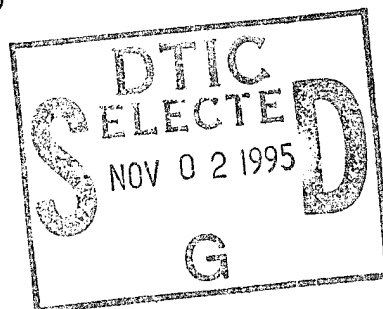


NPS-SM-95-006

NAVAL POSTGRADUATE SCHOOL Monterey, California



**LEADERSHIP AND RETENTION IN TPU'S:
A FRAMEWORK**

by

Kenneth Thomas

August 1995

Approved for public release; distribution is unlimited.

Prepared for:

HQ, DA, OCAR

Attn: DAAR-PAE, The Pentagon

Washington, DC 20310-2400

INFO QUALITY INSPECTED 3

19951101 166

NAVAL POSTGRADUATE SCHOOL
MONTEREY, CA


RADM M.J. Evans
Superintendent

Richard Elster
Provost

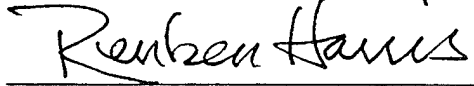
This report was prepared for and funded by HQ DA, OCAR, Attn: DAAR-PAE,
Washington, DC 20310-2400.

Reproduction of all or part of this report is authorized.


This report was prepared by:


Kenneth Thomas
Systems Management Department

Reviewed by:


Reuben Harris, Chairman
Systems Management Department

Released by:


Paul J. Marito
Dean of Research

REPORT DOCUMENTATION PAGE

Form approved

OMB No 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)**2. REPORT DATE**

August 1995

3. REPORT TYPE AND DATES COVERED

Technical Report 8-95

4. TITLE AND SUBTITLE

Leadership and Retention in TPU's: A Framework

5. FUNDING

MIPR5DSMB00014

6. AUTHOR(S)

Kenneth Thomas

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Department of Systems Management
Naval Postgraduate School
555 Dyer Rd. RM 229
Monterey, CA 93943-5103

**8. PERFORMING ORGANIZATION
REPORT NUMBER**

NPS-SM-95-006

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

HQ, DA, OCAR
ATTN: DAAR-PAE
The Pentagon
Washington, DC 20310-2400

**10. SPONSORING/MONITORING
AGENCY REPORT NUMBER****11. SUPPLEMENTARY NOTES****12a. DISTRIBUTION/AVAILABILITY STATEMENT**

Approved for public release; distribution is unlimited.

12b. DISTRIBUTION CODE**13. ABSTRACT (Maximum 200 words.)**

Retention is a key readiness factor in US Army Reserve units. The initial report develops an integrative, conceptual model of retention in Troop Program Units (TPU's) that highlights the role of TPU leadership. It describes three qualitatively different decision processes involved in soldiers' decision to remain in TPU's--economic, psychological, and sociological. Based on a review of prior research on attrition/retention in the US Army Reserve, it identifies five sets of favorable unit conditions that influence unit retention via those decision processes--timely pay/benefits administration, satisfying training, unit cohesion, trust in leaders, and support from employer and spouse. It proposes that the creation of these favorable conditions be considered key leadership goals for TPU commanders, and outlines the next stage of the research program, which will identify specific leader behaviors that build these favorable conditions.

14. SUBJECT TERMS

Leadership, retention, attrition, army reserve, readiness

**15. NUMBER OF
PAGES**

43

16. PRICE CODE**17. SECURITY CLASSIFICATION
OF REPORT**

unclassified

**18. SECURITY CLASSIFICATION
OF THIS PAGE**

unclassified

**19. SECURITY CLASSIFICATION
OF ABSTRACT**

unclassified

**20. LIMITATION OF
ABSTRACT**

LEADERSHIP AND RETENTION IN TPU'S: A FRAMEWORK

By

Kenneth Thomas
Naval Postgraduate School
Monterey, CA 93943-5103

August 1995

Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

The opinions expressed are solely those of the author

ABSTRACT

Retention is a key readiness factor in US Army Reserve units. This initial report develops an integrative, conceptual model of retention in Troop Program Units (TPU's) that highlights the role of TPU leadership. It describes three qualitatively different decision processes involved in soldiers' decision to remain in TPU's--economic, psychological, and sociological. Based on a review of prior research on attrition/retention in the US Army Reserve, it identifies five sets of favorable unit conditions that influence unit retention via those decision processes--timely pay/benefits administration, satisfying training, unit cohesion, trust in leaders, and support from employer and spouse. It proposes that the creation of these favorable conditions be considered key leadership goals for TPU commanders, and outlines the next stage of the research program, which will identify specific leader behaviors that build these favorable conditions.

TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	iv
LIST OF FIGURES	v
I. INTRODUCTION	1
A. Sources of Information	1
B. Retention/Attrition	2
C. Overview of Attrition/Retention Research at USAR	2
D. The Approach Taken Here	6
II. OVERVIEW OF THE MODEL	7
III. ENLISTED RETENTION RATE	7
IV. SOLDIERS' DECISION PROCESSES	10
A. Economic (Calculative)	10
B. Psychological (Calculative or Reinforcement)	11
C. Sociological (Normative)	12
V. UNIT CONDITIONS AFFECTING RETENTION	14
A. Economic Factors	14
B. Psychological Factors	18
C. Sociological Factors	20
VI. FEEDBACK EFFECTS	22
VII. LEADERSHIP BEHAVIOR	23
A. A Methodological Note	23
B. Contemporary Leadership Theory	25
C. Competencies and Best Practices	27
VIII. SITUATIONAL FACTORS	28
IX. NEXT STEPS IN THE RESEARCH PROJECT	29
X. SUMMARY AND RECOMMENDATIONS	31
A. Summary	31
B. Recommendations	32
REFERENCES	33
DISTRIBUTION LIST	36

LIST OF TABLES

	<u>Page</u>
1. Main Reasons Stated by Attritees for Stopping Drilling Before Completion of Obligation	5
2. Most Important Reasons for Joining the U.S. Army Reserve, From 1994 Survey of TPU Soldiers.	15
3. Variables Predicting Attrition (and Intention to Attrit) in the Westat Study.	17
4. Misperceptions of Factors in Junior Enlisted Attrition (1994 Survey of TPU Soldiers).	21

LIST OF FIGURES

	<u>Page</u>
1. Main Elements of the TPU Leadership/Retention Model. .	8

I. INTRODUCTION

Units in the US Army Reserve are a major factor in fighting and winning in the battlefield. As the primary provider of combat service support units for the Army and a major provider of combat support, it is essential that USAR Troop Program Unit (TPU) readiness be maintained at the highest possible levels.

TPU leadership is the key element in formulating a reserve program that is a robust and viable member of the Total Army team. Currently, leadership factors which positively influence unit readiness have not been identified. One of the primary factors affecting unit readiness is the turbulence caused by poor drill attendance and retention. The problem then remains to identify leadership practices/policies which are not easily measured and to understand how they are related to TPU attrition/attendance.

This initial report provides a conceptual model, or framework, for determining the effects of leadership upon USAR TPU readiness, as measured through enlisted attendance and retention. The purpose of the framework, in turn, is to provide the baseline or foundation for the follow-on portions of the research project.

A. Sources of Information

The primary source for this report was the existing research literature on retention/attrition in USAR units. This information was supplemented with more general research on motivation, turnover, and leadership as needed. However, the intent was to remain grounded, as far as possible, in information related to the specific context of the USAR. To further this intent, interviews were conducted with a number of officers and enlisted personnel in the USAR, and TPU's were observed during drill weekends.

