

## CHAPTER IV

### RESULTS

This chapter presents the results of this study. Included are the data from the 245 NFA contract instructors who responded to the questionnaire, as well as the responses of the 8 NFA Program Chairs interviewed. Data analysis is also presented in support of the answers to each of the research questions. Qualitative analysis of the responses to the questionnaire's open-ended sections is presented. The results of the interviews of the National Fire Academy (NFA) Program Chairs are also described.

#### Questionnaire Respondent Demographics

In this section a selected profile of the resident contract instructors who responded to the questionnaire is presented in Table 1 based on age, primary NFA teaching area, teaching experience at the NFA, and number of years they have taught at NFA. The target population was comprised of all 536 NFA resident program contract instructors. Each was sent a questionnaire (Appendix C) along with a self-addressed stamped envelope, commencing February 1, 1997. Of this number 245 returned their questionnaires for a response rate of 45%.

- (a) **Age Group:** Of the participating management contract instructors 5.7% were under age 40, while 7.8% of the participating operations contract instructors were under age 40 for a total of 13.5% of participating instructors under age 40. Of the participating management contract instructors 24.1% were aged 40 to 49, while 22% of the participating operations contract instructors were in that grouping, for a total of 46.1% aged 40 to 49. Of the participating management contract instructors 17.1% were aged 50 to 59, while 16.7% of the participating operations contract instructors were in that grouping, for a total of 33.9% aged 50 to 59. Of the participating management contract instructors 3.7% were age 60 or older, while 2.9% of the participating operations contract instructors were in that grouping, for a total of 6.5% age 60 or older.

- (b) **Primary NFA Teaching Area:** Of the participating management contract instructors 8.2% had under 5 years experience teaching in the management content area, while 6.1% of the participating operations contract instructors had the same amount of experience teaching in the operations content area, for a total of 14.3% of the participating contract instructors with under 5 years experience. Of the participating management contract instructors 7.8% had 5 to 9 years experience teaching in the management content area, while 8.2% of the participating operations contract instructors had the same amount of experience teaching in the operations content area, for a total of 15.9% of the participating contract instructors with 5 to 9 years experience. Of the participating management contract instructors 8.6% had 10 to 14 years experience teaching in the management content area, while 12.7% of the participating operations contract instructors had the same amount of experience teaching in the operations content area, for a total of 21.2% of the participating contract instructors with 10 to 14 years experience. Of the participating management contract instructors 11.4% had 15 to 19 years experience teaching in the management content area, while 6.9% of the participating operations contract instructors had the same amount of experience teaching in the operations content area, for a total of 18.4% of the participating contract instructors with 15 to 19 years experience. Of the participating management contract instructors 14.7% had 20 or more years of experience teaching in the management content area, while 15.5% of the participating operations contract instructors has the same amount of experience teaching in the operations content area, for a total of 30.2% of the participating contract instructors with 20 or more years experience.
- (c) **Years Teaching at NFA:** Of the participating management contract instructors 14.7% have taught at the NFA for 4 years or less, while 13.5% of the participating operations instructors have taught at the NFA for the same number of years, for a total of 28.2% of the participating contract instructors that have taught at the NFA

for 4 years or less. Of the participating management instructors 9.8% have taught at the NFA for 4 to 6 years, while 5.7% of the participating operations instructors have taught at the NFA for the same number of years, for a total of 15.5% of participating contract instructors that have taught at the NFA for 4 to 6 years. Of the participating management contract instructors 7.8% have taught at the NFA for 7 to 9 years, while 9.8% of the participating operations contract instructors have taught at the NFA for the same number of years, for a total of 17.6% of participating contract instructors that have taught at the NFA for 7 to 9 years. Of the participating management contract instructors 5.7% have taught at the NFA for 10 to 12 years, while 9.0% of the participating operations contract instructors have taught at the NFA for the same number of years, for a total of 14.7% of the participating contract instructors that have taught at the NFA for 10 to 12 years. Of the participating management contract instructors 7.3% have taught at the NFA for 13 to 15 years, while 7.3% of the participating operations contract instructors have taught at the NFA for the same number of years, for a total of 14.7% of the participating contract instructors that have taught at the NFA for 13 to 15 years. Of the participating management contract instructors 5.3% have taught at the NFA for 16 or more years, while 9.0% of the participating operations contract instructors have taught at the NFA for the same number of years, for a total of 9.4% of the participating contract instructors that have taught at the NFA for 16 or more years.

- (d) **Primary NFA Teaching Area:** Of the participating contract instructors 50.6% taught primarily in the management program, while 49.4% taught primarily in the operations program, for a total of 100% of the participating contract instructors. Table 1 provides more information:

**TABLE 1**

A Selected Profile of the Participating National Fire Academy (NFA) Contract Instructors

Personal and Professional Factors		Management		Operations		Combined	
		Number	Percent	Number	Percent	Number	Percent
Age group:	Under 40	14	5.7	19	7.8	33	13.5
	40 to 49	59	24.1	54	22.0	113	46.1
	50 to 59	42	17.1	41	16.7	83	33.9
	60 or older	9	3.7	7	2.9	16	6.5
Primary NFA teaching area:	Under 5	20	8.2	15	6.1	35	14.3
	5 to 9	19	7.8	20	8.2	39	15.9
	10 to 14	21	8.6	31	12.7	52	21.2
	15 to 19	28	11.4	17	6.9	45	18.4
	20 or more	36	14.7	38	15.5	74	30.2
Teaching experience at NFA:	Under 4	36	14.7	33	13.5	69	28.2
	4 to 6	24	9.8	14	5.7	38	15.5
	7 to 9	19	7.8	24	9.8	43	17.6
	10 to 12	14	5.7	22	9.0	36	14.7
	13 to 15	18	7.3	18	7.3	36	14.7
	16 or more	13	5.3	22	9.0	23	9.4
Total Participating NFA Instructors		124	50.6	121	49.4	245	100.0

Data Analysis

**Research Question #1: What are the problems, if any, that NFA contract instructors have had that have implications for effective program delivery?**

In this section the data presented in Table 2 reflects an overview of the perceptions of the participating contract instructors about the kinds of instructional problems they may have encountered. Open-ended responses to each type of the instructional problems noted are included

in full in Appendix E. These comments have been reorganized using an open coding method to sort them into a category scheme. These sorted comments are included in full in Appendix F, and reported, as appropriate in this data analysis section. The following significant results can be derived from the frequency distribution of the participating contract instructors' responses to questionnaire item #5:

1. **Student violation of the rules:** 62% of the responding contract instructors had not encountered this problem, 30.2% were neutral, while 7.8% had encountered this problem.

**Open-ended question responses:** There were 8 related comments. One instructor commented about student pre-course preparation: “Mismatch between student expectations/preparation and course content.” Another instructor made a similar comment: “Students not meeting the course prerequisites.” Three instructors had not experienced problems with students: “Never had a problem with my students.” “Students seen to be very conscientious in obeying the rules.” and “Not a concern.” Two other instructors noted issues relating to student compliance with the dress code: “[Students] wearing proper attire.” and “Student dress code needs to be reviewed.” Finally, one instructor referred to students' out of class behavior: “Some conduct (parties) out of control.”

2. **Instructional team disagreement:** 53.9% of the responding contract instructors had not encountered this problem, 34.3% were “neutral”, while 11.8% had encountered this problem.

**Open-ended question responses:** There were 14 related comments. Most commented that they had not experienced problems in instructor relationships: “These have not been a problem for me.” “I have not encountered this.” “Never experienced question 2 [instructional team disagreements] but it could be a problem.” “No problems yet encountered.” “I've always gotten along with the other instructor.” One noted the result of instructional team disagreements: “Rarely happens, but when it does -- disaster.”

3. **Outdated program content:** 60.8% of the participating contract instructors had encountered this problem, 22.0% answered “neutral”, while 17.1% had not encountered this problem.

**Open-ended question responses:** There were 31 related comments. Many instructors noted particular facets of content that were outdated: “Poor slide quality.” “Conflict with APA [American Psychological Association Publication Manual] (4th Ed.) and student instructions.” “Outdated Code Management class has been identified for a rewrite.” A few commented on the course design and development process: “Revision cycle could be sped [sic] up by using contract personnel expertise during teaching contract.” “Expand/evolve course development teams.” “Design of instructional material hard to figure out at times.” “Too much time between revisions. Some slides with problems never were corrected.” One instructor commented specifically on program content methodology: “More adult learning is required for most courses. Often courses are lecture oriented. More student participation is necessary. We are still suffering 100 deaths [and] 100,000 injuries yearly to firefighters. More emphasis on operational concepts is needed.” Table 2 provides more information:

**TABLE 2**  
Instructional Problems Encountered by Instructors While Contracting with the National Fire Academy

Types of Instructional Problems	Agree		Neutral		Disagree	
	Number	Percent	Number	Percent	Number	Percent
Student violation of the rules.	19	7.8	74	30.2	152	62.0
Instructional team disagreement.	29	11.8	84	34.3	132	53.9
Outdated program content.	149	60.8	54	22.0	42	17.1

In this section the data previously presented in Table 2 was analyzed by using the Chi Square Test of Comparison to determine if demographic factors had any effect on the type of problems encountered by the participating contract instructors:

1. **Student violation of the rules:** When compared by primary NFA teaching area 8.1% of the participating Management instructors had encountered this problem, while 7.4% of the participating Operations instructors had. Of the participating Management contract instructors 27.4% were neutral, while 33.1% of the participating Operations contract instructors were. Of the participating Management contract instructors 64.5% had not encountered this problem, while 59.5% of the participating Operations contract instructors had not. The Chi Square was 0.92 (not significant).

**When compared by years of experience** in the primary NFA teaching area 9.5% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area had encountered this problem, 1.9% of the participating contract instructors with 10 to 14 years experience in the primary NFA teaching area had experienced it, and 9.2% of the participating contract instructors with over 14 years experience in the primary NFA teaching area had experienced it. Of the participating contract instructors 27% of those with under 10 years experience in the primary NFA teaching area were neutral, 34.6% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 30.3% of those with over 14 years experience in the primary NFA teaching area were neutral. Of the participating contract instructors 63.5% of those with under 10 years experience in the primary NFA teaching area had not encountered this problem, 63.5% of those with 10 to 14 years experience in the primary NFA teaching area had not encountered this problem, and 60.5% of those with over 14 years experience in the primary NFA teaching area had not encountered this problem. The Chi Square was 3.57 (not significant).

**When compared by years taught at the NFA** 6.5% of the participating contract instructors with under 7 years teaching at NFA had encountered this problem, 10.1% of the participating contract instructors with 7 to 12 years teaching at the NFA had encountered this problem, while 6.8% of the participating contract instructors with over 12 years teaching at NFA had encountered this problem. Of the participating contract instructors 28.0% of those with under 7 years teaching at NFA were neutral, 31.6% of those with 7 to 12 years teaching at NFA were neutral, and 32.2 % of those with over 12 years teaching at NFA were neutral. Of the participating contract instructors 65.4% of those with under 7 years teaching at NFA had never encountered this problem, 58.2% of the participating contract instructors with 7 to 12 years teaching at NFA had never encountered this problem, and 61.0% of the participating contract instructors with over 12 years teaching at NFA had never encountered this problem. The Chi Square was 1.54 (not significant).

**When compared by age group** 6.1% of the participating contract instructors under 40 years of age had encountered this problem, 6.2% of the participating contract instructors aged 40 to 50 had encountered this problem, and 10.1% of the participating contract instructors aged over 50 had encountered this problem. Of the participating contract instructors 27.3% of those under 40 years of age were neutral, 34.5% of those aged 40 to 50 were neutral, and 26.3% of those over 50 were neutral. Of the participating contract instructors 66.7% of those under 40 years of age had not encountered this problem, 59.3% of those aged 40 to 50 had not experienced this problem, and 63.6% of those over age 50 had not experienced this problem. The Chi Square was 2.77 (not significant). Table 3 provides more information:



**TABLE 3**  
Student Violation of the Rules Encountered by Different NFA Instructors

Demographic Factors			Student Violation of the Rules			
			Agree	Neutral	Disagree	Chi-Square
Primary NFA teaching area:	Management	n	10	34	80	0.92
		%	8.1	27.4	64.5	
	Operations	n	9	40	72	
		%	7.4	33.1	59.5	
Years in primary teaching area:	Under 10 years	n	7	20	47	3.57
		%	9.5	27.0	63.5	
	10 to 14 years	n	1	18	33	
		%	1.9	34.6	63.5	
	Over 14 years	n	11	36	72	
		%	9.2	30.3	60.5	
Years taught at NFA:	Under 7 years	n	7	30	70	1.54
		%	6.5	28.0	65.4	
	7 to 12 years	n	8	25	46	
		%	10.1	31.6	58.2	
	Over 12 years	n	4	19	36	
		%	6.8	32.2	61.0	
Age group:	Under 40 years	n	2	9	22	2.77
		%	6.1	27.3	66.7	
	40 to 50 years	n	7	39	67	
		%	6.2	34.5	59.3	
	Over 50 years	n	10	26	63	
		%	10.1	26.3	63.6	

2. **Instructional team disagreement:** When compared by primary NFA teaching area 12.9% of the participating Management contract instructors had encountered this problem, while 10.7% of the participating Operations contract instructors had encountered this problem. Of the participating Management contract instructors 29.8% were neutral, while 38.8% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 57.3% had not encountered this problem, while 50.4% of the participating Operations contract instructors had not encountered this problem. The Chi Square was 2.22 (not significant).

