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ABSTRACT

This study tested the hypotheses that expectancy work motivation, individual attitudes toward work, and structural and environmental components are predictions of teacher job satisfaction and effectiveness. Samples were selected from junior high school and higher education faculties. Subjects responded to open-ended questionnaires, and results were analyzed. Job satisfaction for both groups was predicated by expectancy motivation, voluntarism, central life interests, and similar job assignment variables. Expectancy motivation and complexity factors were predictors of perceived job performance. Findings suggest that expectancy motivation potentially is an important model for understanding the individual educator. (Authors/JD)

# Expectancy Work Motivation, Central Life Interests, Voluntarism, Organizational Situation, Job Satisfaction, and Perceived Teaching Performance

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Expectancy Work Motivation, Central Life Interests, Value Orientation, Organizational Situation, Job Satisfaction, and Perceived Teacher Performance

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During the past several years, the levels of theoretical and empirical activity involving motivation in work organizations evidently have been escalating. Conversations with administrators about their most difficult problems and examinations of journals for topic frequency reveal a widely held concern for understanding the individual in work organizations. One explanation for the attention to such human problems as absenteeism, militancy, and lack of commitment to the work itself abound in today's work organizations.[1] Steers and Porter provide other reasons for motivation at work being a focal point of interest: the current emphasis on the behavioral requirements to attract and retain dependable and creative performers; the massive maturation of the concept itself; the additional constraints on organizations by external agencies make it necessary to seek new mechanisms that will increase effectiveness and efficiency; and the realization that human resources must be viewed as long-term assets. In other words, the theoretical and empirical shortcomings have spurred the interest in motivation at work.

Two other concepts emerging with the study of work motivation are job satisfaction and job performance. The importance of the obvious for knowing the precursors of employee effectiveness. However, a lack of agreement on the concept's definition has inhibited extensive testing in the educational setting of the generally postulated relationships between motivation and performance.[3] Job satisfaction, an important concept in organizational life, appeared because the human relationists convinced theorists and managers alike that a happy worker

is a productive worker. More recently, the study of job satisfaction has intensified because of a concern for the quality of working life.[4] This is epitomized in the report, Work in America,[5] which contends that work organizations have an obligation to ensure the mental health of its employees. Therefore, job satisfaction becomes important to the study of organizational behavior apart from its possible relationship to productivity.

Although the knowledge base is not adequate in any managerial setting, a particularly acute problem exists in understanding these individual worker characteristics in educational organizations. Too much reliance has been placed on Maslow's and Herzberg's need or content theories in the investigations of educator work motivation while expectancy and behaviorism or process models are virtually ignored. Moreover, studies in educational administration characteristically do not integrate allied attitudes toward the job that potentially moderate the effects of work motivation on job satisfaction and performance. Two such concepts are central life interests and voluntarism. Based on these observations, the objective was to examine the independent effects of expectancy work motivation, central life interests, and voluntarism in conjunction with selected demographic and situational variables on teacher job satisfaction and perceived performance.

## Theoretical Framework

### Expectancy Motivation Theory

This cognitive model attempts to explain the processes of how behavior is directed and why individuals choose to act in particular ways. The major concepts are: (a) Expectancy (E) or the belief that one's efforts will lead to successful performance; (b) Valence or the importancy a person attaches to potential outcomes, rewards, or incent-

ives; (c) Instrumentality or the subjective probability that a reward to satisfy a valence will follow a given performance. The basic generalization for the force of motivation (FM), stated in equation form, is FM = E Σ IV.

Several authors such as Heneman and Schwab[6] and Mitchell[7] have systematically reviewed the literature reporting research based on the expectancy motivation model. Mitchell's findings are representative. The force of motivation in an expectancy model is positively correlated to both job satisfaction and performance across a variety of settings. A large amount of criterion variance remains unexplained, however.