B. Retention/Attrition

Enlisted attrition rates are sizeable in the USAR, and have remained so despite a number of programs and policy changes. High attrition (low retention) rates, in turn, are of concern because they introduce a turbulence that impairs TPU readiness. High turnover of personnel in units makes it more difficult for TPU commanders to achieve their readiness goals. At any point in time, there are apt to be a number of positions that are unfilled. When new personnel are obtained, they need training or, in the case of many prior service personnel, retraining--so that they are unable to carry their full load of responsibilities initially and the unit must spend more of its scarce training time going over basic, rather than advanced, content. In addition, the ongoing turnover of personnel disrupts working relationships in the unit, creating confusion and the need to rebuild trust and renegotiate responsibilities and understandings regarding how things are done in the unit. These problems are especially important for those early-deploying TPU's in the Critical Force Pool (CFP)--those units most likely to be called up for active duty on short notice.

High attrition is also financially costly to the USAR. The GAO (1991) has calculated that it costs approximately \$40,000 to recruit and train each soldier. Increased retention rates would thus result in the savings of large sums, which could be invested in upgraded training and equipment, and full-time staff--areas which appear to have significant impact on unit readiness.

C. Overview of Attrition/Retention Research in the USAR

The purpose of this section is not to provide a comprehensive review, but rather to characterize general features of the existing research literature on attrition in the US Army

Reserve.¹ Laurence, Naughton and Harris (1995) note that the largest body of research on attrition in the US military in general has involved attempts to identify personal characteristics of individuals who are most likely to complete their enlistment term. In the case of the US Army Reserve, this research has identified such factors as high school graduation, higher mental abilities, race, gender, and some personality variables. This research has been performed mainly by economists using existing data bases maintained by DoD. As Perry, Griffith and White (1991) note, economists have tended to approach this research with traditional economic assumptions of a rational actor who weighs economic costs and benefits of joining and remaining in the USAR. Thus, these researchers have also emphasized the effects of economic incentives in attracting and retaining soldiers. Taken as a whole, this body of research has been directed at improved recruiting and selection policies--for screening potentially high-quality enlistees and providing them with sufficient incentives to attain recruiting quotas.

Perry et al. (1991) note that there is also a body of research that focuses on how reservists' role conflicts contribute to attrition. In this research, attrition may be triggered by conflicts between reserve activities and reservists' responsibilities to their primary civilian employers and to their families. Role conflict is a sociological concept, and based upon motivational assumptions quite distinct from those of economics (as explained below). Yet, on the whole, attrition research in the USAR dealing with role conflicts has not fully developed these assumptions. Often, these conflicts have simply been added as additional variables in primarily economic analyses.

Finally, there is also a body of research that explains attrition in terms of

¹For a more detailed review of attrition research in the US military, see Laurence, Naughton, and Harris (1995).

conditions that reservists encounter within their Troop Program Units (TPU's). McGovern (1983), for example, concluded that, although pay and bonuses might attract reservists, they were not sufficient to retain them if they were seriously dissatisfied with unit activities. Much of this research, then, deals with the psychological satisfactions and dissatisfactions of TPU membership, and conditions within the unit that create them. In the late 1980's, the Army Research Institute for the Behavioral and Social Sciences conducted a number of survey studies on attrition in the USAR that measured a number of such variables (e.g., Bray & Theisen, 1990; Nogami, Horne & Hydock, 1988). Table 1 summarizes results from one such study, involving over 2,000 attritees (Bray & Theisen, 1990). As shown in that table, attritees reported that the three most important reasons for stopping drill attendance involved dissatisfactions with factors internal to the unit--with unit training activities, unit administration, and unit leaders. More recently, the Office of the Chief, Army Reserve (OCAR) has sponsored survey studies involving such factors, performed first by Westat, Inc. (summarized in Perry, Griffith & White, 1991) and currently by Amerind. (Results from these studies will be summarized below.)

This latter body of research on satisfactions/dissatisfactions within the unit directs attention to the role of leadership in attrition, since the unit commander is accountable for conditions within the TPU and has significant influence over them. The GAO (1991) reported senior Reserve officials' beliefs that ineffective unit leadership and poor training were major factors contributing to attrition. The importance of leadership is also supported by the wide variation in attrition across units performing similar functions (Laurence et al., 1995). Nevertheless, there has been very little systematic research on TPU leadership as a source of attrition. Part of the problem is that previous research on attrition has been conducted using the

TABLE 1. MAIN REASONS STATED BY ATTRITEES FOR STOPPING DRILLING BEFORE COMPLETION OF OBLIGATION

33%	Dissatisfaction. with unit training activities
29%	Dissatisfaction with unit admin. (pay, records, etc.)
28%	Dissatisfaction with unit leaders
23%	Difficulties related to civilian job
21%	Conflicts with family needs/plans
19%	Transportation difficulties
19%	Decreased personal motivation
12%	Time it took from other activities
10%	Conditions related to health/fitness
8%	Difficulties with school requirements

Source: Bray and Theisen, 1990.

Figures shown: % choosing a reason as most important or second most important (Questions 8, 9).
Figures sum to 200%.

individual reservist as the unit of analysis, using random samples of reservists from different units. Almost no research has used the TPU as the level of analysis, and looked at leadership and other conditions within a TPU that account for differences in attrition levels between units.

A major exception is a qualitative study by McGovern (1983) of ten reserve companies showing different levels of unit attrition. Another exception involves ongoing work by the staff of the Readiness Office, Critical Force Pool, US Army Reserve Command (Headley, 1995). This effort identifies units with attrition levels above 40 percent, uses survey and interview data to identify problem areas within the unit, and feeds the data back to unit

commanders. However, this effort is more a diagnostic/counselling intervention than a research program. There is a clear need for more unit-level research, consistent with the GAO's (1991) recommendation of increased attention to unit-level attrition.

D. The Approach Taken Here

While building on the findings of earlier studies involving leadership and retention/attrition in the USAR, the present project is different in two fundamental ways. First, it focuses on leadership and retention at the TPU level. For simplicity, it focuses on the role of a company commander, since most CFP units are of company size. Interviews also suggest that leadership is especially important in shaping retention at the company level, where the commander has sufficient authority to set policies and take disciplinary actions, but the command is also small enough so that the commander is visible to all soldiers. The approach taken here, then, is to try to understand those aspects of the company commander's role that have a significant effect on unit retention.

Second, the goal is to develop a comprehensive model or framework. The intent is not simply to identify a list of variables that shape retention. Rather, the effort is to develop an underlying model of leadership and retention/attrition that helps explain why those variables influence retention. Toward this end, the model attempts to integrate a diverse set of assumptions from different social science disciplines about why people choose to leave units. Rather than choosing one set of assumptions (e.g., economic), or being atheoretical, the strategy has been to build an integrative model that combines diverse causal dynamics into one model that is still simple enough to understand.

II. OVERVIEW OF THE MODEL

Figure 1 shows the main elements of the TPU leadership/retention model developed here as the foundation for the overall project. The major path of causality assumed in the model is via the arrows running from left to right in the figure. However, it is easiest to understand the logic of the model by discussing these elements in reverse order. The outcome that the model seeks to explain is the enlisted retention rate in a TPU. Working backwards, retention is the immediate outcome of soldiers' decision processes. Here, the model spells out qualitatively different decision dynamics which appear to contribute to the decision to remain or leave. Understanding these basic decision-making dynamics, in turn, allows us to identify unit conditions affecting retention. These are the conditions in the TPU that matter to soldiers--that enter into their decision making. In the model, then, TPU commanders with highest retention rates are those who succeed in creating favorable unit conditions. Again working backwards, the model tries to identify leadership behaviors that tend to contribute to those favorable conditions. The model also recognizes that situational factors (such as the type and location of the unit) shape unit conditions as well, making it easier or more difficult to reduce attrition across different units. Finally, the model also includes feedback effects from unit retention to many of the unit conditions, so that the conditions which foster high or low retention can create self-reinforcing cycles.