**When compared by years of experience** in the primary NFA teaching area 13.5% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area had encountered this problem, 7.7% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area had encountered this problem, and 12.6% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area had encountered this problem. Of the participating contract instructors 39.2% of those with under 10 years of experience in the primary NFA teaching area were neutral, 34.6% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 31.1% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 47.3% with under 10 years of experience in the primary NFA teaching area had not encountered this problem, 57.7% of those with 10 to 14 years in the primary NFA teaching area had not encountered this problem, and 56.3% of those with over 14 years of experience in the primary NFA teaching area had not encountered this problem. The Chi Square was 2.73 (not significant).

**When compared by years taught at the NFA** 10.3% of the participating contract instructors with under 7 years teaching at NFA had encountered this problem, 13.9% of those with 7 to 12 years teaching at NFA had encountered this problem, and

11.9% of those with over 12 years teaching at NFA had encountered this problem. Of the participating contract instructors 35.5% of those with under 7 years teaching at NFA were neutral, 39.2% of those with 7 to 12 years teaching at NFA were neutral, and 25.4% of those with over 12 years teaching at NFA were neutral. Of the participating contract instructors 54.2% of those with under 7 years teaching at NFA had not encountered this problem, 46.8% of those with 7 to 12 years teaching at NFA had not encountered this problem, and 62.7% of those with over 12 years teaching at NFA had not encountered this problem. The Chi Square was 4.06 (not significant).

**When compared by age group** 21.2% of the participating contract instructors under 40 years of age had encountered this problem, 8.8% of the participating contract instructors aged 40 to 50 had encountered this problem, and 12.1% of the participating contract instructors over age 50 had encountered this problem. Of the participating contract instructors 27.3% of those under 40 years of age were neutral, 38.9% of those aged 40 to 50 were neutral, and 31.3% of those over 50 were neutral. Of the participating contract instructors 51.5% of those under 40 years of age had not encountered this problem, 52.2% of those aged 40 to 50 years had not encountered this problem, and 56.6% of those over age 50 had not encountered this problem. The Chi Square was 4.97 (not significant).

Table 4 provides more information:

**TABLE 4**  
Instructional Team Disagreement Encountered by Different NFA Instructors

Demographic Factors		Instructional Team Disagreement				
		Agree	Neutral	Disagree	Chi-Square	
Primary NFA teaching area:	Management	n	16	37	71	2.22
		%	12.9	29.8	57.3	
	Operations	n	13	47	61	
		%	10.7	38.8	50.4	

**Table 4.1 (Continued)**  
Instructional Team Disagreement Encountered by Different NFA Instructors

Years in primary teaching area:	Under 10 years	n	10	29	35	2.73
		%	13.5	39.2	47.3	
	10 to 14 years	n	4	18	30	
		%	7.7	34.6	57.7	
	Over 14 years	n	15	37	67	
		%	12.6	31.1	56.3	
Years taught at NFA:	Under 7 years	n	11	38	58	4.06
		%	10.3	35.5	54.2	
	7 to 12 years	n	11	31	37	
		%	13.9	39.2	46.8	
	Over 12 years	n	7	15	37	
		%	11.9	25.4	62.7	
Age group:	Under 40 years	n	7	9	17	4.97
		%	21.2	27.3	51.5	
	40 to 50 years	n	10	44	59	
		%	8.8	38.9	52.2	
	Over 50 years	n	12	31	56	
		%	12.1	31.3	56.6	

3. **Outdated program content:** When compared by primary NFA teaching area 54.8% of the participating Management contract instructors had encountered this problem, while 66.9% of the participating Operations contract instructors had encountered this problem. Of the participating Management contract instructors 23.4% were neutral, while 20.7% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 21.8% had not encountered this problem, while 12.4% of the participating Operations contract instructors had not encountered this

problem. The Chi Square was 4.82, which indicated a statistically significant difference on the basis of the demographic factor of primary NFA teaching area.

**When compared by years of experience** in the primary NFA teaching area 60.8% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area had experienced this problem, 59.6% of the participating contract instructors with 10 to 14 years experience in the primary NFA teaching area had encountered this problem, and 61.3% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area had experienced this problem. Of the participating contract instructors 18.9% of those with under 10 years of experience in the primary NFA teaching area were neutral, 25.0% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 22.7% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 20.3% of those with under 10 years experience in the primary NFA teaching area had not experienced this problem, 15.4% of those with 10 to 14 years of experience in the primary NFA teaching area had not experienced this problem, and 16.0% of those with over 14 years of experience in the primary NFA teaching area had not experienced this problem. The Chi Square was 1.19 (not significant).

**When compared by years taught at the NFA** 59.8% of the participating contract instructors with under 7 years teaching at NFA had encountered this problem, 58.2% of those with 7 to 12 years teaching at NFA had encountered this problem, and 66.1% of those with over 12 years teaching at NFA had encountered this problem. Of the participating contract instructors 15% of those with under 7 years teaching at NFA were neutral, 29.1% of those with 7 to 12 years teaching at NFA were neutral, and 25.4% of those with over 12 years teaching at NFA were neutral. Of the participating contract instructors 25.2% of those with under 7 years teaching at NFA had not encountered this problem, 12.7% of those with 7 to 12 years teaching at NFA had not encountered this problem, and 8.5% of those with over 12 years teaching at NFA had not encountered this problem. The Chi Square was

12.51, which indicated a statistically significant difference based on the demographic factor of number of years taught at the NFA.

**When compared by age group** 60.6% of the participating contract instructors under age 40 had encountered this problem, 64.6% of the participating contract instructors aged 40 to 50 had encountered this problem, and 56.6% of the participating contract instructors over age 50 had encountered this problem.

Of the participating contract instructors 15.2% of those under age 40 were neutral, 19.5% of those aged 40 to 50 were neutral, and 27.3% of those over age 50 were neutral. Of the participating contract instructors 24.2% of those under age 40 had not encountered this problem, 15.9% of those aged 40 to 50 had not encountered this problem, and 16.2% of those over age 50 had not encountered this problem.

The Chi Square was 3.96 (not significant). Table 5 provides more information:

**TABLE 5**  
Outdated Program Content Encountered by Different NFA Instructors

Demographic Factors		Outdated Program Content				
		Agree	Neutral	Disagree	Chi-Square	
Primary NFA teaching area:	Management	n	68	29	27	* 4.82
		%	54.8	23.4	21.8	
	Operations	n	81	25	15	
		%	66.9	20.7	12.4	
Years in primary teaching area:	Under 10 years	n	45	14	15	1.19
		%	60.8	18.9	20.3	
	10 to 14 years	n	31	13	8	
		%	59.6	25.0	15.4	
	Over 14 years	n	73	27	19	
		%	61.3	22.7	16.0	

**Table 5.1 (Continued)**

Outdated Program Content Encountered by Different NFA Instructors

Years taught at NFA:	Under 7 years	n	64	16	27	12.51 <sup>*</sup>
		%	59.8	15.0	25.2	
	7 to 12 years	n	46	23	10	
		%	58.2	29.1	12.7	
	Over 12 years	n	39	15	5	
		%	66.1	25.4	8.5	
Age group:	Under 40 years	n	20	5	8	3.96
		%	60.6	15.2	24.2	
	40 to 50 years	n	73	22	18	
		%	64.6	19.5	15.9	
	Over 50 years	n	56	27	16	
		%	56.6	27.3	16.2	

Note: An asterisk denotes significant perceptions among different groups on the basis of their demographic factors.

**Research Question #2: What are the administrative support services, if any, that should be provided to contract instructors in the areas of:**

- A. Orientation of new instructors?**
- B. Program delivery?**
- C. Evaluation processes?**
- D. Professional development?**

In this section the data presented in Table 6 reflects an overview of the perceptions of the participating contract instructors about the administrative support services that should be provided to them in the area of orientation of new instructors. Open-ended responses to each type of administrative support area noted are included in full in Appendix E. These comments have been reorganized using an open coding method to sort them into a category scheme. These sorted

comments are included in full in Appendix F, and reported, as appropriate in this section. The following significant results can be derived from the frequency distribution of the responses of the participating contract instructors' responses to questionnaire item #6, Orientation of new instructors:

1. **Formal on-site orientation program:** The participating contract instructors were asked about the need for a formal on-site orientation program. Of this group 55.1% agreed that there was a need for such a program, 29.4% were neutral, and 15.5% disagreed.

**Open-ended question responses:** There were 12 related comments. Several instructors commented on the components of an orientation: "Orientation to campus and resources." "Express rules for handling politically touchy issues -- i.e., race, foreign students." "Regular updates/info." Several instructors commented on the necessity of an orientation: "Formal on-site orientation and welcome needed." "For a first time instructor it is very intimidating. Perhaps some sort of 1st day welcome, etc." "New instructors are sort of thrown to the wolves."

2. **Instructor handbook prior to first class session:** The participating contract instructors were asked about the need for an instructor handbook mailed to instructors prior to the first class session. Of this group 65.3% agreed that there was a need for the delivery of such a handbook, 21.2% were neutral, and 13.5% disagreed.

**Open-ended question responses:** There were 6 related comments. Several instructors noted the need for an instructor handbook: "I like to have a fresh copy of Instr and Stu manual sections for my modules." "IG [Instructor Guide] on disk so instructor can be current with any changes/additions made to course material." Two instructors noted items to include with the instructor handbook: "If possible student roster should be sent to instructor prior to first class session along with updated course IG [Instructor Guide]. Each instructor should have an updated NFA handbook." "With up-to-date information."

3. **Required on-site meeting with Program Chair:** The participating contract



instructors were asked about the need for a required on-site meeting with their respective program chairs. Of this group 51.8% agreed that there was a need for such a meeting, 33.5% were neutral, and 14.7% disagreed.

**Open-ended question responses:** There were 10 related comments. One instructor noted that one Program Chair already requires an on-site meeting: “This is now the practice for Command and Control courses.” Several commented on their relationship with Program Chairs: “Some Chairs (Hisley, Dyar, Covington) are there whenever you need them. Others expect adjuncts to do their job for them.” “Some instructors never feel they understand the overall strategy and emphasis that the Program Chairman wants.” “Program Chairperson talks a good game but not all of them are that helpful.” “The [Program] Chair should get out of the way unless needed.” Table 6 provides more information:

**TABLE 6**  
Administrative Support Services Necessary for Orientation of New Instructors

Administrative Support Services	Agree		Neutral		Disagree	
	Number	Percent	Number	Percent	Number	Percent
Formal on-site orientation program.	135	55.1	72	29.4	38	15.5
Instructor handbook prior to first class session.	160	65.3	52	21.2	33	13.5
Required on-site meeting with Program Chairman.	127	51.8	82	33.5	36	14.7

In this section the data previously presented in Table 6 was analyzed using the Chi Square Test of Comparison to determine if demographic factors had any effect on the types of administrative support services viewed by the participating contract instructors as necessary for the orientation of new instructors:

1. **Perceptions of different NFA Instructors about the importance of formal on-site orientation program for new instructors:** When compared by primary NFA

teaching area 54.0% of the participating Management contract instructors agreed that this was important, while 56.2% of the participating Operations contract instructors agreed that this program was important. Of the participating Management contract instructors 33.9% were neutral, while 24.8% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 12.1% responded that it was not important, while 19.0% of the participating Operations contract instructors responded that it was not important. The Chi Square was 3.66 (not significant).

**When compared by years of experience** in the primary NFA teaching area 58.1% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area agreed that this program was important, 59.6% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area agreed that this program was important, and 51.3% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area agreed that this program was important. Of the participating contract instructors 25.7% with under 10 years of experience in the primary NFA teaching area were neutral, 25% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 33.6% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 16.2% of those with under 10 years of experience in the primary NFA teaching area responded that this program was not important, 15.4% of those with 10 to 14 years of experience in the primary NFA teaching area responded that this program was not important, and 15.1% of the participating contract instructors with over 14 years of experience responded that this program was not important. The Chi Square was 2.08 (not significant).

**When compared by years taught at NFA** 57.9% of the participating contract instructors with under 7 years teaching experience at NFA responded that this program was important, 57% of the participating contract instructors with 7 to 12 years of teaching experience at NFA responded that this program was important,

and 47.5% of the participating contract instructors with over 12 years teaching experience at NFA responded that this program was important. Of the participating contract instructors 27.1% of those with under 7 years teaching experience at NFA gave a neutral response, 25.3% of those with 7 to 12 years of teaching experience at NFA gave a neutral response, and 39.0% of those with over 12 years teaching experience at NFA gave a neutral response. Of the participating contract instructors 15.0% of those with under 7 years teaching experience at NFA responded that this program was not important, 17.7% of those with 7 to 12 years teaching experience at NFA responded that this program was not important, and 13.6% of those with over 12 years teaching experience at NFA responded that this program was not important. The Chi Square was 3.73 (not significant).

