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As part of a study testing effects of proximity, attitudinal and structural similarity on attraction and interaction, questionnaires were developed containing a variety of scales relevant to the Navy experience. These were administered to over 1,000 recruits and 230 apprentices. The data were then factor analyzed and reliability coefficients were also calculated for the scales. This report includes the results of scale testing and development as well as simple descriptive statistics on the responses.
TECHNICAL REPORT #4

DEVELOPMENT OF MEASURES OF ATTITUDINAL AND STRUCTURAL SIMILARITY

by Richard E. Sykes

Prepared as part of the project Informal Social Network Formation in Navy Training Units sponsored by the Organizational Effectiveness Research Program, Office of Naval Research, under Contract No. N00014-75-0075, NR 170-790.

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Introduction

A previous study (Sykes, Larntz, and Fox, 1976) focused on the association between similarity of demographic characteristics and frequency of interaction. In the present study this concern was expanded to include similarity of attitudes. The attitudes which were measured were those a) which were likely to be salient among new enlistees; b) which had been explored in previous studies of the Navy, and for which there might be norms; and c) which had been the focus of research by social psychologists and sociologists of organizations because of their intrinsic theoretical interest.

The primary innovative methodological focus was on the sampling of interaction in large informal groups, not on attitude measurement. Scales were chosen which already existed. Because it was necessary to choose measures which could be administered to large groups of men in a short time five point, Likert-type scales were used. The only scale which was entirely new was one designed to measure an individual's general preference for associating during work and leisure with others similar to himself, an attitude of obvious importance to the study of similarity and interaction. A general satisfaction scale was also developed, but the individual items were not new.

Once the data were collected the scales were examined in two ways: a) RTC and ATB questionnaires were factor analyzed separately to test whether the scales appeared as separate factors; and b) groups of items
which were included because they had emerged as scales in previous studies were tested a priori for scale reliability as measured by Cronbach's Alpha.

A general rationale informed the original selection of scales. Recruits entering an entirely new social situation are attracted to others at different levels of attitude similarity. These levels are a) a deep, underlying similarity of values which influences responses to a wide range of phenomena; b) a level of similarity in which a shared attitude leads to cooperation in seeking out certain goals; c) a level of similarity of attitudes toward the immediate situation. These levels are not independent of each other. For instance, there should be some relation between a measure of basic acceptance or rejection of authority and a measure of liking or disliking of actual supervisors.

When a recruit enters basic training he leaves his familiar social world behind. This is also true, though to a lesser extent, when he reports to the Apprenticeship Training Battalion. Festinger's theory of social comparison suggests that in such an unusual situation recruits are especially likely to seek out peers with whom to interact, structure the situation and develop shared interpretation.

Three frameworks are important in this process: the background each brings with him; the objectives he wishes to achieve; the pressures he feels in the immediate situation. Basic underlying values are related to background; attitudes towards goals to objectives; attitudes toward the immediate situation to the pressures of that situation.

While the experience of basic training is new, the background of the
recruit is important in his adjustment to this experience. He seeks out those who share similar backgrounds because he finds that association with them is rewarding. It is rewarding either a) because the familiar provides a feeling of security in a strange situation, b) because agreement on underlying values in a new, highly pluralistic situation away from home helps him maintain and corroborate his original views.

Similarity of background is not always simple or self-evident. Social life has many dimensions. Clues lead one to associate with another in the hope he is alike in background and basic values. For example, accents provide a clue to geographical origin. A New York, Southern, or Middle Western accent may attract another from the same region. At the same time, social class differences within a region mean that a middle class recruit from a Chicago suburb may believe himself to have more in common with a middle class recruit from an Atlanta suburb than with a lower class recruit from The Chicago Ghetto.

A process of search for the familiar amid the strange goes on. It proceeds in stages. First, relatively overt cues are used. Then, as information is exchanged, underlying attitudes and values are revealed and further differentiation occurs. Newcomb describes this in The Acquaintance Process.

Overt cues include certain demographic characteristics. But also of great importance are those attitudes which are publicly displayed in response to the immediate situation. All the problems experienced in the new RIC and ATB environments lead to the tentative public expression of attitudes.
In this new situation there are goals which can only be achieved, or can better be achieved in cooperation with someone who wants the same goal. Many leisure time activities such as game playing and drinking are essentially social activities. It is not much fun to play basketball or cards or drink by oneself. Instrumental attitudes bring men together and lead to shared goal achievement.

This process is not unidirectional. As each recruit experiences this novel situation he seeks out others who are close by, and who by overt verbal or non-verbal signs display similarity. Information is exchanged. Cooperation leads to mutually beneficial outcomes. More is learned about the other and deeper values are tapped. Since these deeper values influenced the individual's public response to the original situation, there is a sense in which they had an effect initially, but one which was mediated through the public response to the immediate situation. This process is outlined in Figure 4.1.
Initial Scales and Items — Underlying Values

Underlying values were measured which were relevant to the situation of a neophyte in the military. Withey's "Dimensions of Values" scales (1965) were used. There are four dimensions: acceptance of authority, need-determined expression, equalitarianism, and individualism. These dimensions were hypothetically important because they were relevant to adjustment to life in a situation which was highly differentiated in regard to authority, in which impulse had to be controlled and discipline accepted, and in which individuals were subordinated to the interests of the group. The items were:

Acceptance of Authority
1. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them.*
2. You have to respect authority and when you stop respecting authority, your situation isn't worth much.*
3. Obedience and respect for authority are the most important things in character that children should learn.*

Need-determined Expression
1. The solution to almost any human problem should be based on the situation at the time, not on some general idea of right or wrong.*
2. Do what you want to do that's fun and worry about the future later.*
3. Since no values last forever, the only real values are those that fit the needs of right now.*

Equalitarianism
1. A group of people that are nearly equal will work a lot better than one where people have bosses and ranks over one another.*

---

* items were administered only in RTC.
** items were administered only in ATS.
Equalitarianism (con't.)

