	56	362	51	356	55	1,471	56
Conducting research in advising	47	38	145	40	157	45	194	45	326	46	313	49	1,182	45
Securing additional funding for advising activities	49	40	149	41	163	47	181	42	342	49	331	52	1,215	47
Legal issues in advising	73	59	229	63	203	59	241	56	382	54	359	56	1,487	57
Advising special populations	71	57	212	59	204	59	222	52	379	54	313	49	1,401	54

Note. * Indicates a significant chi-square value and one or more significant standardized residuals among the categories.

and on their recommendations of institutional actions to improve advising.

Survey respondents were requested to provide the title of their current position. The 13-response item included professor or instructor (faculty advisor) and academic advisor or advising specialist. One hundred and sixty-one respondents indicated they are professors or instructors, and 1,209 indicated that they are academic advisors or advising specialists. Table 13 provides the means, standard deviations, and number of respondents for each of the adequacy and satisfaction items for both faculty advisors and professional staff advisors. Table 13 also provides the ANOVA F value, and ϵ^2 is reported for items in which the initial ANOVA F was significant.

I found no significant differences between faculty and professional staff advisors on any of the adequacy items. I found significant differences between faculty and professional staff advisors on three of the six satisfaction items. Faculty advisors reported significantly higher mean satisfaction ratings on advisee load, the extent to which advisor opinions are considered in institutional decisions, and institutional support for academic advising. While all three were statistically significant, the rating variability accounted for by advisor type was minimal with the highest being 1% for the extent to which advisor opinions are considered.

Faculty advisors and professional staff advisors were also compared on whether or not they recommended any of six actions their institution might take to improve academic advising. The number and percentage of each group endorsing each of the six actions are reported in Table 14.

Using chi-square analysis, I compared the responses of faculty advisors and professional staff advisors. Standardized residuals were computed to identify the main contributors to the significance. Significant chi-square values were found on two of the six recommendations: the recommendations to increase funding and to increase the number of advisors. A significantly smaller proportion of faculty advisors (54%) than professional staff advisors (77%) recommended increasing funding, $\chi^2(1, N = 1,370) = 37.091, p < 0.0001$. A smaller proportion of faculty advisors (43%) than professional staff advisors (63%) recommended increasing the number of advisors: $\chi^2(1, N = 1,370) = 21.765, p < 0.0001$. No significant differences between faculty advisors and professional staff advisors were found with respect to recommendations to increase support staff, technological resources, advisor training, or professional development resources.

Academic advisors (either faculty or profes-

sional staff) were compared with respondents who indicated their current title is any one of the following: academic department chairperson; advising coordinator or director; assistant or associate dean of academic affairs; assistant or associate college dean; or vice president, dean, or provost of academic affairs. In this analysis, a total of 1,370 academic advisors were compared to 841 respondents whose titles were defined as academic administrator.

Significant differences were found between advisors and administrators on three of the six adequacy ratings. The respondent group means, standard deviations, number of respondents, and ANOVA F values are shown in Table 15. Academic advisors rated the adequacy of advising support staff significantly higher than did academic administrators, while academic administrators rated the adequacy of professional development resources and operating budgets significantly higher than did advisors.

With respect to satisfaction, academic advisors expressed a higher level of satisfaction with their direct service workload than did academic administrators. Conversely, academic administrators indicated greater satisfaction with advising administration workloads and the extent to which advisors opinions are considered in institutional decision making.

Regarding actions that institutions could take to improve academic advising, substantial agreement existed between advisors and academic administrators. The number and percentage of each group endorsing the recommendations are reported in Table 16. The two groups were within four percentage points of each other on four of the six recommended actions: recommendations to increase funding, the number of advisors, advising support staff, and advisor training. The most frequently offered recommendation by both groups was to increase funding; 74% of academic advisors and 70% of academic administrators suggested increased funding. Academic advisors and academic administrators differed significantly on two recommendations. A significantly greater proportion of academic administrators recommended increasing technological resources, $\chi^2(1, N = 2,211) = 12.256, p = 0.0005$, while a significantly greater proportion of academic advisors recommended increasing professional development resources, $\chi^2(1, N = 2,211) = 10.804, p = 0.0010$.

