Predicting Retention Rates of U.S. Soldiers Stationed in Europe

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The U.S. has one of the largest militaries in the world, with over 1.5 million service members stationed around the world. The U.S. Army alone consists of nearly 435,000 soldiers, with 65,000 stationed in Europe. Remarkably, this entire force is maintained completely by voluntary service. That is the U.S. military doesn't employ conscripts. Thus, recruiting, selection, and retention are extremely important for ensuring that the U.S. maintains a highly qualified and capable force. In this report, we focus on several key areas that are believed to be important in determining soldier retention: operations tempo (OPTEMPO), leadership, personal factors, work climate, and family considerations.

The U.S. Army is extremely concerned about the impact of OPTEMPO on retention, especially given the reduced size of the Army coupled with an ever increasing number of military deployments (see Castro & Adler, 1998, 1999). To date, the findings describing the effects of OPTEMPO on retention are somewhat mixed. For instance, while some investigators have shown that deployment experience has a negative effect on retention (Adler, Castro & Bartone, 1997; Sullivan et al., 1985; Giacalone, 2000), others have shown deployment experience to have a positive effect (Castro, Huffman, Adler & Bienvenu, 1999; Sticha, et al., 1999; Hosek & Totten, 1998). In addition, it has also been reported that soldiers who re-enlist work longer hours than those soldiers who plan on leaving the military (Castro et al., 1999). In another recent study, it was reported that the number of deployments a soldier has participated on did not impact retention (Reed & Segal, 2000).

Thus, it appears that how OPTEMPO is conceptualized (or measured) determines, to some extent, whether it can be shown to affect soldier retention. We define OPTEMPO here as "the rate of military actions or missions" (see Castro & Adler, 1999 for a full discussion of the issues surrounding defining OPTEMPO). In this report, we included several measures of OPTEMPO, including work hours, deployment experience, days on training exercises, and days on temporary duty. These four OPTEMPO measures were selected because they capture the workload of soldiers in garrison, on training exercises or on military deployments.

Personal factors (or demographics) such as rank and years in the military do impact on the career decision of soldiers. For example, noncommissioned officers (NCOs) are more likely to indicate they intend to remain in the military than junior-enlisted soldiers (Castro, Huffman, Bienvenu & Adler, 1999). Similarly, soldiers who have been on active duty for approximately ten years or longer are also more likely to remain in the military (Adler, et al., 1997). This latter finding has been referred to as the "half-way there effect" because soldiers and officers can retire from the U.S. military after twenty years of service. In addition to including rank and years of military service in this report, we have also included gender, ethnicity, and education level.

The role that leadership plays in determining soldier career intentions has not been well established (see Huffman et al, 2000; Vickers et al., 1983). However, soldiers who held positive views of their NCOs were more likely to report that they intended to remain in the military. Similarly, work climate and family considerations have also been reported to impact on soldier career intentions (Huffman, et al., 2000; Schumm, et al., 1998; Pierce, 1998). Perhaps the most important family variable that is related to soldier retention is marital status. Soldiers who are married are more likely to remain in the military compared to single soldiers.

METHODS

The findings reported here are part of a larger study examining the effects of operations tempo (OPTEMPO) and personnel tempo (PERSTEMPO) on soldier and unit readiness in the U.S. Army, Europe (Castro, Adler, Bienvenu, 1998). This report is based on data that was collected from June 1999 to December 2000 and focuses on soldiers' and officers' career intentions.

Participants. The sample included 289 U.S. soldiers and junior officers stationed in Germany or Italy who were participating in the OPTEMPO/PERSTEMPO study. All of the soldiers had either recently made a career decision or were about to make a career decision (i.e. they were in their reenlistment window). The sample included 81.8% male and 18.2% female soldiers. The largest ethnic group was white (63.4%), followed by African American (15.8%), and Hispanic (10.4%), with just over ten percent of the sample being members of some other ethnic group (10.2%). There were 47.2% junior-enlisted soldiers, 35.7% non-commissioned officers (NCO), and 25.0% junior officers (lieutenants or captains). Almost half (45.7%) of the sample were married, 46.0% were single, 8.0% separated, divorced, or widowed. In terms of the highest education level obtained, 34.6% were high school graduates, 39.4% had some college, and 22.8% had a college degree. In this sample, 58.8% had previous deployment experience and 41.2% had never deployed.