2. Everyone should have an equal chance and an equal say in most things.*

3. Everyone should have what he needs, the important things we have belong to all of us.*

Individualism

1. We should all admire a man who starts out bravely on his own.

2. In life a person should for the most part "go it alone", working on his own and trying to make his own life.

3. One should not depend on other persons or things, the center of life should be found inside oneself.

Conservatism

1. If you start trying to change things very much, you usually make them worse.*

2. If something grows up after a long time, there will always be much wisdom to it.*

3. It's better to stick by what you have than to be trying new things you don't really know about.*

4. We must respect the work of our forefathers and not think that we know better than they did.*

5. A man doesn't really have much wisdom until he is well along in years.*

Several items were created specifically to tap a general preference to work and play with persons perceived as similar.

Similarity

1. It's easy to get in with a group of friends here who have the same interests I do.

2. I prefer to work with people who are similar.

3. I prefer to spend my liberty with people who have the same interests as I do.
Initial Scales and Items -- Reactions to the Immediate Situation

Most items dealt with immediate responses to the Navy, or Navy-related issues.

Two scales were adapted from the Job Satisfaction Inventory (Twery, et al., 1958 in Robinson, Athansiou, and Head, 1969).

**Supervisor in a Social Role**

1. My company commander (unit counselor) doesn't understand his men at all.
2. My company commander (unit counselor) gets excellent cooperation from his men.
3. My company commander (unit counselor) should mix with his men a lot more.

**Co-workers**

1. Compared with other men that I have worked with, I think that my present co-workers are excellent.
2. I like very much the men I work with.
3. When I need help I can always count on my fellow workers.

**Race Relations**

One focus of our research, as well as an important concern of the Navy, has been race and ethnic group relations. In 1973 the Center for Naval Analyses published a report "Development of the Navy Human Relations Questionnaire." The following items were used:

1. There should be more association between black and white Navy men.  
2. Since joining the Navy my attitude toward other races and groups has not changed.
3. Race relations in my training unit are good.
4. Blacks understand whites better than whites understand blacks.
5. There is less racial prejudice in the Navy than in civilian life.
6. The Navy provides a good career opportunity for members of minority groups.  
   [This is basically an instrumental belief.]
7. Non-whites should stay with their own groups.
Several items were chosen related to satisfaction with the Navy experience, though not necessarily because they formed a scale. They indicate satisfaction with the original decision to enlist, with progress in training, and early thoughts about reenlistment.

1. I am disappointed that I ever enlisted.
2. The Navy provides a good way for men who couldn't afford it as civilians to get an education and get ahead in life. [This is basically an instrumental belief]
3. All in all, I am glad I joined the Navy.
4. I consider my training here rather unpleasant.
5. I am making it through basic training without any serious problems.
6. Most days I am enthusiastic about my Navy training.
7. When my first enlistment is over I intend to reenlist.

Hypothetically there may be a difference in attitude towards the Navy in general and towards RTC in particular. Items adapted from Thornton, Hamilton and Nealey (1973) related to basic training include:

**Basic Training**

1. I see basic training as a very important part of military training.
2. I expect to make it through basic training without any serious problems.
3. Basic training is mostly just an initiation you have to go through to be 'shaped up.'

Other items pertained to a) Navy rules and regulations; b) the importance of primary groups to the respondent; c) particular aspects of the apprenticeship experience; d) conflict in training units and perception of cliques.

4. I agree with the rules the Navy has about length of hair and sideburns.
5. I feel that what I am doing here gives me a chance to make friends.
6. Most of the trouble in my unit is caused by a small group of trouble makers who hang out together.
Basic Training (con't.)

7. People who don't like each other can't do a good job together. (Thornton, Hamilton and Nealey, 1973)

8. I like going on liberty with a large group of other recruits.

9. It is important to me that I develop close friendships with the people I work with.

10. I like to spend my free time with a small number of close personal friends.

11. There are some small groups of men in my unit who are looking for a fight.

12. When I go on liberty I prefer to go with people who have the same rating that I have.

13. I know almost all the apprentices in my unit by name.

14. The ATB has bad recreational facilities.

15. There are a lot of good places around this base to relax and have fun.

16. There is nothing to do around here when I am on liberty.

17. There should be more chance for athletics during apprenticeship training.

18. I would like more chances to be alone than I have had since I joined the Navy.

19. The rooms at this training base are really crowded.

20. I got to know only a few of my fellow apprentices.

21. Apprenticeship training should have fewer lectures and more experience with real equipment.

22. I like working with equipment.

23. I am not looking forward to standing my first watch at sea.

24. When I am in the fleet I expect most of my friends will be other seamen (firemen, airmen).

25. I think seamen (firemen, airmen) get a bad deal compared with other ratings.

26. I think the training I received in ATF \_nn\_ (ATS \_nn\_ , ATA \_nn\_) will help a lot when I get to the fleet.

27. I will remember the friends I made in ATF \_nn\_ (ATS \_nn\_ , ATA \_nn\_) all my life.

28. Living conditions in ATB are a lot worse than in the fleet.
Factor Analysis

Table 4.1 displays the first ten factors which emerged from the factor analysis of the RTC questionnaire (a key to the question numbers may be consulted in Appendix 4.2). A factor loading threshold of .40 was used as the criterion of inclusion, somewhat higher than that recommended by Nunnally (1967, p. 357). The analysis is based on data from 231 respondents who were observed in ATB but tested in both RTC and ATB.