III. ENLISTED RETENTION RATE

The intent of the model is to determine what influences reservists to remain in the unit. For that reason, the term "retention" is used here (rather than attrition). This term is used in a generic sense to include drill attendance through the period of ones contract, as well as

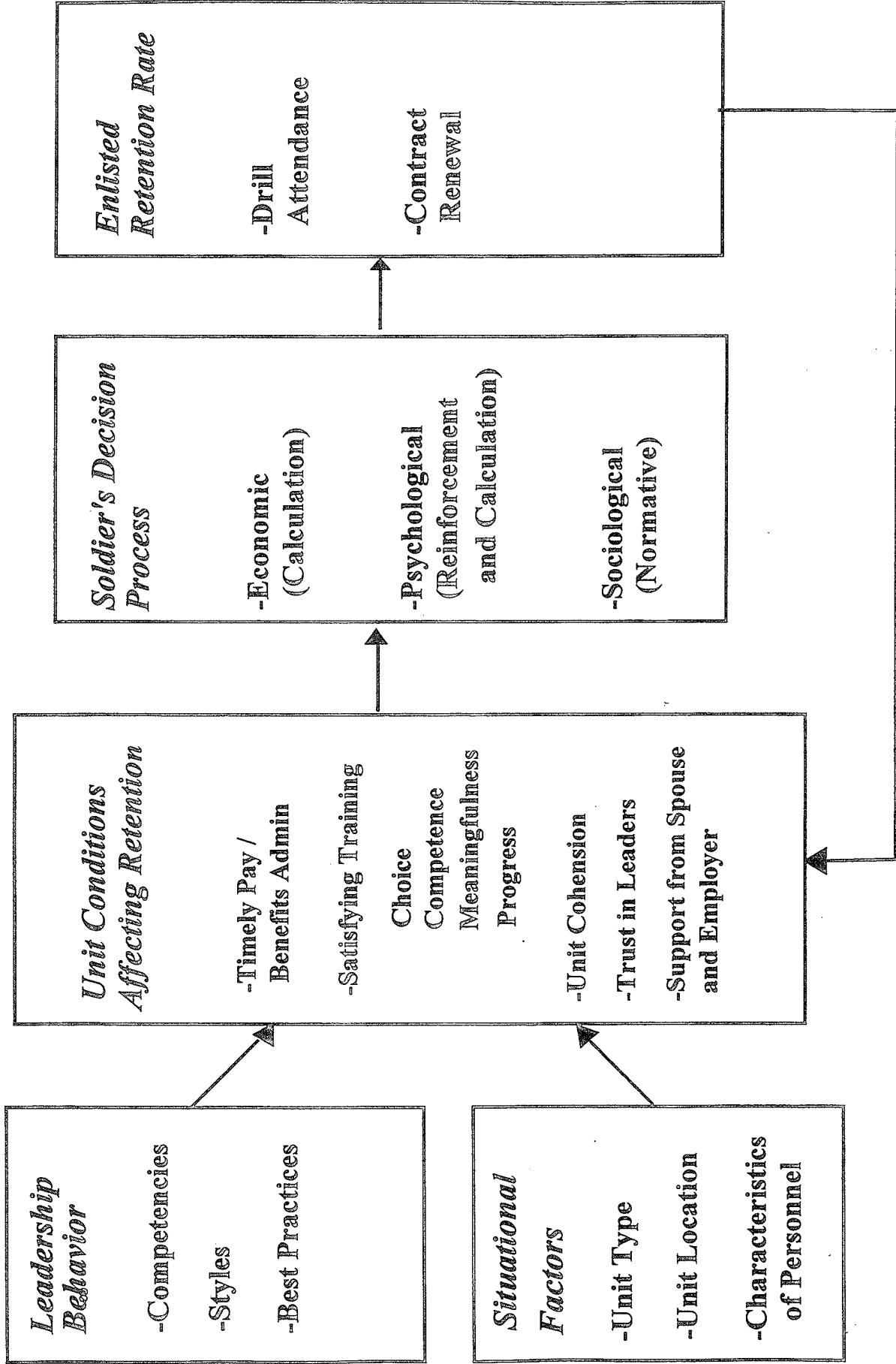


Figure 1. Main Elements of the TPU Leadership / Retention Model

reenlistment at the end of that contract.

Briefly, TPU's make up the Selected Reserve--that part of the Ready Reserve made up of units organized for mobilization and deployment. The remainder of the Ready Reserve is the Individual Ready Reserve (IRR)--a pool of individuals available to augment both Active and Reserve units. When individuals join the USAR, they contract for an eight-year Military Service Obligation--typically three to six years in TPU's (i.e., the Selected Reserve) for non-prior service reservists, with the balance of the enlistment to be served in the IRR. Reservists can reenlist when their terms of service in a TPU are up.

The GAO (1991) noted that, in the Reserves, only one in five non-prior service reservists tends to complete his/her enlistment. Of those who complete their enlistment, more than half reenlist. Although a significant amount of attrition occurs during basic training, the model is concerned with reservists who have completed basic training and joined their TPU. These individuals are required to attend drill weekends (once a month) and two weeks of annual training. Drill weekends are divided into four or five four-hour drills. When reservists miss nine or more drills, they are deemed to be nonparticipating, and are administratively reassigned to the IRR. Thus, no legal sanctions are imposed to enforce reservists' contracts, and reservists are relatively free to walk away from the unit.

Much attrition, then, is due to the unprogrammed loss of reservists who, of their own volition, simply stop participating in training. Other reasons for leaving include unsatisfactory performance, medical problems, and hardships. However, it is the level of the former, manageable or preventable, attrition in the TPU which the model is designed to account for.²

²For difficulties in identifying precise reasons for attrition from existing data, see GAO (1991) and Lawrence et al. (1995).

IV. SOLDIERS' DECISION PROCESSES

Three qualitatively different processes seem to be involved in soldiers' decisions to remain in the USAR. Each process can be viewed as generating a motivational force to remain, and the forces produced by the three processes appear to be additive.³ Each process seems especially useful for describing different aspects of reservists' decisions to remain in a TPU.

A. Economic (Calculative)

This process is central to economic assumptions about retention behavior. It involves a rational analysis of an investment or exchange of goods within the context of larger markets. The reservist is deciding whether to continue investing his marketable time and labor in return for valuable benefits received (including pay, educational and other benefits, and marketable skill training).

This sort of decision making is sometimes called "rational-instrumental." Staying with a TPU has value to the extent that it is believed to be instrumental in producing superior outcomes for the reservist. Those outcomes can be understood as extrinsic rewards given to the reservist in exchange for his/her continued participation. "Rationality" is defined in terms of picking the behavior (staying or leaving) that has the highest expected return. By itself, this decision process produces only an "instrumental" relationship between the reservist and the USAR. That is, membership is valued only in terms of its usefulness (instrumentality) in

³These insights build upon the work of Fishbein (1963; Ajzen & Fishbein, 1980), as well as Triandis (1971; 1977). Both researchers have proposed predictive models of behavior that incorporate calculative (expectancy) dynamics and normative reasoning. In addition, Triandis incorporates habit strength. For a review of both models and an application to reenlistment in the US Army National Guard, see Hom (1977).

producing economic value for the reservist.

This decision process influences the reservist to remain in the reserves as long as the exchange appears to be beneficial to the reservist--benefits outweigh costs, and no other competing use of time appears more rewarding. The reservist will be more likely to leave the unit when pay and benefits are reduced or not delivered, when travel time or other costs of participation increase (including costs with respect to family and primary job), when quality job skills are not received, or when a more potentially rewarding job presents itself.