In the final analyses, I compared respondents based upon two aspects of the advising administrative structure of their institutions. I compared the adequacy and satisfaction ratings and recommended

Table 13 Comparison of faculty advisors' and professional staff advisors' ratings of adequacy and satisfaction

Area Rated	Statistics	Position		F value	Probability	Estimated ϵ^2
		Professor/ Instructor (Faculty Advisor) (n = 161)	Academic Advisor/ Advising Specialist (n = 1,209)			
Adequacy of Advising staff	\bar{X}	2.90	2.72	$F_{1,111} = 3.69$	ns	
	SD	1.03	1.01			
	n	125	988			
Advising support staff	\bar{X}	2.71	2.69	$F_{1,1164} = 0.05$	ns	
	SD	1.16	1.04			
	n	121	1,045			
Facilities	\bar{X}	2.95	2.97	$F_{1,1341} = 0.05$	ns	
	SD	1.26	1.38			
	n	155	1,188			
Technology, print, other resources	\bar{X}	3.43	3.40	$F_{1,1061} = 0.17$	ns	
	SD	1.10	0.96			
	n	124	934			
Professional development resources	\bar{X}	2.90	2.79	$F_{1,1037} = 1.13$	ns	
	SD	1.10	1.09			
	n	124	915			
Operating budget	\bar{X}	2.44	2.27	$F_{1,935} = 1.95$	ns	
	SD	1.11	1.13			
	n	101	836			
Satisfaction with Direct service workload	\bar{X}	3.83	3.91	$F_{1,1344} = 0.69$	ns	
	SD	1.10	1.09			
	n	153	1,193			
Advising administration workload	\bar{X}	3.52	3.43	$F_{1,1120} = 0.63$	ns	
	SD	1.06	1.05			
	n	98	1,024			
Advising-related activity workload	\bar{X}	3.69	3.60	$F_{1,1267} = 0.87$	ns	
	SD	0.95	1.01			
	n	119	1,150			
Advisee load	\bar{X}	3.68	3.37	$F_{1,1108} = 9.00$	$p = 0.0028$	0.0072
	SD	1.02	1.15			
	n	133	977			
Extent advisor opinions considered	\bar{X}	2.96	2.59	$F_{1,1232} = 14.99$	$p < 0.0001$	0.0112
	SD	1.13	1.06			
	n	141	1,093			
Institutional support	\bar{X}	3.10	2.78	$F_{1,1323} = 11.30$	$p = 0.0008$	0.0077
	SD	1.19	1.13			
	n	156	1,169			

Table 14 Comparison of faculty advisors and professional staff advisors on institutional actions recommended to improve advising

Recommended Actions	Current Position					
	Professor/Instructor (Faculty Advisor) (<i>n</i> = 161)		Academic Advisor/ Advising Specialist (<i>n</i> = 1,209)		Total (<i>N</i> = 1,370)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Increase funding *	87	54	925	77	1,012	74
Increase number of advisors *	70	43	757	63	827	60
Increase support staff	80	50	621	51	701	51
Increase technological resources	47	29	389	32	436	32
Increase advisor training	81	50	535	44	616	45
Increase professional development resources	71	44	609	50	680	50

Note. * Indicates a significant chi-square value and one or more significant standardized residuals among the categories.

actions of respondents from centralized advising offices with those of advisors from decentralized offices. I also compared the ratings and recommendations of respondents from advising offices located in academic units with those of respondents located in administrative units. Table 17 shows adequacy and satisfaction rating means, standard deviations, and number of respondents from centralized and decentralized advising offices. Table 17 also shows the ANOVA results of the two-group comparison.

I found no differences between respondents from centralized advising offices and decentralized offices on any of the six satisfaction ratings. For both groups, the highest satisfaction ratings were given for the workload and advisee load items and the lowest ratings were given for consideration of advisor opinions and the level of institutional support. Two of the adequacy ratings were significantly different for the two groups. Respondents from decentralized advising offices rated the adequacy of advising staff and facilities significantly higher than did respondents from centralized offices. However, in both instances, the rating variance accounted for by the centralized-decentralized comparison was less than 1%.

Significant differences were found between respondents from centralized and decentralized offices on three of the six recommended institutional actions to improve advising. The number and percentage of respondents recommending each action are reported in Table 18. Comparisons were made using the chi-square test with follow-up standardized residuals when the chi-square value was significant.