Factor 1

This is Tvery's "Co-workers" scale, except for questions 37 and 38. Thirty-seven is very consistent with the co-workers scale, but 38 reflects an equalitarian attitude. The "liking" reflected in 37 may have been transformed to "sharing" in 38. This factor accounted for 24.6% of the variance.

Factor 2

This factor loads high on three of the satisfaction questions. They reflect satisfaction with the original decision to join, present status, and future enlistment intentions. This factor accounted for 15.8% of the variance.

Factor 3

Except for one item (which failed to meet the loading threshold) this is the conservatism scale. It accounted for 8.3% of the variance.

Factor 4

Only one high loading appeared on this factor, one originally included both because of its hypothetical relation to satisfaction and to original
goals in enlisting. A respondent who agrees with the item believes the Navy provides a good opportunity for free education. Just below the threshold is item 27 (.38997) which deals with the Navy as an opportunity for mobility for minorities. The factor reflects the role of the Navy in the American opportunity structure.

Factor 5
The only item with a high loading is from Withey's Equalitarianism scale. Both other items from that scale (29, 38) have very low loadings.

Factor 6
This is Withey's Individualism scale (6, 19) less item 2.

Factor 7
Items 24 and 31 are from the a priori Similarity scale. Item 4 has a loading just below the threshold (.38150). The original scale drops out of the data very nicely.

Factor 8
This factor reflects preference for recreation with small as opposed to large groups. These items were originally introduced in order to measure the import of primary groups to the respondent.

Factor 9
This is Twery's original Supervisor in Social Role Scale. Item 23 is somewhat below the threshold (.35258).

Factor 10
Items 13 and 48 both pertain to basic training. This factor reflects the respondent's belief (or lack thereof) in the validity of basic training.
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Scale Reliability

An alternate approach is to determine the reliability coefficients of those groups of items which were considered (*a priori*) to be scales. Table 4.2 displays the Alpha coefficients and Standardized Item Alpha coefficients for these scales.

Some of these scales were also included in the ATB questionnaire. In Table 4.3 the reliability coefficients are displayed for that data (N=231).
Table 4.2
Reliability of RTC Scales

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Table 4.3
Reliability of ATB Scales

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Nunnally (1967, p. 226) writes that "In the early stages of research on predictor tests or hypothesized measures of a construct, one saves time and energy by working with instruments that have only modest reliability, for which purpose reliabilities of .60 or .50 will suffice."

These scales were considered first in terms of factor analysis and then in terms of their reliability both in the context of RTC and ATB. For the purpose of this research it would appear that Twery's Co-worker (cohesion) and Supervisor in Social Role scales, and Matthew and Provo's Conservatism scales are sufficiently reliable. Withey's Acceptance of Authority and Individualism, and the Race Relations scales have serious problems, but may be used with that defect in mind. Neither Withey's Need-Determined Expression scale nor his Equalitarianism scale are useful, except perhaps as specific as opposed to general factors.

**Initial Scales and Items -- Instrumental Beliefs**

Instrumental beliefs are beliefs about the relation between work and leisure activities and personal goals. Factor analysis disclosed one work-oriented instrumental scale.

The Navy provides a good career opportunity for members of minority groups.

The Navy provides a good way for men who couldn't afford it as civilians to get an education and get ahead in life.

Because these questions might be answered from either a personal or
merely descriptive standpoint, an explicitly personal question was asked:

What was the single most important reason why you initially joined the Navy?

1. Job opportunities looked better than in civilian life
2. For travel, adventure, new experience
3. To learn or develop leadership skills
4. Opportunity for advanced education or technical training
5. Wanted to serve my country
6. To continue a family tradition of military service
7. Interest in the sea and/or shipboard life
8. Interest in flying or astronautics
9. For a secure job with promotions and favorable retirement
10. Other reason (Please specify)

These nine reasons were collapsed into three for purposes of analysis:
employment opportunity (1,3,4,9); curiosity and adventure (2,7,8); and patriotism (5,6).

In addition subjects were asked to rank order their preferences for leisure activities.

On the following list please place a number 1 by the activity you like to do most when you have liberty, a number 2 by the thing you like to do next most and so on. The thing you like to do least should have a number 12 next to it.
Reading a good book.................................................................
Watching T. V. .................................................................
Going out to dinner.................................................................
Going to a movie.................................................................
Playing cards.................................................................
Listening to music.................................................................
Visiting a museum.................................................................
Playing sports.................................................................
Going out to local bar.................................................................
Working on a hobby.................................................................
Just relaxing.................................................................
Meeting a girl.................................................................

These questions reflected specific leisure preferences. Other questions on the ATB questionnaire measured evaluation of base recreation facilities and preferences for social or solitary leisure (see previous section).

