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Description and Comparison of Group Behavior Preferences

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Lieutenant Colonel
Richard St. Pierre
U.S. Air Force

Faculty Research Advisor
Dr. George R. McAleer, Jr.

The Industrial College of the Armed Forces
National Defense University
Fort McNair, Washington, D.C. 20319-6000

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The Industrial College of the Armed Forces
National Defense University
Fort McNair, Washington, D.C. 20319-6000

ABSTRACT

The purpose of this research project was to investigate and
compare the group personality preferences of the Air Force,
Army, Coast Guard, Marine, Navy, and Civilian students
comprising the ICAF Class of 1993. I could not include the
Marine and Coast Guard in the group comparisons, because their
group size was too small to draw significant conclusions.
However, the report does include the information and
descriptions of these two groups. My analysis identified three
key points. First, the strong personality preferences of all
the groups indicated a potential weakness in characteristics
like flexibility, creativity, adaptability, and concern for
people. All the groups should guard against these weaknesses in
their decisions and actions. Second, all the groups displayed a
larger percentage of introverts than the general public. This
could lead to misunderstanding and missed opportunity. The
groups should ensure that extraverts and introverts have the
opportunity to participate in group actions. Finally, my
analysis identified a strong preference difference between the
services and the civilian groups. This difference could lead to
miscommunication and misunderstanding. When working together
the Air Force, Army, Navy, and Civilian groups should take
actions to ensure this does not occur. The report also
recommends actions to guard against the potential weaknesses of
their group preferences.

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INTRODUCTION

> If, as Services, we get too critical among ourselves,
> hunting for exact limiting lines in the shadow land of
> responsibility as between . . . [the Services], hunting
> for and spending our time arguing about it, we will
> deserve the very fate we will get in war, which is
> defeat. We have got to be one family, and it is more
> important today than it ever has been (3:i).
>
> Dwight D. Eisenhower

The above quote is very appropriate for today as the

services review their roles and missions and draw down in size.

In order to fight successfully together as a team, the services

must effectively plan, communicate, and exercise together. They

must work together. "Understanding how others function is a

first step in working with them," according to Toni La Motta

(6:263).

The purpose of this research project was to investigate the

group personality preferences of the Air Force, Army, Coast

Guard, Marine, Navy, and Civilian students comprising the

Industrial College of the Armed Forces (ICAF) Class of 1993. I

used the ICAF class because many of our guest lecturers have

stated that ICAF students represent successful middle managers

who will go on and be the future leaders of their organizations.

This investigation is the first step in the understanding

referred to by Toni La Motta. Hopefully, this study will aid in

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these groups working more effectively together. I could not
include the Marine and Coast Guard in the group comparisons,
because their group size was too small to draw significant
conclusions. However, the report does include the information
and descriptions of these two groups, so that future classes can
build a large enough sample for comparison. I included civilian
government employees in this study, because they play an
integral role in service activities such as plans, budgets, and
acquisitions.

With this purpose in mind, my approach and the content of
this study are as follows:

- Chapter 2: MYERS-BRIGGS TYPE INDICATOR DESCRIPTION.
  This chapter describes the psychological instrument used
  in the study.

- Chapter 3: SURVEY AND ANALYSIS METHODOLOGY. It explains
  how I obtained the information, the type of information
  collected, and the method of analysis used for the study.

- Chapter 4: GROUP DESCRIPTIONS. This section describes
  the characteristics of the Air Force, Army, Civilian,
  Coast Guard, Marine, and Navy ICAF student groups.

- Chapter 5: GROUP COMPARISONS. Using the group
  descriptions from Chapter 4, this chapter compares the

Air Force, Army, Civilian, and Navy groups to discover similarities and differences.

- Chapter 6: CONCLUSIONS AND RECOMMENDATIONS. This section summarizes the findings of my research and recommends areas for further study.

This research project's descriptions and comparisons will add to our understanding of the groups. My hope is that this increased understanding will help these groups work more effectively together. To begin this investigation, Chapter 2 will describe the psychological instrument I used for this research project.

Chapter 2

MYERS-BRIGGS TYPE INDICATOR DESCRIPTION

> You can demonstrate this [preference] to yourself by
> simply writing your name twice on a piece of paper.
> First write with your dominant, or favorite hand, and
> then use your non-dominant hand. When using their
> preferred hand, most people don't even think about how
> to write their name. They just do it. It comes
> naturally. However, when writing with your non-
> preferred hand you may have experienced some of the
> following: it took longer; you had to consciously
> thing about it; it was frustrating; you had to "work"
> at it (8:4).

This chapter describes a preference classification
instrument, the Myers-Briggs Type Indicator (MBTI). It contains
a brief background of the instrument and description of the MBTI
scales and temperaments. This information is the foundation for
the study. Let's start with the background of this
classification instrument.

MBTI BACKGROUND

The MBTI is a method of classifying individuals based on how
they prefer to behave. The classification theory started with
the work of Carl Gustav Jung (7:18). Jung believed an
individual's behavior was classifiable and he did a considerable
amount of work in describing what he called "psychological
types" (7:18-19). Katharine Briggs and Isabel Briggs Myers
expanded on Jung's work and designed a psychological instrument

to identify individual personality preferences (5:8). They called this instrument the Myers-Briggs Type Indicator.