Scales and Items. All of the soldiers in the OPTEMPO study completed an OPTEMPO survey that included basic demographic questions and a section on OPTEMPO measures, work climate, leadership, family issues, and career intentions. The OPTEMPO measures included number of deployments, hours of work per day, number of days on training exercise, and number of days on temporary duty. Work climate scales included job recognition (Brown & Leigh, 1996), job challenge (Brown et al.), work intensity (Brown et al.), goal acceptance (Podsakoff,

MacKenzie & Ahearne, 1997), job control (Hackman & Oldham, 1975), job satisfaction (Hackman & Oldham, 1975), task significance (Bliese, Escolas, Christ & Castro, 1999) and soldier pride (Viatkus, 1994; Marlowe, 1985). Leadership was measured by examining horizontal cohesion (Podsakoff, et al.), NCO leadership, officer leadership, general leadership quality (Viatkus; Marlowe), and morale (Castro, Bienvenu, Huffman & Adler, 2000). Family issues were measured by the work-family conflict and family-work conflict scales (Netemeyer, Boles, & McMurrian, 1996), and by asking the respondents about their marital status, the number of children they had, and whether they had family members with special needs. Important demographic or personal factors included the number of years the soldier was in the military, ethnicity, gender, highest level of education completed, rank, and age.

Career intentions were measured with a single item. Each respondents' career intention was determined using the following survey question, "Which best describes your current active-duty Army career intentions?" The response options were: 1) definitely stay in until retirement; 2) probably stay in until retirement; 3) definitely stay in beyond present obligation, but not until retirement; 4) undecided; 5) probably leave upon completion; or 6) definitely leave upon completion of current obligation. For model development, this retention outcome was categorized into three options. Soldiers who indicated that they were definitely going to stay until retirement, probably going to stay until retirement or definitely stay beyond their present obligation, but not until retirement were categorized as STAY. Soldiers who indicated that they would probably leave upon completion of their current obligation or definitely leave upon the completion of the current obligation were categorized as LEAVE. Soldiers who marked undecided were categorized as UNDECIDED. This item has been used in previous military research (Tremble, Payne, & Bullis, 1998) to measure career intention. Its test-retest reliability coefficent in the present study was .79. Research by Hom, Caranikas-Walker, Prussia and

Griffeth (1992) has found that turnover (or career) intention is predictive of actual career choice behavior.

Statistical Analyses. Two methods of analyses were used to predict retention decisions, Multinomial Logistic Regression (MLR) and Chi-Squared Automated Interaction Detection (CHAID). MLR is a common technique used to examine the relationship between a dependent variable and a set of predictor variables, where the dependent variable has two or more categories, and the predictor variables are either categorical or continuous (Menard, 1995). In this study, the significance level for main effects was set at alpha less than .05.

The other statistical technique, CHAID (Answer Tree 2.0, SPSS, 1998), is a less common statistical procedure that combines categories within a variable and detects interactions when there is one categorical dependent variable and multiple predictor variables. CHAID creates mutually exclusive subgroups within each variable and the partitioned variable that yields the most significant chi-square is determined the best predictor. Once the primary predictor is established, the partitioning continues based on the primary predictor variable in a stepwise fashion with all the predictor variables. These results will continue to yield any possible new subgroups. This process continues until the size of the groups is either too small or there are no more significant relationships. The results, and terminology to describe the findings, are presented differently than the logistic regression model. The results are shown as a dendrogram (see Figure 1), with the significant predictor variables branching down from the dependent measure (root node). Nodes are the created subgroups, with the parent node being the originating node and the new nodes being the child node. Additionally, a misclassification matrix shows how inaccurately each dependent variable is predicted. The exhaustive CHAID was used in this study, with the significance level set at alpha less than .05. Each significance level was adjusted by Bonferroni technique to guard against Type I error. Maximum tree depth

was set at 3, minimum number of cases for parent node was set at 30, and minimum number of cases for child nodes was set at 10.

