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TECHNICAL REPORT

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EXPRESSED PREFERENCES AND ORGANIZATIONAL
PRACTICES EXPERIENCED BY NAVY OFFICERS

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13. ABSTRACT An earlier report examined the personal background differences in organizational values and preferences of Navymen. The present report looks at similar effects for Navy officers alone. As in the broader report, young Navy officers report perceptions of a bureaucratic structure which allows too little personal autonomy. Despite the basically positive, constructive relationships which exist with supervisors and peers, the organizational climate is therefore seen in relatively negative terms. Young officers seem by and large relatively dissatisfied.			

14 KEY WORDS	LINK A		LINK B		LINK C	
	HOLL	WT	HOLL	WT	HOLL	WT
Organizational climate						
Supervisory leadership						
Peer leadership						
Peer relations						
Group processes						
Age						
Education						
Community of origin						
Region of origin						
Organizational values						
Organizational preferences						
Satisfaction						
Job challenge						
Job characteristics						
Non-economic job factors						
Economic job factors						
Life style factors						

An earlier report in the present series studied the organizational leadership and job condition preferences of a sample of Navymen drawn from both commissioned and enlisted ranks (Bowers, 1973). Among its principal findings were the following:

- (1) Younger persons are less willing to accept autocratic, directive management practices than their elders are, and young Navymen are the least accepting of all... More even than their civilian age counterparts, young Navymen attach importance to being able to control their personal lives, to not being "bossed," to having adequate free time, and to not being hemmed in by longstanding rules and regulations which no one seems able to explain.
- (2) Age has, in and of itself, a decided impact upon preferences. With greater age comes the desire for closer collaborative relations with one's peers and for more effective teamwork.
- (3) Among enlisted men at least, rank has an effect over and above the effects of self-selection, education, and age. Preferences for collaborative leadership styles rise with rank.
- (4) Aversion to autocratic management practices increases with educational levels among Navymen as among civilians.

A second, companion report presented a diagnostic summary of the practices experienced by these same Navymen (Bowers & Franklin, 1973). The findings from this report complement those in the report already cited:

- (1) The Navy as a functioning organization falls near the lower border of what the Survey of Organizations national array defines as the "normal" response range.
- (2) The overall level conceals a difference between ship and shore units, with the latter (shore) scoring at considerably higher levels on nearly all measures.
- (3) Age appears as a definite moderator variable. The shipboard subsample contains nearly twice the proportion of persons 24 years of age and younger contained in the shore-based subsample. When age effects are removed statistically, approximately half of the ship-shore difference disappears.
- (4) Young Navy respondents report experiencing worse organizational practices than either (a) older Navymen, or (b) civilians their own age.

As stated, these findings have been cast in terms of the Navy as a whole, with few distinctions made between officers and enlisted personnel. Furthermore, since approximately seven out of eight respondents represent the enlisted ranks, the findings are heavily influenced by their perceptions and preferences.

Like enlisted personnel, Navy officers also vary in age and educational level, although not so widely as is true of the former. They come, probably in comparable proportions, from all regions of the country and from all gradations of rural-urban backgrounds. Thus the potential exists for many of the same differences, observed among Navymen in general, to hold for officers as well.

The importance of the presence or absence of these or comparable differences among officers outweighs their numbers, however. If the enlisted ranks represent the vast body of the Navy, the officer corps represents its head. It is, after all, this group which provides guidance, direction, and structure to the whole.

It therefore remains to the present report to consider separately Navy officers, to determine whether those who represent the major portion of the Navy's management structure express patterns similar to, or different from, those expressed by the whole sample.

Methods

Data from the Navy Sample were collected from both ship and shore stations between November 1972 and February 1973.* The surveys were personally administered by personnel from the Institute for Social Research.

Ships were included from both the Atlantic and Pacific Fleets. Individuals in the sample were chosen in proportion to the number of personnel assigned to each ship type. For example, if 35 per cent of the personnel assigned to ships were aboard destroyers, 35 per cent of the individuals in the sample were selected so as to come from destroyers. Ships themselves were chosen largely on the basis of availability, with the specific ship selection occasionally influenced by the logistics of moving Organizational Development Research Program Staff from one ship to another. As may be imagined, weather was also an occasional element in determining whether the necessary connections between two selected ships could be made.

For at least two reasons, an effort was made to maximize in the sample as many ships as possible currently deployed away from their home ports. First, larger proportions of the billets are in fact filled on deployed ships than on ships in port. Second, personnel aboard deployed ships are more likely to have had a period of exposure to the organizational variables being measured. For these reasons, more than half of

* A detailed description of the sampling techniques as well as a description of the fit of the samples to their respective populations is presented in an accompanying technical report: A Methodology for the Studies of the Impact of Organizational Values, Preferences, and Practices on the All-Volunteer Navy (Michaelsen 1973).

the ships sampled were deployed at the time of the administration of the survey.

Shore stations were included from eight shore station commands (Atlantic Fleet, Pacific Fleet, Training, Materiel, Personnel, Medicine and Surgery, Security, and Communications) and from the CNO staff. Individuals in the sample were chosen in proportion to the number of personnel assigned to each command. Specific shore stations were randomly selected from those available in four geographical areas--East Coast, Memphis-Pensacola, San Diego, and Hawaii.

Personnel actually surveyed aboard a particular site were members of intact organizational subunits, consisting of work groups related to one another through supervisors who are, at the same time, a superior of the group they supervise and a subordinate in the group immediately above. In this fashion, one may conceive of the organization as a structure of such overlapping groups, a pyramid of interlaced pyramids. For purposes of identifying and selecting intact units for the study's analytic aims, the sampling basis was designated as a "module," by which is meant a "pyramid" of groups three echelons tall. Thus, members from four adjacent levels were included, with the module head defined as the person at the apex of that particular three-tier pyramid. Yet another criterion for the selection of a module was that the person at the apex (the module head) had been at his current assignment for at least three months.

A list of all personnel at a site who met the criteria for module head was obtained from manpower authorization documents and from organizational charts, and from these rosters an appropriate number of

module heads were randomly selected. If a particular module did not provide a large enough sample of personnel required for the particular site, another module head was selected by the same method. Thus, the sample from a site consisted of one or more modules.

This sampling procedure resulted in data collection from 38 different Navy sites and a total sample size of 2522 Navy personnel.

For purposes of the analyses to be presented within this report that subset representing commissioned officers only was extracted from the larger sample.* Table 1 presents a frequency count by rank of 298 officers present in the resulting subsample.

The statistical method to be employed consists of one-way analysis of variance, with significance estimated by means of the customary F-ratio.

In the following section, in which officer values and preferences are examined, findings will be presented verbally. Subsequent sections which discuss comparisons between those preferences and actual experiences will rely more frequently upon tabulation and graphic displays. In either instance, reference may be made to Appendix A, which presents the data more completely.

* Warrant officers were excluded from the analyses to be reported.

Table 1
FREQUENCY OF COMMISSIONED OFFICERS BY RANK,
I.S.R. SAMPLE

Admiral	1
Captain	17
Commander	50
Lieutenant Commander	74
Lieutenant	81
Lieutenant Junior Grade	44
Ensign	31

An Analysis of Officer Preferences

Findings by Region and Community of Origin

For Navymen as a whole, few preferences showed statistically significant differences among categories of respondents grouped by region or by community of origin. For officers, fewer still occur. Only one comparison (five per cent) out of 26 for each background variable attains significance at the five per cent level of confidence. Nor are comparisons which were statistically significant for Navymen as a whole (and are not for officers) even directionally appropriate. We therefore feel justified in dismissing region and community of origin from further consideration.

Findings by Age

As among Navymen as a whole, age appears for officers to be a quite potent differentiator of organizational preferences. Ten of the 26 comparisons (39 per cent) attain statistical significance. In form, they closely resemble differences occurring among enlisted Navymen:

- Importance attached to having a job which provides a great deal of free time declines with age.
- Importance attached to having a job which provides an opportunity to serve one's country rises with age.
- Importance attached to opportunity to control one's personal life declines with age.
- Importance attached to fringe benefits rises with age.
- Importance attached to not being "bossed" in one's work declines with age.
- Importance attached to pay declines with age (although it is lowest for the youngest category).

On some measures, significant differences are displayed which are different in form from those which occurred in the larger, mostly enlisted, sample:

- Preference for supervisory goal emphasis and interaction facilitation rise with age until the oldest category, at which point it drops.
- Preference for supervisory work facilitation rises abruptly from the youngest to next youngest categories, then declines with age, as does importance attached to having a prestigious job.

Findings by Educational Level

Education also appears to predispose officers toward different preferences. Seven out of 26 measures (37 per cent) attain statistical significance. On some few measures, the differences appear much as they did in the analysis of predominately enlisted responses:

- Better educated officers attach less importance than do those less well educated to having a job which permits them to serve their country.
- Better educated officers are less concerned about fringe benefits than are those who are less well educated.
- Better educated officers are less concerned about avoiding bureaucratic factors in their jobs than are those who are less well educated.

On one comparison, a finding for officers is distinctly different from a finding for enlisted personnel. Whereas the latter (enlisted men) show a relatively flat curve in preference for opportunity to control

their personal lives, dropping off only in the post-graduate work category, officers show a sharply rising curve during the lower educational levels.

A small, but curvilinear and significant, difference occurs for officers on the issue of preferred job challenge. Those with only a high school education and those with post-graduate work (beyond a bachelor's degree) prefer higher levels of job challenge than do those with either some college or a bachelor's degree.

On two issues, differences occur for officers where none occurred for the predominately enlisted sample. Better educated officers, more than the less well educated, prefer jobs which provide more free time and less likelihood of being "bossed" in their work.

Organizational Practices Experienced by Officers

As in the case of preferences, region and community of origin make no appreciable difference in the practices encountered and perceived by Navy officers. Our attention turns, therefore, first to age and then to education as potential moderators of experienced conditions.

Those who have read the earlier diagnostic report (Bowers & Franklin, 1973) will recall that the standard indices from the Survey of Organizations (i.e., those measures for which national civilian normative data exist) fall within several categories:

Organizational Climate - a set of environmental social conditions, representing behavior, procedures, decisions, objectives and the like, created by groups and constraining any particular focal group's functioning.

Leadership Behaviors - behavior by supervisors and fellow members of basic work (focal) groups, on four basic dimensions (Support, Goal Emphasis, Work Facilitation, Interaction Facilitation).

Group Processes - Functional properties of the group as such, including its adaptability, ability to make sound decisions, coordinate its efforts, etc.

To these have been added in the present study a number of measures of economic and non-economic characteristics of the job, its setting, and life styles.

Table 2 and Figure 1 present data on organizational climate as viewed by officers clustered by age. The phenomenon observed in the earlier report, namely that climate improves with age for Navymen, exists, in part, for officers as well. Three of the five climate indices display curves which generally rise with age. As among enlisted men, it is motivational conditions which are seen as most steeply sloped. For officers, decision-making practices and lower-level influence are viewed as rising primarily between ages 32 and 42, with little change before or after that period. Two measures which showed significant changes with age for enlisted men--Human Resources Primacy and Communication Flow--show only similar, but statistically non-significant changes for officers.

Table 3 and Figure 2 present, in the form of percentile scores in the Survey of Organizations national array, data for Navy officers, enlisted men, and employed civilian men from the national cross-section of the present larger study.

These data indicate that, on the average, enlisted Navymen report a slightly better organizational climate than do officers and that the real differences reflect age perhaps more than rank. The comparison to civilian data is interesting. This shows that, whereas employed civilians report only a slight rise with age and figures which hover close to the normative mid-point (the 50 percentile--a not too surprising finding,

Table 2

SIGNIFICANCE OF DIFFERENCES BETWEEN AGE CATEGORIES IN
 PERCEPTIONS OF ORGANIZATIONAL CLIMATE BY NAVY OFFICERS
 (N = 298)

Measure	Significance of Difference between Age Categories		
	F	df	p<
Human Resources Primacy	1.22	3/294	--
Communication Flow	1.47	3/293	--
Motivational Conditions	7.68	3/293	.0001
Decision-Making Practices	5.43	3/294	.002
Lower-Level Influence	3.11	3/292	.03

Figure 1

CLIMATE INDICES FOR NAVY OFFICERS BY AGE

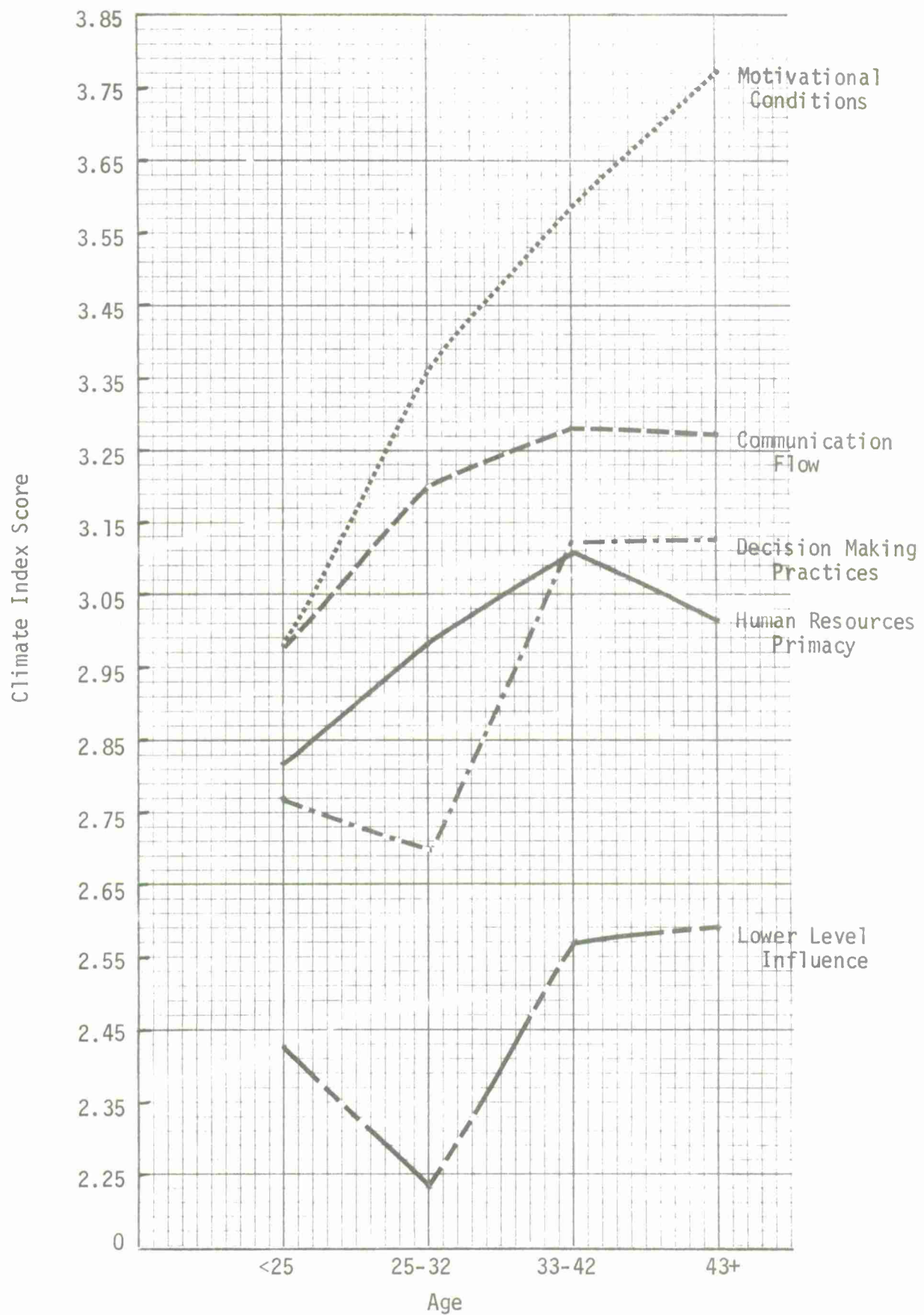


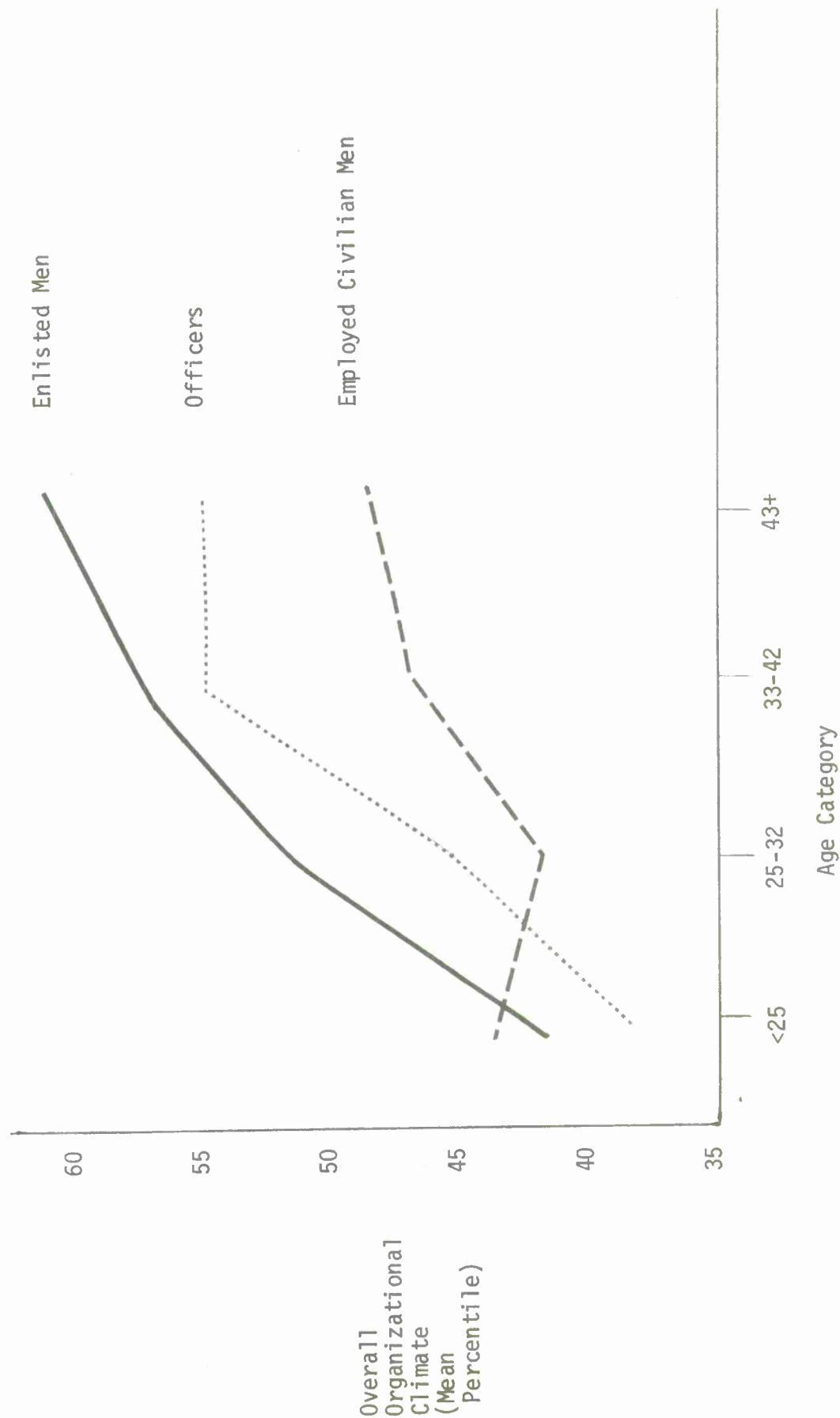
Table 3
 MEAN PERCENTILE SCORES*
 ON ORGANIZATIONAL CLIMATE MEASURES BY AGE

Age Category	Navy Officers (N = 298)					Enlisted Men (N = 1905)					Employed Civ. Men (N = 520)		
	Human Res. Primacy	Comm. Flow	Mot. Conds.	Dec-Mk. Prac.	Lower Level Infl.	Mean	Human Res. Primacy			Lower Level Infl.			
							Mean	Comm. Flow	Mot. Conds.				
< 25	34	39	29	51	37	38	41	37	51	28	49	39	44
25-32	39	56	51	44	34	45	51	44	55	46	57	52	43
33-42	43	58	57	64	51	55	56	48	58	53	65	56	46
43 +	40	58	63	64	52	55	63	55	62	60	71	69	48

* Comparison is made throughout the Table to the overall combined S.O.O. norms.