MBTI SCALES

The MBTI is composed of four scales. The four scales describe how you like to focus your attention, perceive or acquire information, make decisions, and deal with the outside world (8:5-6). Individuals can function on either end of the four scales, but most have and display a preference (8:4). Like in the above quote, using your preference is easier. You can operate at the other end of the scale, but it will take more effort. Using individual preferences in each of the four scales, a person is classified in one of sixteen personality types (6:263). The four scales are described below:

Extraverts-Introverts (E-I): Interest and Energy

The E-I scale describes how you focus your attention and your source of energy. Extraverts (E) verbalize their thoughts and ideas. Verbalizing is part of their thinking process. They like to socialize and prefer to communicate by speaking rather than writing. Extraverts get their energy from dealing with people. On the other hand, introverts (I) like to work within themselves. They like to think things over carefully before acting or communicating. Introverts keep thoughts to themselves and draw their energy from within (4:14-16; 5:14-16; 8:5; 1:6).

Extraverts make up approximately 75% of the population and introverts are the other 25% (4:25).

Sensors-Intuitors (S-N): Perceiving Function

The S-N scale describes the opposite ways of perceiving or acquiring information. Differences in this scale are the source of most miscommunication and misunderstanding (6:264). In the general population, we have 75% sensors and 25% intuitors (4:25). Sensors (S) rely on information and facts. They thrive on details and are very orderly and organized (6:265). In contrast, an intuitor (N) likes to look at the big picture and look for relationships. An intuitor believes in hunches, visions, and dreams. They are less concerned with details and more concerned with the situation as a whole (6:265). Toni La Motta described this scale well when she wrote, "Taken to the extreme, the sensing function causes a person to miss the forest for the trees, and the intuitive function causes a person to miss the trees for the forest." (6:266)

Thinkers-Feelers (T-F): Judging Function

This scale describes how you make decisions. Thinkers (T) consider the data collected and make objective, analytical decisions. Their decisions are often decribed as logical and impersonal (8:6). Feelers (F), on the other hand, make decisions based on personal values or concerns for others. Their decisions are more subjective and people-oriented (8:6).

In the general population, there is approximately an equal number of thinkers and feelers (4:25).

Judgers-Perceivers (J-P): Outer World Interaction

Like thinkers and feelers, judgers and perceivers are equally represented in the general population (4:25). The J-P scale describes how you deal with the outside world. Judgers prefer to live in a very planned, orderly, and structured world. They want to regulate and control life. Judgers make lists and follow them. They seek closure on issues (8:6). In contrast, perceivers like flexibility and spontaneity. Perceivers want to understand life, rather than control it. They prefer to keep their options open and adapt to the moment (8:6).

MBTI TEMPERAMENTS

David Keirsey and Marilyn Bates used combinations of two scale preferences to classify all individuals into one of four categories. They called these categories temperaments. The four temperaments are: intuitive thinker (NT), intuitive feeler (NF), sensing judger (SJ), and sensing perceiver (SP). The following is a brief description of these four temperaments:

Intuitive Thinker (NT)

Intuitive thinkers (NTs) want to understand, explain, and predict events. They want to be in control (4:47-48). NTs will pursue something until it is mastered. Competency is most

important to the NT and they are often impatient with others and impersonal (4:48). They make excellent organizational visionaries or planners (6:269). The NTs make up approximately 12% of the population (4:47).

Intuitive Feeler (NF)

Like the NTs, the intuitive feelers (NFs) make up approximately 12% of the general population (4:60). According to an ICAF speaker, an MBTI expert, NFs are idealists and love to think about all the possible alternatives and sometimes have trouble coming to closure. NFs love people. They thrive on interpersonal relationships (5:52-53).

Sensing Judger (SJ)

This temperament make up approximately 38% of the general population (4:39). SJs like structure. They believe in rules, regulations, and rituals. Also, they are traditionalists and resist change. SJs want to feel obligated, responsible, and burdened. They want to belong and be useful to social units, organizations (4:39-42).

Sensing Perceiver (SP)

Like SJs, the sensing perceivers (SPs) make up approximately 38% of the general population (4:39). Sensing perceivers constantly seek adventure and excitement. SPs love freedom and are impulsive. They live for the moment, but are not always

reliable in meeting obligations (4:31-39). An SP makes an excellent troubleshooter or negotiator (2:34).

Now that I have discussed the MBTI types and temperaments, I will use these to describe the characteristics of the Air Force, Army, Civilian, Coast Guard, Marine, and Navy ICAF student groups. However, before describing these groups, Chapter 3 will explain how I gathered and analyzed the data.

Chapter 3

SURVEY AND ANALYSIS METHODOLOGY

In order to describe and compare the preferences of the various groups, I needed MBTI data from individuals in the groups. The Industrial College of the Armed Forces (ICAF) offered an opportunity to collect this information. ICAF gives the MBTI to their students each year. This chapter will describe how I obtained the data, the type of data collected, and the method of analysis used for this study.

SURVEY

Although ICAF gives the MBTI to their students, the school is very protective of the students' rights, and I could not use school data for privacy reasons. In order to collect data for my research, I developed a survey (Appendix A). The survey allowed me to collect anonymous and voluntary information for the study. To maximize the participation in the survey, I passed the survey out to all students at the same time they were receiving their MBTI results. Out of the 226 students that participated in the MBTI analysis, I received 185 survey responses. This computes to an 82% response to the survey.