B. Psychological (Calculative or Reinforcement)

Like economic decision making, this decision process involves valued outcomes. However, this dynamic involves intangible, psychological rewards obtained directly from TPU participation. These rewards are intrinsic to TPU participation--that is, they are psychological satisfactions stemming directly from TPU activities. One key area here involves intrinsic rewards from the work tasks (training) performed during drills and annual training.

The satisfactions received from unit membership can enter into the rational, calculative decision process described above. This sort of deliberate calculation seems to be especially likely to occur at major choice points, such as the decision to join, or to reenlist at the end of the reservist's contract.⁴ Here, a soldier, stopping to think logically, might factor in these psychological rewards, along with economic rewards, to make the decision. However, these satisfactions can also operate through a less rational reinforcement process. "Decisions" reached in this manner are not based on logical calculation of future rewards from TPU

⁴See Hom's (1979) speculation on this point, to explain why cognitive models he tested were especially effective in explaining reenlistment decisions in the National Guard.

membership as much as on the accumulated emotional effects of past experiences with the unit-- and may operate without the reservist stopping to think about it. Much attrition occurs before expiration of the reservist's obligation, when reservists simply miss more drills than are permitted. Interviews suggested that junior enlisteds who began missing drills, in fact, often found that attrition had simply somehow "happened."

Viewed from a reinforcement perspective, the "decision" to attend TPU drills from month to month can be viewed as a habit that can vary in strength for reservists. At any point in time, the habit has been strengthened (reinforced) by positive experiences that the reservist has received from past drill attendance, and has been weakened by negative experiences. When the habit is strong, the reservist will tend to come despite obstacles, feel positive about attending, and have a great deal of emotional energy for the drill. When the habit is weak, the reservist will tend to feel unenthusiastic about drill attendance, and relatively minor obstacles (e.g., trouble arranging transportation or child care) or temptations can interfere with it.

C. Sociological (Normative)

The two previous processes shape the decision to remain in a TPU on the basis of its positive outcomes for reservists--either anticipated benefits (in the economic process) or past reinforcements (in the psychological process). In contrast, the sociological process involves reservists' thinking about the moral or ethical "rightness" of the act of remaining--of what they "should" do. This type of thinking is called "normative" (e.g., Fishbein, 1963). This decision process, then, involves standards of behavior to which individuals hold themselves and each other.

As described by Fishbein (1963; Ajzen & Fishbein, 1980), normative thinking involves considering how individuals or groups that one values would view the correctness of a given action. The individual is most likely to follow a given course of action when it is regarded as normatively desirable by "reference" groups (or individuals) whom the individual most strongly values and respects.

In the case of TPU retention, reservists consider the views of some reference people or groups outside the TPU, including employers and spouses. However, important normative forces also develop within the TPU. The unit is likely to develop its own standards regarding drill attendance, for example. The more cohesive the unit becomes, the more effect those norms tend to have upon the behavior of unit members. In a highly cohesive unit with standards of high attendance, absenteeism may be viewed as disloyal, irresponsible, unprofessional, letting down the unit, and so on. For reservists who have been in the USAR or the active Army for lengthy periods, those standards are likely to become internalized as personal standards, through a process of socialization.

Normative standards apply both ways, however, in the sense that reservists also hold unit leadership to normative standards. Here, one can think of a kind of normative "contract" (e.g., Rousseau, 1995) between reservists and leaders. The TPU leadership builds trust and respect by treating reservists fairly, living up to its own standards, looking out for the welfare of reservists, and so on. In contrast, if reservists feel that TPU leadership has violated its end of this normative contract, then reservists appear less likely to feel obligated to live up to their end. If the violation is severe enough, and the standards internalized, it may cause some reservists to leave the unit--possibly to find another unit whose leadership will honor the

contract.

V. UNIT CONDITIONS AFFECTING RETENTION

This portion of the framework identifies those conditions within a TPU that appear most likely to influence retention levels. Drawing upon past retention/attrition research, conditions are identified that seem most important in terms of each of the three decision processes mentioned above. Some conditions, like promotions, may be involved in more than one process. For simplicity, however, each condition is listed only under the process in which it appears to play the strongest role.

A. Economic Factors

Economic factors are clearly an important reason for reservists to join the USAR. Gorman and Thomas (1989, table A-1) performed a factor analysis of non-prior service enlistees' responses to questions about enlistment reasons on the 1987 New Recruit Survey. The analysis identified four factors: personal development (being all you can be), career development (skill-building for civilian jobs), the meaningfulness of being a soldier (service to country, etc.), and money/fringe benefits. Of these four, career development and money/fringe benefits are most clearly related to economics. Table 2 shows reservists' designation of the most important reason for joining the USAR on the 1994 Survey of TPU Soldiers (Amerind, 1994). Although "serve my country" is on average cited most frequently (except for junior enlisted), the three next most frequently cited reasons are economic. Earning extra money is frequently cited across all grade levels. Earning Montgomery GI Bill benefits is exceptionally important among junior enlisteds. Expanding civilian career opportunities is somewhat less often cited.

Nevertheless, once reservists join and begin participating in unit activities,

TABLE 2. MOST IMPORTANT REASONS FOR JOINING THE U.S. ARMY RESERVE,
FROM 1994 SURVEY OF TPU SOLDIERS

<u>Reasons</u>	<u>% of Soldiers Rating Reason "Most Important"</u>		
	<u>Jr. Enl.</u>	<u>Jr. NCOs</u>	<u>Sr. NCOs</u>
Earn extra money	16	27	28
Earn Mont. GI Bill benefits	22	10	2
Expand civilian career opportunities	9	7	6
Serve my country	19	28	33
Become more mature, self-reliant	8	3	2
Keep in good physical condition	1	0	0
Be challenged by military training	10	5	5
Develop leadership qualities	2	3	4
Gain self-discipline	1	2	0
Other	13	15	19

Source: Amerind, 1994. Answers to Question T18.

economic factors appear to become less important or less clearcut (i.e., more diluted) in the decision to stay or leave. Other psychological and social factors are introduced into the reservists' experiences. For example, the economic benefits of career preparation become realized (or not) through training activities, which introduce their own psychological satisfactions or dissatisfactions. This training, moreover, is also a way for the reservist to realize non-economic goals of personal development and becoming a good soldier. Thus, there is no clearcut evidence that reservists' dissatisfactions with training are tied primarily to economics of career development. In this report, therefore, adequacy of training is discussed primarily as

a psychological factor.

Two other considerations seem important to understanding the role of economic factors for TPU leadership. First, company commanders are extremely restricted in ability to alter or augment the terms of the economic agreement between the reservist and the USAR--that is, to offer new economic rewards. Rather, they are in charge of administering or executing that agreement. So, in terms of economic factors, TPU leadership seems to shape attrition primarily in terms of how well, and how fairly, it executes economic matters like pay and promotions. Attrition reasons surrounding promotions (or their lack), in particular, appear to arise from perceptions of unfairness--a normative issue--and will therefore be discussed under sociological factors involving trust, below.