Figure 2

OVERALL ORGANIZATIONAL CLIMATE MEAN PERCENTILE SCORES
NAVY OFFICERS, ENLISTED MEN AND EMPLOYED CIVILIAN MEN, BY AGE CATEGORY



since the norms are civilian-derived), the Navy curves for both officers and enlisted men start lower and rise far higher.

Apparently gray hair counts for much more in the Navy than in civilian organizations. While the comparison thus favors the Navy in the older age brackets, it should be noted that this counts for little if most leave the Navy because of the unfavorable comparison in the young age bracket (first-termers).

Turning to leadership practices and processes within the basic work group, Table 4 shows percentile scores and significance tests for officers on the eight actual leadership behavior indices, plus the group process index. Figure 3 displays in graphic form those three measures for which significant or nearly significant results are obtained.

These data indicate that within-group factors (leadership and group processes) are for officers a reasonably satisfactory matter, falling at the normative mid-point or better. Even for younger officers, the situation contrasts quite favorably with that experienced by enlisted men of the same age, as the figures in Table 5 indicate.

Table 6 presents the overall satisfaction index, in percentile score form and similarly broken by age. Unlike leadership and group processes, satisfaction shows effects similar to those visible in relation to organizational climate. Young officers, like young enlisted men, are clearly generally unhappy.

Significance tests for actual and preferred job and life style factors are presented in Table 7. It can readily be seen that statistically significant differences occur among age categories for the majority (69 per cent) of actual measures.

Table 4

LEADERSHIP PRACTICES AND GROUP PROCESSES
EXPERIENCED BY NAVY OFFICERS BY AGE

(N=298)

Measure	F*	p	Mean Percentile Score
Supervisory Support	2.18	-	51
Supervisory Goal Emphasis	.41	-	44
Supervisory Work Facilitation	.64	-	53
Supervisory Interaction Facilitation	3.46	.02	54
Peer Support	.74	-	60
Peer Goal Emphasis	1.96	-	50
Peer Work Facilitation	2.52	.06	56
Peer Interaction Facilitation	2.57	.06	56
Group Processes	.51	-	61

*With each comparison, four age categories and the indicated N result in $df = 3/294$.

Figure 3
MEAN PERCENTILE SCORES ON THREE LEADERSHIP MEASURES
FOR AGE CATEGORY

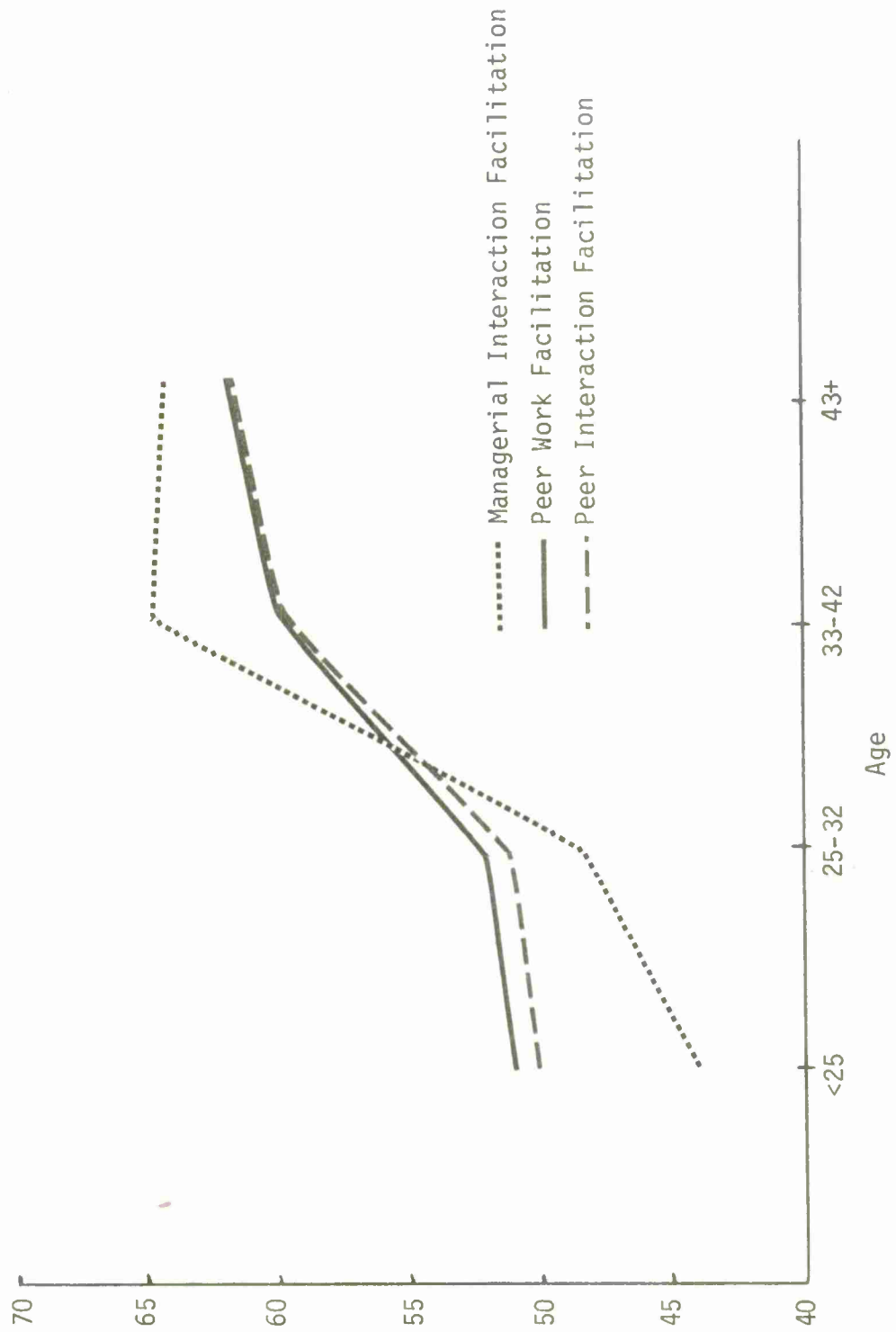


Table 5
 MEAN PERCENTILE LEADERSHIP SCORES
 FOR NAVY OFFICERS AND ENLISTED MEN

Measure	Category			
	Officers		Enlisted Men	
	<25	Total	<25	Total
Supervisory Support	42	51	35	39
Supervisory Goal Emphasis	42	44	33	35
Supervisory Work Facilitation	40	53	38	50
Supervisory Interaction Facilitation	44	54	39	42
Peer Support	46	60	36	38
Peer Goal Emphasis	47	50	27	30
Peer Work Facilitation	52	56	37	40
Peer Interaction Facilitation	50	56	34	37

Table 6

SATISFACTION PERCENTILE SCORES OF NAVY OFFICERS, BY AGE

Percentile Scores, by Age Category						
<25	25-32	33-42	43+	F	df	p
30	39	45	42	2.67	³ /294	.05

Table 7

SIGNIFICANCE OF DIFFERENCES BETWEEN AGE CATEGORIES
IN PERCEPTION OF ACTUAL AND PREFERRED JOB LIFE STYLE FACTORS
BY NAVY OFFICERS

(N = 298)

Measure	Significance of Difference between Education Categories					
	Actual			Preferred		
	F	df	p<	F	df	p<
Job Challenge	2.11	3/292	--	1.86	3/292	--
No One to Boss Me	3.13	3/292	.03	2.51	3/292	--
Steady, No Layoffs	.49	3/291	--	1.12	3/292	--
Clean Job	7.70	3/292	.0001	1.88	3/292	--
Lots of Free Time	3.22	3/292	.02	14.25	3/292	.0001
Good Pay	1.55	3/292	--	2.58	3/292	.05
Prestigious Job	3.46	3/290	.02	4.07	3/291	.008
Friendly People	6.43	3/292	.0003	.42	3/292	--
Stay in One Place	10.33	3/291	.0001	1.25	3/292	--
Serve My Country	5.76	3/292	.001	14.05	3/291	.0001
Make World Better	7.50	3/291	.0001	.91	3/291	--
Fringe Benefits	.71	3/292	--	5.92	3/292	.0006
Control Personal Life	6.61	3/292	.0002	5.86	3/289	.0007
No Endless Referrals	9.56	3/292	.0001	.69	3/291	--
No Red Tape	2.18	3/292	--	1.62	3/292	--
No Unexplainable Rules	7.57	3/292	.0001	1.06	3/292	--

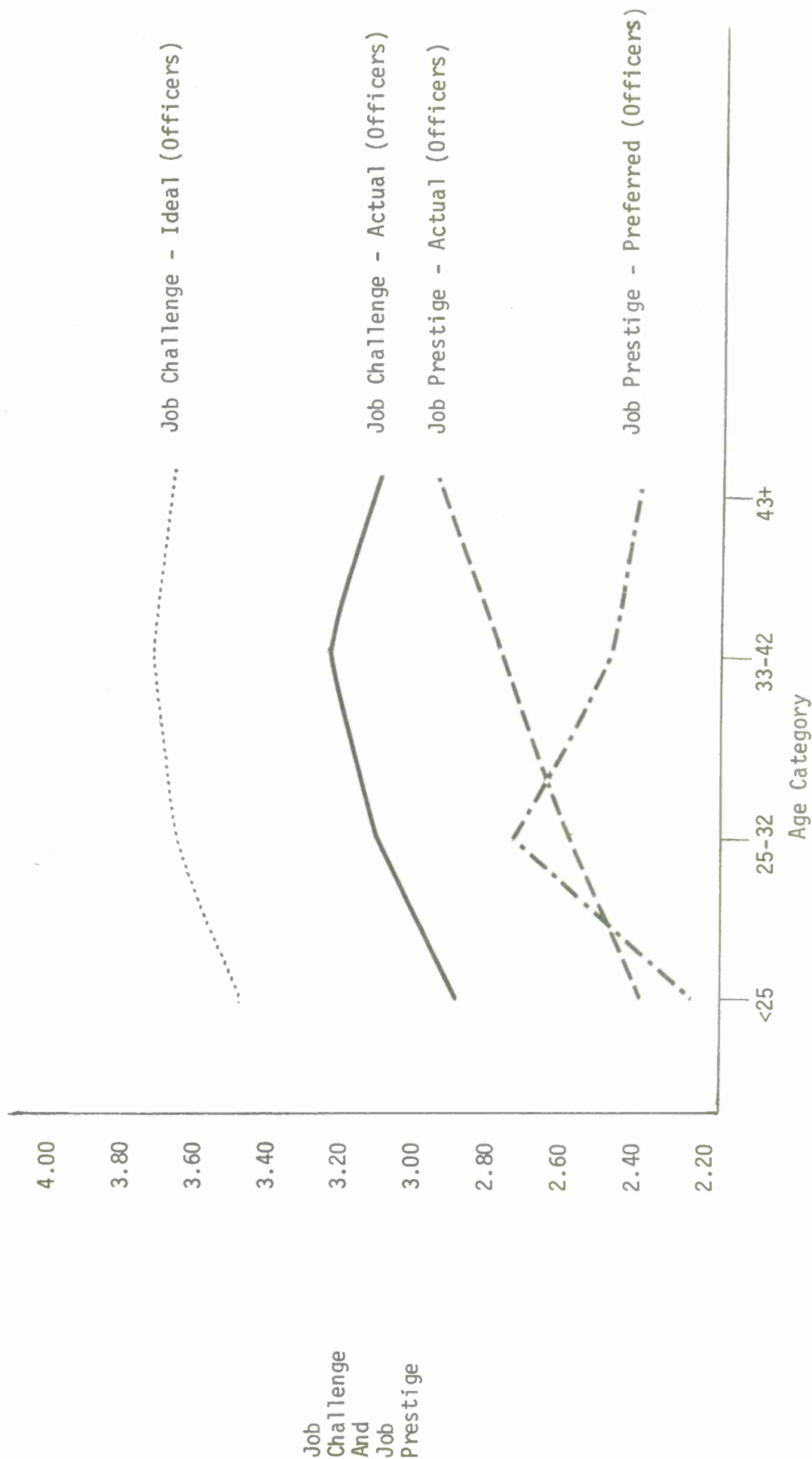
Although reference may be made to the appropriate appendix for basic statistics concerning these measures, they will be presented for discussion purposes in graphic form. Figure 4, for example, examines two closely intertwined issues, job challenge and job prestige. Whereas actual job prestige rises constantly with age, job challenge does not. Preferred levels of job challenge constantly outrun levels actually experienced, whereas preferred levels of job prestige are either approximately right (younger age categories) or lower than what is actually perceived to exist. With greater maturity, in other words, less importance comes to be attached to having a job which impresses one's friends.

Several non-economic job factors become significantly more positive with age. Thus, jobs become cleaner (Figure 5), although the importance attached to that characteristic drops with age. People with whom one works are friendlier (Figure 6), although the importance of that factor remains relatively constant across age categories. Experienced bureaucracy declines with age (shown as a rise in measures "No Endless Referrals" and "No Unexplainable Rules" in Figures 7 and 8), although the aversion to bureaucracy remains high in all age categories.

Opportunity to control one's personal life similarly shows improvement with age. In this instance, however, comparison is made to the actual and preferred levels expressed by employed males in the civilian cross-section (Figure 9). Although the importance attached to this characteristic by Navy officers drops with age, the rise in the actual curve puts the degree experienced even marginally close only in the oldest age category. For the youngest age group, the discrepancy is very large indeed. The entire configuration, furthermore, is strikingly

Figure 4

COMPARISON OF ACTUAL AND PREFERRED JOB CHALLENGE
AND JOB PRESTIGE BY NAVY OFFICERS, BY AGE CATEGORY
(N = 298)



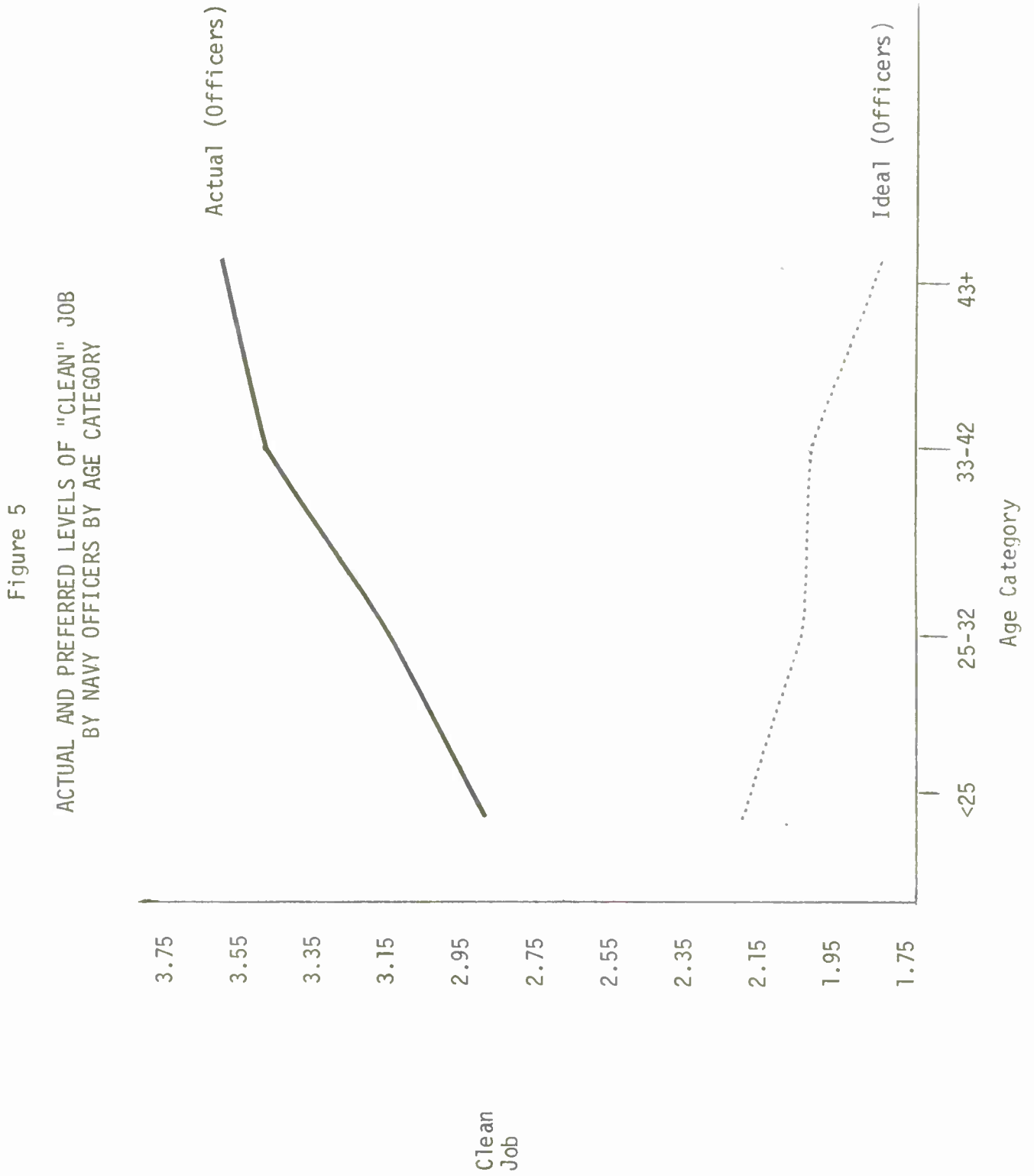


Figure 6

COMPARISON OF ACTUAL AND PREFERRED LEVELS OF JOB FACTOR
"FRIENDLY PEOPLE" BY NAVY OFFICERS, BY AGE CATEGORY
(N = 298)

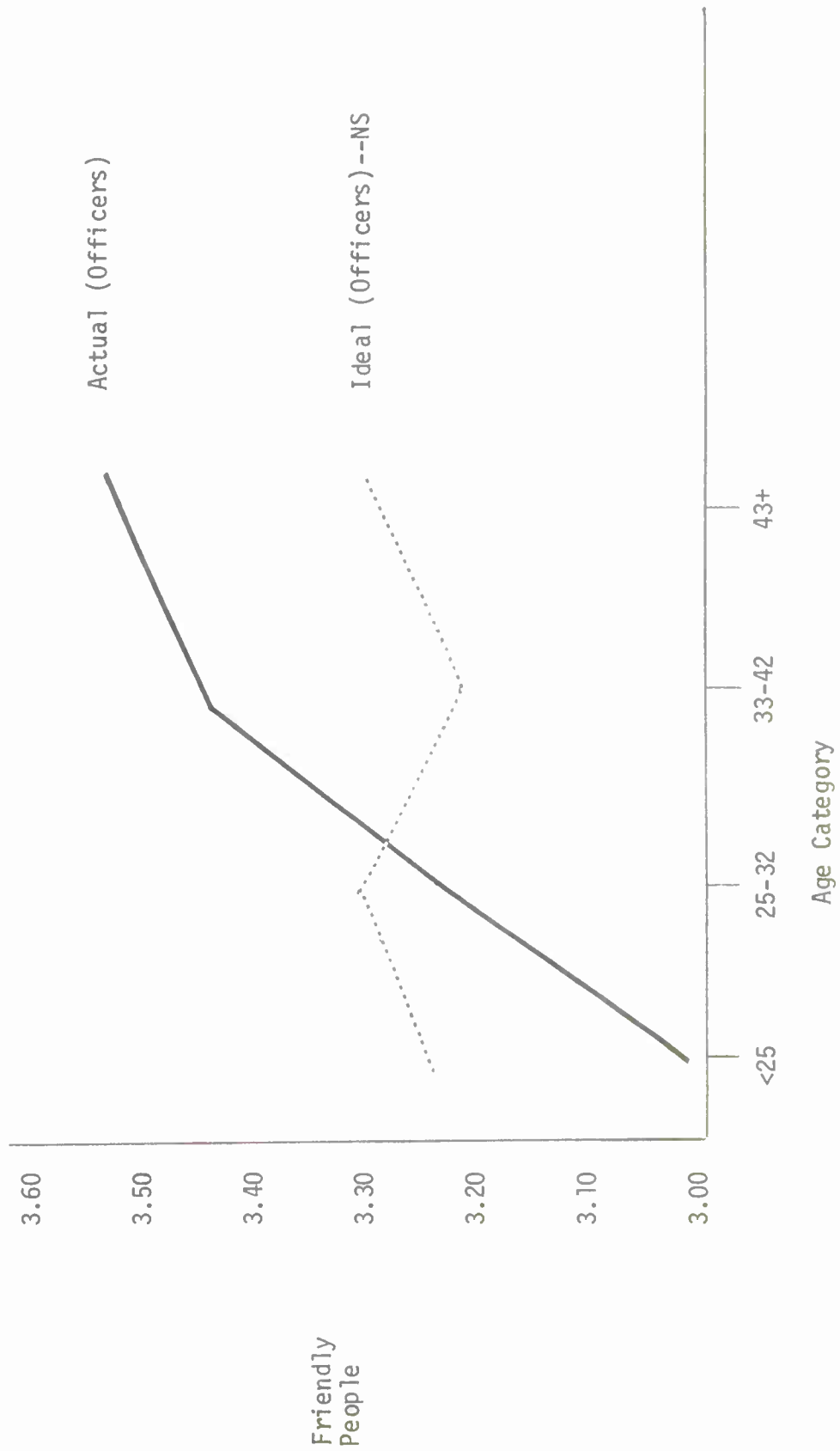


Figure 7

COMPARISON OF ACTUAL AND PREFERRED LEVELS OF JOB FACTOR
"NO ENDLESS REFERRALS"
BY NAVY OFFICERS BY AGE CATEGORY
(N = 298)