Similarity of Reference Group Orientation

Much of the content of "who we think we are" is an expression of our sense of group "reference." Many answers to questions of personal identity are in terms of group orientation: Methodist, Chicano, female, sailor. Groups of reference may or may not be membership groups. Some may be groups in which one aspires to be a member, or with which one merely identifies psychologically.

Group membership may be important per se, or may be predictive of other
personal characteristics. I hypothesize that similarity of groups of reference is associated with attraction, not only in itself, but also because similarity of group reference is predictive of similarity of values, beliefs, attitudes, life style and common fate.

**Measures of Reference Group Orientation**

Demographic characteristics were hypothesized to be indices of group orientation. Groups considered salient were classes, ethnic groups (religion and/or color), and political groups.

**Social Class**

According to Matras (1975, 90) a social class is a "population whose members are characterized by similarities of income, wealth, and economic position, by comparable levels and styles of living, by educational and cultural similarities, and by at least some similar patterns of social interactions..." It is noteworthy that the concept of class itself is so closely bound up in the notion of similarity.

In this study I utilized the most widely used measure of class -- classification by occupation and education. Specifically, the form of the questions was taken from the Questionnaire for Occupational Change in a Generation as displayed in Appendix B of Blau and Duncan (1967).

For actual coding Featherman, Sobel and Dickens "A Manual for Coding Occupations and Industries into Detailed 1970 Categories and a Listing of 1970--Basis Duncan Socioeconomic and NORC Prestige Scores" (1975) was used. The actual questions were:
Now we would like to find out what kind of job the HEAD of your family did when you were 16 years old?

a. What kind of job was the HEAD of your family doing?

(For example, paint sprayer, elementary school teacher, repaired radio sets, grocery checker, farm hand)

b. What was the most important activity the HEAD of your family did in that job?

c. What kind of business or industry was this?

(For example, auto assembly plant, county junior high school, radio service, retail supermarket, farm)

d. Was he--

[Check one]

- an employee of a PRIVATE company, business, or individual for wages, salary, or commissions?
- A GOVERNMENT employee (Federal, State, County or Local Government?)
- self-employed in his OWN business, professional practice or farm?
- working WITHOUT PAY in his family's business or farm?

What is the highest grade of school the HEAD of your family (or person checked in Question 6a) completed? (Check one box. If you are not sure, please make a guess)

- Never attended school
- Grades 1 to 12
- College (Academic years)
If you lived with both parents did both of your parents have jobs most of the time when you were growing up?

[ ] Yes  [ ] No

(Skip to Question 10)

a. What kind of work did your other parent do?

What is the highest grade in school your other parent completed?
(Check one box. If you are not sure, please make a guess)

Never attended school................................. [ ]

Grades 1 to 12..... 1 2 3 4 5 6 7

8 9 10 11 12

College (Academic years)

1 2 3 4 5 or more

Ethnicity:
Ethnicity is a multi-dimensional concept. It implies a) association with a socially defined group which b) occupies a particular range on the stratification hierarchy of a particular society relative to such indices as income, wealth, power and prestige. In American civilization important ethnic distinctions have related to national origin, color and religion. Primary attention was given to religion and color in this study because of the small number of subjects of foreign origin.

Religion:
Studies by many sociologists of religion (Herberg, 1955; Lenski, 1961;
Glock and Stark (1965) have demonstrated that religious identification is an important factor in informal group formation. Not only do Protestants lead their communal life with other Protestants; Catholics with other Catholics; Jews with other Jews; but within these groups there are also important divisions, especially among the denominations and sects of Protestantism. Hypothetically, religion is an important factor in friendship formation. Since many who identify themselves as, for instance, Protestant, are inactive in religious institutions, frequency of attendance is also an important variable. Finally, since those who associate with a religiously homogeneous or heterogeneous group of friends are not necessarily consciously aware of this, some measure of personal perception is necessary.

The specific questions asked were:

What is your religion?

About how often, if ever, have you attended religious services in the last year? (Check one)

- Once a week or more
- Two or three times a month
- Once a month
- A few times a year or less
- Never

What proportion of your closest friends in the Navy have the same religious preference as you do? (Check One)

- All of them
- Nearly all of them
- More than half of them
- Less than half of them
- None of them
- I don’t know

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The first and second of these questions was adapted from Lenski (1963).

**Color**
Differences in informal group formation related to differences in color were an important component of the original proposal for this project. Local authorities insisted that this focus be deemphasized apparently on the principle that if distinctions based on color were not mentioned they would not exist. While I recognize that some changes have occurred in ethnic stratification in American life, and in the Navy over the last two decades (much less than is commonly thought), it is unrealistic to assume that ethnic distinctions are still not of social import. This is especially true in the communal life of groups of different color. As with religious differences, differences in color influence the emergence of informal friendship groups both directly by personal choice and social custom and indirectly through such mechanisms as de facto segregation in housing and education. I use the term "color" deliberately rather than race, since it appears to be the visible fact of color which has social and cultural import rather than any technical or serious consideration of race in the genetic or physical anthropological sense.

**Measures**
Two measures were used:
The observers were asked to identify subjects according to color and National origin (in the latter case, judged primarily by language use).
Identification by this means probably approximates the average social classification of the subject by others. In addition the subject was asked to the following questions taken from the Navy Human Relations Questionnaire:

**QUESTIONNAIRE**

**IF YOU ARE A MEMBER OF A MINORITY GROUP** (for instance, Black, Chicano Indian American or Puerto Rican) please answer the following questions. If you are white, please skip to the questions below.