More recently, Korman, Greenhaus, and Bodin[8] observed critically that, while the model continues to be popular, several of its assumptions remain untested. Peters'[9] findings support each link of the expectancy model with the variables being causally related to effort expenditure. In education, Mowday[10] found that principals with higher expectancy motivation forces are more active in attempting to influence district decisions. Therefore, recent evidence warrants the postulate that expectancy motivation force will be significantly related to educator job satisfaction and performance.

Although expectancy models are process oriented, the issue of what content comprises the outcomes is an issue.[11] Vroom,[12] for example, seemed to indicate that the outcomes were to be extrinsic. Other writers such as Deci[13] have indicated that intrinsic rewards also are important. The studies testing both intrinsic and extrinsic outcomes find consistently that intrinsic outcomes do better in predicting satisfaction and performance than extrinsic outcomes.[14] Galbraith and Cummings[15] observed that the Vroom model easily can be modified to include the notion of intrinsic rewards. They suggested that the

valence of the first level outcome is determined by the function proposed by Vroom plus the function of the [illegible] of intrinsic rewards. Deci observed that this idea has received relatively little attention, yet it suggests the importance of including intrinsic and extrinsic outcomes in expectancy models of motivation. A model combining the two types of outcomes potentially has greater predictive and explanatory value than models without them. Caution must be exercised in this generalization because, as Deci[16] comments, there is probably no postulate more firmly established in the experimental literature of psychology than the notion that extrinsic rewards (or improvements) motivate behavior (increase the likelihood of response) and intrinsic incentives can improve performance. Therefore, the hypothesized relationships are that expectancy motivation as a total, the extrinsic component and the intrinsic component separately will be significant predictors of job satisfaction and perceived teacher performance.

Central Life Interests

This attitude set is an individual's preferences for doing favored activities in chosen settings. Given the wide range of areas in daily life, each person selects certain areas for primary attention. In these concentrations strong attachments and involvements develop that yield satisfaction and produce performance. In the remaining areas of required behavior that possibly include the job, little need may exist for self-realization and achievement.

Lortie's[17] findings tend to dispute the generalization that central life interests and job satisfaction are positively related. Teachers reporting higher involvement did not indicate higher satisfaction with teaching. Moreover, almost every female teacher had either a strong avocational interest or an additional source of employment income.

The strongest job commitments came from older, single teachers. The empirical findings made by Miskel and Gerhardt,[18] Miskel, Glasnapp and Hatley,[19] Dubin and Champoux,[20] however, support the proposition that if the central life interests of teachers are focused on the work, then their job satisfaction will be high.

Discrepant findings also exist for the relationship between central life interests and performance. The studies examining the relationship have produced mixed results. Pritz and Andrews[21] and Dubin, Champoux and Porter[22] reported positive correlations between the variables while Rabinowitz and Hall[23] and Saal and the correlation to be small, if not zero, between job involvement and performance. But most authors agree that the relationship should be positive. More data are needed to clarify the association between central life interests and performance.

Voluntarism

Voluntarism in this study relates to the person's perceived flexibility in job opportunities and the economic freedom to work or not to work. The individual who feels that s/he does not have to stay in his or her present position to be employed, and who further feels that income from the job is not imperative for meeting immediate physical needs is high on voluntarism. This individual feels freedom of choice, and works in a given position because of personal preferences.

Dubin[24] asserts that those institutions in which one participates voluntarily are his or her sources of self-realization. Therefore, performance in those institutions will be of high quality. Conversely, involuntary participation results in employee apathy, indifference, and minimal concern with standards of job performance. If Dubin's position is supported, the degree of voluntarism for the individual should show a high positive correlation with the individual's job performance as

well as with job satisfaction. In other words, educators who do not feel compelled to work and who feel that they can choose the educational institution in which they teach, should experience satisfaction from teaching and be regarded as high performers. Miskel and Gerhardt[26] partially supported this hypothesis with their research finding that job satisfaction increases directly with perceived voluntarism.

Personal and Environmental Characteristics

In addition to the individual characteristics of expectancy work motivation, central life interests and voluntarism, several personal and organizational variables possibly are related to job satisfaction and perceived teacher performance. The personal characteristics include education, experience, sex and professional activities. The environmental characteristics differed slightly for the two samples but include size, complexity, work load and socio-economic indicators. Since these factors could affect the criterion variables independently, their relative effects will be determined for job satisfaction and perceived teacher effectiveness.