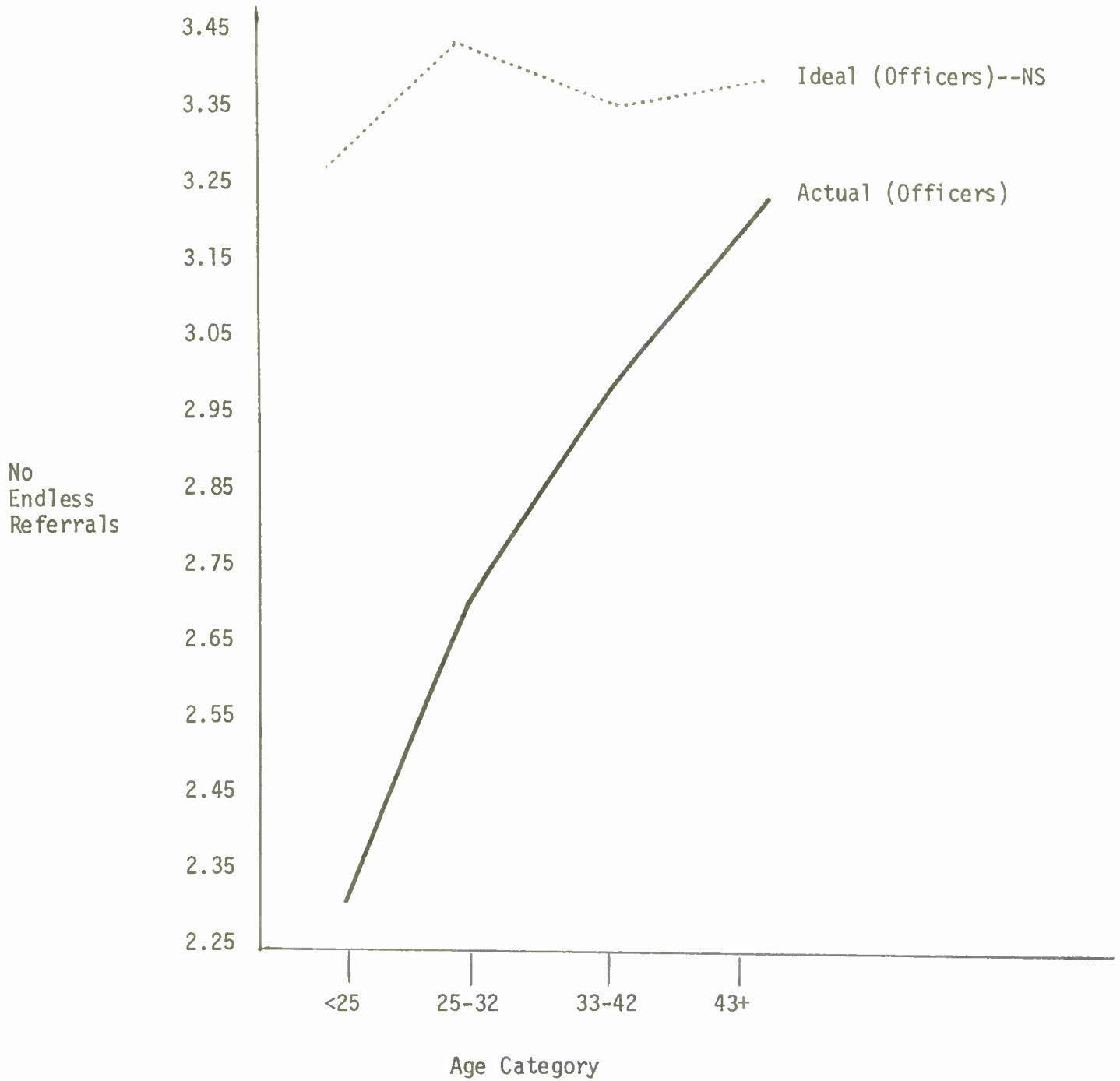


Figure 8

COMPARISON OF ACTUAL AND PREFERRED LEVELS OF JOB FACTOR
"NO UNEXPLAINABLE RULES"
BY NAVY OFFICERS, BY AGE CATEGORY
(N = 298)

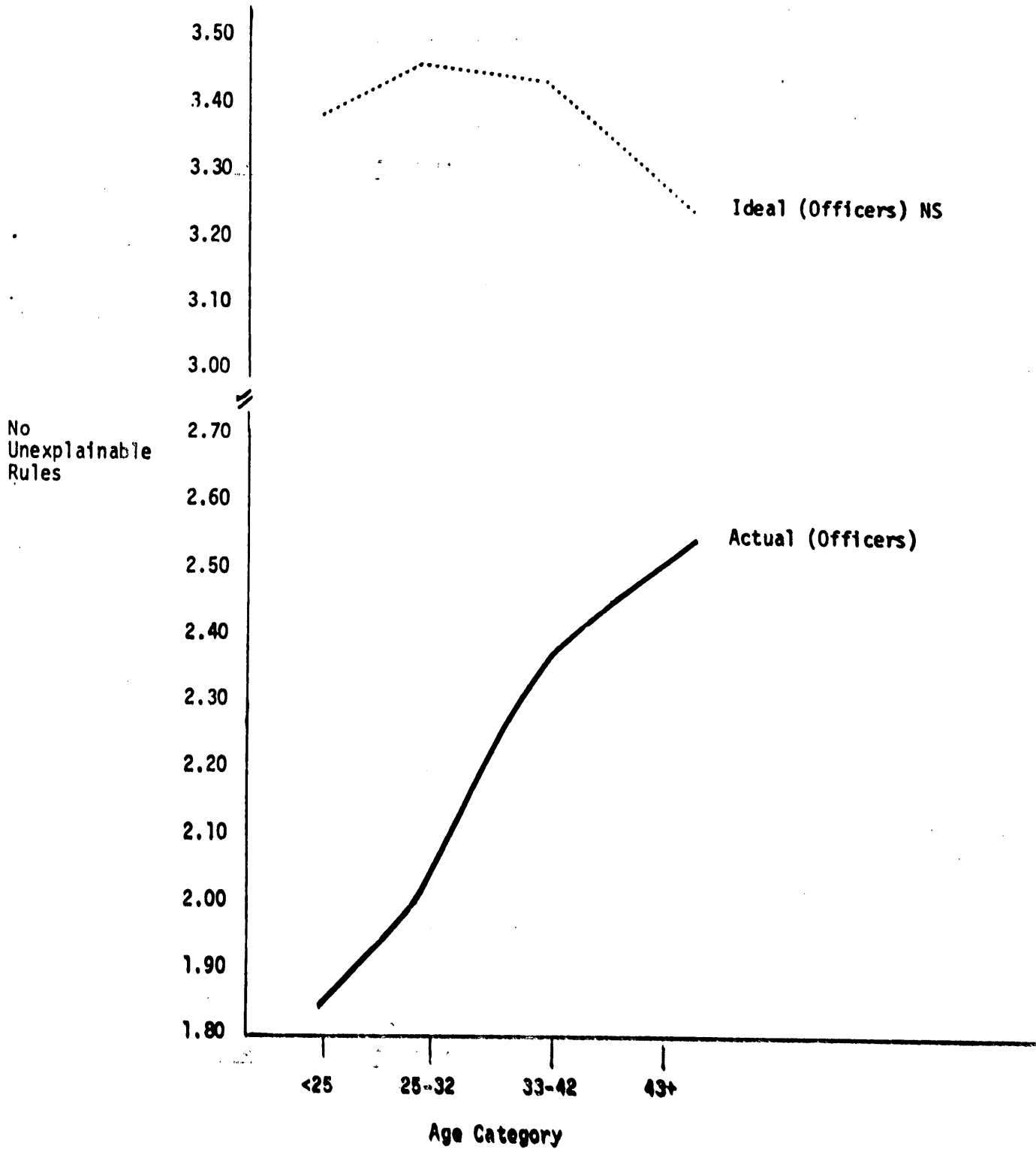
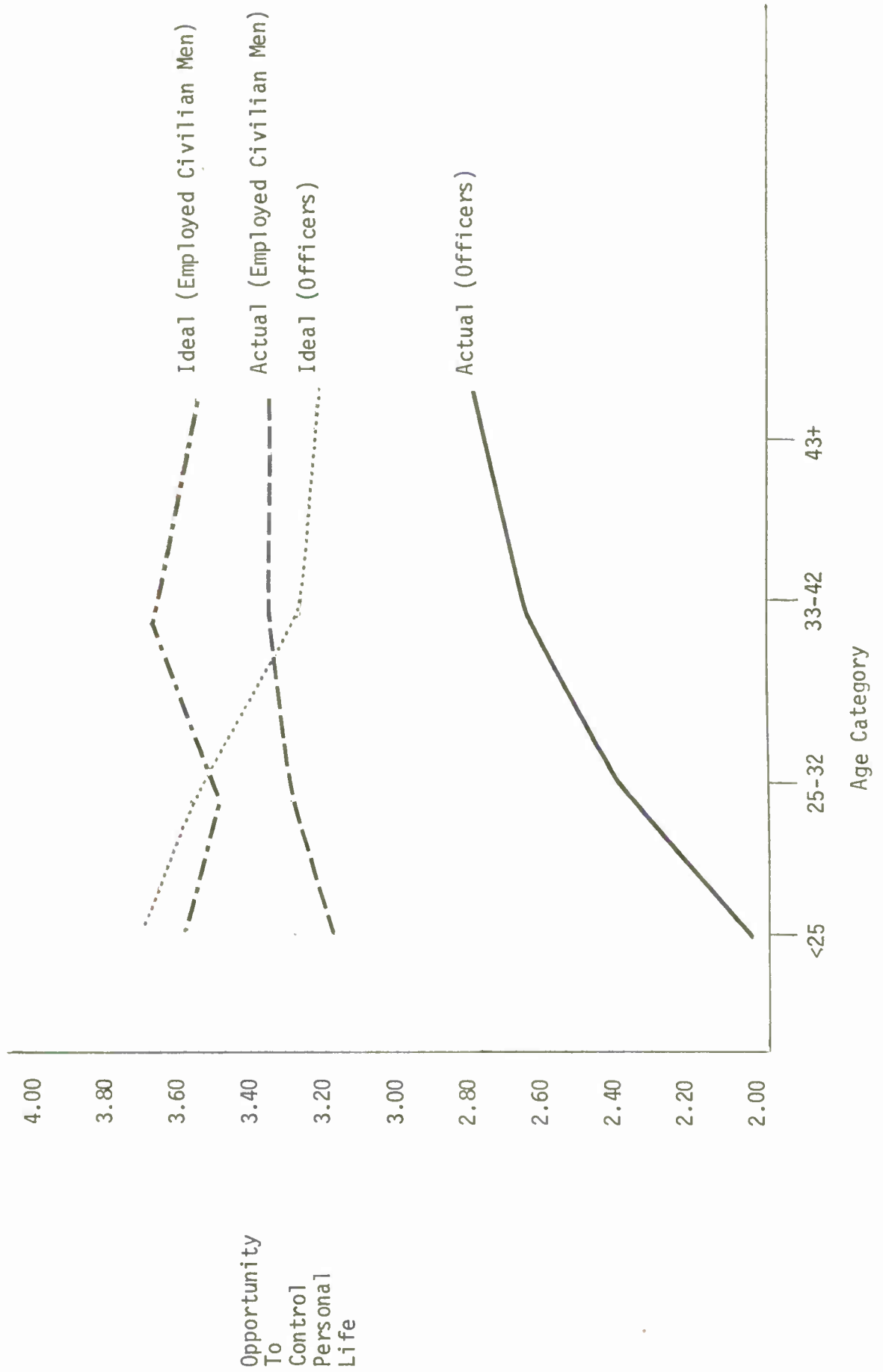


Figure 9
COMPARISON OF ACTUAL AND PREFERRED LEVELS OF OPPORTUNITY
TO CONTROL ONE'S PERSONAL LIFE, BY NAVY OFFICERS
AND EMPLOYEE CIVILIAN MEN, BY AGE CATEGORY
(N = 298)



different from that expressed in experiences of employed civilians (although preferred levels are more nearly identical).

A similar, although clearly more erratic, comparison exists for the measure "No One to Boss Me" (Figure 10). The importance attached to this characteristic declines with age, but crosses the actual curve only for the oldest category.

A somewhat different phenomenon occurs in relation to free time (Figure 11). In this instance both actual and preferred levels decline, the latter more precipitously than the former. Clearly, however, young officers feel a distinct lack of free time--a lack which, in absolute terms, is likely to become greater, not smaller, with age.

Three measures, here termed "life style" factors because they refer to more general considerations about what is important in a job as it impinges upon living one's life, also show increases with age in levels experienced. Opportunity to stay in one place (Figure 12) quite naturally rises with age, although the desire to do so is relatively constant and always higher than the possibility of doing so. Opportunity to serve one's country is viewed as increasing with age, as does the desire to do so (Figure 13). Opportunity to make the world a better place rises dramatically with age, whereas the importance attached thereto remains relatively constant and higher (Figure 14).

Two curves--those concerning pay and fringe benefits--are presented here despite the fact that no significant differences occur for levels of these factors actually experienced (see Figures 15 and 16). The actual curves indicate that most officers, regardless of age, feel it to be true that pay and fringe benefits are good. Pay is more important among those

Figure 10
COMPARISON OF ACTUAL AND PREFERRED LEVELS OF JOB FACTOR
"NO ONE TO BOSS ME", BY NACY OFFICERS BY AGE CATEGORY
(N = 298)

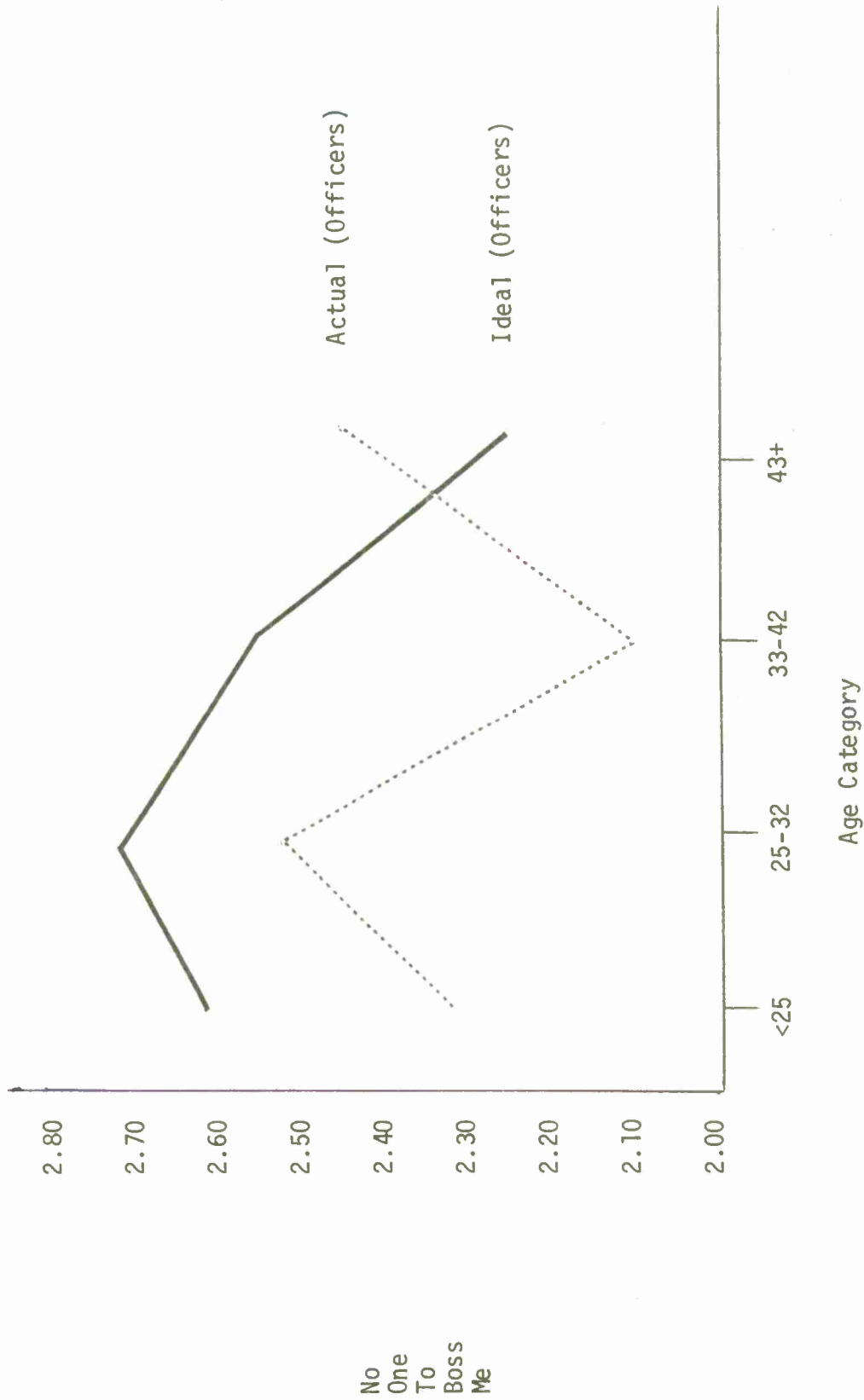


Figure 11

COMPARISON OF ACTUAL AND PREFERRED LEVELS OF FREE TIME
BY NAVY OFFICERS BY AGE CATEGORY
(N = 298)