To further maximize the participation in the survey, I kept the survey short and simple. The survey asked each student to record their preference type, preference score, and indicate the

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group to which they belong. The preference type is the four
letter code representing their preference on the four scales
described in Chapter 2. Obtaining the students preference score
was important for two reasons. First, the preference score
indicated the strength of the individual's preference. This is
important, because if a preference score is low, less than   ,
it means the individual can easily operate on either side   he
scale. It takes more effort, energy, for an individual with a
strong preference to operate in the non preference side.
Second, the preference score allowed me to analyze and compare
the groups by combining the individual scores. Finally, the
survey listed the six groups represented at ICAF: Air Force,
Army, Civilian, Coast Guard, Marine, and Navy. The students
were to place a check by their group. Unfortunately three of
the returned surveys did not have the group marked, so I could
not use these surveys.

Using ICAF students should make the study valuable. As
numerous speakers have indicated, ICAF students represent
successful middle managers that will become the senior managers
in their fields. An ICAF guest lecturer, an MBTI expert, stated
that the results are almost exactly the same year after year.
So the conclusion of the study should not only be representative
of this years ICAF class, but of the middle and senior
leadership of the organizations these students represent.

ANALYSIS METHODOLOGY

Once the surveys were returned, I split them up into the six groups and analyzed the data. First, I built an MBTI type table for each group using the individual preference type. The MBTI type table is a 4 x 4 matrix (16 squares) listing the 16 possible MBTI types. Figure 1 shows an example MBTI type table.

```
------------------------------------------------
| ISTJ     | ISFJ     | INFJ     | INTJ     |
|          |          |          |          |
|    1     |    2     |    3     |    4     |
|----------+----------+----------+----------|
| ISTP     | ISFP     | INFP     | INTP     |
|          |          |          |          |
|    5     |    6     |    7     |    8     |
|----------+----------+----------+----------|
| ESTP     | ESFP     | ENFP     | ENTP     |
|          |          |          |          |
|    9     |   10     |   11     |   12     |
|----------+----------+----------+----------|
| ESTJ     | ESFJ     | ENFJ     | ENTJ     |
|          |          |          |          |
|   13     |   14     |   15     |   16     |
------------------------------------------------
```

Figure 1: Example MBTI Type Table

Using the MBTI type table I determined the preferences, the mode, and the percent of each temperament for the group. For example, if one adds up the numbers of individuals in blocks 9 through 16 and divide by the total number of individuals in the group, you determine the percentage of the group displaying the E (Extrovert) preference. Subtracting this percentage from 100% gives you the percentage of the group with the I (Introvert) preference. I did this for each scale and used the results to determine the mode of the group. The mode is the four letter

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type displaying the group preference of each scale. I used the same technique to calculate the percentage of the group for each temperament. For example, the percentage of the group displaying the SP temperament is the sum of the individuals in blocks 5, 6, 9, and 10 divided by the total number of individuals in the group.

In addition to the analysis of the MBTI type table, I conducted a statistical analysis of the numerical scores to allow a more complete group description for the comparisons. To do the statistical analysis I converted the preference scores to continuous scores (9:1). The preference score is centered around zero, while the continuous score is centered around 100. To convert the preference scores to continuous scores, you add 100 to I, N, F, and P scale preference scores and the E, S, T, and J scale preference scores are subtracted from 100. For example:

Preference Score			Continuous Score
E	1		99
N	45	Converts to	145
T	27		73
P	37		137

Appendix B contains a listing of the continuous scores for the entire survey.

Once the preference scores were converted to continuous scores, I could statistically analyze the four scales: E-I, S-N, T-F, and J-P. Using Timeworks Data Manager 128, I created a data base of the continuous scores. This data base allowed me to do a normal statistical analysis on each of the four scales (10:93-95). I ran this analysis for the Air Force, Army, Civilian, Coast Guard, Marine, and Navy groups and the composite of all the groups. The analysis provided the mean and the standard deviation of each scale. The mean, or average value, allowed me to determine the average preference type for the group by converting the mean continuous scores back to a preference score. The standard deviation describes the variability of the groups' preferences. With the resulting information, I was ready to describe and compare the various groups. Chapter 4 will describe the six groups characteristics.

Chapter 4

GROUP DESCRIPTIONS

Using the methodology described in Chapter 3, I proceeded to analyze the survey responses. This chapter presents descriptions of the whole Class of 1993 and the survey responses. In addition, I will describe the results of the analysis of the six groups: Air Force, Army, Marine, Coast Guard, Navy, and Civilian. These descriptions form the basis for the comparisons of the groups in Chapter 5.

SURVEY REPRESENTATION

First, let's start by showing that the survey is representative of the total ICAF Class of 1993. In my seminar on MBTI, the instructor presented the MBTI type table of the 1993 ICAF students.

```
-------------------------------------------
I ISTJ      I ISFJ      I INFJ      I INTJ      I    a/b:
I           I           I           I           I       a = # in type
I 65/28.8%  I 5/2.2%    I 6/2.7%    I 16/7.1%   I       b = % of group
I-----------+-----------+-----------+-----------I
I ISTP      I ISFP      I INFP      I INTP      I    Group Total = 226
I           I           I           I           I
I 6/2.7%    I 2/0.9%    I 5/2.2%    I 20/8.8%   I    Mode = ISTJ
I-----------+-----------+-----------+-----------I
I ESTP      I ESFP      I ENFP      I ENTP      I
I           I           I           I           I
I 9/4.0%    I 2/0.9%    I 3/1.3%    I 14/6.2%   I
I-----------+-----------+-----------+-----------I
I ESTJ      I ESFJ      I ENFJ      I ENTJ      I
I           I           I           I           I    SJ(51.3%)   SP(8.4%)
I 41/18.1%  I 5/2.2%    I 3/1.3%    I 24/10.6%  I    NT(32.7%)   NF(7.5%)
-------------------------------------------
```

Figure 2: Class of 1993 Type Table

The information on the whole class is contained in Figure 2.
The first number in each box is the number of individuals having
that type. The second number is the percentage of the class
having that type. For example, the ICAF Class of 1993 has 65
individuals that are ISTJs, and they represent 28.8% of the
class. This information is displayed in the upper left hand
corner of the MBTI type table in Figure 2. I will use this
format for all of my type tables. Using the methods described
in Chapter 3, I calculated the percentages of the four
temperments: NT, NF, SJ, and SP. These are displayed at the
bottom and to the right of the group type tables.

