Final Report

2008 Texas Adult Probation Turnover Intention Study: Line Community Supervision Officers and Direct-Care Staff

Submitted by

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EXECUTIVE SUMMARY

Purpose: Heretofore there has been no readily available, cost-effective mechanism has been implemented in Texas probation, to fully and empirically analyze actual, voluntary turnover. Voluntary turnover (excluding retirement and termination) can be preventable by identifying its underlying reasons, and addressing identified causes. In response, the purpose of this report is comprehensively to investigate: (1) any determinant factors that shape turnover intention; and (2) pay satisfaction's influence on organizational outcomes, such as overall job satisfaction, organizational commitment and turnover intention.

Methodology: This State-wide report, supported by the Texas Probation Advisory Committee, has been commissioned to conduct a Web-based survey targeting all line probation officers and all direct-care staff. Of the usable sample of 3,234 responses, 2,653 were obtained from line officers and 581 from direct-care staff.

Findings: Results from the descriptive analyses indicate that large portions of the line probation officers and direct-care staff have their high levels of inclinations to leave. For example, 41.3 percent reported their turnover intention: 30.3 percent were having serious thought about leaving in the near future, and another 11 percent were actively looking to leave. Among all organizational factors used, pay and promotion are the most negatively perceived work-related areas in Texas probation. As evidence of low levels of pay satisfaction, only 10.3 percent reported their pay level was good, only 13.5 percent indicated their pay level was either adequate or more than adequate given the cost of living in their area and only 15.4 percent reported that their pay level had a favorable influence on their overall attitude toward their job. Moreover, the average mean of organizational commitment was lower than that of overall job satisfaction, suggesting employees in Texas probation have a stronger psychological/ emotional attachment to their job and job experience than their department.

Results from the bivariate and multivariate regression statistical analyses indicate organizational factors, rather than individual status factors, have a substantially greater contribution to associating with and predicting the employees' turnover intention, suggesting that, rather than an employee, his or her organization has underlying causes for his or her turnover intention. For both line probation officers and direct-care staff, affective commitment, high sacrifice commitment, overall job satisfaction and pay are the main predictors of their turnover intention. Among the four main predictors, affective commitment has the strongest direct effect on turnover intention.

Among all individual factors, young age group and tenure group are more likely to feel inclined to leave their job. Specifically, age, especially the 20-34 age group (42.8% of the line probation officers sampled), is the strongest predictor of their turnover intention, whereas tenure, particularly the 0-3 years of tenure group (45.6% of the direct-care staff), is the strongest predictor of their inclinations to quit.

Lastly, structural equation modeling analysis compared total effects (direct and indirect) of compensation satisfaction (pay and fringe benefits), overall job satisfaction, lack of

alternatives, high sacrifice, and affective commitment on turnover intention. Results from the structural equation modeling indicate that the total effect (indirect and direct) of compensation satisfaction on turnover intention is much greater than the total effect of affective commitment.

Overall, these findings suggest that while affective commitment has the strongest direct effect on turnover intention, the total influence of compensation satisfaction, especially pay satisfaction, is much more important than that of affective commitment in reducing high levels of turnover intention and subsequent voluntary turnover in Texas probation. Therefore, it can be concluded that pay satisfaction is the strongest underlying cause of high turnover intention in Texas probation.

General Policy Implications: Most importantly, Texas probation administrators should be acutely aware of the transition from individual to organization factors, especially the significance of pay satisfaction and affective commitment, as possible underlying causes leading to a high voluntary turnover rate. Accordingly, a concerted effort to convince the Texas Legislature to significantly increase basic probation funding, and designing strategies that enhance affective commitment are strongly recommended. In addition, Texas probation administrators should recognize the unique characteristics of the new generation of employee, and devote considerable attention and resources to them by developing mentoring systems, embracing shift in supervisory and managerial roles and styles, and developing improved selection and better training of managers. Lastly, it is believed that a strong willingness and commitment on the part of Texas probation administrators to address these identified causes of high turnover intention will restore the effectiveness and efficiency of Texas probation departments in the promotion of public safety.

Section 1.

Introduction

Other than retirement, American correctional agencies have been concerned with, and paid significant attention to voluntary turnover. High levels of employee absenteeism, stress, poor health, low morale, and high turnover rates continue to confront executives, both in institutional and community corrections agencies. Each of these factors contributes to poor job-related productivity (Finn, 1999; Mitchell, Mackenzie, Styve, & Gover, 2000; Slate & Vogel, 1997; Slate, Vogel, & Johnson, 2001, Whitehead, 1987). Specifically, voluntary turnover in a probation setting may result in increased caseloads for the remaining staff. This may lead to a deterioration in supervision, low morale, increases in unnoticed violations, absconders, recidivism, and increased expenditures related to the recruitment and training of replacements (Simmons, Cochran, & Blount, 1997). These negative consequences could diminish the promotion of public safety, which is the definitive mission of the Texas probation system.

Texas State Auditor's Office (2007) reported 10.8 percent statewide voluntary turnover rate (excluding involuntary separations and retirements) among all state agencies but institutions of higher education during the fiscal year 2007. However, the report does not provide any information about a voluntary turnover rate of Texas adult probation. Despite no available statewide turnover rate for Texas probation, there is much substantial evidence that high levels of employee turnover, and its attendant causes are critical issues faced by probation executives. Florida probation agencies, for example, reported a turnover rate of approximately 30 percent in 1995 (Simmons et al., 1997). In a 2000 report, the Texas Juvenile Probation Commission reported a 19.7 percent turnover rate among the State's juvenile probation officers in 1999. The Commission also reported a 31.4 percent turnover rate for juvenile detention and corrections officers (Texas Juvenile Probation Commission, 2000). In addition, despite the absence of extensive national reports addressing community correctional officer turnover, members of the National Institute of Corrections agreed that the loss of qualified officers was a major concern (National Institute of Corrections, 1994).

Lee and Beto (2008) explored voluntary turnover rates among Texas line probation officers from 2004 to 2006. They sampled four adult Community Supervision and Corrections departments based upon department size, populations served, receptivity to meaningful research, and recognized leadership. The four County departments surveyed included Tarrant, Tom Green, Fort Bend, and Brazos. In this survey, the voluntary turnover rate in each department was calculated by dividing the total number of line officers who voluntarily resigned (excluding termination and retirement) by the total number of line officers employed during each fiscal year (FY). Based on responses from the four sampled probation departments, line officers' average turnover rate in each fiscal year was estimated to be 17-24%. Also, one department experienced an unusually high voluntary turnover rate (nearly 40% in FY 2006). Interestingly, voluntary turnover rates increased steadily during the study period: 17% for FY 2004, 20% for FY 2005, and 24% for FY 2006 (Lee & Beto, 2008). Their findings supported previous studies, which suggest that probation agencies have not only experienced high turnover, but have failed to resolve the problem.

Remediating extensive staff turnover ought to be a top priority for Texas probation administrators, especially in an era of tightening administration budgets, and expanding public expectations. Unfortunately, no readily available, cost-effective mechanism has been implemented in Texas, to fully and empirically analyze actual, voluntary turnover rates State-wide. Such analysis should reveal underlying reasons among probation officers for voluntary turnover. In response, this State-wide report, funded by the Texas Probation Advisory Committee, has been commissioned to conduct a Web-based survey targeting all non-managerial and non-supervisory probation officers, and all direct-care staff. The report will examine: (1) any determinant factors (both personal and organizational) that shape turnover intention; and, (2) pay satisfaction's influence on organizational outcomes, such as overall job satisfaction, organizational commitment, and turnover intention.

The purpose of this report is to assist the Texas Probation Advisory Committee (PAC), and Community Justice Assistance Division (CJAD) to pay attention to the employee-turnover problem. This aim is achieved by identifying underlying determinants of turnover, and by designing strategies that both enhance the working environment, and diminish actual, voluntary turnover rates among line officers and direct-care staff. Thus, administration may avoid the increasing, negative consequences of voluntary turnover– such as unnoticed violations, absconders, recidivism, diminished morale among remaining staff, and expenditures for recruitment and training new employees. Efficiently addressing identified causes of turnover should be beneficial to staff in Texas probation, thereby helping to restore the effectiveness and efficiency of Texas probation departments in the promotion of public safety.

Structure of the Report

This report consists of seven sections including this Introduction as Section 1. Section 2 describes the research design, methodology, and data collection. The data analyses and results are reported in the next four sections (3, 4, 5, and 6). Section 3 provides a brief measurement description and univariate statistics (variable frequencies, means and standard deviations) for each variable included in this report. Section 4 contains both bivariate and multivariate regression analyses for line community supervision officers. These analyses are designed to provide information on the strength and direction of the association between each predicting variable and turnover intention, and also identify which predicting variable(s) are found to be significant determinants of turnover intention. Replications are made for direct-care staff in the following Section 5.

Issuing from the data analyses and results, Section 6 provides evidence of the causal relationship between pay satisfaction and significant attitudinal and behavioral consequences–overall job satisfaction, organizational commitment, and turnover intention–in the Texas probation system. Also, this section provides a comparison of the total influence of pay satisfaction on turnover intention, with that of overall job satisfaction and organization commitment, respectively. Based on results from these analyses, general policy implications are discussed in Section 7. At the end of the report, supplemental statistical information on salary and tenure is provided.

Section 2.
Methodology

Sample

The Turnover Intention Study ("the Study") was administered to all non-managerial, and non-supervisory line probation officers, as well as to all direct-care staff in the122 probation departments across Texas. The sampling scope was limited to these groups, since existing literature (e.g., Slate & Vogel, 1997; Slate, Vogel, & Johnson, 2001) suggests that these groups have less opportunity to participate in decision-making than supervisors and managers. Not surprisingly, these groups also indicated increased stress, and lower levels of job satisfaction, and organizational commitment; thereby leading to high turnover intention, or actual turnover itself. In this report, a *line community supervision officer* is defined as supervising at least one direct case. The line community supervision officer group includes both full-time (working at least 40 hours per week), and part-time (working less than 40 hours per week) community supervision officers.

The second group targeted for the Study was direct-care staff across the State of Texas. According to Stephen L. Enders, PAC Chair, *direct-care staff* are defined as, "…all CSCD employees who have direct contact with probationers or other clients as an assigned job duty. This would include case workers, counselors, counselor interns, residential monitors, caseload technicians, and technicians assigned to the inter/intrastate caseloads. It would not include secretaries, general clerks, computer technicians, fiscal clerks, couriers, transportation specialists, and other staff not assigned to a caseload or to have contact with clientele as part of their regular duties." Similar to the line community supervision officers, the direct-care staff group includes both full-time and part-time workers.

Data Collection, Recruitment Procedures and Data Confidentiality

With minimal cost, and efficient time planning, the PAC reached a consensus that using a Web-based, open, anonymous survey would be the most satisfactory survey method for the 122 probation departments in Texas, and the most practical. Accordingly, the Web-based survey was conducted via Angelo State University's Survey System. The survey period began on March 31 and ended on April 18, 2008. The survey used 137 questions for line community supervision officers, and 135 questions for direct-care staff respectively. The particular survey items for the report will be explained in Section 3.

Since it was deemed that a completely open survey would not likely secure a high response rate, question #1 on the on-line survey provided a drop-box menu listing all the Texas probation departments. Respondents were then required to select their location from the list, in order for the researcher to elicit a response rate for each department. Substantial efforts were made by the PAC and department directors to secure a high response rate, for validity and reliable analysis and reporting. Recognizing the significance of the Study, they elicited substantial cooperation, and voluntary participation from all line probation officers and direct care staff members, to ensure the Web-based survey's success.

Before and during the survey period, the PAC Chair and individual department directors announced the on-line survey in a manner believed to secure the highest possible participation rate; encouraging individual line probation officers, and direct-care staff to access the survey Web site, and to complete it. They also informed respondents that they could only take the survey once. Each Web-based survey included an encouraging cover letter from PAC Chair Stephen Enders, on PAC stationary. This was placed before a consent form, and the survey questionnaire. In his cover letter, Mr. Enders outlined why the survey was being conducted, why it was important for the respondent to participate, and why it was important that they complete each question.

After reading the letter of encouragement, those who chose to participate in the survey were forwarded an electronic consent form. Each respondent was then informed of the survey's purpose, and the following procedures: (1) data obtained in the survey would remain confidential and not be linked with any individual identifiers; (2) only aggregate data would be used in any subsequent report(s) or presentation(s) describing the results of this survey; (3) The name of the respondent's department would be stripped from the data and destroyed once the data was digitally stored; and, (4) the data would be maintained under lock and key by the researcher, and would not be shared with anyone including the CJAD, PAC, or any other probation departments in Texas, except in summary form. At the bottom of the electronic consent form, a 'Take the Survey' button was available for respondents to 'click,' allowing them access to the actual survey, and establishing their willingness to participate.

To address a potential breach of data security, as with any server connected to the Internet, the survey's data was kept strictly confidential, and protected in the following three ways. First, the response-data files were stored in a location that is not directly accessible via the World Wide Web. Second, the survey data could only be accessed by the researcher through a password-protected page. Finally, Angelo State University-IT staff were instructed to be vigilant in protecting the survey data, and to conduct all data handling with due diligence, in order to prevent data compromise; this meant constantly keeping all data and response information anonymous, as well as confidential.

During the three-week Web-based survey period, a total of 108 departments participated. Employees from the remaining 14 departments did not respond to the survey. In this case, individual departmental directors were contacted, and asked why they did not participate. Interestingly, the researcher found that the primary reason cited by the 12 directors for not responding was a lack of Internet capacity, to access the survey Web site. The remaining two departments were found to have only one employee, and they were, therefore, responsible for both line-officer and director duties. These two departments were subsequently removed from the total 122 departments being targeted, and the total was reduced to 120.

For the 12 departments without Internet access, the researcher obtained prior permission from each administrator to dispatch hard copies of the survey by mail. The hard-copy survey period lasted between April 18 and May 8, 2008, and data collection was conducted separately at each of the 12 departments. The same questionnaire used for

the Web-based survey was distributed to each department. In each case of hard-copy data collection, a consent form, and a letter emphasizing that survey participation was voluntary, and that responses were collected anonymously, was provided. Each respondent was given a pre-addressed, stamped envelope in order to return the survey directly to the researcher.

Response Rate and Descriptive Statistics of the Respondents

As detailed in the Appendix, survey responses were obtained from a total of 3,241 line probation officers and direct-care staff in Texas. After examining the data on an item-by-item, and case-by-case basis however, it appeared that of the 3,241 responses, 7 cases required deletion due to missing data: 6 for line probation-officer cases, and 1 direct-care staff case. This reduced the usable data sample to 3,234. The 3,234 responses were obtained from 120 adult community supervision and corrections departments, with a 100 percent departmental response rate. It should be noted that the Crane and Winkler departments were excluded from the survey, since both employ only one person, with both line-officer and managerial duties.

Of the remaining usable sample of 3,234 responses, 2,653 were obtained from line officers, and 581 from direct-care staff. However, there is no available official information on the baseline population of both groups to calculate each group's response rate. Instead, only the total number of the community supervision officers including supervisors and managers ($N = 3,520$) was available. By using this figure as the baseline population, the response rate for the 2,653 line probation group was 75.4 percent. Since the total number included both line officers and supervisory/managerial officers, the response rate should be well over 75.4 percent. Social scientists agree that at least a 50 percent return rate is required for adequate analysis and reporting, at least a 60 percent response rate is good, and a response rate of 70 percent or higher is very good (Maxfield & Babbie, 2005). Therefore, a response rate greater than 75.4 percent response rate in the sample of the line probation officers across the 120 Texas probation departments is considered *more than very good*, thus indicating *more than very good* survey quality.

Individual status data listed in Table 1 represents respondents' socio-demographic and work-experience information. The selection of these individual status variables incorporated into the survey was guided by an extensive literature review. Respondents were employed by their department for an average of 7.31 years, ranging from a minimum of 0.08 to a maximum of 34 years. Females accounted for 60.9% of the survey population, and in terms of ethnic group, 47.3% were Caucasian, compared to Hispanic (31.2%), African-American (18.8%), and Others (2.6%). The average age of the respondents was 40.27 years (the minimum was 20 years, and the maximum 75 years), with 58.9% reported to be married. 45.7% reported no children at home. In terms of educational background, while 17.3% had less education than a Bachelor's degree, the majority (69.3%) had earned a Bachelor's degree, and 13.4% had earned a Master's, or higher degree. Of the total respondents, 32.6% had prior employment in probation, followed by 16.3% in institutional corrections, 10.8% in law enforcement, and 6.3% in parole.

Table 1. Individual Status Variable Statistics

Variable	N (%)	Mean	Min	Max	N
Employee classification					3234
Community Supervision Officer	2653 (82)				
Direct-Care Staff	581 (18)				
Gender					3230
Male	1264 (39.1)				
Female	1966 (60.9)				
Age		40.27 yrs	20	75	3203
Ethnicity					3213
Caucasian	1520 (47.3)				
Hispanic	1003 (31.2)				
African American	605 (18.8)				
Other	85 (2.6)				
Martial staus					3212
Currently married	1892 (58.9)				
Currently single	1320 (41.1)				
No. of children at home		0.94	0 (none)	3*	3215
Education level					3219
High school diploma or GED	402 (12.5)				
Associate degree	154 (4.8)				
Bachelor's degree	2231 (69.3)				
Master's degree	413 (12.8)				
Doctorate degree	19 (0.6)				
Tenure in current department		7.31 yrs	0.08	34	3196
Prior employment in CJ system	If "yes"				3214
Probation	727 (32.6)				
Law enforcement	348 (10.8)				
Corrections	525 (16.3)				
Parole	201 (6.3)				

* 3 or more children at home.

Section 3.

Measurement of Variables & Descriptive Analyses

Means, standard deviations, and reliability for all 24 organizational variables may be found in Table 2. All responses to all organizational variables were based on a respondent's experience over the past six month time frame before the beginning date of the survey. Of all 24 organizational variables, Turnover Intention is the main dependent variable; the remaining 23 organizational variables are independent. An extensive literature review indicates that these independent variables have been theoretically and empirically proven to be important correlates with turnover intention, and with actual turnover. Thus, the organizational independent variables were selected and incorporated into the survey. All scale items were measured using the five-point Likert scale.

Not tabulated in Table 2, is the validity of the scale items of each organizational variable. All scales but three were found to have an acceptable validity: affective commitment, operational procedures, and procedural justice. The validity test for each of these scales found one item to be heterogeneous to the original scale. Then, the heterogeneous item was discarded for a better, more accurate scale. To insure the reliability of all scales, the Cronbach Alpha statistical reliability procedure was applied, to test for the internal consistency of each scale. Alpha reliability coefficients for each additive scale ranged from 0.71 to 0.94, well above the minimal level of acceptability ($\alpha = 0.70$). In other words, all 24 scales are valid and reliable.

By using two cut-off points (2.5 and 3.5, on the 5-point scale), the average mean of each scale was broken into the following three groups: a low-average group, a neither low- nor high-average group, and a high-average group. First, utilizing the cut-off point of 3.5 (the midpoint between *Neither disagree, nor agree* and *Agree*), six variables were identified as belonging to the high-average group. The six variables included overall job satisfaction, supervision satisfaction, co-workers' satisfaction, nature of work satisfaction, social support, and empowerment.

On the other hand, utilizing the cut-off point of 2.5 (the midpoint between *Disagree* and *Neither disagree, nor agree*), three variables were identified as belonging to the low-average categorical group: pay satisfaction, promotion, and role ambiguity. Among the three variables, role ambiguity (uncertainty about what job actions are expected) was found to have the lowest average mean, closely followed by promotion, and pay satisfaction. Finally, the average mean of the other variables ranged between 2.5 and 3.5; thereby identified as neither in the low- nor high-average group, and not supporting any one particular view.

Table 2. Organizational Variable Descriptions, Statistics, and Reliability

Variable	No. of Final Items	Item Mean*	SD**	Reliablity (α)	N
Turnover intention	4	2.71	0.96	0.81	3227
Organizational commitment					
Affective commitment	5	3.17	0.95	0.84	3212
High sacrifice	3	3.21	1.06	0.77	3222
Lack of alternative	3	3.26	0.99	0.75	3213
Satisfaction					
Overall job satisfaction	5	3.52	0.82	0.83	3225
Pay	5	2.44	0.77	0.87	3227
Promotion	4	2.33	0.89	0.80	3204
Supervision	4	3.86	0.97	0.86	3207
Fringe benefits	4	2.87	0.87	0.77	3198
Contingent rewards	4	2.53	0.95	0.84	3212
Operating procedures	3	2.53	0.94	0.74	3200
Co-workers	4	3.62	0.78	0.75	3212
Nature of work	4	3.80	0.80	0.79	3216
Communication	4	2.91	0.95	0.81	3220
Stress					
Role overload	5	3.09	1.00	0.91	3220
Role conflict	5	2.77	0.89	0.82	3213
Role ambiguity	4	2.17	0.74	0.71	3207
Dangerousness	5	2.88	0.84	0.80	3207
Job stress	5	3.12	0.97	0.90	3221
Organizational justice					
Distributive justice	5	2.55	1.00	0.94	3202
Procedural justice	6	2.86	0.84	0.81	3207
Social support	4	3.55	0.85	0.83	3212
Participatory Management					
Participatory climate	7	2.89	0.88	0.88	3204
Empowerment	12	3.64	0.55	0.83	3210

* Responses to each item are made on a 5-point Likert scale with anchors labeled (1) strongly disagree and (5) strongly agree.
** Standard Deviation.

Turnover Intention

As the main dependent variable in this report, a respondent's intention to leave in Table 3 was measured using the four items developed by Shore and Martin (1989). These turnover intention items were measured on a 1-5 Likert scale (1 = *strongly disagree*; 5 = *strongly agree*), by the level of agreement ($\alpha = 0.81$).

Table 3. Itemized Turnover Intention Analysis

Item	N (%)	Mean	SD	Total N
1. Which of the following most clearly reflects your feelings about your future with this department in the next year?		2.74	1.18	3233
I definitely will not leave.	562 (17.4)			
I probably will not leave.	816 (25.2)			
I am uncertain.	1012 (31.3)			
I probably will leave.	573 (17.7)			
I definitely will leave.	270 (8.4)			
2. How do you feel about leaving this department?		3.03	1.17	3233
It is very unlikely that I would ever consider leaving this department	207 (6.4)			
As far as I can see ahead, I intend to stay with this department.	1190 (36.8)			
I have no feeling about one way or the other.	500 (15.5)			
I am seriously considering leaving in the near future.	980 (30.3)			
I am presently looking and planning to leave.	356 (11.0)			
3. If you were completely free to choose, would you prefer or not prefer to continue working with this department?		2.38	1.15	3231
I prefer very much to continue working for this department.	747 (23.1)			
I prefer to work here.	1395 (43.2)			
I don't care either way.	363 (11.2)			
I prefer not to work here.	577 (17.9)			
I prefer very much not to continue working for this department.	149 (4.6)			
4. How important is it to you personally that you spend your career in this department rather than some other organization?		2.71	1.32	3230
It is very important for me to spend my career in this department.	748 (23.2)			
It is fairly important.	856 (26.5)			
It is of some importance.	556 (17.2)			
I have mixed feelings about its importance.	738 (22.8)			
It is of no importance at all.	332 (10.3)			
	Average	2.71	0.96	3227

Understandably, there might be a reasonable suspicion that even if an employee shows an inclination to leave their employment, their intention may be influenced by the economic climate and by circumstances in the labor market, and therefore might not necessarily manifest in his or her actual turnover. However, Steel and Ovalle (1984), in their meta-analysis, found that turnover intention was better than job satisfaction and organizational commitment in predicting actual turnover, and suggested that turnover intention does eventually lead to actual turnover. Furthermore, Hom and Griffeth (1995) found that among 35 variables presumably related to actual voluntary turnover, turnover intention had the strongest association with actual voluntary turnover. Recently, Griffeth et al. (2000), in their updated meta-analysis, found that turnover intention was the best predictor of the actual turnover process. These findings reach a similar conclusion; turnover intention is the most immediate precursor of actual turnover.

The respondents' inclinations to quit is mixed with an overall mean of 2.55, on a Likert scale. However, many respondents indicated a strong inclination to leave their department, in all questions. For example, the first item in Table 2, related to immediate prediction of voluntary turnover, demonstrated that only 42.6 percent of the respondents had no intention to leave their department in the next year. The remaining 57.4 percent indicated they had either an uncertain, or certain intention to leave in the next year (31.3% and 26.1%, respectively). In addition, 43.2 percent of the respondents indicated that they did not plan to leave the department. However, a little over 30 percent reported that they were having serious thoughts about leaving in the near future, and another 11 percent were actively looking to leave. These negative findings reveal substantial evidence that identifying turnover intention should be a top priority for Texas probation administrators, in order to reduce staff turnover in an era of tightening budgets and expanding expectations.

Organizational Commitment

Organizational commitment has been found to be associated with both turnover intention and actual turnover (Griffeth et al., 2000; Hom & Griffeth, 1995). Most recently, Moynihan and Landuyt (2008), in their analysis of turnover intention among 34,668 employees of 53 different state agencies in Texas, found increased organizational commitment reduced turnover intention. Briefly, organizational commitment is the emotional link between an employee and his or her organization, referring to the strength of his or her identification with, and involvement in his or her organization (Meyer & Allen, 1997). There have been many definitions of organizational commitment. According to Mowday, Porter and Steers (1982), organizational commitment is defined as the extent to which an employee is involved in and identifies with his or her organization, and it is useful in predicting performance reflective of organizational effectiveness, and turnover. In other words, an employee who is committed to his or her organization is more likely to both work towards the organization's goals, and stay with the organization. In recent years, three different dimensions of organizational commitment were developed by Allen and Meyer (1990), and have been widely recognized, and used in organizational research. The three dimensions which characterize

an employee's commitment to the organization include *affective*, *continuance*, and *normative* commitment.

According to Meyer and Allen (1997), *affective commitment* is defined as an employee's emotional attachment to, identification with, and involvement in an organization. The employee commits to the organization because he or she *wants to*. In contrast, *continuance commitment* is defined as the extent to which an employee perceives high costs, such as economic costs and social costs, which would be incurred by leaving the organization. Here, the employee remains with the organization because he or she *needs to*. It should be noted that the *continuance commitment* construct has two sub-dimensional constructs: *high personal sacrifice* and *lack of alternatives* (Mathieu & Zajac, 1990; Meyer and Allen, 1984; Powell & Meyer, 2004). The *high personal sacrifice* refers to the commitment related to personal accumulated investments: This commitment develops when an employee realize that he or she would lose accumulated investments associated with leaving the organization, and therefore the employee needs to stay with the organization. On the other hand, the *lack of alternatives* denotes the commitment related to an employee's lack of employment alternatives which increase the costs associated with leaving the organization, leading to the employee's decision to stay with the organization.

Finally, *normative commitment* represents an employee's feeling obligated to continue employment. For example, the organization may have invested resources in training an employee who then feels a moral obligation to put forth effort on the job and stay with the organization to repay the debt. In other words, the employee stays with the organization because he or she *ought to*. Since organizational commitment generally reduces turnover (Mowday et al., 1982), all of the three dimensions of organizational commitment are considered to contribute to reducing turnover intention, and actual turnover. Specifically, each is useful in predicting what may cause an employee to remain committed to an organization and also, in predicting what will cause an employee to leave (Allen & Meyer, 1990; Meyer & Allen, 1997). This report, however, adopted affective and continuance commitment constructs since some empirical literature (Jaros, Jermier, Koehler, & Sincich, 1993; Meyer & Herscovitch, 2001; Ko, Price, & Mueller, 1997; Vandenberg & Scarpello, 1990) expressed recurring criticism of the poor discriminant validity between normative commitment and affective commitment. Mainly, these findings indicate normative commitment is not a unique predictor of turnover intention, and actual turnover, due to its strong association with affective commitment.

Initially, six affective commitment, three high personal sacrifice, and three lack of alternative items were adopted from Meyer and Allen (1997). The validity and reliability of each adopted scale was evaluated. For the validity of the affective commitment items, a 'principal components' factor analysis was conducted to isolate any underlying dimensions present in the scale construction. One item was found to be heterogeneous and was thereby discarded, bringing the original six items to five. The five items factored together with an appropriate *eigenvalue* of 2.55—greater than 1.00 through a discontinuity test—and factor loadings all over 0.50, suggesting substantial loadings (Comrey & Lee, 1992). The Cronbach's Alpha reliability coefficient for the additive

scale produced from the five items was 0.84, indicating a slight increase from that of the original six items (0.82). Therefore, as seen in Table 5, affective commitment was defined and operated using the five-item scale.

To assess the accuracy of the three high personal sacrifice and three lack of alternative items, a principal components factor analysis was conducted. As demonstrated in Table 4, all factor loading scores exceeded the 0.50 cut-off, suggesting substantial loadings (Comrey & Lee, 1992). Not listed in the table, the KMO measure of sampling adequacy (0.62) indicates that the factor analysis is appropriate. Results from the factor analysis indicate that high personal sacrifice and lack of alternatives are loaded on different measures, supporting the validity of the two sub-dimensional constructs of continuance commitment (Mathieu & Zajac, 1990; Meyer and Allen, 1984; Powell & Meyer, 2004). The Alpha reliability coefficient test for each additive scale was above the minimal level of acceptability ($\alpha = 0.77$ for high personal sacrifice, and $\alpha = 0.75$ for the lack of alternative scale). Hence, high personal sacrifice was defined and operated using its original three-item scale, and a lack of alternatives was operationalized by its original three-item scale.