Because I'm from a minority group, most of the whites in my section like me less than they like other whites.

- [ ] 1 Yes
- [ ] 2 No
- [ ] 3 Don't Know
- [ ] 4 Doesn't Apply to me
Because I'm from a non-black minority group, the blacks in my section like me less than they like the other whites.

1. Yes 2. No 3. Don't Know 4. Doesn't Apply to me

How do you feel about whites?

1. I like them 2. I don't like them 3. It depends on the individual

How do you feel about members of other minority groups?

1. I like them 2. I don't like them 3. It depends on the individual

**IF YOU ARE WHITE, please answer the following questions.**

Because I'm white, most of the blacks in my section like me less than they like other blacks.

1. Yes 2. No 3. Don't Know 4. Doesn't Apply to me

Because I'm white, men from other minority groups in my section like me less than they like men from their own groups.

1. Yes 2. No 3. Don't Know 4. Doesn't Apply to me

How do you feel about blacks?

1. I like them 2. I don't like them 3. It depends on the individual

How do you feel about members of other minority groups such as Puerto Ricans, Mexican Americans, etc.?

1. I like them 2. I don't like them 3. It depends on the individual
Political Preference

While political preference may reflect mainly social class or regional differences, it was included primarily as a measure of traditional identification, and of the communal import of such identification. The assumption was that for respondents in this age group preference would reflect family identification and preference rather than any particular ideology. The specific questions were:

What is your political preference? (Check One)

- Republican □ 1
- Democrat □ 2
- Independent □ 3
- Other (Please specify) □ 4
- None □ 5

What proportion of your closest friends in the Navy have the same political preference as you do? (Check One)

- All of them □ 1
- Nearly all of them □ 2
- More than half of them □ 3
- Less than half of them □ 4
- None of them □ 5
- I don't know □ 6

Other Information

Subjects were asked to provide other information of hypothetical import:

Rural or Urban Origin

Many studies consider rural or urban origin an important indirect index to attitudes as well as to expectations in interpersonal relations (the alleged friendlier relations of the small town). In addition Newcomb (1961), for instance, documented differences in the acquaintance process related to this variable. Subjects were asked:
HOME TOWN (or nearest town)  

STATE  

ZIP CODE

Where were you living when you were 16 years old? (Check One)

in a large city?
(100,000 population or more)? ..................... 1

in a suburb near a large city? ..................... 2

in a middle-sized city or small town
(under 100,000 populations) but not
in a suburb of a large city? ..................... 3

open country (but not on a farm)? ..................... 4

on a farm? ........................................... 5

In addition the subjects were asked about the composition of their family of reference.

Were you living with both your parents most of the time up to age 16?

[ ] NO  [ ] YES  (Go to Question 7)

a. If "No" above, who was the HEAD of your FAMILY? (Check one)

Father .................................................. 2

Mother .................................................. 3

Other Male .................................................. 4

Other Female .................................................. 5

Family composition has a demonstrated statistical relationship to diverse factors ranging from social class to criminality. The rapid increase in households headed by a female, together with the low skill levels of most such females and discrimination in employment against females suggests a somewhat different fate for children of such households than for others. Questions on place of origin and family were taken from Blau and Duncan (1967).

Certain questions were included because it was hypothesized that the factors to which they referred effected interaction.
Smoking
Subjects were asked if they smoked. Because certain small spaces were reserved for smoke breaks it was hypothesized that smokers in a unit would be more likely to meet and interact with other smokers on a daily basis than with non-smokers.

Official Company Position
Many recruits and apprentices served as petty officers in their training units. Occupancy of such a position meant position-related interaction of a formal rather than informal nature. The Educational Petty Officer, for instance, was required to meet regularly with others for purposes of study.

Enlistment Program and Assignment
Persons enlist in a variety of programs and in many cases are promised specific assignments. Strongly relevant to the study of interaction was the Buddy Program in which subjects enlisted together and were trained in the same RTC company. It was also hypothesized that those who enlisted with a particular program in mind (electronics, for instance) might seek out others with similar interests, especially after service school assignments in RTC and base or ship assignments were publicly posted. The specific questions were:

What program did you enlist in the Navy under?
(Check One)

USN
USNR
USN Buddy
USNR Buddy
USN PS1
USNR PS1
USN DPEP
USNR DPEP
OTHER (Please Specify) ____________________________

What is your next assignment after recruit (apprenticeship) training?
Marital Status

A question on marital status was added after the study started. A few members of each unit were married and observers noted that married subjects tended to seek each other out.

Observers also collected information informally on age, education and previous career of subjects. The great majority were recent high school graduates, not much above minimum age of enlistment, with little work experience. A few were older, and had college background or previous military experience.
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Withey, S. 
APPENDIX 4.1

COMBINED ATB AND RTC QUESTIONS
WITH DESCRIPTIVE STATISTICS
(ATTITUDE ITEMS)
ATB Questions

SECTION II. OPINION INFORMATION

FOR THE FOLLOWING ITEMS PLEASE INDICATE YOUR ANSWER BY CHECKING THE APPROPRIATE NUMBER

1 means you strongly agree
2 means you agree
3 means you neither agree nor disagree
4 means you disagree
5 means you strongly disagree

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* n.d. = no data
FOR THE FOLLOWING ITEMS PLEASE INDICATE YOUR ANSWER BY CHECKING THE APPROPRIATE NUMBER