Now let's look at figure 3, the results of the survey.

```
--------------------------------------------------
| ISTJ      | ISFJ     | INFJ     | INTJ      |     a/b:
|           |          |          |           |        a = # in type
| 50/27.5%  | 4/2.2%   | 5/2.7%   | 12/6.6%   |        b = % of group
|-----------+----------+----------+-----------|
| ISTP      | ISFP     | INFP     | INTP      |     Group Total = 182
|           |          |          |           |
| 5/2.7%    | 2/1.1%   | 2/1.1%   | 12/6.6%   |     Mode = ISTJ
|-----------+----------+----------+-----------|
| ESTP      | ESFP     | ENFP     | ENTP      |     Mean = ISTJ
|           |          |          |           |
| 9/4.9%    | 1/0.5%   | 3/1.6%   | 12/6.6%   |
|-----------+----------+----------+-----------|
| ESTJ      | ESFJ     | ENFJ     | ENTJ      |
|           |          |          |           |     SJ(51.6%)   SP(9.3%)
| 36/19.8%  | 4/2.2%   | 3/1.6%   | 22/12.1%  |     NT(31.9%)   NF(7.1%)
--------------------------------------------------
```

Figure 3:   Total Survey Response Type Table

I ran a statistical analysis of the continuous scores for the
total survey. The analysis calculated the standard deviations

for the E-I, S-N, T-F, and J-P scales as 27.94, 31.70, 22.03, and 26.03, respectively. Appendix C contains a complete listing of the results of the statistical analysis of each group. The mean scores for the scales indicated the same type as the mode, ISTJ.

If we compare my survey results with the whole class, we see that most of the types have less than a 1% difference in their group representation. The largest variation between the survey and the whole class is 2.2% in the INTP type. Even the four temperments have less than a 1% difference. The modes of both groups are ISTJ. This demonstrates that the survey results are representative of the Class of 1993. Now that I have shown that the survey is representative of the total class, let's look at each of the services and civilian groups.

AIR FORCE

First, we will look at the Air Force. The results of the analysis for the Air Force students are contained in Figure 4. It is interesting to note that there is only 1 individual, 2% of the Air Force group, with an FP (Feeling and Perceiving) combination. The Air Force has only 4 individuals (8%) with an F preference, leaving 92% with a T (Thinking) preference. The TJ (Thinking and Judging) combination is favored by 35 individuals (70%). The perferred temperament is SJ. Sixty percent of the group have an E (Extravert) preference, 58% have

an S (Sensing), and 42% have an N (Intuitive) preference. The
mode and mean type for the Air Force group is ESTJ.

ISTJ 12/24.0%	ISFJ 1/2.0%	INFJ 2/4.0%	INTJ 2/4.0%
ISTP 1/2.0%	ISFP	INFP	INTP 2/4.0%
ESTP 2/4.0%	ESFP	ENFP 1/2.0%	ENTP 6/12.0%
ESTJ 13/26.0%	ESFJ	ENFJ	ENTJ 8/16.0%

a/b:
 a = # in type
 b = % of group

Group Total = 50

Mode = ESTJ

Mean = ESTJ

SJ(52.0%)   SP(6.0%)
NT(36.0%)   NF(6.0%)

Figure 4:   Air Force Type Table

ARMY

Army survey results are contained in Figure 5.   The SJ

ISTJ 21/38.2%	ISFJ	INFJ 3/5.5%	INTJ 4/7.3%
ISTP	ISFP 1/1.8%	INFP	INTP 3/5.5%
ESTP 2/3.6%	ESFP 1/1.8%	ENFP 1/1.8%	ENTP 3/5.5%
ESTJ 9/16.4%	ESFJ 2/3.6%	ENFJ	ENTJ 5/9.1%

a/b:
 a = # in type
 b = % of group

Group Total = 55

Mode = ISTJ

Mean = ISTJ

SJ(58.2%)   SP(7.3%)
NT(27.3%)   NF(7.3%)

Figure 5:   Army Type Table

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temperament is the strongest temperament. Also, the strongest preference combination is TJ (70.9%). The I, S, T, and J preferences are favored with representation of 58.2%, 65.5%, 85%, and 80%, respectively. The FP combination is low at only 5.5%. The mean and mode for the Army is ISTJ.

MARINE AND COAST GUARD

The Marine and Coast Guard groups at ICAF are too small in any one year to draw significant conclusions. For example, there are only ten Marines in the class and only seven responded to the survey. The Coast Guard group is even smaller; only three responded to the survey. It is interesting to note that the Marine and Coast Guard groups favored the TJ combination with representation of 100% and 66.7%, respectively. Both groups also preferred the SJ temperament. Since these groups are so small, I will refrain from including them in the comparisons of the groups to prevent drawing inappropriate conclusions. I included the statistical analysis of these two groups in Appendix D in the hope that future classes will continue this study and build a large enough data base to draw significant conclusions.