Table 4. Factor Analysis on the Dimensions of Continuance Commitment

	Rotated Factor Loadings*	
Item*	High Sacrifice	Lack of Alternatives
1. It would be very hard for me to leave my department right now, even if I wanted to.	0.90	
2. Too much of my life would be disrupted if I decided I wanted to leave my department right now.	0.88	
3. One of the major reasons I continue to work for this department is that leaving would require considerable personal sacrifice; another agency may not match the overall benefits I have here.	0.64	
4. Right now, staying with my department is a matter of necessity as much as desire.		0.56
5. I believe that I have too few options to consider leaving this department.		0.84
6. One of the few negative consequences of leaving this department would be the scarcity of available alternatives.		0.89
Eigenvalue	2.151	2.112
Explanation of Variance	35.85	35.20
Cronbach α	0.77	0.75

Note: Responses to each item are made on a 5-point scale; Principal components factor analysis with a varimax rotation.

As seen in Table 5, the respondents displayed an overall average of 3.17 for the level of their affective commitment to the department which is a mixed result and therefore does not support any one particular view. However, many respondents reported lower levels of emotional attachment to, identification with, and involvement in their department. For example, the respondents either *disagreed* or *agreed* whether they 'feel like part of the family' at their organization (31.8% disagreed vs. 44.6% agreed), and whether they feel emotionally attached to their organization (33.7% disagreed vs. 43.4% agreed). There is evidence of low levels of respondents' affective commitment: 26.6 percent of the respondents (vs. 48.4%) did not want to spend the rest of their career in their current department, and 29.5 percent (vs. 46.4%) did not feel a strong sense of belonging to their department.

Table 5. Itemized Organizational Commitment Analysis

Item*	Mean	SD	N
Affective Commitment	**3.17**	0.95	3212
1. I would be very happy to spend the rest of my career in this department.	3.28	1.23	3230
2. I do not feel like "part of the family" at my department. (R)	3.15	1.26	3230
3. I do not feel "emotionally attached" to this department. (R)	3.10	1.24	3229
4. This department has a great deal of personal meaning for me.	3.23	1.14	3224
5. I do not feel a strong sense of belonging to my department. (R)	3.21	1.21	3223
Continuance Commitment			
High sacrifice	**3.21**	1.06	3222
1. It would be very hard for me to leave my department right now, even if I wanted to.	3.32	1.29	3228
2. Too much of my life would be disrupted if I decided I wanted to leave my department right now.	3.28	1.27	3228
3. One of the major reasons I continue to work for this department is that leaving would require considerable personal sacrifice; another agency may not match the overall benefits I have here.	3.05	1.27	3228
Lack of Alternatives	**3.26**	0.99	3213
1. Right now, staying with my department is a matter of necessity as much as desire.	3.59	1.15	3228
2. I believe that I have too few options to consider leaving this department.	3.02	1.24	3222
3. One of the few negative consequences of leaving this department would be the scarcity of available alternatives.	3.16	1.25	3223

* Responses to each item are made on a 5-point scale with anchors labeled (1) strongly disagree and (5) strongly agree.
(R) indicates a reverse-keyed item (scoring is reversed).

Existing literature (*i.e.*, Meyer & Allen, 1997; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002) has empirically supported the contention that affective commitment, compared to normative and continuance commitments, has the strongest correlations with turnover intention and actual turnover. In other words, employees with strong affective commitment to the organization are more valuable employees for any organization. However, compared to the average of high personal sacrifice (3.21) and lack of alternative (3.26), the average of affective commitment (3.17) was found to be slightly lower. Unfortunately, this finding appears to indicate that the main reason why respondents in Texas probation are committed to their department is their awareness of the costs associated with leaving—such as their personal accumulated investments and limited employment opportunities—rather than their strong emotional attachment to, identification with, and involvement in the department. Regarding the high level of the respondents' high personal sacrifice and lack of alternatives, for example, 49.7% of the respondents (vs. 30.3%) would stay with the department because too much of their life would be disrupted, and 46.2% (vs. 33.5%) would not leave due to the scarcity of available alternatives.

Job Satisfaction

In a study conducted for 35 members of an adult probation department in another state, Leonardi and Frew (1991) found a lower level of job satisfaction among adult probation officers than the national average. Job satisfaction is generally defined as an employee's affective reactions to their job, based upon the level of congruence between an employee's job expectations and the actual situational attributes present (Cranny, Smith, & Stone, 1992). Tett and Meyer (1993), in their meta-analysis study, tested several variables related to turnover and found that job satisfaction is a more important correlate with turnover intention than organizational commitment. Like organizational commitment, job satisfaction is based on an employee's emotional and psychological state. However, job satisfaction is different from organizational commitment. Job satisfaction is a linkage between an employee and his or her job, resulting from the appraisal of his or her job, and job experiences (Locke, 1976). In contrast, organizational commitment is a linkage between an employee and his or her organization (Meyer & Allen, 1997).

There are two measures of job satisfaction: overall job satisfaction and satisfaction with specific aspects of the job such as pay, supervision, promotion, co-workers, and the job itself. Overall job satisfaction was included in the report because Griffeth et al. (2000), in their meta-analysis, suggests that overall job satisfaction is a better indicator than job-facet satisfaction in predicting turnover, although both are related to turnover. However, the facet approach is useful to define which parts of the job produce satisfaction or dissatisfaction, as a useful tool to help an organization identify areas of dissatisfaction that it can improve (Spector, 1997). In the report, job satisfaction was assessed using the five items of overall job satisfaction-scale developed by Brayfield and Roth (1951), and the Job Satisfaction Survey (JSS) developed by Spector (1997). The JSS is composed of 36 items measuring nine facets of job satisfaction. Both are standardized, and widely used survey instruments.

Overall Job Satisfaction

The five items in Table 6, with a five-point subscale (1 for "strongly disagree" to 5 for "strongly agree") were designed to measure the respondents' *overall job satisfaction*. The additive scale produced by these five items had a Cronbach's alpha reliability coefficient of 0.83, well above the minimal level of acceptability. Overall, a moderately high level of job satisfaction was reported, with an average mean of 3.52 (close to the midpoint between *Neither disagree nor agree* and *Agree*. More than half agreed that: "I am seldom bored with my job" (55.6%; Average = 3.40); "I like my job better than the average worker does" (56.6%; Average = 3.56); "I find real enjoyment in my job" (59.6%; Average = 3.60); "Most days I am enthusiastic about my job" (58.6%; Average = 3.52); and, "I feel fairly well satisfied with my job" (60.1%; Average = 3.52). These findings indicate that over half of the respondents in Texas probation are satisfied with their job.

Table 6. Itemized Overall Job Satisfaction Analysis

Item*		Mean	SD	N
1. I am seldom bored with my job.		3.40	1.24	3229
2. I like my job better than the average worker does.		3.56	0.96	3229
3. I find real enjoyment in my job.		3.60	1.00	3231
4. Most days I am enthusiastic about my job.		3.52	1.03	3230
5. I feel fairly well satisfied with my job.		3.52	1.02	3229
	Average	3.52	0.82	3225

* Responses to each item are made on a 5-point scale with anchors labeled (1) strongly disagree and (5) strongly agree.

Nine Facets of Job Satisfaction

As discussed, it is impractical to define *overall job satisfaction* by a discrete definition that limits this category to specific or static facets. The Job Satisfaction Survey (JSS) by Spector (1997) was originally developed to evaluate nine-faceted job satisfaction in public organizations. Therefore, the JSS was also included in this report to specify which areas of dissatisfaction may affect turnover intention in Texas probation specifically. The nine facets include: *Pay* (satisfaction with pay and pay raises); *Promotion* (satisfaction with promotion opportunities); *Supervision* (satisfaction with the person's immediate supervisor); *Fringe benefits* (satisfaction with fringe benefits); *Contingent rewards* (satisfaction with rewards, not necessarily monetary, given for good performance); *Operating procedures* (satisfaction with rules and procedures); *Co-workers* (satisfaction with co-workers); *Nature of work* (satisfaction with the type of

work done); and *Communication* (satisfaction with communication within the organization).

Pay Satisfaction

This report employed both the four items of pay satisfaction in the JSS, and the five items of satisfaction with financial rewards from the Index of Organizational Reactions (IOR) developed by Dunham and Smith (1979). Williams, McDaniel and Nguyen (2006), and Williams, Malos and Palmer (2002), in their meta-analysis of the antecedents and consequences of pay-level satisfaction, recognized the five items of pay satisfaction developed by Dunham and Smith (1979) as an accurate tool for measuring multi-dimensional pay satisfaction, (not uni-dimensional pay level satisfaction), reflecting a better understanding of the nature and domain of pay satisfaction. The validity and reliability of these two pay satisfaction scales are compared in Table 7.

Table 7. Comparison of Two Pay Satisfaction Scales

	Two Pay Satisfaction Scales	
	IOR developed by Spector (1997)	JSS developed by Dunham and Smith (1979)
Descriptive Statistics		
N of Items*	4	5
Mean	2.16	2.44
Validity Test**		
N of Component(s)	1	1
KMO***	0.71	0.86
Bartlett's Test of Specificity		
Approximate *Chi-Square*	2636.18	7458.43
df	6	10
Significance	0.000	0.000
Eigenvalue	2.199	3.264
Explanation of Variance	54.97	65.27
Reliablity Test		
Cronbach α	0.73	0.87

* Responses to each item are made on a 5-point scale. Higher scores indicate favorable responses.
** Principal components factor analysis.
*** Kaiser-Mayer-Okline measure of sampling adequacy.

Results from the KMO measure of sampling adequacy indicate that the factor analysis of Dunham and Smith's pay satisfaction was more appropriate than Spector's pay satisfaction (KMO = 0.86 and KMO = 0.71, respectively). Likewise, more total variance was explained by Dunham and Smith's pay satisfaction items than Spector's pay satisfaction items (65.27% and 54.97%, respectively). These results suggest the better validity of the five items of pay satisfaction scale developed by Dunham and Smith (1979). Similarly, the reliability of Dunham and Smith's pay satisfaction scale ($\alpha = 0.87$) was found to be higher than that of Spector's pay satisfaction scale ($\alpha = 0.73$). Therefore, the report adopted only Dunham and Smith's pay satisfaction scale for further statistical analysis.

As shown in Table 8, the respondents displayed an average of 2.44 for the level of their pay satisfaction. The average of 2.44 is below the midpoint between "disagree" and "neither disagree or agree," suggesting their low levels of satisfaction with pay. There is more substantial evidence that more than a half had their low levels of pay satisfaction: 68.3 percent of the respondents did feel their pay level poor; 52.9 percent reported their pay level inadequate given the cost of living in their area; and 52.5 percent indicated that their pay level made an unfavorable influence on their overall attitude toward their job. Conversely, only small percent of the respondents revealed their high levels of pay satisfaction. For example, 10.3 percent did feel their pay level good; 13.5 percent indicated their pay level either adequate or more than adequate given the cost of living in their area; and 15.4 percent reported that their pay level made a favorable influence on their overall attitude toward their job.

In addition, Spector's pay satisfaction scale provides valuable information on the low levels of respondents' pay satisfaction, although it is no longer used for further analysis. Regarding pay raises, 75 percent indicated that the pay raises they received were too few and far between. Furthermore, 54.7 percent of the respondents reported that they were unappreciated by the department considering the pay level they received. On the contrary, only 12.1 percent reported satisfaction with pay raises, and only 20.7 percent revealed that they were appreciated by the department, considering what the department paid them. These findings clearly indicate that the respondents in Texas probation are not satisfied with their pay, and therefore probation administrators need to pay substantial attention to the low levels of pay satisfaction among employees.

Table 8. Itemized Pay Satisfaction Analysis

Item	N (%)	Mean	SD	Total N
1. For the job I do, I feel the amount of money I make is:		2.10	0.98	3232
very poor.	1051 (32.5)			
fairly poor.	1157 (35.8)			
neither poor nor good.	692 (21.4)			
good.	320 (9.9)			
extremely good.	12 (0.4)			
2. To what extent are your needs satisfied by the pay you receive?		2.86	0.90	3232
almost none of my needs are satisfied.	202 (6.3)			
very few of my needs are satisfied.	879 (27.2)			
a few of my needs are satisfied.	1396 (43.2)			
many of my needs are satisfied.	674 (20.9)			
almost all of my needs are satisfied.	81 (2.5)			
3. Considering what it costs to live in this area, my pay is:		2.39	0.98	3231
very inadequate.	708 (21.9)			
inadequate.	1001 (31.0)			
barely adequate.	1088 (33.7)			
adequate.	425 (13.2)			
more than adequate.	9 (0.3)			
4. Does the way pay is handled here make it worthwhile for a person to work especially hard?		2.35	0.92	3230
It definitely discourages hard work.	636 (19.7)			
It tends to discourage hard work.	1165 (36.1)			
It makes little difference.	1136 (35.2)			
It tends to encourage hard work.	252 (7.8)			
It definitely encourages hard work.	41 (1.3)			
5. How does the amount of money you now make influence your overall attitude toward your job?		2.50	1.01	3232
It has a very unfavorable influence.	526 (16.3)			
It has a slightly unfavorable influence.	1171 (36.2)			
It has no influence one way or the other.	1039 (32.1)			
It has a fairly favorable influence.	378 (11.7)			
It has a very favorable influence.	118 (3.7)			
Average		2.44	0.77	3227

The Other Eight Faceted Job Satisfaction Scales

Table 9 summarizes the other eight-facet job satisfaction scales used, the average mean, and the standard deviation. Not tabulated here, each of the eight scales was found to have an acceptable validity and reliability. Note that the validity test for the operating-procedures scale found that one item was heterogeneous, and was therefore discarded, bringing the original four items to three, as indicated in Table 9. Responses to all items were made on a 5-point Likert scale. By using two cut-off points (2.5 and 3.5 on the 5-point scale), the average mean of each satisfaction scale was broken into the following three groups: unsatisfied job aspect, neither satisfied nor satisfied job aspect, and satisfied job aspect. First, utilizing the cut-off point of 3.5 (the midpoint between *Neither disagree nor agree* and *Agree*), three satisfied job aspects were identified. Among the job aspects, satisfaction with the respondents' immediate supervisor (average = 3.86) was found to be the highest, closely followed by satisfaction with the type or their work done (average = 3.80) and satisfaction with co-workers (average = 3.62).

Second, the average mean of other job aspects except for promotion varied between 2.5 and 3.5, and therefore were identified as neither "satisfied" nor "dissatisfied" job aspects, not supporting any one particular view. The group includes fringe benefits, contingent rewards, operating procedures, and communication. Lastly, utilizing the cut-off point of 2.5 (midpoint between *disagree* and *neither disagree nor agree*), only promotion (average = 2.33) in Table 9 was identified as an unsatisfied job aspect. In other words, respondents reported low satisfaction with promotion opportunities. There is evidence to indicate that more than half of the respondents had low levels of promotion satisfaction: nearly 66 percent of the respondents perceived too little chance for promotion in their department; 50 percent did not feel they were given a fair chance of promotion for those who performed well on the job; and 54.7 percent reported high levels of dissatisfaction with their chances for promotion. Only a small percentage of respondents expressed high levels of promotion satisfaction. For instance, only 14.1 percent perceived much chance for promotion in their department; 25.2 percent felt they had a fair chance of being promoted for those who performed well on the job; and 16.2 percent reported high levels of satisfaction with their chances for promotion.

Taken together, the respondents had moderately high levels of overall job satisfaction. This finding suggests a strong linkage between an employee, and his or her job and job experience in Texas probation. However, average means of pay satisfaction (average = 2.44), and promotion satisfaction (average = 2.33) were found to be lower than the midpoint between *Disagree* and *Neither disagree nor agree*. In other words, pay and promotion are the parts of the job that substantially contribute to dissatisfaction. Probation administrators need to pay serious attention to these low levels of pay and promotion satisfaction among employees in Texas probation, and therefore need to develop substantial strategies to enhance these two aspects of the job's terms and conditions.

Table 9. Itemized Job Satisfaction Facet Analysis (excluding Pay Satisfaction)

Item*	Mean	SD	N
Promotion	**2.33**	0.89	3204
1. There is really too little chance for promotion on my job. (R)	2.15	1.14	3220
2. Those who do well on the job stand a fair chance of being promoted.	2.58	1.20	3215
3. People get ahead as fast here as they do in other places.	2.19	1.02	3213
4. I am satisfied with my chances for promotion.	2.40	1.12	3208
Supervision	**3.86**	0.97	3207
1. My supervisor is quite competent in doing his/her job.	3.81	1.20	3215
2. My supervisor is unfair to me. (R)	3.96	1.11	3216
3. My supervisor shows too little interest in the feelings of subordinates. (R)	3.64	1.26	3216
4. I like my supervisor.	4.02	1.03	3210
Fringe Benefits	**2.87**	0.87	3198
1. I am not satisfied with the benefits I receive. (R)	2.97	1.24	3216
2. The benefits we receive are as good as most other organizations offer.	3.06	1.17	3212
3. The benefit package we have is equitable.	3.12	1.07	3212
4. There are benefits we do not have which we should have. (R)	2.33	1.05	3207
Contingent Rewards	**2.53**	0.95	3212
1. When I do a good job, I receive the recognition for it that I should receive.	2.64	1.19	3217
2. I do not feel that the work I do is appreciated. (R)	2.77	1.21	3217
3. There are few rewards for those who work here. (R)	2.29	1.10	3215
4. I don't feel my efforts are rewarded the way they should be. (R)	2.41	1.12	3214
Operating Procedures	**2.53**	0.94	3200
1. Many of our rules and procedures make doing a good job difficult. (R)	2.73	1.21	3213
2. I have too much to do at work. (R)	2.54	1.11	3212
3. I have too much paperwork. (R)	2.33	1.16	3204
Co-workers	**3.62**	0.78	3212
1. I like the people I work with.	4.10	0.83	3224
2. I find I have to work harder at my job than I should because of the incompetence of people I work with. (R)	3.20	1.19	3223
3. I enjoy my co-workers.	4.00	0.82	3222
4. There is too much bickering and fighting at work. (R)	3.16	1.22	3221

Table 9, continued

Item*	Mean	SD	N
Nature of Work	**3.80**	0.80	3216
1. I sometimes feel my job is meaningless. (R)	3.37	1.26	3222
2. I like doing the things I do at work.	3.95	0.88	3219
3. I feel a sense of pride in doing my job.	4.11	0.92	3222
4. My job is enjoyable.	3.75	0.98	3220
Communication	**2.90**	0.95	3220
1. Communications seem good within this department.	2.61	1.23	3226
2. The goals of this department are not clear to me. (R)	3.11	1.20	3226
3. I often feel that I do not know what is going on with the department. (R)	2.73	1.21	3226
4. Work assignments are often not fully explained. (R)	3.16	1.14	3224

* Responses to each item are made on a 5-point scale with anchors labeled (1) strongly disagree and (5) strongly agree.
(R) indicates a reverse-keyed item (scoring is reversed).

Job Stress

Job stress was found positively correlated with turnover intention (Begley & Czajka, 1993). Theoretically and empirically, job stress and stressors are concepts that should be distinguished from each other. There have been various definitions of stress. For example, stress is defined as the non-specific response of the body to any demand (Selye, 1956), the person-environment fit (Whitehead, 1985; 1987), and the lack of congruity between individuals and their physical or social environment (Chesney & Rosenman, 1980). Also, stress may be defined as the psychological discomfort or tension caused by exposure to stressors which place unreasonable or distinctive demands on an individual (Cullen, Link, Wolfe, & Frank, 1985). The current definition of job stress includes both the 'person-environment fit,' and its equivalent, the 'incongruity between an individual and one's physical or social environment.'

In conjunction with the person-environment fit perspective of stress, stressors have been succinctly defined as "the conditions which place excessive or unusual demands on a person and are capable of engendering psychological discomfort, physiological pathology, and/or social disability" (Cullen, et al., 1985, p. 507). Stressors are operationally defined as "circumstances which place unreasonable or distinctive demands on an individual, and are usually capable of producing emotional/psychological discomfort" (Grossi & Berg, 1991, p. 76). Both definitions are quite similar, and reflect that the conditions of situations or events are stressors, and consequently produce job-related stress.

The results of the job-burnout study are informative. Job burnout, resulting from prolonged job stress, is a syndrome wherein individuals working in human service

agencies experience three distinct outcomes: *emotional exhaustion* (work overextension and exhaustion); *depersonalization* (an impersonal and cynical approach to clients); and *lack of personal accomplishment* (a negative self-evaluation) (Maslach & Jackson, 1981). Negative outcomes of job burnout symptoms include low job satisfaction, decreased employee productivity, increased absenteeism, and high voluntary or actual turnover (Gerstein, Topp, & Correll, 1987; Simmons, et al., 1996). Extensive literature (e.g., Cherniss, 1980; Maslach, 1982; Whitehead, 1985; 1987) suggests that role structure, such as role overload, role conflict, and role ambiguity, is important source of job stress and burnout.

Existing correctional literature concurs that role ambiguity and role conflict play a negative impact on job-related stress and burnout (Byrd, Cochran, Silverman, & Blount, 2000; Cullen, et al, 1985; Finn, 1999; Grossi & Berg, 1991; Lindquist & Whitehead, 1986; Thomas, 1988; Walters, 1999; Whitehead, 1983; 1985; 1987; Whitehead & Lindquist, 1996). In the prison setting, dangerousness of the job was found to be an additional stressor to the role structure problem (Cullen, et al, 1985). Likewise, in a study conducted for 457 adult probation officers in Texas, Sheeley (2008) found the need for safety to be the fourth priority need following better communication, more resources, and greater recognition. The literature review indicates that both job stress and stressors are important correlates with turnover intention. Therefore, both the four stressors and job stress levels shown in Table 10 were selected and incorporated into the survey.

Job stress ($\alpha = 0.90$) was assessed using the five items developed by Crank, Regoli, Hewitt and Wolfe (1989). Among the three role characteristics used, *role overload* ($\alpha = 0.91$) refers to having too much to do in the amount of time or the lack of available resources for completing workload demands, and was measured using five items developed by Peterson and his associates (1995). The other two role characteristics are *role conflict* and *role ambiguity* which have been widely used in job-role research. Both are different. Role conflict refers to conflicting requests from different people, whereas role ambiguity refers to unclear expectations in fulfilling a role. Both role conflict ($\alpha = 0.82$) and ambiguity ($\alpha = 0.71$) were measured using the total nine items adopted from Lambert, Hogan, Paoline and Clarke (2005). Lastly, *dangerousness of the job* ($\alpha = 0.80$) was assessed using five items adopted from Cullen, Link, Cullen and Wolfe (1989). All scale items used were measured using five-point Likert scales.

Respondents displayed an average of 3.12 for their job stress level, which was between 2.5 and 3.5 on a 1-5 Likert scale, and therefore not supporting any one particular view. However, 46.8 percent of the respondents reported that they were usually under a lot of pressure at work, whereas 29.9 percent reported that they were not under the pressure. Among the four stressors, role overload (average = 3.09) was found to be the strongest stressor, closely followed by dangerousness of the job (average = 2.88) and role ambiguity (average = 2.77). At 2.17, the average level of role ambiguity is below the midpoint of 2.5 between "disagree" and "neither disagree or agree," and suggesting that uncertainty about what actions are expected, is not a particularly stressful condition in Texas probation.

Table 10. Itemized Stress Analysis

Item*	Mean	SD	N
Role Overload	**3.09**	1.00	3220
1. There is a need to reduce some parts of my role.	3.19	1.15	3223
2. I feel overburdened in my role.	3.10	1.15	3223
3. I have been given too much responsibility.	2.65	1.06	3222
4. My workload is too heavy.	3.16	1.19	3222
5. The amount of work I have to do interferes with the quality I want to maintain.	3.37	1.24	3222
Role Conflict	**2.77**	0.89	3213
1. I regularly receive conflicting requests at work from two or more people.	2.83	1.15	3219
2. When a problem comes up here, people seldom agree on how it should be handled.	3.00	1.13	3219
3. Sometimes, I am criticized by one supervisor for doing something ordered by another supervisior.	2.61	1.19	3217
4. I sometimes have to bend a rule or policy to get an assignment done.	2.60	1.13	3218
5. I often receive an assignment without adequate resources and materials to get it done.	2.78	1.18	3217
Role Ambiguity	**2.17**	0.74	3207
1. I clearly know what my work responsibilities are. (R)	2.00	0.94	3212
2. The rules that we're supposed to follow seem to be very clear. (R)	2.44	1.07	3211
3. I am unclear to whom I report and/or who reports to me.	1.96	0.96	3212
4. I do not always understand what is expected of me at work.	2.25	1.06	3208
Dangerousness	**2.88**	0.84	3207
1. Most of the time when I'm at work I don't feel that I have much to worry about. (R)	2.90	1.19	3213
2. In my job, a person stands a good chance of getting hurt.	3.13	1.23	3212
3. I work at a dangerous job.	3.16	1.18	3213
4. My job is a lot more dangerous than most other jobs.	3.20	1.17	3211
5. A lot of people I work with have been physically injured on the job.	2.00	0.84	3210
Job Stress	**3.12**	0.97	3221
1. A lot of the time my job makes me very frustrated or angry.	3.20	1.20	3221
2. I am usually under a lot of pressure when I am at work.	3.26	1.16	3222
3. When I'm at work I often feel tense or uptight.	3.11	1.16	3222
4. I am usually calm and at ease when I'm working. (R)	2.93	1.10	3223
5. There are a lot of aspects of my job that make me upset.	3.10	1.14	3223

* Responses to each item are made on a 5-point scale with anchors labeled (1) strongly disagree and (5) strongly agree; (R). indicates a reverse-keyed item (scoring is reversed).

Many respondents reported high levels of role overload. Also, 51.1 percent of the respondents felt that their workload, if heavy, negatively affected the quality of their work, whereas only 30 percent reported they felt otherwise. Interestingly, an example related to highly perceived dangerousness of the job, 45 percent of the respondents reported their probation job was much more dangerous than most other jobs, while only 30 percent reported no differences of dangerousness between probation job and other jobs. Regarding their high role conflict, for example, almost equal numbers of the respondents either *agreed* or *disagreed* with the following statement: When a problem comes up here, people seldom agree on how it should be handled (36.8% agreed and 38.6% disagreed, respectively). Overall, these findings suggest that role overload, such as excessive paperwork and expectations to complete job duties in too little time, substantially contributes to stress-induced role characteristics. In addition, like a prison setting, the dangerousness of the work need to be recognized as a substantial stressor in adult probation field.

Organizational Justice

Organizational justice is related to fairness perception (Campbell & Pritchard, 1976; Cropanzano & Greenberg, 1997). Basically, if organizational injustice is perceived, one feels relative deprivation or a feeling of discontent, which in turn may lead to a range of attitudinal and behavioral effects, such as higher stress, lower job satisfaction, lower organizational commitment, and higher turnover intention or actual turnover (Campbell & Pritchard, 1976; Hendrix, Robbins, Miller, & Summers, 1999; Martin 1981). Empirical research has supported the important theoretical link between organizational justice and its organizational outcomes. For example, turnover intention is an aspect of motivation that was found to be influenced by an employee's perceived organizational fairness (Acquino, Griffeth, Allen, & Hom, 1997; Hendrix, Robbins, Miller, & Summers, 1999)

Organizational justice conceptually includes two aspects of justice: distributive justice and procedural justice. Distributive justice is the degree of fairness in distributing rewards (Price & Mueller, 1986), while procedural justice is the degree of fairness in the procedures used for distribution (Folger & Greenberg, 1985). Both distributive justice and procedural justice are based upon employee judgments regarding the fairness of outcomes and the fairness of the procedures.

Developed by Price and Mueller (1986), the five items shown in Table 11 were designed to measure the respondents' perceived fairness of outcome, which is *distributive justice*. The scale was well above the minimal level of acceptability, evidenced by high Cronbach's Alpha reliability scores ($\alpha = 0.94$). *Procedural justice* refers to the fairness of the procedures in distributing outcomes, and was assessed through the use of seven items adopted from Lambert, Hogan and Griffin (2007). However, the validity test found one item to be heterogeneous to the original scale. Then, the heterogeneous item was discarded for a better accurate scale, brining the original seven items to the five items. The Cronbach's Alpha reliability coefficient for the six items was 0.81, indicating a slight increase from that of the original seven items ($\alpha = 0.76$).

Table 11. Itemized Organizational Justice Analysis

Item*	Mean	SD	N
Distributive Justice	**2.55**	1.00	3202
The department has been <u>fair</u> in rewarding you considering:			
1. the amount of effort that you have put forth?	2.53	1.10	3211
2. the responsibilities that you have at work?	2.58	1.09	3211
3. the stresses and strains of your job?	2.48	1.05	3209
4. the amount of education and training you have?	2.63	1.19	3208
5. the work that you have done well?	2.53	1.14	3207
Procedural Justice	**2.86**	0.84	3207
1. Promotions here are seldom related to employee performance. (R)	2.55	1.19	3214
2. Promotions are more related to whom you know rather than the quality of work. (R)	2.54	1.26	3210
3. There is a fair opportunity to be promoted.	2.55	1.11	3214
4. My own hard work will lead to recognition as a good performer.	2.97	1.19	3216
5. The standards used to evaluate my performance at this department have been fair and objective.	3.06	1.09	3215
6. I have little trust in my supervisor's evaluation of my work performance. (R)	3.49	1.18	3214

* Responses to each item are made on a 5-point scale with anchors labeled (1) strongly disagree and (5) strongly agree.
(R) indicates a reverse-keyed item (scoring is reversed).