**When compared by age group** 51.5% of the participating contract instructors under 40 years of age responded that this program was important, 58.4% of the participating contract instructors aged 40 to 50 responded that this program was important, and 52.5% of the participating contract instructors over age 50 responded that this program was important. Of the participating contract instructors 30.3% of those under age 40 gave a neutral response, 28.3% of those aged 40 to 50 gave a neutral response, and 30.3% of those over age 50 gave a neutral response. Of the participating contract instructors 18.2% of those under age 40 responded that this program was not important, 13.3% of the participating instructors aged 40 to 50 responded that this program was not important, and 17.2% of the participating contract instructors over age 50 responded that this program was not important. The Chi Square was 1.19 (not significant). Table 7 provides more information:

**TABLE 7**

Perceptions of Different NFA Instructors About the Importance of Formal On-site Orientation Program for New Instructors

Demographic Factors			Importance of Formal On-site Orientation Program			
			Agree	Neutral	Disagree	Chi-Square
Primary NFA teaching area:	Management	n	67	42	15	3.66
		%	54.0	33.9	12.1	
	Operations	n	68	30	23	
		%	56.2	24.8	19.0	
Years in primary teaching area:	Under 10 years	n	43	19	12	2.08
		%	58.1	25.7	16.2	
	10 to 14 years	n	31	13	8	
		%	59.6	25.0	15.4	
	Over 14 years	n	61	40	18	
		%	51.3	33.6	15.1	
Years taught at NFA:	Under 7 years	n	62	29	16	3.73
		%	57.9	27.1	15.0	
	7 to 12 years	n	45	20	14	
		%	57.0	25.3	17.7	
	Over 12 years	n	28	23	8	
		%	47.5	39.0	13.6	
Age group:	Under 40 years	n	17	10	6	1.19
		%	51.5	30.3	18.2	
	40 to 50 years	n	66	32	15	
		%	58.4	28.3	13.3	
	Over 50 years	n	52	30	17	
		%	52.5	30.3	17.2	

2. **Perceptions of different NFA instructors about the importance of mailing a handbook to new instructors:** When compared by primary NFA teaching area 69.4% of the participating Management contract instructors agreed that mailing this handbook was important, while 61.2% of the participating Operations contract instructors agreed that mailing this handbook was important. Of the participating Management contract instructors 17.7% were neutral, while 24.8% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 12.9% responded that mailing this handbook was not important, while 14.0% of the participating Operations contract instructors responded that mailing this handbook was not important. The Chi Square was 2.12 (not significant).

**When compared by years of experience** in the primary NFA teaching area 59.5% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area agreed that mailing this handbook was important, 69.2% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area agreed that mailing this handbook was important, and 67.2% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area agreed that mailing this handbook was important. Of the participating contract instructors 39.2% with under 10 years of experience in the primary NFA teaching area were neutral, 15.4% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 20.2% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 13.5% of those with under 10 years of experience in the primary NFA teaching area responded that mailing this handbook was not important, 15.4% of those with 10 to 14 years of experience in the primary NFA teaching area responded that mailing this handbook was not important, and 12.6% of the participating contract instructors with over 14 years of experience responded that mailing this handbook was not important. The Chi Square was 2.86 (not significant).

**When compared by years taught at NFA** 62.6% of the participating contract instructors with under 7 years teaching experience at NFA responded that mailing this handbook was important, 64.6% of the participating contract instructors with 7 to 12 years of teaching experience at NFA responded that mailing this handbook was important, and 71.2% of the participating contract instructors with over 12 years teaching experience at NFA responded that mailing this handbook was important. Of the participating contract instructors 20.6% of those with under 7 years teaching experience at NFA gave a neutral response, 24.1% of those with 7 to 12 years of teaching experience at NFA gave a neutral response, and 18.6% of those with over 12 years teaching experience at NFA gave a neutral response. Of the participating contract instructors 16.8% of those with under 7 years teaching experience at NFA responded that mailing this handbook was not important, 11.4% of those with 7 to 12 years teaching experience at NFA responded that mailing this handbook was not important, and 10.2% of those with over 12 years teaching experience at NFA responded that mailing this handbook was not important. The Chi Square was 2.57 (not significant).

**When compared by age group** 51.5% of the participating contract instructors under 40 years of age responded that mailing this handbook was important, 64.6% of the participating contract instructors aged 40 to 50 responded that mailing this handbook was important, and 70.7% of the participating contract instructors over age 50 responded that mailing this handbook was important. Of the participating contract instructors 36.4% of those under age 40 gave a neutral response, 23.9% of those aged 40 to 50 gave a neutral response, and 13.1% of those over age 50 gave a neutral response. Of the participating contract instructors 12.1% of those under age 40 responded that mailing this handbook was not important, 11.5% of the participating contract instructors aged 40 to 50 responded that mailing this handbook was not important, and 16.2% of the participating contract instructors over age 50 responded that mailing this handbook was not important. The Chi Square was 9.31, which indicated a statistically

significant difference based on the demographic of age group. Table 8 provides more information:

**TABLE 8**  
Perceptions of Different NFA Instructors About the Importance of Mailing Handbook to New Instructors

Demographic Factors			Provision of Instructor Handbook to New Instructor			
			Agree	Neutral	Disagree	Chi-Square
Primary NFA teaching area:	Management	n	86	22	16	2.12
		%	69.4	17.7	12.9	
	Operations	n	74	30	17	
		%	61.2	24.8	14.0	
Years in primary teaching area:	Under 10 years	n	44	20	10	2.86
		%	59.5	39.2	13.5	
	10 to 14 years	n	36	8	8	
		%	69.2	15.4	15.4	
	Over 14 years	n	80	24	15	
		%	67.2	20.2	12.6	
Years taught at NFA:	Under 7 years	n	67	22	18	2.57
		%	62.6	20.6	16.8	
	7 to 12 years	n	51	19	9	
		%	64.6	24.1	11.4	
	Over 12 years	n	42	11	6	
		%	71.2	18.6	10.2	
Age group:	Under 40 years	n	17	12	4	9.31 <sup>*</sup>
		%	51.5	36.4	12.1	
	40 to 50 years	n	73	27	13	
		%	64.6	23.9	11.5	
	Over 50 years	n	70	13	16	
		%	70.7	13.1	16.2	

Note: An asterisk denotes significant perceptions among different groups on the basis of their demographic factors.

3. **Perceptions of different NFA instructors about the importance of Program Chair's meeting with new instructors:** When compared by primary NFA teaching area 51.6% of the participating Management contract instructors agreed that the Program Chair's meeting with new instructors was important, while 52.1% of the participating Operations contract instructors agreed that the Program Chair's meeting with new instructors was important. Of the participating Management contract instructors 33.9% were neutral, while 33.1% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 14.5% responded that the Program Chair's meeting with new instructors was not important, while 14.9% of the participating Operations contract instructors responded that the Program Chair's meeting with new instructors was not important. The Chi Square was 0.02 (not significant).

**When compared by years of experience** in the primary NFA teaching area 51.4% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area agreed that the Program Chair's meeting with new instructors was important, 53.8% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area agreed that the Program Chair's meeting with new instructors was important, and 51.3% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area agreed that the Program Chair's meeting with new instructors was important. Of the participating contract instructors 36.5% with under 10 years of experience in the primary NFA teaching area were neutral, 34.6% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 31.1% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 12.2% of those with under 10 years of experience in the primary NFA teaching area responded that the Program Chair's meeting with new instructors was not important, 11.5% of those with 10 to 14 years of experience in the primary NFA teaching area responded that the Program Chair's



meeting with new instructors was not important, and 17.6% of the participating contract instructors with over 14 years of experience responded that the Program Chair's meeting with new instructors was not important. The Chi Square was 1.86 (not significant).

**When compared by years taught at NFA** 56.1% of the participating contract instructors with under 7 years teaching experience at NFA responded that the Program Chair's meeting with new instructors was important, 51.9% of the participating contract instructors with 7 to 12 years of teaching experience at NFA responded that the Program Chair's meeting with new instructors was important, and 44.1% of the participating contract instructors with over 12 years teaching experience at NFA responded that the Program Chair's meeting with new instructors was important. Of the participating contract instructors 28.0% of those with under 7 years teaching experience at NFA gave a neutral response, 38.0% of those with 7 to 12 years of teaching experience at NFA gave a neutral response, and 37.3% of those with over 12 years teaching experience at NFA gave a neutral response. Of the participating contract instructors 15.9% of those with under 7 years teaching experience at NFA responded that the Program Chair's meeting with new instructors was not important, 10.1% of those with 7 to 12 years teaching experience at NFA responded that the Program Chair's meeting with new instructors was not important, and 18.6% of those with over 12 years teaching experience at NFA responded that the Program Chair's meeting with new instructors was not important. The Chi Square was 4.59 (not significant).

**When compared by age group** 48.5% of the participating contract instructors under 40 years of age responded that the Program Chair's meeting with new instructors was important, 54.0% of the participating contract instructors aged 40 to 50 responded that the Program Chair's meeting with new instructors was important, and 50.5% of the participating contract instructors over age 50 responded that the Program Chair's meeting with new instructors was important. Of the participating contract instructors 33.3% of those under age 40 gave a neutral

response, 32.7% of those aged 40 to 50 gave a neutral response, and 34.3% of those over age 50 gave a neutral response. Of the participating contract instructors 18.2% of those under age 40 responded that the Program Chair's meeting with new instructors was not important, 13.3% of the participating contract instructors aged 40 to 50 responded that the Program Chair's meeting with new instructors was not important, and 15.2% of the participating contract instructors over age 50 responded that the Program Chair's meeting with new instructors was not important. The Chi Square was 0.69 (not significant). Table 9 provides more information:

**Table 9**

Perceptions of Different NFA Instructors About the Importance of Program Chair's Meeting with New Instructors

Demographic Factors		Importance of Chairman's Meeting with Instructors				
		Agree	Neutral	Disagree	Chi-Square	
Primary NFA teaching area:	Management	n	64	42	18	0.02
		%	51.6	33.9	14.5	
	Operations	n	63	40	18	
		%	52.1	33.1	14.9	
Years in primary teaching area:	Under 10 years	n	38	27	9	1.86
		%	51.4	36.5	12.2	
	10 to 14 years	n	28	18	6	
		%	53.8	34.6	11.5	
	Over 14 years	n	61	37	21	
		%	51.3	31.1	17.6	

Table 9.1 (Continued)  
 Perceptions of Different NFA Instructors About the Program Chair's Meeting with New Instructors

Years taught at NFA:	Under 7 years	n	60	30	17	4.59
		%	56.1	28.0	15.9	
	7 to 12 years	n	41	30	8	
		%	51.9	38.0	10.1	
	Over 12 years	n	26	22	11	
		%	44.1	37.3	18.6	
Age group:	Under 40 years	n	16	11	6	0.69
		%	48.5	33.3	18.2	
	40 to 50 years	n	61	37	15	
		%	54.0	32.7	13.3	
	Over 50 years	n	50	34	15	
		%	50.5	34.3	15.2	

In this section the data presented in Table 10 reflects an overview of the perceptions of the participating contract instructors about the administrative support services that should be provided to assist them in program delivery. Open-ended responses to each type of administrative support area noted are included in full in Appendix E. These comments have been reorganized using an open coding method to sort them into a category scheme. These sorted comments are included in full in Appendix F, and reported as appropriate in this section. The following significant results can be derived from the frequency distribution of the responses of the participating contract instructors' responses to questionnaire item #7, Administrative support services necessary to assist instructors in program delivery:

1. **Classroom set-up (i.e., tables, chairs, etc.):** The participating contract instructors were asked about the need for classroom set-up as administrative support. Of this group 50.6% agreed that there was such a need, 23.7% were neutral, and 25.7% disagreed.

**Open-ended responses:** There were 21 related comments. Many were favorable comments: “Generally, classrooms have been fine.” “The support staff has been

very helpful regarding an efficient academic environment.” “I think the services are superior to what I have been used to.” “Excellent.” “I feel comfortable with the present support.” A few mentioned improvement areas: “I get support based on friendship not need.” “Supplies are difficult to come by.” “Proper maintenance of visual machines [needed].” “Occasionally the break-out rooms not coordinated.” One instructor commented in the negative: “The support has not been the same the past few years.”

2. **Classroom supplies (i.e., manuals, pens, chart, etc.):** The participating contract instructors were asked about the need for classroom supplies as administrative support. Of this group 55.9% agreed that there was such a need, 21.6% were neutral, and 22.4% disagreed.

**Open-ended responses:** There were 11 related comments. Most of the instructor comments referred to suggestions or additions to classroom support materials: “Disk with audiovisuals mailed prior to class (where applicable).” “Support equipment needed that works (copy machine).” “Access to computers for instructors.” “A computer designated for instructor use in [the] classroom building. A copier for student use.” “Projectors, spare bulbs, and other support equipment.” “Computer printers/modem/Internet access.” “Provide instructors with loaner laptops with Powerpoint.”

3. **Secretarial typing support:** The participating contract instructors were asked about the need for secretarial typing support as administrative support. Of this group 40.8% agreed that there was such a need, 40.4% were neutral, and 18.8% disagreed.