NAVY

The results of the survey for the Navy are contained in Figure 6. The SJ temperment is again the perferred temperament (46.9%). The E, S, T, and J preferences are favored with group

representation of 68.8%, 71.9%, 78.1%, and 68.8%, respectively.
Notice that there are only 2 individuals (6.2%) with an FP
combination. The TJ combination is again high at 53.1%. The
mean and mode type for the Navy is ESTJ.

ISTJ	ISFJ	INFJ	INTJ	
5/15.6%	2/6.2%			
ISTP	ISFP	INFP	INTP	
2/6.2%	1/3.1%			
ESTP	ESFP	ENFP	ENTP	
5/15.6%		1/3.1%	1/3.1%	
ESTJ	ESFJ	ENFJ	ENTJ	
7/21.9%	1/3.1%	2/6.2%	5/15.6%	

a/b:
  a = # in type
  b = % of group

Group Total = 32

Mode = ESTJ

Mean = ESTJ

SJ(46.9%) SP(25%)
NT(18.8%) NF(9.3%)

Figure 6: Navy Type Table

CIVILIAN

ISTJ	ISFJ	INFJ	INTJ	
8/22.9%	1/2.9%		6/17.1%	
ISTP	ISFP	INFP	INTP	
1/2.9%		2/5.7%	7/20.0%	
ESTP	ESFP	ENFP	ENTP	
			2/5.7%	
ESTJ	ESFJ	ENFJ	ENTJ	
3/8.6%	1/2.9%	1/2.9%	3/8.6%	

a/b:
  a = # in type
  b = % of group

Group Total = 35

Mode = INTJ

Mean = INTJ

SJ(37.1%) SP(2.9%)
NT(51.4%) NF(8.6%)

Figure 7: Civilian Type Table

Figure 7 contains the results of the Civilian group survey. With the Civilian group, the NT temperment is preferred at 51.4%. In this group, the I, N, T, and J preferences are favored with representation of 71.4%, 60%, 85.7%, and 65.7%, respectively. The TJ combination is again strong at 57.1%. The mean and mode type for the Civilian group is INTJ.

With these group description, we can now proceed to compare them to determine similarities and differences. Chapter 5 will contain these comparisons and interprete the results.

Chapter 5

GROUP COMPARISONS

With the descriptions in Chapter 4, we can now compare these groups. This chapter investigates the similarities and differences of the Air Force, Army, Navy, and Civilian group preferences. To do this in an organized manner, we will first look at the four scales and then the temperaments.

E-I SCALE

Looking at all of the survey results, we see an almost equal representation of both preferences (see Appendix C). However, our four groups do not display this equal representation. The Air Force and Navy have a preference for extraversion, while the Army and Civilian groups display a preference for introversion. These preferences are displayed in the scale percentages and in the group mean scores (see Appendix C). The Navy shows the strongest E preference with almost 70% extraverts. The Air Force has 60% extraverts. If we look at the statistical analysis for this scale, the strength of the Navy and Air Force extravert preference is small compared to their E-I scale standard deviations. The small preference indicates the groups can operate easily on either side of the scale, according to our MBTI guest lecturer. The strength of the Army introvert preference is also small compared to their E-I scale standard deviation. Only the civilian group displays a strong

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preference. The civilian group has 71.4% introverts and the strength of their preference is more than half of their E-I standard deviation.

In Chapter 2, I pointed out that the general public has a 75%-E and 25%-I preference distribution. This analysis shows that all of our groups have a larger representation of introverts, when compared to the general public. Knowing these preference distributions can be helpful when working in a joint or mixed group. Don't let the extraverts completely dominate the group without giving the introverts a chance to contribute. Give the introverts time to formulate their ideas and then be sure to draw their ideas out. Don't come to closure in group activities before the introverts have the opportunity to participate. This is important in any group, but especially important with Army or Civilian representation.

S-N SCALE

All of the service groups have more sensors than intuitors. The largest representation is in the Navy with 71.9% sensors. The Civilians, on the other hand, have a clear majority of intuitors, with 60% representation. The mean scores and their standard deviations confirms the strength of the Army and Navy sensor preference. However, the mean and standard deviation indicate the Air Force S and the Civilian N preferences are slight.

A better solution or product occurs when using both sides of the perceiving function. Since all the services show a sensor preference, it may be wise to try and include the intuitive aspect of the perceiving function in group activities. Take time to explore possible alternatives. Look for relationships rather than acting on facts alone and consider the long term impacts. Civilians need to be cautious of their intuitor preference. They need to ensure they focus on the facts and the situation at hand. As I pointed out in Chapter 2, differences in this scale are the source of most miscommunication and misunderstanding. We must take the time to ensure communication is clear and understood, especially in a mixed group of services and civilians.

T-F AND J-P SCALES

As I pointed out in Chapter 2, the general public has an equal representation in both scales. Clearly, the Air Force, Army, Civilian, and Navy groups do not reflect the general public representation. The thinking (T) and judging (J) preferences are strong in all of our groups. The scale percentages, mean scores, and scale standard deviations all show the strength of these two preferences.

The strong T and J preference of all four groups can be a weakness. We can over come this potential weakness by considering and including the positive aspects of the F and P

preferences when making individual and group decisions. The F
preference is concerned with people and interpersonal
relationships. We need to ensure that we consider the impact of
our actions on people. The positive aspects of the P preference
is their flexibility, creativity, and adaptability. Are our
organizations, decisions, and actions to rigid? We may be able
to improve our performance by trying to include flexibility,
creativity, and adaptability in our behavior and decisions.