Respondents reported an average mean of 2.55 for their perceived level of distributive justice. The average mean closely approached the cut-off point of 2.5 (midpoint between *disagree* and *neither disagree nor agree*), suggesting negative judgments regarding the fairness of distributing rewards, such as pay and promotion. For all five items, more than half of the respondents reported they perceived unfairness of distributing rewards, given: the amount of the effort (53.8%), the responsibilities (51.6%), the stresses and strains of the job (55.5%), the amount of education and training (48.5%), and the work done well (53.4%).

Compared to the average mean of distributive justice (2.55), procedural justice had a relatively higher average mean of 2.86. Respondents perceived procedural fairness in the recognition of: hard work (38.6% vs. 36.2%), fair and objective standards to evaluate their performance (38.2% vs. 28.1%), and the supervisor's reliable evaluation of their work performance (56.6% vs. 20.3%). However, nearly 50 percent of the respondents reported procedural unfairness in performance-based promotions (49.8%) and a fair opportunity for promotions (49.8%). In addition, 49.9 percent of respondents perceived that promotions are given based on who you know rather than what you know.

Overall, these findings indicate a lack of fairness of distributing rewards such as pay and promotion, as well as a lack of fairness in promotional procedures in the Texas probation.

Social Support

Job stress was found negatively correlated with social support (Etzion, Eden, & Lapidot, 1998). As a provision of instrumental and emotional assistance, social support can be obtained from both his/her supervisors and fellow officers. It can function as a successful coping factor to alleviate job stress, preventing job dissatisfaction, enhancing high levels of organizational commitment, and reducing turnover intention. Also, feelings of high personal empowerment (Crozier, 1964; Spreitzer, 1996) and job competence (Gist & Mitchell, 1992) may result from good social support at work. According to Cullen and his associates (1985), successful social support at work depends on the quality of interpersonal support from supervisors and fellow officers. There is substantial, empirical evidence indicating that support from supervisors is essential in allowing correctional officers to display positive, job-related attitudinal and behavioral outcomes (Gardner, 1981; Jurik & Halemba, 1984; Poole & Regoli, 1980; Veneziano, 1984). Also, feelings of low personal empowerment (Crozier, 1964; Spreitzer, 1996) and job competence (Gist & Mitchell, 1992) may result from a lack of social support at work.

Developed by Spreitzer (1996), four items with a five-point subscale (1 = *strongly disagree* to 5 = *strongly agree*) were adopted and slightly modified to reflect a departmental support. The four items in Table 12 were amalgamated together to form *social support* (α = 0.83), and used to measure interpersonal support from the members of a respondent's work group, peers, immediate supervisor, and department.

Table 12. Itemized Social Support Analysis

Item*	Mean	SD	N
1. I have the support I need from my workgroup or team to do my job well.	3.62	1.00	3218
2. I have the support I need from my peers to do my job well.	3.69	0.96	3219
3. I have the support I need from my immediate supervisor to do my job well.	3.68	1.08	3218
4. I have the support I need from my department to do my job well.	3.20	1.15	3213
Average	**3.55**	0.85	3212

* Responses to each item are made on a 5-point scale with anchors labeled (1) strongly disagree and (5) strongly agree.

Respondents reported their levels of social support as positive, with an overall mean of 3.55, exceeding the midpoint of 3.5 between *neither disagree nor agree* and *agree*). All social supports used but support from the respondent's department were found to be moderately high. The highest level of social support reported came from

peers (3.69), closely followed by their immediate supervisors (3.68) and their workgroup members (3.62). However, support from the respondents' department is mixed with an average mean of 3.20, not exceeding the cut-off point of 3.5. Compared to the other social support, departmental support, which helps respondents perform their jobs well, seems weak at helping respondents perform their jobs well. .

Participatory Management

In response to organizational issues surrounding the management of government, President Clinton created the National Performance Review (NPR) in 1993 (Vernon & Byrd, 1996). "Reinventing Government," borne out of the NPR, criticized malfunctions of hierarchical, centralized bureaucracies and envisioned the new roles of government executives, which included developing a clear vision, creating a team environment, empowering employees, putting customers first, communicating with employees, cutting red tape, and creating clear accountability (Gore, 1993). Basically, bureaucratization tends to reduce workers' control over the means of production and alienate line workers from the decision-making process by exerting extreme limitations on individual freedoms and democracy (Kohn, 1976; Mouzelis, 1968).

Participatory management seeks to balance the involvement of superiors and subordinates in information-sharing, decision-making, and problem-solving related to production and quality control (Wagner, 1994). Research in the organizational and correctional literature that focuses on participation in decision-making by employees has emphasized its significant relationship to turnover intention and actual turnover (Eby, Freeman, Rush, & Lance, 1999; Jackson, 1983; Slate & Vogel, 1997; Slate et al., 2001). Furthermore, correctional research literature not empirically focused on the impact of participatory management, has discussed and recommended utilizing this strategy as a critical mechanism to improve officers' job satisfaction, and mitigate job stress and/or burnout, which are significantly associated with inclinations to leave (i.e., Byrd et al., 2000; Simmons et al., 1997).

Based upon the literature, it has been recognized that a participatory management structure is more beneficial than a rigid, autocratic structure for enhancing employee job satisfaction. It does so by increasing employees' ability to profoundly influence and improve their stressful work environment through their own decision-making process. This, in turn, leads to better job productivity and less absenteeism and turnover. Accordingly, more attention needs to be paid to the impact of participatory management in Texas Probation, with its voluntary turnover rate. In response, the report included both *participatory climate* and *empowerment*, which have been recognized as important elements of participatory management.

Participatory Climate

Developed by Slate, Wells, & Johnson (2003), seven items with a five-point subscale (1 = *strongly disagree* to 5 = *strongly agree*) shown in Table 13 were designed to measure the respondents' perception of atmosphere for participation in decision-

making in their probation department. The scale examined was well above the minimal level of acceptability evidenced by high Cronbach's Alpha reliability scores (0.88). The respondents recorded an average of 2.89 for the level of atmosphere for participation in decision-making – neither agree nor disagree – which is considered mixed and therefore does not support any one particular view.

Table 13. Itemized Participatory Climate Analysis

Item*	Mean	SD	N
1. My superiors ask me for input on decisions that affect me at work.	3.04	1.19	3211
2. I am encouraged to offer my opinion at work.	3.15	1.19	3211
3. There is opportunity for me to have a say in the running of this department on matters that concern me.	2.59	1.16	3210
4. Management responds in a satisfactory manner to what I have to say.	2.72	1.12	3207
5. From past experience at this department, I feel it is a waste of time. (R)	3.06	1.16	3207
6. I feel comfortable about offering my opinion to supervisors at work.	3.24	1.15	3207
7. Those who actually do the work are involved in the writing of policies at this department.	2.40	1.07	3207
Average	**2.89**	0.88	3204

* Responses to each item are made on a 5-point scale with anchors labeled (1) strongly disagree and (5) strongly agree.
(R) indicates a reverse-keyed item (scoring is reversed).

Despite no indication of one particular view, item analysis demonstrates substantial evidence that the respondents' opinions were not sought and respected. For example, nearly 50 percent of the respondents (vs. 25.4%) felt that hey had no opportunity to have a say in the running of their agency on matters that concern them, 41.4 percent (vs. 26.7%) indicated unsatisfactory response or feedback to their input, and 53.2 percent (vs. 15.5%) did not feel involved in the writing of policies. This evidence clearly indicates the low levels of atmosphere for participation in their departments.

Empowerment

Participatory climate is related to empowerment; it is a non-traditional organizational culture with an emphasis on facilitating, coaching, and consulting employees (participatory climate), to facilitate a sense of control and self-efficacy (empowerment). Empowerment is succinctly defined as a "process by which individuals and groups gain power, access to resources and control over their own lives. In doing so, they gain the ability to achieve their highest personal and collective aspirations and goals" (Robbins, Chatterjee, & Canda, 1998, p. 91). The concept of empowerment as intrinsic motivation implies that if an employee loses a sense of control and the self-efficacy to enhance or enrich their job, he or she will feel powerlessness. This feeling,

which includes low self-esteem and a diminished sense of autonomy and responsibility, leads not only to poor quality job performance, but also a low level of desire to remain attached to an organization (affective commitment), increasing the inclination to leave (Hammer, Landau, & Stern, 1981; Mowday et al., 1982).

Empirical research has demonstrated a strong relationship between empowerment and organizational commitment, and between turnover intention and subsequent voluntary turnover. For example, empowerment was found to enhance organizational commitment (Wu & Short, 1996), which in turn reduces voluntary turnover (Spreitzer & Mishra, 2002). Koberg, Boss, Senjem, & Goodman (1999) found a negative relationship between empowerment and turnover intention. Most recently, Moynihan and Landuyt (2008), in their analysis of turnover intention among 34,668 Texas state employees, found that a sense of empowerment reduces turnover intention. Literature on employment suggests that fostering empowerment among employees can be target through organizational intervention, to increase organizational commitment and mitigate turnover intention and voluntary turnover.

Empowerment was assessed through the use of the Index of Empowerment developed by Spreitzer (1995), which is composed of 12 items. The Index of Empowerment measures four dimensions of empowerment (*meaning*, *competence*, *self-determination* and *impact*). These four dimensions, reflecting an employee's orientation to his or her work role, were combined into an overall measure of empowerment. This scale yielded adequate reliability ($\alpha = 0.83$). As demonstrated in Table 14, respondents reported an average of 3.64 for their level of empowerment. The average mean exceeded the midpoint of 3.5 between *neither disagree nor agree* and *agree*), suggesting that respondents believe that they have a moderately high level of empowerment in their department.

Separate analysis of the four dimensions of empowerment can provide probation administrators with valuable managerial information since empowerment is a concept of intrinsic motivation resulting from the four dimensions. The average means of all sub-dimensional scales but impact were found to be moderately high or very high. The respondents reported the highest level of *competence* (confidence in one's effectiveness and job-performance), followed by *meaning* (the fit between the value of a work role and an employee's own values and standards), *self-determination* (an employee's autonomy and independent decision-making in the initiation and continuation of work behavior and processes). However, the respondents' report of the degree of their *impact* on work-related outcomes is very negative, with an average mean of 2.29 not exceeding the midpoint of 2.5 between *disagree* and *neither disagree nor agree*. Therefore, compared to the other dimensions of empowerment, the low degree of impact on work-related outcomes does not appear to make employees feel empowered.

Table 14. Itemized Empowerment Analysis

Item*	Mean	SD	N
Meaning	**4.19**	0.77	3211
1. The work I do is very important to me.	4.27	0.79	3211
2. My job activities are personally meaningful to me.	4.10	0.86	3211
3. The work I do is meaningful to me.	4.19	0.83	3211
Competence	**4.37**	0.64	3211
1. I am confident about my ability to do my job.	4.51	0.64	3211
2. I am self-assured about my capabilities to perform my work activities.	4.47	0.66	3211
3. I have mastered the skills necessary for my job.	4.14	0.85	3211
Self-determination	**3.72**	0.92	3210
1. I have significant autonomy in determining how I do my job.	3.85	0.98	3211
2. I can decide on my own how to go about doing my work.	3.78	1.05	3211
3. I have considerable opportunity for independence and freedom in how I do my job.	3.53	1.13	3210
Impact	**2.29**	0.98	3211
1. My impact on what happens in my department is large.	2.66	1.17	3211
2. I have a great deal of control over what happens in my department.	2.08	1.02	3211
3. I have significant influence over what happens in my department.	2.14	1.06	3211
Average	**3.64**	0.55	3210

* Responses to each item are made on a 5-point scale with anchors labeled (1) strongly disagree and (5) strongly agree.
(R) indicates a reverse-keyed item (scoring is reversed).

To summarize, the descriptive analysis for turnover intention reveals substantial evidence of why Texas probation administrators need to pay immediate and serious attention to the high levels of voluntary turnover intention among their employees. For example, in response to the question, "How do you feel about leaving this department?" 41.3 percent of the respondents revealed inclinations to leave. Specifically, 30.3 percent reported that they were having serious thoughts about leaving in the near future, and another 11 percent were actively looking to leave.

In the descriptive analysis for organizational commitment as a predictor of turnover intention, the average mean of affective commitment was lower than that of continuance commitment (both high personal sacrifice and lack of alternatives). This suggests that the Texas probation respondents are committed to their department only in so far as they are aware of the costs associated with leaving, such as their personal accumulated investments and limited employment opportunities, rather than their strong

emotional attachment to, identification with, and involvement in their department. Note that those with strong affective commitment to the organization are more valuable employees for any organization than those with strong continuance commitment. Furthermore, the link between the respondents and their department (organizational commitment) was found to be weaker than the linkage between the respondents and their job and job experience (job satisfaction).

The accumulated findings from the descriptive analyses provide useful managerial information, which may help probation administrators identify areas that they need to improve. Relatively, overall job satisfaction, supervision satisfaction, co-worker satisfaction, nature of work satisfaction, social support, and empowerment are the positively perceived working areas. However, probation administrators in Texas need to pay serious attention to the two negatively perceived working areas: pay and promotion satisfaction. Related to pay and promotion satisfaction, more than half of the respondents indicated a lack of fairness in distributing rewards, such as pay and promotion, and a lack of fairness in promotional procedures. Finally, a low level of perceived atmosphere for participation in decision-making was found, recommending a shift in supervisory and managerial roles and styles from directing and controlling line officers and direct-care staff in a traditional, autocratic culture, to facilitating, coaching, and consulting with them in participatory management.

Separate Analyses between Two Groups and Pre-Analysis Data Screening

The previous descriptive analyses were used to provide a brief description and univariate statistics, such as variable frequencies, means, and standard deviations for each variable. Descriptive analysis is useful to summarize each individual variable but it can not explore any differences and relationships between the values of the dependent variable (turnover intention) and those of the independent variable. Also, descriptive analysis can not determine which predicting variable(s) are found to be significant determinants of turnover intention (Hamilton, 1990). Furthermore, it can not provide the causal relationship of pay satisfaction with its significant attitudinal and behavioral consequences including turnover intention, nor provide comparisons of the total influence of pay satisfaction on turnover intention with those of other significant attitudinal and behavioral consequences, respectively. Therefore, in the following three sections, therefore, bivriate, multivariate regression and structural equation modeling analyses will be employed.

A series of *t-test* analyses along with each of all organizational variables were conducted to examine whether there is any significant mean difference between the line probation officers and direct care staff. As depicted in Table 15, there were statistically significant mean differences in all organizational variables but six. Interestingly, compared to the line probation officers, the direct care staff tended to have more negative feelings about turnover intention and stress-related variables, and more positive feelings or perceptions about the other variables, such as affective commitment and job satisfaction. These findings indicate the two groups are different, possibly due to the nature of their work, and thereby further, separate analysis may be required.

Table 15. Independent-Samples t-test for Comparing the Means of Line Community
Supervision Officers and Direct Care Staff.

	CSO[a] Mean (N)	DCS[b] Mean (N)	Mean Difference	t	df
Turnover intention	2.763 (2647)	2.485 (580)	0.278	6.622 ***	891
Organizational commitment					
Affective commitment	3.164 (2637)	3.347 (575)	-0.183	-4.200 ***	3210
High sacrifice	3.209 (2643)	3.239 (579)	-0.030	-0.647	883
Lack of alternative	3.265 (2635)	3.223 (578)	0.043	0.936	3211
Satisfaction					
Overall job satisfaction	3.492 (2646)	3.661 (579)	-0.170	-4.536 ***	3223
Pay	2.408 (2648)	2.585 (579)	-0.177	-5.005 ***	3225
Promotion	2.300 (2631)	2.479 (573)	-0.179	-4.380 ***	3202
Supervision	3.859 (2632)	3.853 (575)	0.005	0.123	3205
Benefits	2.853 (2622)	2.965 (576)	-0.112	-2.803 **	3196
Contingent rewards	2.483 (2635)	2.745 (577)	-0.263	-6.048 ***	3210
Operating procedures	2.436 (2624)	2.971 (576)	-0.535	-13.151 ***	885
Co-workers	3.614 (2639)	3.621 (573)	-0.007	-0.192	3210
Nature of work	3.762 (2637)	3.946 (579)	-0.185	-5.061 ***	3214
Communication	2.873 (2641)	3.047 (579)	-0.173	-3.979 ***	3218
Stress					
Role overload	3.196 (2642)	2.618 (578)	0.579	12.921 ***	3218
Role conflict	2.782 (2639)	2.688 (574)	0.094	2.311	3211
Role ambiguity	2.173 (2634)	2.130 (573)	0.043	1.248	3205
Dangerousness	2.957 (2629)	2.525 (578)	0.432	11.393 ***	3205
Job stress	3.198 (2644)	2.759 (577)	0.439	10.017 ***	3219
Organizational justice					
Distributive justice	2.502 (2625)	2.767 (577)	-0.265	-5.807 ***	3200
Procedural justice	2.829 (2631)	3.004 (576)	-0.175	-4.628 ***	859
Social support	3.532 (2635)	3.616 (577)	-0.085	-2.160 *	3210
Participatory Management					
Participatory climate	2.841 (2628)	3.089 (576)	-0.248	-6.192 ***	3202
Empowerment	3.601 (2632)	3.833 (578)	-0.232	-8.907 ***	806

[a] Community Supervision Officer; [b] Direct-Care Staff
* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Before conducting further analysis, pre-analysis data screening is essential to secure the accuracy of the data and to prevent any biased result. According to Mertler and Vannatta (2005), the pre-analysis data screening include the following five data screening processes: missing data, normality, linearity, and homoscedasticity and outliers. First, the minimum number of missing values was replaced with the means of the variable. For handling normality, linearity and homoscedasticity, six different data transformations

were utilized to normalize all metric variable including age and tenure. Based on each of the six data transformations, the kurtosis (peakedness of the distribution) and skewness (asymmetry of the distribution) values were compared and then selected when the values were most close to zero, reflective of the normal distribution with the least skewness and without being too peaked or too flat (Tabachnick & Fidell, 1996).

Table 16 interprets which data transformation more closely approximated a normal curve of each metric variable. Also, in a preliminary test for residuals as another way to secure the accuracy of the data and to prevent any biased result, the assumption of normality, linearity and homoscedasticity was met. As for outliers, another preliminary test identified 18 extreme outliers by which any results can be very misleading. Therefore 16 cases of the usable responses from 2653 line probation officers were deleted, brining the data-sample size to 2637. Likewise, 2 cases of the useable responses from 581 direct care staff were deleted, brining the data-sample size to 579. Further analysis will be conducted with the data wherein all outliers were deleted.

Table 16. Transformation of Metric Variables

Variable	Skewness	Kurtosis	Transformation Method
Turnover intention	-0.12	-0.68	Square Root
Organizational commitment			
Affective commitment	0.42	-0.45	Square
High sacrifice	0.35	-0.75	Square
Lack of alternative	0.38	-0.62	Square
Satisfaction			
Overall job satisfaction	0.24	-0.21	Square
Pay	-0.12	-0.54	Square Root
Promotion	-0.13	-0.79	Square Root
Supervision	0.76	0.11	Cubic
Fringe benefits	0.55	0.16	Square
Contingent rewards	-0.21	-0.62	Square Root
Operating procedures	-0.14	-0.58	Square Root
Co-workers	0.31	-0.46	Square
Nature of work	-0.02	-0.55	Square
Communication	-0.43	-0.31	Square Root
Stress			
Role overload	-0.40	-0.29	Square Root
Role conflict	-0.16	-0.24	Square Root
Role ambiguity	0.01	-0.29	Square Root
Dangerousness	-0.37	-0.20	Square Root
Job stress	-0.33	-0.37	Square Root
Organizational justice			
Distributive justice	-0.11	-0.70	Square Root
Procedural justice	-0.45	-0.10	Square Root
Social support	0.24	-0.30	Square Root
Participatory management			
Participatory climate	0.50	-0.10	Square Root
Empowerment	0.42	0.34	Square Root
Age	-0.09	-0.96	Logarithmic
Tenure in current department	-0.58	-0.44	Logarithmic

Section 4.

Bivariate & Multivariate Regression Analyses for Line Community Supervision Officers

Bivariate Analyses

To determine the strength and direction of the association between each predicting variable and turnover intention, three commonly used bivariate analytical techniques were employed. Three bivariate analyses include *Pearson's zero-order correlation*, independent-samples *t-test*, and *one-way analyses of variance* (ANOVA). *Pearson's zero-order correlation* is used to assess the strength and direction of the relationship between each independent variable and turnover intention. Additionally, independent-samples *t-test* and one-way analyses of variance (ANOVA) are used to assess group differences of turnover intention: The independent-samples *t-test* is used for gender differences relating to turnover intention, and the one-way analyses of variance (ANOVA) is used to evaluate educational-level differences relating to turnover intention.

Table 17. Zero-Order Correlations of Turnover Intention by Both Individual Status and Organizational Variables among Texas Community Supervision Officers (N = 2,637)

Organizational Variable	Correlation Coefficient	Individual Status Variable	Correlation Coefficient
Affective commitment	-0.63 **	Gender	0.02
High sacrifice	-0.46 **	Age	-0.21 **
Lack of alternative	-0.14 **	Ethnicity	-0.15 **
Overall job satisfaction	-0.53 **	Martial status	-0.13 **
Pay	-0.47 **	No. of children at home	-0.07 **
Promotion	-0.37 **	Education level	0.13 **
Supervision	-0.20 **	Tenure in current department	-0.13 **
Benefits	-0.29 **	Probation	-0.03
Contingent rewards	-0.38 **	Law enforcement	-0.03
Operating procedures	-0.27 **	Corrections	-0.03
Co-workers	-0.21 **	Parole	-0.02
Nature of work	-0.46 **		
Communication	-0.33 **		
Role overload	0.22 **		
Role conflict	0.31 **		
Role ambiguity	0.25 **		
Dangerousness	0.18 **		
Job stress	0.37 **		
Distributive justice	-0.42 **		
Procedural justice	-0.35 **		
Social support	-0.34 **		
Participatory climate	-0.36 **		
Empowerment	-0.36 **		

** Correlation is significant at the 0.01 level (2-tailed).

Relationships between Turnover Intention and Organizational Variables

As for organizational variables, only *Pearson's zero-order correlation* in Table 17 was conducted to assess the strength and direction of the relationship between variables so that values for the dependent variable, turnover intention, can actually be predicted based on the values for each of the organizational variables. The strength and direction of the relationship between two variables is referred to as their *correlation*, and the standardized measure is generally known as *Pearson's r* or simply *r*; where *r* varies between -1 (a perfect negative relationship) and +1 (a perfect positive relationship). A correlation coefficient of 0 (*r* = 0) indicates no relation between the two variables. According to Davis (1971), correlation coefficients between -0.09 and +0.09 represent a negligible relationship, those between 0.10 and 0.29 (either positive or negative) indicates a low relationship, those between 0.30 and 0.49 represent a moderate relationship and those larger than ± 0.50 indicate a strong relationship between two variables. Note that "some social scientists call correlations of ± 0.30 strong" (Hamilton, 1990, p. 773).

The correlation matrix in Table 17 reveals that all twenty-three organizational variables were found to be significantly correlated with turnover intention. Consistent with existing literature, organizational commitment, overall job satisfaction, job facet satisfaction, organizational justice, social support and participatory management had significantly negative effects on a line officer's turnover intention. Also, all stress-related variables, role overload, role conflict, role ambiguity, dangerousness of the job and job stress level were positively correlated with turnover intention.

Interpretatively, officers who reported lower levels of affective and continuance commitments were more likely to express higher levels of turnover intention. Related to job satisfaction, those who reported lower levels of both overall job satisfaction and specific satisfaction with pay, promotion, fringe benefits, contingent rewards, operating procedures, co-workers, nature of work and communication were less inclined to quit their employment. In terms of organizational justice, those with lower levels of perceived distributive justice tended to perceive more unfairness of departmental decisions concerning the distribution of rewards, such as pay and promotions, more likely leading to higher levels of turnover intention. Also, those with lower levels of perceived procedural justice had a tendency to perceive more unfairness of departmental procedures in decision-making processes for the distribution of rewards, more likely exhibiting higher inclinations to leave their employment. As officers' perception of social support and participatory management decreased, their turnover intention increased. Finally, officers who found their job roles incompatible, unclear, and demanding tended to feel more stress, more likely leading to higher levels of turnover intention.

Interestingly, all organizational variables were found to be statistically correlated with turnover intention. As the correlation matrix illustrates, however, the correlation coefficient for each variable demonstrates a different strength in association with the dependent variable of turnover intention. Using the criteria Davis (1971) suggested, the strength of the correlation coefficients for all organizational variables can be categorized into three groups: the first group with strong relationships, the second group with

moderate relationships and the final group with weak relationships. The first group includes two variables: affective commitment ($r = -0.63$) and overall job satisfaction ($r = -0.53$), exceeding the cut-off point of ± 0.50. Affective commitment was found to have the strongest relationship to turnover, whereas overall job satisfaction turned out to be the second strongest variable in association with turnover intention. The second group representing moderate relationships with turnover intention includes the following thirteen variables: high sacrifice commitment, pay, promotion, contingent rewards, nature of work, communication, role conflict, job stress, distributive justice, procedural justice, social support, participatory climate and empowerment. The third and last group representative of weak relationships with turnover intention includes the other eight variables: lack of alternative commitment, supervision, fringe benefits, operating procedures, co-workers, role overload, role ambiguity and dangerousness of the job.

In the second group, the correlation coefficients for high sacrifice commitment, pay, nature of work and distributive justice were -0.46, -0.47, -0.46 and -0.42; well exceeding -0.40 and approaching the cut-off point of ± 0.50. Considering their relatively high strength, these four variables in addition to affective commitment and overall job satisfaction seem to have substantial relationships with an officer's turnover intention. In addition, among these six variables found to have substantial association with turnover intention, affective commitment was found to be the strongest in association with turnover intention, followed by overall job satisfaction, pay, high sacrifice commitment ($r = -0.461$), nature of work ($r = -0.457$) and distributive justice.

Relationships between Turnover Intention and Individual Status Variables

First of all, *Pearson's zero-order correlation* was utilized to assess the strength and direction of the relationship between variables so that values for the dependent variable, turnover intention, can actually be predicted based on the values for each of the individual status variables. For the *Pearson's zero-order correlation*, the following seven non-metric individual status variables were dummy-coded: Gender (0 = female, 1 = male); ethnicity (0 = non-Caucasian, 1 = Caucasian); marital status (0 = single, 1 = married); and prior employment with probation (0 = no, 1 = yes), law enforcement (0 = no, 1 = yes), corrections (0 = no, 1 = yes) and parole (0 = no, 1 = yes). The correlation matrix in Table 17 reveals that, among all eleven individual status variables, gender and tenure in current department and prior employment in probation, law enforcement, corrections and parole were not found to be significantly correlated with turnover intention.

In contrast, the other six individual status variables were found to be statistically correlated with turnover intention. These significantly correlated individual status variables include age, ethnicity, marital status, number of children at home, educational level and tenure in current department. While education level was found to have statistically significant positive association with a line officer's turnover intention, age, ethnicity, marital status, number of children at home, and tenure in their current department had a statistically significant negative association with turnover intention. Among these six variables found to have statistically significant associations with turnover intention, age ($r = -0.21$) was found to be the strongest in association with turnover intention, followed by ethnicity ($r = -0.15$), tenure in current department ($r = -0.132$), educational level ($r = 0.126$), marital status ($r = -0.125$) and number of children at home ($r = -0.07$).

Younger officers with less seniority were more likely to express higher levels of turnover intention than were older officers with more seniority. Race was significantly associated with turnover intention, with minorities expressing greater turnover intention than Caucasians. In addition, single officers with no children or fewer children at home were more likely to express higher levels of turnover intention than married officers with a greater number of children at home. Finally, education level was positively correlated to turnover intention: As educational level increased, turnover intention increased as well.

Despite the significance of the correlation coefficients of these five individual status variables, age, ethnicity, marital status, educational level, and tenure in current department fell between 0.10 and 0.29 as an absolute value, and thereby demonstrated weak relationships with turnover intention. In addition, the correlation coefficient for the number of children at home ($r = -0.07$) was found to be significant but was less than -0.10, thereby having a negligible association with turnover intention. These findings suggest that these five variables do not seem to have substantial relationships, but rather weak or negligible relationships with an officer's turnover intention.

Even with weak or negligible relationships between these six individual status variables and turnover intention, further investigation for a significant mean difference of turnover intention between/among subgroups of each of the six variables is valuable. Further investigation may provide important managerial information in preventing turnover-related problems with certain individual status groups, restoring their effectiveness, and the efficiency of Texas probation. Accordingly, independent-samples *t-test* analysis and/or one-way ANOVA tests were utilized to determine a significant mean difference between subgroups of each variable and turnover intention (McKean & Byers, 2000). For a one-way ANOVA test, the metric variables of age and tenure in current department were recorded into categorical variables by dividing the lowest to the highest ranges of each variable into intervals.

The finding from the *zero-order correlation* test indicates that younger officers were more likely than older officers to exhibit higher levels of turnover intention. As Figure 1 illustrates, ranging from the lowest age of 20 years to the highest of 73 years, the continuous metric variable of age was reduced to nine groups: the youngest group (20-24 years) to the oldest group (60 years or more). Although not listed in the figure, age group differences were tested using one-way ANOVA. Based on $p < 0.001$, The ANOVA reveal that a significant difference ($F = 15,438$, $df =8$), existed when comparing turnover intention among the nine age groups.

However, this statistically significant F value cannot specify which groups differ from each other significantly, and thereby the *Tukey HSD* Post-Hoc test was utilized to compare each group mean to every other group mean (Hair, Black, Anderson, & Tatham, 2006). By using this post-hoc procedure, many significant mean differences were found between groups. Briefly, three younger groups—group 1 (20-24 years old; Mean = 3.07); group 2 (25-29 years old; Mean = 3.06); and group 3 (30-34 years old; Mean = 2.89)—were found significantly different from the other, older groups. Supportive of the finding from the *zero-order correlation* test, these findings indicate that high turnover intention was strongly prevalent among officers whose age range were somewhere between 20 and 34 years old. This age-range group accounts for 42.8% (991 out of 2,618) of the non-managerial and non-supervisory line officers.