**Open-ended responses:** There were 4 related comments. Generally, the instructors who commented did not feel the need for typing support. A typical comment was: “With availability of computers staff typing support would not be required.” Table 10 provides more information:

**TABLE 10**Administrative Support Services Necessary to Assist Instructors in Program Delivery

Administrative Support Services	Agree		Neutral		Disagree	
	Number	Percent	Number	Percent	Number	Percent
Classroom set-up (i.e., tables, chairs, etc.)	124	50.6	58	23.7	63	25.7
Classroom supplies (i.e., manuals, pens, chart, etc.)	137	55.9	53	21.6	55	22.4
Secretarial typing support.	100	40.8	99	40.4	46	18.8

In this section the data previously presented in Table 10 was analyzed using the Chi Square Test of Comparison to determine if demographic factors had any effect on the types of administrative support services viewed by the participating contract instructors as necessary to assist instructors in program delivery:

1. **Perceptions of different NFA instructors about the importance of classroom set-up:** When compared by primary NFA teaching area 50.8% of the participating Management contract instructors agreed that classroom set-up was important, while 50.4% of the participating Operations contract instructors agreed that classroom set-up was important. Of the participating Management contract instructors 23.4% were neutral, while 24.0% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 25.8% responded that classroom set-up was not important, while 25.6% of the participating Operations contract instructors responded that classroom set-up was not important. The Chi Square was 0.01 (not significant).  
**When compared by years of experience** in the primary NFA teaching area 47.3% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area agreed that classroom set-up was important, 51.9% of the participating contract instructors with 10 to 14 years of experience in the

primary NFA teaching area agreed that classroom set-up was important, and 52.1% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area agreed that classroom set-up was important. Of the participating contract instructors 23.0% with under 10 years of experience in the primary NFA teaching area were neutral, 26.9% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 22.7% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 29.7% of those with under 10 years of experience in the primary NFA teaching area responded that classroom set-up was not important, 21.2% of those with 10 to 14 years of experience in the primary NFA teaching area responded that classroom set-up was not important, and 25.2% of the participating contract instructors with over 14 years of experience responded that classroom set-up was not important. The Chi Square was 1.42 (not significant).

**When compared by years taught at NFA** 49.5% of the participating contract instructors with under 7 years teaching experience at NFA responded that classroom set-up was important, 46.8% of the participating contract instructors with 7 to 12 years of teaching experience at NFA responded that classroom set-up was important, and 57.6% of the participating contract instructors with over 12 years teaching experience at NFA responded that classroom set-up was important. Of the participating contract instructors 23.4% of those with under 7 years teaching experience at NFA gave a neutral response, 29.1% of those with 7 to 12 years of teaching experience at NFA gave a neutral response, and 16.9% of those with over 12 years teaching experience at NFA gave a neutral response. Of the participating contract instructors 27.1% of those with under 7 years teaching experience at NFA responded that classroom set-up was not important, 24.1% of those with 7 to 12 years teaching experience at NFA responded that classroom set-up was not important, and 25.4% of those with over 12 years teaching experience at NFA responded that classroom set-up was not important. The Chi Square was 3.11 (not significant).

**When compared by age group** 48.5% of the participating contract instructors under 40 years of age responded that classroom set-up was important, 53.1% of the participating contract instructors aged 40 to 50 responded that classroom set-up was important, and 48.5% of the participating contract instructors over age 50 responded that classroom set-up was important. Of the participating contract instructors 30.3% of those under age 40 gave a neutral response, 26.5% of those aged 40 to 50 gave a neutral response, and 18.2% of those over age 50 gave a neutral response. Of the participating contract instructors 21.2% of those under age 40 responded that classroom set-up was not important, 20.4% of the participating contract instructors aged 40 to 50 responded that classroom set-up was not important, and 33.3% of the participating contract instructors over age 50 responded that classroom set-up was not important. The Chi Square was 6.28 (not significant). Table 11 provides more information:

**TABLE 11**  
Perceptions of Different NFA Instructors About the Importance of Classroom Set-up

Demographic Factors			Importance of Classroom Set-up			
			Agree	Neutral	Disagree	Chi-Square
Primary NFA teaching area:	Management	n	63	29	32	0.01
		%	50.8	23.4	25.8	
	Operations	n	61	29	31	
		%	50.4	24.0	25.6	

**Table 11.1 (Continued)**

Perceptions of Different NFA Instructors About the Importance of Classroom Set-up

Years in primary teaching area:	Under 10 years	n	35	17	22	1.42
		%	47.3	23.0	29.7	
	10 to 14 years	n	27	14	11	
		%	51.9	26.9	21.2	
	Over 14 years	n	62	27	30	
		%	52.1	22.7	25.2	
Years taught at NFA:	Under 7 years	n	53	25	29	3.11
		%	49.5	23.4	27.1	
	7 to 12 years	n	37	23	19	
		%	46.8	29.1	24.1	
	Over 12 years	n	34	10	15	
		%	57.6	16.9	25.4	
Age group:	Under 40 years	n	16	10	7	6.28
		%	48.5	30.3	21.2	
	40 to 50 years	n	60	30	23	
		%	53.1	26.5	20.4	
	Over 50 years	n	48	18	33	
		%	48.5	18.2	33.3	

2. **Perceptions of different NFA instructors about the importance of classroom supplies:** When compared by primary NFA teaching area 56.5% of the participating Management contract instructors agreed that classroom supplies were important, while 55.4% of the participating Operations contract instructors agreed that classroom supplies were important. Of the participating Management contract



instructors 19.4% were neutral, while 24.0% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 24.2% responded that classroom supplies were not important, while 20.7% of the participating Operations contract instructors responded that classroom supplies were not important. The Chi Square was 0.96 (not significant).

**When compared by years of experience** in the primary NFA teaching area 54.1% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area agreed that classroom supplies were important, 57.7% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area agreed that classroom supplies were important, and 56.3% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area agreed that classroom supplies were important. Of the participating contract instructors 23.0% with under 10 years of experience in the primary NFA teaching area were neutral, 21.2% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 21.0% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 23.0% of those with under 10 years of experience in the primary NFA teaching area responded that classroom supplies were not important, 21.2% of those with 10 to 14 years of experience in the primary NFA teaching area responded that classroom supplies were not important, and 22.7% of the participating contract instructors with over 14 years of experience responded that classroom supplies were not important. The Chi Square was 0.22 (not significant).

**When compared by years taught at NFA** 57.0% of the participating contract instructors with under 7 years teaching experience at NFA responded that classroom supplies were important, 50.6% of the participating contract instructors with 7 to 12 years of teaching experience at NFA responded that classroom supplies were important, and 61.0% of the participating contract instructors with over 12 years teaching experience at NFA responded that classroom supplies were

important. Of the participating contract instructors 20.6% of those with under 7 years teaching experience at NFA gave a neutral response, 26.6% of those with 7 to 12 years of teaching experience at NFA gave a neutral response, and 16.9% of those with over 12 years teaching experience at NFA gave a neutral response. Of the participating contract instructors 22.4% of those with under 7 years teaching experience at NFA responded that classroom supplies were not important, 22.8% of those with 7 to 12 years teaching experience at NFA responded that classroom supplies were not important, and 22.0% of those with over 12 years teaching experience at NFA responded that classroom supplies were not important. The Chi Square was 2.25 (not significant).

**When compared by age group** 60.6% of the participating contract instructors under 40 years of age responded that classroom supplies were important, 56.6% of the participating contract instructors aged 40 to 50 responded that classroom supplies were important, and 53.5% of the participating contract instructors over age 50 responded that classroom supplies were important. Of the participating contract instructors 21.2% of those under age 40 gave a neutral response, 26.5% of those aged 40 to 50 gave a neutral response, and 16.2% of those over age 50 gave a neutral response. Of the participating contract instructors 18.2% of those under age 40 responded that classroom supplies were not important, 16.8% of the participating contract instructors aged 40 to 50 responded that classroom supplies were not important, and 30.3% of the participating contract instructors over age 50 responded that classroom supplies were not important. The Chi Square was 7.46, which indicated a statistically significant difference on the basis of the demographic of age group. Table 12 provides more information:

**TABLE 12**

Perceptions of Different NFA Instructors About the Importance of Classroom Supplies

Demographic Factors			Importance of Classroom Supplies			
			Agree	Neutral	Disagree	Chi-Square
Primary NFA teaching area:	Management	n	70	24	30	0.96
		%	56.5	19.4	24.2	
	Operations	n	67	29	25	
		%	55.4	24.0	20.7	
Years in primary teaching area:	Under 10 years	n	40	17	17	0.22
		%	54.1	23.0	23.0	
	10 to 14 years	n	30	11	11	
		%	57.7	21.2	21.2	
	Over 14 years	n	67	25	27	
		%	56.3	21.0	22.7	
Years taught at NFA:	Under 7 years	n	61	22	24	2.25
		%	57.0	20.6	22.4	
	7 to 12 years	n	40	21	18	
		%	50.6	26.6	22.8	
	Over 12 years	n	36	10	13	
		%	61.0	16.9	22.0	
Age group:	Under 40 years	n	20	7	6	7.46 *
		%	60.6	21.2	18.2	
	40 to 50 years	n	64	30	19	
		%	56.6	26.5	16.8	
	Over 50 years	n	53	16	30	
		%	53.5	16.2	30.3	

Note: An asterisk denotes significant perceptions among different groups on the basis of their demographic factors.

3. **Perceptions of different NFA instructors about the importance of secretarial typing support:** When compared by primary NFA teaching area 41.9% of the participating Management contract instructors agreed that secretarial typing support was important, while 39.7% of the participating Operations contract instructors agreed that secretarial typing support was important. Of the participating Management contract instructors 37.9% were neutral, while 43.0% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 20.2% responded that secretarial typing support was not important, while 17.4% of the participating Operations contract instructors responded that secretarial typing support was not important. The Chi Square was 0.72 (not significant).

**When compared by years of experience** in the primary NFA teaching area 35.1% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area agreed that secretarial typing support was important, 34.6% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area agreed that secretarial typing support was important, and 47.1% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area agreed that secretarial typing support was important. Of the participating contract instructors 40.5% with under 10 years of experience in the primary NFA teaching area were neutral, 50.0% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 36.1% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 24.3% of those with under 10 years of experience in the primary NFA teaching area responded that secretarial typing support was not important, 15.4% of those with 10 to 14 years of experience in the primary NFA teaching area responded that secretarial typing support was not important, and 16.8% of the participating contract instructors with over 14 years of

experience responded that secretarial typing support was not important. The Chi Square was 5.71 (not significant).

**When compared by years taught at NFA** 30.8% of the participating contract instructors with under 7 years teaching experience at NFA responded that secretarial typing support was important, 48.1% of the participating contract instructors with 7 to 12 years of teaching experience at NFA responded that secretarial typing support was important, and 49.2% of the participating contract instructors with over 12 years teaching experience at NFA responded that secretarial typing support was important. Of the participating contract instructors 47.7% of those with under 7 years teaching experience at NFA gave a neutral response, 41.8% of those with 7 to 12 years of teaching experience at NFA gave a neutral response, and 25.4% of those with over 12 years teaching experience at NFA gave a neutral response. Of the participating contract instructors 21.5% of those with under 7 years teaching experience at NFA responded that secretarial typing support was not important, 10.1% of those with 7 to 12 years teaching experience at NFA responded that secretarial typing support was not important, and 25.4% of those with over 12 years teaching experience at NFA responded that secretarial typing support was not important. The Chi Square was 14.31, which indicated a statistically significant difference on the basis of the demographic of primary NFA teaching area.

**When compared by age group** 21.2% of the participating contract instructors under 40 years of age responded that secretarial typing support was important, 42.5% of the participating contract instructors aged 40 to 50 responded that secretarial typing support was important, and 45.5% of the participating contract instructors over age 50 responded that secretarial typing support was important. Of the participating contract instructors 63.6% of those under age 40 gave a neutral response, 41.6% of those aged 40 to 50 gave a neutral response, and 31.3% of those over age 50 gave a neutral response. Of the participating contract instructors 15.2% of those under age 40 responded that

secretarial typing support was not important, 15.9% of the participating contract instructors aged 40 to 50 responded that secretarial typing support was not important, and 23.2% of the participating contract instructors over age 50 responded that secretarial typing support was not important. The Chi Square was 11.94, which indicated a statistically significant difference on the basis of the demographic of age group. Table 13 provides more information:

**TABLE 13**

Perceptions of Different NFA Instructors About the Importance of Secretarial Typing Support

Demographic Factors			Importance of Secretarial Typing Support			
			Agree	Neutral	Disagree	Chi-Square
Primary NFA teaching area:	Management	n	52	47	25	0.72
		%	41.9	37.9	20.2	
	Operations	n	48	52	21	
		%	39.7	43.0	17.4	
Years in primary teaching area:	Under 10 years	n	26	30	18	5.71
		%	35.1	40.5	24.3	
	10 to 14 years	n	18	26	8	
		%	34.6	50.0	15.4	
	Over 14 years	n	56	43	20	
		%	47.1	36.1	16.8	

Table 13.1 (Continued)  
 Perceptions of Different NFA Instructors About the Importance of Secretarial Typing Support

Years taught at NFA:	Under 7 years	n	33	51	23	14.31 <sup>*</sup>
		%	30.8	47.7	21.5	
	7 to 12 years	n	38	33	8	
		%	48.1	41.8	10.1	
	Over 12 years	n	29	15	15	
		%	49.2	25.4	25.4	
Age group:	Under 40 years	n	7	21	5	11.94 <sup>*</sup>
		%	21.2	63.6	15.2	
	40 to 50 years	n	48	47	18	
		%	42.5	41.6	15.9	
	Over 50 years	n	45	31	23	
		%	45.5	31.3	23.2	

Note: An asterisk denotes significant perceptions among different groups on the basis of their demographic factors.