Respondents from centralized advising offices

were significantly more likely to recommend increased funding than were respondents from decentralized offices, $\chi^2(1, N = 1,859) = 14.114, p < 0.0001$. Respondents from decentralized offices were significantly more likely to recommend increasing the number of advisors than were their peers in centralized offices, $\chi^2(1, N = 1,859) = 10.776, p = 0.0016$. Respondents from decentralized offices recommended increased advisor training significantly more often than did those from centralized offices, $\chi^2(1, N = 2,211) = 25.086, p < 0.0001$.

When I compared the adequacy and satisfaction ratings of respondents from advising offices located in academic units with those of respondents from advising offices located in administrative units, only one significant difference emerged. Respondents from offices located in academic units rated the adequacy of the number of advising staff significantly higher than did respondents located in administrative units. The mean ratings, standard deviations, and number responding from each respondent group are reported in Table 19. Table 19 also shows the ANOVA *F* ratios for the comparisons.

Table 20 contains the number and percent of the two respondent groups who recommended each of the six institutional actions to improve academic advising. I found only one significant difference between the groups. Respondents from advising offices located in academic offices were significantly less likely to recommend increases in technological resources than were those from offices in administrative units, $\chi^2(1, N = 1,859) = 17.169, p < 0.0001$. A significant chi-square, $\chi^2(1, N = 1,859) = 11.182, p = 0.0008$, was found on the recommen-

Table 15 Comparison of academic advisors' and academic administrators' ratings of adequacy and satisfaction

Area Rated	Academic Advisor (<i>n</i> = 1,370)		Academic Administrator (<i>n</i> = 841)		<i>F</i> value	Probability	Estimated ϵ^2
	Statistics						
Adequacy of Advising staff	\bar{X}	2.74	2.70	$F_{1,1782} = 0.61$	<i>ns</i>		
	<i>SD</i>	1.01	0.99				
	<i>n</i>	1,113	671				
Advising support staff	\bar{X}	2.69	2.58	$F_{1,1870} = 4.93$	<i>p</i> = 0.0266	0.0021	
	<i>SD</i>	1.06	1.02				
	<i>n</i>	1,166	706				
Facilities	\bar{X}	2.97	2.85	$F_{1,2166} = 3.83$	<i>ns</i>		
	<i>SD</i>	1.37	1.37				
	<i>n</i>	1,343	825				
Technology, print, other resources	\bar{X}	3.40	3.37	$F_{1,1692} = 0.54$	<i>ns</i>		
	<i>SD</i>	0.96	0.98				
	<i>n</i>	1,063	631				
Professional development resources	\bar{X}	2.81	2.97	$F_{1,1645} = 9.01$	<i>p</i> = 0.0027	0.0048	
	<i>SD</i>	1.09	1.08				
	<i>n</i>	1,039	608				
Operating budget	\bar{X}	2.29	2.59	$F_{1,1590} = 28.45$	<i>p</i> < .0001	0.0170	
	<i>SD</i>	1.12	1.13				
	<i>n</i>	937	655				
Satisfaction with Direct service workload	\bar{X}	3.90	3.77	$F_{1,2154} = 7.01$	<i>p</i> = 0.0081	0.0029	
	<i>SD</i>	1.09	1.09				
	<i>n</i>	1,346	810				
Advising administration workload	\bar{X}	3.44	3.56	$F_{1,1941} = 6.23$	<i>p</i> = .0127	0.0027	
	<i>SD</i>	1.05	1.11				
	<i>n</i>	1,122	821				
Advising-related activity workload	\bar{X}	3.61	3.65	$F_{1,2062} = 0.74$	<i>ns</i>		
	<i>SD</i>	1.00	1.00				
	<i>n</i>	1,269	795				
Advisee load	\bar{X}	3.41	3.44	$F_{1,1729} = 0.27$	<i>ns</i>		
	<i>SD</i>	1.14	1.16				
	<i>n</i>	1,110	621				
Extent advisor opinions considered	\bar{X}	2.64	2.88	$F_{1,2007} = 24.5$	<i>p</i> < 0.0001	0.0115	
	<i>SD</i>	1.07	1.09				
	<i>n</i>	1,234	775				
Institutional support	\bar{X}	2.82	2.91	$F_{1,2139} = 3.25$	<i>ns</i>		
	<i>SD</i>	1.14	1.17				
	<i>n</i>	1,325	816				

Table 16 Comparison of academic advisors and academic administrators on institutional actions recommended to improve advising