Timely pay and benefits administration stands out as an economic factor influenced by the TPU. The GAO (1991) notes that delayed pay and benefits have been a continuing problem, as indicated by past survey studies of reservists. In the 1994 Survey of TPU Soldiers (Amerind, 1994), 35% of junior enlisted stated that pay problems would contribute a great deal to their leaving the TPU. Table 3 shows the results of a predictive analysis of attrition conducted by Westat, based on data from the 1988 and 1989 data from the Survey of TPU Soldiers (Perry, Griffith and White, 1991). Survey data from 1988 were used to predict reservists' stated intentions to leave before their contracted date, and also to predict whether reservists had actually attrited by the time of the 1989 survey. In that study, receiving monthly pay on time was one of the three top predictors of actual leaving/ staying. Although pay and benefits problems can also have their source outside the unit in "downstream" paperwork, many of these problems are seen by reservists as being caused within the unit. As shown earlier in

TABLE 3. VARIABLES PREDICTING ATTRITION (AND INTENTION TO ATTRIT) IN THE WESTAT STUDY

Economic Factors

- * Receiving monthly pay on time

Psychological Factors

Training:

- Opportunity to use military skills during weekend drill
- Recognition and rewards are done well
- (Chance to develop desired job skills in USAR)
- (Opportunity to develop leadership skills)
- (Importance of soldier's work to unit)
- (Opportunity to find an enjoyable job in USAR)

Sociological Factors

Unit Cohesion:

- * Sense of belonging to USAR
- * Sense of belonging to unit
- Sense of unit as family
- (Personal meaning of USAR)
- (Pride in Army Reserve participation)

Trust in Leaders:

- Trust and confidence in officers
- Unit commander viewed as helpful
- Platoon leader viewed as helpful
- Squad leader viewed as helpful
- (Immediate supervisor looks out for soldier's welfare)
- (First Sgt. viewed as helpful)
- Promotions handled fairly in USAR

Role Conflicts:

- Absence for annual training a problem for employer
- Civilian job supervisor attitude to USAR participation
- (Spouse attitude toward participation in USAR)
- (Weekend drill absences a problem for family)

Miscellaneous:

- Orientation to unit mission done well at in-processing
- Introduction to chain-of-command done well at in-processing

* Best discriminating variable for leavers vs. stayers

(Significant predictors of stated intent to leave, but not of actual leaving).

Source: Adapted from Perry, Griffith and White (1991). Excludes demographic variables. Combines results from their Tables 1 through 4. Headings have been added.

Table 1, a sample of attritees rated dissatisfaction with unit administration (of pay, records, etc.) as one of the three most important reasons why they had left the Army Reserve.

B. Psychological Factors

Intrinsic rewards from work tasks have been found to be important predictors of employee turnover in civilian organizations. Likewise, job redesign interventions to "enrich" those jobs have proven effective in reducing turnover.⁵ In the USAR, however, all work performed in the TPU is considered training (unless it is mobilized). So attrition research involving work tasks has been examined in terms of training.

As shown in Table 1, dissatisfaction with unit training activities was most frequently cited by attritees as their reason for leaving the USAR in the 1988 TPU Attritee Research Project (Bray & Theisen, 1990). The GAO (1991) noted that dissatisfaction with training has been primarily restricted to weekend drills (inactive duty training), rather than annual training or active duty.

Some dissatisfaction comes from degraded training--that is, inability to conduct planned training. In the focus group study conducted by Nogami and Horne (1988), several related factors emerged: lack of equipment, lack of training areas, and lack of constructive activities during drills. In Unit Retention Evaluations conducted on high-attrition TPU's by the US Army Recruiting Command (Headley, 1995), training disorganization was a frequent theme--training plans changed at the last minute, equipment not available for the new plan, and soldiers forced to spend long periods waiting.

Other dissatisfaction seems to come from the nature of that training which is

⁵For a review of the effects of job redesign or job enrichment interventions, see McEvoy & Cascio (1985).

conducted. Attritees in the 1988 TPU Attrition Project were especially likely to characterize their training as "boring" (Bray & Theisen, 1990). Likewise, "uninteresting" training showed up as an attrition factor in the Nogami and Horne (1988) study. The Westat analysis also identified opportunity to find an "enjoyable" job in the USAR as a factor that predicted staying vs leaving (Perry, Griffith & White, 1991).

Words like boring, uninteresting and enjoyable are general evaluations of the satisfaction obtained from training. For diagnostic purposes, it seems important to provide more information on what it takes to make training satisfying. Other research results provide insight into the more specific features of training that contribute to this overall evaluation. Here, I will use a model of intrinsic task rewards developed by Thomas and Tymon (1993; 1994; Thomas & Velthouse, 1990) to organize those specifics. That model identifies four experiences from work tasks that are intrinsically rewarding (satisfying): a sense of choice, of competence, of meaningfulness, and of progress.

Choice is the feeling that one is doing what one wants to do and in ways that make sense. The GAO (1991) observed that a major factor in attrition was assigning duties to reservists that did not match the MOS area they had chosen. Similarly, not liking ones reserve duties emerged as an attrition factor in the Nogami and Horne (1988) study.

Competence is the feeling that one is performing ones task activities skillfully, demonstrating abilities. In the Westat analysis (Table 3), the opportunity to use military skills during weekend drills was a significant predictor of actual staying vs. leaving. In addition, the chance to develop desired job skills, and the opportunity to develop leadership skills, were significantly related to the reservist's stated intention to stay vs. leave.

Meaningfulness is the feeling that one's work serves a worthwhile purpose--that one's work can make a valuable difference. In the Westat findings (Table 3), the importance of the soldier's work to the unit was a significant predictor to his/her stated intention to stay vs. leave.

Progress is the feeling that one is actually achieving the task purpose--that the task is really moving forward and one's efforts are accomplishing something. Progress can be apparent to soldiers themselves and can also be reinforced through feedback and recognition from others. In the Westat findings, the perception that recognition and rewards were handled well in the unit was a significant predictor of staying vs. leaving.

C. Sociological Factors

Role conflicts with civilian employers and with the family were identified as major retention/attrition factors by Grissmer & Kirby (1985) and constituted two of the four major causes of attrition mentioned by USAR unit focus groups in 1988 (Nogami & Horne, 1988).⁶ Although important, there is also some evidence that their influence has been overemphasized. Table 4 shows relevant results from the 1994 Survey of TPU Soldiers (Amerind, 1994). As the table shows, senior enlisted and officers tend to overestimate the importance of support by spouse and employer on the attrition of junior enlisted, as compared with ratings of importance by the junior enlisted themselves. In the Westat study (Perry et al., 1991), likewise, spouse and employer support contributed a very modest amount to predicting reservists' intention to

⁶Role conflicts with employer and spouse, strictly speaking, are not unit conditions, since they occur outside the unit. However, they are included here because they are not totally outside the influence of the TPU commander. A number of units reported using outreach efforts to try to have spouses and civilian employers of reservists participate in some unit functions--to win their support.

**TABLE 4. MISPERCEPTIONS OF FACTORS IN JUNIOR ENLISTED
ATTRITION (1994 SURVEY OF TPU SOLDIERS)**

	% Saying Factor Would Contribute A Great Deal to Jr. Enlisted At- trition		
	Junior Enlisted	All Others	Difference
<u>Overestimated Factors</u>			
Lack of employer support	25	43	-18
Lack of spouse support	36	47	-11
<u>Underestimated Factors</u>			
Lack of equal opportunity due to racial discrimination	37	14	+23
Lack of equal opportunity due to gender discrimination	34	14	+20
Not being treated with respect	51	31	+20
Not being treated fairly	47	28	+19
Poor officer leadership	44	30	+14
Officers don't care about enlisted soldiers	41	29	+12
Poor advancement opportunities for military skill training	39	28	+11

Source: 1994 Survey of Troop Program Unit Soldiers (Amerind, 1994). First column shows percent of junior enlisted rating each item as "would contribute a great deal" to their decision to leave Army Reserve (Question 51). Second column shows percent of all others rating each item as "contributes a great deal" to junior enlisted soldiers leaving the Army Reserve (Question 50). Of the 24 items, only those showing a response difference of 10 percent or more are shown here.

attrit--adding only two percent to explained variance (from an R^2 of .17 to .19).