In this section the data presented in Table 14 reflects an overview of the perceptions of the participating contract instructors about the administrative support services that should be provided to assist them with evaluation processes, student testing, program evaluation, etc. Open-ended responses to each type of administrative support area noted are included in full in Appendix E. These comments have been reorganized using an open coding method to sort them into a category scheme. These sorted comments are included in full in Appendix F, and reported as appropriate in this section. The following significant results can be derived from the frequency distribution of the participating contract instructors' responses to questionnaire item #8, Administrative support services necessary to help instructors with evaluation processes, student testing, program evaluation, etc.:

1. **Computer scanning of test results:** The participating contract instructors were asked about the need for computer scanning of test results as administrative support. Of this group 49% agreed that there was such a need, 38.0% were neutral, and 13.1% disagreed.

**Open-ended responses:** There were no comments on this item.

2. **Bank of computerized student test questions:** The participating contract instructors were asked about the need for a bank of computerized test questions as administrative support. Of this group 47.8% agreed that there was such a need, 40.4% were neutral, and 11.8% disagreed.

**Open-ended responses:** There were 5 related comments on this item. One instructor commented favorably: "Bank testing could prove extremely beneficial." One instructor raised a concern: "I do not think that with the number of instructors teaching at the NFA that the integrity of tests/questions would remain untainted." Two other instructors made implementation suggestions: "Tests written to meet applicable NFPA [National Fire Protection Association] Professional Qualification objectives/where applicable." "Perhaps some self-test questions in computers for some classes?"

3. **Availability of program evaluation to instructors:** The participating contract instructors were asked about the need for the availability of program evaluation to instructors as administrative support. Of this group 74.7% agreed that there was such a need, 18.8% were neutral, and 6.5% disagreed.

**Open-ended responses:** There were 20 related comments. Most of the commenting instructors mentioned the lack of program evaluation availability or the timeliness of evaluation results: "Evaluations must be disclosed to instructors -- Learning process for better future performance in presentation and interaction with students." "With the exception of new course pilots and regional deliveries I've not received course evaluations or reports." "Maybe I'm missing something after 14 years. But I never see evaluations other than from field courses." "Seldom, if ever, are evaluations forwarded to instructor." "Program results 'take forever' to get."



Several instructors commented on the usefulness of program and student evaluations: “Too much is made of instructor ‘popularity’ rather than teaching (education) results.” “Unusual situation: students grade the instructors, and the instructors grade no one.” “Even in the university-level classes faculty agree that student evaluations tend to be biased and non-effective -- more popularity contests.” “Student evals are horrible. It is just pandering.” A few instructors noted the importance of using the evaluation results, for example: “If an instructor gets a bad evaluation nothing happens so it is a paper tiger.” Table 14 provides more information:

**TABLE 14**  
 Administrative Support Services Necessary to Help Instructors  
 With Evaluation Processes, Student Testing, Program Evaluation, etc.

Administrative Support Services	Agree		Neutral		Disagree	
	Number	Percent	Number	Percent	Number	Percent
Computer scanning of student test results.	120	49.0	93	38.0	32	13.1
Bank of computerized student test questions.	117	47.8	99	40.4	29	11.8
Availability of program evaluation to instructors.	183	74.7	46	18.8	16	6.5

In this section the data previously presented in Table 14 was analyzed using the Chi Square Test of Comparison to determine if demographic factors had any effect on the types of administrative support services viewed by the participating contract instructors as necessary to assist instructors with evaluation processes, student testing, program evaluation, etc.:

1. **Perceptions of different NFA instructors about the importance of computer scanning of student test results:** When compared by primary NFA teaching area 49.2% of the participating Management contract instructors agreed that computer scanning of test results was important, while 48.8% of the participating

Operations contract instructors agreed that computer scanning of test results was important. Of the participating Management contract instructors 37.1% were neutral, while 38.8% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 13.7% responded that computer scanning of test results was not important, while 12.4% of the participating Operations contract instructors responded that computer scanning of test results was not important. The Chi Square was 0.13 (not significant).

**When compared by years of experience** in the primary NFA teaching area 47.3% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area agreed that computer scanning of test results was important, 50.0% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area agreed that computer scanning of test results was important, and 49.6% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area agreed that computer scanning of test results was important. Of the participating contract instructors 37.8% with under 10 years of experience in the primary NFA teaching area were neutral, 32.7% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 40.3% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 14.9% of those with under 10 years of experience in the primary NFA teaching area responded that computer scanning of test results was not important, 17.3% of those with 10 to 14 years of experience in the primary NFA teaching area responded that computer scanning of test results was not important, and 10.1% of the participating contract instructors with over 14 years of experience responded that computer scanning of test results was not important. The Chi Square was 2.33 (not significant).

**When compared by years taught at NFA** 44.9% of the participating contract instructors with under 7 years teaching experience at NFA responded that computer scanning of test results was important, 49.4% of the participating contract

instructors with 7 to 12 years of teaching experience at NFA responded that computer scanning of test results was important, and 55.9% of the participating contract instructors with over 12 years teaching experience at NFA responded that computer scanning of test results was important. Of the participating contract instructors 39.3% of those with under 7 years teaching experience at NFA gave a neutral response, 40.5% of those with 7 to 12 years of teaching experience at NFA gave a neutral response, and 32.2% of those with over 12 years teaching experience at NFA gave a neutral response. Of the participating contract instructors 15.9% of those with under 7 years teaching experience at NFA responded that computer scanning of test results was not important, 10.1% of those with 7 to 12 years teaching experience at NFA responded that computer scanning of test results was not important, and 11.9% of those with over 12 years teaching experience at NFA responded that computer scanning of test results was not important. The Chi Square was 2.89 (not significant).

**When compared by age group** 36.4% of the participating contract instructors under 40 years of age responded that computer scanning of test results was important, 56.6% of the participating contract instructors aged 40 to 50 responded that computer scanning of test results was important, and 44.4% of the participating contract instructors over age 50 responded that computer scanning of test results was important. Of the participating contract instructors 39.4% of those under age 40 gave a neutral response, 32.7% of those aged 40 to 50 gave a neutral response, and 43.4% of those over age 50 gave a neutral response. Of the participating contract instructors 24.2% of those under age 40 responded that computer scanning of test results was not important, 10.6% of the participating contract instructors aged 40 to 50 responded that computer scanning of test results was not important, and 12.1% of the participating contract instructors over age 50 responded that computer scanning of test results was not important. The Chi Square was 8.19, which indicated a statistically significant difference on the basis of the demographic of age group. Table 15 provides more information:

**TABLE 15**

Perceptions of Different NFA Instructors About the Importance of Computer Scanning of Student Test Results

Demographic Factors			Importance of Computer Scanning of Test Results			
			Agree	Neutral	Disagree	Chi-Square
Primary NFA teaching area:	Management	n	61	46	17	0.13
		%	49.2	37.1	13.7	
	Operations	n	59	47	15	
		%	48.8	38.8	12.4	
Years in primary teaching area:	Under 10 years	n	35	28	11	2.33
		%	47.3	37.8	14.9	
	10 to 14 years	n	26	17	9	
		%	50.0	32.7	17.3	
	Over 14 years	n	59	48	12	
		%	49.6	40.3	10.1	
Years taught at NFA:	Under 7 years	n	48	42	17	2.89
		%	44.9	39.3	15.9	
	7 to 12 years	n	39	32	8	
		%	49.4	40.5	10.1	
	Over 12 years	n	33	19	7	
		%	55.9	32.2	11.9	
Age group:	Under 40 years	n	12	13	8	8.19 <sup>*</sup>
		%	36.4	39.4	24.2	
	40 to 50 years	n	64	37	12	
		%	56.6	32.7	10.6	
	Over 50 years	n	44	43	12	
		%	44.4	43.4	12.1	

Note: An asterisk denotes significant perceptions among different groups on the basis of their demographic factors.

2. **Perceptions of different NFA instructors about the importance of a bank of computerized student test questions:** When compared by primary NFA teaching area 44.4% of the participating Management contract instructors agreed that a bank of computerized student test questions was important, while 51.2% of the participating Operations contract instructors agreed that a bank of computerized student test questions was important. Of the participating Management contract instructors 42.7% were neutral, while 38.0% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 12.9% responded that a bank of computerized student test questions was not important, while 10.7% of the participating Operations contract instructors responded that a bank of computerized student test questions was not important. The Chi Square was 1.19 (not significant).

**When compared by years of experience** in the primary NFA teaching area 44.6% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area agreed that a bank of computerized student test questions was important, 48.1% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area agreed that a bank of computerized student test questions was important, and 49.6% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area agreed that a bank of computerized student test questions was important. Of the participating contract instructors 41.9% with under 10 years of experience in the primary NFA teaching area were neutral, 42.3% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 38.7% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 13.5% of those with under 10 years of experience in the primary NFA teaching area responded that a bank of computerized student test

questions was not important, 9.6% of those with 10 to 14 years of experience in the primary NFA teaching area responded that a bank of computerized student test questions was not important, and 11.8% of the participating contract instructors with over 14 years of experience responded that a bank of computerized student test questions was not important. The Chi Square was 0.81 (not significant).

**When compared by years taught at NFA** 43.9% of the participating contract instructors with under 7 years teaching experience at NFA responded that a bank of computerized student test questions was important, 50.6% of the participating contract instructors with 7 to 12 years of teaching experience at NFA responded that a bank of computerized student test questions was important, and 50.8% of the participating contract instructors with over 12 years teaching experience at NFA responded that a bank of computerized student test questions was important. Of the participating contract instructors 45.8% of those with under 7 years teaching experience at NFA gave a neutral response, 36.7% of those with 7 to 12 years of teaching experience at NFA gave a neutral response, and 35.6% of those with over 12 years teaching experience at NFA gave a neutral response. Of the participating contract instructors 10.3% of those with under 7 years teaching experience at NFA responded that a bank of computerized student test questions was not important, 12.7% of those with 7 to 12 years teaching experience at NFA responded that a bank of computerized student test questions was not important, and 13.6% of those with over 12 years teaching experience at NFA responded that a bank of computerized student test questions was not important. The Chi Square was 2.37 (not significant).

**When compared by age group** 36.4% of the participating contract instructors under 40 years of age responded that a bank of computerized student test questions was important, 54.0% of the participating contract

instructors aged 40 to 50 responded that a bank of computerized student test questions was important, and 44.4% of the participating contract instructors over age 50 responded that a bank of computerized student test questions was important. Of the participating contract instructors 48.5% of those under age 40 gave a neutral response, 35.4% of those aged 40 to 50 gave a neutral response, and 43.4% of those over age 50 gave a neutral response. Of the participating contract instructors 15.2% of those under age 40 responded that a bank of computerized student test questions was not important, 10.6% of the participating contract instructors aged 40 to 50 responded that a bank of computerized student test questions was not important, and 12.1% of the participating contract instructors over age 50 responded that a bank of computerized student test questions was not important. The Chi Square was 3.96 (not significant). Table 16 provides more information:

**TABLE 16**  
Perceptions of Different NFA Instructors About the Importance of Bank of Computerized Student Test Questions

Demographic Factors			Importance of Bank of Computerized Test Questions			
			Agree	Neutral	Disagree	Chi-Square
Primary NFA teaching area:	Management	n	55	53	16	1.19
		%	44.4	42.7	12.9	
	Operations	n	62	46	13	
		%	51.2	38.0	10.7	

**Table 16.1 (Continued)**

Perceptions of Different NFA Instructors About the Importance of Bank of Computerized Student Test Questions

Years in primary teaching area:	Under 10 years	n	33	31	10	0.81
		%	44.6	41.9	13.5	
	10 to 14 years	n	25	22	5	
		%	48.1	42.3	9.6	
	Over 14 years	n	59	46	14	
		%	49.6	38.7	11.8	
Years taught at NFA:	Under 7 years	n	47	49	11	2.37
		%	43.9	45.8	10.3	
	7 to 12 years	n	40	29	10	
		%	50.6	36.7	12.7	
	Over 12 years	n	30	21	8	
		%	50.8	35.6	13.6	
Age group:	Under 40 years	n	12	16	5	3.96
		%	36.4	48.5	15.2	
	40 to 50 years	n	61	40	12	
		%	54.0	35.4	10.6	
	Over 50 years	n	44	43	12	
		%	44.4	43.4	12.1	

3. **Perceptions of different NFA instructors about the importance of the availability of final program evaluation results to instructors:** When compared by primary NFA teaching area 74.2% of the participating Management contract instructors agreed that the availability of final program evaluation results to instructors was important, while 75.2% of the participating Operations contract instructors agreed that the availability of final program evaluation results to instructors was important. Of the participating Management contract instructors



18.5% were neutral, while 19.0% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 7.3% responded that the availability of final program evaluation results to instructors was not important, while 5.8% of the participating Operations contract instructors responded that the availability of final program evaluation results to instructors was not important. The Chi Square was 0.22 (not significant).