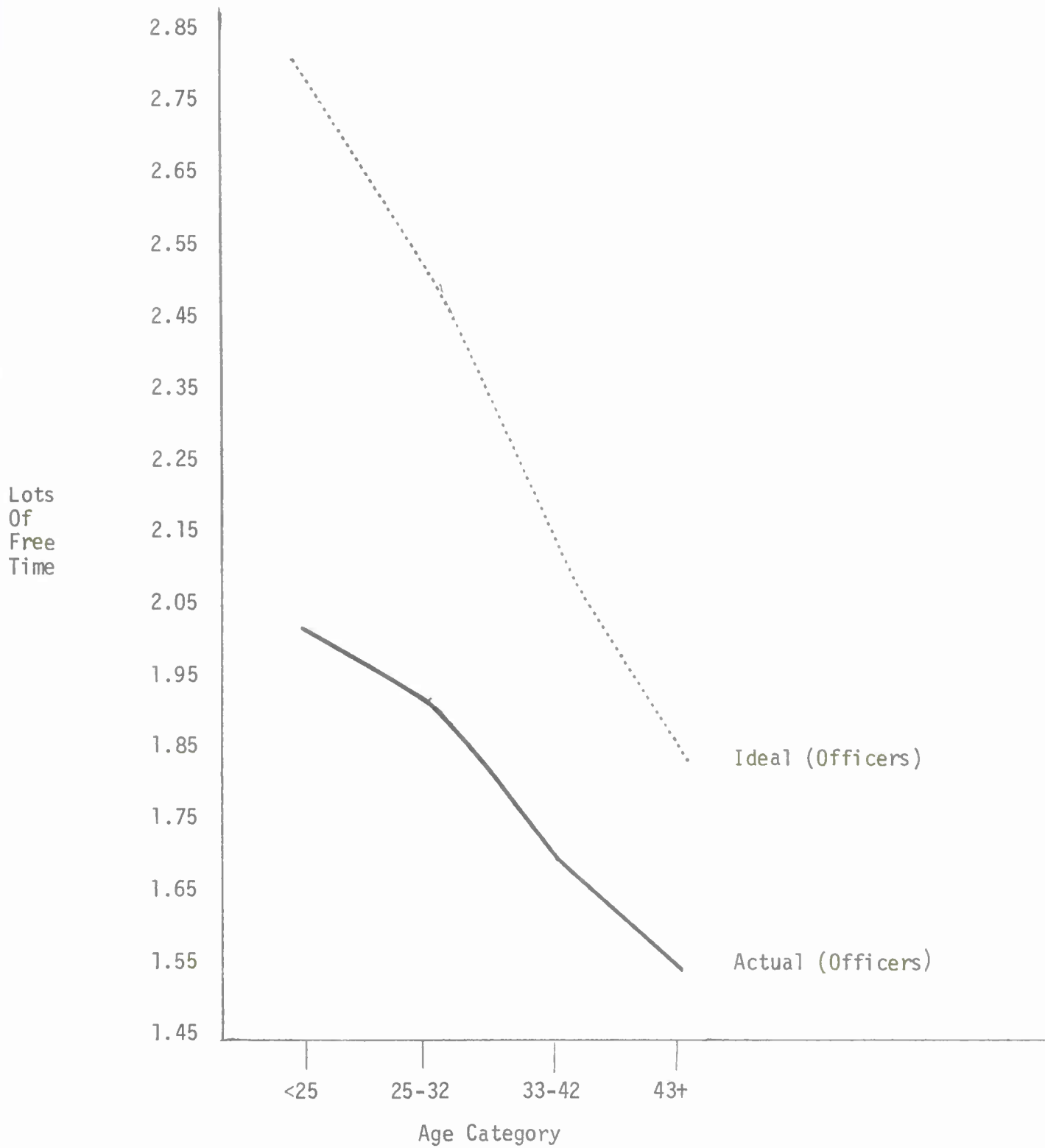


Figure 12

COMPARISON OF ACTUAL AND PREFERRED LEVELS OF OPPORTUNITY
TO STAY IN ONE PLACE
BY NAVY OFFICERS BY AGE CATEGORY
(N = 298)

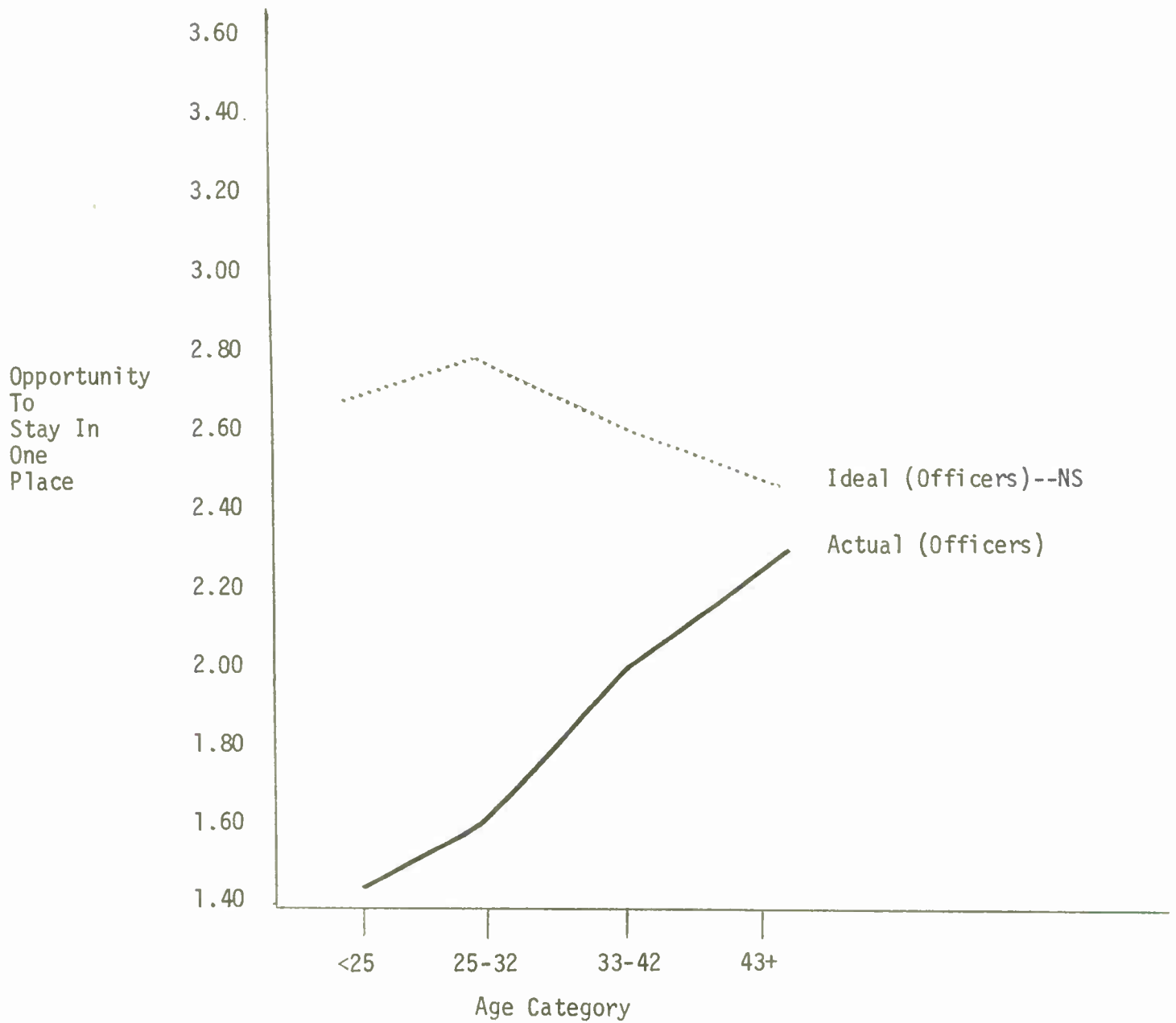


Figure 13

COMPARISON OF ACTUAL AND PREFERRED LEVELS OF OPPORTUNITY
TO SERVE ONE'S COUNTRY, BY NAVY OFFICERS, BY AGE CATEGORY
(N = 298)

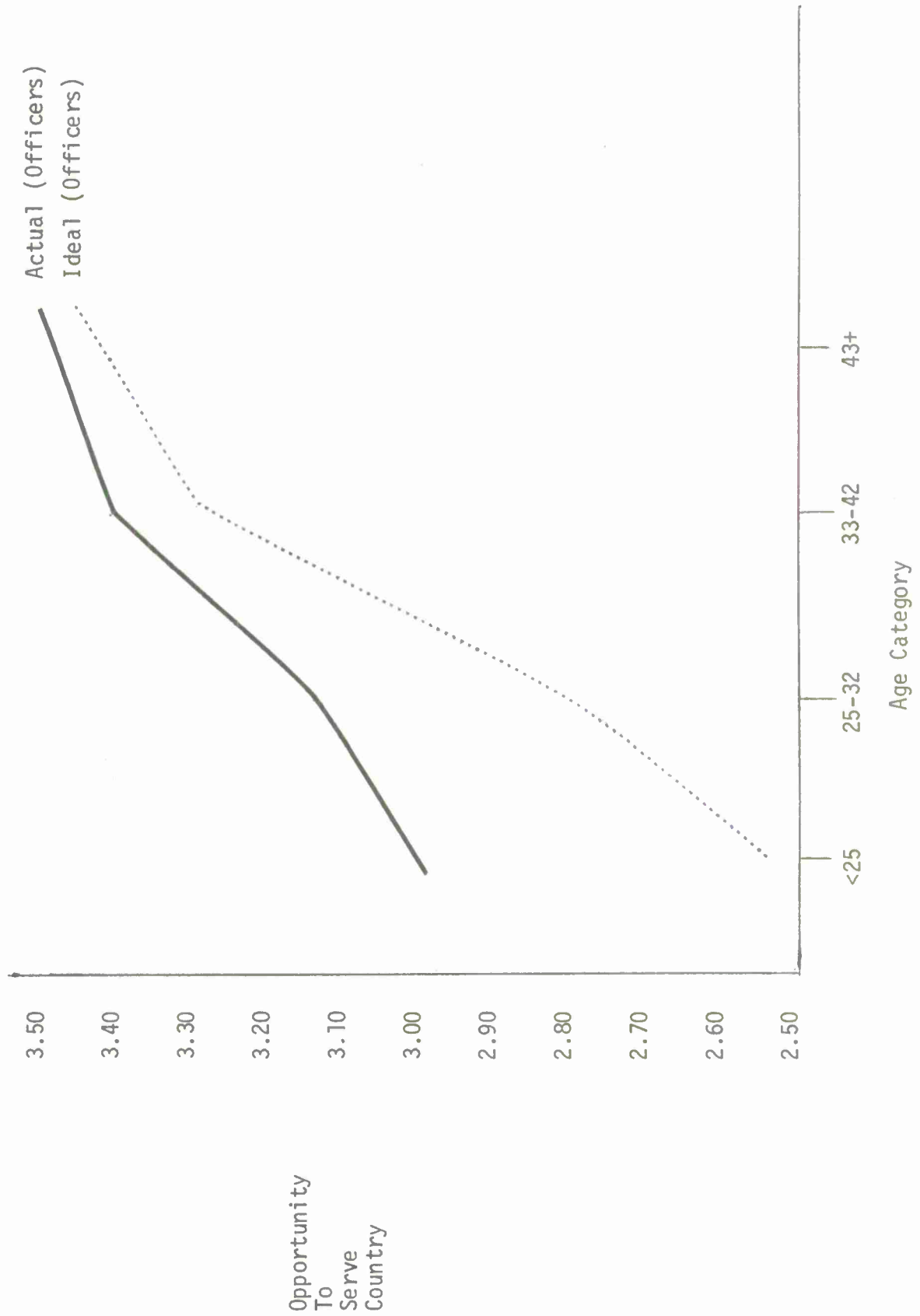


Figure 14

COMPARISON OF ACTUAL AND PREFERRED LEVELS OF OPPORTUNITY
TO MAKE THE WORLD A BETTER PLACE
BY NAVY OFFICERS BY AGE CATEGORY
(N = 298)

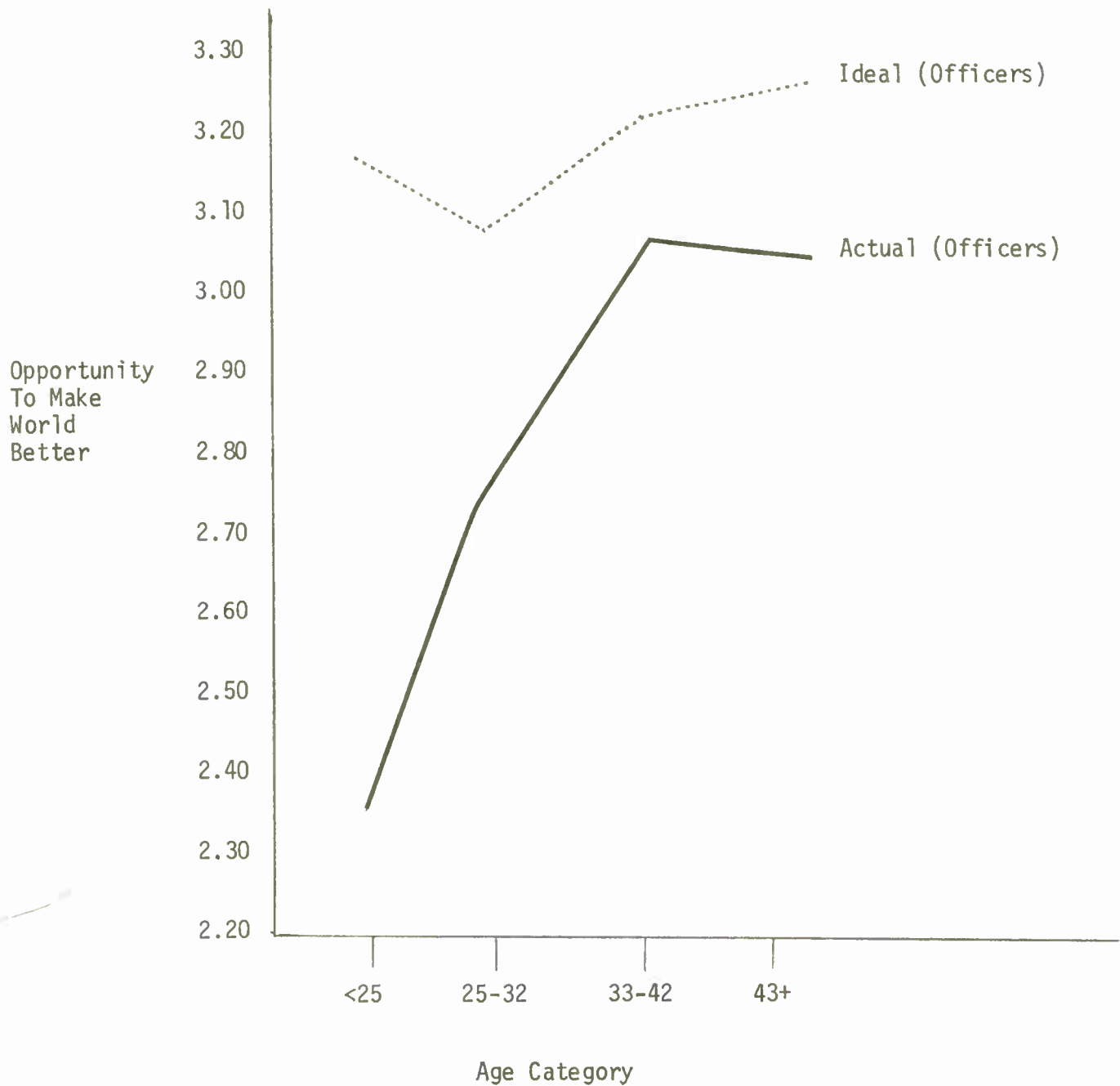


Figure 15
COMPARISON OF ACTUAL AND PREFERRED LEVELS
OF PERCEIVED PAY BY NAVY OFFICERS BY AGE CATEGORY

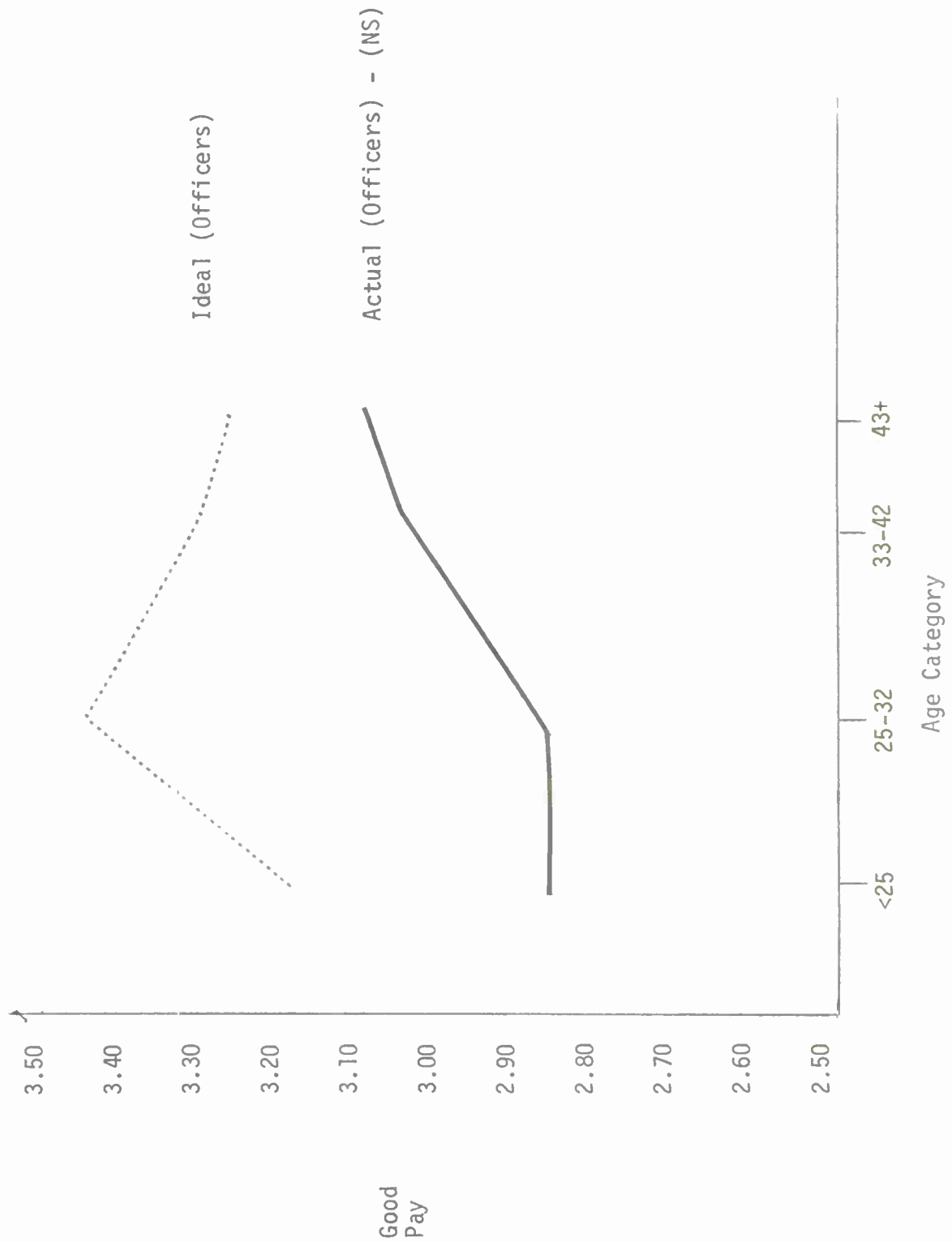
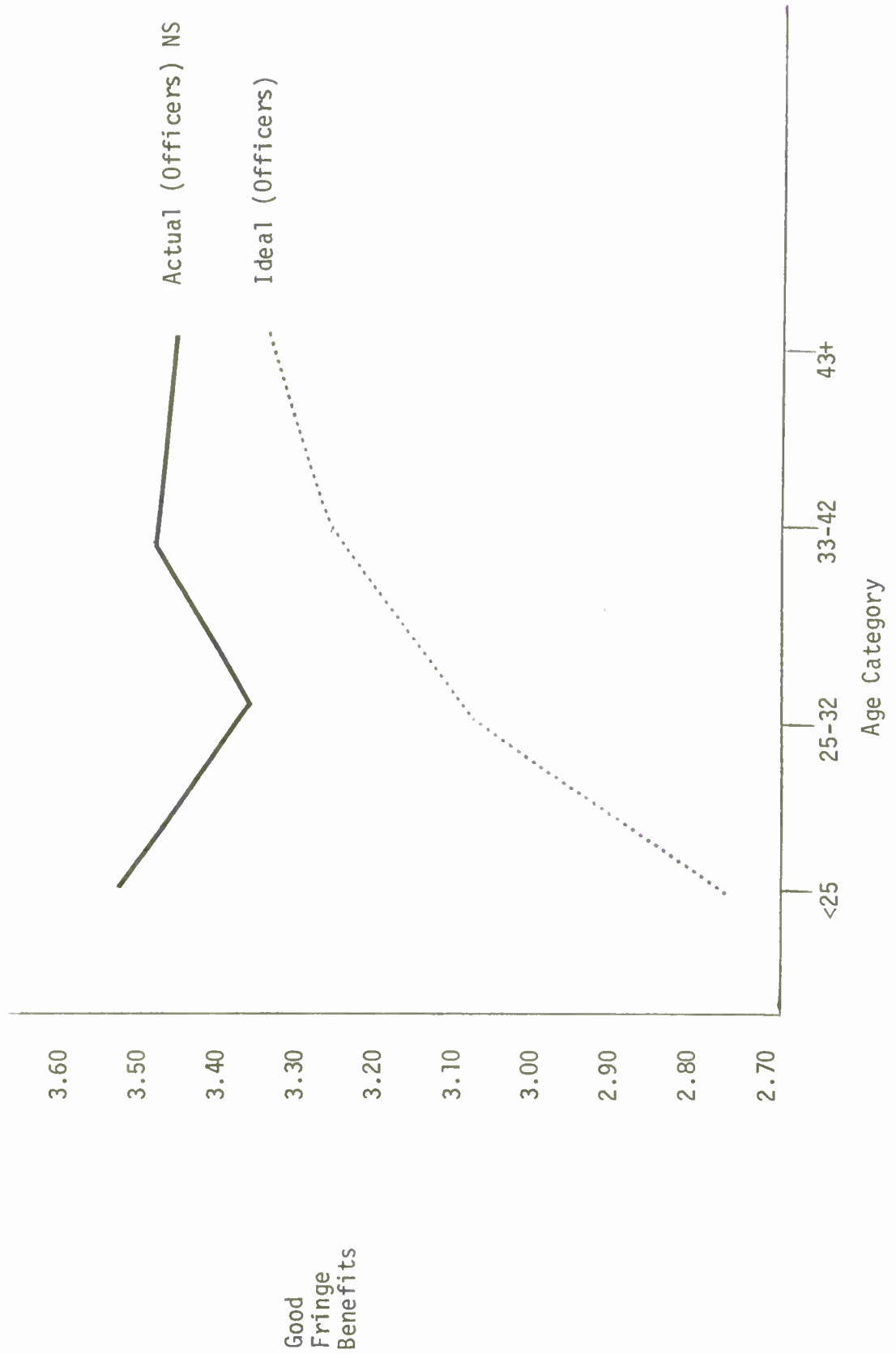


Figure 16
COMPARISON OF ACTUAL AND PREFERRED LEVELS OF PERCEIVED FRINGE BENEFITS
BY NAVY OFFICERS BY AGE CATEGORY
(N = 298)



in the 25-32 year old category, somewhat less important for those under 25. Fringe benefits, however, are decidedly less important to those in the youngest age categories, and much more important to those in the oldest.