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2 means you agree  
3 means you neither agree nor disagree  
4 means you disagree  
5 means you strongly disagree

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<td>31. All in all, I am glad I joined the Navy.</td>
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<td>32. I consider my training here rather unpleasant.</td>
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<td>33. There are several real close groups of friends in my training unit.</td>
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<td>34. I think seamen get a bad deal compared with other ratings.</td>
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<td>35. I like very much the men I work and train with.</td>
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<td>36. Compared with other men that I have worked with, I think that my present fellow trainees are excellent.</td>
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<td>37. I am making it through apprenticeship training without any serious problems.</td>
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<td>38. Most days I am enthusiastic about my Navy training.</td>
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<td>39. Most of the time I talk to a few close friends among my fellow apprentices.</td>
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<td>40. I think the training I received in ATS 41 help a lot when I get to the fleet.</td>
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FOR THE FOLLOWING ITEMS PLEASE INDICATE YOUR ANSWER BY CHECKING THE APPROPRIATE NUMBER

1 means you *strongly agree*
2 means you agree
3 means you *neither agree nor disagree*
4 means you disagree
5 means you *strongly disagree*

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41. There are some small groups of men in my unit who are looking for a fight.
42. I will remember the friends I made in ATS all of my life.
43. Living conditions in ATB are a lot worse than in the fleet.
44. When my first enlistment is over I intend to reenlist.
45. Being in a unit in apprenticeship training which was being researched really bothered me.
46. My unit counselor in apprenticeship training gets excellent cooperation from his men.
APPENDIX 4.2

THE RTC QUESTIONNAIRE
FOR THE FOLLOWING ITEMS PLEASE INDICATE YOUR ANSWER BY CHECKING THE APPROPRIATE NUMBER

1 means you strongly agree
2 means you agree
3 means you neither agree nor disagree
4 means you disagree
5 means you strongly disagree

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1. There should be more association between black and white Navy men.

2. We should all admire a man who starts out bravely on his own.

3. Since joining the Navy my attitude toward other races and groups has not changed.

4. It's easy to get in with a group of friends here who have the same interests I do.

5. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them.

6. One should not depend on other persons or things, the center of life should be found inside oneself.

7. I feel that what I am doing here gives me a chance to make friends.

8. My company commander doesn't understand his men at all.

9. Race relations in my training unit are good.

10. I agree with the rules the Navy has about length of hair and sideburns.

11. Most of the trouble in my unit is caused by a small group of trouble-makers who hang out together.
FOR THE FOLLOWING ITEMS PLEASE INDICATE YOUR ANSWER BY CHECKING THE APPROPRIATE NUMBER

1 means you strongly agree
2 means you agree
3 means you neither agree nor disagree
4 means you disagree
5 means you strongly disagree

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<td>A man doesn't really have much wisdom until he is well along in years.</td>
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<td>13.</td>
<td>Basic training is mostly a lot of unnecessary things you have to go through to be &quot;initiated&quot;.</td>
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<td>14.</td>
<td>My company commander gets excellent cooperation from his men.</td>
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<td>15.</td>
<td>Blacks understand whites better than whites understand blacks.</td>
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<td>16.</td>
<td>There is less racial prejudice in the Navy than in civilian life.</td>
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<td>17.</td>
<td>Everyone should have an equal chance and an equal say in most things.</td>
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<td>18.</td>
<td>I am disappointed that I ever enlisted.</td>
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<td>19.</td>
<td>In life a person should for the most part &quot;go it alone,&quot; working on his own and trying to make his own life.</td>
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<td>20.</td>
<td>People who don't like each other can't do a good job together.</td>
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<td>21.</td>
<td>If something grows up after a long time, there will always be much wisdom to it.</td>
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<td>22.</td>
<td>I like going on liberty with a large group of other recruits.</td>
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2 means you agree
3 means you neither agree nor disagree
4 means you disagree
5 means you strongly disagree

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23. My company commander should mix with his men a lot more.

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28. Since no values last forever, the only real values are those that fit the needs of right now.

29. A group of people that are nearly equal will work a lot better than one where people have bosses and ranks over one another.

30. Do what you want to do that's fun and worry about the future later.

31. I prefer to spend my liberty with people who have the same interests as I do.

32. Obedience and respect for authority are the most important things in character that children should learn.
FOR THE FOLLOWING ITEMS PLEASE INDICATE YOUR ANSWER BY CHECKING THE APPROPRIATE NUMBER.

1 means you strongly agree
2 means you agree
3 means you neither agree nor disagree
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<table>
<thead>
<tr>
<th>Item</th>
<th>Previous</th>
<th>RTC</th>
<th>X</th>
<th>σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.</td>
<td>2.49</td>
<td>2.70</td>
<td>1.11</td>
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<td>35.</td>
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36. I like to spend my free time with a small number of close personal friends.