**When compared by years of experience** in the primary NFA teaching area 71.6% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area agreed that the availability of final program evaluation results to instructors was important, 73.1% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area agreed that the availability of final program evaluation results to instructors was important, and 77.3% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area agreed that the availability of final program evaluation results to instructors was important. Of the participating contract instructors 21.6% with under 10 years of experience in the primary NFA teaching area were neutral, 19.2% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 16.8% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 6.8% of those with under 10 years of experience in the primary NFA teaching area responded that the availability of final program evaluation results to instructors was not important, 7.7% of those with 10 to 14 years of experience in the primary NFA teaching area responded that the availability of final program evaluation results to instructors was not important, and 5.9% of the participating contract instructors with over 14 years of experience responded that the availability of final program evaluation results to instructors was not important. The Chi Square was 0.98 (not significant).

**When compared by years taught at NFA** 73.8% of the participating contract instructors with under 7 years teaching experience at NFA responded that the

availability of final program evaluation results to instructors was important, 77.2% of the participating contract instructors with 7 to 12 years of teaching experience at NFA responded that the availability of final program evaluation results to instructors was important, and 72.9% of the participating contract instructors with over 12 years teaching experience at NFA responded that the availability of final program evaluation results to instructors was important. Of the participating contract instructors 21.5% of those with under 7 years teaching experience at NFA gave a neutral response, 15.2% of those with 7 to 12 years of teaching experience at NFA gave a neutral response, and 18.6% of those with over 12 years teaching experience at NFA gave a neutral response. Of the participating contract instructors 4.7% of those with under 7 years teaching experience at NFA responded that the availability of final program evaluation results to instructors was not important, 7.6% of those with 7 to 12 years teaching experience at NFA responded that the availability of final program evaluation results to instructors was not important, and 8.5% of those with over 12 years teaching experience at NFA responded that the availability of final program evaluation results to instructors was not important. The Chi Square was 2.11 (not significant).

**When compared by age group** 72.7% of the participating contract instructors under 40 years of age responded that the availability of final program evaluation results was important, 74.3% of the participating contract instructors aged 40 to 50 responded that the availability of final program evaluation results to instructors was important, and 75.8% of the participating contract instructors over age 50 responded that the availability of final program evaluation results to instructors was important. Of the participating contract instructors 21.2% of those under age 40 gave a neutral response, 20.4% of those aged 40 to 50 gave a neutral response, and 16.2% of those over age 50 gave a neutral response. Of the participating contract instructors 6.1% of those under age 40 responded that the availability of final program evaluation results to instructors was not important, 5.3% of the participating contract instructors aged 40 to 50 responded that the

availability of final program evaluation results to instructors was not important, and 8.1% of the participating contract instructors over age 50 responded that the availability of final program evaluation results to instructors was not important.

The Chi Square was 1.28 (not significant). Table 17 provides more information:

**TABLE 17**  
Perceptions of Different NFA Instructors About the Availability of Final Program Evaluation Results to Instructors

Demographic Factors			Final Program Evaluation Results for Instructors			
			Agree	Neutral	Disagree	Chi-Square
Primary NFA teaching area:	Management	n	92	23	9	0.22
		%	74.2	18.5	7.3	
	Operations	n	91	23	7	
		%	75.2	19.0	5.8	
Years in primary teaching area:	Under 10 years	n	53	16	5	0.98
		%	71.6	21.6	6.8	
	10 to 14 years	n	38	10	4	
		%	73.1	19.2	7.7	
	Over 14 years	n	92	20	7	
		%	77.3	16.8	5.9	
Years taught at NFA:	Under 7 years	n	79	23	5	2.11
		%	73.8	21.5	4.7	
	7 to 12 years	n	61	12	6	
		%	77.2	15.2	7.6	
	Over 12 years	n	43	11	5	
		%	72.9	18.6	8.5	

**Table 17.1 (Continued)**

Perceptions of Different NFA Instructors About the Availability of Final Program Evaluation Results to Instructors

Age group:	Under 40 years	n	24	7	2	1.28
		%	72.7	21.2	6.1	
	40 to 50 years	n	84	23	6	
		%	74.3	20.4	5.3	
	Over 50 years	n	75	16	8	
		%	75.8	16.2	8.1	

In this section the data presented in Table 18 reflects an overview of the perceptions of the participating contract instructors about the administrative support services that should be provided to assist them with their professional development as it specifically relates to National Fire Academy (NFA) programs. Open-ended responses to each type of administrative support area noted are included in full in Appendix E. These comments have been reorganized using an open coding method to sort them into a category scheme. These sorted comments are included in full in Appendix F, and reported as appropriate in this section. The following significant results can be derived from the frequency distribution of the participating contract instructors' responses to questionnaire item #9, Administrative support services necessary to assist instructors with their professional development as it specifically relates to NFA programs:

1. **Preferred admission to NFA classes:** The participating contract instructors were asked about the need for preferred admission to NFA classes as administrative support. Of this group 60.4% agreed that there was such a need, 31.0% were neutral, and 8.6% disagreed.

**Open-ended responses:** There were 3 related comments. One instructor did not see the need for preferred admission: “I question why this question is part of the survey. I don't think it is necessary...only if a new instructor is preparing to become a qualified instructor should preference be given.” Another instructor took the opposite viewpoint: “Would like to see preferred admission...” And the final

instructor comment offered suggestions for several professional development options: “Preferred admission to on-site conferences, preferred/reduced cost of distance learning opportunities from NFA, major universities, etc.”

2. **Periodic on-site instructor conferences:** The participating contract instructors were asked about the need for periodic on-site instructor conferences as administrative support. Of this group 71.4% agreed that there was such a need, 20.8% were neutral, and 7.8% disagreed.

**Open-ended responses:** There were 6 related comments. Several instructors commented on the usefulness of having instructor conferences: “This is an especially valuable idea.” “Annual workshops would be very effective for instructor support.” “NFA must ensure instructors remain on the top of the continuing evolution of their field. Conferences are a good way to do that...” Two instructors did not believe instructor conferences were needed: “Instructors can call with questions and concerns now.” “Currently available second Friday morning.”

3. **Newsletter with explanation of new policies, etc.:** The participating contract instructors were asked about the need for a newsletter with an explanation of new policies, etc. as administrative support. Of this group 80.8% agreed that there was such a need, 13.5% were neutral, and 5.7% disagreed.

**Open-ended responses:** There were 2 related comments. Neither of the two comments specifically mentioned newsletters. Rather each commented on the need for information (which could be delivered with a newsletter): “I think the NFA does a poor job of keeping instructors informed.” “We have very little communication with the Academy.” Table 18 provides more information:

**TABLE 18**

Administrative Support Services Necessary to Assist Instructors with Their Professional Development as it Specifically Relates to National Fire Academy Programs

Administrative Support Services	Agree		Neutral		Disagree	
	Number	Percent	Number	Percent	Number	Percent
Preferred admission to NFA classes.	148	60.4	76	31.0	21	8.6
Periodic on-site instructor conferences.	175	71.4	51	20.8	19	7.8
Newsletter with explanation of new policies, etc.	198	80.8	33	13.5	14	5.7

In this section the data previously presented in Table 18 was analyzed using the Chi Square Test of Comparison to determine if demographic factors had any effect on the types of administrative support services viewed by the participating contract instructors as necessary to improve their professional development:

- Perceptions of different NFA instructors about the importance of preferred admission to NFA classes:** When compared by primary NFA teaching area 57.3% of the participating Management contract instructors agreed that preferred admission to NFA classes was important, while 63.6% of the participating Operations contract instructors agreed that preferred admission to NFA classes was important. Of the participating Management contract instructors 33.1% were neutral, while 28.9% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 9.7% responded that preferred admission to NFA classes was not important, while 7.4% of the participating Operations contract instructors responded that preferred admission to NFA classes was not important. The Chi Square was 1.11 (not significant).

**When compared by years of experience** in the primary NFA teaching area 63.5% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area agreed that preferred admission to NFA classes was

important, 65.4% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area agreed that preferred admission to NFA classes was important, and 56.3% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area agreed that preferred admission to NFA classes was important. Of the participating contract instructors 27.0% with under 10 years of experience in the primary NFA teaching area were neutral, 25.0% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 36.1% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 9.5% of those with under 10 years of experience in the primary NFA teaching area responded that preferred admission to NFA classes was not important, 9.6% of those with 10 to 14 years of experience in the primary NFA teaching area responded that preferred admission to NFA classes was not important, and 7.6% of the participating contract instructors with over 14 years of experience responded that preferred admission to NFA classes was not important. The Chi Square was 2.93 (not significant).

**When compared by years taught at NFA** 62.6% of the participating contract instructors with under 7 years teaching experience at NFA responded that preferred admission to NFA classes was important, 60.8% of the participating contract instructors with 7 to 12 years of teaching experience at NFA responded that preferred admission to NFA classes was important, and 55.9% of the participating contract instructors with over 12 years teaching experience at NFA responded that preferred admission to NFA classes was important. Of the participating contract instructors 32.7% of those with under 7 years teaching experience at NFA gave a neutral response, 27.8% of those with 7 to 12 years of teaching experience at NFA gave a neutral response, and 32.2% of those with over 12 years teaching experience at NFA gave a neutral response. Of the participating contract instructors 4.7% of those with under 7 years teaching experience at NFA responded that preferred admission to NFA classes was not important, 11.4% of those with 7 to 12 years

teaching experience at NFA responded that preferred admission to NFA classes was not important, and 11.9% of those with over 12 years teaching experience at NFA responded that preferred admission to NFA classes was not important. The Chi Square was 4.04 (not significant).

**When compared by age group** 57.6% of the participating contract instructors under 40 years of age responded that preferred admission to NFA classes was important, 72.6% of the participating contract instructors aged 40 to 50 responded that preferred admission to NFA classes was important, and 47.5% of the participating contract instructors over age 50 responded that preferred admission to NFA classes was important. Of the participating contract instructors 39.4% of those under age 40 gave a neutral response, 19.5% of those aged 40 to 50 gave a neutral response, and 41.4% of those over age 50 gave a neutral response. Of the participating contract instructors 3.0% of those under age 40 responded that preferred admission to NFA classes was not important, 8.0% of the participating contract instructors aged 40 to 50 responded that preferred admission to NFA classes was not important, and 11.1% of the participating contract instructors over age 50 responded that computer scanning of test results was not important. The Chi Square was 16.58, which indicated a statistically significant difference on the basis of the demographic of age group. Table 19 provides more information:

**TABLE 19**  
Perceptions of Different NFA Instructors About the Importance of Preferred Admission to NFA Classes

Demographic Factors			Importance of Preferred Admission to NFA Classes			
			Agree	Neutral	Disagree	Chi-Square
Primary NFA teaching area:	Management	n	71	41	12	1.11
		%	57.3	33.1	9.7	
	Operations	n	77	35	9	
		%	63.6	28.9	7.4	



**Table 19.1 (Continued)**

Perceptions of Different NFA Instructors About the Importance of Preferred Admission to NFA Classes

Years in primary teaching area:	Under 10 years	n	47	20	7	2.93
		%	63.5	27.0	9.5	
	10 to 14 years	n	34	13	5	
		%	65.4	25.0	9.6	
	Over 14 years	n	67	43	9	
		%	56.3	36.1	7.6	
Years taught at NFA:	Under 7 years	n	67	35	5	4.04
		%	62.6	32.7	4.7	
	7 to 12 years	n	48	22	9	
		%	60.8	27.8	11.4	
	Over 12 years	n	33	19	7	
		%	55.9	32.2	11.9	
Age group:	Under 40 years	n	19	13	1	16.58 <sup>*</sup>
		%	57.6	39.4	3.0	
	40 to 50 years	n	82	22	9	
		%	72.6	19.5	8.0	
	Over 50 years	n	47	41	11	
		%	47.5	41.4	11.1	

Note: An asterisk denotes significant perceptions among different groups on the basis of their demographic factors.

- Perceptions of different NFA instructors about the importance of periodic on-site instructors conferences:** When compared by primary NFA teaching area 68.5% of the participating Management contract instructors agreed that periodic on-site instructor conferences were important, while 74.4% of the participating Operations contract instructors agreed that periodic on-site instructor conferences were important. Of the participating Management contract instructors 24.3% were

neutral, while 18.2% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 8.1% responded that periodic on-site instructor conferences were not important, while 7.4% of the participating Operations contract instructors responded that periodic on-site instructor conferences were not important. The Chi Square was 1.12 (not significant).

**When compared by years of experience** in the primary NFA teaching area 66.2% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area agreed that periodic on-site instructor conferences were important, 75.0% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area agreed that periodic on-site instructor conferences were important, and 73.1% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area agreed that periodic on-site instructor conferences were important. Of the participating contract instructors 24.3% with under 10 years of experience in the primary NFA teaching area were neutral, 17.3% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 20.2% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 9.5% of those with under 10 years of experience in the primary NFA teaching area responded that periodic on-site instructor conferences were not important, 7.7% of those with 10 to 14 years of experience in the primary NFA teaching area responded that periodic on-site instructor conferences were not important, and 6.7% of the participating contract instructors with over 14 years of experience responded that periodic on-site instructor conferences were not important. The Chi Square was 1.63 (not significant).