Recommended Actions	Current Position					
	Academic Advisor/ Advising Specialist (<i>n</i> = 1,370)		Academic Administrator (<i>n</i> = 841)		Total (<i>N</i> = 2,211)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Increase funding	1,012	74	591	70	1,603	73
Increase number of advisors	827	60	504	60	1,331	60
Increase support staff	701	51	437	52	1,138	51
Increase technological resources *	436	32	329	39	765	35
Increase advisor training	616	45	399	47	1,015	46
Increase professional development resources	680	50	357	42	1,037	47

Note. * Indicates a significant chi-square value and one or more significant standardized residuals among the categories.

Table 17 Comparisons of advisor ratings of adequacy and satisfaction by type of advising unit

Area Rated	Statistics	Type of Advising Unit				Estimated ϵ^2
		Centralized Advising Unit (<i>n</i> = 1,300)	Decentralized Advising Unit (<i>n</i> = 559)	<i>F</i> value	Probability	
Adequacy of Advising staff	\bar{X}	2.68	2.82	$F_{1,1753} = 7.86$	$p = 0.0051$	0.0034
	<i>SD</i>	0.98	0.98			
	<i>n</i>	1,222	533			
Advising support staff	\bar{X}	2.66	2.67	$F_{1,1696} = 0.03$	<i>ns</i>	
	<i>SD</i>	0.99	1.02			
	<i>n</i>	1,202	496			
Facilities	\bar{X}	3.21	3.36	$F_{1,1829} = 5.76$	$p = 0.0165$	0.0020
	<i>SD</i>	1.26	1.20			
	<i>n</i>	1,279	552			
Technology, print, other resources	\bar{X}	3.41	3.44	$F_{1,1721} = 0.39$	<i>ns</i>	
	<i>SD</i>	0.95	0.90			
	<i>n</i>	1,198	525			
Professional development resources	\bar{X}	2.88	2.88	$F_{1,1687} = 0.00$	<i>ns</i>	
	<i>SD</i>	1.09	1.06			
	<i>n</i>	1,171	518			
Operating budget	\bar{X}	2.54	2.57	$F_{1,1309} = 0.33$	<i>ns</i>	
	<i>SD</i>	1.03	1.03			
	<i>n</i>	923	388			

Table 17 Comparisons of advisor ratings of adequacy and satisfaction by type of advising unit (continued)

Area Rated	Statistics	Type of Advising Unit		F value	Probability	Estimated ϵ^2
		Centralized Advising Unit (n = 1,300)	Decentralized Advising Unit (n = 559)			
Satisfaction with						
Direct service workload	\bar{X} 3.82 <i>SD</i> 1.09 <i>n</i> 1,265	3.82	3.83	$F_{1,1808} = 0.04$	<i>ns</i>	
Advising administration workload	\bar{X} 3.47 <i>SD</i> 1.10 <i>n</i> 1,141	3.47	3.46	$F_{1,1621} = 0.03$	<i>ns</i>	
Advising-related activity workload	\bar{X} 3.65 <i>SD</i> 1.00 <i>n</i> 1,224	3.65	3.61	$F_{1,1730} = 0.59$	<i>ns</i>	
Advisee load	\bar{X} 3.38 <i>SD</i> 1.13 <i>n</i> 1,204	3.38	3.44	$F_{1,1728} = 1.14$	<i>ns</i>	
Extent advisor opinions considered	\bar{X} 2.79 <i>SD</i> 1.12 <i>n</i> 1,232	2.79	2.80	$F_{1,1765} = 0.09$	<i>ns</i>	
Institutional support	\bar{X} 2.89 <i>SD</i> 1.17 <i>n</i> 1,262	2.89	2.82	$F_{1,1812} = 1.10$	<i>ns</i>	

Table 18 Institutional actions recommended to improve academic advising by type of advising unit

Recommended Actions	Type of Advising Unit					
	Centralized Advising Unit (n = 1,300)		Decentralized Advising Unit (n = 559)		Total (N = 1,859)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Increase funding *	887	68	331	59	1,218	66
Increase number of advisors *	790	61	294	53	1,084	58
Increase support staff	632	49	269	48	901	48
Increase technological resources	398	31	170	30	658	35
Increase advisor training *	575	44	318	57	893	48
Increase professional development resources	591	45	256	46	849	46

Note. * Indicates a significant chi-square value and one or more significant standardized residuals among the categories.