TEMPERAMENTS

Our survey shows that the NT temperament is the preferred
temperament in the Civilian group, 51.4% representation. NTs
make up only 12% of the general public, see Chapter 2. All of
our groups have a much larger representation than the general
public. The Air Force, Army, and Navy NT representation are
36%, 27.3%, and 18.8%, respectively. Weaknesses displayed by
the NTs are their impatients and impersonal actions (6:271).
Because of the large representation of NTs, the groups should
guard against these weaknesses. This is especially the case for
our civilian group.

Like the NTs, the NF make up about 12% of the general
public (see Chapter 2). All of our groups have a much smaller
representation than the general public. The Air Force, Army,
Navy, and Civilian NF representation are 6%, 7.3%, 9.3%, and
8.6%, respectively. This reflects the small representation of

Fs in our groups. Cooperation and interpersonal skills are the strengths of the NF. Because of the low representation of NFs, our groups should make an effort to incorporate these strengths in their actions.

The SJ temperament is clearly the favored temperament in all of our groups except the Civilians. The Air Force, Army, and Navy SJ representation are 52%, 58.2%, and 46.9%, respectively. As we indicated in Chapter 2, the SJ temperament makes up about 38% of the general population. So our services have a much stronger representation of SJs than the general public. This is not surprising since SJs are structured and organizationally oriented. The civilian group has 37.1% SJs, which is about equal to that of the general public. The weakness of an SJ is their resistance to change. Since the services have such a strong SJ preference, they need to guard against this weakness.

Like the SJ temperament, the SP temperament makes up about 38% of the general public. This percentage of representation is not reflected in any of our groups. They all have a much smaller representation of SPs. The Air Force, Army, Navy, and Civilian SP representation are 6%, 7.3%, 25%, and 2.9%, respectively. Since SP representation is low, the groups should make efforts to incorporate their possitive aspects. As we discussed in Chapter 2, the SPs are action oriented,

spontaneous, and uninhibited. Could it be that our groups are slow in taking action when action is required?

In summary, all four groups have a strong TJ preference. The Air Force and Navy have a E preference, while the Army and Civilian groups have an I preference. In the perceiving function, the services have an S preference, while the Civilian group has a strong N preference. These scale preferences are reflected in the temperament representation. The services have a strong SJ temperament, while the Civilians have a strong NT temperament.

Chapter 6

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this research project was to investigate the characteristics of the Air Force, Army, Civilian, Coast Guard, Marine, and Navy student groups that comprise the ICAF Class of 1993. Using the MBTI instrument, I analyzed these groups. Unfortunately, the Coast Guard and Marine groups were to small to draw significant conclusions. First, I will summarize the key points identified in this research project. Then I will recommend areas for further study. I believe the report will prove useful when working with and within these groups.

CONCLUSIONS

There are three key points highlighted by the analysis. First, all of the groups displayed a strong thinking (T) and judging (J) preference. The significance of this point is that this strong preference may lead to neglecting the strengths of the opposite end of these scales. These strengths include flexibility, creativity, adaptability, and concern for people. The Air Force, Army, Civilian, and Navy groups should try to ensure these aspects are included in their organizations and actions. A way to do this is to review and question decisions before you impliment them. Before implimenting a decision ask yourself the following questions:

● Did you consider all options before making the decision?

- Does the selected course of action include periodic reviews to ensure the decision is accomplishing the desired results?

- Can you adjust the course of action if it is not working or is the decision inflexible?

- Did you consider the impact on your people?

- Does your course of action include informing your people of the decision and how it will impact them?

Asking questions like these can ensure we are not blind sided by our preference weaknesses.

The second point concerns the E-I preference scale. The Air Force and Navy displayed a preference for extraversion, while the Army and Civilian groups displayed an introvertive preference. These differences could lead to misunderstanding and missed opportunity. All groups, acting together or alone, should ensure that extraverts and introverts have the opportunity to participate in group actions. Don't let the extraverts completely dominant the group. Give the introverts time to formulate their ideas, then draw their ideas out.

Finally, the services displayed an S preference, while the Civilian group displayed an N preference. The temperament preferences confirmed this finding. The services had a strong

SJ temperament preference, while the Civilian group displayed a strong NT temperament. Differences in the S-N scale are the source of most miscommunication and misunderstanding. Since differences exist, all groups should work hard to ensure that communication is clear, concise, and understood. Demand feeback to ensure communication is completely received and understood.

RECOMMENDATIONS

I recommend the study be continued each year for the next four years to gather more data and reinforce the findings of this study. The five years of data would enlarge the Marine and Coast Guard sampling and allow the study to include these groups with confidence. Also, collecting MBTI scores of junior, middle, and senior officer and enlisted individuals might prove useful in determining why our organizations have their current representation. Are the types we need at the top of our organizations driven out by our current system? Do our organizations favor the advancement of certain types over others? Based on the results of such a study, we may find a need to adjust our evaluation and promotion systems.

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APPENDIX A

HELP!!!!   HELP!!!!   HELP!!!!

Classmates

I need your help to gather information for my research project.
As part of my project, I want to compare Myers-Briggs Type
Indicators (MBTI) for different groups.

This survey is anonymous and will only take a minute of your
time.

- Enter your MBTI preference scores (the letters and
  numbers located at the bottom left of your MBTI score
  sheet) in the table below:

Example:	Preference Score	Your Scores	Letters	Numbers
	E 1			
	N 45			
	T 27			
	P 37			

- Mark your group

   ___ Air Force   ___ Army   ___ Civilian

   ___ Coast Guard   ___ Marine   ___ Navy

- Place form in box marked "MBTI Research Project" (in back
  of mail room)

Thanks for your help.