## Hypothesis

Two hypotheses resulted when the generalizations associated with each concept are integrated. Expectancy work motivation, central life interests, voluntarism, selected personal and environmental components will be significant predictors of teacher (1) job satisfaction and (2) perceived job performance.

## Methods

### Instrumentation

Expectancy motivation force measurement was developed using two processes for generating questionnaire items. The first was to use Mitchell and Biglan's[27] suggestion that subjects generate their own outcomes instead of a prearranged standard list. Using this as a guideline, about 35 public school teachers and 40 graduate students in a higher education program responded to a set of open-ended questions. The items asked the subjects to give as many short statements as possible to describe the outcomes or incentives that they wanted from a job as an educator. This pool of items was matched with Herzberg, Mausner, and Snyderman's[28] intrinsic and extrinsic factors. In cases where the researchers judged that original pool did not cover an intrinsic or extrinsic factor, additional items were generated. The result was a list of 46 outcomes. These were placed in parallel form with instructions based on successful instruments from other settings.

The subjects respond to the 46 items twice. First, they indicate the valence of item on a five-point Likert-type scale ranging from very unimportant to very important. Second, the subjects respond to the same items as instrumentalities. That is, using a five-point Likert type scale ranging from very unlikely to very likely, they indicate the probability of actually receiving the reward if they are effective as teachers. The categories for both scales were assigned values from one to five.

A pilot study was conducted to determine the psychometric properties of the instrument. Data were gathered from 127 graduate students in the School of Education, most of whom were teachers in common or higher education institutions. Varimax orthogonal factor analysis procedures

were used to explore the factor structure. The scree test, discontinuity of eigenvalues, and interpretability were used as criteria to determine the number of factors.[29] In addition, three criteria used in selecting items were minimum factor loadings of .40 after varimax rotation minimal cross-loadings on the other factor, and minimum product-moment correlations of .40 for an item with the factor.

The result was parallel valence and instrumentality measures, composed of 16 Likert-type items with eight constituting an intrinsic outcome factor and eight comprising an extrinsic outcome factor. Using the same procedures and criteria for the responses in the present samples, the factor and item statistics were stable. The highest loading items on the intrinsic factor were, "Positive interpersonal relations with students" and "Positive attitudes of students toward learning." These items obviously involve students and probably are interpreted as a work itself factor in Herzberg, Mausner, and Snyderman's framework. The highest loading items on the extrinsic factor were, "Administrative assistance for improving instruction" and "Physically comfortable facilities." Based on existing theory and factor analysis procedures, content and construct validity are evident. Alpha coefficients, as estimates of reliability are .84, .81 and .77 for the overall, intrinsic and extrinsic components of the valence instrument. The alpha coefficients for the parallel parts of the instrumentality measure are .84, .83 and .75.

The expectancy that one's efforts will lead to effective practice was measured with five items. The statements were generated from the logical application of the theory that defines expectancy as the teacher's perception of the relationship between the level of effort and the level of performance. Example items are "Putting forth a high degree of effort leads to a high level of performance" and "Expending

high levels of energy does not lead to commensurate levels of student achievement." Responses were made using a five point-scale ranging from strongly disagree to strongly agree. A panel judged the items to be valid. The alpha coefficient as an estimate of reliability for the combined samples was .78.

The force of motivation (FM) was calculated for each individual using the formula, FM = E ΣIV. The cross products of the responses to each instrumentality (I) item and its parallel valence (V) were summed. The sum of the cross products was then multiplied by the sum of expectancy (E) items to produce FM.

Central life interest and voluntarism were each measured with a four item scale developed by Miskel and Gerhardt.[30] Example items for the central life interest measure are, "When talking to friends, I like to talk about events relating to my job" and "Other things are more important to me than my job." Illustrations of voluntarism items are, "Educators like me can choose the educational institutions in which they work" and "I have to be gainfully employed whether I like it or not." The teachers responded on a five-point continuum ranging from strongly disagree to strongly agree. The alpha coefficients are .43 and .69 respectively.