Turning to comparisons by educational level, Table 8 presents significance tests for all variables representing actually experienced organizational practices. These data indicate that, among the standard Survey of Organizations indices, only one exhibits statistically significant differences. This one measure, the Human Resources Primacy index from the organizational climate set, may have importance beyond its proportion, however. Figure 17 shows that this condition is viewed as dropping precipitously as one moves from lower to higher educational levels. (Comparisons to the national norms, in fact, indicate that it moves from near the mid-point of that array--the 49 percentile--to the 36 percentile for those with post-graduate work!)

It is among the various job-factor measures, perhaps, that more light is shed upon the reasons for this perception by well educated persons, Figures 18, 19, and 20 present perceptions of, and preferences concerning, bureaucracy in the work setting. (A high score indicates an absence of bureaucracy in the form of endless referrals, red tape, and unexplained rules.) Despite more nearly common levels of aversion to bureaucracy, better educated officers (those with a college degree and those with post-graduate work) report more frequent endless referrals, more occurrence of red tape, and a greater incidence of rules or regulations which no one seems able to explain than is reported by less well educated persons. Perhaps the former are more sensitive to such issues, or perhaps more complex assignments bring them more often into contact (and conflict) with the bureaucracy. The fact remains that they feel more hamstrung in their work than do the less well educated.

Table 8

SIGNIFICANCE OF DIFFERENCES BETWEEN EDUCATION CATEGORIES
IN PERCEPTION OF ACTUAL AND PREFERRED JOB LIFE STYLE FACTORS
BY NAVY OFFICERS

(N = 298)

Measure	Significance of Difference between Education Categories					
	Actual			Preferred		
	F	df	p<	F	df	p<
Job Challenge	2.74	3/294	.04	2.40	3/294	--
No One to Boss Me	1.24	3/294	--	4.10	3/294	.007
Steady, No Layoffs	.44	3/293	--	1.50	3/294	--
Clean Job	.51	3/294	--	1.28	3/294	--
Lots of Free Time	4.03	3/294	.008	5.71	3/294	.001
Good Pay	13.61	3/294	.0001	.64	3/294	--
Prestigious Job	2.07	3/292	--	.57	3/293	--
Friendly People	4.86	3/294	.003	.74	3/294	--
Stay in One Place	5.29	3/293	.002	.59	3/294	--
Serve My Country	.83	3/294	--	2.54	3/293	--
Make World Better	1.94	3/293	--	.76	3/294	--
Fringe Benefits	5.22	3/294	.002	4.44	3/294	.005
Control Personal Life	4.44	3/294	.005	4.01	3/291	.008
No Endless Referrals	3.74	3/294	.01	2.90	3/293	.04
No Red Tape	5.77	3/294	.001	.83	3/294	--
No Unexplainable Rules	3.47	3/294	.02	1.34	3/294	--

FIGURE 17

PERCEPTIONS OF HUMAN RESOURCES PRIMACY
BY NAVY OFFICERS BY EDUCATIONAL LEVEL
(N = 298)

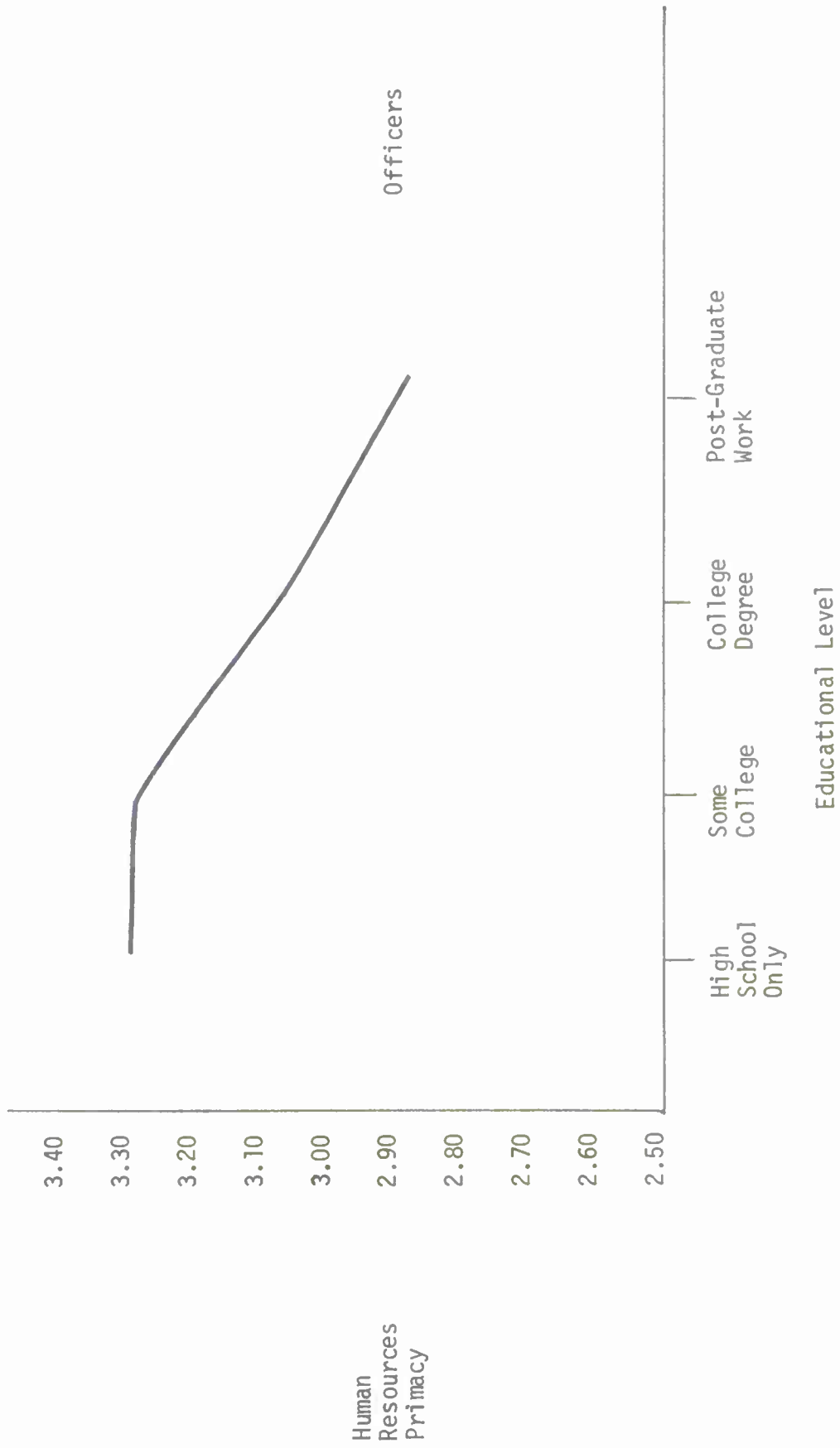


Figure 18

COMPARISON OF ACTUAL AND PREFERRED LEVELS OF JOB FACTOR
 "NO ENDLESS REFERRALS"
 BY NAVY OFFICERS BY EDUCATIONAL LEVEL
 (N = 298)

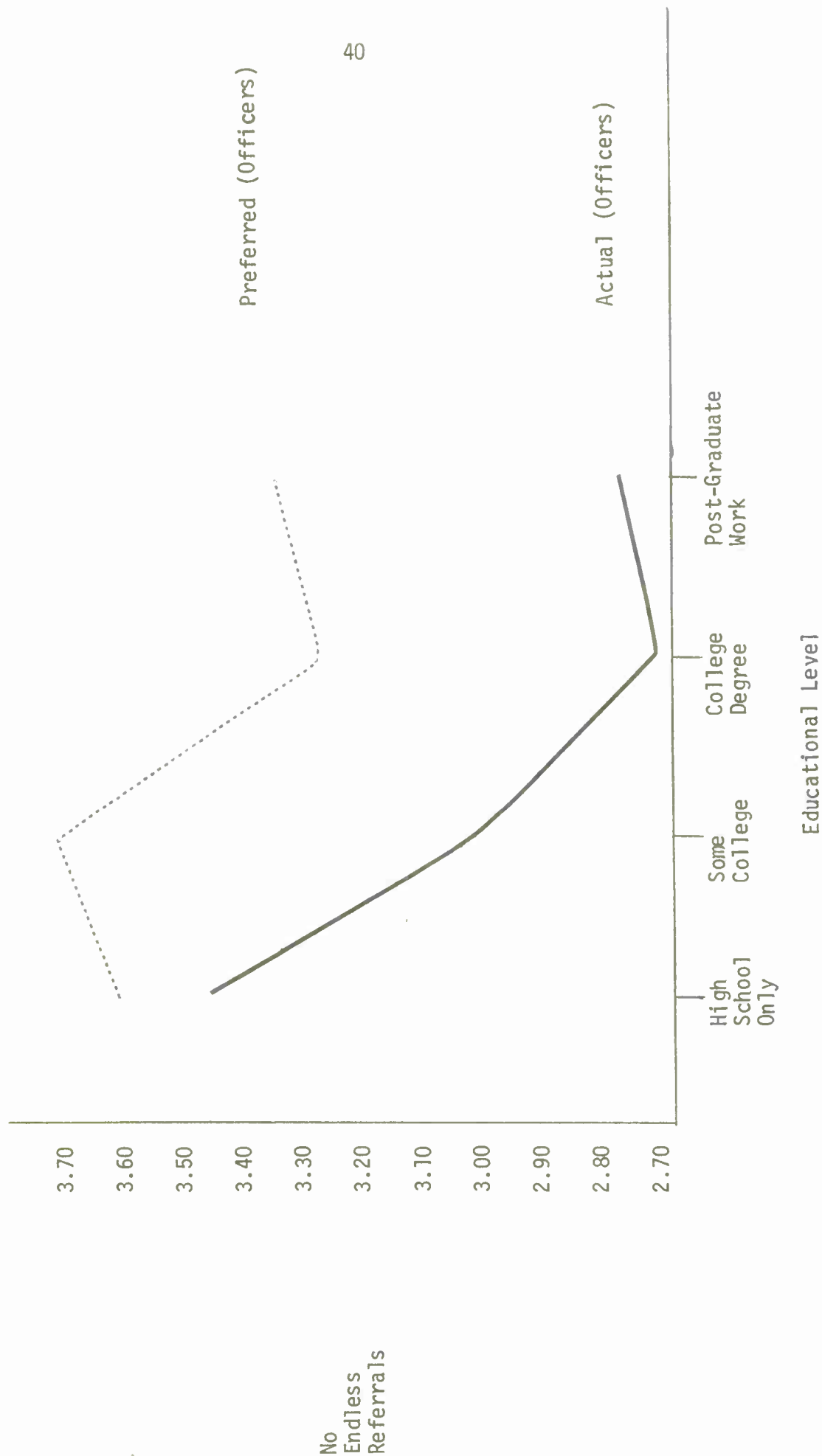


Figure 19

COMPARISON OF ACTUAL AND PREFERRED LEVELS OF JOB FACTOR
 "NO RED TAPE"
 BY NAVY OFFICERS BY EDUCATIONAL LEVEL
 (N = 298)

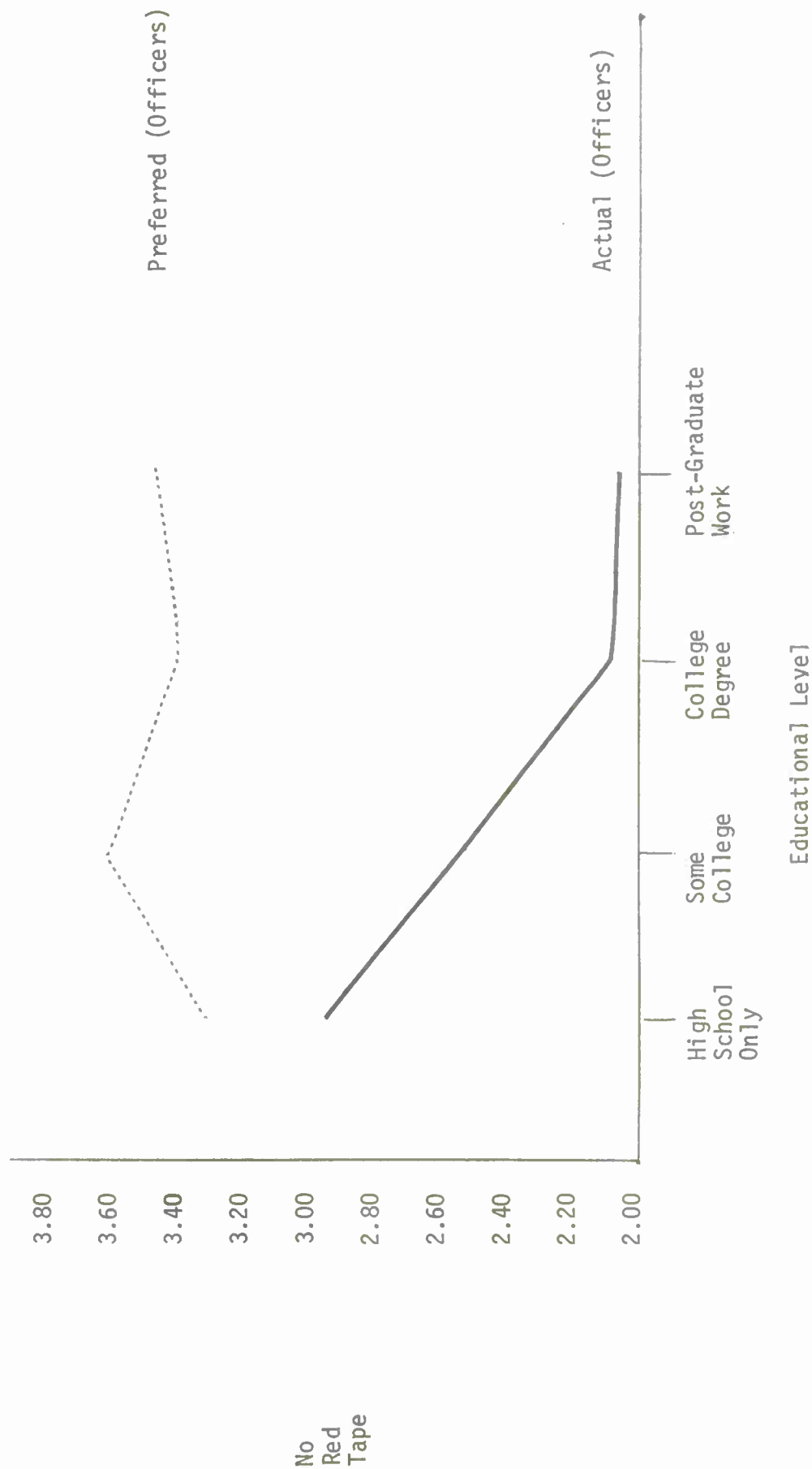
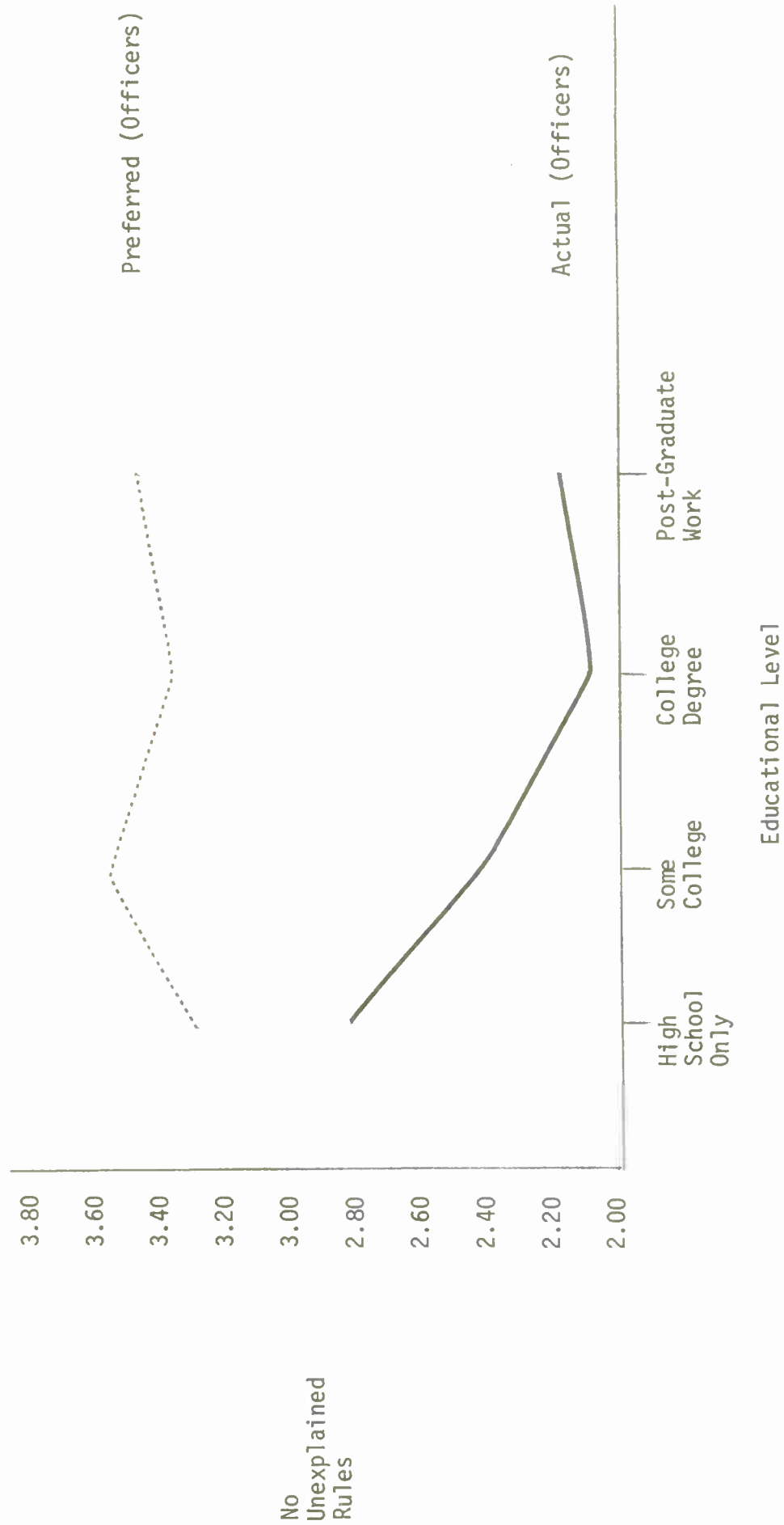


Figure 20
 COMPARISON OF ACTUAL AND PREFERRED LEVELS OF JOB FACTOR
 "NO UNEXPLAINED RULES"
 BY NAVY OFFICERS BY EDUCATIONAL LEVEL
 (N = 298)



Perceptions of pay and fringe benefits (Figures 21 and 22) are interesting as well. Thus, the better educated officers view fringe benefits in less positive terms than do the less well educated, but attach even less importance to them. Throughout, fringe benefits are seen as exceeding in quality their importance in personal priority systems. Pay, however, is another matter; it is generally positively perceived by the less well educated, moderately negatively seen by those with a college degree, and viewed as comparatively poor by those with post-graduate work.