Model Development. We began our model development by using CHAID to identify the most important variables within each category that predicted career decision. We conducted five separate CHAID analyses including all the variables from each category (OPTEMPO, demographics, work climate, leadership or family issues. For example, in the first CHAID model we included all the OPTEMPO measures in order to predict career intention. In the second CHAID model we included all the demographic variables to predict retention, and so forth, until we developed five CHAID models. From these five CHAID models we developed an "integrated" CHAID model by including only the most significant variables from each CHAID model. For comparison, we also developed parallel MLR models with the same variables. Thus, we were able to make direct comparisons between the CHAID and MLR models.

Next, we built four MLR models within the conceptual framework of the stressor-moderator-strain model, also known as the stress-buffering model (see Cohen & Wills, 1985; LaRocco, House & French, 1980; Thiots, 1982). The OPTEMPO measures (i.e., work hours, days on temporary duty, deployment experience, and days on training exercises) were conceptualized as the stressors. The demographic or personal factors, family issues, leadership, and work climate categories were conceptualized as the moderators. The outcome or strain was retention. The OPTEMPO measures (i.e., stressors) and retention (i.e., outcome) were entered into each model. The four MLR models were distinguished by the category of moderators each contained. In addition, each model also contained all the stressor-moderator interaction terms.

RESULTS

In the total sample (N=289), 26.4% reported they were definitely or probably going to stay in until retirement, 12.0% reported they would stay beyond their obligation, 38.8% stated they would probably or definitely leave after their obligation, and 22.8% were undecided. NCOs and officers were more likely to stay in the military than junior-enlisted soldiers, $\chi^2(4, \underline{N}=298) = 43.1$. Soldiers and officers who were older, $\underline{F}(2,284)=29.0$, and had served more years in the military, $\underline{F}(2,284)=29.0$, were more likely to report that they were planning on staying in the military.

OPTEMPO. The variables, "number of hours worked per day", "days spent on training exercise", "days on temporary duty", and "deployment experience" were entered into each model with career intentions being the dependent measure. Using CHAID, the only significant OPTEMPO variable that predicted career intention was deployment experience, with those who had deployment experience (37.1%) being more likely to stay in the military than those with no deployment experience (28.6%), $\chi^2(2, \underline{N}=289) = 8.5$.

The OPTEMPO MLR model was also significant, $\chi^2(8, \underline{N}=289) = 18.7$, deviance $\chi^2(496) = .185$, psuedo R-square (Nagelkerke) = .074. Likelihood ratio tests showed that deployment experience, $\chi^2(2, \underline{N}=289) = 7.0$, and days on temporary duty, $\chi^2(2, \underline{N}=289) = 6.9$, were predictive of staying in the military, with soldiers who were undecided about a military career (vs. leaving) having more days on temporary duty and being more likely to have deployed compared to soldiers who intend to leave the military.

The overall OPTEMPO CHAID model correctly predicted 46.7% of the cases while the overall OPTEMPO MLR model correctly predicted 50.5% of the cases. In terms of correctly classifying each retention outcome, the OPTEMPO CHAID model correctly classified the leave category 100% of the time, and the stay and undecided categories 0.0% of the time. The

OPTEMPO MLR model correctly classified the leave category 93.9% of the time, the stay category 14.7% of the time, and the undecided category 7.4% of the time.

Demographics. Years in the military, ethnicity, gender, education, rank, and age were entered into the models, with career intentions being the dependent measure. The CHAID analysis revealed that the only significant demographic variable for predicting career intentions was years in the military, $\chi^2(4, \underline{N}=289) = 66.4$. For soldiers who had been in the military for more than seven years, 68.9% reported they intended to stay, compared to 32.5% of those who were in the military for three to six years, and 14.8% of those who have been in the military for less than three years.

The demographic MLR model was significant $\chi^2(10, \underline{N}=289) = 74.5$, deviance $\chi^2(162) = .50$, psuedo R-square (Nagelkerke) = .27. Likelihood ratio tests revealed that years in the military, $\chi^2(2, \underline{N}=289) = 29.9$, and rank, $\chi^2(4, \underline{N}=289) = 10.4$, were predictive of staying in the military, with soldiers who stated they were leaving (vs. undecided) having spent less time in the military and being junior-enlisted.

The overall demographic CHAID model correctly predicted 58.8% of the cases while the overall demographic MLR model correctly predicted 60.2% of the cases. In terms of correctly classifying each retention outcome, the demographic CHAID model correctly classified the leave category 88.2% of the time, the stay category 52.6% of the time, and the undecided category 0.0% of the time. The demographic MLR model correctly classified the leave category 83.2% of the time, the stay category 59.6% of the time, and the undecided category 5.6% of the time.