Trust in leaders, on the other hand, has been underestimated as an influence on attrition. As shown in Table 4, senior enlisted and officers underestimated the importance of a number of items that seem to capture aspects of their own trustworthiness. Not being treated fairly and respectfully by leaders, and not being cared about by leaders, seem generally to get at issues of trust and trustworthiness of leadership. In more general terms, they imply that leaders have violated the implicit normative contract that reservists have with TPU leaders. The Westat results (Table 3) likewise show that a number of items related to leadership

trustworthiness predicted actual staying vs. leaving. These items include general trust and confidence in officers, fair handling of promotions, and the perceived helpfulness of the entire chain of command within the company.

Unit cohesion measures emerged in the Westat analysis (Table 3) as two of the three strongest predictors of attrition. The sense of belonging to the U.S. Army Reserves and to the unit were strongly predictive of actual staying vs. leaving. The sense of the unit as a family also predicted staying. Among the sociological factors, then, unit cohesion appears to have a comparatively strong influence on retention/ attrition. The central role of unit cohesion in attrition was also apparent in McGovern's (1983) qualitative study of TPU's with high and low attrition. Likewise, attritees in the 1988 TPU Attrition Project tended to rate "I never felt like I belonged to the Unit" as an important reason why they stopped attending drills (Bray & Theisen, 1990, question #83).

Unit norms related to retention/attrition appear not to have been included in the surveys of USAR attrition administered to date. For example, how do the TPU's members (not simply the officers) view the acceptability of missing drills? Under what circumstances is it seen as OK (advance notice given, make-up drill attended, only in emergencies)? This appears to be a potentially important sociological factor which needs to be included in future unit-level research on retention/attrition.

VI. FEEDBACK EFFECTS

As noted earlier, the main causal effects in the model in Figure 1 are assumed to be from left to right. Thus, unit conditions have a causal influence on retention. Predictive studies, such as the Westat study (Perry et al., 1991), confirm this causal direction. However, there are also

feedback effects from unit retention to those unit conditions that cause it. For example, longer lengths of service in the company make it easier for company clerks to master their pay/benefits paperwork. Longer periods of time together also tend to increase group cohesiveness and trust levels. As experience levels increase, likewise, it becomes easier to conduct advanced (and more satisfying) training.

This reciprocal influence, between unit-level retention and the unit conditions in the model, implies that high (and low) levels of retention can create a self-reinforcing cycle in units--an upward or downward spiral. Directing this spiral upwards, then, is a key, high-leverage strategy in improving unit readiness.

VII. LEADERSHIP BEHAVIOR

Leadership is a multidimensional entity. One key distinction is between the goals of leadership and the behaviors that leaders engage in to try to reach those goals. In the model, the unit conditions discussed above (and shown in Figure 1) are proposed as leadership goals with respect to retention. That is, the evidence suggests that leaders who wish to increase retention in their TPU should commit to creating those conditions. Again, working backwards, the leadership behavior portion of the model tries to identify specific behaviors that help produce those conditions.

A. A Methodological Note

There is not a great deal of evidence on specific leadership behaviors related to retention/attrition in the USAR. In general, this area needs more research attention. Here, it seems useful to point out one methodological issue that is involved in such research--both as a way of partially explaining why there is little existing evidence and of identifying a strategy for

future research.⁷

In the model, unit conditions are intervening variables in the causal path between leadership behavior and retention. If the model is accurate, then, attrition is directly influenced by unit conditions, and only indirectly influenced by leadership behavior (via their effects on unit conditions). A consequence of this is that unit conditions should have much stronger correlations with attrition than leadership behavior would have. In fact, if the model were totally accurate, leadership behavior would have no significant effect on retention after accounting for the effects of unit conditions. This means that in the typical study using correlation and regression to identify the most significant influences on attrition, leadership behaviors will tend not to show up as dominant or significant predictors. In the Westat analysis (Perry et al, 1991), for example, a number of leadership behaviors were significantly correlated with actual staying vs. leaving, but failed to achieve significance after the unit conditions in Table 3 had been entered into the discriminant function. Those behaviors include: the immediate supervisor setting an example, the immediate supervisor training soldiers as a team, officers spending enough time with the troops, and NCO's spending enough time with the troops.

The implication from these results is not that leadership behavior is relatively unimportant in attrition. Leadership behavior, after all, is what the leader can do to build the conditions that improve retention. The implication is that other statistical techniques are needed for this type of research. Path analysis, for example, would do a better job of spelling out the sequences or networks of causal relationships between the variables in the model. Experimental studies would provide the ultimate evidence for the role of leadership behaviors--for example,

⁷For other methodological suggestions for attrition research, see Laurence, Naughton and Harris (1995).

using educational interventions to alter leadership behaviors in selected TPU's and then tracking their effects upon retention in those units.

B. Contemporary Leadership Theory

Although there is not much available research on leadership behavior and attrition in the Army Reserve, the larger body of research on leadership provides some working hypotheses that deserve testing in the USAR. Two important areas of research involve what have been termed "transactional" and "transformational" leadership.

Transactional leadership constitutes a huge body of research on the extent to which the leader emphasizes task and people issues in his relations with subordinates.⁸ Task-oriented behavior, called "initiation of structure" in the most heavily researched theory (developed at Ohio State), involves the extent to which the leader initiates work activity in the work group, organizes it, and defines how it is to be done. People-oriented behavior (called "consideration" in that theory) involves various ways of expressing concern for the welfare of work group members--such as expressing appreciation for good work, being easy to approach, emphasizing the importance of job satisfaction, building subordinates' self-esteem, and listening to and implementing subordinates' suggestions.

In general, the effects of these behaviors have been found to depend upon organizational setting. However, studies in the Active Component of the US Army (Marsh & Atherton, 1981-81) and in the US Army National Guard (Hom, 1979; Katerberg & Hom, 1981) consistently show that subordinates' perceptions of high leader initiation of structure and high leader consideration are both predictive of subordinates' satisfaction. Hom (1981) further

⁸For an extensive review of this literature, as well as some material on transformational leadership, see Bass (1990).

reports that high perceived levels of both behaviors were related to higher reenlistment rates in the National Guard. With respect to the Army Reserve studies reviewed above, the Westat findings (Table 3) regarding perceived leader "helpfulness" appear consistent with the importance of leader consideration. Further research seems required on the contribution of leader's initiation of structure to retention in the USAR, although it seems to be a reasonable working hypothesis based on the other military findings.

Transformational leadership involves the leader's ability to inspire subordinates with a compelling goal or purpose.⁹ Transformational leadership, then, is concerned with the leader's ability to set a direction and goal, and inspire subordinates to exert unusual levels of effort to reach it. The term, "transformational leadership," was coined by Burns (1978), who noted that transformational leaders were able to get subordinates to transcend their own narrow self-interests in the pursuit of higher ideals. A central theme in the contemporary literature on this topic is that transformational/inspirational leadership requires the articulation by the leader of a compelling vision of the group's goal--one which appeals to the values held by group members and will therefore be adopted and shared by them (e.g., Bennis & Nanus, 1985; Kouzes & Posner, 1987).

Although most research on transformational leadership has focused on performance rather than attrition/retention, the company commander's use of a compelling vision for the command would seem to be an important contribution to the unit conditions that

⁹The concept of "transformational leadership," as originally proposed by Burns (1978) in the context of presidential leadership, has been developed in recent management research under different labels--transformational, inspirational, and charismatic. The term is used generically here to include this larger set of labels.

contribute to retention. Most reservists believe that the USAR performs an important readiness mission for the US, and service to country is a frequently cited reason for joining (Table 2). Even the attritees surveyed in the 1988 TPU Attritee Research Project (Bray & Theisen, 1990) tended to report high levels of pride in the USAR (question 61) and a strong belief that the USAR is essential to the defense of the U.S. (question 122). Thus, there is a strong pool of idealism in the TPU surrounding the mission of the USAR.