Figure 1. Turnover Intention by Age Group among Texas Community Supervision Officers
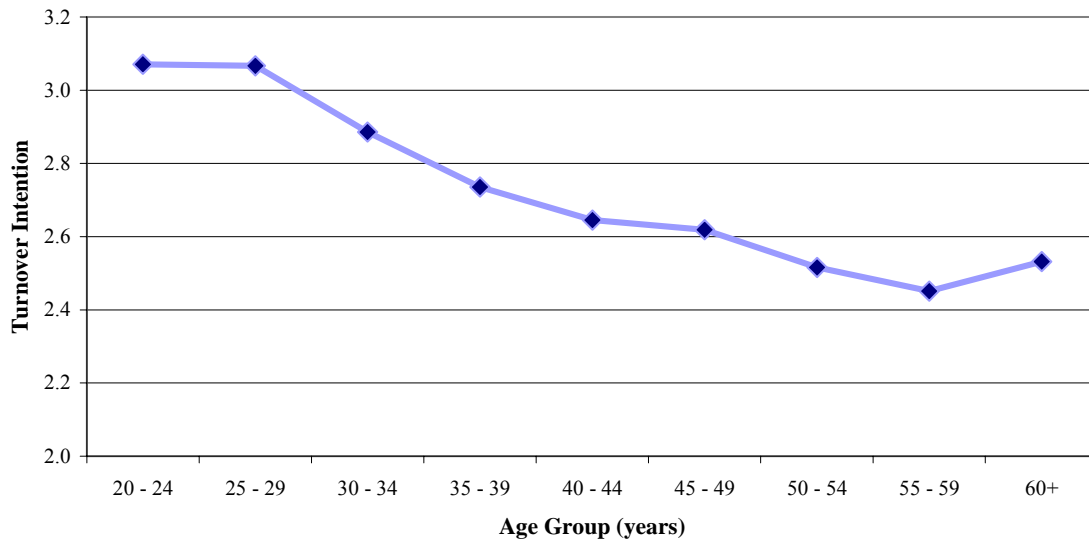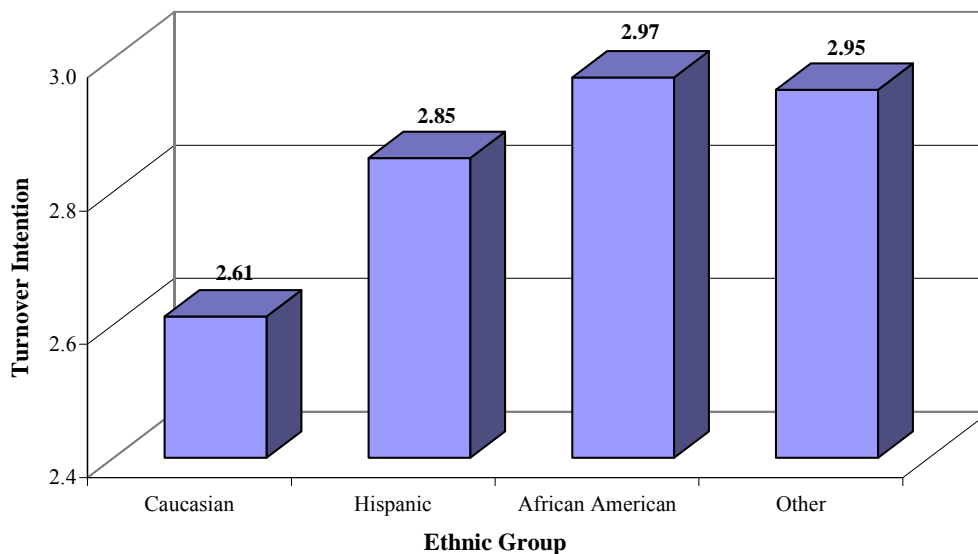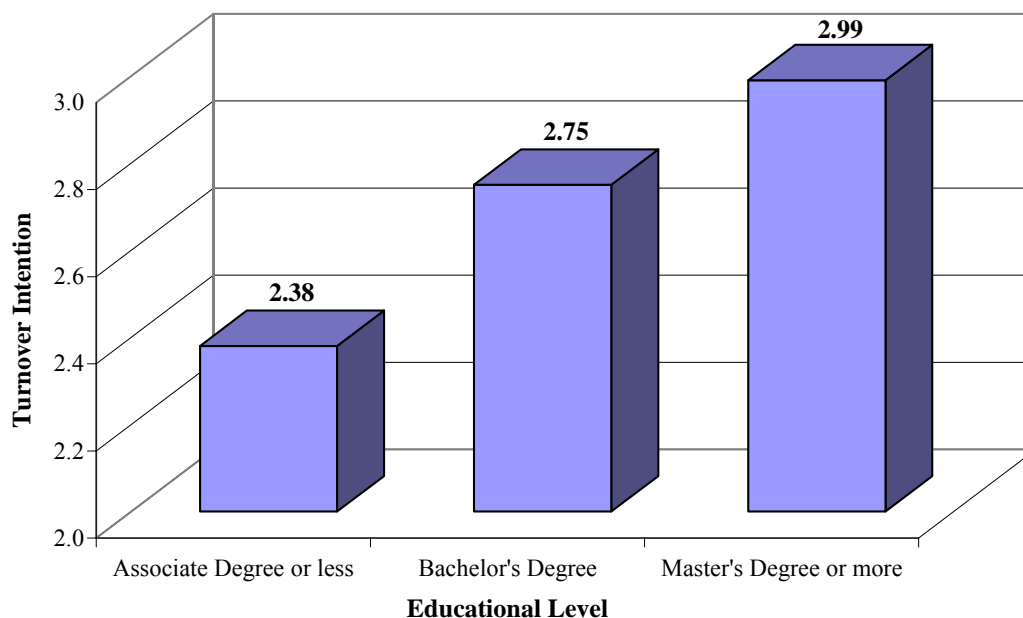

Note : Responses to turnover intention are made on a 5-point scale. Higher scores indicate higher turnover intention.

The finding from the *zero-order correlation* test suggests that minority officers were more likely than Caucasian officers to express higher levels of turnover intention. This finding is based upon the binary variable of ethnicity. Figure 2 indicates that three minority groups exhibit much higher levels of turnover intention than Caucasian officers and that in particular African American officers shows the highest levels of turnover intention. Ethnic group differences were tested using one-way ANOVA. The ANOVA reveal that a significant difference, $F(3) = 21,319$, $p < 0.001$, existed when comparing turnover intention among the four ethnic groups.

By using the *Tukey HSD* Post-Hoc test, significant mean differences ($p < 0.05$) were found between the African American group (Mean = 2.97, N = 477) and the Caucasian group (Mean = 2.61, N = 1,241), between the Other ethnic groups (Mean = 2.95, N = 75) and the Caucasian group, and between the Hispanic group (Mean = 2.85, N = 831) and the Caucasian group. Consistent with the finding from the *zero-order correlation* test, these results indicate that minority officers accounting for 52.7% (1,383 out of 2,624) of the non-managerial and non-supervisory line officers demonstrated much higher levels of turnover intention than Caucasian officers.
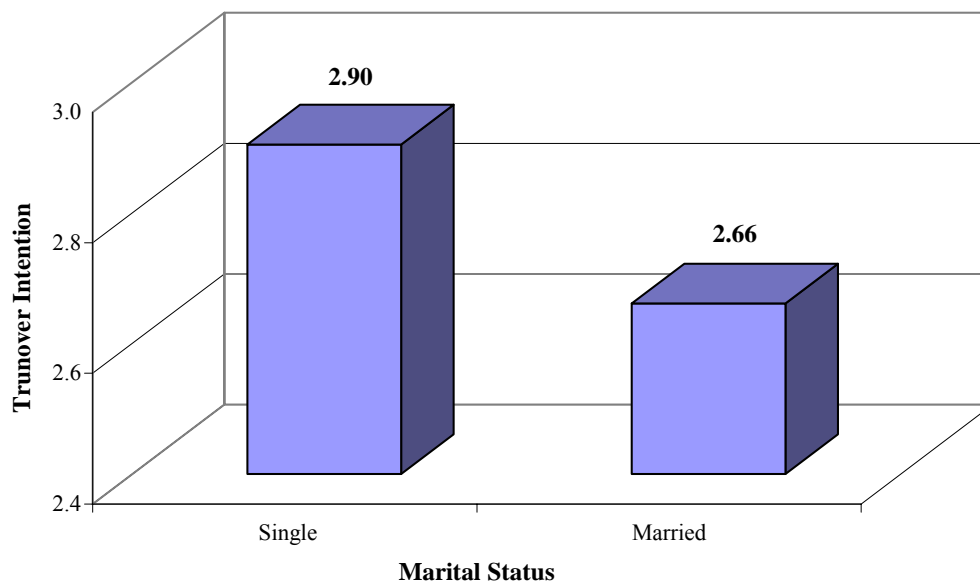
Figure 2. Turnover Intention by Ethnic Group among Texas Community Supervision Officers

Note: Responses to turnover intention are made on a 5-point scale. Higher scores indicate higher turnover intention.

The findings from the *zero-order correlation* test indicates that officers with higher levels of education were more likely to express higher levels of turnover intention than their counterparts. As Figure 3 illustrates, the original five educational levels in the survey were reduced to three. Although not indicated in Figure 3, educational background group differences were tested using one-way ANOVA. The ANOVA indicates that a significant difference, $F(2) = 21,703$, $p < 0.001$, existed when comparing turnover intention among the three educational background groups.

Utilizing the *Tukey HSD* Post-Hoc procedure, significant mean differences ($p < 0.05$) were found: between the Master's degree group (Mean = 2.99, N = 369) and the Bachelor's degree group (Mean = 2.75, N = 2,123); between the Master's degree group and the Associate degree group (Mean = 2.38, N = 135); and, between the Bachelor's degree group and the Associate degree group. Consistent with the finding from the *zero-order correlation* test, the results indicate that as education level increased, turnover intention increased proportionately.
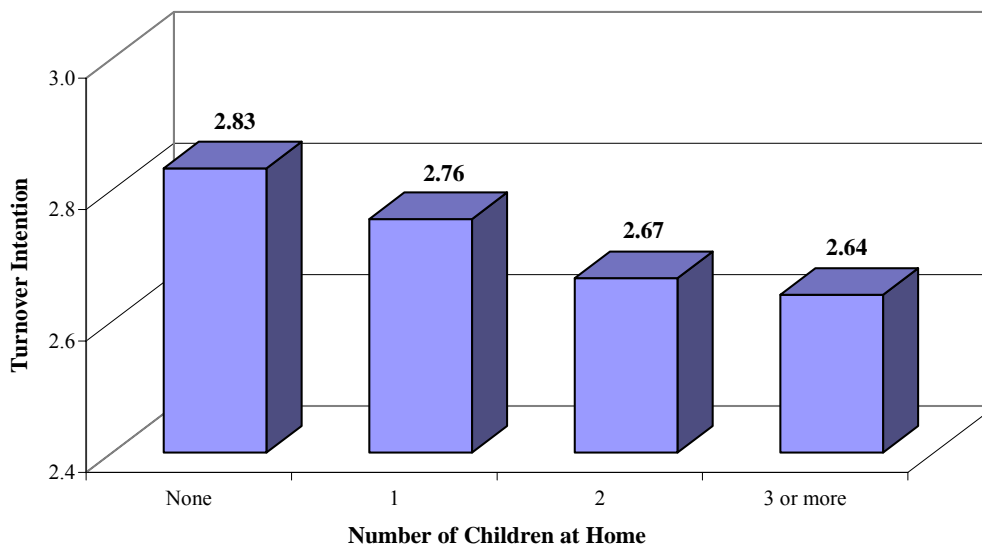
Figure 3. Turnover Intention by Educational Level among Texas Community Supervision
Officers

Note : Responses to turnover intention are made on a 5-point scale. Higher scores indicate higher turnover intention.

As Figure 4 illustrates, single officers (Mean = 2.90, N = 1,079) demonstrate higher turnover intention than married officers (Mean = 2.66, N = 1,544). Even if not illustrated in the figure, marital status difference was tested using an *independent samples t-test*. Based upon a mean difference (0.243) of marital status groups, the two groups did significantly differ at $p < 0.001$ ($t = 6.435$, $df = 2,621$). Consistent with the finding from the *zero-order correlation* test, the result evidences that single officers accounting for 41.1% of the non-managerial and non-supervisory line officer population were more likely than married officers to exhibit turnover intention.

Figure 4. Turnover Intention by Marital Status among Texas Community Supervision Officers

Note : Responses to turnover intention are made on a 5-point scale. Higher scores indicate higher turnover intention.

The finding from the *zero-order correlation* test indicates that officers with no children, or fewer children at home were more likely to express higher levels of turnover intention than were officers with more children at home. In Figure 5, turnover intention decreases as the number of children at home increases. A significant difference, $F(3) = 5,339$, $p < 0.05$, existed when turnover intention was compared among the four groups. More specifically, the *Tukey*'s *HSD* Post-Hoc test on this significant ANOVA measure was conducted to determine any significant difference among the four groups. The *Tukey*'s *HSD* test indicates that significant differences were found between the group without children (Mean = 2.83, N =1,199) and the two-children group (Mean = 2.67, N = 576), and between the group without children and the three-children-or-more group (Mean = 2.64, N = 236). It should be noted that the childless group accounts for 45.7% of the population. Consistent with the findings from the *zero-order correlation* test, the results indicate that as the number of children at home increased, turnover intention decreased.
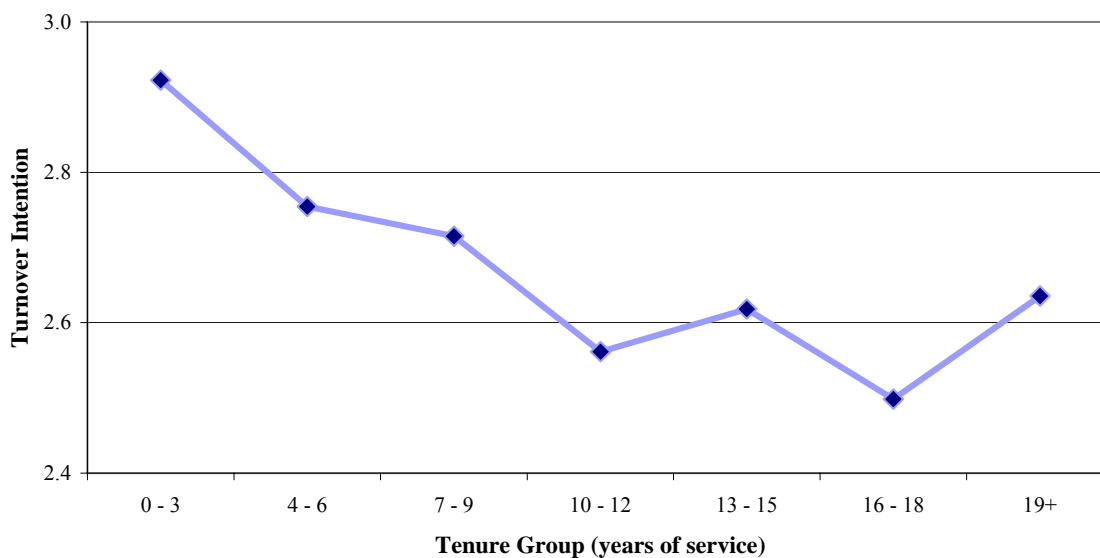
Figure 5. Turnover Intention by Number of Children among Texas Community Supervision Officers

Note : Responses to turnover intention are made on a 5-point scale. Higher scores indicate higher turnover intention.

The finding from the *zero-order correlation* test indicates that officers with less seniority were more likely to express higher levels of turnover intention than were those with more seniority. As Figure 6 illustrates, the continuous metric variable of tenure—ranging from the lowest at 0.08 years to the highest at 34 years—was divided into seven groups, from the least senior group (0-3 years service) to the most senior (19+ years service). There is a slight negative relationship with turnover intention, up to 16-18 years of service. This group demonstrated the lowest turnover intention. However, the curve rose for the next group, with19+ years of tenure. Even though there was some variation in the curve as of the 13–15 years-tenure group, the test for linearity indicates the significant linear relationships ($p < 0.001$) between seniority and turnover intention. This finding suggests that turnover intention tends to start rising again among the most senior officers nearing their retirement. In addition, tenure group differences were tested using one-way ANOVA. The ANOVA reveal that a significant difference, $F(6) = 11,349, p < 0.001$, existed when comparing turnover intention among the seven tenure groups.

Figure 6. Turnover Intention by Tenure Group among Texas Community Supervision Officers

Note : Responses to turnover intention are made on a 5-point scale. Higher scores indicate higher turnover intention.

The *Tukey*'s *HSD* Post-Hoc test was performed on this significant ANOVA measures to determine any significant difference among the seven groups. The *Tukey*'s *HSD* test indicates that significant differences were found between group 1 (0-3 years; Mean = 2.92) and group 3 (7-9 years; Mean = 2.71) and the other higher tenure groups. Also, only one additional significant difference was found between group 2 (4-6 years; Mean = 2.75) and group 6 (16-18 years; Mean = 2.49). Supporting the finding from the *zero-order correlation* test, this finding indicates that high turnover intention was strongly prevalent among officers whose tenure range was somewhere between 0-6 years. This tenure range group accounts for 55.4% (1,447 out of 2,614) of the non-managerial and non-supervisory line officers.

Summary

From the findings from all bivariate analyses, three important results are worthy of mention. First, of particular interest is the finding that organizational factors were more important than individual status factors in association with turnover intention. All organizational variables were found to be significantly associated with turnover intention, although the strength of the relationships with turnover ranged from weak to strong. In contrast, the individual status variables out of the eleven were found to be significantly associated with turnover intention and their associations with turnover intention were found to be weak or negligible. Second, among all organizational variables, affective commitment, overall job satisfaction, pay, high sacrifice commitment, nature of work and distributive justice appear to have substantial associations with an officer's turnover intention. Finally, among the six individual status variables, age was found to be the strongest in association with turnover intention. High turnover intention was strongly prevalent in the 20-34 years age range (equivalent to 42.8% of the Community Supervision Officers population), and tenure group analyses indicate the similar pattern (between 0-6 years tenure, equivalent to 55.4% of the Community Supervision Officers population).

Multivariate Regression Analyses

Bivariate analyses were used to provide the direction and strength of each individual variable in its association with turnover intention. Bivariate analysis is valuable in summarizing the relationship between each of the independent variables and turnover intention at once, but it cannot test any significant effect of one independent variable on turnover intention after holding all other independent variables constant (Hamilton, 1990). In response, three stepwise Ordinary Least Square (OLS) regression analyses were employed to assess whether various individual and organizational variables influence a non-managerial and non-supervisory line officer's turnover intention (see Table 18). In each equation of the table, standardized regression coefficient, generally known as *Beta* coefficient, varies between -1 (a perfect negative prediction power) to 1 (a perfect positive prediction power). A *Beta* coefficient of 0 indicates no power in predicting turnover intention.

The three OLS analyses are necessary to seek for any evidence to support the findings from the previous *zero-order correlation*, independent-Samples *t-test* or one-way ANOVA analyses and examine whether or not the findings are maintained after statistically controlling for the effects of individual status variables on a line officer's turnover intention. In each equation, the turnover intention was the dependent variable. Accordingly, the first equation examined the effects of the individual status variables, as an indication of individual factors, on an officer's turnover intention. On the other hand, the second equation determined the effects of only organizational variables, indicative of organizational factors, on an officer's turnover intention. These two separate equations were designed to compare which factors—individual or organizational—have more influence on a line officer's turnover intention. Finally, the third equation as the most complete equation model, determined whether the organizational factors are still statistically significant, after controlling for the effects of the individual factors.

Two multicollinearity diagnostics were conducted to determine any violation of the multivariate regression assumption, that there are no highly correlated independent variables measuring the same thing (Hair et al., 2006). The simplest way of finding multicollinearity is to check correlation (Fox, 1981; Hy, Feig & Regoli, 1983). None of the previous Pearson's correlations (Table 17) among all independent variables were higher than ± 0.7. The second method of identifying multicollinearity is to examine all individual variation inflation factor (VIF) scores for each individual variable: a VIF of 1.0 reflects total independence, and if a VIF is higher than 1.0, more collinearity is reflected in the variable (Hair et al., 2006). According to Stevens (1992), all independent variables' coefficients in a multivariate regression model are unbiased and efficient when all VIF scores do not exceed 10. As seen in Table 18, none of the VIF exceeded 2.18. Taken together, neither the results from zero-order correlations nor the results from the VIF methods indicate substantial evidence that multicollinearity is an issue in this analysis and does not substantially alter any of the findings or subsequent conclusions drawn from the analysis.

Table 18. The Determinants of Turnover Intention among Texas Community Supervision
Officers (N = 2,637*)*

Included Variables	Equation 1		Equation 2		Equation 3	
	Beta[b]	VIF[c]	Beta[b]	VIF[c]	Beta[b]	VIF[c]
Individual Status Variables						
Gender (male = 1)	0.066 ***	1.041				
Age	-0.189 ***	1.061			-0.104 ***	1.109
Ethnicity (Caucasian = 1)	-0.132 ***	1.043			-0.046 ***	1.081
Martial status[a]	-0.071 **	1.213			-0.038 **	1.052
No. of children at home	-0.041 *	1.163				
Education level	0.138 ***	1.007			0.043 **	1.060
Organizational Variables						
Affective commitment			-0.373 ***	1.837	-0.356 ***	1.855
High sacrifice			-0.262 ***	1.134	-0.241 ***	1.167
Overall job satisfaction			-0.190 ***	2.143	-0.170 ***	2.169
Pay			-0.161 ***	1.508	-0.144 ***	1.558
Promotion			-0.048 **	1.520	-0.054 ***	1.519
Co-workers			-0.034 *	1.457	-0.041 **	1.294
Nature of work			-0.072 ***	2.150	-0.082 ***	2.176
Communication			-0.050 **	1.731	-0.045 **	1.654
Job stress			0.057 ***	1.528	0.050 **	1.513
Distributive justice			-0.073 ***	1.823	-0.069 ***	1.823
Social support			-0.040 *	1.925		
R-square =	0.090		0.595		0.612	
F =	23.809		351.198		295.353	
Significance =	0.000		0.000		0.000	

[a] 1 = currently married; [b] Standardized Coefficients; [c] Variance Inflation Factor

$*p < 0.05; **p < 0.01; **p < 0.001$

Equation 1 of Table 18 examines only the impact of individual status variables on
an officer's turnover intention and shows a significant and good model fit. The *chi-
square* test of the model indicates that Equation 1 significantly predicted a line officer's
turnover intention ($\chi^2 = 23.809$, $df = 6$, $p < 0.001$). Six individual status variables were
found to have statistically significant effects on an officer's turnover intention. The
remaining five individual status variables—tenure in current department and prior

employment in probation, law enforcement, corrections, and parole—were excluded from the final best-fit equation since each of them didn't have a statistically significant high partial correlation (Hair et al., 2006).

The six statistically significant determinants of turnover intention were: gender, age, ethnicity, marital status, number of children at home, and education level. Specifically, males and single officers were more likely to express higher levels of turnover intention than females and married officers. Race was significantly related to turnover intention, with minorities expressing more turnover intention than Caucasians. In addition, younger officers and officers either without children, or with fewer children at home, were more likely to express higher levels of turnover intention than were older officers and officers with more children at home. Finally, education level was positively related to turnover intention: the higher the education level, the higher the turnover intention. However, despite the significance of the standardized coefficients of all six individual status variables, only 9% of the variance in the dependent variable, turnover intention, was accounted for (R-square = 0.090).

Equation 2 examines only the impact of effects of organizational variables on an officer's turnover intention and shows a significant and good-model fit ($\chi^2 = 351.198$, $df = 11$, $p < 0.001$) in predicting turnover intention. Out of twenty-three organizational variables, eleven variables based upon each statistically significant high partial correlation were included in Equation 2. The remaining twelve variables were excluded from the final best-fit equation since they did not meet the entry significance. The excluded variables include a lack of alternatives, supervision, fringe benefits, contingent rewards, operating procedures, role overload, role conflict, role ambiguity, dangerousness of the job, procedural justice, participatory climate, and empowerment.

The eleven statistically significant determinants of turnover intention were affective commitment, high sacrifice commitment, overall job satisfaction, pay, promotion, co-workers, nature of work, communication, job stress, distributive justice and social support. Particularly, job stress was positively related to turnover intention: as officers' levels of job stress increased, their turnover intention also increased. On the other hand, the other determinants were negatively related to turnover intention. Specifically, officers who reported lower levels of affective commitment, high sacrifice commitment, and overall job satisfaction were more likely to express higher levels of turnover intention. In addition, those who reported lower levels of satisfaction with pay, promotion, co-workers, nature of work, and communication were more inclined to leave. Finally, those who reported lower levels of perceived distributive justice and social support were more likely to have an inclination to leave.

Two additional findings relating to Equation 2 are important. First, the included eleven significant independent variables accounted for 59.5% of the variance in the dependent variable, turnover intention. This portion of variance explained by Equation 2 (R-square = 0.595) is almost 6.6 times higher than that explained by Equation 1 (R-square = 0.090). This finding suggests that organizational factors have a more substantial contribution to make in predicting an officer's turnover intention than individual factors.

Second, the standardized regression coefficients for promotion, co-workers, nature of work, communication, job stress, distributive justice, and social support were all significant, but lower than ± 0.1. On the other hand, the standardized regression coefficients for affective commitment, high sacrifice commitment, overall job satisfaction and pay were -0.373, -0.262, -0.190, and -0.161, respectively. All coefficients well exceeded ± 0.1. These four organizational variables, therefore, appear to have both statistical and substantive significance in predicting an officer's turnover intention. Given the standardized regression coefficients, affective commitment had the strongest statistically significant, negative effect on turnover intention, followed by high sacrifice commitment, overall job satisfaction, and pay.

Equation 3 in Table 18 is the final and most complete best-fit regression model. Here the individual status variables are treated as statistical control variables to mainly determine whether the significant organizational variables found in Equation 2 are still statistically significant after controlling for the effects of the individual status variables. Equation 3 shows a significant, and a good-model fit: The *chi-square* test of the model indicates that Equation 3 significantly predicted an officer's turnover intention ($\chi^2 = 295.353$, $df = 14$, $p < 0.001$). The proportion of variance explained by Equation 3 (R-square = 0.612) is minimally higher than that explained by Equation 2 (R-square = 0.595) and is almost 6.8 times higher than that explained by Equation 1 (R-square = 0.090). This finding indicates that the organizational variables have a much greater contribution to make in predicting an officer's inclination to leave even after controlling for the effects of the individual status variables.

Fourteen variables based upon each statistically significant high partial correlation were included in Equation 3: four individual status variables and ten organizational variables. In comparison with Equation 1, four individual status variables, age, ethnicity, marital status and education level were still included as being statistically significant, whereas gender and the number of children at home were excluded from the final best-fit equation after organizational factors were included in Equation 3. This finding indicates that the effects of gender and the number of children at home on turnover intention are indirect and mediated through organizational factors.

In addition, Equation 3 is statistically supportive of the direction of the four significant individual status variables found in Equation 1: single, younger, and minority officers with higher levels of education and no children, or fewer children at home were more likely to express higher levels of turnover intention than their counterparts. However, despite the significance of the standardized coefficients of all four significant individual status variables, the strength of all standardized coefficients were largely reduced by including organizational factors in the final model. Also, only the standardized coefficient for age (Beta = -0.104, $p < 0.001$) exceeded the cut-off point of ± 0.1. This finding suggests that ethnicity, marital status and educational level contribute significantly, but weakly, to predict an officer's turnover intention, whereas age has its strongest direct effect on turnover intention. That is, age has a much more substantial contribution to make in predicting an officer's turnover intention than other individual factors.

As for organizational factors, after entering the individual factors as control variables into the final regression equation, the effect of social support on turnover intention was excluded from the final model. This finding indicates that social support didn't have significant contribution to predicting turnover intention beyond the predictive power of the control variables. The direction and strength of each of the ten significant organizational variables in Equation 3 are consistent with the findings in Equation 2. All included organizational variables except for job stress were negatively related to turnover intention. Utilizing the cut-off point of ± 0.1, the standardized regression coefficients for promotion, co-workers, nature of work, communication, job stress, and distributive justice were all significant but lower than ± 0.1. This finding indicates that these organizational variables contribute significantly, but weakly, to predict an officer's turnover intention.

In contrast, the standardized regression coefficients for affective commitment, high sacrifice commitment, overall job satisfaction, and pay were -0.356, -0.241, -0.170, and -0.144 respectively; well exceeding the cut-off point. Like the findings of Equation 2, these four organizational variables substantially contribute to predict turnover intention. Finally, these findings show affective commitment to be the strongest predictor of turn-over intention, followed by high sacrifice commitment, overall job satisfaction and pay.