**When compared by years taught at NFA** 74.8% of the participating contract instructors with under 7 years teaching experience at NFA responded that periodic on-site instructor conferences were important, 70.9% of the participating contract instructors with 7 to 12 years of teaching experience at NFA responded that

periodic on-site instructor conferences were important, and 66.1% of the participating contract instructors with over 12 years teaching experience at NFA responded that periodic on-site instructor conferences were important. Of the participating contract instructors 20.6% of those with under 7 years teaching experience at NFA gave a neutral response, 19.0% of those with 7 to 12 years of teaching experience at NFA gave a neutral response, and 23.7% of those with over 12 years teaching experience at NFA gave a neutral response. Of the participating contract instructors 4.7% of those with under 7 years teaching experience at NFA responded that periodic on-site instructor conferences were not important, 10.1% of those with 7 to 12 years teaching experience at NFA responded that periodic on-site instructor conferences were not important, and 10.2% of those with over 12 years teaching experience at NFA responded that periodic on-site instructor conferences were not important. The Chi Square was 3.10 (not significant).

**When compared by age group** 69.7% of the participating contract instructors under 40 years of age responded that periodic on-site instructor conferences were important, 80.5% of the participating contract instructors aged 40 to 50 responded that periodic on-site instructor conferences were important, and 61.6% of the participating contract instructors over age 50 responded that periodic on-site instructor conferences were important. Of the participating contract instructors 27.3% of those under age 40 gave a neutral response, 14.2% of those aged 40 to 50 gave a neutral response, and 26.3% of those over age 50 gave a neutral response. Of the participating contract instructors 3.0% of those under age 40 responded that periodic on-site instructor conferences were not important, 5.3% of the participating contract instructors aged 40 to 50 responded that periodic on-site instructor conferences were not important, and 12.1% of the participating contract instructors over age 50 responded that periodic on-site instructor conferences were not important. The Chi Square was 11.39, which indicated a statistically significant difference on the basis of the demographic of age group. Table 20 provides more information:

**TABLE 20**

Perceptions of Different NFA Instructors About the Importance of Periodic On-site Instructor Conferences

Demographic Factors			Importance of Periodic On-site Instructor Conferences			
			Agree	Neutral	Disagree	Chi-Square
Primary NFA teaching area:	Management	n	85	29	10	1.12
		%	68.5	23.4	8.1	
	Operations	n	90	22	9	
		%	74.4	18.2	7.4	
Years in primary teaching area:	Under 10 years	n	49	18	7	1.63
		%	66.2	24.3	9.5	
	10 to 14 years	n	39	9	4	
		%	75.0	17.3	7.7	
	Over 14 years	n	87	24	8	
		%	73.1	20.2	6.7	
Years taught at NFA:	Under 7 years	n	80	22	5	3.10
		%	74.8	20.6	4.7	
	7 to 12 years	n	56	15	8	
		%	70.9	19.0	10.1	
	Over 12 years	n	39	14	6	
		%	66.1	23.7	10.2	
Age group:	Under 40 years	n	23	9	1	11.39 <sup>*</sup>
		%	69.7	27.3	3.0	
	40 to 50 years	n	91	16	6	
		%	80.5	14.2	5.3	
	Over 50 years	n	61	26	12	
		%	61.6	26.3	12.1	

Note: An asterisk denotes significant perceptions among different groups on the basis of their demographic factors.

3. **Perceptions of different NFA instructors about the importance of a newsletter with explanations of new policies, courses, etc.:** When compared by primary NFA teaching area 78.2% of the participating Management contract instructors agreed that a newsletter with explanations of new policies, courses, etc. was important, while 83.5% of the participating Operations contract instructors agreed that a newsletter with explanations of new policies, courses, etc. was important. Of the participating Management contract instructors 15.3% were neutral, while 11.6% of the participating Operations contract instructors were neutral. Of the participating Management contract instructors 6.5% responded that a newsletter with explanations of new policies, courses, etc. was not important, while 5.0% of the participating Operations contract instructors responded that a newsletter with explanations of new policies, courses, etc. was not important. The Chi Square was 1.09 (not significant).

**When compared by years of experience** in the primary NFA teaching area 77.0% of the participating contract instructors with under 10 years of experience in the primary NFA teaching area agreed that a newsletter with explanations of new policies, courses, etc. was important, 86.5% of the participating contract instructors with 10 to 14 years of experience in the primary NFA teaching area agreed that a newsletter with explanations of new policies, courses, etc. was important, and 80.7% of the participating contract instructors with over 14 years of experience in the primary NFA teaching area agreed that a newsletter with explanations of new policies, courses, etc. was important. Of the participating contract instructors 16.2% with under 10 years of experience in the primary NFA teaching area were neutral, 9.6% of those with 10 to 14 years of experience in the primary NFA teaching area were neutral, and 13.4% of those with over 14 years of experience in the primary NFA teaching area were neutral. Of the participating contract instructors 6.8% of those with under 10 years of experience in the primary NFA teaching area responded that a newsletter with explanations of new policies, courses, etc. was not important, 3.8% of those with 10 to 14 years of experience in

the primary NFA teaching area responded that a newsletter with explanations of new policies, courses, etc. was not important, and 5.9% of the participating contract instructors with over 14 years of experience responded that a newsletter with explanations of new policies, courses, etc., was not important. The Chi Square was 1.79 (not significant).

**When compared by years taught at NFA** 86.0% of the participating contract instructors with under 7 years teaching experience at NFA responded that the availability of a newsletter with explanations of new policies, courses, etc. was important, 77.2% of the participating contract instructors with 7 to 12 years of teaching experience at NFA responded that the availability of a newsletter with explanations of new policies, courses, etc. was important, and 76.3% of the participating contract instructors with over 12 years teaching experience at NFA responded that the availability of a newsletter with explanations of new policies, courses, etc. was important. Of the participating contract instructors 11.2% of those with under 7 years teaching experience at NFA gave a neutral response, 12.7% of those with 7 to 12 years of teaching experience at NFA gave a neutral response, and 18.6% of those with over 12 years teaching experience at NFA gave a neutral response. Of the participating contract instructors 2.8% of those with under 7 years teaching experience at NFA responded that the availability of a newsletter with explanations of new policies, courses, etc. was not important, 10.1% of those with 7 to 12 years teaching experience at NFA responded that the availability of a newsletter with explanations of new policies, courses, etc. was not important, and 5.1% of those with over 12 years teaching experience at NFA responded that the availability of a newsletter with explanations of new policies, courses, etc. was not important. The Chi Square was 6.56 (not significant).

**When compared by age group** 84.8% of the participating contract instructors under 40 years of age responded that the availability of a newsletter with explanations of new policies, courses, etc. was important, 85.0% of the participating contract instructors aged 40 to 50 responded that the availability of a

newsletter with explanations of new policies, courses, etc. was important, and 74.7% of the participating contract instructors over age 50 responded that the availability of a newsletter with explanations of new policies, courses, etc. was important. Of the participating contract instructors 12.1% of those under age 40 gave a neutral response, 10.6% of those aged 40 to 50 gave a neutral response, and 16.2% of those over age 50 gave a neutral response. Of the participating contract instructors 3.0% of those under age 40 responded that the availability of a newsletter with explanations of new policies, courses, etc., was not important, 4.4% of the participating contract instructors aged 40 to 50 responded that the availability of a newsletter with explanations of new policies, courses, etc. was not important, and 9.1% of the participating contract instructors over age 50 responded that the availability of a newsletter with explanations of new policies, courses, etc. was not important. The Chi Square was 6.23 (not significant). Table 21 provides more information:

**TABLE 21**

Perceptions of Different NFA Instructors About the Importance of Publishing Newsletter Containing New Policies, etc.

Demographic Factors		Publishing Newsletter Containing New Policies, etc.				
		Agree	Neutral	Disagree	Chi-Square	
Primary NFA teaching area:	Management	n	97	19	8	1.09
		%	78.2	15.3	6.5	
	Operations	n	101	14	6	
		%	83.5	11.6	5.0	

**Table 21.1 (Continued)**

Perceptions of Different NFA Instructors About the Importance of Publishing Newsletter Containing New Policies, etc.

Years in primary teaching area:	Under 10 years	n	57	12	5	1.79
		%	77.0	16.2	6.8	
	10 to 14 years	n	45	5	2	
		%	86.5	9.6	3.8	
	Over 14 years	n	96	16	7	
		%	80.7	13.4	5.9	
Years taught at NFA:	Under 7 years	n	92	12	3	6.56
		%	86.0	11.2	2.8	
	7 to 12 years	n	61	10	8	
		%	77.2	12.7	10.1	
	Over 12 years	n	45	11	3	
		%	76.3	18.6	5.1	
Age group:	Under 40 years	n	28	4	1	6.23
		%	84.8	12.1	3.0	
	40 to 50 years	n	96	12	5	
		%	85.0	10.6	4.4	
	Over 50 years	n	74	16	9	
		%	74.7	16.2	9.1	

**Research Question #3: What other administrative support services, if any would assist contract instructors in providing instructional services?**

In this section the comments presented reflect the perceptions of the participating contract instructors about the other administrative support services that would assist them in providing instructional services. The comments are derived from questionnaire item #10, Other related comments and concerns, as well as pertinent comments extracted from earlier questionnaire items. These comments have been reorganized using an open coding method to sort them into 5 categories: 1. Instructor relationships with other instructors, 2. Instructor relationships with



Program Chairs/NFA staff, 3. Instructor preparation, performance and evaluation, 4. Instructional program content and audio-visuals (development and currency), and 5. Physical facilities: classrooms, classroom support and dorms. These sorted comments are included in full in Appendix F, and reported , as appropriate, in this section.

1. **Instructor relationships with other instructors:** There were 17 related comments. Approximately half of the comments indicated a good working relationship between the commenting instructor and his/her counterparts: “These have not been a problem for me.” “I’ve always gotten along with the other instructor.” “Not usually a problem with a knowledgeable lead [instructor]...” Approximately half of the comments indicated difficulties in the working relationship between the commenting instructor and his/her counterparts: “Sometimes the instructors both want to assume the lead, and this is reflected in the classroom.” “Instructional team member's lack of professionalism.” “The good old boy concept is in place.”
2. **Instructor relationships with Program Chairs/NFA staff:** There were 45 related comments. Many of the commenting instructors noted overall favorable experiences: “As one of the old-timers [I] have seen deputies, resident instructors/staff come and go -- a wonderful learning institution -- most dedicated to excellence -- great memories.” “Overall I have had a very positive experience as an instructor at the NFA.” “As a new adjunct I was always well-received, well treated and fully supported.” “Being able to be involved as a contract instructor has helped me in both my personal and professional development.” “I thoroughly enjoy coming back to the NFA each time.” A similar number of commenting instructors noted less favorable experiences: “Instructors should be treated as part of the organization rather than intruders.” “Although the atmosphere is better than it has been, there is still a great need to treat instructors as professionals and not inmates.” “My sense is that the Program Chairs and support staff exist for their own purposes and view needs of contract instructors as an unpleasant intrusion into their time and space...” “Treat contract instructors as customers, not as referred to -

- 'scum'-- E Building [administration building] attitude, i.e., dorm rooms, in between sessions, dorm phone numbers, etc.” “The NFA needs to stop treating their instructors like second class citizens.” “Instructors should be respected by all NETC employees as professionals, rather than 'hired hands' who are at the bottom of the pecking order.” “Instructors tend to be pariahs. They are the last concern of the permanent staff.” Several general comments reflect the commenting instructors philosophy: “The contract instructors are the NFA to the students. The NFA should try harder to keep the instructors advised on important Academy issues, trends, future plans in course development, etc., so we can appropriately represent the NFA.” “Instructors should play more of a part as ‘team members’, rather than looked at as ‘contractors’. They have insights into current problems in the fire service, i.e., management and operations.” “Now that a career Superintendent is at the NFA I anticipate more consistency in the administration of the programs--long overdue.” Several of the commenting instructors made positive statements about Program Chairs and staff: “Wayne Powell [Program Chair] takes care of his instructors...” “The support staff is very helpful regarding an efficient academic environment.” A like number made comments about difficulties in their relationship with Program Chairs and staff: “If Executive Planning Chair was still there I'd HAVE to say something about preferential treatment and unreasonable influence of favorites.” “I had persistent personality problems with the program chairman who was regarded as a war-horse.” Many commenting instructors also made suggestions for improving the working relationship: “[Would like] staff to take action when problems are identified with materials, such as missing, incomplete or corrections needed.” “Establish processes to promote better communication with Program Chair and other staff with contract instructors. Also, do more to minimize favoritism and promote fair, objective decisions of program chairs concerning contract instructors.” “[Need] periodic feedback from Program Chair.”