Work Climate. The work climate variables included, job recognition, job challenge, work intensity, goal acceptance, job control, job satisfaction, task significance, and soldier pride. These items were entered into the models with career intentions being the dependent measure. The strongest predictor of career intentions on the basis of the work climate CHAID analyses

was soldier pride, with soldiers with high soldier pride were more likely to stay in the military (51.1%) than soldiers with low soldier pride (18.6%), $\chi^2(2, \underline{N}=289) = 40.0$. Additionally, job satisfaction interacted with soldier pride, whereas soldiers with high soldier pride and high job satisfaction were more likely to remain in the military (64.5%) than soldiers with high soldier pride and low (38.5%) or medium (40.0%) job satisfaction, $\chi^2(4, \underline{N}=289) = 17.2$.

The work climate MLR model was significant, $\chi^2(16, \underline{N}=289) = 51.3$, deviance $\chi^2(336) = .82$, psuedo R-square (Nagelkerke) = .29. Likelihood ratio tests revealed that soldiers who were staying in the military had higher levels of soldier pride compared to those soldiers who were leaving the military, $\chi^2(2, \underline{N}=289) = 9.2$.

The overall work climate CHAID model correctly predicted 58.1% of the cases while the overall work climate MLR model correctly predicted 61.5% of the cases. In terms of correctly classifying each retention outcome, the work climate CHAID correctly classified the leave category 77.7% of the time, the stay category 64.9% of the time, and the undecided category 0.0% of the time. The work climate MLR model correctly classified the leave category 77.6% of the time, the stay category 67.7% of the time, and the undecided category 0.0% of the time.

Leadership. The leadership variables horizontal cohesion, NCO leadership, officer leadership, general leadership quality, and morale were entered into each model with career intentions being the dependent measure. For the leadership CHAID model, NCO leadership was the most important variable for predicting career intention, $\chi^2(2, \underline{N}=289) = 24.0$. However, NCO leadership did significantly interact with general leadership quality, $\chi^2(2, \underline{N}=289) = 11.3$. Soldiers with higher perceptions of NCO leadership (40.1%) were more likely to stay in the military than soldiers with lower perceptions (13.9%) of NCO leadership. Additionally, soldiers

with low NCO leadership and low leadership quality were less likely to be stay (3.2%) than soldiers with low NCO leadership and high leadership quality (22.0%).

The leadership MLR model revealed similar results to that of the leadership CHAID model. The leadership MLR model was significant, $\chi^2(10, \underline{N}=289) = 33.8$, deviance $\chi^2(534) = .46$, psuedo R-square (Nagelkerke) = .13. Likelihood ratio tests indicated that NCO leadership was the only predictor of career intentions, $\chi^2(2, \underline{N}=289) = 11.2$. Soldiers who were staying (vs. leaving) rated NCO leadership higher and soldiers who were undecided (vs. leaving) rated NCO leadership higher.

The overall leadership CHAID model correctly predicted 47.8% of the cases, while the leadership MLR model correctly predicted 51.9% of the cases. In terms of correctly classifying each retention outcome, the leadership CHAID model correctly classified the leave category 37.8% of the time, the stay category 90.0% of the time, and the undecided category 0.0% of the time. The leadership MLR model correctly classified the leave category 73.3% of the time, the stay category 52.6% of the time, and the undecided category 0.0% of the time.

Family Measures. Marital status, number of children, families with special needs, work-family conflict and family-work conflict were entered into each model with career intentions being the dependent measure. The strongest predictor of career intentions on the basis of the CHAID analyses was marital status with married personnel being more likely to stay (43.8%) than single personnel (25.48), $\chi^2(2, \underline{N}=289) = 10.8$.

The family MLR model was significant, $\chi^2(10, \underline{N}=289) = 20.2$, deviance $\chi^2(360) = .19$, psuedo R-square (Nagelkerke) = .079. Likelihood ratio tests indicated that marital status, $\chi^2(2, \underline{N}=289) = 5.0$, and work-family conflict, $\chi^2(2, \underline{N}=289) = 4.9$, were significant predictors of

career intentions. Soldiers who were staying in the military were more likely to be married and/or have less work-family conflict than soldiers who were leaving the military.