Summary

Taken together and consistent with the findings from the bivariate analyses, these regression analyses reveal that organizational factors, rather than individual status factors, have a substantially greater contribution to make in predicting an officer's inclinations to leave employment. Among the organizational factors, affective commitment, high sacrifice commitment, overall job satisfaction, and pay satisfaction each have a significant direct effect on turnover intention after holding all other independent variables constant. In addition age, among the four significant individual status predictors of turnover intention, has its strongest direct effect after controlling for all other independent variables, and has a much more substantial contribution to make in predicting an officer's turnover intention than other individual factors. This finding is consistent with the overall finding from the bivariate analyses for individual status factors. Recall the finding from the *Tukey*'s *HSD* Post-Hoc test for the nine age groups, that high turnover intention was strongly prevalent among officers whose age range was somewhere between 20-34 years. This age range group accounts for 42.8% (991 out of 2,618) of the non-managerial and non-supervisory line officers.

Section 5.

Bivariate & Multivariate Regression Analyses for Direct-Care Staff

Bivariate Analyses

The previous descriptive analyses were used to provide a brief description and univariate statistics, such as variable frequencies, means, and standard deviations for each variable. Although useful to summarize each individual variable, descriptive analysis cannot explore any differences and relationships between the values of the dependent variable (turnover intention) and those of the independent variable of the interest (Hamilton, 1990). To determine the association between two variables, three commonly used bivariate analytical techniques—*Pearson's zero-order correlation*, independent-Samples *t-test* and one-way analyses of variance (ANOVA)—were employed.

Table 19. Zero-Order Correlations of Turnover Intention by Both Individual Status and Organizational Variables Among Texas Direct Care Staff (N = 579)

Organizational Variable	Correlation Coefficient	Individual Status Variable	Correlation Coefficient
Affective commitment	-0.55 **	Gender	0.16 **
High sacrifice	-0.43 **	Age	-0.11 **
Lack of alternative	-0.13 **	Ethnicity	-0.09 *
Overall job satisfaction	-0.42 **	Martial status	-0.10 *
Pay	-0.45 **	No. of children at home	-0.05
Promotion	-0.38 **	Education level	0.05
Supervision	-0.22 **	Tenure in current department	-0.15 **
Benefits	-0.29 **	Probation	-0.02
Contingent rewards	-0.39 **	Law enforcement	0.06
Operating procedures	-0.30 **	Corrections	-0.01
Co-workers	-0.21 **	Parole	-0.03
Nature of work	-0.40 **		
Communication	-0.37 **		
Role overload	0.24 **		
Role conflict	0.30 **		
Role ambiguity	0.24 **		
Dangerousness	0.17 **		
Job stress	0.41 **		
Distributive justice	-0.38 **		
Procedural justice	-0.35 **		
Social support	-0.35 **		
Participatory climate	-0.38 **		
Empowerment	-0.32 **		

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

**Relationships between Turnover Intention and Organizational Variables
for Direct-Care Staff**

As for organizational variables, only *Pearson's zero-order correlation* in Table 19 was conducted to assess the strength and direction of the relationship between variables so that values for the dependent variable—turnover intention—can actually be predicted based on the values for each of the organizational variables. The strength and direction of the relationship between two variables is referred to as their correlation, and the standardized measure is generally known as *Pearson's r* or simply *r*: *r* varies between -1 (a perfect negative relationship) and +1 (a perfect positive relationship). A correlation coefficient of 0 ($r = 0$) indicates no relation between the two variables. According to Davis (1971), correlation coefficients between -0.09 and +0.09 represent a negligible relationship; those between 0.10 and 0.29 (either positive or negative) indicates a low relationship; those between 0.30 and 0.49 represent a moderate relationship; and, those greater than ± 0.50 indicate a strong relationship between two variables. Note that "some social scientists call correlations of ± 0.30 strong" (Hamilton, 1990, p. 773).

The correlation matrix in Table 19 reveals that, all twenty-three organizational variables were found to be significantly correlated with turnover intention. Consistent with existing literature, organizational commitment, overall job satisfaction, specific job satisfaction, organizational justice, social support, and participatory management had significantly negative effects on direct-care staff's turnover intention. Also, all stress-related variables, role overload, role conflict, role ambiguity, dangerousness of the job, and job stress level were positively correlated with turnover intention.

Interpretatively, direct-care staff who reported lower levels of affective and continuance commitments were more likely to express higher levels of turnover intention. Related to job satisfaction, those who reported lower levels of both overall job satisfaction and specific satisfaction with pay, promotion, fringe benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication were less inclined to leave their employment. Related to organizational justice, those with lower levels of perceived distributive justice tended to perceive greater unfairness in departmental decisions concerning the distribution of rewards, pay and promotions, likely leading to higher levels of turnover intention. Also, those with lower levels of perceived procedural justice had a tendency to perceive more unfairness of departmental procedures in the decision-making process for the distribution of rewards, more likely exhibiting higher inclinations to leave their employment. Regarding social support and participatory management, as direct-care staffs' perception of social support and participatory management decreased, their turnover intention increased. Finally, staff who found their job roles incompatible, unclear, and demanding tended to feel more stress, likely leading to higher levels of turnover intention.

Interestingly, all organizational variables were found to be statistically correlated with turnover intention. As the correlation matrix illustrates, however, the correlation coefficient for each variable indicates a different strength in association with the dependent variable of turnover intention. Using the criteria Davis (1971) suggested, the

strength of the correlation coefficients for all organizational variables can be categorized into three groups: the first group with strong relationships, the second group with moderate relationships and the final group with weak relationships. The first group includes only one variable: affective commitment ($r = -0.55$), exceeding the cut-off point of ± 0.50. This finding suggests that affective commitment was found to have the strongest relationship to turnover. The second group representing moderate relationships with turnover intention includes the following fifteen variables: high sacrifice commitment, overall job satisfaction, pay, promotion, contingent rewards, operating procedures, nature of work, communication, role conflict, job stress, distributive justice, procedural justice, social support, participatory climate, and empowerment. The third and last group, representing weak relationships with turnover intention, includes the other seven variables: lack of alternative commitment, supervision, fringe benefits, co-workers, role overload, role ambiguity, and dangerousness of the job.

In the second group, the correlation coefficients for high sacrifice commitment, overall job satisfaction, pay, nature of work and job stress were -0.43, -0.42, -0.45, -0.40, and 0.41 respectively, exceeding ± 0.40 and approaching the cut-off point of ± 0.50. Considering their relatively high strength, these five variables in addition to affective commitment seem to have substantial relationships with direct-care staff's turnover intention. In addition, among these six variables found to have substantial association with turnover intention, affective commitment was found to be the strongest in association with turnover intention, followed by pay, high sacrifice commitment, overall job satisfaction, job stress, and nature of work.

Relationships between Turnover Intention and Individual Status Variables for Texas Direct-Care Staff

Pearson's zero-order correlation was utilized to assess the strength and direction of the relationship between variables so that values for the dependent variable, turnover intention, can actually be predicted based on the values for each of the individual status variables. For the *Pearson's zero-order correlation*, the following seven non-metric individual status variables were dummy-coded: Gender (0 = female, 1 = male); ethnicity (0 = non-Caucasian, 1 = Caucasian); marital status (0 = single, 1 = married); and, prior employment with probation (0 = no, 1 = yes), law enforcement (0 = no, 1 = yes), corrections (0 = no, 1 = yes), and parole (0 = no, 1 = yes). The correlation matrix in Table 19 reveals that among all eleven individual status variables, the number of children at home, education level, and prior employment in probation, law enforcement, corrections and parole were not found to be significantly correlated with turnover intention.

In contrast, the other five individual status variables were found to be statistically correlated with turnover intention. These significantly correlated individual status variables include gender, age, ethnicity, marital status, and tenure in current department: While gender was found to have statistically significant positive association with a staff member's turnover intention, age, ethnicity, marital status, and tenure in current department had a statistically significant, negative association with turnover intention. Among these five variables found to have statistically significant associations with turnover intention, gender ($r = 0.16$) was found to be the strongest in association with turnover intention, followed by tenure in current department ($r = -0.15$), age ($r = -0.11$), marital status ($r = -0.10$), and ethnicity ($r = -0.09$).

Male staff were more likely than female staff to demonstrate higher turnover intention. Younger staff members with less seniority were more likely to express higher levels of turnover intention than were older staff members with more seniority. In addition, single staff were more likely to express higher levels of turnover intention than were married staff. Finally, race was significantly associated with turnover intention, with minorities expressing more turnover intention than Caucasians.

Despite the significance of the correlation coefficients of these five individual status variables, the correlation coefficients for gender, tenure in current department, age and marital status were somewhere between 0.10 and 0.29 in an absolute value, being closer to 0.10 in an absolute value and thereby showed very weak relationships with turnover intention. Also, the correlation coefficient for ethnicity ($r = -0.09$) was less than -0.10, having a negligible association with turnover intention. The findings suggest that these five variables do not seem to have substantial relationships, but instead weak or negligible ones with direct-care staff's turnover intention.

Even with weak or negligible relationships between these five individual status variables and turnover intention, further investigation for a significant mean difference of turnover intention between and among subgroups of each of the five variables is valuable in providing important managerial information. This information may be used to prevent

turnover-related problems with certain individual status groups. In restoring the effectiveness of these status groups; thereby recovering some efficiency to Texas probation. Accordingly, independent-Samples *t-test* analysis and/or one-way ANOVA tests were utilized to determine a significant mean difference between subgroups of each variable and turnover intention (McKean & Byers, 2000). For a one-way ANOVA test, the metric variables of age and tenure in current department were recorded into categorical variables by dividing the lowest to the highest ranges of each variable into intervals.

As Figure 7 illustrates, male staff (Mean = 2.37, N = 240) demonstrate lower turnover intention than female staff (Mean = 2.66, N = 339). Even if not illustrated in the figure, gender difference was tested using an independent samples *t-test*. Based upon a mean difference (-0.29) of marital status groups, the two groups did significantly differ at $p < 0.001$ ($t = -3.911$, $df = 577$). Consistent with the finding from the *zero-order correlation* test, the result evidences that male direct-care staff, 41.5% of the direct-care staff population, were more likely than female staff to express turnover intention.

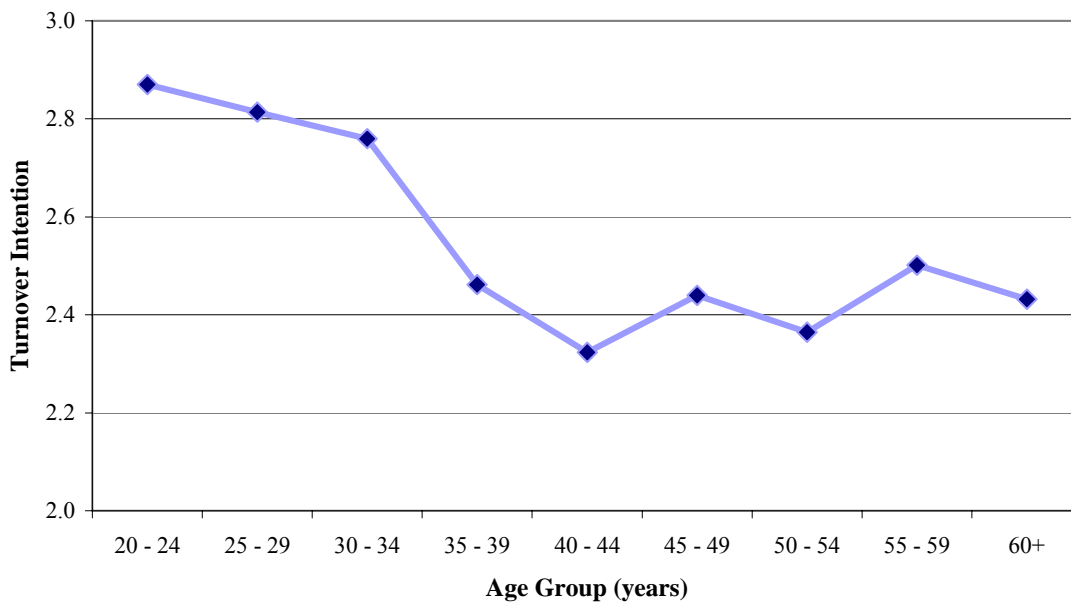Figure 7. Turnover Intention by Gender among Texas Direct Care Staff
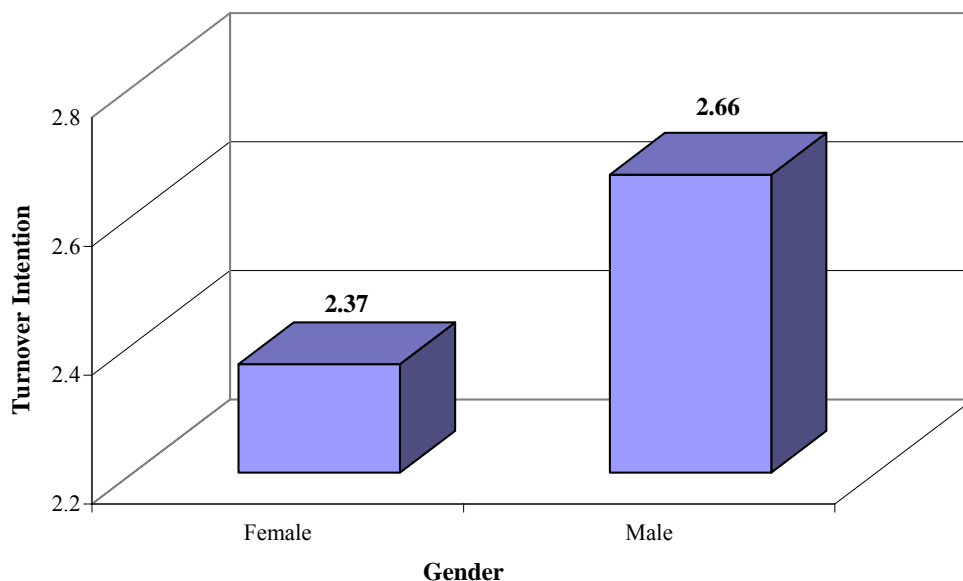
Note : Responses to turnover intention are made on a 5-point scale. Higher scores indicate higher turnover intention.

The finding from the *zero-order correlation* test indicates that younger staff members were more likely than older staff members to exhibit higher levels of turnover intention. As Figure 8 illustrates, ranging from the lowest age of 20 years to the highest of 75, the continuous metric variable of age was reduced to nine groups: the youngest group (20-24 years) to the oldest group (60+ years). Graphically, age group shows a slight negative relationship with turnover intention up to the age group (40-44 years) in which turnover intention was the lowest at which point, however, the overall curve slightly rose from the age group (45-49 years). Even though there was some variation in the curve as of the 45–49 age group, the test for linearity indicates the significant linear relationships ($p < 0.001$) between age and turnover intention. This finding suggests that turnover intention tends to start rising again among the older staff members for their early retirement.

In addition, age group differences were tested using one-way ANOVA. Based on $p < 0.01$, The ANOVA reveal that a significant difference ($F = 2,611$, $df = 8$), existed when comparing turnover intention among the nine age groups. To specify which groups differ from each other significantly, the *Tukey HSD* Post-Hoc test was utilized to compare each group mean to each other group mean. However, this post-hoc procedure indicates no significant mean difference between groups. This finding suggests that younger age groups were more likely than older age groups to exhibit higher levels of turnover intention but, compared to the older age groups, such high turnover intention was not statistically prevalent among the younger age groups.

Figure 8. Turnover Intention by Age Group among Texas Direct Care Staff
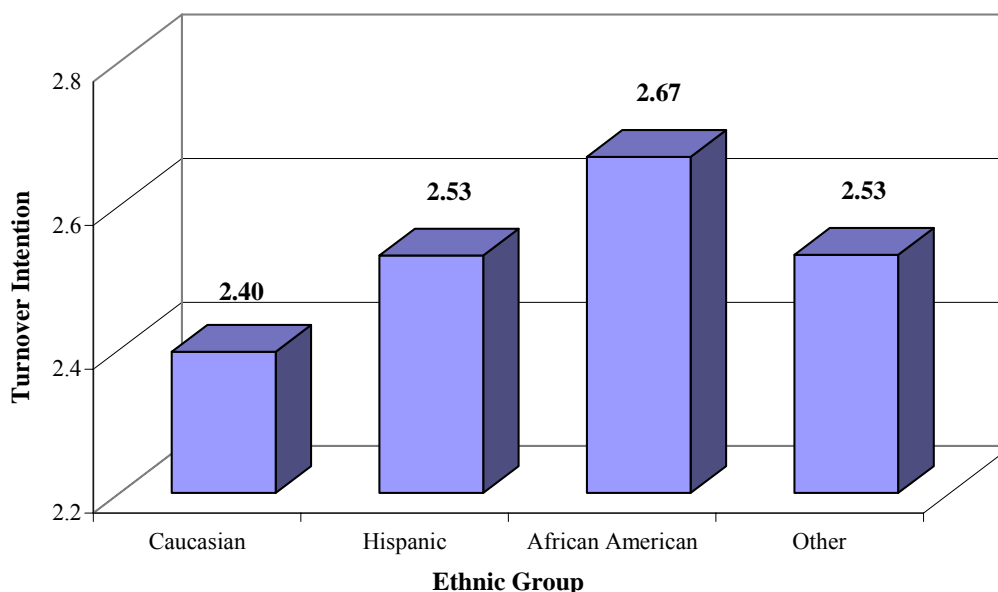

Note: Responses to turnover intention are made on a 5-point scale. Higher scores indicate higher turnover intention.

The finding from the *zero-order correlation* test suggests that minority staff members were more likely than Caucasian staff members to express higher levels of turnover intention. This finding is based upon the binary variable of ethnicity. Figure 9 indicates that three minority groups exhibit much higher levels of turnover intention than Caucasian staff, and African American staff in particular demonstrate the highest levels of turnover intention. Ethnic group differences were tested using one-way ANOVA. The ANOVA reveal that a significant difference, $F(3) = 2,183$, $p < 0.05$, existed when comparing turnover intention among the four ethnic groups.

By using the *Tukey HSD* Post-Hoc test, only one significant mean difference ($p < 0.05$) was found between the African American group (Mean = 2.67, N = 123), and the Caucasian group (Mean = 2.39, N = 275). There was no significant mean difference between the Hispanic and the Caucasian group, and between the Other ethnic groups and the Caucasian group, respectively. The findings indicate that African American staff (accounting for 21.5% of the staff population) were more likely to express higher levels of turnover intention, relative to the Caucasian group.
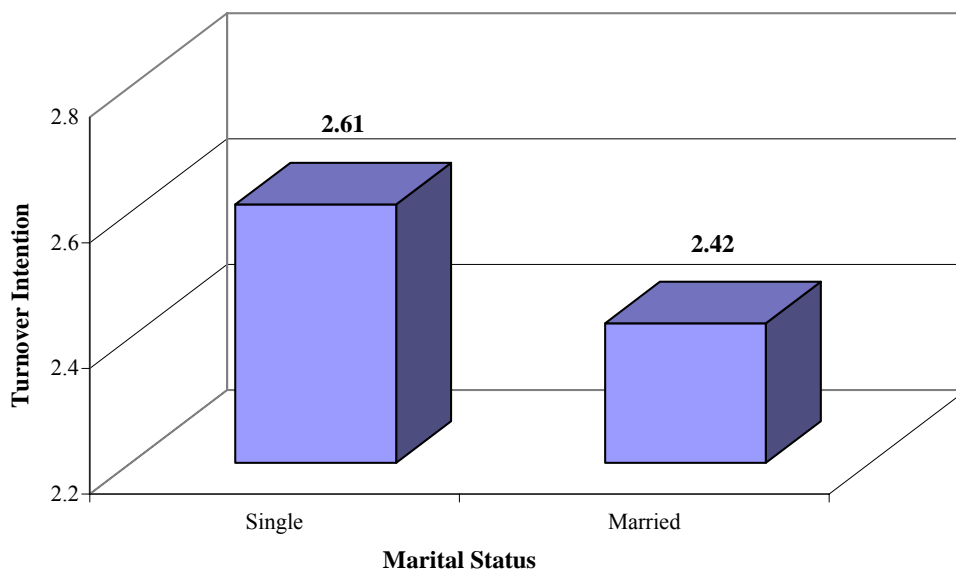
Figure 9. Turnover Intention by Ethnic Group among Texas Direct Care Staff

Note : Responses to turnover intention are made on a 5-point scale. Higher scores indicate higher turnover intention.

As Figure 10 illustrates, single staff (Mean = 2.61, N = 234) demonstrate higher turnover intention than married staff (Mean = 2.42, N = 337). Even if not illustrated in the figure, marital status difference was tested using an independent samples *t-test*. Based upon a mean difference (0.19) of marital status groups, the two groups did significantly differ ($t = 2.470$, $df = 569$, $p < 0.05$). Consistent with the finding from the *zero-order correlation* test, the result evidences that single staff accounting for 41% of the direct-care staff population, were more likely than married staff to have higher levels of turnover intention.
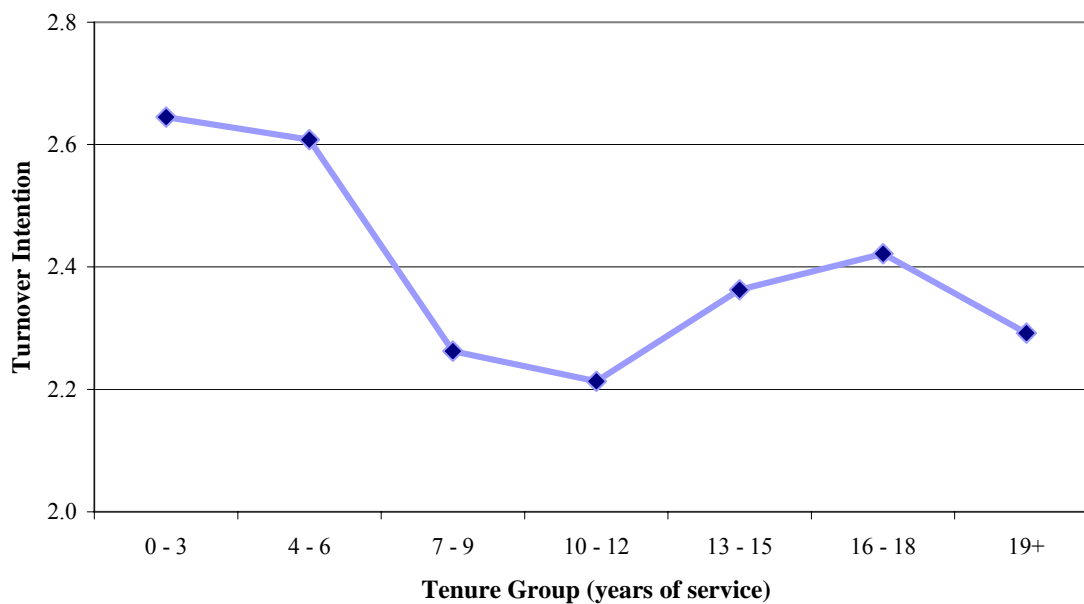
Figure 10. Turnover Intention by Marital Status among Texas Direct Care Staff

Note : Responses to turnover intention are made on a 5-point scale. Higher scores indicate higher turnover intention.

The finding from the *zero-order correlation* test indicates that staff with less seniority were more likely to express higher levels of turnover intention than those with more seniority. As Figure 11 illustrates, ranging from the lowest tenure of 0.08 years to the highest of 32 years, the continuous metric variable of tenure was reduced to seven groups: the least senior group (0-3 years of service) to the most senior group (19+ years of service). Graphically, tenure group shows a slight negative relationship with turnover intention up to the tenure group (10-12 years) in which turnover intention was the lowest at which point, however, the curve rose in the tenure group (13-15 years) and dropped in the tenure group (19 years or more). Even though there was some variation in the curve of the 13-15 years tenure group, the test for linearity indicates the significant linear relationships ($p < 0.001$) between seniority and turnover intention. This finding suggest that turn over intention tends to start rising among the senior staff prior to their early retirement.

Figure 11. Turnover Intention by Tenure Group among Texas Direct Care Staff

Note: Responses to turnover intention are made on a 5-point scale. Higher scores indicate higher turnover intention.

Not listed in the figure, tenure group differences were tested using one-way ANOVA. The ANOVA reveal that a significant difference, $F(6) = 3,397$, $p < 0.01$, existed when comparing turnover intention among the seven tenure groups. More specifically, the *Tukey*'s *HSD* Post-Hoc test on this significant ANOVA measure was performed to determine any significant difference among the seven groups. The *Tukey*'s *HSD* test indicates that two significant differences was found between the 0–3 years tenure group (Mean = 2.92) and the 7-9 years tenure group (Mean = 2.26), and between the 0–3 years tenure group (Mean = 2.92) and the 10-12 years tenure group (Mean = 2.21). Supportive of the finding from the *zero-order correlation* test, this finding indicates that high turnover intention was strongly prevalent among direct-care staff whose tenure range was between 0 and 3 years. This tenure group accounts for 45.6% (257 out of 564) of the direct-care staff population.

Summary

From the findings from all bivariate analyses, three important results are worth mentioning. First, it can be surmised that organizational factors were more important than individual status factors in association with turnover intention. All organizational variables were found to be significantly associated with turnover intention, and the strength of the relationships with turnover ranged from weak to strong. In contrast, only five individual status variables out of the eleven were found to be significantly associated with turnover intention, but their associations with turnover intention were found to be very weak. Second, among all organizational variables, affective commitment, pay, high sacrifice commitment, overall job satisfaction, job stress, and nature of work appear to have substantial associations with an officer's turnover intention.

Finally, among the five individual status variables, gender was found to have the strongest association with turnover intention, where male direct-care staff members (41.5% of the population) were more likely than female staff to express turnover intention. In addition, tenure in current department was found to be the second strongest factor in association with turnover intention, where high turnover intention was strongly prevalent in the 0-3 years tenure range (45.6% of the population). However, the similar pattern cannot be applied to the age group analysis since no significant mean difference existed between age groups. For direct-care staff, it seems that turnover intention is a matter of tenure not age.

Multivariate Regression Analyses

The bivariate analyses were used to provide the direction and strength of each individual variable in its association with turnover intention. Bivariate analysis is valuable in summarizing the relationship between each of the independent variables and turnover intention at once, but it can not test any significant effect of one independent variable on turnover intention, after holding all other independent variables constant. In response, three stepwise Ordinary Least Square (OLS) regression analyses were employed to assess whether various individual and organizational variables influence a direct-care staff member's turnover intention (see Table 20). In each equation of the table, standardized regression coefficient, generally known as *Beta* coefficient, varies between -1 (a perfect negative prediction power) to 1 (a perfect positive prediction power). A *Beta* coefficient of 0 indicates no power in predicting turnover intention.

The three OLS analyses are necessary to seek for any evidence to support the findings from the previous *zero-order correlation*, independent-Samples *t-test*, or one-way ANOVA analyses and to examine whether or not the findings are still maintained after statistically controlling for the effects of individual status variables on a staff member's turnover intention. In each equation, the turnover intention was the dependent variable. Accordingly, the first equation examined the effects of the individual status variables, indicative of individual factors, on a staff member's turnover intention. On the other hand, the second equation determined the effects of only organizational variables, indicative of organizational factors, on a staff's turnover intention. These two separate equations were designed to compare which factors, individual or organizational, have more influence on a direct-care staff member's turnover intention. Finally, the third equation, as the most complete equation model, determined whether the organizational factors are still statistically significant after controlling for the effects of the individual factors.

Two multicollinearity diagnostics were conducted to determine any violation of the multivariate regression assumption, that there are no highly correlated independent variables measuring the same thing (Hair et al., 2006). The simplest way of finding multicollinearity is to check correlation (Fox, 1981; Hy, Feig & Regoli, 1983). None of the previous Pearson's correlations (Table 19) among all independent variables were higher than ± 0.7. The second method of identifying multicollinearity is to examine all individual variation inflation factor (VIF) scores for each individual variable: a VIF of 1.0 reflects total independence, and for a VIF higher than 1.0, more collinearity is reflected in the variable (Hair et al., 2006). According to Stevens (1992), all independent variables' coefficients in a multivariate regression model are unbiased and efficient when all VIF scores do not exceed 10. As seen in Table 20{renumber Table 20?}, none of the VIF exceeded 2.11. Taken together, neither the results from zero-order correlations nor the results from the VIF methods indicate substantial evidence that multicollinearity is not an issue in this analysis, and does not substantially alter any of the findings or subsequent conclusions drawn from the analysis.

Table 20. The Determinants of Turnover Intention among Texas Direct-Care Staff (N = 579)

Included Variables	Equation 1		Equation 2		Equation 3	
	Beta[c]	VIF[d]	Beta[c]	VIF[d]	Beta[c]	VIF[d]
Individual Status Variables						
Gender (male = 1)	0.168 ***	1.031			0.084 **	1.117
Ethnicity (Caucasian = 1)					-0.064 *	1.111
Martial status[a]	-0.109 **	1.053				
Education level					0.069 *	1.138
Tenure[b]	-0.123 **	1.034			-0.108 ***	1.124
Organizational Variables						
Affective commitment			-0.347 ***	1.669	-0.332 ***	1.683
High sacrifice			-0.300 ***	1.144	-0.266 ***	1.191
Overall job satisfaction			-0.132 ***	1.374	-0.128 ***	1.430
Pay			-0.159 ***	1.379	-0.124 ***	1.468
Promotion			-0.097 **	1.462	-0.123 ***	1.494
Operating procedures			-0.096 **	1.464	-0.106 **	1.571
Role conflict			0.099 *	1.921	0.121 **	1.963
Job stress			0.178 ***	1.977	0.223 ***	2.076
Social support			-0.094 *	2.101	-0.086 *	2.113
R-square =	0.074		0.531		0.564	
F =	4.120		27.350		20.700	
Significance =	0.000		0.000		0.000	

[a] 1 = currently married; [b] in current department;

[c] Standardized Coefficients; [d] Variance Inflation Factor

* $p < 0.05$; ** $p < 0.01$; ** $p < 0.001$

Equation 1 of Table 20 examines only the impact of individual status variables on a direct-care staff's turnover intention, and demonstrates a significant, and good-model fit. The *chi-square* test of the model indicates that Equation 1 significantly predicted a staff's turnover intention ($\chi^2 = 4.120$, $df = 3$, $p < 0.001$). Three individual status variables were found to have statistically significant effects on direct-care staff's turnover intention. The remaining eight individual status variables--age, ethnicity, educational level, number of children at home, tenure in current department, and prior employment in probation, law enforcement, corrections, and parole—were excluded from the final best-fit equation, since each lacked a statistically significant, high partial correlation (Hair et al., 2006).