Table 19 Comparisons of advisor ratings of adequacy and satisfaction by administrative location of advising unit

Area Rated	Statistics	Type of Advising Unit		<i>F</i> value	Probability	Estimated ϵ^2
		Academic Unit (<i>n</i> = 884)	Administrative Unit (<i>n</i> = 975)			
Adequacy of Advising staff	\bar{X}	2.79	2.66	$F_{1,1753} = 8.28$	$p = 0.0041$	0.0036
	<i>SD</i>	0.99	0.97			
	<i>n</i>	834	921			
Advising support staff	\bar{X}	2.69	2.63	$F_{1,1696} = 1.49$	<i>ns</i>	
	<i>SD</i>	1.03	0.97			
	<i>n</i>	795	903			
Facilities	\bar{X}	3.27	3.25	$F_{1,1829} = 0.10$	<i>ns</i>	
	<i>SD</i>	1.23	1.26			
	<i>n</i>	877	954			
Technology, print, other resources	\bar{X}	3.46	3.38	$F_{1,1721} = 3.070$	<i>ns</i>	
	<i>SD</i>	0.93	0.94			
	<i>n</i>	817	906			
Professional development resources	\bar{X}	2.90	2.87	$F_{1,1687} = 0.26$	<i>ns</i>	
	<i>SD</i>	1.09	1.08			
	<i>n</i>	797	892			
Operating budget	\bar{X}	2.60	2.50	$F_{1,1309} = 3.41$	<i>ns</i>	
	<i>SD</i>	1.05	1.01			
	<i>n</i>	601	710			
Satisfaction with Direct service workload	\bar{X}	3.81	3.84	$F_{1,1808} = 0.33$	<i>ns</i>	
	<i>SD</i>	1.12	1.07			
	<i>n</i>	872	938			
Advising administration workload	\bar{X}	3.47	3.47	$F_{1,1621} = 0.01$	<i>ns</i>	
	<i>SD</i>	1.07	1.11			
	<i>n</i>	764	859			
Advising-related activity workload	\bar{X}	3.65	3.63	$F_{1,1730} = 0.10$	<i>ns</i>	
	<i>SD</i>	1.00	1.00			
	<i>n</i>	829	903			
Advisee load	\bar{X}	3.39	3.40	$F_{1,1728} = 0.09$	<i>ns</i>	
	<i>SD</i>	1.16	1.11			
	<i>n</i>	831	899			
Extent advisor opinions considered	\bar{X}	2.78	2.80	$F_{1,1765} = 0.15$	<i>ns</i>	
	<i>SD</i>	1.10	1.12			
	<i>n</i>	840	927			
Institutional support	\bar{X}	2.85	2.88	$F_{1,1812} = 0.39$	<i>ns</i>	
	<i>SD</i>	1.16	1.17			
	<i>n</i>	866	948			

Table 20 Institutional action recommended to improve advising by administrative placement of advising unit

Recommended Actions	Administrative Placement of Advising Unit					
	Academic Unit (n = 884)		Administrative Unit (n = 975)		Total (N = 1,859)	
	n	%	n	%	n	%
Increase funding	573	65	645	66	1,218	66
Increase number of advisors	480	54	604	62	1,084	58
Increase support staff	432	49	469	48	901	48
Increase technological resources*	229	26	339	35	568	31
Increase advisor training	421	48	472	48	893	48
Increase professional development resources	396	45	451	46	847	46

Note. * Indicates a significant chi-square value and one or more significant standardized residuals among the categories.

dition to increase the number of advisors, but the standardized residuals failed to indicate a major contributor.

Reference

Lynch, M., & Stucky, K. (2001). Advising at the millennium: Advisor roles and responsibilities. *NACADA Journal* 21(1 & 2), 15–31.

Author's Note

Readers are encouraged to exercise appropriate caution in generalizing the data and analyses herein reported. The voluntary nature of the respondents, coupled with the fact that 75% of the respondents were NACADA members, precludes readers from considering these data to be representative of all advising in higher education. However, the number

of respondents (2,695) lends credibility to the profile presented by the data.

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A copy of the NACADA Academic Advising Survey 2000 may be obtained by contacting the NACADA Executive Office by E-mail at nacada@ksu.edu or by calling (785) 532-5717.