37. I like most of the members of my training unit.

38. Everyone should have what he needs, the important things we have belong to all of us.

39. All in all, I am glad I joined the Navy.

40. I consider my training here rather unpleasant.

41. There are several real close groups of friends in my training unit.

42. I like very much the men I work and train with.

43. Compared with other men that I have worked with, I think that my present fellow trainees are excellent.
-46-

FOR THE FOLLOWING ITEMS PLEASE INDICATE YOUR ANSWER BY CHECKING THE APPROPRIATE NUMBER

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<td>51.</td>
<td>If you start trying to change things very much, you usually make them worse.</td>
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</tr>
<tr>
<td>52.</td>
<td>You have to respect authority and when you stop respecting authority, your situation isn't worth much.</td>
<td></td>
</tr>
<tr>
<td>53.</td>
<td>Non-whites should stay with their own groups.</td>
<td></td>
</tr>
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</table>
SECTION I: BACKGROUND INFORMATION

1. NAME (Please print; last name first)

2. SOCIAL SECURITY NUMBER

3. RECRUIT COMPANY NUMBER

4. HOME TOWN (or nearest town) STATE ZIP CODE

5. Where were you living when you were 16 years old?

   (Check One)
   
   in a large city
   (100,000 population or more)? ................. [ ] 1
   in a suburb near a large city? ................. [ ] 2
   in a middle-sized city or small town
   (under 100,000 population) but not
   in a suburb of a large city? ................. [ ] 3
   open country (but not on a farm)? ................. [ ] 4
   on a farm? ................. [ ] 5

6. Were you living with both your parents most of the
   time up to age 16?
   [ ] NO
   [ ] YES

   (Go to question 7)

   a. If "No" above, who was the HEAD of your
      FAMILY?

      (Check One)
      Father ............................................. [ ] 2
      Mother ............................................. [ ] 3
      Other Male ............................................. [ ] 4
      Other Female ............................................. [ ] 5
7. Now we would like to find out what kind of job the Head of your family did when you were 16 years old?
   a. What kind of job was the Head of your family doing?

      (For example, paint sprayer, elementary school teacher, repaired radio sets, grocery checker, farm hand)

   b. What was the most important activity the Head of your family did in that job?

   c. What kind of business or industry was this?

      (For example, auto assembly plant, county junior high school, radio service, retail supermarket, farm)

   d. Was he -- (Check One)

      an employee of a PRIVATE company, business, or individual for wages, salary, or commissions? .........................  
      1

      a GOVERNMENT employee (Federal, State, County or Local Government?) ....................... 2

      self-employed in his OWN business, professional practice or farm? ...................... 3

      working WITHOUT PAY in his family's business or farm? ............................... 4

8. What is the highest grade of school the Head of your family (or person checked in Question 6a) completed? (Check one box. If you are not sure, please make a guess)

   Never attended school ..................  
   Grades 1 to 12 ....  
      7 8 9 10 11 12  
   College (academic years)  
   1 2 3 4 5 or more
9. If you lived with both parents did both of your parents have jobs most of the time when you were growing up?

- [ ] 1 Yes
- [ ] 2 No

(Skip to Question 10)

a. What kind of work did your other parent do?

10. What is the highest grade in school your other parent completed? (Check one box. If you are not sure, please make a guess).

Never attended school ............... [ ]

Grades 1 to 12 .... [ ] [ ] [ ] [ ] [ ] [ ] [ ]

8 9 10 11 12 [ ] [ ] [ ] [ ]

College (Academic years) [ ] [ ] [ ] [ ] [ ]

11. What program did you enlist in the Navy under?

(Check one)

USH [ ]

USNR [ ]

USN Buddy [ ]

USNR Buddy [ ]

USH PSI [ ]

USNR PSI [ ]

USH ME [ ]

USNR ME [ ]

OTHER (Please Specify) [ ]
12. Do you smoke?

☐ 1 Yes  ☐ 2 No

13. Did you serve as a Petty Officer in your training unit (for instance, RPOC, Clerk, squad leader)?

☐ 1 Yes  ☐ 2 No

(Answer Question 13a) (Skip to Question 14)

a. If yes, what position?

14. What is your next assignment after recruit training?

- Seaman ☐ 11
- Fireman ☐ 12
- Airman ☐ 13
- OS ☐ 21
- PE ☐ 23
- Other "A" School ☐ 20
- Other ☐ 99

15. What is your religion?

16. About how often, if ever, have you attended religious services in the last year?

(Click One)

- Once a week or more ☐ 1
- Two or three times a month ☐ 2
- Once a month ☐ 3
- A few times a year or less ☐ 4
- Never ☐ 5
17. What proportion of your closest friends in the Navy have the same religious preference as you do?

<table>
<thead>
<tr>
<th>Option</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of them</td>
<td>1</td>
</tr>
<tr>
<td>Nearly all of them</td>
<td>2</td>
</tr>
<tr>
<td>More than half of them</td>
<td>3</td>
</tr>
<tr>
<td>Less than half of them</td>
<td>4</td>
</tr>
<tr>
<td>None of them</td>
<td>5</td>
</tr>
<tr>
<td>I don't know</td>
<td>6</td>
</tr>
</tbody>
</table>

18. What is your political preference?

<table>
<thead>
<tr>
<th>Option</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Republican</td>
<td>1</td>
</tr>
<tr>
<td>Democrat</td>
<td>2</td>
</tr>
<tr>
<td>Independent</td>
<td>3</td>
</tr>
<tr>
<td>Other (Please specify)</td>
<td>4</td>
</tr>
<tr>
<td>None</td>
<td>5</td>
</tr>
</tbody>
</table>