The three statistically significant determinants of turnover intention were gender, marital status, and tenure in current department. Males, and single direct-care staff were more likely to express higher levels of turnover intention than were females and married direct-care staff. In addition, tenure in current department was negatively related to turnover intention: staff with less seniority were more likely to express higher levels of turnover intention. However, despite the significance of the standardized coefficients of all three individual status variables, only 7.4% of the variance in the dependent variable—turnover intention—was accounted for (R-square = 0.074).

Equation 2 examines only the impact of effects of organizational variables on direct-care staff's turnover intention, and demonstrates a significant and good-model fit (χ^2 = 27.350, df = 9, p < 0.001) in predicting turnover intention. Out of twenty-three organizational variables, nine variables based upon each statistically significant, high partial correlation were included in Equation 2. The remaining fourteen variables were excluded from the final best-fit equation since they did not meet the entry significance for turnover intention. The excluded variables include: lack of alternatives, fringe benefits, contingent rewards, supervision, co-workers, nature of work, communication, role overload, role ambiguity, dangerousness of the job, distributive justice, procedural justice, participatory climate, and empowerment.

The nine statistically significant determinants of turnover intention were affective commitment, high sacrifice commitment, overall job satisfaction, pay, promotion, operating procedures, role conflict, job stress, and social support. Particularly, job stress and role conflict were positively related to turnover intention: as direct-care staffs' levels of job stress and perceived role conflict increased, their turnover intention increased also. On the other hand, the other determinants were negatively related to turnover intention. Specifically, direct-care staff who reported lower levels of affective commitment, high sacrifice commitment, and overall job satisfaction were more likely to express higher levels of turnover intention. In addition, those who reported lower levels of satisfaction with pay, promotion and operating procedures were more inclined to leave. Finally, those who reported lower levels of perceived social support were more likely to have an inclination to leave.

Two additional findings relevant to Equation 2 are worth mentioning. First, the nine independent variables included accounted for 53.1% of the variance in the dependent variable, turnover intention. This portion of variance, explained by Equation 2 (R-square = 0.531) is almost 7.2 times higher than that explained by Equation 1 (R-square = 0.074). This finding suggests that organizational factors have a much more substantial contribution to make in predicting a staff's turnover intention than the individual factors. Second, the standardized regression coefficients for promotion, operating procedures, role conflict, and social support were all significant but lower than ± 0.1. On the other hand, the standardized regression coefficients for affective commitment, high sacrifice commitment, overall job satisfaction, pay, and job stress were -0.347, -0.300, -0.132, -0.159, and 0.178, respectively. All coefficients well exceeded ± 0.1. These five organizational variables, therefore, appear to have both statistical and substantive significance in predicting a direct-care staff's turnover intention. Given the standardized

regression coefficients, affective commitment had the strongest statistically significant effect on turnover intention, followed by high sacrifice commitment, job stress, pay, and overall job satisfaction.

Equation 3 in Table 20 is the final and most complete best fit regression model. Here the individual status variables are treated as statistical control variables to mainly determine whether the significant organizational variables found in Equation 2 are still statistically significant after controlling for the effects of the individual status variables. Equation 3 shows a significant and good model fit: The *chi-square* test of the model indicates that Equation 3 significantly predicted an officer's turnover intention ($\chi^2 = 20.700$, $df = 13$, $p < 0.001$). The proportion of variance explained by Equation 3 (R-square = 0.564) is higher than that explained by Equation 2 (R-square = 0.531) and is almost 7.6 times higher than that explained by Equation 1 (R-square = 0.074). This finding indicates that the organizational variables have a greater contribution to make in predicting a direct-care staff member's inclination to leave, even after controlling for the effects of the individual status variables.

Thirteen variables based upon each statistically significant, high partial correlation were included in Equation 3: four individual status variables and nine organizational variables. In comparison with Equation 1, two individual status variables, gender and tenure in current department were still included as being statistically significant. Ethnicity and education level were excluded from Equation 1. However, after being associated with organizational factors in Equation 3, both variables were included as statically significant predictors of turnover intention. This finding suggests that the effects of ethnicity and education level on turnover intention become direct through the mediation of organizational factors. Furthermore, marital status was excluded from the final best-fit equation after organizational factors were included in Equation 3. This finding indicates that the effect of marital status on turnover intention is indirect and is mediated through organizational factors as well.

In addition, Equation 3 is statistically supportive of the direction of the four significant individual status variables found in Equation 1: male, minority direct-care staff with less seniority and higher levels of educational background were more likely to express higher levels of turnover intention than their counterparts. However, despite the significance of the standardized coefficients of all four significant individual status variables, only the standardized coefficient for tenure in current department (Beta = -0.108, $p < 0.001$) exceeded the cut-off point of ± 0.1. This finding suggests that gender, ethnicity and education level contribute significantly, but weakly, to predict direct-care staff's turnover intention, whereas tenure exerts the strongest direct effect on turnover intention. Clearly, tenure has a more substantial contribution to make in predicting staff's turnover intention than other, individual factors.

As for organizational factors, even after entering individual factors as control variables into the final regression equation, no organizational variable was excluded from the final model. This finding indicates that all included variables found in Equation 2 are still maintained due to their significant contributions to predicting turnover intention

beyond the predictive power of the control variables. Also, the direction and strength of each of the nine significant organizational variables in Equation 3 are consistent with the findings in Equation 2. All included organizational variables except for role conflict and job stress were negatively related to turnover intention. Utilizing the cut-off point of ± 0.1, the standardized regression coefficient for social support was all significant but lower than ± 0.1. This finding indicates that social support contributes significantly, but weakly, to predict a staff's turnover intention.

In contrast, the standardized regression coefficients for affective commitment, high sacrifice commitment, overall job satisfaction, pay, promotion, operating procedures, role conflict, and job stress were -0.332, -0.266, -0.128, -0.124, -0.123, -0.106, 0.121, and 0.223, respectively, well exceeding the cut-off point. Like the findings of Equation 1, affective commitment, high sacrifice commitment, overall job satisfaction, pay, and job stress substantially contribute to predict turnover intention. Unlike the findings of Equation 2, promotion, operating procedures and role conflict exceeded the cut-off point of ± 0.1 and became substantial contributing predictors of turnover intention. Finally, these findings show affective commitment to be the strongest predictor of turnover intention, followed by high sacrifice commitment, job stress, overall job satisfaction, pay, promotion, role conflict, and operating procedures.

Summary

Taken together, consistent with the findings from the bivariate analyses, these regression analyses reveal that organizational factors, rather than individual status factors, have a substantially greater contribution to make in predicting direct-care staff's inclinations to leave employment. Among the organizational factors, affective commitment, high sacrifice commitment, overall job satisfaction, pay satisfaction, promotion satisfaction, operating procedural satisfaction, role conflict, and job stress have a significant, direct effect on turnover intention, after holding all other independent variables constant. In addition, tenure in current department, among the four significant, individual status predictors of turnover intention, has the strongest direct effect after controlling for all other independent variables. Therefore, the length of tenure in the staff's current department makes the most substantial contribution in predicting turnover intention, moreso than other, individual factors. This finding is consistent with the overall finding from the bivariate analyses for individual status factors. Recall the findings from the *Tukey*'s *HSD* Post-Hoc test for the seven tenure groups: high turnover intention was strongly prevalent among direct-care staff whose tenure range was somewhere between 0-3 years. This tenure group accounts for 45.6% (257 out of 564) of the direct-care staff population at the present time.

Section 6.

Structural Equation Modeling for both Line Community Supervision Officers and Direct-Care Staff

In the previous separate multivariate regression analyses for both community supervision officers and direct-care staff, organizational variables were found to have a substantially greater contribution to make in predicting turnover intention than individual status variables. Focusing solely on the organizational variables for both groups (see Tables 18 and 20)–pay satisfaction, overall job satisfaction, high sacrifice commitment, and affective commitment, after controlling for the effects of individual status factors–turned out to be significant predictors of turnover intention. However, as noted by Hair et al. (2006), the separate multivariate regression analyses used are limited in measuring only the direct effects of these organizational variables on turnover intention. Therefore, they cannot provide any results for indirect effect and total effect (direct and indirect), for each of the significant four organizational predictors of turnover intention. In addition, the previous regression analyses are limited to the assumption that one variable can be either an independent or a dependent variable, and in that way cannot provide and test any hypothetical causal link model between pay satisfaction, overall satisfaction, high sacrifice commitment, affective commitment and turnover intention.

Both community supervision officers and direct-care staff need to be collapsed into one population in this section. Of the two main purposes of this report, one exists to probe the causal relationship of *pay satisfaction* with four significant attitudinal and behavioral consequences–overall job satisfaction, high sacrifice commitment, affective commitment, and turnover intention–in the Texas probation system. Based upon this investigation, one important concern may be addressed: the role of pay satisfaction in preventing high voluntary turnover. Using *Amos 16.0* for structural equation modeling techniques, a hypothetical, causal link from pay satisfaction to turnover intention, established through solid theoretical practices, may be evaluated. Structural equation modeling (SEM) techniques can compare the indirect, direct, and total effects of pay satisfaction, overall satisfaction, high sacrifice commitment, and affective commitment on turnover intention. These analyses are believed to be helpful in providing important managerial strategies in preventing and curbing turnover-related problems in Texas probation.

Theoretical and Empirical Ground for a Hypothetical Model

Before specifying theoretical grounds and a hypothetical causal model, it should be noted that any individual status variables were not included in the causal model. There are two reasons behind the exclusion. First, there have been a number of studies to examine the individual characteristic correlates of turnover. Basically, age, gender, education level, and tenure have been found to correlate with turnover (*e.g.*, Cotton & Tuttle, 1986, Griffeth et al, 2000, Huselid & Day, 1991).

However, focusing on the effects of these individual status variables, the results from the previous multivariate regression analyses were considered inconsistent across the two groups; while age and educational level were found to be significant correlates of turnover intention among community supervision officers, tenure, gender, and education level were found to be significant correlates among direct-care staff. Though educational level and ethnicity were found to have significant effects on turnover intention for both

groups, their effects were almost negligible. In other words, these findings seems to be inconsistent across the two groups and don't support the previous empirical literature.

Another reason for the exclusion is to make the hypothetical model simple and thereby provide the simplest of explanations in the hypothetical model of complex turnover intention processes (Hair et al., 2006). This seems to be supported by the previous finding that individual status variables, in comparison with organizational variables, were found to have a substantially weak or negligible contribution in associating and predicting turnover intention. Therefore, the individual status variables were not included as control variables when examining the hypothetical, causal link from pay satisfaction to turnover intention. Additionally, the lack of alternatives, one component of organizational commitment, was excluded from the hypothetical model since the findings from the previous analysis indicate that it is not a significant predictor of turnover.

Due to the lack of literature on pay satisfaction and its organizational outcomes, it is difficult to identify a causal model of voluntary turnover processes from pay satisfaction, and to explain causal relationships between a subset of the variables. Therefore, considerable research based upon the theoretical ground, and empirical findings, should be required in order to identify causal relationships between pay satisfaction, overall satisfaction, high sacrifice commitment, affective commitment, and turnover intention.

Pay Satisfaction and Organizational Justice

To both practitioners and researchers, pay satisfaction has long been a topic of interest. At the basis of pay satisfaction studies, there are two theoretical grounds: equity theory (Adams, 1963) and discrepancy theory (Lawler, 1971). According to Adams (1963), the most highly motivated employee is the one who perceives his or her output, such as pay and benefits, equal to his or her input, such as effort. If his or her ratio of input to output is significantly different from a referent other's ratio, he or she tends to feel under-rewarded, and judge that he or she is not being treated fairly. This may lead to a range of attitudinal and behavioral effects, such as higher stress, lower job satisfaction, lower organizational commitment, and higher turnover intention or actual turnover (Campbell & Pritchard, 1976; Martin 1981).

When explaining the relationship between pay satisfaction and its outcomes, Lawler's discrepancy theory expanded Adams' equity theory by incorporating the concept of *valence* (how much one values the reward). Valence is a product of expectancy theory (Vroom, 1964). In other words, like equity theory, pay satisfaction is a matter of matching actual pay level with the pay level one expects he or she should receive in comparison with those of a referent other. Unlike equity theory, however, only if one highly values satisfaction with pay level, his or her reaction to a negative discrepancy between actual and expected receipts would result in negative fairness perceptions, lower job satisfaction, and lower organizational commitment–possibly causing higher turnover intention or actual turnover (Campbell & Pritchard, 1976; Cropanzano & Greenberg, 1997; Vandenberghe & Tremblay, 2008).

Indeed, both equity and discrepancy theories offer considerable insight into how an employee determines his or her pay satisfaction, and suggests negative outcomes of pay dissatisfaction are primarily caused by the discrepancy between what pay level he or she deserves to receive, and what actual pay level he or she obtains. Empirical research has strongly established the important theoretical link between pay satisfaction and its organizational outcomes, overall job satisfaction, affective commitment, high sacrifice commitment, and turnover intention (Heneman & Judge, 2000). First, in the relationship between pay satisfaction and overall job satisfaction, Miceli, Jung, Near, & Greenberger (1991) found a significantly positive relationship: as pay satisfaction increases, overall job satisfaction increases. It is clear to understand the finding since pay satisfaction is only one facet of overall job satisfaction.

Second, Heneman & Judge (2000) suggested that pay satisfaction has a positive influence on both affective commitment and continuance commitment. Empirical research has consistently supported this contention (Dulebohn and Martocchio, 1998; Huber, Seybolt, & Veneman, 1992; Vandenberghe & Tremblay, 2008). The relationship of pay satisfaction and affective commitment was analyzed by Dulebohn and Martocchio (1998). They found that pay satisfaction has a strongly positive correlation with affective commitment. This finding indicates that higher pay satisfaction binds one with the organization and thereby enhances his or her affective commitment to the organization. A most recent confirmed the relationships (Vandenberghe & Tremblay, 2008). Also, they found a strong positive relationship between pay satisfaction and high sacrifice commitment: one's satisfaction with pay enhances the cost of leaving, leading to higher sacrifice commitment.

Lastly, in the relationship between pay satisfaction and turnover intention, a higher level of pay satisfaction was found to lessen a higher level of turnover intention: as pay satisfaction increases, turnover intention decreases (Dailey & Kirk, 1992; DeConinck & Stilwell, 2004). Moreover, pay satisfaction (Jung, Near, & Greenberger, 1991; Miceli et al., 1991; Motowidlo, 1983) was found to be a significant predictor of both turnover intention and actual turnover. These findings support Mobely's (1977) hypothesis that turnover intention is significantly predicted by pay satisfaction.

Further evidence has indicated that pay satisfaction not only has a direct, but also an indirect effect on turnover intention, through overall job satisfaction (Lum, Kervin, Colark, Reid, & Sirola, 1998), and organizational commitment (Lum et al., 1998; Vandenberghe & Tremblay, 2008). More specifically, Vandenberghe & Tremblay (2008), in their study of the effects of pay satisfaction and organizational commitment on turnover intention, found that both affective and high sacrifice commitments were found to have intervening effects that account for the association between pay satisfaction and turnover intention (Vandenberghe & Tremblay, 2008). However, the effect of pay satisfaction on turnover intention was not found to be mediated by either normative commitments, or a lack of alternative commitments. These empirical findings indicate that pay satisfaction has both a direct and indirect effect on turnover intention, through overall job satisfaction, high sacrifice commitment, and affective commitment.

In measuring pay satisfaction, however, there has been debate about how to conceptualize pay satisfaction. Initially, as criticized by Heneman (1985), Adams' (1963) equity theory and Lawler's (1971) discrepancy theory are essentially based on predicting pay-level satisfaction and explaining its organizational outcomes. Thus, pay satisfaction has long been conceived as a uni-dimensional construct, where one's pay-satisfaction responds only to pay level. In other words, pay satisfaction cannot be explained by pay level itself. Accordingly, Heneman & Schwab (1985) hypothesized the multi-dimensional nature of pay satisfaction, and developed four correlated, but distinct dimensions: pay level, benefits, pay raises, and pay structure/administration.

The multi-dimensionality of pay satisfaction is informative since each dimension has determinants and organizational outcomes (Judge, 1993). For example, an individual may be satisfied with benefits while being dissatisfied with his or her level of pay. Another example is related to different organizational outcomes caused by different dimensions of pay, and demonstrates that pay-raise satisfaction, one component of the multidimensional pay satisfaction construct, was found to be a significant predictor of turnover intention and actual turnover, while pay-level satisfaction was not found to be significant (Tekleab, Bartol, & Liu, 2005).

Recently, organizational justice has been incorporated into pay satisfaction. This trend is based on both equity and discrepancy theories and suggests that pay satisfaction has a strong theoretical association with organizational justice, and that both pay satisfaction and perceived organizational justice are determined by the discrepancy between what compensation he or she deserves, and what actual compensation he or she obtains in comparison with those of a referent other (Campbell & Pritchard, 1976; Cropanzano & Greenberg, 1997). In other words, fairness perception is the essential tenet in understanding pay satisfaction and organizational justice. Organizational justice conceptually includes two types of justice: distributive justice and procedural justice. Distributive justice is the degree of fairness in distributing rewards (Price & Mueller, 1986), while procedural justice is the degree of fairness in the procedures used for distribution (Folger & Greenberg, 1985).

More recently, Heneman and Judge (2000) suggested that pay satisfaction and organizational justice are related, but distinct constructs: one may be satisfied with pay level but may not feel fairly treated in the policies and procedures by which pay is administered, possibly leading to lower pay satisfaction. Other theoretical and empirical research has consistently supported the distinct constructs between compensation-level satisfaction (pay and benefits), and satisfaction with the compensation structure/administration (Judge, 1993; Miceli and Lane, 1991; Williams, Malos and Palmer, 2002). Specifically, as proposed by Heneman and Judge (2000), some dimensions of pay satisfaction, such as pay-level satisfaction, and benefit satisfaction, are related to perceived degrees of fairness in distributing rewards (distributive justice), whereas pay structure/administration is associated with perceived degrees of fairness in the procedures used for distribution (procedural justice). However, Williams et al. (2006), in their meta-analysis, found that the causal links between pay satisfaction and

organizational justice are not still clear: yet organizational justice is assumed to influence pay satisfaction and vice versa.

According to organizational justice theory, employees decide whether they have been treated fairly after comparing what actual compensation they have received with those of a referent other. Similar to the relationship of pay satisfaction and its organizational outcomes, if organizational injustice is perceived, one feels relative deprivation or a feeling of discontent, which in turn will lead to a range of attitudinal and behavioral effects, such as higher stress, lower job dissatisfaction, lower organizational commitment, and higher turnover intention or actual turnover (Campbell & Pritchard, 1976; Hendrix et al., 1981).

Empirical research has supported the important theoretical link between organizational justice and its organizational outcomes. Specifically, overall job satisfaction (Dailey & Kirk, 1992; Hendrix et al., 1999; McFarlin & Sweeney, 1992; Miceli et al., 1991), organizational commitment (Folger & Konovsky, 1989; Hendrix et al., 1999; Konovsky & Cropanzano, 1991; Martin & Bennett, 1996), and turnover intention (Acquino et al., 1997; Hendrix et al., 1999) are aspects of motivation that were found to be influenced by employee judgments regarding the fairness of outcomes and the fairness of the procedures. Taken together, organizational justice and pay satisfaction are distinct constructs but conceptually related, and thereby the relationship of organizational justice and its organizational outcomes is similar to that of pay satisfaction and its organizational outcomes. These findings suggest that the incorporation of organizational justice into pay satisfaction provides a better understanding of the nature and realm of pay satisfaction, and enables the incorporated model to better understand pay satisfaction's influence on its organizational outcomes.

Causal Link between Overall Job Satisfaction, Organizational Commitment, and Turnover Intention

As described earlier, job satisfaction and organizational commitment are based on an employee's emotional and psychological state. For this report, job satisfaction was defined as a linkage between an employee and his or her job, resulting from the appraisal of his or her job and job experiences (Locke, 1976). On the other hand, organizational commitment was defined as a linkage between an employee and his or her organization, referring to the strength of his or her identification with and involvement in his or her organization (Meyer & Allen, 1997).

As for job satisfaction, there is a substantial body of literature that has reported that job satisfaction is negatively related to turnover intention, and has a direct effect on turnover intention (*e.g.*, Griffeth et al., 2000; Hom and Griffeth, 1991; Tett and Meyer, 1993). As for the indirect effect of overall job satisfaction, Tett and Meyer (1993) reported that the relationship between job satisfaction and turnover intention is not completely mediated by organizational commitment, reflecting the direct effect of job satisfaction on turnover intention. However, according to Griffeth et al. (2000), in their updated meta-analysis of antecedents and correlates of employee turnover, findings from

a growing body of recent, empirical research support the notion that organizational commitment is a better predictor of turnover than job satisfaction, and that organizational commitment mediates a causal link between job satisfaction and employee turnover. These findings suggest that job satisfaction has a direct effect on both organizational commitment and turnover intention, as well as an indirect effect on turnover intention through organizational commitment.

In a causal link between job satisfaction and organizational commitment, the dominant theoretical view has assumed that an employee's emotional state and attitude toward a specific job necessarily precedes their psychological state and attitude towards the organization (Mowday et al, 1982; Mueller, Boyer, Price, & Iverson, 1994). This assumption implies that overall job satisfaction causally precedes organizational commitment. Some research (*e.g.*, Currivan, 1999; Vandenberg & Lance, 1992) has found an opposite causal sequence and supported the causal ordering from organizational commitment to overall job satisfaction. Nonetheless, many empirical studies (*e.g.*, Mowday et al, 1982; Mueller et al, 1994; Vandenberg & Scarpello, 1990); Williams & Hazer, 1986) have analyzed the causal ordering from overall job satisfaction and organization commitment. Although not always, they have generally confirmed the causal precedence of job satisfaction over organizational commitment. These findings indicate that organizational commitment may be a more immediate influence on turnover intention than job satisfaction.

In a causal ordering from organizational commitment and turnover intention, Meyer and Allen (1997) have reported that organizational commitment is negatively related to turnover intention, and is also an antecedent to turnover intention. As mentioned before, pay satisfaction has been found to be positively related to high sacrifice and affective commitment while unrelated to a lack of alternative and normative commitment (Dulebohn and Martocchio, 1998; Huber, Seybolt, & Veneman, 1992; Vandenberghe & Tremblay, 2008). Focusing on high sacrifice and affective commitment, McGee and Ford (1987) and Meyer, Allen, and Gellatly (1990) provided a theoretical explanation suggesting that an employee's awareness of the costs associated with leaving the organization leads to a higher desire to continue to work, which in turn, may lead to a greater degree of emotional attachment to, identification with, and involvement in the organization. Despite a lack of empirical research to test the causal link, intuitively it appears to manifest through examination of the causal precedence of high sacrifice commitment over affective commitment.

Given the accumulated theoretical explanation and empirical findings, Figure 12 presents a hypothetical model to examine the causal relationship of both compensation satisfaction and organizational justice with overall satisfaction, high sacrifice commitment, affective commitment, and turnover intention. Note that one curved, double-headed arrow in the figure indicates correlation between compensation satisfaction and organizational justice, whereas the other straight, single-headed arrows represents causal relations between two variables. Extending the previous literature into the report, the following six specific hypotheses were developed:

H₁: Compensation satisfaction (pay and benefits satisfaction) and organizational justice (distributive and procedural justice) are positively correlated;

H₂: Each of compensation satisfaction and organizational justice has a direct effect on overall job satisfaction, high sacrifice commitment, affective commitment and turnover intention.
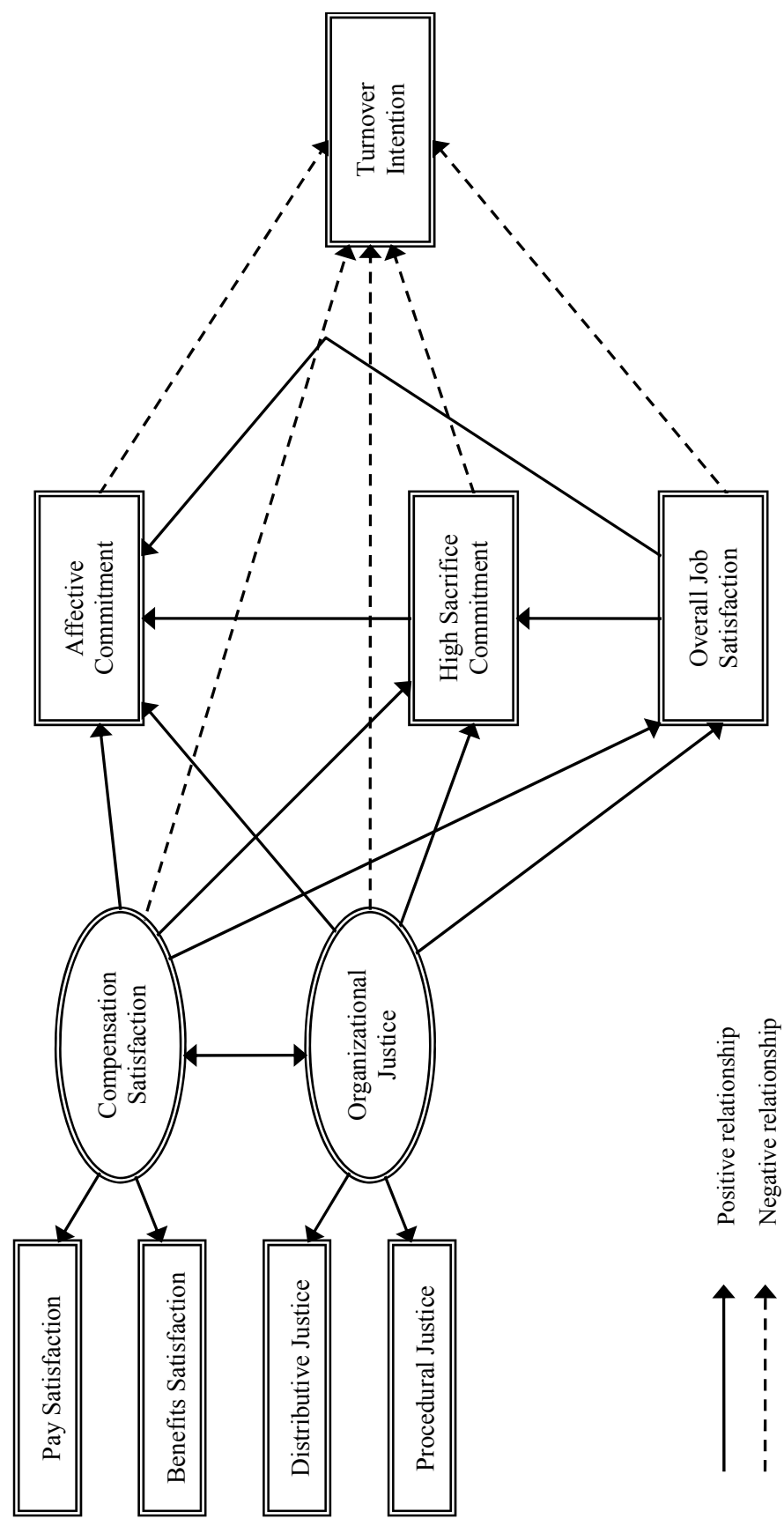
H₃: Each of compensation satisfaction and organizational justice has an indirect effect on turnover intention through overall job satisfaction, high sacrifice commitment, and affective commitment.

H₄: Overall job satisfaction has a direct effect on high sacrifice commitment, affective commitment and turnover intention, and also has an indirect effect on turnover intention through high sacrifice commitment and affective commitment.

H₅: High sacrifice commitment has a direct effect on affective commitment and turnover intention, and also has an indirect effect on turnover intention through affective commitment.

H₆: Affective commitment has a direct effect on turnover intention.

Figure 12. Hypothetical Model.

Turnover Intention

Affective Commitment

High Sacrifice Commitment

Overall Job Satisfaction

Compensation Satisfaction

Organizational Justice

Pay Satisfaction

Benefits Satisfaction

Distributive Justice

Procedural Justice

Positive relationship

Negative relationship

Exploratory Factor Analysis and Confirmatory Factor Analysis

As discussed earlier, pay satisfaction and organizational justice are distinct but related constructs. For this reason, incorporation of organizational justice into pay satisfaction may provide a better understanding of the nature and domain of pay satisfaction. This insight should enable the incorporated model to better predict pay satisfaction's influence on its organizational outcomes. As seen in Figure 12, the first latent construct of compensation satisfaction was hypothesized to combine pay satisfaction and fringe benefits satisfaction, found by the previous theoretical ground and empirical findings to be correlated. Note that this report adopted the five items of pay satisfaction developed by Dunham and Smith (1979), and classified by Williams et al. (2002) as *multi-dimensional pay satisfaction*, rather than uni-dimensional, *pay-level* satisfaction. The second latent construct of organizational justice was hypothesized to bind distributive justice and procedural justice, found by the previous theoretical ground and empirical findings to be correlated. Moreover, two latent constructs were hypothesized to be correlated, but distinct.