RICHARD ST. PIERRE
Seminar 7

APPENDIX B

SURVEY DATA

No.	GROUP	E-I	S-N	T-F	J-P
1	AF	145	61	63	65
2	AF	137	91	71	65
3	AF	131	97	67	99
4	AF	141	53	83	59
5	AF	137	61	81	53
6	AF	157	85	65	89
7	AF	117	77	69	99
8	AF	145	35	89	55
9	AF	139	79	67	53
10	AF	103	95	65	61
11	AF	125	57	55	55
12	AF	115	70	79	72
13	AF	111	45	93	113
14	AF	67	79	91	119
15	AF	81	99	89	131
16	AF	63	63	59	79
17	AF	79	91	65	63
18	AF	93	35	83	77
19	AF	65	47	65	49
20	AF	69	77	45	51
21	AF	85	85	73	63
22	AF	55	71	57	53
23	AF	87	95	57	85
24	AF	67	87	85	97
25	AF	97	85	63	59
26	AF	79	82	87	73
27	AF	71	61	87	81
28	AF	83	47	99	65
29	AF	115	99	111	87
30	AF	127	101	101	55
31	AF	135	115	103	57
32	AF	69	135	107	101
33	AF	137	143	67	87
34	AF	137	115	45	87
35	AF	113	139	75	121
36	AF	113	105	69	113
37	AF	85	125	93	103
38	AF	71	123	87	103
39	AF	73	119	85	119
40	AF	91	131	75	117
41	AF	65	149	91	125
42	AF	49	147	63	145
43	AF	91	125	45	59
44	AF	79	143	79	97
45	AF	87	151	47	61
46	AF	75	107	61	69
47	AF	81	137	41	73
48	AF	85	111	91	79
49	AF	55	109	53	91

APPENDIX B

SURVEY DATA

No.	GROUP	E-I	S-N	T-F	J-P
50	AF	57	123	91	95
51	Army	105	43	85	61
52	Army	139	55	39	47
53	Army	111	89	41	69
54	Army	125	57	65	45
55	Army	121	76	88	82
56	Army	139	45	35	59
57	Army	103	67	41	63
58	Army	121	83	63	51
59	Army	151	43	59	65
60	Army	151	37	73	51
61	Army	145	49	53	45
62	Army	141	61	43	51
63	Army	135	69	71	57
64	Army	139	43	43	65
65	Army	133	55	95	53
66	Army	109	55	43	71
67	Army	105	79	83	49
68	Army	111	79	75	61
69	Army	123	39	71	45
70	Army	115	35	67	47
71	Army	111	80	81	91
72	Army	97	69	59	123
73	Army	83	63	97	121
74	Army	87	39	49	65
75	Army	71	45	39	65
76	Army	83	61	55	57
77	Army	83	71	69	53
78	Army	79	85	47	65
79	Army	93	91	57	67
80	Army	76	69	82	73
81	Army	57	57	67	57
82	Army	91	101	81	75
83	Army	91	131	45	61
84	Army	75	111	55	57
85	Army	87	118	76	81
86	Army	97	129	65	97
87	Army	87	105	65	105
88	Army	97	123	71	131
89	Army	87	151	63	129
90	Army	131	137	91	159
91	Army	101	121	77	107
92	Army	101	151	93	105
93	Army	109	101	65	75
94	Army	95	99	81	86
95	Army	141	87	121	149
96	Army	65	87	133	121
97	Army	55	41	103	59
98	Army	53	85	101	85

SURVEY DATA

No.	GROUP	E-I	S-N	T-F	J-P
99	Army	141	105	111	87
100	Army	139	105	107	55
101	Army	125	109	127	95
102	Army	67	151	115	137
103	Army	111	129	77	87
104	Army	105	117	89	77
105	Army	109	121	81	69
106	Marine	75	143	71	77
107	Marine	81	68	78	75
108	Marine	93	95	65	79
109	Marine	69	55	65	71
110	Marine	89	59	75	73
111	Marine	151	67	51	65
112	Marine	133	47	51	57
113	Navy	95	101	65	69
114	Navy	91	115	55	85
115	Navy	61	107	55	85
116	Navy	91	115	65	83
117	Navy	79	133	77	79
118	Navy	75	119	49	113
119	Navy	79	143	103	73
120	Navy	87	121	135	79
121	Navy	93	123	131	125
122	Navy	85	81	103	81
123	Navy	101	85	113	111
124	Navy	101	59	119	85
125	Navy	137	67	115	73
126	Navy	59	47	39	53
127	Navy	83	99	59	95
128	Navy	83	69	91	85
129	Navy	75	81	67	53
130	Navy	75	89	69	67
131	Navy	89	51	49	57
132	Navy	49	97	87	79
133	Navy	87	57	65	103
134	Navy	83	45	83	125
135	Navy	73	95	41	135
136	Navy	95	95	61	139
137	Navy	51	73	59	117
138	Navy	121	63	47	111
139	Navy	131	93	87	101
140	Navy	147	89	65	51
141	Navy	125	99	63	77
142	Navy	151	83	53	47
143	Navy	139	63	91	69
144	Navy	127	63	63	83
145	CG	113	93	85	89
146	CG	145	55	41	53
147	CG	113	65	65	123