3. **Instructor preparation, performance and evaluation:** There were 111 related comments. A few instructors commented on instructor preparation issues: “[Would

like] break down of daily instructional requirements.” “Too many rules from on high (red tape).” “[Need] a program that would allow instructors no longer on the job to spend time with a paid department to stay current on fire service needs/problems.” “Lack of consistent method to learn new policy, procedures, personnel, facility and support changes.” There were several comments about performance issues: “Instructors who shoot the bull for a major part of session, \_\_\_\_\_ [illegible] and get great student reviews because of joke telling.” “Some of the new instructors are great, but could also learn from experienced pro with extensive background.” “Need to change so that instructors teach shorter periods (2-3 days), rather than two weeks...” “Tell me what you want, give me the tools to do the job, get the hell out of my way, tell me how I did.” “Although I enjoy teaching at the NFA, the total lack of feedback, especially from the program chair, makes it hard to prepare for next time. I only know what the students tell me now.” There were also several instructor comments about evaluation: “Feedback is limited to on-site time.” “Would like to see instructor evals sooner so possible improvements can be made sooner.” “Send evaluations to instructors.” “[Need] routine instructor evaluation or performance evaluation from full time faculty.” “Set minimum acceptable evals. for instructors. If inst. falls below this standard more than 2 times in 5 presentations cut from [procurement] list.” “In addition to student evaluations, instructors should evaluate one another.” “Failure of NFA administration to take corrective action regarding instructors who continually receive negative student evaluations.” “There is an unwillingness to remove marginal instructors from the availability pool.” “I feel that the perception of the NFA as a quality learning institution for the Fire Service has been seriously eroded in just the last 2 years. Ensure a quality instructor base by initiating immediate feedback from the customer via the Program Chair based upon rigid criteria that must be met.” A substantial number of instructor comments dealt with the procurement process and bidding procedures: “Instructor pay scales should be established that would allow better instructors (high fees) to compete equally

against poorer instructors (teach cheap) -- based upon a formula that considers 1. Student evaluation, 2. Peer evaluation, and 3. Learning transferred (testing and objective evaluation).” “Instructors are taken for low bid not quality of experience.” “Questionable quality of some programs (sometimes low bid shows up).” “Better system for weeding out marginal instructors. The bid system, at times, tends to mediocrity.” “Qualified instructors -- not low bid.” “ Allow team bidding and teaching.” “[Need] a bid system written in English!” “ Bid process does not allow for the ‘best’ or most qualified instructor, allows for the instructor with the most time.” “NFA should be creative in leveling the playing field on bids. They should strive for the best, most qualified instructors -- not just the cheapest.” “The perception of adjunct instructors as ‘low bid’ is somewhat demeaning and the acceptance of low bid keeps some excellent instructors from applying.”

4. **Instructor program content and audiovisuals** (development and currency): There were 43 related comments. One instructor commented on the overall positive quality of the content: “Excellent programs.” Many more took the opposite viewpoint and noted specific problem areas in the content: “Some of the materials are more academic than operational.” “ Inconsistency of same material between courses.” “Much of the material is outdated.” “Instructor manual not matching up with student manuals.” “Outdated content in parts of courses.” “Handouts can get outdated quickly.” “The NFA has its own political agenda. The facility is great, the content needs an educational boost in many areas!!!” A few instructors mentioned curriculum development issues: “ Expand/evolve course development teams.” “Design of instructional material hard to figure out at times.” “Include content experts in delivery/development of technical programs, i.e., industry representatives.” Several more made specific suggestions about content revision matters: “Course material needs continual audit for timeliness and appropriateness.” “Please update at least every 2 years.” “Too much time between revisions. Some slides with problems never were corrected.” There were also several comments about the currency of audio-visual materials: “Poor slide quality.”

“Slides in arson programs - many are outdated or poor.” “The rear projection OHTs [overhead transparencies] and computer images are too dim.”

5. **Physical facilities: classrooms, classroom support and dorms:** There were several positive responses about the classrooms: “They’re great now.” “Generally, classrooms have been fine.” When instructors commented specifically on classroom support there were a number of problem areas identified: “Major need for improvement in this area.” “Support equipment needed that works.” “Occasionally break out rooms not coordinated.” “Supplies are difficult to come by.” “No support was ever offered or provided. Fend for yourself seemed to be the rule.” There were also many suggestions on how to improve classroom support: “All necessary materials should be inventoried 2 weeks prior to class starting date.” “Access to computers and printers for instructors.” “A computer designated for instructor use in classroom building.” “Instructors must have building/classroom keys.” There were also nine comments about the dorms used to house instructors. The following two responses were typical: “Some consideration should be granted to contract instructors, such as preferred housing and parking.” “Housing considerations for instructors need to be established. We have specific needs that students may not be concerned with (e.g., having a desk in the room, and quiet -- to be able to adequately prepare for the next day’s class!!)”

**Research Question #4: What are the problems, if any, that Program Chairs have dealt with that have implications for effective program delivery?**

In this section the information generated from the interviews of eight of the ten Program Chairs is presented. The full text of the answers to their individual interviews is presented in Appendix G.

**Background Information**

**Question #1:** How long have you been employed by the NFA? There was a wide range of experience with two Program Chairs having 18 years NFA service, one with 17.5 years of NFA service, one with 14 years NFA service, another with 6 years, and an additional one with 5 years NFA service each. Finally, two of the Program Chairs each had less than a year’s service as

Program Chairs with the NFA, but extensive service with NFA's parent organization, the Federal Emergency Management Agency.

**Question #2:** As a Program Chair what is the extent of classroom instruction that you have performed for NFA? Seven of eight Program Chairs perform classroom instruction either minimally or not at all; while one still teaches at the NFA about 40% of the time. Although most no longer teach extensively, three of them were initially hired by the NFA as "Training Instructors" and, thus, at that time taught extensively.

### **Perceptions**

**Question #3:** In general, how would you characterize your working relationship with the contract instructors that you manage? All eight of the Program Chairs answered that they had a positive working relationship with responses ranging from "good" to "excellent." When asked to illustrate with examples they reiterated these positive comments. For example, one Program Chair stated, "Contract Instructors -- true professionals, content of course is delivered by [contract] instructors, Program Chair [function] for me is "housekeeping", phenomenal trainers with real expertise." Another commented on the contract instructors as a resource: "Most valuable resource, are empowered to get excellent outcomes, have latitude to cover [the] content."

**Question #4:** What is your perception of the need, beyond what already exists, for administrative support? Specifically, is there a need for an orientation program for new instructors? Of the eight Program Chairs interviewed seven responded affirmatively, while one indicated that he already offered an individual orientation for each new contract instructor. He emphasized that the orientation had to be tailored since there were diverse needs. Another Program Chair also mentioned the need for a diverse orientation that would allow each program area to have a specific type of orientation.

**Question #5:** What is your perception of the need for administrative support, beyond what already exists, that would improve contract instructors' program delivery? About half of the Program Chairs mentioned classroom support as an administrative need. One Program Chair commented that "Each program area should have a support person and classroom support." Another specifically referenced the need for "...stand alone PCs [personal computers], printers within each classroom area." One Program Chair noted that procurement regulations would made

it difficult to “...provide sessions to improve Contract Instructor program delivery skills,” since they are “...supposed to be qualified to do the job.” When asked to further illustrate their answers with examples three of the Chairs cited audio-visual support as an area of particular need. Related to this one Program Chair also noted that photocopying is now done by the contract instructors.

**Question #6:** What is your perception of the need for administrative support, beyond what already exists, of evaluation processes? One Program Chair indicated that he does not regularly evaluate the contract instructors. He believes that they do a good job and he leaves them alone to do it. The remainder of the Chairs noted problems and made suggestions for improvements. For example, one indicated that “[the evaluation system] needs a complete revamping.” When asked to further illustrate their beliefs one advised that it could be “...months before instructors get feedback. Would be nice if we had time to analyze data together and develop plans as to training needed...” but, the instructors leave after the programs are completed -- often to catch an airplane home. All of the instructors who made comments essentially indicated some level of dissatisfaction with the current evaluation system.

**Question #7:** What is your perception of the need for administrative support, beyond what already exists, of contract instructors’ professional development? Each of the eight interviewed Program Chairs commented on this administrative support area. Three noted that it was not the Government’s responsibility to provide professional development, with one stating that theoretically, the “...government can’t do this.” However, he goes on to state that “...if the NFA wants consistency they have to look at some way to do this.” Two of the Program Chairs took the middle ground, one by noting that the Program Chairs cannot be “...responsible for KSAs [knowledge, skills, and attitudes] on input. But, we can enhance the outcome by supporting instructors.” The other Program Chair pointed out that in some subject areas with “close hold” information (not widely available or classified), such as specialized-arson content, the Government had to provide this material, since there was no other way to obtain it. The remaining three Program Chairs each asseverated that it was the NFA’s responsibility to provide professional development, with one stating that “...[t]he federal government selects an instructor -- a partnership results, and the NFA should create professional development.” When asked to provide examples one Program Chair still maintained that the Government had no responsibility to provide

professional development. The remainder offered suggested professional development options such as auditing NFA classes, a newsletter to keep them updated, a webpage, information on recent case law and techniques, instructional methodology programs, an overview of NFA programs, and trends information from within [the fire service] and outside [businesses.]

**Question #8:** What other administrative support services would contribute to the effectiveness of contract instructors? The answers to this unstructured question yielded several ideas. One Program Chair believed that the target audience of the NFA, fire departments, should be polled or surveyed to answer this question. Another addressed the relationship between contractors and the NFA by suggesting that perhaps some type of temporary federal employee status for contract instructors would show “...that they are valued and accountable.” Two of the Chairs mentioned aspects of professional development, with one indicating that it would “...be helpful if contract instructors had knowledge of NFA’s vision of the future.” The other Program Chair mentioned that instructors need to find ways to become excellent instructors. Another Program Chair made a related statement that there was a need for “...[a] comprehensive analysis of performance indicators for each program, with our [the Program Chairs’] expectations for [the] instructor...” and associated resources. An additional comment addressed evaluation: this Program Chair responded that “...[l]ong term evaluation methods need to be researched --and communicated to contract instructors.” When asked to elaborate on these answers three Program Chairs provided especially pertinent information. One noted that contract instructors needed direct input into the NFA’s future directions, while a second recommended that the NFA ask contract instructors about their needs. The final referenced comment indicated that the NFA needs a full-time person to staff some type of “evaluation” center.

#### **After Review of Survey Results**

**Question #9:** Now that you have had an opportunity to review the contract instructors’ survey results what reaction or further comments do you make about their perceived need for administrative support services? Please provide specific examples. Several of the Program Chairs expressed surprise about the contract instructors’ survey results. One specifically referenced the age and experience differences of contract instructors: “NFA has ‘old dogs’ and ‘young turks’ -- [the] ‘young turks’ are more computer literate, [while the] ‘old dogs’ are used to having someone



do things for them.” Two of the Program Chairs discussed instructor orientation issues, with one stating that contract instructors should have an instructor orientation manual, while the other expressed concern that the less experienced instructors “...have needs that are not articulated before class.” One Program Chair indicated that he will investigate the instructors’ comments about much of the program content being outdated. His reaction is that to these instructors, who are “...so experienced ...to them the content is outdated.” Finally, a Program Chair also commented on the relationship between Program Chairs and contract instructors by stating that a dialogue was needed.

The Program Chairs were also asked a related question: Based on your experience, how do their survey comments reflect your perception of their needs? Please provide specific examples. Most of the Program Chairs felt the instructors comments were accurate, although a few expressed surprise. One Chair indicated surprise that the instructors wanted on-site conferences, while another also commented on this need. Two of the Program Chairs referenced classroom support issues, with one advising that it would be useful to have a support person to do photocopying, while the other noted a related need for the instructors to have audio-visual and clerical support.

**Question #10:** Given the survey results, how will you use what you have learned about contract instructors’ perceptions of their needs in your working relationship with them? All eight of the Program Chairs responded to this question. Especially pertinent were the comments of two of the Program Chairs who indicated that they wanted to contact the instructors that they manage to get more specific information about the issues raised. Two other Program Chairs indicated that they wanted to ponder the instructor survey responses.

The Program Chairs were also asked a related question: What portion of the survey results is especially meaningful to you? Two of the Program Chairs wanted to allow more time to absorb the material before deciding on its meaningfulness. Another Chair noted that what was most meaningful for him was the fact that different age groups may have different administrative support needs. Three of the Program Chairs offered comments about professional development issues, with one expressing surprise that the contract instructors were willing to engage in training to improve. The second Program Chair stated, “The thought that was most enlightening was that NFA may need to do more to professionally develop its contract instructors.” The third Program

Chair found meaning in the contract instructors' expressed need for "...continuing education/professional development and [the] government role in this." He also believed that the Program Chairs should also attend professional development programs to insure "...consistency between Program Chairs and contract instructors."

### **Summary**

This chapter presented the results of this study. This included the data from the 245 NFA contract instructors who responded to the questionnaire, as well as the responses of the 8 interviewed NFA Program Chairs. The results indicated that the responding contract instructors had several administrative support concerns including dealing with outdated program content, providing new instructors with an orientation and an instructor handbook, gaining access to classroom supplies and improving the availability of program evaluations. They also expressed strong interest in three professional development options: receiving preferred admission into other NFA courses, attending on-site instructor conferences, and having the NFA distribute an instructor newsletter with information on new programs, policies and resources. There were some differences between instructor groupings, particularly as they related to age, that were identified by the Chi Square Test of Comparison. The Program Chairs' interview responses generally were supportive of the contract instructors' identified needs. However, some of the Program Chairs raised concerns about the appropriateness of the NFA offering professional development to contract instructors.