Ability to remain in one place appears to be another source of disgruntlement on the part of the better educated (see Figure 23). While the preferred level rises slightly with education, the actual opportunity to do so drops rather drastically.

Working with friendly people (Figure 24) is an adequately met need for better educated officers, however, and their jobs are viewed as somewhat more challenging (although, like those at less educated levels, desire for challenge exceeds what is experienced). (See Figure 25).

Free time is viewed as declining - both absolutely and comparatively by the better educated (see Figure 26). From a level that perhaps exceeds preference for those with only a high school education, the free time "deficit" steadily mounts as one moves up the educational level, a deficit more attributable to rising aspirations than to declining availability.

Figure 21

COMPARISON OF ACTUAL AND PREFERRED PERCEPTIONS OF GOOD PAY
BY NAVY OFFICERS BY EDUCATIONAL LEVEL
(N = 298)

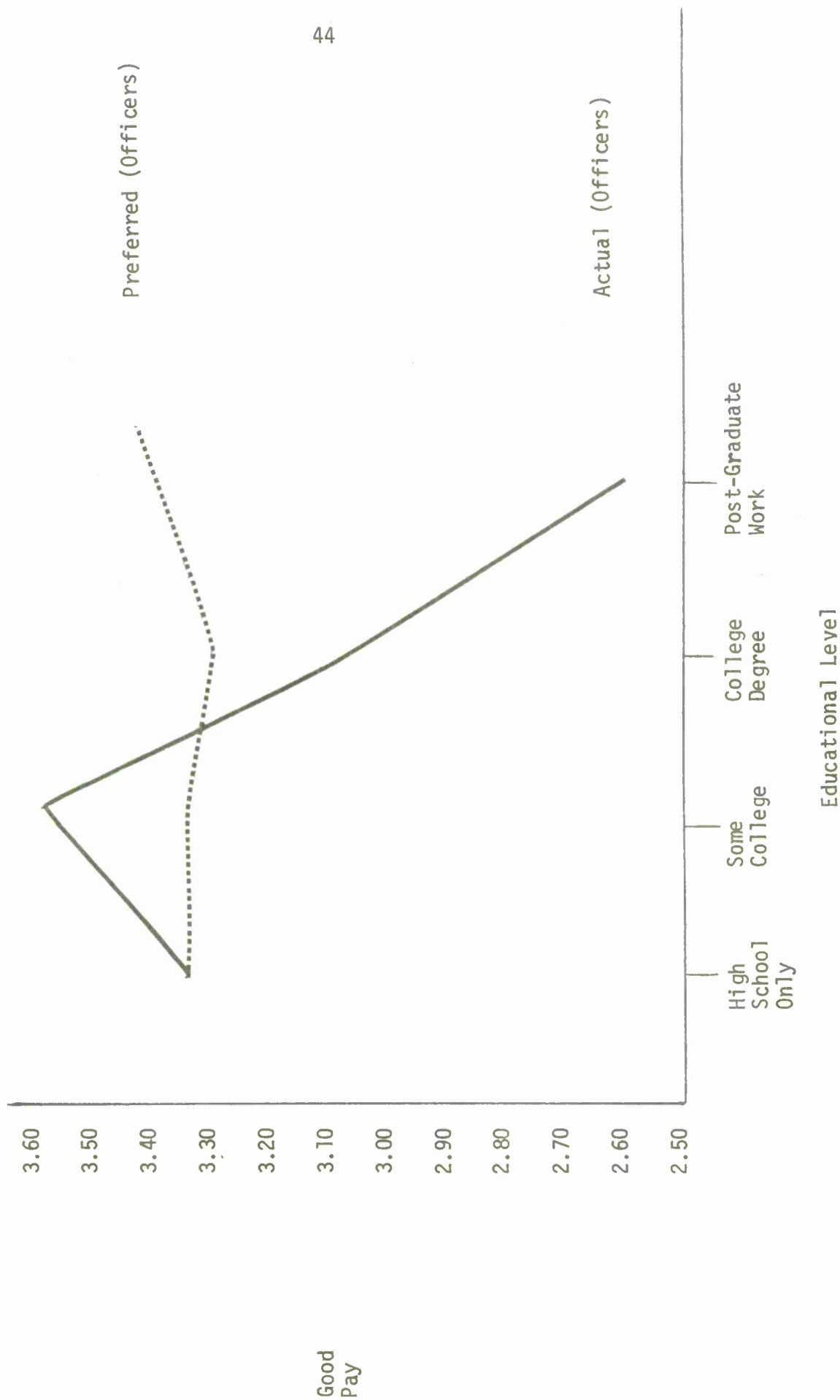


Figure 22

COMPARISON OF ACTUAL AND PREFERRED PERCEPTIONS OF FRINGE BENEFITS
BY NAVY OFFICERS BY EDUCATIONAL LEVEL
(N = 298)

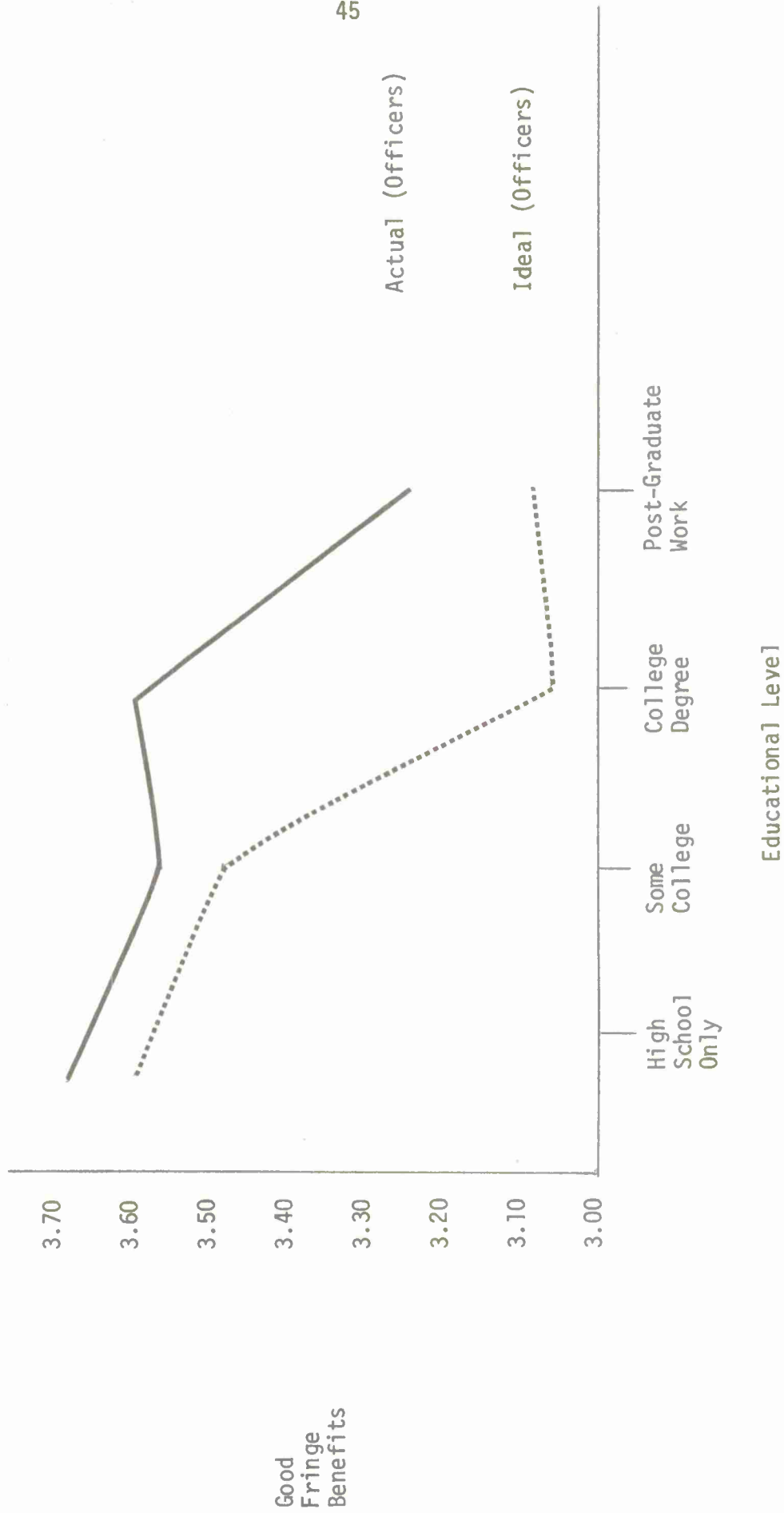


Figure 23
COMPARISON OF ACTUAL AND PREFERRED OPPORTUNITY TO STAY IN ONE PLACE
BY NAVY OFFICERS BY EDUCATIONAL LEVEL
(N = 298)

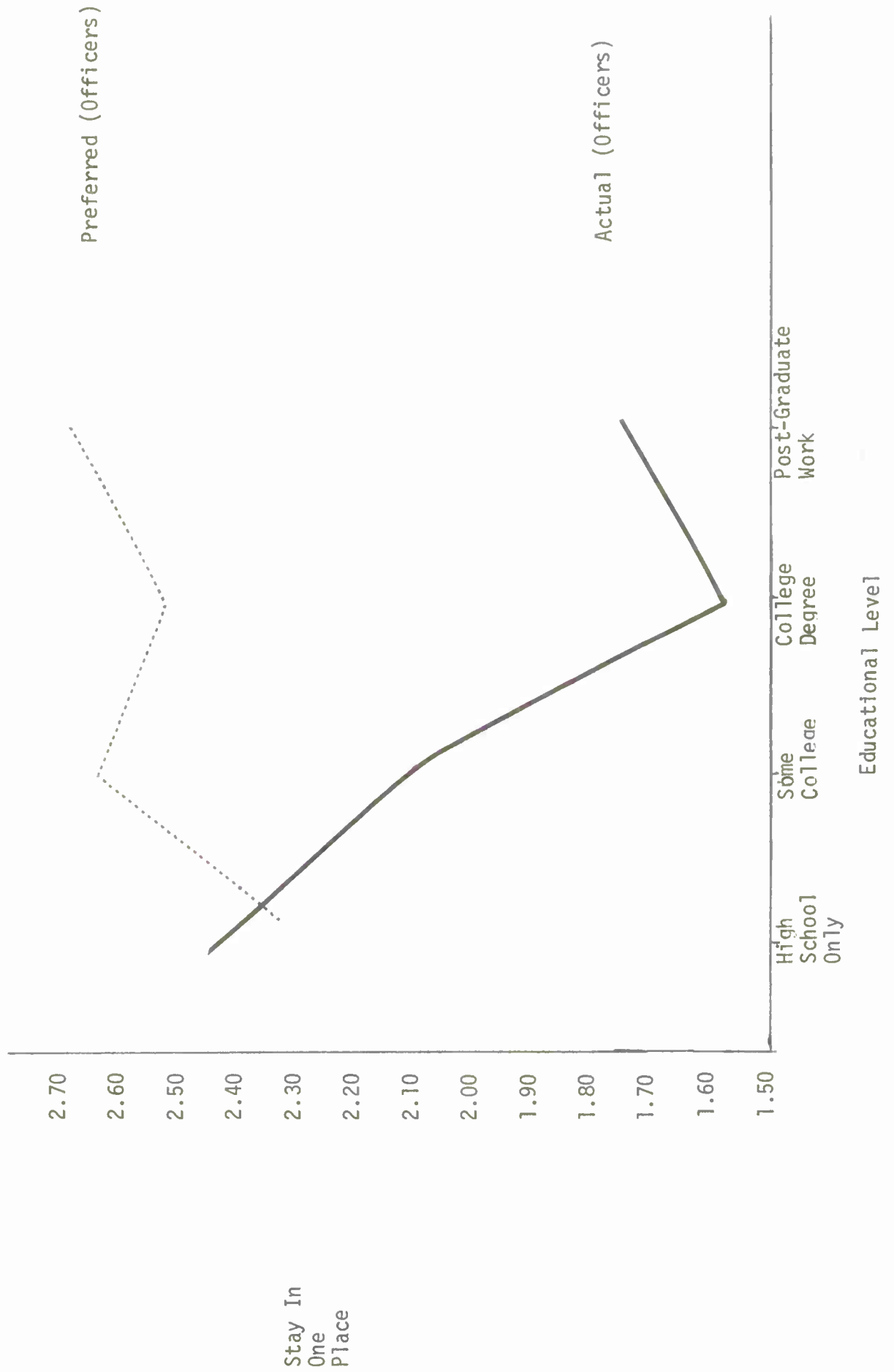


Figure 24

COMPARISON OF ACTUAL AND PREFERRED LEVELS OF THE JOB FACTOR
 "FRIENDLY PEOPLE"
 BY NAVY OFFICERS BY EDUCATIONAL LEVEL
 (N = 298)

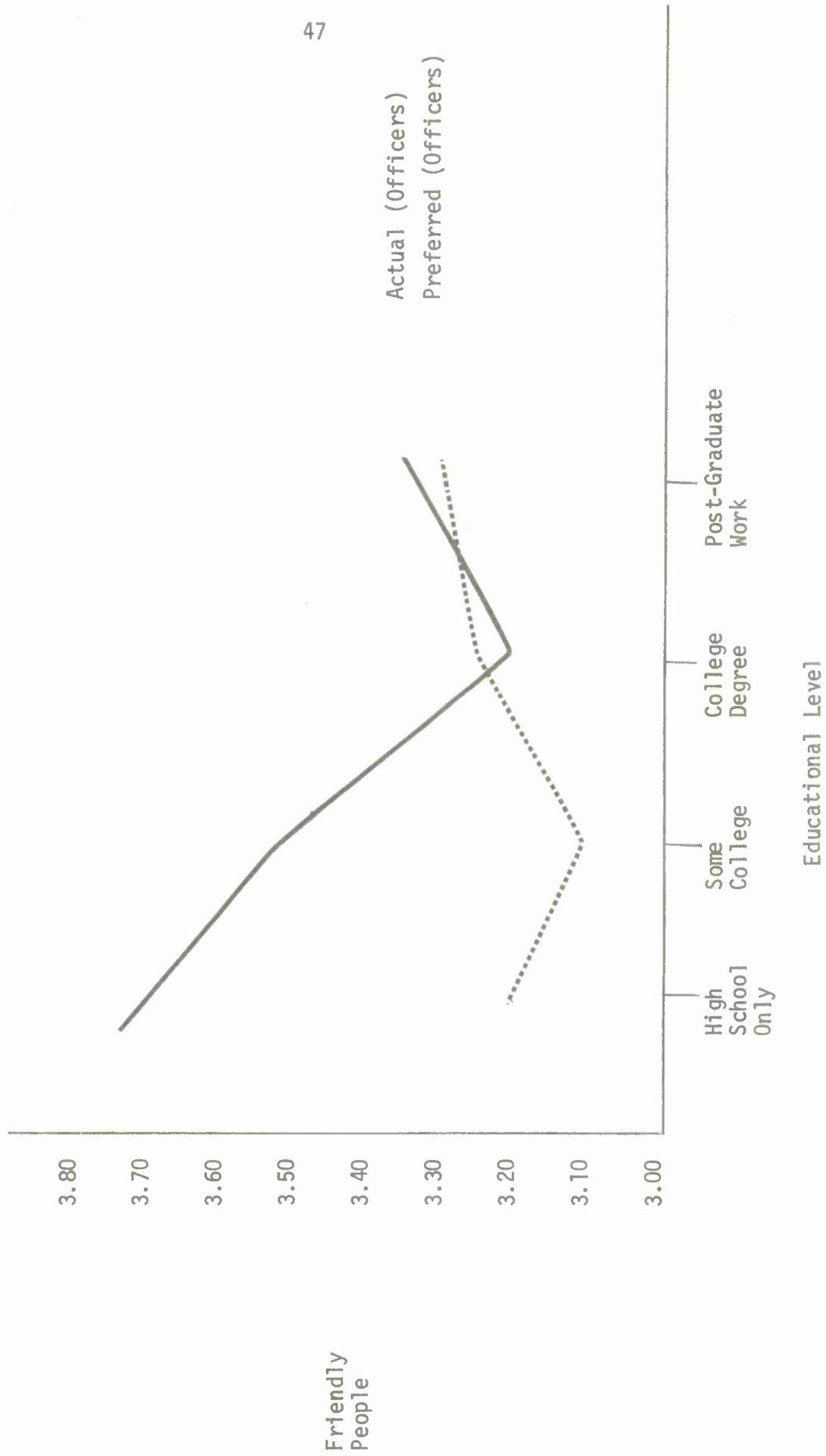


Figure 25
COMPARISON OF ACTUAL AND PREFERRED LEVELS OF JOB CHALLENGE
BY NAVY OFFICERS BY EDUCATIONAL LEVEL
(N = 298)