First, the exploratory factor analysis using a Varimax rotation in Table 21 was undertaken to examine whether all items in pay satisfaction, benefits satisfaction, distributive justice, and procedural justice can be explained by the two latent constructs—compensation satisfaction and organizational justice. The 20 items of the four variables (pay satisfaction, fringe benefits satisfaction, distributive justice, and procedural justice) were factor analyzed. A Varimax rotation yielded four factors, together accounting for 64.24% of the total variance among the variables with *eigenvalues* greater than 1.0, and Kaiser-Meyer-Ohlin Measure of Sampling Adequacy (KMO) as 0.915.

As seen in Figure 21, five items of distributive justice were loaded on the first factor, scoring 0.75 or more. Five items of pay satisfaction were loaded on the second factor, scoring 0.68 or more. Six items of procedural justice were loaded on the third factor, scoring 0.61 or more. In addition, four items of fringe benefits were loaded on the final factor, scoring 0.59 or more. Similar to the interpretation of correlation coefficients, these factor loading scores satisfy the 0.50 cut-off point, and suggest substantial loadings (Comrey & Lee, 1992). Results from the exploratory factor analysis demonstrate that all items were loaded on their original measure, indicating that the four-factor model would be better than the hypothesized, two-factor model (compensation satisfaction and organizational justice).

Table 21. Exploratory Factor Analysis (N = 3,216)

	Rotated Factor Loadings			
Item	Factor 1	Factor 2	Factor 3	Factor 4
1. Pay satisfaction #1	0.22	**0.81**	0.08	0.15
2. Pay satisfaction #2	0.09	**0.77**	0.11	0.24
3. Pay satisfaction #3	0.16	**0.83**	0.07	0.18
4. Pay satisfaction #4	0.26	**0.69**	0.23	0.13
5. Pay satisfaction #5	0.21	**0.68**	0.14	0.10
6. Benefits satisfaction #1	0.10	0.16	0.09	**0.67**
7. Benefits satisfaction #2	0.10	0.15	0.07	**0.83**
8. Benefits satisfaction #3	0.12	0.15	0.07	**0.84**
9. Benefits satisfaction #4	0.11	0.15	0.14	**0.59**
10. Distributive justice #1	**0.83**	0.21	0.30	0.14
11. Distributive justice #2	**0.86**	0.21	0.25	0.13
12. Distributive justice #3	**0.82**	0.21	0.24	0.14
13. Distributive justice #4	**0.75**	0.22	0.18	0.12
14. Distributive justice #5	**0.84**	0.21	0.29	0.14
15. Procedural justice #1	0.12	0.10	**0.70**	0.10
16. Procedural justice #2	0.17	0.13	**0.75**	0.19
17. Procedural justice #3	0.26	0.11	**0.66**	0.09
18. Procedural justice #4	0.33	0.11	**0.65**	0.07
19. Procedural justice #5	0.29	0.10	**0.64**	0.06
20. Procedural justice #6	0.06	0.07	**0.61**	0.02
Eigenvalue	7.570	2.281	1.622	1.374
Explanation of Variance	19.61	16.32	15.85	12.46
Kaiser-Meyer-Olkin (KMO) = 0.915				

Notes: Responses to each item are made on a 5-point scale; Principal components factor analysis with a
varimax rotation.

However, as noted by Hair et al. (2006), "Exploratory factor analysis can be
conducted without knowing how many factors really exist or which variable belong with
which constructs" (p. 773). For this reason, confirmatory factor analysis is the more
appropriate way to cross-validate the factor structure developed by exploratory factor
analysis (Jöreskog & Sörbom, 1999). Therefore, the result from the exploratory factor
analysis should be tested by confirmatory factor analysis, to examine whether the four-
factor model may be proven empirically. Accordingly, confirmatory factor analysis was
also conducted to confirm whether the four-factor model is better than the hypothesized

two-factor model. In additional, any alternative factor models, such as one-factor and three-factor models, were tested by confirmatory factor analysis.

As demonstrated in Table 22, the fit of the model to the data was evaluated by the following six indices: χ^2 Ratio, GIF, RMSEA, NFL, CFI and TLI (Hair et al., 2006). The χ^2 ratio, one of three absolute-fit indices, is 8.74 ($\chi^2 = 8.74/df = 1$), well exceeding a ratio of 2, usually used as a rough, rule of thumb for good-fit. Therefore, the result of the χ^2 ratio test doesn't seem to support the absolute fit of the hypothesized two-factor model to the data. However, since the χ^2 ratio test is very sensitive to the large sample size, the χ^2 ratio test itself should not be considered as a best-test of the model's absolute fit (Hair et al., 2006; Hu & Bentler, 1995). In contrast, the other absolute fit (GFI = 0.99, RMEAS = 0.49) indices, well exceeding the recommended cut-off values, indicate that the hypothetical two-factor model, compared to alternative factor models, provided best fit to the data.

In addition to the absolute fit indices, the incremental fit indices (NFL, CFI and TLI) demonstrate that relative to alternative factor models, the two-factor model provided a significant improvement. For example, the three incremental fit indices were better for the two-factor model (NFI = 0.99, CFI = 0.99, TLI = 0.98) than for the four-factor model (NFI = 0.94, CFI = 0.94, TLI = 0.83). The results of confirmatory factor analysis do not support the four-factor model developed by exploratory factor analysis. Instead they confirm the hypothesis: there are two distinct constructs—compensation satisfaction and organizational justice—wherein pay satisfaction and fringe-benefits satisfaction measured compensation satisfaction, while distributive and procedural justice measured organizational justice. Therefore, the results from the confirmatory factor analysis support the good discriminant validity of the two constructs (compensation satisfaction and organizational justice).

Specifically, the factor-loading scores of both pay satisfaction and fringe-benefits satisfaction well exceed the 0.50 cut-off, suggesting substantial loadings (Comrey & Lee, 1992). The factor-loading score for pay satisfaction is 0.79, which is considered *excellent*, while the factor-loading score of fringe-benefits satisfaction is 0.53, which is considered *good*. Similarly, the factor-loading scores of both distributive justice and procedural justice also suggest substantial loadings. The factor-loading score for distributive justice is 0.88, which is considered *excellent*, while the factor-loading score of procedural justice is 0.64, which is considered *very good*. These findings indicate that pay satisfaction has a 1.49 times (0.79/0.53) higher association with compensation satisfaction than with fringe-benefits satisfaction. Also, distributive justice has a 1.38 times (0.88/0.64) higher association with organizational justice than with procedural justice. These factor-loading scores are demonstrated in Figure 13.

Table 22. A Description and Standard of Selected Fit Indices

Fit Measure	Index	Cutoff Standard
Absolute Fit Indices	χ^2 Ratio*	below 2
	Goodness of Fit Index (GFI)	above 0.9
	Root Mean Square Error Approximation (RMSEA)	below 0.05
Incremental Fit Indices	Normed Fit Index (NFL)	above 0.9
	Comparative Fit Index (CFI)	above 0.9
	Tucker Lewis Index (TLI)	above 0.9

* χ^2 Ratio is calculated by dividing the χ^2 value by the degrees of freedom.

Results

Table 23 summarizes the key descriptive statistics for the two constructs (compensation satisfaction and organizational justice), and the other variables. The average of individual variables included here were measured using the 1-5 Likert scale, with a rating of 1 indicating "strongly disagree" and a rating of 5 indicating "strongly agree." Only a high level of overall job satisfaction was reported with an average mean of 3.52. In contrast, the average of the other individual variables is considered mixed, neither agreeing nor disagreeing, and thereby not supporting any one particular view.

Table 23. Means, Standard Deviations, and Zero-order Correlations of the Variables of Interest (N = 3,216)

Variable	Mean	SD	No. of items	2.	3.	4.	5.	6.
1. Compensation satisfaction*	2.63	0.69	9	0.51	0.29	0.29	0.37	-0.45
2. Organizational justice*	2.72	0.80	11	1.00	0.30	0.20	0.50	-0.44
3. Overall job satisfaction	3.52	0.82	5		1.00	0.20	0.48	-0.53
4. High sacrifice commitment	3.22	1.05	3			1.00	0.25	-0.47
5. Affective commitment	3.20	0.94	5				1.00	-0.63
6. Turnover intention	2.71	0.96	4					1.00

* Composite scores in this factor are calculated by averaging items representing that measure.

Note: Responses range from 1 to 5. Higher scores indicate favorable responses. All correlation coefficients are signficant at the 0.01 level.

Pearson's zero-correlation analysis was conducted to assess the strength and direction of the relationship between variables. The correlation matrix in Table 23 demonstrates that compensation satisfaction, organizational justice, overall job satisfaction, high sacrifice commitment, and affective commitment were all significant at $p < 0.01$, and all variables were negatively correlated with turnover intention. Their negative correlation coefficients for turnover intention ranged between -0.44 and -0.63, and exceeded -0.40, approaching the cut-off point of -0.50. Therefore, they have relatively substantial strengths in association with turnover intention. In addition, affective commitment was found to be the strongest in association with turnover intention.

These findings were consistent with both existing literature and the results from the previous *zero-order correlation* tests for both community supervision officers and direct-care staff. However, the findings from the *Pearson's zero-correlation* analysis cannot be used to evaluate the hypotheses, since correlation relations ignore the influence of the other variables (Hair, et al., 2006). Structural equation modeling based upon the hypothetical model (Figure 12) is allowed to simultaneously assess all the predicted relations between compensation satisfaction, organizational justice, overall job satisfaction, high sacrifice commitment, affective commitment, and turnover intention.

Final Model

Table 24 presents the finalized structural model's statistics. The final model provided a better fit than the hypothesized model in Figure 12. In the hypothesized model, the χ^2 ratio is 3.39 ($\chi^2 = 16.99/df = 5$), well exceeding a ratio of 2 usually used as a rough, 'rule of thumb' for good fit. This ratio doesn't seem to support the absolute fit of the hypothesized model to the data. However, the other absolute fit indices (GFI = 0.99, RMEAS = 0.27), well exceeded the recommended cut-off values, indicating that the hypothetical model provided an adequate fit to the data. In the hypothetical model, however, organizational justice was not a significant predictor of overall job satisfaction ($p = 0.80$), high sacrifice commitment ($p = 0.17$) and turnover intention ($p = 0.48$). Hence, the three paths (organizational justice $\rightarrow$ overall job satisfaction; organizational justice $\rightarrow$ high sacrifice commitment; and, organizational justice $\rightarrow$ turnover intention) were eliminated and the original model was reanalyzed into the final version.

Table 24. Standardized Structural (path) Coefficients for the Final Model

Individual variable	Dependent variable			
	Overall job satisfaction	High sacrifice commitment	Affective commitment	Turnover intention
Compensation satisfaction	0.359 ***	0.318 ***	0.072 *	-0.297 ***
Organizational justice	-	-	0.284 ***	-
Overall job satisfaction		0.780 ***	0.354 ***	-0.203 ***
High sacrifice commitment			0.076 ***	-0.231 ***
Affective commitment				-0.348 ***
R-square =	0.129	0.125	0.342	0.595

*. $p < 0.05$; **. $p < 0.001$

Compared to the χ^2 ratio of the hypothetical model, the χ^2 ratio, in the final model is 0.49 ($\chi^2 = 4.46/df = 5$), well below a ratio of 2 as a rough, 'rule of thumb' for good fit. Along with this χ^2 ratio, the other absolute fit indices (GFI = 0.99, RMEAS = 0.01) fully support the absolute best-fit of the final model to the data. Moreover, the incremental fit indices (NFL, CFI and TLI) demonstrate that compared to the hypothetical model, the final model provided a slight improvement. The three incremental fit indices were better for the final model (NFI = 0.999, CFI = 0.999, TLI = 0.998) than for the hypothetical model (NFI = 0.996, CFI = 0.996, TLI = 0.991). These results indicate that the hypothesized model fits the data very well but the final model, after leaving out three insignificant paths (organizational justice → overall job satisfaction, high sacrifice commitment and turnover intention, respectively), best fits the data. In Table 24, 12.9%, 12.5%, 34.2%, and 59.5% of variance in overall job satisfaction, high sacrifice commitment, affective commitment, and turnover intention were explained respectively by the final model. Figure 13 presents the significant paths of the final structural model.

Figure 13. The Results of Structural Equation Modeling (N = 3216)
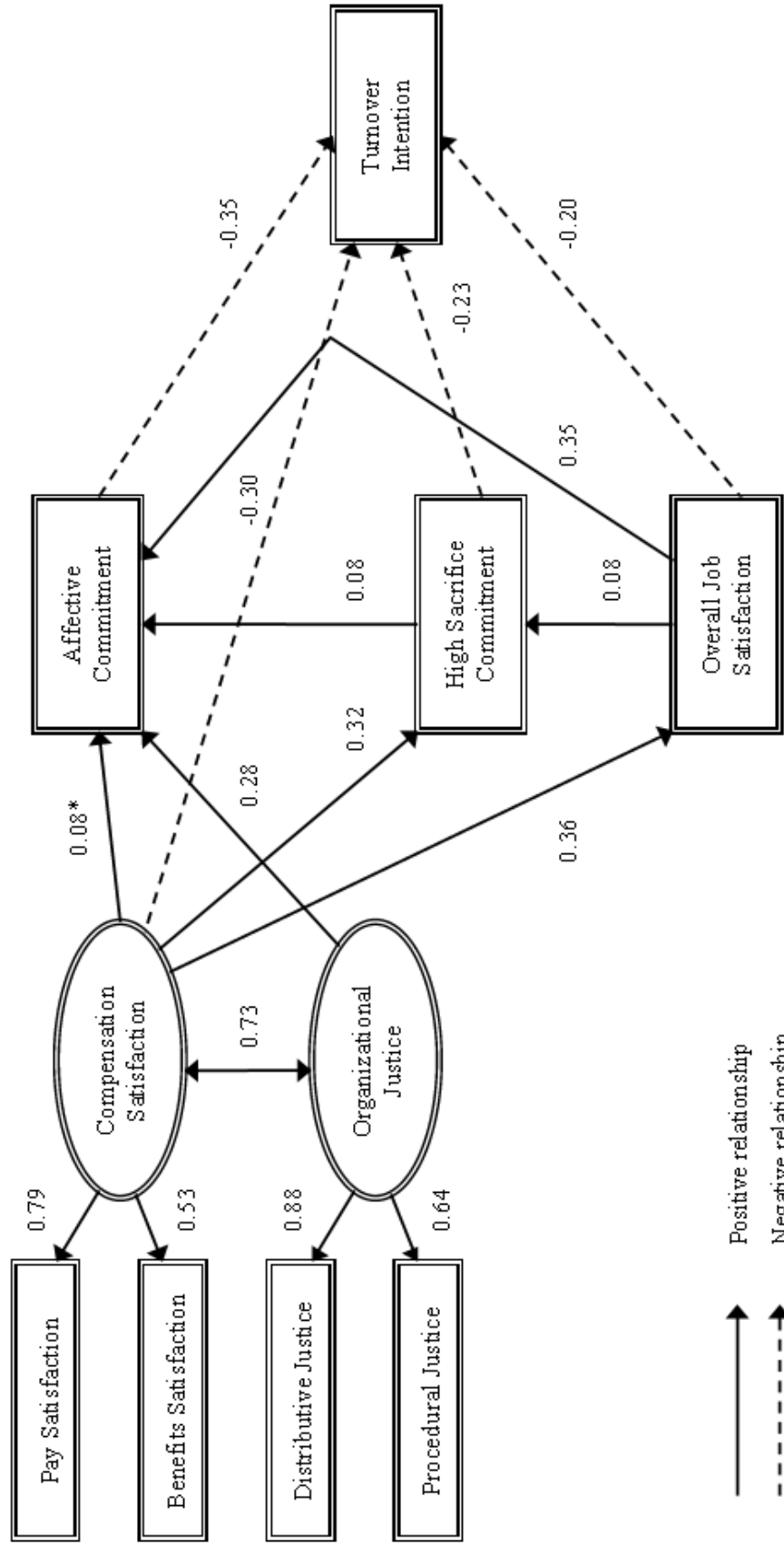
Note: All coefficients depicted by arrows are significant at 0.001 except when noted with*, which is significant at 0.05.

As hypothesized (H$_1$), the effects of compensation satisfaction and organizational justice are positively correlated at 0.73. This finding indicates no causal order between the two constructs. Instead, compensation satisfaction and organizational justice are distinct, but correlated constructs: as organizational justice increases, compensation satisfaction increases, and *vice versa*. As predicted, compensation satisfaction was found to have its significant direct effect on overall job satisfaction (standardized path coefficient = 0.36), high sacrifice commitment (standardized path coefficient = 0.32), affective commitment (standardized path coefficient = 0.08), and turnover intention (standardized path coefficient = -0.30). However, organizational justice was found to have its significant direct influence on only affective commitment while having an insignificant direct impact on overall job satisfaction, high sacrifice commitment, and turnover intention. This finding suggests that when an employee believes that he or she is fairly treated by the organization, he or she is more likely to have a greater degree of emotional attachment to, identification with, and involvement in the department. However, the perceived fairness cannot directly lead to higher levels of overall job satisfaction and high sacrifice commitment, and lower levels of turnover intention. Hence, the hypothesis (H$_2$) is only partially supported.

Table 25 summarizes structural equation modeling estimations of indirect, direct, and total effects of each independent variable on overall job satisfaction, high sacrifice commitment, affective commitment, and turnover intention. As hypothesized (H$_3$), compensation satisfaction had its indirect effect on turnover intention through overall job satisfaction, high sacrifice commitment and affective commitment. Specifically, compensation satisfaction was found to have an indirect or mediated influence on high-sacrifice commitment through overall job satisfaction (0.03); on affective commitment through overall job satisfaction and high sacrifice commitment (0.15); and on turnover intention through overall job satisfaction, high sacrifice commitment, and affective commitment (-0.23). However, organizational justice was found to have its indirect or mediated effect on turnover intention only through affective commitment. Therefore, the hypothesis (H$_3$) is only partially supported.

As predicted, overall job satisfaction had a direct effect on high sacrifice commitment, affective commitment, and turnover intention. Also, it had an indirect effect on turnover intention through high sacrifice commitment, and affective commitment. Likewise, high sacrifice commitment had a direct effect on affective commitment, and turnover intention; and, had its indirect effect on turnover intention through affective commitment. The total effect of compensation satisfaction was found to have a much larger influence than that of overall pay satisfaction. This finding indicates that compensation satisfaction is a stronger predictor of high sacrifice commitment than overall satisfaction: an employee's high satisfaction with compensation causes his or her strong, perceived awareness of the costs associated with leaving the organization, eventually leading to a strong desire to continue to work. Moreover, affective commitment had a direct effect only on turnover intention; but had the strongest direct effect (-0.34), followed by compensation satisfaction (-0.30), high sacrifice commitment (-0.23) and overall job satisfaction (-0.20). These findings suggest that the hypotheses (H$_4$, H$_5$, and H$_6$) are fully supported.

Table 25. Indirect, Direct, and Total Effects of the Variables of Interests (N = 3216)

	Dependent Variable											
	Overall Job Satisfaction			High Sacrifice Commitment			Affective Commitment			Turnover Intention		
Independent Variable	IE*	DE**	TE***	IE*	DE**	TE***	IE*	DE**	TE***	IE*	DE**	TE***
Compensation satisfaction	-	0.36	0.36	0.03	0.32	0.35	0.15	0.07	0.23	-0.23	-0.30	-0.53
Organizational justice				-	-	-	-	0.28	0.28	-0.10	-	-0.10
Overall job satisfaction				-	0.08	0.08	0.01	0.35	0.36	-0.14	-0.20	-0.34
High sacrifice commitment							-	0.08	0.08	-0.03	-0.23	-0.26
Affective commitment										-	-0.35	-0.35

* Indirect Effect; ** Direct Effect; *** Total Effect.

Of particular interest in Table 25 is an indirect, direct, and total effect of compensation satisfaction, organizational justice, overall job satisfaction, high sacrifice commitment, and affective commitment on turnover intention. Compensation satisfaction was found to have the largest total effect (indirect and direct) on turnover intention (-0.53), more than a half of which (56.6%) is due to a relatively large direct effect (-0.30). The indirect effect of compensation satisfaction on turnover intention (-0.23) is mostly (86.9%) through the combined variables of high sacrifice and affective commitment. Followed by compensation satisfaction, affective commitment had the second largest total effect (only direct) on turnover intention (-0.35), closely followed by overall job satisfaction.

The total effect of overall job satisfaction is -0.34, having the relatively larger direct effect (58.8%) of the total effect. Most of the indirect effect of overall job satisfaction (92.8%) on turnover intention is through affective effect, reflecting the substantially strong mediating effect of the relationship between overall job satisfaction and turnover intention. Lastly, 88.4% of the total effect of high sacrifice commitment on turnover intention is primarily direct (-0.23), whereas the total effect of organizational justice (-0.10) had only its weak indirect effect on turnover intention, and is less important than that of the other variable. These findings indicate that compensation satisfaction is a pivotal organizational influence on turnover intention, followed by affective commitment, overall job satisfaction, and high sacrifice commitment.

Two additional findings relevant to Table 25 are worth mentioning. First, in comparing the direct effects of compensation satisfaction, organizational justice, overall job satisfaction, and high sacrifice commitment on affective commitment, overall job satisfaction was found to have the largest direct effect (0.35), followed by organizational justice (0.28). Also, compensation satisfaction (0.07) and high sacrifice commitment (0.08), were found to have negligible direct effects on affective commitment. Despite the negligible direct effect of compensation satisfaction, the *total* effect of compensation satisfaction (0.23), due to its relatively large indirect effect (0.15), appears to be important, following affective satisfaction (0.36), and organizational justice (0.28). These findings suggest that overall job satisfaction is a key influence on affective commitment, followed by organizational justice, and compensation satisfaction.

Secondly, in comparing the total effects of compensation satisfaction, organizational justice, and overall job satisfaction on high sacrifice commitment, we find that compensation satisfaction (0.35) is a key influence on high sacrifice commitment, followed by overall job satisfaction (0.08). No total effect of organizational justice was found, suggesting that organizational justice did not have any direct or indirect effects on high sacrifice commitment. Finally, comparing the total effects of compensation satisfaction and organizational justice on overall job satisfaction, compensation satisfaction did have a substantial *total* effect (0.36) on overall job satisfaction, but organizational justice did not have a total effect on overall job satisfaction at all.

Summary

Taken together, the structural equation modeling analysis supports four out of the six hypotheses. The two unsupported hypotheses (partially H_2 and H_3) are related to organizational justice and its organizational outcomes. Inconsistent with previous literature, organizational justice was found to have only its direct influence on affective commitment, not overall job satisfaction, high sacrifice commitment, and even turnover intention. Also, organizational justice was found to have only its indirect effect on turnover intention. These findings seem to indicate the lack of the substantial impact of organizational justice in the final model.

Most importantly, while affective commitment had the strongest direct effect on turnover intention, the total effect (indirect and direct) of compensation satisfaction on turnover intention was found to be substantially greater than the total effect of affective commitment. These findings suggest that the *total* influence of compensation satisfaction (pay and fringe-benefits satisfaction) is much more important than that of affective commitment in reducing high levels of turnover intention in Texas probation.

Section 7.

Conclusion & General Policy Implications

A review of the literature suggests that present probation systems fail to resolve high levels of employee turnover rates, leading to additional direct and indirect costs. Direct costs include expenditures necessary for recruitment and training. Indirect costs, although more difficult to measure, include low morale among the remaining staff, contributing to lower standards of job-related service and productivity. Clearly, direct and indirect costs stemming from high turnover rates create unnecessary burdens for an organization, and contribute to a poor working environment. Above all, these negative consequences could lead to a failure in promoting public safety, the ultimate mission of the Texas probation system. Therefore, reducing high levels of staff turnover should be a top priority for Texas probation administrators, faced with tightening administration budgets and expanding public expectations.

Until now, no detailed data has been collected and reported, and no readily available, cost-effective mechanism has been implemented to fully and empirically analyze actual, voluntary turnover rates of Texas probation. Unlike retirement and termination, voluntary turnover can be preventable by identifying underlying reasons, and addressing identified causes of voluntary turnover. In response, this report comprehensively examined (1) the determinant factors (both personal and organizational) that shape turnover intention among 3,234 line probation officers and direct care staff; and, (2) pay satisfaction's influence on organizational outcomes, such as overall job satisfaction, organizational commitment, and turnover intention.

The data collected from line probation officers and direct-care staff reveals high levels of inclinations to leave. For example, 41.3 percent reported their turnover intention: 30.3 percent were having serious thought about leaving in the near future and another 11 percent were actively looking to leave. Among all organizational variables, pay and promotion were found to be the most negatively perceived work-related areas in Texas probation. Another important finding is that the average mean of organizational commitment was found to be lower than that of overall job satisfaction, suggesting the employees in Texas probation have a stronger psychological and emotional attachment to their job and job experience, than to their department.

Results from bivariate and multivariate regression analyses consistently indicate that organizational factors, rather than individual status factors, have a much greater association with turnover intention, and made a much greater contribution to predicting employees' inclinations to leave Texas probation. This suggests that rather than an employee, the department has influence of the underlying causes for turnover intention. Specifically, affective commitment, high sacrifice commitment, overall job satisfaction, and pay satisfaction were found to substantially contribute to predicting turnover intention among the line probation officers. Similarly, affective commitment, high sacrifice commitment, overall job satisfaction, pay, promotion, job stress, role conflict and operating procedures were found to be main predictors of inclinations to leave among the direct-care staff. There are four common predictors in both the line probation officer and direct-care staff groups: affective commitment, high sacrifice commitment, overall job satisfaction and pay. In both groups, affective commitment, among these four

common factors, was found to be the strongest predictor of turnover intention, suggesting affective commitment is the most immediate precursor of turnover intention.

Multivariate regression analyses are limited in providing only direct effect of an independent variable on turnover intention. Therefore, structural equation modeling analysis was employed to compare *total* effects (direct and indirect) of compensation satisfaction (pay and fringe benefits), overall job satisfaction, lack of alternatives, high sacrifice and affective commitment on turnover intention. Results from the structural equation modeling indicate that the total effect (indirect and direct) of compensation satisfaction on turnover intention was substantially greater than the total effect of affective commitment. While affective commitment had the strongest direct effect on turnover intention, the *total* influence of compensation satisfaction, especially pay satisfaction, is more important than affective commitment in reducing high levels of turnover intention and subsequent voluntary turnover. Taken together, it can be concluded that pay satisfaction is the strongest underlying cause of high turnover intention in Texas probation.

Based on the main findings, general recommendations to policy-makers are provided. Most importantly, Texas probation administrators should be acutely made aware of the transition from individual to organization factors, especially the significance of pay satisfaction and affective commitment, as underlying causes leading to high voluntary turnover rate. As for pay satisfaction, only small portions of the line probation officers and direct-care staff sampled were satisfied. For example, only 10.3 percent felt their pay level was good; only 13.5 percent indicated their pay level was either adequate or more than adequate given the cost of living in their area; and only 15.4 percent reported that their pay level had a favorable influence on their overall attitude toward their job. These statistics indicate high levels of pay dissatisfaction. Therefore, probation administrators should recognize chronic, negative organizational outcomes caused by inadequate salary, and should be united front to increase more compensation for the employees in Texas probation. Also, a concerted effort should be made to convince the Texas Legislature to significantly increase probation funding. Inherent traps in the vicious cycle of low pay satisfaction, high turnover intention and high voluntary turnover, may lead to the possible diminished promotion of public safety, comprising the definitive mission of the Texas probation system.

Increasing compensation is important, but on its own does not necessarily guarantee an employee's long-term commitment, especially affective commitment, to the mission of Texas probation. Affective commitment is the most immediate precursor of turnover intention; employees with strong affective commitment to the organization are more valuable employees. However, 3,234 respondents reported the main reason that they are committed to their department is an awareness of the costs associated with leaving—such as their personal accumulated investments and limited employment opportunities—rather than their strong emotional attachment to, identification with, and involvement in their department.

In recognizing existing low levels of affective commitment, probation administrators should identify its underlying reasons, and develop strategies which increase employee's emotional attachment to, identification with, and involvement in their department. An employee who doesn't have an emotional connection to the organization's mission may start thinking about leaving. Therefore, every department should have a clearly articulated mission, vision and values that are supported and reinforced by management. The strategies should be embodied as integral processes in the strategic plans of the ever evolving Texas probation.

Younger personnel and those with fewer years of service are more likely to feel inclined to leave their job with Texas probation. Among all individual variables, age was found to make the most significant contribution to the line probation officers' turnover intention; while length of tenure made the most substantial contribution to the direct-care staff's turnover intention. Among the nine age groups, high turnover intention was most prevalent among line probation officers whose age ranged from 20 to 34 years. Surprisingly, this age range group accounts for 42.8 percent of the line probation officers sampled. Likewise, high turnover intention was most prevalent among direct-care staff whose tenure range was somewhere between 0-3 years. This tenure group accounts for 45.6 percent of the direct-care staff sampled.

Given the highest turnover intention among the younger age and tenure groups, it is highly recommended that probation administrators recognize the unique characteristics of the new generation of employee and should devote considerable attention and resources to this new generation, who have a much lower affective commitment and much higher turnover intention than other groups. Inevitably, the role of probation managers is extremely important in providing organizational stimulus for this new generation of employees to encourage their feelings of belonging and to establish their emotional attachment to, identification with, and involvement in their department. Specifically, there needs to be a concerned focus by management on developing mentoring relationships with new employees. Also, shift in supervisory and managerial roles and styles should be made from directing and controlling the new generation in a traditional, autocratic organizational climate to one of facilitating, coaching, and consulting with them. To fulfill these important managerial roles, Texas probation departments should devote considerable attention and resources to the selection, development, and training of managers.