19. What proportion of your closest friends in the Navy have the same political preference as you do?

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<tr>
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<td>3</td>
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<td>Less than half of them</td>
<td>4</td>
</tr>
<tr>
<td>None of them</td>
<td>5</td>
</tr>
<tr>
<td>I don't know</td>
<td>6</td>
</tr>
</tbody>
</table>
20. What was the single most important reason why you initially joined the Navy?  
(Check only the most important one)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Check Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job opportunities looked better than in civilian life .................</td>
<td>1</td>
</tr>
<tr>
<td>For travel, adventure, new experience ..................................</td>
<td>2</td>
</tr>
<tr>
<td>To learn or develop leadership skills ...................................</td>
<td>3</td>
</tr>
<tr>
<td>Opportunity for advanced education or technical training ............</td>
<td>4</td>
</tr>
<tr>
<td>Wanted to serve my country ..................................................</td>
<td>5</td>
</tr>
<tr>
<td>To continue a family tradition of military service ....................</td>
<td>6</td>
</tr>
<tr>
<td>Interest in the sea and/or shipboard life ................................</td>
<td>7</td>
</tr>
<tr>
<td>Interest in flying or astronautics ......................................</td>
<td>8</td>
</tr>
<tr>
<td>For a secure job with promotions and favorable retirements ..........</td>
<td>9</td>
</tr>
<tr>
<td>Other reason (Please specify) .............................................</td>
<td>10</td>
</tr>
</tbody>
</table>

21. On the following list please place a number 1 by the activity you like to do most when you have liberty, a number 2 by the thing you like to do next most and so on. The thing you like to do least should have a number 12 next to it.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Check Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading a good book</td>
<td>23-24</td>
</tr>
<tr>
<td>Watching T.V.</td>
<td>25-26</td>
</tr>
<tr>
<td>Going out to dinner</td>
<td>27-28</td>
</tr>
<tr>
<td>Going to a movie</td>
<td>29-30</td>
</tr>
<tr>
<td>Playing cards</td>
<td>31-32</td>
</tr>
<tr>
<td>Listening to music</td>
<td>33-34</td>
</tr>
<tr>
<td>Visiting a museum</td>
<td>35-36</td>
</tr>
<tr>
<td>Playing sports</td>
<td>37-38</td>
</tr>
<tr>
<td>Going out to local bar</td>
<td>39-40</td>
</tr>
<tr>
<td>Working on a hobby</td>
<td>41-42</td>
</tr>
<tr>
<td>Just relaxing</td>
<td>43-44</td>
</tr>
<tr>
<td>Meeting a girl</td>
<td>45-46</td>
</tr>
</tbody>
</table>
SECTION II. OPINION INFORMATION

FOR THE FOLLOWING ITEMS PLEASE INDICATE YOUR ANSWER BY CIRCLING THE APPROPRIATE NUMBER

1 means you strongly agree
2 means you agree
3 means you neither agree nor disagree
4 means you disagree
5 means you strongly disagree

1. There should be more association between black and white Navy men.

2. We should all admire a man who starts out bravely on his own.

3. Since joining the Navy my attitude toward other races and groups has not changed.

4. It's easy to get in with a group of friends here who have the same interests I do.

5. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them.

6. One should not depend on other persons or things, the center of life should be found inside oneself.

7. I feel that what I am doing here gives me a chance to make friends.

8. My company commander doesn't understand his men at all.

9. Race relations in my training unit are good.
<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>I agree with the rules the Navy has about length of hair and sideburns.</td>
<td>1 2 3 4 5</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Most of the trouble in my unit is caused by a small group of trouble-makers who hang out together.</td>
<td>1 2 3 4 5</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>A man doesn't really have much wisdom until he is well along in years.</td>
<td>1 2 3 4 5</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Basic training is mostly a lot of unnecessary things you have to go through to be &quot;initiated&quot;.</td>
<td>1 2 3 4 5</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>My company commander gets excellent cooperation from his men.</td>
<td>1 2 3 4 5</td>
<td>21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Blacks understand whites better than whites understand blacks.</td>
<td>1 2 3 4 5</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>There is less racial prejudice in the Navy than in civilian life.</td>
<td>1 2 3 4 5</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Everyone should have an equal chance and an equal say in most things.</td>
<td>1 2 3 4 5</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>I am disappointed that I ever enlisted.</td>
<td>1 2 3 4 5</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>In life a person should for the most part &quot;go it alone,&quot; working on his own and trying to make his own life.</td>
<td>1 2 3 4 5</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>20.</td>
<td>People who don't like each other can't do a good job together.</td>
<td>1 2 3 4 5</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>If something grows up after a long time, there will always be much wisdom to it.</td>
<td>1 2 3 4 5</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>I like going on liberty with a large group of other recruits.</td>
<td>1 2 3 4 5</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>23.</td>
<td>My company commander should mix with his men a lot more.</td>
<td>1 2 3 4 5</td>
<td>30</td>
<td></td>
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<td>I prefer to work with people who are similar to me.</td>
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25. When I need help I can always count on my fellow trainees.   1 2 3 4 5
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<td>3</td>
<td>4</td>
<td>5</td>
<td>45</td>
</tr>
<tr>
<td>39.</td>
<td>All in all, I am glad I joined the Navy.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>46</td>
</tr>
<tr>
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<td>3</td>
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<td>5</td>
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<td>5</td>
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<td>3</td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>56</td>
</tr>
<tr>
<td>50.</td>
<td>When my first enlistment is over I intend to reenlist.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>57</td>
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<td>51.</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>58</td>
</tr>
</tbody>
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DISTRIBUTION LIST

MANDATORY

LIST 1

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