The overall family CHAID model correctly predicted 49.2% of the cases while the overall family MLR model correctly predicted 53.3% of the cases. In terms of correctly classifying each retention outcome, the family CHAID model correctly classified the leave category 63.0% of the time, the stay category 58.8% of the time, and the undecided category 0.0% of the time. The family MLR model correctly classified the leave category 79.9% of the time, the stay category 47.9% of the time, and the undecided category 0.0% of the time.

Integrated Models. From the four CHAID analyses conducted above, there was one significant stressor variable (deployment experience) and six significant moderator variables (years in military, soldier pride, job satisfaction, NCO leadership, leadership quality, and marital status) that predicted career intention. The integrated CHAID model that included all of these variables found that the number of years in the military was the most important variable for predicting career intention, $\chi^2(4, \underline{N}=289) = 66.4$. In addition, years in the military interacted with deployment experience, $\chi^2(2, \underline{N}=289) = 7.6$, and job satisfaction, $\chi^2(2, \underline{N}=289) = 17.1$. Soldiers who were on active duty for less than three years and had deployment experience were more likely to leave the military (73.2%) than those soldiers who had never deployed before (53.1%) were. For soldiers who had been on active duty for three to six years, those with higher job satisfaction were more likely to remain in the military ((70.0%) than those with lower job satisfaction (20.0%). Figure 1 shows the complete "integrated" CHAID model.

The integrated MLR model was significant, $\chi^2(14, \underline{N}=289) = 108.3$, deviance $\chi^2(554) = .98$, psuedo R-square (Nagelkerke) = .36. Likelihood ratio tests indicated that years in the military, $\chi^2(2, \underline{N}=289) = 35.5$, deployment experience, $\chi^2(2, \underline{N}=289) = 5.0$, and military pride,

$\chi^2(2, \underline{N}=289) = 9.8$, were significant predictors of career intention. Soldiers who had been on active duty longer, had higher military pride, or had never deployed before were more likely to remain in the military.

The overall integrated CHAID model correctly predicted 62.3% of the cases and the integrated MLR model correctly predicted 63.1% of the cases. In terms of correctly classifying each retention outcome, the integrated CHAID model correctly classified the leave category 89.2% of the time, the stay category 67.0% of the time, and the undecided category 0.0% of the time. The integrated MLR model correctly classified the leave category 85.1% of the time, the stay category 68.0% of the time, and the undecided category 1.8% of the time.

Stressor-Strain Models. Four separate MLR models containing the OPTEMPO measures, each category (i.e. leadership, work climate, demographics, and family), and the interaction of each category with OPTEMPO measures were developed. Of the four stressor-strain models, the most predictive model was the one that contained the work climate variables, $\chi^2(78, \underline{N}=289) = 140.5$, deviance $\chi^2(266) = .99$, psuedo R-square (Nagelkerke) = .64. Likelihood ratio tests revealed that work hours, $\chi^2(2, \underline{N}=289) = 10.6$, deployment experience, $\chi^2(2, \underline{N}=289) = 7.4$, and soldier pride, $\chi^2(2, \underline{N}=289) = 7.7$, were significant predictors of retention. In addition, likelihood ratio tests indicated that deployment experience X goal acceptance, deployment experience X job control, work hours X job recognition, work hours X goal acceptance, days on temporary duty X soldier pride, and days on temporary duty X work intensity interaction terms were significant, all $\chi^2(2, \underline{N}=289) > 6.2$. The OPTEMPO-work climate model correctly predicted 75.1% of the cases. In terms of correctly classifying each retention outcome, this OPTEMPO-work climate MLR model correctly classified the leave category 84.1% of the time, the stay category 76.6% of the time, and the undecided category 44.4% of the time.

DISCUSSION

In this report we sought to develop predictive models of U.S. enlisted soldiers stationed in Europe who were in their re-enlistment window or of junior officers stationed in Europe who had one to two years remaining on the current military obligation. Overall, the career intentions of soldiers who plan to either stay or leave the U.S. military can be accurately modeled, using either chi square automatic interaction detection (CHAID) or multinomial logistic regression procedures (MLR).