Adopting a clear, compelling vision for the TPU, phrased in terms of unit readiness to carry out its mission on behalf of the U.S., then, would appear to tap the ideals of TPU members. Such a vision could contribute considerably to satisfaction with training by contributing a clear purpose. As Thomas and Tymon (1993) note, work tasks (e.g., training) are composed of activities directed toward purposes. A compelling vision provides meaningfulness of purpose, and a direction in which to measure progress. Without such a purpose, training can become simply going through the motions (meaningless activities). Providing such a vision may also be one of the behaviors that builds trust in leaders. Finally, having a shared, meaningful purpose, is likely to make a strong contribution to unit cohesion. Thus, there appears to be sufficient reason to adopt the working hypothesis that creating a compelling vision for the unit will tend to contribute to the conditions that increase retention. Along these lines, note that "orientation to the unit mission done well at in-processing" was a significant predictor of actual staying vs. leaving in the Westat analysis (Table 3).

C. Competencies and Best Practices

The leadership literature has tended to focus on leadership "style"--which seems to reflect the general emphasis of the leader, rather than concrete behaviors or skills. Going

beyond style, the framework developed for this project also identifies competencies and best practices as important aspects of leadership behavior that shape attrition.

Leadership competencies were mentioned a number of times in interviews conducted by the author. Planning (for training) stood out as a strong theme. Positive reinforcement was also mentioned a number of times. Coordination with other commands also appeared to play an important role in making training sessions work. Time management also seemed important, given the high time demands on the company commander. Also mentioned repeatedly was the ability to communicate with troops.

Leadership best practices are procedures or programs developed or adapted by the command to try to contribute to the unit conditions affecting retention. Several stand out from interviews: conducting makeup drills for reservists with scheduling conflicts on drill weekends, sponsoring Christmas and other activities that involve spouses and families in TPU activities, outreach programs to involve civilian employers, and programs to contact all reservists before the drill weekend to ensure attendance and provide needed transportation.

VIII. SITUATIONAL FACTORS

The model recognizes that some of a unit's retention level can be explained by situational factors that are relatively objective and independent of leadership. Different types of units (for example, medical vs. military police) may yield significantly different retention levels. Geographic location (for example, rural vs. urban) may likewise influence retention. Likewise, characteristics of the unit's personnel (male vs. female, average years of service, etc.) will exert a significant influence on retention levels. A separate research effort is currently underway at the Naval Postgraduate School to systematically test for the effects of these and other situational

factors on unit-level retention.¹⁰ Results of that study will provide more definitive inputs for this portion of the model.

In the model, these situational factors are shown as shaping retention through their influence on unit conditions. For example, type of unit is likely to influence the meaningfulness of the training. However, it is also quite possible that these situational factors shape retention through variables that are outside the unit (for example, labor market conditions and bonuses for different Military Occupational Specialty categories) and therefore exogenous to the model.

With respect to leadership, this portion of the model implies that unit commanders will be handicapped or aided in their efforts to control retention by situational factors over which they have no control. Methodologically, it implies that studies of the effects of leadership behavior upon unit-level attrition will need to control for the effects of situational factors.

IX. NEXT STEPS IN THE RESEARCH PROJECT

Phase I of the project has culminated in the development of the framework presented in this report. Phase II will take the framework the next step by identifying leadership behaviors that contribute to TPU retention. The basic strategy for this research is to identify units that are unusually high (or low) in retention, and then to conduct qualitative interviews to learn what leadership behaviors by the TPU commander are seen as contributing to (or reducing) attrition levels in the unit.¹¹ More specific steps are as follow:

¹⁰Professor George Thomas is principal investigator on this project, sponsored by the Office of the Chief, Army Reserve (OCAR).

¹¹Qualitative research is especially useful for discovering new knowledge (theory building), whereas quantitative research (e.g., with scaled questionnaires) is more generally useful for the testing of previously derived knowledge (Glaser and Strauss, 1967).

1. Make use of current research, now being conducted at the Naval Postgraduate School, which is identifying situational factors that shape retention in TPU's. Using this research, identify a number of units in the Critical Force Pool that are substantially higher or lower in retention than would be predicted by those situational variables alone.

2. Conduct interviews with a wide variety of individuals in each TPU (including the commander) plus the unit commander's superior. Attempt to identify any unit conditions, other than those listed in Figure 1, that are seen as contributing to high/low retention. (Ask specifically about unit norms relating to attendance.) Using this augmented list of unit conditions, ask each interviewee to identify aspects of the unit commander's style, competencies, and best practices that contribute to each unit condition. With interviewees' permission, tape record these interviews for later transcription.

3. Review interview transcripts to identify patterns regarding leadership styles, competencies, and best practices that are seen as contributing to each unit condition. Add these findings to the framework in Figure 1.

The findings of Phase II, in turn, will be used to generate policy recommendations. While it is not possible to anticipate the precise findings and recommendations at this point, it seems likely that some recommendations will involve education/training for new company commanders (and possibly for those transitioning from Active Component to Reserve Component units). They may also include selection and evaluation/feedback policies for company commanders. An important set of recommendations will also involve the dissemination and implementation of effective best practices identified by the study. Follow-up research priorities may also be identified, such as quantitative studies to test aspects of the new model, and/or field

experiments to test the effects of new policies upon attrition levels. The latter seem especially important for verifying that any new policies (for example, training and implementation of best practices) have the desired effect upon unit-level retention.

X. SUMMARY AND RECOMMENDATIONS

A. Summary

This report has proposed a framework or model to serve as the foundation for an ongoing project to determine the role of TPU leadership in increasing unit-level retention. This model incorporates a comprehensive set of assumptions about the decision processes involved in reservists' retention/attrition behavior--incorporating economic, psychological and sociological dynamics. Drawing upon previous attrition research in the US Army Reserve, it identifies unit conditions in the TPU that significantly affect retention, using the various decision processes to explain how each set of conditions is believed to impact retention. There is sufficient convergence in the existing research evidence to place confidence in these unit conditions as significant influences upon attrition. The building of these conditions is proposed as a leadership goal for increasing retention. The model then attempts to identify key leadership behaviors that help to build these unit conditions (and thus increase retention). Here, there is less direct research evidence available, for which a methodological explanation was offered. Some working hypotheses regarding leadership style and retention were derived from the broader research literature, and attention was also drawn to the importance of leadership competencies and best practices. A research design for the next phase of this project was described to yield more definitive information on the leadership behaviors (styles, competencies, and best practices) that contribute to TPU unit retention.

B. Recommendations

The model proposed in this report (outlined in Figure 1) is a framework that organizes present knowledge regarding leadership and attrition in TPU's, and identifying missing knowledge to be provided in Phase II of the research project. Thus, it is very much a work in progress. However, enough reliable information is captured in the model now to recommend some use in its present form:

1. Recommend that the model be incorporated into education/ training for company commanders and higher level officers.

2. Recommend that the "unit conditions" aspect of the model be used as an input into development of diagnostics for TPU's. The staff of the Readiness Office, Critical Force Pool (CFP), US Army Reserve Command is already performing diagnostics for units showing high attrition levels. This model is offered as additional information for their work--and for units outside the CFP.