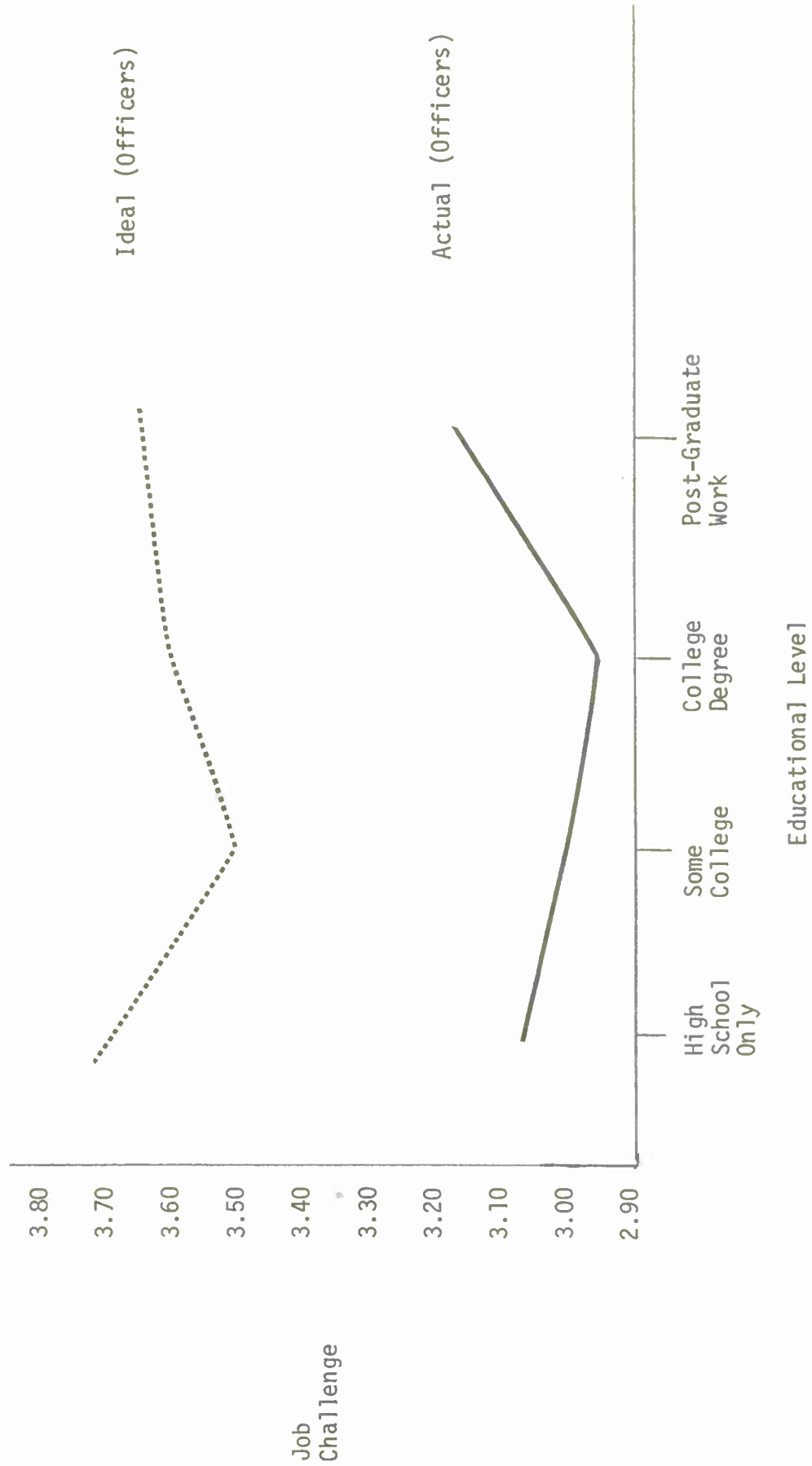
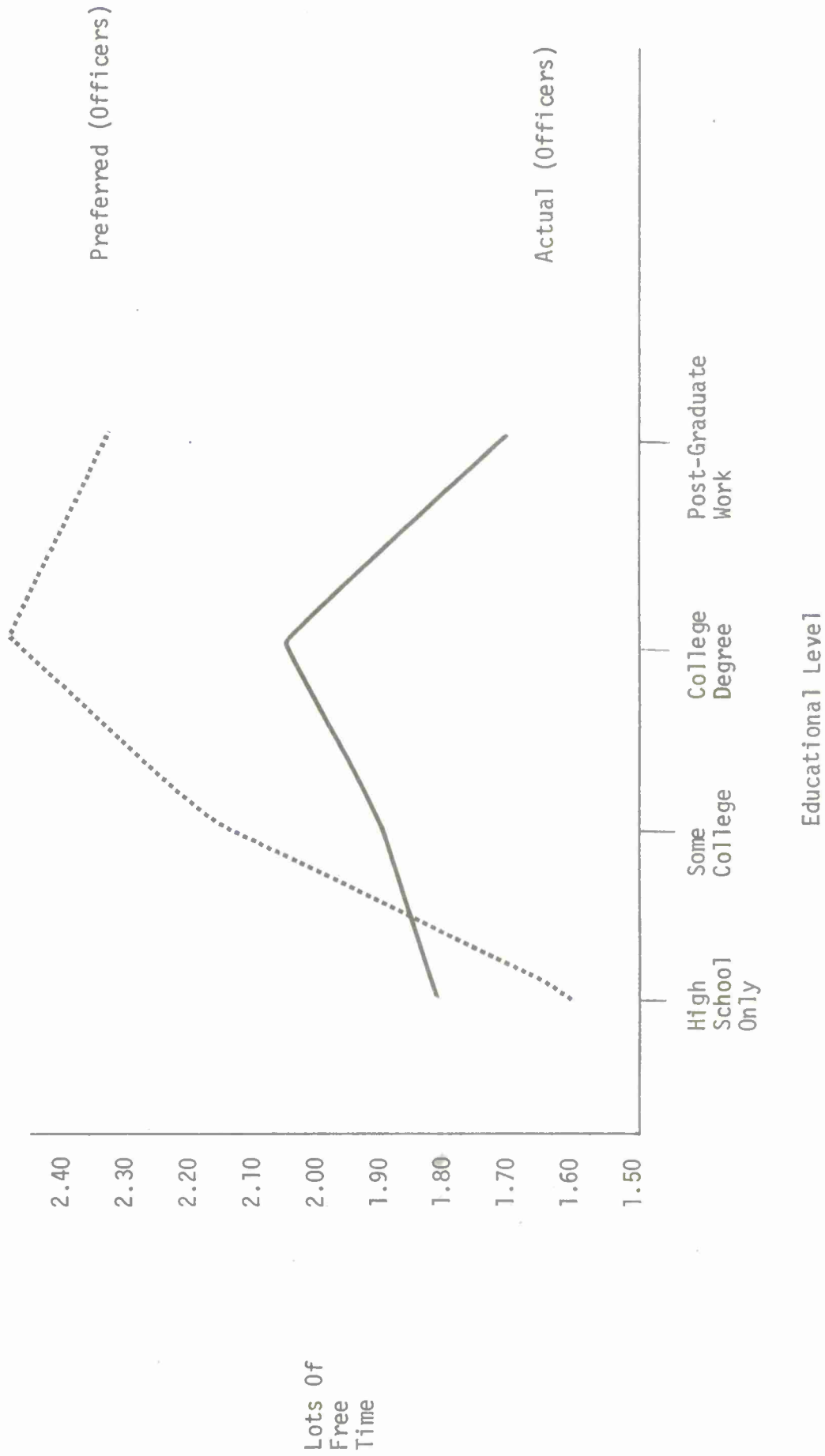


Figure 26

COMPARISON OF ACTUAL AND PREFERRED LEVELS OF FREE TIME
BY NAVY OFFICERS BY EDUCATIONAL LEVEL
(N = 298)



Finally, the measure "Opportunity to Control One's Personal Life" deserves special scrutiny (Figure 27). This factor, which has been found elsewhere to be a prime predictor of reenlistment intention among first-term enlisted men, displays in the present instance a rather strange pattern. The importance attached to controlling one's personal life oneself rises slightly with education, a finding in no way surprising. Yet where most societies or social orders provide their technical-educational elites with more, not less, personal freedom, the reverse appears true among Navy officers! That the situation is decidedly different from aspirations and experience by comparable groups in the civilian world is indicated by curves presented for employed civilian men from the national cross-section.

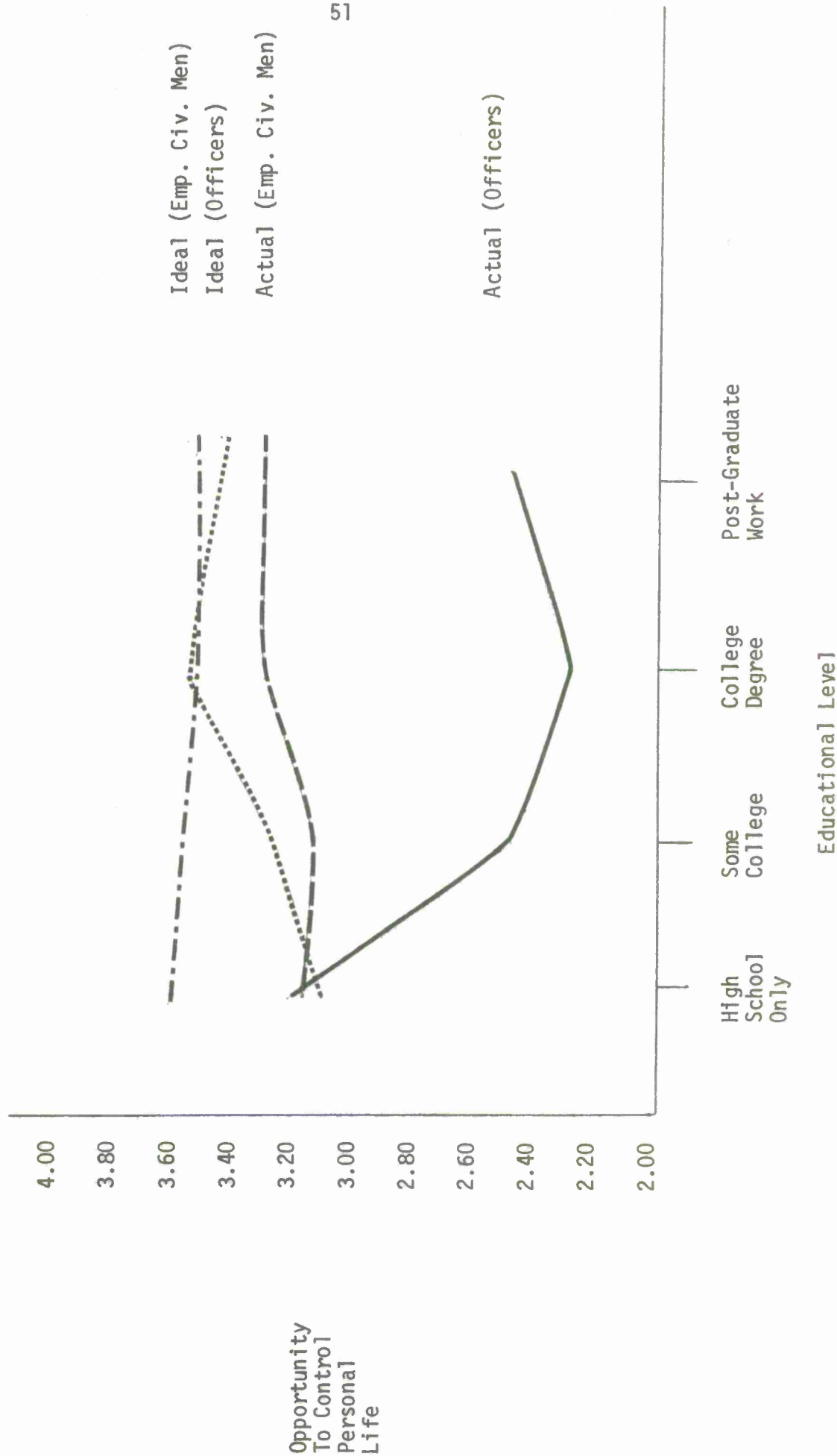
Discussion and Conclusions

Any attempt to pull together the findings cited in the preceding pages must necessarily omit a number of subtle points, some of them perhaps ultimately of considerable importance. Keeping this in mind, a number of potentially critical and obvious points emerge and deserve integration and further discussion.

First, it is apparent from these data that age and education are, indeed, important moderating variables in connection with the experienced practices and organizational preferences of Navy officers. It seems equally apparent that those problems whose existence is suggested by the data do not stem from intra-group interpersonal processes (supervisory leadership, peer relations, group processes), but from organizational climate and from the complex configuration of characteristics of officer positions and the setting in which they exist.

Figure 27

COMPARISON OF ACTUAL AND PREFERRED OPPORTUNITY TO CONTROL ONE'S PERSONAL LIFE
BY NAVY OFFICERS AND EMPLOYED CIVILIAN MEN BY EDUCATIONAL LEVEL
(N = 298)



Since the reason for the present research is the renewed existence of an all-volunteer situation (i.e., the end of conscription and its derivative effects), a consideration of these findings must necessarily be cast primarily in the context of recruitment, retention, and effectiveness of those closest to the input end of the career stream, the younger officers. From this perspective, strengths are those properties whose importance is at a reasonably attainable level for the young and whose actual presence is sufficient to provide reward, encouragement, and satisfaction. Conversely, problems are defined by situations of disparity centered around age and, since educational levels are societally rising, education.

As has been said, the basic work group processes of leadership, peer relations, adaptability, and the like are, for officers, fairly positive. They form a source of strength when strength is needed. Organizational climate, however, is not a strength, but a problem, with young officers experiencing even lower levels of the variables comprising this domain than young enlisted men. Human Resources Primacy--the importance which the organization is perceived as attaching to its human resources--declines with education, with the best educated officer segment perceiving that the Navy cares very little for its personnel. It is, therefore, no surprise that satisfaction is, among young officers, quite low.

In organizational settings, expressions of dissatisfaction automatically conjure up visions of those familiar curatives, pay and benefits. The data presented in the body of the report rather clearly suggest that these play little, and only a highly selective, role. Relatively low importance is attached by the young and better educated officers to fringe benefits. While, quite naturally, felt importance grows with age,

it has little attractive power at the input end of the career stream. Pay, while it is felt to be more important than fringe benefits, is less important to the youngest officers than to any other group. When broken by educational level, however, perceptions of the adequacy of pay fall drastically with increasing education, and those with some post-graduate work feel most seriously disadvantaged. These particular findings suggest that additional serious consideration might be given to weighting education more strongly and seniority less strongly in establishing pay rates.

In a somewhat similar vein, serving one's country is apparently not a particularly impressive theme to the younger, better educated officers. Although it may rise subsequently with age, this has little relevance for manpower recruitment and retention in the years immediately ahead.

Opportunity to stay in one place is moderately important to respondents in all age and educational categories. The actual opportunity is quite low, however, for two groups: the young and the well educated. The opportunity for extensive travel would appear not to be a major attraction for persons in these categories.

Bureaucracy, in its most negative sense, poses a potential problem for retention of better educated officers. By sensitivity or by role, these officers report more frequent frustration by a combination of endless referrals, red tape, and unexplainable rules. As educational levels generally rise, this particular problem is likely to become more, not less, prevalent.

Finally, three additional problems loom as particularly troublesome. Having free time is most important to the young and to the better educated.

Yet not only is the "deficit" largest for these groups, its availability presently declines even further with age. Not being "bossed" is similarly most important to the young, yet only among the oldest officers does experience meet aspiration.

Opportunity to control one's personal life emerges as the last--but perhaps most important of these three critical "autonomy" issues. Being able to control one's own personal life is most important, and least permitted, to young officers. While the opportunity to do so rises with age, this provides little attraction to the young officer whose felt need is greatest. Opportunity, on the other hand, declines for some unknown reason with education, producing the perplexing anomaly of the most capable being permitted the least freedom in their personal lives.

To summarize, young Navy officers report perceptions of a relatively unyielding bureaucracy which allows too little personal autonomy. Despite the basically positive, constructive relationships which exist with supervisors and peers, the climate is therefore seen in relatively negative terms. It is no small surprise that, in these circumstances, young officers seem by and large quite dissatisfied.

APPENDIX A

Table A-1

ACTUAL AND PREFERRED RESPONSES OF NAVY OFFICERS
STRATIFIED BY AGE

Measures	<25				25-32				33-42				43+				F	df	p<
	A	P	X	SD	A	P	X	SD	A	P	X	SD	A	P	X	SD			
Managerial Support	A 3.74 4.41	P 3.77 4.34	4.00	1.07 .49	4.00	3.77 4.56	4.20	1.01 .57	4.20	3.89 4.68	4.01	.92 .54	4.01	3.72 4.51	4.01	.98 .56	2.18 1.21	3/291 3/291	NS NS
Managerial Goal Emph	A 3.77 4.34	P 3.77 4.34	3.77	.80 .55	3.77	4.56 .58	3.89	1.00 .58	3.89	4.68 .55	3.72	.99 .55	3.72	4.51 .58	3.72	1.04 .58	.41 3.39	3/287 3/285	NS .02
Managerial Work Facil	A 2.99 3.80	P 2.99 3.80	3.09	.93 .66	3.09	4.16 .63	3.20	.95 .63	3.20	4.07 .83	2.97	.95 .83	2.97	3.91 .84	2.97	1.23 .84	.64 3.15	3/289 3/289	NS .03
Managerial Intera Facil	A 3.19 3.98	P 3.19 3.98	3.38	.97 .68	3.38	4.35 .68	3.73	1.07 .68	3.73	4.47 .68	3.70	1.09 .68	3.70	4.41 .63	3.70	1.22 .63	3.46 5.34	3/290 3/289	.02 .002
Peer Support	A 3.87 4.27	P 3.87 4.27	4.03	.84 .59	4.03	4.37 .52	4.07	.62 .52	4.07	.76 .58	3.98	.76 .58	3.98	4.32 .57	3.98	.76 .57	.74 .52	3/290 3/290	NS NS
Peer Goal Emph	A 3.34 4.34	P 3.34 4.34	3.41	.87 .55	3.41	4.40 .56	3.65	.87 .56	3.65	.80 .64	3.59	.80 .64	3.59	4.41 .64	3.59	.83 .64	1.97 .12	3/289 3/288	NS NS
Peer Work Facil	A 3.06 4.04	P 3.06 4.04	3.08	.98 .68	3.08	4.05 .68	3.35	.85 .68	3.35	.86 .82	3.40	.86 .82	3.40	4.11 .82	3.40	1.03 .82	2.52 .20	3/289 3/289	NS NS
Peer Intera Facil	A 3.00 3.82	P 3.00 3.82	3.05	.97 .67	3.05	3.91 .65	3.32	.91 .65	3.32	.99 .80	3.39	.99 .80	3.39	4.11 .63	3.39	.90 .63	2.57 1.38	3/290 3/290	NS NS
Hum Fac Awareness	A 4.27	P 4.27	4.34	.69	4.34	.53	4.32	.60	4.32	.60	4.46	.43	4.46	.43	4.46	.43	.79	3/292	NS
Theory X	A 3.28	P 3.28	3.42	.66	3.42	.59	3.47	.73	3.47	.73	3.19	.64	3.19	.64	3.19	.64	2.17	3/292	NS
Job Challenge	A 2.90 3.54	P 2.90 3.54	3.10	.67 .43	3.10	3.67 .29	3.18	.55 .29	3.18	.59 .33	3.08	.59 .33	3.08	3.61 .35	3.08	.60 .35	2.11 1.86	3/292 3/292	NS NS
No One to Boss Me	A 2.31 2.62	P 2.31 2.62	2.52	1.05 .82	2.52	.91 .83	2.11	1.06 .83	2.11	.99 .99	2.45	.98 .95	2.45	.98 .95	2.45	.98 .95	3.13 2.51	3/292 3/292	.03 NS

Table A-1 (continued)

Measures	<25		25-32		33-42		43+		F	df	p <
	X	SD	X	SD	X	SD	X	SD			
Steady, No Layoffs	A 3.47 P 2.88	.77 .89	3.36 3.12	.91 .79	3.49 3.06	.76 .87	3.41 2.92	.86 .91	.49 1.12	3/291 3/292	NS NS
Clean Job	A 2.88 P 2.19	.99 .77	3.13 2.02	.81 .72	3.48 1.98	.83 .89	3.58 1.79	.79 .58	7.70 1.88	3/292 3/292	.0001 NS
Lots of Free Time	A 2.02 P 2.81	.92 .80	1.94 2.49	.88 .76	1.72 2.11	.85 .80	1.55 1.84	.80 .75	3.22 14.25	3/292 3/292	.03 .0001
Good Pay	A 2.83 P 3.19	.93 .67	2.83 3.46	.89 .53	3.03 3.33	.86 .64	3.08 3.29	.75 .57	1.55 2.58	3/292 3/292	NS NS
Prestigious Job	A 2.40 P 2.29	.94 .81	2.60 2.76	.87 .83	2.80 2.49	.89 .97	2.95 2.39	.80 .92	3.46 4.07	3/290 3/291	.02 .008
Friendly People	A 3.02 P 3.26	.72 .73	3.24 3.30	.61 .58	3.43 3.20	.56 .71	3.53 3.29	.51 .57	6.43 .42	3/292 3/292	.0003 NS
Stay in One Place	A 1.45 P 2.64	.86 1.08	1.56 2.67	.78 .85	1.97 2.48	1.02 .88	2.32 2.42	.99 .83	10.33 1.25	3/291 3/292	.0001 NS
Serve My Country	A 2.98 P 2.52	.95 .92	3.14 2.78	.79 .92	3.45 3.29	.75 .74	3.50 3.43	.56 .73	5.76 14.05	3/292 3/291	.0008 .0001
Make World Better	A 2.36 P 3.17	.98 .85	2.72 3.06	.85 .75	3.06 3.19	.83 .77	3.03 3.26	.82 .69	7.50 .91	3/291 3/292	.0001 NS
Fringe Benefits	A 3.52 P 2.76	.67 .79	3.36 3.09	.83 .68	3.48 3.27	.69 .72	3.45 3.32	.69 .70	.71 5.92	3/292 3/292	NS .0006
Control Pers Life	A 2.02 P 3.69	1.05 .47	2.40 3.56	.94 .56	2.67 3.37	.88 .70	2.79 3.21	.74 .62	6.61 5.86	3/292 3/289	.0002 .0007

Table A-1 (continued)

Measures	<25		25-32		33-42		43+		F	df	p<
	X	SD	X	SD	X	SD	X	SD			
No Endless Referrals	A 2.31	.87	2.72	.83	2.96	.89	3.24	.75	9.56	3/292	.0001
	P 3.26	.66	3.43	.59	3.34	.77	3.37	.79	.69	3/291	NS
No Red Tape	A 1.90	.76	2.06	.86	2.19	.99	2.37	.94	2.18	3/292	NS
	P 3.36	.62	3.51	.55	3.39	.73	3.29	.65	1.62	3.292	NS
No Unexplain Rules	A 1.86	.84	2.02	.89	2.40	.95	2.55	.69	7.57	3/292	.0001
	P 3.38	.76	3.46	.55	3.45	.67	3.26	.60	1.06	3/292	NS