Lastly, in the not too distant past, probation administrators did not experience the need to actively recruit staff. It was not uncommon to have a number of highly qualified applicants for each available position. This is no longer the case, and probation departments find themselves in competition with other social service and law enforcement agencies for prospective employees from a dwindling labor pool. Probation administrators should become less passive and more active in the recruitment of new employees by attending job fairs at colleges and universities, developing close relationships with faculty members of criminal justice programs, and mentoring senior level students in area high schools with the hope of having them return to the community after college and seeking employment as a probation officer.

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Appendix. Comparison between Total and Usable Responses
(A special thank to all survey participants in the following 120 departments)

Dpt #	CSCD	Total		Usable Data		Dpt #	CSCD	Total		Usable Data	
		CSO	DCS	CSO	DCS			CSO	DCS	CSO	DCS
1.	Anderson	6	0	6	0	61.	Jim Wells	4	0	4	0
2.	Andrews	3	0	3	0	62.	Johnson	39	4	39	4
3.	Angelina	18	4	18	4	63.	Jones	3	0	3	0
4.	Atascosa	17	11	17	11	64.	Kaufman	8	2	8	2
5.	Bailey	3	0	3	0	65.	Kendall	2	0	2	0
6.	Bastrop	17	0	17	0	66.	Kerr	11	2	11	2
7.	Baylor	1	0	1	0	67.	Kleberg	2	0	2	0
8.	Bell	14	3	14	3	68.	Lamar	10	0	10	0
9.	Bexar	251	43	250	43	69.	Lamb	1	1	1	1
10.	Bowie	14	18	14	18	70.	Lavaca	11	0	11	0
11.	Brazoria	33	0	33	0	71.	Liberty	9	2	9	2
12.	Brazos	31	0	31	0	72.	Limestone	7	0	7	0
13.	Brown	3	0	3	0	73.	Lubbock	61	33	60	33
14.	Burnet	16	16	16	16	74.	Matagorda	4	0	4	0
15.	Caldwell	46	8	46	8	75.	Maverick	1	0	1	0
16.	Cameron	34	3	34	3	76.	McCulloch	2	0	2	0
17.	Cass	11	13	11	13	77.	McLennan	40	6	40	6
18.	Cherokee	4	1	4	1	78.	Midland	11	8	11	8
19.	Childress	4	0	4	0	79.	Milam	2	0	2	0
20.	Collin	43	2	43	2	80.	Montague	3	1	3	1
21.	Comanche	3	0	3	0	81.	Montgomery	41	22	41	22
22.	Cooke	4	2	4	2	82.	Moore	5	1	5	1
23.	Coryell	5	0	5	0	83.	Morris	7	0	7	0
24.	Crockett	2	0	2	0	84.	Nacogdoches	7	0	7	0
25.	Dallas	334	73	334	73	85.	Navarro	1	0	1	0
26.	Dawson	7	0	7	0	86.	Nolan	2	1	2	1
27.	Deaf Smith	6	2	6	2	87.	Nueces	35	31	35	31
28.	Denton	24	2	24	2	88.	Orange	6	2	6	2
29.	Eastland	4	1	4	1	89.	Palo Pinto	2	1	2	1
30.	Ector	7	0	7	0	90.	Panola	3	1	3	1
31.	EI Paso	74	13	74	13	91.	Parker	14	6	14	6
32.	Ellis	6	2	6	2	92.	Pecos	7	0	7	0
33.	Erath	4	0	4	0	93.	Polk	9	0	9	0
34.	Falls	1	2	1	2	94.	Potter	38	0	38	0
35.	Fannin	4	0	4	0	95.	Reeves	2	1	2	1
36.	Fayette	5	2	5	2	96.	Rockwall	2	0	2	0
37.	Floyd	2	0	2	0	97.	Rusk	3	2	3	2
38.	Fort Bend	28	3	28	3	98.	San Patricio	18	9	18	9
39.	Galveston	12	0	12	0	99.	Scurry	2	0	2	0
40.	Gray	3	0	3	0	100.	Smith	12	0	12	0
41.	Grayson	1	0	1	0	101.	Starr	8	0	8	0
42.	Gregg	10	0	10	0	102.	Tarrant	185	1	183	1
43.	Guadalupe	7	0	7	0	103.	Taylor	26	14	26	14
44.	Hale	4	0	4	0	104.	Terry	2	0	2	0

Table continued…

Appendix continued

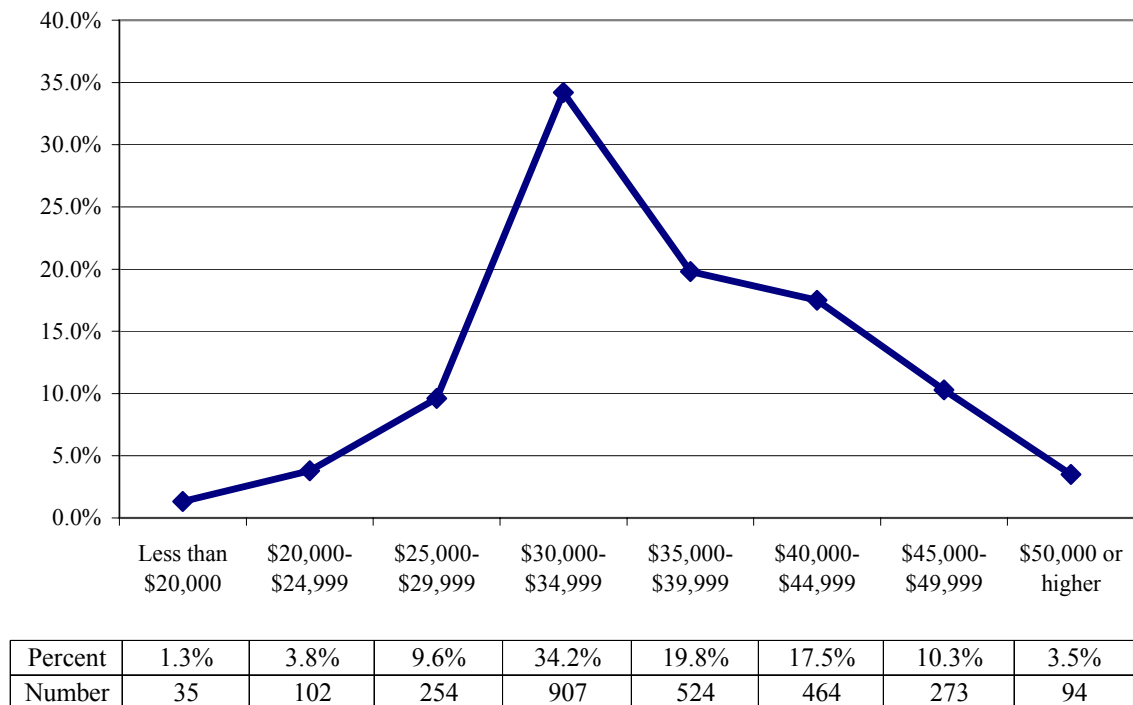| Dpt # | CSCD | Total | | Usable Data | | Dpt # | CSCD | Total | | Usable Data | |
		CSO	DCS	CSO	DCS			CSO	DCS	CSO	DCS
45.	Hardin	10	0	10	0	105.	Tom Green	43	49	43	48
46.	Harris	367	98	366	98	106.	Travis	115	10	115	10
47.	Harrison	7	0	7	0	107.	Tyler	3	1	3	1
48.	Haskell	1	0	1	0	108.	Upshur	10	3	10	3
49.	Henderson	8	0	8	0	109.	Uvalde	12	3	12	3
50.	Hidalgo	121	20	121	20	110.	Val Verde	1	0	1	0
51.	Hill	6	0	6	0	111.	Van Zandt	4	2	4	2
52.	Hockley	3	1	3	1	112.	Victoria	31	0	31	0
53.	Hood	2	0	2	0	113.	Walker	11	3	11	3
54.	Hopkins	6	0	5	0	114.	Webb	11	0	11	0
55.	Howard	5	0	5	0	115.	Wheeler	1	0	1	0
56.	Hunt	0	2	0	2	116.	Wichita	13	0	13	0
57.	Hutchinson	4	0	4	0	117.	Wilbarger	2	0	2	0
58.	Jack	0	1	0	1	118.	Williamson	35	3	35	3
59.	Jasper	2	0	2	0	119.	Wood	0	1	0	1
60.	Jefferson	30	10	30	10	120.	Young	1	0	1	0
	Sum	**2659**	**582**	**2653**	**581**						
	Total Sum	**3241**		**3234**							

Note: Crane and Winkler CSCDS, respectively, were excluded from the data collection for the survey since each department had only one personnel with both line officer and managerial duties.

Supplemental Statistical Information on Salary and Tenure

Line Probation Officers

Figure 1 depicts the frequency distribution of 2,653 line probation officer salaries.

Figure 1. Line Probation Officer Salary on December 31, 2007 (Including 105 Part-time Officers)

	Less than $20,000	$20,000-$24,999	$25,000-$29,999	$30,000-$34,999	$35,000-$39,999	$40,000-$44,999	$45,000-$49,999	$50,000 or higher
Percent	1.3%	3.8%	9.6%	34.2%	19.8%	17.5%	10.3%	3.5%
Number	35	102	254	907	524	464	273	94

➢ A total of 391 line probation officers (14.7%) earned less than $30,000 annually.

➢ A total of 1298 line probation officers (48.9%) earned less than $35,000 annually.

➢ Of the 2,653 line probation officer sampled, the mean salary was $35,175 on December 31, 2007.

Figure 2 shows the percentage of line probation officers in various categories based on years of experience with their current department. A lack of tenured line officers exists across the state.
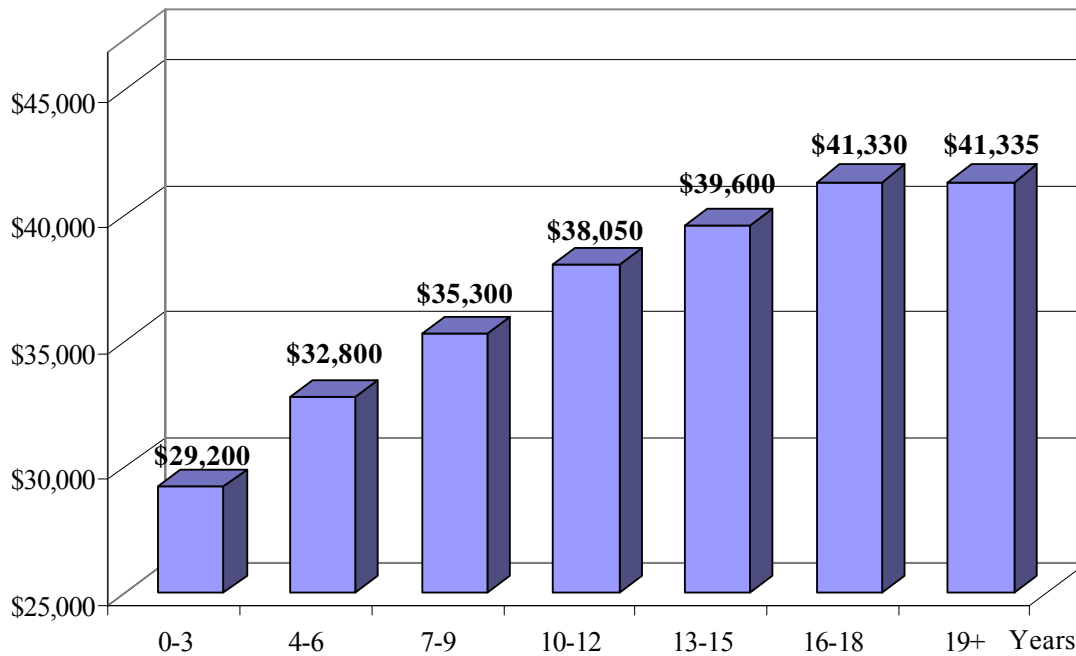
Figure 2. Percentage of Line Probation Officers in Each Tenure Category Based on Years of Experience with Current Department
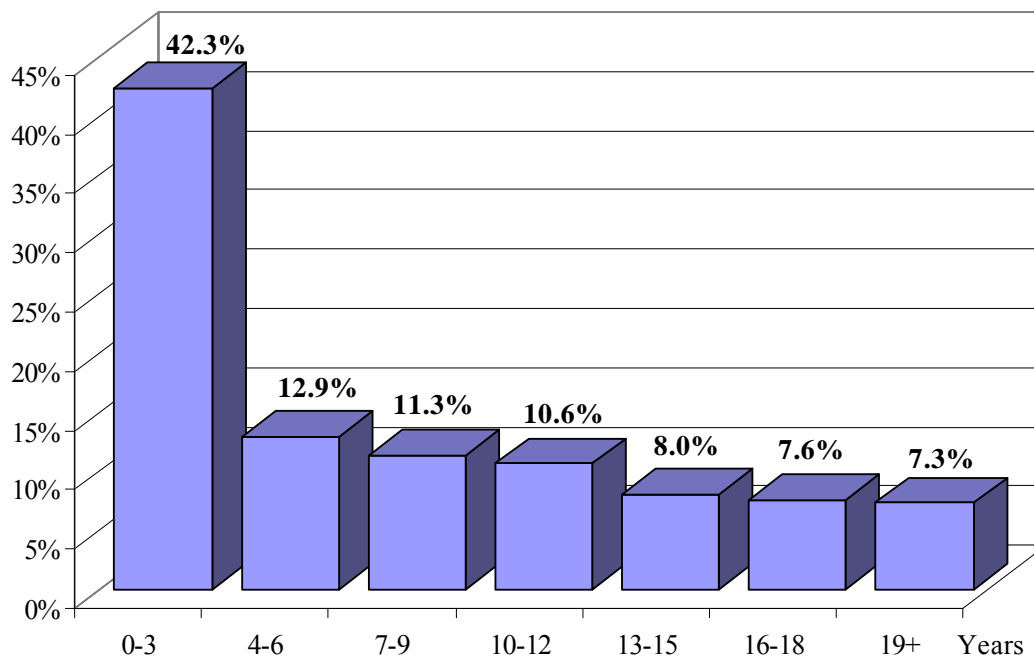
➢ A total of 1,298 line probation officers (48.9%) had 6 years of less of experience.

➢ Only 880 line probation officers (33.5%) had 10 years or more of experience.

Figure 3 reflects the mean salary of line probation officers, based on years of experience with their department.

Figure 3. Mean Salaries of Line Probation Officers Based on Years of Experience with Current Department

- Line probation officers with 0-3 years experience earned a mean salary of $29,200.

- The mean salary of line probation officers with 4-6 years of experience was only $32,800.

- Line probation officers with 7-9 years experience earned only $35,300.

Figure 4 compares the mean line probation officer salary for small, medium and large departmental size categories. Note that the size category is based on the number of direct, indirect, and pretrial offenders under supervision: *Large Size CSCD* (N = 10) - over 9,500 direct, indirect, and pretrial offenders under supervision; *Medium Size CSCD* (N = 23) - less than 9,500 but more than 3,500 direct, indirect, and pretrial offenders under supervision; and *Small Size CSCD* (N = 89) - less than 3,500 direct, indirect, and pretrial offenders under supervision.

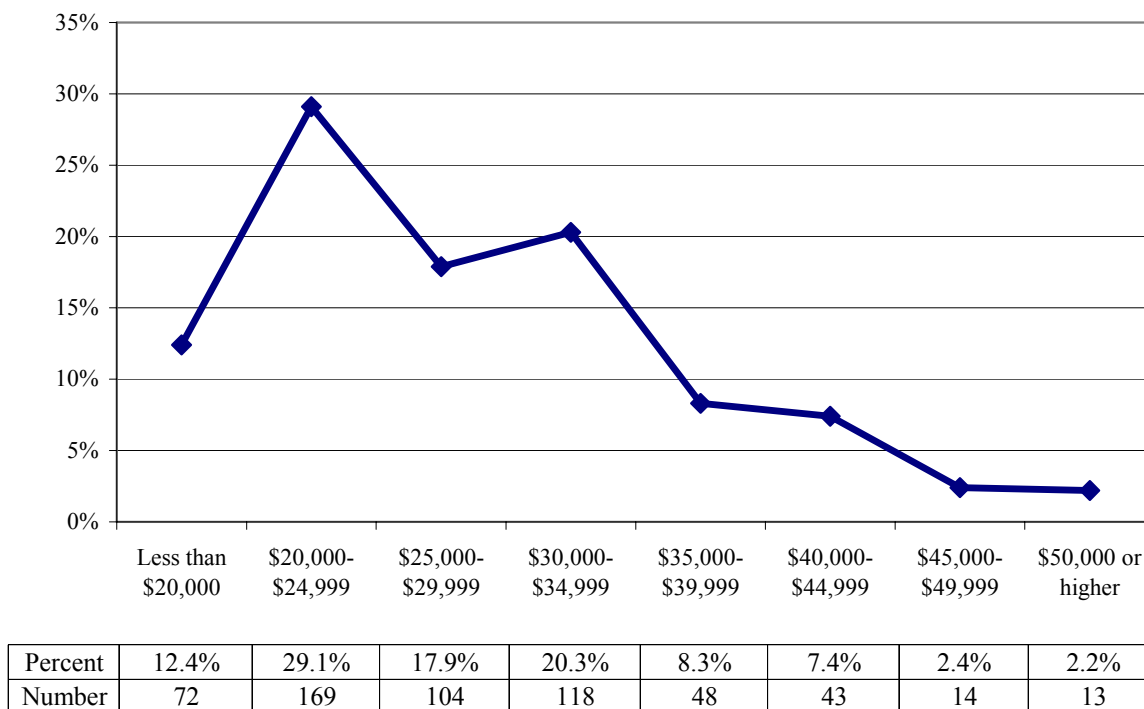Figure 4. Line Probation Officer Mean Salary by Small, Medium and Large Size CSCDs
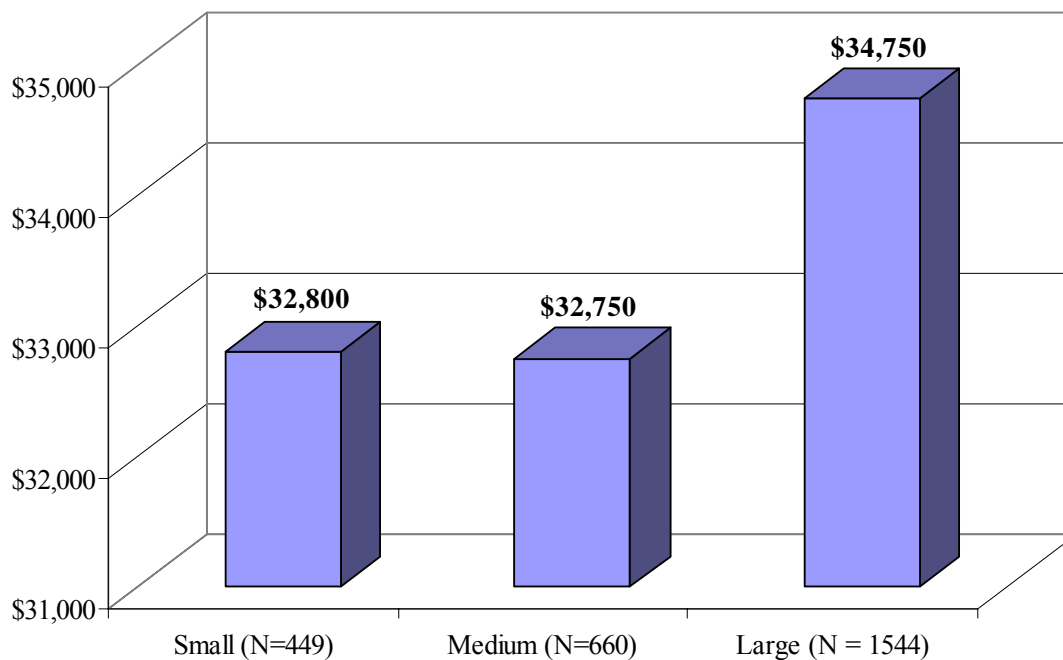
- ➢ There was almost no difference between the mean salary of a small size department ($32,800) and the mean salary of a medium size department ($32,750).

- ➢ Compared to the mean salaries of a large department ($34,750), the mean salary of a small size department was $1,950 less and the mean salary of a medium size department was $2,000 less.

Direct-Care Staff

Figure 5 depicts the frequency distribution of 581 direct-care staff salaries.

Figure 5. Direct-Care Staff Salary on December 31, 2007 (Including 37 Part-time Staff)

	Less than $20,000	$20,000-$24,999	$25,000-$29,999	$30,000-$34,999	$35,000-$39,999	$40,000-$44,999	$45,000-$49,999	$50,000 or higher
Percent	12.4%	29.1%	17.9%	20.3%	8.3%	7.4%	2.4%	2.2%
Number	72	169	104	118	48	43	14	13

➢ A total of 241 direct-care staff (41.5%) earned less than $25,000 annually.

➢ A total of 345 direct-care staff (59.4%) earned less than $30,000 annually.

➢ Of the 581 direct-care staff sampled, the mean salary was $27,200 on December 31, 2007.

Figure 6 shows the percentage of direct-care staff in various categories based on years of experience with their current department. A lack of tenured line officers exists across the state.

Figure 6. Percentage of Direct-Care Staff in Each Tenure Category Based on Years of Experience with Current Department
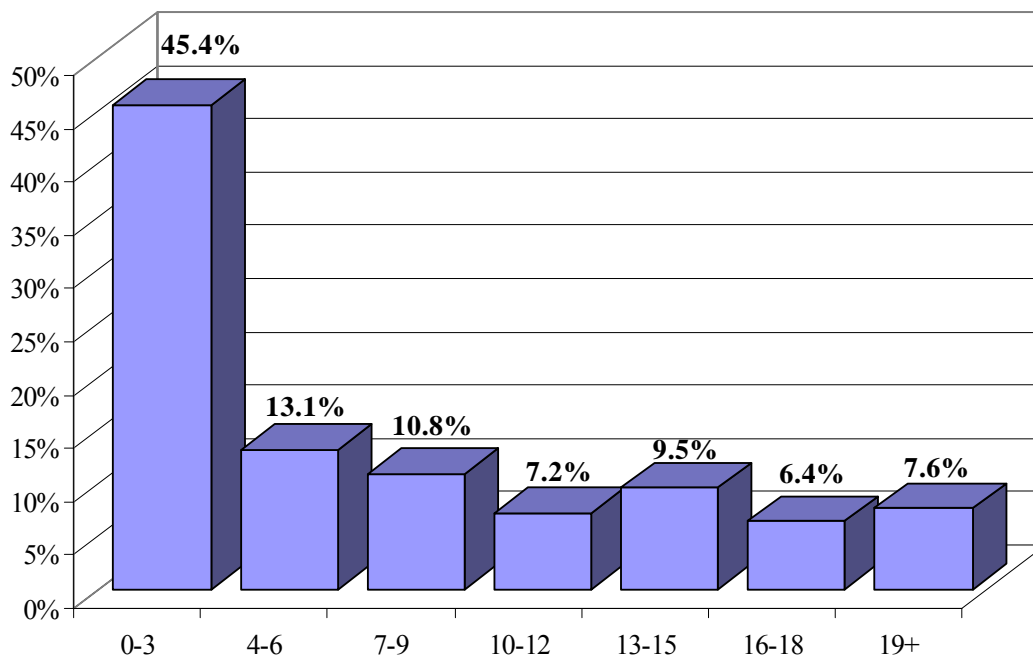
➢ A total of 331 direct-care staff (58.5%) had 6 years of less of experience.

➢ Only 174 direct-care staff (30.1%) had 10 years or more of experience.

Figure 7 reflects the mean salary of direct-care staff, based on years of experience with their department.

Figure 7. Mean Salaries of Direct-Care Staff Based on Years of Experience with Current Department
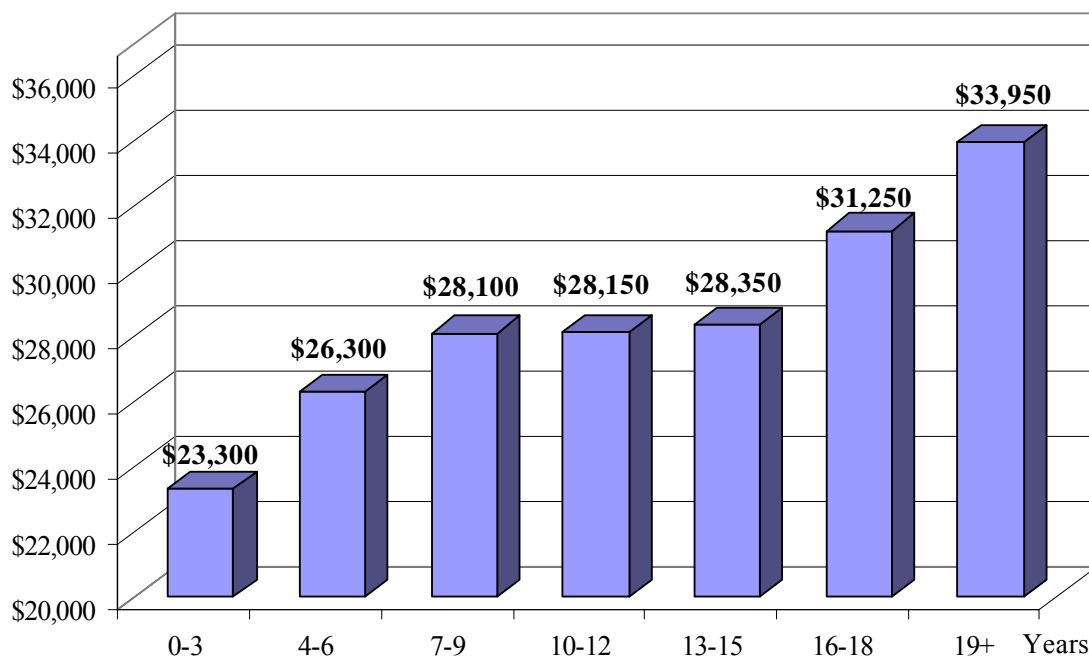
> ➢ Direct-care staff with 0-3 years experience earned a mean salary of $23,300.

> ➢ The mean salary of Direct-care staff with 4-6 years of experience was only $26,300.

> ➢ Direct-care staff with less than 16 years experience earned less than $30,000.

Figure 8 compares the mean direct-care staff salary for small, medium and large departmental size categories. Note that the size category is based on the number of direct, indirect, and pretrial offenders under supervision: *Large Size CSCD* (N =10) - over 9,500 direct, indirect, and pretrial offenders under supervision; *Medium Size CSCD* (N =23) - less than 9,500 but more than 3,500 direct, indirect, and pretrial offenders under supervision; and *Small Size CSCD* (N = 89) - less than 3,500 direct, indirect, and pretrial offenders under supervision.

Figure 8. Direct-Care Staff Mean Salary by Small, Medium and Large Size CSCDs
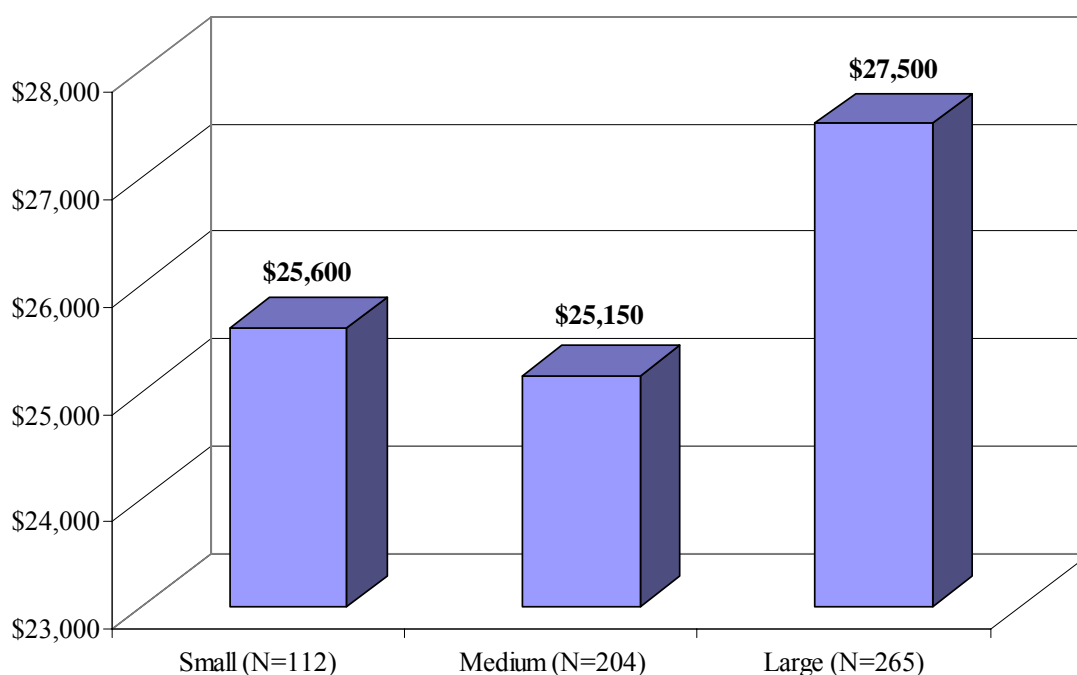
- ➢ Compared to the mean salaries of a small department ($25,600), the mean salary of a medium size department was $450 less.

- ➢ Compared to the mean salaries of a large department ($27,500), the mean salary of a small size department was $1,900 less and the mean salary of a medium size department was $2,350 less.