REFERENCES

- Ajzen, I., and M. Fishbein. (1980). Understanding Attitudes and Predicting Social Behavior. Englewood Cliffs, NJ: Prentice-Hall.
- Amerind, Inc. (1994). 1994 Survey of Troop Program Unit Soldiers, Tabulation Volume I: All Respondents. Alexandria, VA.
- Bass, Bernard M. (1990). Bass & Stogdill's Handbook of Leadership, Third Edition. New York: Free Press.
- Bennis, Warren G, and Burt Nanus. (1985). Leaders: The Strategies for Taking Charge. New York: Harper & Row.
- Bray, Robert M., and Anne C. Theisen. (1990). The 1988 Troop Program Unit Attritee Research Project: Tabular Descriptions of the U.S. Army Reserve, Research Product 90-18, U.S. Army Research Institute for the Behavioral and Social Sciences, Alexandria, VA.
- Burns, John M. (1978). Leadership. New York: Harper & Row.
- Fishbein, M. (1963). An investigation of the relationship between beliefs about an object and the attitude toward that object. Human Relations, 16, 233-240.
- General Accounting Office. (1991). Reserve Components: Factors Relating to Personnel Attrition in the Selected Reserve, Report GAO/NSIAD-91-135.
- Glaser, Barney G., and Anselm L. Strauss. (1967). The Discovery of Grounded Theory: Strategies for Qualitative Research. New York: Aldine.
- Gorman, Linda, and George W. Thomas. (1989). An Analysis of Enlistment Motivations for United States Army Reserve Recruits. Technical Report NPS-54-90-003. Monterey, CA: Naval Postgraduate School.
- Grissmer, David W., and Sheila Nataraj Kirby. (1985). Attrition and Retention in the Army Reserve and Army National Guard: An Empirical Analysis, Report P-7077, Rand Corporation, Santa Monica, CA.
- Headley, Thomas, Sgt. Major. (May, 1995). Personal communications regarding Unit Retention Evaluations conducted by retention analysts in Readiness Office, Contingency Force Pool, US Army Reserve Command.
- Hom, Peter W. (1979). A Comparative Examination of the Relative Effectiveness of Several Different Approaches in the Prediction of Withdrawal Behavior. Unpublished doctoral dissertation, University of Illinois at Urbana-Champaign.

Katerberg, R., and Peter W. Hom. (1981). Effects of Within-Group and Between-Groups Variation in Leadership. Journal of Applied Psychology, 66, pp. 218-223.

Kouzes, J.M., and Barry Z. Posner. (1987). The Leadership Challenge: How to Get Extraordinary Things Done in Organizations. San Francisco: Jossey-Bass.

Laurence, Janice H., Jennifer A. Naughton, and Dickie A. Harris. (1995). Attrition Revisited: Identifying the Problem and Its Solutions. Final Report, submitted to the U.S. Army Research Institute for the Behavioral and Social Sciences. Alexandria, VA: Human Resources Research Organization.

Marsh, M.K., and R.M. Atherton, Jr. (1981-82). Leadership, Organizational Type, and Satisfaction in the U.S. Army: The Hi-Hi Paradigm Sustained. Journal of Social Relations, 9, pp. 121-143.

McGovern, James M. (1983). Non-ETS Attrition: Case Studies of Ten Army Selected Reserve Companies, RA-202. Prepared for the Office of the Deputy Assistant Secretary of Defense--Reserve Affairs.

McEvoy, Glenn M., and Wayne F. Cascio. (1985). Strategies for Reducing Employee Turnover: A Meta-Analysis. Journal of Applied Psychology, 70, pp. 342-353.

Nogami, Glenda Y., and David K. Horne. (1988). Perspectives on Reserve Attrition, Research Report 1499, U.S. Army Research Institute for the Behavioral and Social Sciences, Alexandria, VA.

Nogami, Glenda Y., David K. Horne, and Thomas R. Hydock. (1988). National Guard and Reserve Attrition Following Extended Annual Training Exercises: A Volume of Cross-Tabulations, Research Product 88-25, U.S. Army Research Institute for the Behavioral and Social Sciences, Alexandria, VA.

Perry, Shelley, James Griffith, and Terry White. (1991). Retention of Junior Enlisted Soldiers in the All-Volunteer Army Reserve. Armed Forces & Society, pp. 111-133.

Rousseau, Denise M. (1995). Contracts Within Organizations: Exploring Written and Unwritten Agreements. Thousand Oaks, CA: Sage.

Thomas, Kenneth W., and Walter G. Tymon, Jr. (1993). Empowerment Inventory. New York: Xicom, Inc.

Thomas, Kenneth W., and Walter G. Tymon, Jr. (1994). Does Empowerment Always Work: Understanding the Role of Intrinsic Motivation and Personal Interpretation. Journal of Management Systems, 6(2), pp. 1-13.

Thomas, Kenneth W., and Betty A. Velthouse. (1990). Cognitive Elements of Empowerment: An "Interpretive" Model of Intrinsic Task Motivation. Academy of Management Review, 15, pp. 666-681.

Triandis, H. (1971). Attitude and Attitude Change. New York: Wiley.

Triandis, H. (1977). Interpersonal Behavior. Monterey, CA: Brooks/Cole.

DISTRIBUTION LIST

<u>Agency</u>	<u>No. of Copies</u>
Defense Technical Information Center Cameron Station Alexandria, VA 22314	2
Dudley Knox Library, Code 013 Naval Postgraduate School Monterey, CA 93943	2
Office of Research Administration Code 09 Naval Postgraduate School Monterey, CA 93943	1
Department of Systems Management Library Code SM/Ah Naval Postgraduate School 555 Dyer RD RM 229 Bldg 330 Monterey, CA 93943-5103	1
Library, Center for Naval Analyses 4401 Ford Avenue Alexandria, VA 22302-0268	1
Robert J. Brandewie, Deputy Director Defense Manpower Data Center 400 Gigling Road Seaside, CA 93955	1
COL B. J. Thornburg Joint Staff Studies Analysis Gaming Division RM. BC942, The Pentagon Washington, DC 20318-8000	20
CDR, US Army Reserve Command (ATTN: AFRC-PR) 3800 N. Camp Creek Parkway SW Atlanta, GA 30331-5099	10

Office, Chief Army Reserve (ATTN: DAAR-PE) The Pentagon Washington, D.C. 20310	10
Office, Chief Army Reserve (ATTN: DAAR-PAE) The Pentagon Washington, D.C. 20310	10
CDR, US Army Reserve Command (ATTN: AFRC-CF) 3800 N. Camp Creek Parkway SW Atlanta, GA 30331-5099	5
HQDA, Deputy Chief of Staff for Personnel (ATTN: DAPE-ZD) The Pentagon Washington, D.C. 20310	5
CDR, US Army Reserve Command (ATTN: AFRC-OPO) 3800 N. Camp Creek Parkway SW Atlanta, GA 30331-5099	2
Chief, Army Model and Simulation Management Office (ATTN: SFUS-MIS) 1725 Jefferson Davis Highway, Suite 808 Arlington, VA 22202	2
The RAND Corporation Army Research Division 1700 Main St., P.O. Box 2138 Santa Monica, CA 90407-2138	1
US Army Research Institute for the Behavioral and Social Sciences 5001 Eisenhower Avenue Alexandria, VA 22333-5600	1
Dr. Clint Walker US Army Research Institute 5001 Eisenhower Ave., Rm. 6N44 Alexandria, VA 22333	1

Maj. Joe O'Connor US Army Reserve Command Readiness Office, Critical Force Pool 3800 North Camp Creek Parkway S.W. Atlanta, GA 30331-5099	1
Capt. Kevin Moore 316 Quartermaster Company Del Mar Area 21 Camp Pendleton, CA 92051	1
Kenneth W. Thomas, Code SM/Th Professor of Systems Management Systems Management Department Naval Postgraduate School 555 Dyer Rd Rm 229 Bldg 330 Monterey, CA 93943-5103	12
George W. Thomas, Code SM/Te Associate Professor of Economics Systems Management Department Naval Postgraduate School 555 Dyer RD RM 229 Monterey, CA 93943-5103	5
Kathryn Kocher, Code SM/Ko Systems Management Department Naval Postgraduate School 555 Dyer RD RM 229 Monterey, CA 93943-5103	5