The best CHAID model achieved an overall accuracy rate of 62.3%, with years in the military, deployment experience, and job satisfaction being important predictor variables. For those soldiers and officers intending to remain in the military, the accuracy of the CHAID model was 67.0% and for those soldiers and officers intending to leave the military, the accuracy of the CHAID model was 89.2%. Unfortunately, for soldiers and officers who were undecided about their career intentions, the CHAID model failed to accurately predict their career intentions.

The best MLR model of retention was the OPTEMPO-work climate model. This model had an overall accuracy rate of 75.1%, slightly better than the best CHAID model. In terms of accurately predicting the soldiers and officers who intended to remain and leave the military, the OPTEMPO-work climate MLR model achieved accuracy rates of 76.6% and 84.1%, respectively. For the undecided soldiers and officers, the accuracy of the MLR model was 44.4%, while this prediction rate was not great, it was better than the integrated CHAID model which had an accuracy rate of 0.0%

Although both the CHAID and MLR procedures resulted in fairly accurate models of soldier and officer retention, there are important differences between the two techniques. First, the best MLR model (i.e., the OPTEMPO-work climate MLR model) resulted in overall better

prediction rates than the best CHAID model (i.e., the integrated CHAID model) (see above). However, the best CHAID model was simpler than the best MLR model in that it contained fewer variables. The best CHAID model consisted of only three variables, with two interaction terms, while the best MLR model comprised 11 variables, plus 32 interaction terms. Third, the MLR procedures are more flexible than the CHAID procedures in that specific interaction terms can be included in the model, whereas, for CHAID, interaction terms are determined automatically. This resulted in the best MLR model having six significant interaction terms as opposed to only two significant interaction terms in the best CHAID model. Finally, because the CHAID model contains fewer variables and interaction terms than the MLR model it is relatively easier to interpret.

Future Research. In this report we included a wide variety of measures that are thought to be important in the career decision of soldiers and officers. These included operation tempo (OPTEMPO) measures, demographic or personal factors, leadership, family issues, and work climate. And although, accurate predictive models were successfully developed using these measures, other important factors such as civilian economic conditions and job opportunities, and unavoidable facts that impact retention (such as military separations due to medical conditions, indiscipline, etc.) were omitted. Future research should include these and other factors shown to be important in job turnover in the civilian community.

In this study, we assessed soldier career intention near the time that an actual career decision was being made. Indeed, in some instances soldiers had already re-enlisted for another term of military service or had already decided to leave the military. It is possible that their attitudes regarding work climate and leadership were subsequently affected by their career decision. Future research should assess work environment variables prior to the career decision being completed. This way, a stronger causal connection can be made between career decision

and important variables such as work environment and leadership. Finally, this study also relied on self-report measures of career intention. Although self-report measures of career intentions has been shown to be indicative of actual career decision behavior, self-report measures should be linked to actual retention decisions in future research.

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Table 1. Measures of interest by Career Intentions (N=289)

	Stay	Undecided	Leave	α
Demographics				
Years in Military[1,3]	7.9	4.4	3.8	
Ethnicity (%)				
White	33.3	18.3	48.3	
Other	32.7	22.1	45.2	
Age[1,3]	28.6	24.8	23.7	
Gender (%)				
Female	34.1	29.5	36.4	
Male	33.5	18.0	48.6	
Rank [3] (%)				
Junior-enlisted	21.6	53.6	63.2	
Non-commissioned Officer	57.7	26.8	23.3	
Officer	20.6	19.6	13.5	
Family Issues				
Marital Status[1] (%)				
Single	25.5	20.4	54.1	
Married	43.2	18.9	37.9	
Families with Special Needs (%)	8.2	5.3	3.7	
Have Children (%)	43.8	31.6	25.2	
Work-Family conflict	16.2	16.7	17.3	.94
Family-Work conflict	11.4	11.9	12.4	.91
OPTEMPO Measures				
Average Hours Worked per Day	11.7	11.9	11.6	
Days on Training Exercise*	35.0	28.7	38.6	
Days on Temporary Duty[2]*	12.2	15.8	6.7	
Deployment Experience[1,2,3] (%)	64.9	42.1	61.5	
Work Climate				
Job Recognition[1,2]	9.4	9.0	9.3	.70
Job Challenge[3,1]	6.8	6.0	5.8	.75
Work Intensity[1,2]	12.0	11.4	10.2	.87
Goal Acceptance[1]	5.9	5.5	5.1	.78
Job Control[1,3]	11.4	10.6	9.9	.76
Job Satisfaction[1,2,3]	11.1	8.8	7.8	.90
Task Significance[1,3]	11.3	9.9	9.3	.94
Soldier Pride[2]	12.2	11.1	9.8	.75
Leadership				
Horizontal Cohesion[1]	10.1	9.3	9.3	.90
NCO Leadership[1,2]	20.9	19.4	17.5	.92
Officer Leadership[1]	18.6	17.9	16.4	.90
General Leadership Qualities[1,3]	9.7	8.6	8.2	.89
Morale[1,2]	25.1	24.0	21.3	.87