A = Actual

P = Preferred

Table A-2

ACTUAL AND PREFERRED RESPONSES OF NAVY OFFICERS
STRATIFIED BY EDUCATION

Measures	High School or less				Some College		Completed College		Some Grad School		F	df	p<			
	X		SD		X	SD	X	SD	X	SD						
Managerial Support	A	4.27	.87			4.33	.76			4.05	.92	3.94	1.09	1.33	3/293	NS
	P	4.60	.51			4.54	.58			4.54	.47	4.50	.61	.19	3/293	NS
Managerial Goal Emph	A	3.89	1.16			3.79	1.15			3.91	.83	3.72	1.04	.79	3/289	NS
	P	4.73	.42			4.69	.43			4.53	.51	4.55	.65	.92	3/287	NS
Managerial Work Faci1	A	3.05	1.29			3.16	1.09			3.14	.87	3.07	1.05	.16	3/291	NS
	P	4.05	1.00			3.89	.88			4.09	.59	4.05	.79	.45	3/291	NS
Managerial Intera Faci1	A	3.70	1.25			3.60	1.18			3.42	1.03	3.55	1.14	.48	3/292	NS
	P	4.50	.57			4.35	.59			4.26	.65	4.40	.73	1.23	3/291	NS
Peer Support	A	4.22	.81			3.78	.87			4.05	.61	4.00	.76	1.30	3/292	NS
	P	4.49	.64			4.30	.59			4.40	.52	4.31	.56	.95	3/292	NS
Peer Goal Emphasis	A	3.83	.86			3.31	.98			3.42	.82	3.57	.86	1.79	3/291	NS
	P	4.57	.56			4.36	.64			4.39	.51	4.38	.65	.48	3/290	NS
Peer Work Faci1	A	3.36	.90			3.38	.97			3.11	.85	3.26	.95	.96	3/291	NS
	P	4.10	.70			4.35	.75			4.06	.65	4.06	.81	1.00	3/291	NS
Peer Intera Faci1	A	3.67	1.07			3.14	1.07			3.09	.90	3.22	.97	1.72	3/292	NS
	P	4.22	.64			3.89	.85			3.93	.62	3.95	.75	.83	3/292	NS
Human Fac Awareness	A	4.23	.72			4.37	.44			4.34	.58	4.33	.56	.15	3/294	NS
	P															
Theory X	A	3.40	.84			3.48	.84			3.42	.61	3.36	.66	.32	3/294	NS
	P															
Job Cha11enge	A	3.08	.64			3.05	.58			2.99	.60	3.19	.56	2.74	3/294	.05
	P	3.72	.32			3.51	.39			3.62	.34	3.68	.31	2.40	3/294	NS

Table A-2 (continued)

Measures		High School or less		Some College		Completed College		Some Grad School		F	df	p<
		X	SD	X	SD	X	SD	X	SD			
No One to Boss Me	A P	2.73 2.13	1.03 .99	2.14 2.10	1.06 .89	2.41 2.67	.96 .85	2.31 2.66	1.02 .91	1.24 4.10	3/294 3/294	NS .008
Steady, No Layoffs	A P	3.53 3.33	.92 .82	3.24 3.29	.94 .78	3.43 3.04	.81 .82	3.44 2.97	.85 .87	.44 1.50	3/293 3/294	NS NS
Clean Job	A P	3.53 1.73	.64 .80	3.24 2.24	1.04 .70	3.24 2.00	.87 .72	3.26 1.99	.86 .81	.51 1.28	3/294 3/294	NS NS
Lots of Free Time	A P	1.80 1.60	.94 .91	1.86 2.14	.96 .79	2.03 2.48	.90 .81	1.66 2.32	.81 .80	4.03 5.71	3/294 3/294	.01 .008
Good Pay	A P	3.33 3.33	.49 .62	3.57 3.33	.60 .80	3.10 3.31	.74 .61	2.63 3.41	.93 .55	13.61 .64	3/294 3/294	.0001 NS
Prestigious Job	A P	3.00 2.40	.85 1.06	2.71 2.48	.96 .93	2.54 2.53	.85 .88	2.76 2.63	.90 .90	2.07 .57	3/292 3/293	NS NS
Friendly People	A P	3.73 3.20	.46 .77	3.52 3.10	.51 .77	3.19 3.24	.60 .67	3.32 3.30	.64 .58	4.86 .74	3/294 3/294	.003 NS
Stay in One Place	A P	2.47 2.33	1.13 1.05	2.10 2.62	1.18 .86	1.59 2.54	.88 .89	1.77 2.63	.87 .90	5.29 .59	3/293 3/294	.002 NS
Serve My Country	A P	3.53 3.33	.64 .82	3.38 3.33	.92 .86	3.23 2.87	.82 .88	3.25 2.99	.77 .91	.83 2.54	3/294 3/293	NS NS
Make World Better	A P	2.73 3.13	.88 .83	2.95 2.90	.80 .83	2.67 3.18	.89 .74	2.92 3.15	.89 .77	1.94 .76	3/293 3/294	NS NS
Fringe Benefits	A P	3.67 3.60	.62 .63	3.57 3.48	.60 .75	3.59 3.05	.59 .72	3.26 3.09	.86 .71	5.22 4.44	3/294 3/294	.002 .005

Table A-2 (continued)

Measures		High School or less		Some College		Completed College		Some Grad School		F	df	p<
		X	SD	X	SD	X	SD	X	SD			
Control Personal Life	A	3.20	.68	2.52	.93	2.32	.94	2.54	.94	4.44	3/294	.005
	P	3.13	.83	3.23	.83	3.59	.51	3.44	.65	4.01	3/291	.009
No Endless Referrals	A	3.47	.64	3.00	1.00	2.72	.88	2.77	.85	3.74	3/294	.02
	P	3.60	.63	3.71	.46	3.29	.63	3.37	.74	2.90	3/293	.004
No Red Tape	A	2.93	.96	2.48	.93	2.06	.83	2.05	.93	5.77	3/294	.001
	P	3.33	.72	3.62	.50	3.40	.64	3.44	.64	.83	3/294	NS
No Unexplainable Rules	A	2.80	.86	2.43	.98	2.08	.85	2.18	.92	3.47	3/294	.02
	P	3.27	.70	3.57	.60	3.36	.65	3.46	.60	1.34	3/294	NS

A = Actual

P = Preferred

Table A-3
ACTUAL AND PREFERRED RESPONSES OF NAVY OFFICERS
STRATIFIED BY REGION

Measures		New England			East			South			Midwest			West			None of the above			F	df	p<
		X	SD		X	SD		X	SD		X	SD		X	SD		X	SD				
Managerial Support	A	4.20	.89		4.07	1.05		4.10	.81		3.93	1.09		4.04	.87		3.67	1.52		.68	5/291	NS
	P	4.63	.51		4.55	.62		4.45	.54		4.59	.47		4.41	.55		4.47	.72		.89	5/291	NS
Managerial Goal Emph	A	4.10	.87		3.84	.95		3.83	.94		3.70	.97		3.79	1.06		3.55	1.12		.89	5/287	NS
	P	4.55	.82		4.53	.60		4.46	.65		4.64	.45		4.61	.46		4.40	.66		.85	5/285	NS
Managerial Work Facil	A	3.16	.96		3.06	1.00		3.05	.86		3.14	1.07		3.18	1.02		2.77	.97		.39	5/289	NS
	P	4.18	.78		3.94	.79		3.84	.84		4.26	.55		4.05	.73		3.87	.61		2.85	5/289	.02
Managerial Intera Facil	A	3.67	1.18		3.58	1.00		3.46	1.06		3.41	1.02		3.57	1.13		3.15	1.49		.58	5/290	NS
	P	4.45	.75		4.31	.62		4.13	.85		4.43	.62		4.34	.68		4.65	.53		1.84	5/289	NS
Peer Support	A	4.28	.58		4.06	.83		4.02	.75		3.93	.63		4.00	.66		3.67	.86		1.57	5/290	NS
	P	4.45	.57		4.38	.60		4.33	.56		4.35	.51		4.32	.53		4.17	.65		.50	5/290	NS
Peer Goal Emphasis	A	3.78	.76		3.60	.91		3.45	.81		3.41	.84		3.46	.87		3.30	.92		1.25	5/289	NS
	P	4.50	.51		4.39	.58		4.26	.77		4.48	.53		4.34	.56		4.30	.63		1.11	5/288	NS
Peer Work Facil	A	3.43	.96		3.34	1.11		3.17	.63		3.11	.92		3.15	.77		3.03	.95		.98	5/289	NS
	P	4.11	.82		4.09	.77		3.97	.80		4.15	.67		4.08	.72		3.93	.66		.45	5/289	NS
Peer Intera Facil	A	3.39	.95		3.35	1.02		3.04	.85		3.10	1.02		3.13	.84		2.93	1.13		1.21	5/290	NS
	P	4.02	.88		4.01	.68		3.82	.80		4.00	.64		3.89	.64		3.93	.64		.63	5/290	NS
Hum Fac Awareness	A	4.44	.47		4.40	.58		4.26	.66		4.30	.55		4.34	.50		4.36	.78		.62	5/292	NS
	P	3.46	.54		3.46	.73		3.46	.56		3.40	.70		3.26	.63		3.10	.72		1.16	5/292	NS
Job Challenge	A	3.28	.51		3.04	.56		3.07	.60		3.09	.60		3.10	.62		3.07	.73		.71	5/292	NS
	P	3.67	.37		3.60	.39		3.66	.32		3.68	.31		3.61	.28		3.75	.21		.86	5/292	NS

Table A-3 (continued)

Measures		New England			East			South			Midwest			West			None of the above			F	df	p<
		X	SD		X	SD		X	SD		X	SD		X	SD		X	SD				
No One to Boss Me	A P	2.47 3.67	1.01 1.06		2.26 2.56	1.01 .92		2.23 2.63	.99 .91		2.52 2.48	.99 .87		2.26 2.67	1.01 .85		2.60 3.10	.97 .74		1.00 1.03	5/292 5/292	NS NS
Steady, No Layoffs	A P	3.47 3.20	.82 .81		3.42 3.11	.90 .88		3.40 3.17	.82 .69		3.44 2.93	.85 .88		3.40 2.84	.78 .84		3.50 3.50	.97 .97		.06 2.07	5/291 5/292	NS NS
Clean Job	A P	3.23 2.03	1.01 .85		3.13 2.03	.92 .82		3.48 2.00	.80 .80		3.31 2.04	.82 .71		3.32 1.93	.76 .73		2.70 1.80	1.16 .79		1.92 .29	5/292 5/292	NS NS
Lots of Free Time	A P	1.83 2.30	.79 .88		1.93 2.32	.91 .89		2.02 2.33	.93 .81		1.74 2.41	.93 .82		1.75 2.30	.76 .80		1.40 2.20	.52 .79		1.39 .21	5/292 5/292	NS NS
Good Pay	A P	2.87 3.40	1.01 .56		2.85 3.44	.99 .58		3.17 3.38	.63 .53		2.93 3.35	.85 .59		2.84 3.19	.82 .67		2.80 3.60	1.03 .52		1.02 1.58	5/292 5/292	NS NS
Prestigious Job	A P	2.72 2.27	.88 .94		2.57 2.57	.99 .92		2.83 2.75	.70 .86		2.69 2.68	.90 .84		2.67 2.47	.89 .91		2.60 2.30	.84 1.06		.52 1.62	5/290 5/291	NS NS
Friendly People	A P	3.40 3.20	.50 .71		3.31 3.25	.64 .71		3.40 3.38	.57 .57		3.28 3.31	.66 .63		3.23 3.12	.63 .60		3.20 3.30	.63 .67		.60 .98	5/292 5/292	NS NS
Stay in One Place	A P	1.86 2.60	.88 .97		1.67 2.68	.89 .95		1.96 2.56	1.05 .82		1.80 2.56	.95 .87		1.68 2.46	.91 .91		1.20 2.70	.63 .95		1.48 .45	5/291 5/292	NS NS
Serve My Country	A P	3.23 3.03	.82 1.03		3.24 3.03	.83 .81		3.33 3.19	.81 .79		3.27 2.90	.76 1.00		3.25 2.88	.85 .91		3.20 2.80	.63 .63		.12 .93	5/292 5/291	NS NS
Make World Better	A P	3.10 3.33	.84 .71		2.64 3.19	.98 .70		2.98 3.19	.74 .73		2.79 3.16	.86 .78		2.81 2.96	.95 .84		2.70 2.90	.67 .74		1.56 1.31	5/291 5/292	NS NS
Fringe Benefits	A P	3.43 3.13	.63 .68		3.28 3.19	.86 .74		3.58 3.31	.54 .51		3.51 3.12	.78 .75		3.39 2.88	.80 .78		3.60 3.20	.52 .92		1.30 2.15	5/292 5/292	NS NS

Table A-3 (continued)

Measures		New England		East		South		Midwest		West		None of the above		F	df	p<
		X	SD	X	SD	X	SD	X	SD	X	SD	X	SD			
Control Personal Life	A	2.53	1.01	3.36	.92	2.73	.79	2.41	1.05	2.46	.91	2.70	.82	1.13	5/292	NS
	P	3.31	.66	3.55	.63	3.50	.58	3.48	.63	3.34	.67	3.80	.42	1.66	5/289	NS
No Endless Referrals	A	3.03	.89	2.76	.90	2.85	.92	2.74	.92	2.75	.79	2.90	.74	.61	5/292	NS
	P	3.27	.83	3.31	.70	3.60	.49	3.33	.69	3.41	.65	3.20	.79	1.63	5/291	NS
No Red Tape	A	2.23	.86	2.15	.88	2.25	.93	2.17	.98	1.93	.88	1.80	.63	1.10	5/292	NS
	P	3.43	.77	3.40	.64	3.44	.50	3.47	.63	3.40	.65	3.40	.70	.11	5/292	NS
No Unexplainable Rules	A	2.23	.90	2.17	.89	2.40	.92	2.20	.91	1.98	.92	2.20	.92	1.11	5/292	NS
	P	3.37	.72	3.36	.66	3.42	.54	3.48	.57	3.46	.63	3.30	.95	.43	5/292	NS

A = Actual

P = Preferred

Table A-4
 ACTUAL AND PREFERRED RESPONSES OF NAVY OFFICERS
 STRATIFIED BY COMMUNITY

Measures		Rural area or farm		Town or small city		Suburban area		Large city		F	df	p<
		X	SD	X	SD	X	SD	X	SD			
Managerial Support	A	4.10	1.01	4.07	.93	3.99	1.06	3.94	1.06	.32	3/291	NS
	P	4.50	.63	4.49	.56	4.58	.52	4.56	.48	.49	3/291	NS
Managerial Goal Emph	A	3.70	1.02	3.85	.91	3.89	1.02	3.70	1.00	.65	3/287	NS
	P	4.51	.69	4.50	.55	4.64	.60	4.64	.43	1.42	3/285	NS
Managerial Work Facil	A	3.10	1.00	3.08	.92	3.18	1.09	3.04	1.04	.23	3/289	NS
	P	4.01	.74	3.99	.71	4.20	.75	4.04	.76	1.42	3/289	NS
Managerial Intera Facil	A	3.47	1.20	3.51	1.02	3.52	1.16	3.58	1.09	.08	3/290	NS
	P	4.33	.81	4.29	.66	4.39	.69	4.42	.58	.54	3/289	NS
Peer Support	A	3.90	.70	4.04	.66	4.16	.65	3.83	.91	2.65	3/290	.05
	P	4.25	.55	4.35	.54	4.45	.54	4.32	.59	1.48	3/290	NS
Peer Goal Emphasis	A	3.35	.91	3.51	.80	3.58	.93	3.53	.81	.78	3/289	NS
	P	4.23	.65	4.39	.54	4.44	.61	4.47	.60	1.57	3/288	NS
Peer Work Facil	A	3.10	.83	3.14	.87	3.32	.98	3.37	.96	1.29	3/289	NS
	P	4.05	.75	4.08	.71	4.08	.80	4.16	.68	.17	3/289	NS
Peer Intera Facil	A	3.12	1.00	3.18	.88	3.21	.98	3.21	1.10	.11	3/290	NS
	P	3.85	.75	3.91	.70	4.02	.68	4.04	.72	1.03	3/290	NS
Hum Fac Awareness	A	4.40	.47	4.30	.56	4.35	.61	4.33	.60	.38	3/292	NS
Theory X	A	3.29	.60	3.47	.65	3.31	.72	3.49	.63	1.76	3/292	NS
Job Challenge	A	3.05	.59	3.07	.58	3.16	.58	3.16	.60	.68	3/292	NS
	P	3.65	.33	3.60	.36	3.69	.29	3.69	.34	1.69	3/292	NS

Table A-4 (continued)

Measures		Rural area or farm		Town or small city		Suburban area		Large city		F	df	p<
		X	SD	X	SD	X	SD	X	SD			
No One to Boss Me	A	2.06	.94	2.53	.91	2.28	1.08	2.37	1.10	2.74	3/292	.05
	P	2.53	1.00	2.68	.89	2.52	.87	2.59	.91	.66	3/292	NS
Steady, No Layoffs	A	3.51	.87	3.45	.77	3.37	.94	3.46	.75	.31	3/291	NS
	P	2.98	.88	3.04	.84	2.98	.84	3.22	.84	.91	3/292	NS
Clean Job	A	3.45	.87	3.23	.87	3.31	.80	3.13	.98	1.34	3/292	NS
	P	1.92	.70	2.03	.73	2.02	.84	2.00	.84	.25	3/292	NS
Lots of Free Time	A	1.80	.84	1.83	.91	1.79	.83	1.87	.86	.10	3/292	NS
	P	2.22	.80	2.38	.83	2.37	.81	2.26	.88	.55	3/292	NS
Good Pay	A	3.29	.74	2.99	.84	2.78	.91	2.59	.91	6.38	3/292	.0003
	P	3.35	.52	3.37	.62	3.31	.58	3.48	.59	.83	3/292	NS
Prestigious Job	A	2.67	.90	2.76	.82	2.65	.85	2.54	1.09	.72	3/290	NS
	P	2.49	.92	2.61	.86	2.51	.85	2.67	1.06	.56	3/291	NS
Friendly People	A	3.22	.55	3.32	.61	3.35	.62	3.28	.72	.43	3/292	NS
	P	3.22	.51	3.26	.65	3.22	.71	3.33	.63	.29	3/292	NS
Stay in One Place	A	1.55	.82	1.85	.97	1.67	.87	1.87	1.06	1.66	3/291	NS
	P	2.63	.78	2.57	.86	2.51	.98	2.74	.93	.73	3/292	NS
Serve My Country	A	3.16	.90	3.24	.77	3.37	.73	3.24	.90	.78	3/292	NS
	P	2.96	.93	2.92	.92	3.02	.82	3.13	.91	.71	3/291	NS
Make World Better	A	2.82	.91	2.79	.88	2.91	.85	2.74	.98	.47	3/291	NS
	P	3.16	.75	3.01	.82	3.23	.73	3.33	.60	2.58	3/292	NS
Fringe Benefits	A	3.47	.77	3.50	.70	3.35	.78	3.39	.83	.76	3/292	NS
	P	3.22	.59	3.16	.72	2.98	.76	3.22	.79	1.80	3/292	NS

Table A-4 (continued)

Measures	Rural area or farm		Town or small city		Suburban area		Large city		F	df	p<
	X	SD	X	SD	X	SD	X	SD			
Control Personal Life	A	2.33	.99	2.50	.92	.94	2.54	1.00	.52	3/292	NS
	P	3.47	.62	3.50	.61	.64	3.43	.69	.13	3/289	NS
No Endless Referrals	A	2.76	.92	2.75	.92	.76	2.83	.93	.46	3/292	NS
	P	3.47	.54	3.37	.67	.80	3.50	.59	1.42	3/291	NS
No Red Tape	A	2.08	.91	2.13	.89	.93	2.15	.99	.05	3/292	NS
	P	3.39	.57	3.47	.62	.70	3.46	.59	.26	3/292	NS
No Unexplainable Rules	A	2.29	1.00	2.08	.87	.86	2.15	.99	1.13	3/292	NS
	P	3.45	.58	3.46	.55	.74	3.46	.62	.61	3/292	NS

A = Actual

P = Preferred

References

- Bowers, D.G. Values and their impact for Navy and civilian respondents. Institute for Social Research, University of Michigan: Ann Arbor, June, 1973.
- Bowers, D.G. & Franklin, J.L. The Navy as a functioning organization: a diagnosis. Institute for Social Research, University of Michigan: Ann Arbor, June, 1973.
- Michaelson, L.K. A methodology for the studies of the impact of organizational values, preferences, and practices on the All-Volunteer Navy. Institute for Social Research, University of Michigan: Ann Arbor, June, 1973.

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