SURVEY DATA

No.	GROUP	E-I	S-N	T-F	J-P
148	Civ	121	67	51	99
149	Civ	135	93	39	85
150	Civ	131	87	55	57
151	Civ	105	75	65	59
152	Civ	155	73	61	61
153	Civ	103	71	41	89
154	Civ	103	49	71	67
155	Civ	155	45	55	53
156	Civ	137	91	65	103
157	Civ	91	75	63	55
158	Civ	87	79	55	61
159	Civ	71	81	57	59
160	Civ	141	75	103	97
161	Civ	83	84	116	79
162	Civ	125	115	107	105
163	Civ	137	107	123	109
164	Civ	71	147	113	71
165	Civ	139	137	57	81
166	Civ	125	103	37	51
167	Civ	127	105	43	85
168	Civ	123	143	47	79
169	Civ	143	129	57	57
170	Civ	103	123	47	53
171	Civ	109	105	89	101
172	Civ	117	141	55	103
173	Civ	143	151	75	135
174	Civ	127	139	99	135
175	Civ	137	131	69	125
176	Civ	145	151	71	125
177	Civ	117	109	61	111
178	Civ	87	133	81	103
179	Civ	87	141	89	121
180	Civ	89	111	75	61
181	Civ	73	109	71	59
182	Civ	95	117	73	69
***		***	***	***	***

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182 RECORDS WERE PRINTED

APPENDIX C

STATISTICAL ANALYSIS DATA

GROUP	SCALE	MEAN	STANDARD DEVIATION	HIGH SCORE	LOW SCORE
Air Force	E-I	96.68	29.69	157	49
	S-N	95.24	32.07	151	35
	T-F	74.64	17.49	111	41
	J-P	82.54	24.82	145	49
Army	E-I	105.49	25.95	151	53
	S-N	83.71	33.10	151	35
	T-F	73.24	23.79	133	35
	J-P	77.51	28.68	159	45
Marine	E-I	98.71	31.08	151	69
	S-N	76.29	33.08	143	47
	T-F	65.14	10.78	78	51
	J-P	71.00	7.66	79	57
Navy	E-I	94.31	27.19	151	49
	S-N	88.12	25.71	143	45
	T-F	75.75	26.34	135	39
	J-P	87.12	24.80	139	47
Coast Guard	E-I	123.67	18.48	145	113
	S-N	71.00	19.70	93	55
	T-F	63.67	22.04	85	41
	J-P	88.33	35.01	123	53
Civilian	E-I	115.34	24.77	155	71
	S-N	105.49	29.85	151	45
	T-F	69.60	22.80	123	37
	J-P	84.66	26.02	135	51
Total Survey	E-I	103.04	27.94	157	49
	S-N	91.35	31.70	151	35
	T-F	72.90	22.03	135	35
	J-P	81.88	26.03	159	45

STATISTICAL ANALYSIS DATA

GROUP	SCALE PERCENTAGES
Air Force	E (60.0%) - I (40.0%) S (58.0%) - N (42.0%) T (92.0%) - F (8.0%) J (76.0%) - P (24.0%)
Army	E (41.8%) - I (58.2%) S (65.5%) - N (34.5%) T (85.5%) - F (14.5%) J (80.0%) - P (20.0%)
Marine	E (71.4%) - I (28.6%) S (85.7%) - N (14.3%) T (100%) - F (0%) J (100%) - P (0%)
Navy	E (68.8%) - I (31.2%) S (71.9%) - N (28.1%) T (78.1%) - F (21.9%) J (68.8%) - P (31.2%)
Coast Guard	E (0%) - I (100%) S (100%) - N (0%) T (100%) - F (0%) J (66.7%) - P (33.3%)
Civilian	E (28.6%) - I (71.4%) S (40.0%) - N (60.0%) T (85.7%) - F (14.3%) J (65.7%) - P (34.3%)
Total Survey	E (49.5%) - I (50.5%) S (61.0%) - N (39.0%) T (86.8%) - F (13.2%) J (74.7%) - P (25.3%)

MARINE

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----------------------------------------
I ISTJ     I ISFJ     I INFJ     I INTJ     I     a/b:
I          I          I          I          I       a = # in type
I 2/28.6%  I          I          I          I       b = % of group
I----------+----------+----------+----------I
I ISTP     I ISFP     I INFP     I INTP     I     Group Total = 7
I          I          I          I          I
I          I          I          I          I     Mode = ESTJ
I----------+----------+----------+----------I
I ESTP     I ESFP     I ENFP     I ENTP     I     Mean = ESTJ
I          I          I          I          I
I          I          I          I          I
I----------+----------+----------+----------I
I ESTJ     I ESFJ     I ENFJ     I ENTJ     I
I          I          I          I          I     SJ(85.7%)   SP(0.0%)
I 4/57.1%  I          I          I 1/14.3%  I     NT(14.3%)   NF(0.0%)
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Figure A: Marine Type Table

COAST GUARD

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----------------------------------------
I ISTJ     I ISFJ     I INFJ     I INTJ     I     a/b:
I          I          I          I          I       a = # in type
I 2/66.7%  I          I          I          I       b = % of group
I----------+----------+----------+----------I
I ISTP     I ISFP     I INFP     I INTP     I     Group Total = 3
I          I          I          I          I
I 1/33.3%  I          I          I          I     Mode = ISTJ
I----------+----------+----------+----------I
I ESTP     I ESFP     I ENFP     I ENTP     I     Mean = ISTJ
I          I          I          I          I
I          I          I          I          I
I----------+----------+----------+----------I
I ESTJ     I ESFJ     I ENFJ     I ENTJ     I
I          I          I          I          I     SJ(66.6%)   SP(33.3%)
I          I          I          I          I     NT(0%)      NF(0%)
----------------------------------------
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Figure B: Coast Guard Type Table