NOTE: All values are means unless otherwise stated and all scale scores are based on sum scores.
*In the past 6 months
[1] leave and stay are different (significant at the .05 level)
[2] leave and undecided are different (significant at the .05 level)
[3] leave and stay are different (significant at the .05 level)

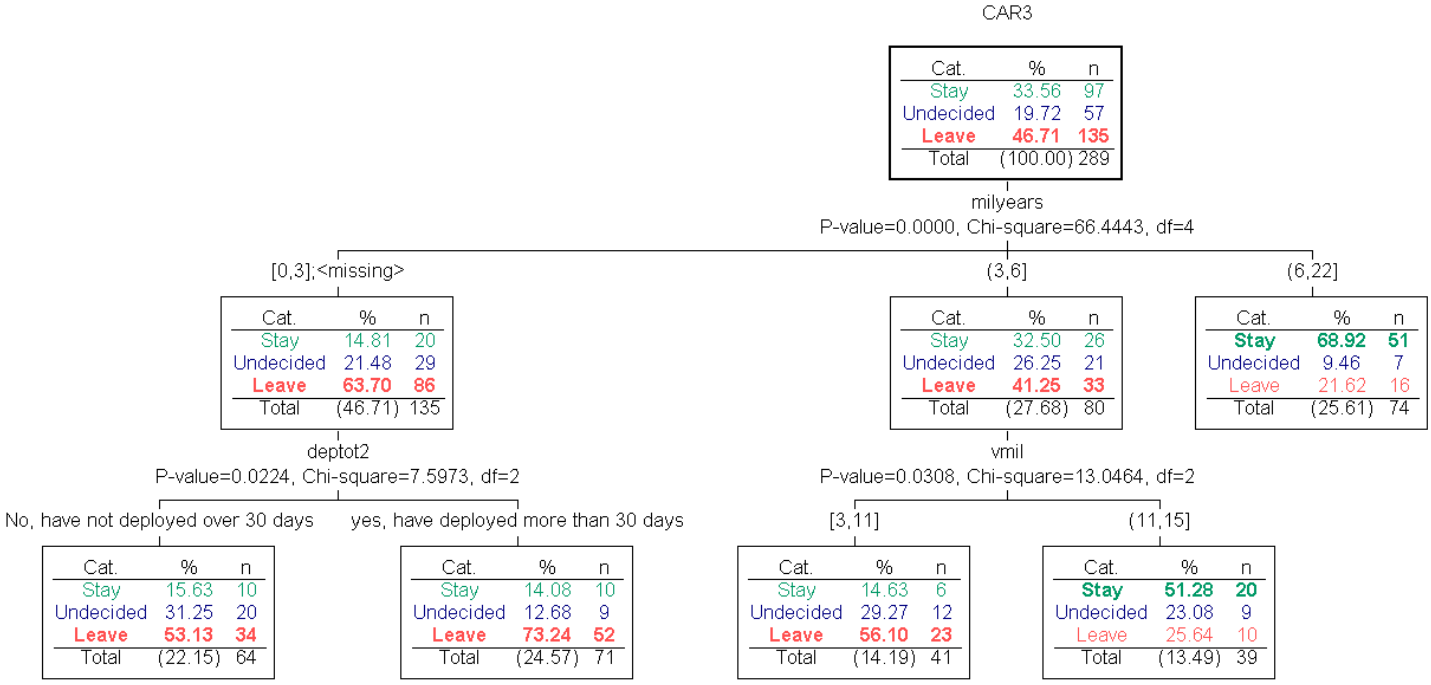

Figure 1

The Integrated CHAID Model.