Job satisfaction, as the educators' affective response to the job, was operationalized with a five item scale for general sentiment toward the job.[31] The measure is somewhat indirect and asks the teachers to indicate their feelings toward various job situations. Two sample items are "I often think of changing jobs" and "As I evaluate my future as an educator, I feel my level of satisfaction will increase." The teachers responded to these items on a five point continuum ranging from strongly disagree to strongly agree. The developers provided evidence for content

validity and the alpha coefficient for the present samples was .78.

The foregoing six scales of valence, instrumentality, expectancy, central life interests, voluntarism, and job satisfaction were combined into a single survey instrument. In addition, the personal and environmental items were included.

Perceived teacher performance was measured with an instrument based on the work of Ryans[32] and Bolton.[33] The five item instrument asks an administrator to describe each teacher's behavior for originality, organization, empathy, sociability, and buoyancy. The ratings are made using a five category response set ranging from never to always. The alpha coefficient is .85.

Sampling and Data Collection Procedures

Two samples were selected. The first was from the 10 junior high school staffs in a single district. The 10 principals participated. Twelve randomly selected teachers or about 20% of each faculty were asked to complete the questionnaires. Of the 120, 102 (85%) participated. The second sample was drawn from 67 departments in four colleges and universities. Twenty-two of 24 (92%) randomly selected department chairpeople agreed to participate. Of the 177 faculty members in their departments, 131 (74%) returned completed questionnaires.

The teacher questionnaires were distributed by the principals and chairpeople. A return envelope addressed to the researchers was attached so that the completed forms could be returned directly. The administrators were visited personally and asked to complete the teacher behavior descriptions. Most completed it at that time but a few mailed their responses to the research team.

## Findings

Stepwise multiple regression analysis was used to test the hypotheses.[34] Separate regression equations were calculated for the two educator groups for each hypothesis. The findings from the descriptive statistics and the correlation coefficients will be discussed first with the hypothesis testing following.

### Means and Standard Deviations

The independent and dependent variables with the means and standard deviations for both samples comprise Table 1. The possible range for the overall expectancy model (FM=EΣ IV) with the 16 instrumentality-valance items is 80 to 10,000. The means for both groups are slightly below the conceptual mean. The Secondary teachers indicated slightly higher forces of motivation than the higher education teachers. The models using the extrinsic items (FM=EΣIexVex) and the intrinsic items (FM=EΣIinVin) show similar patterns. The means for the intrinsic model are higher for both groups than for the extrinsic model and are essentially the same (2,303.62 and 2,287.82) for both groups. Motivational forces for the groups are due the higher scores on the extrinsic factors (2,141.44 versus 1,821.33). Other differences appear in the personal characteristics. The higher education sample tends to participate more in professional activities such as memberships, offices held, publications read, and faculty committee memberships. The means representing the dependent variables are similar for the groups.

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Table 1 about here

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Correlation Coefficients

The correlation matrices for the variables correlating with either criterion for either group at or beyond the .10 level of probability constitute Table 2. The upper portion contains the coefficients for secondary school school teachers. The critical values of r with 100 degrees of freedom are .16, .19 and .25 at the 10%, 5% and 1% probability levels, respectively. The lower portion of Table 2 reports the correlation coefficients for the higher education sample. The critical values of r with 129 degrees of freedom are .15, .17 and .23 at the 10%, 5% and 1% probability levels, respectively.

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Table 2 about here

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Since the force of motivation models use some of the same parts, high intercorrelations appear for both samples. The intrinsic and extrinsic formulations share 59% ($.77^2$) and 56% ($.75^2$) common variance. Otherwise, the independent variables are not highly intercorrelated.

The correlation coefficients describing the relationships among independent and dependent variables show consistent and interesting patterns across both samples. For example, the three motivation models, central life interest, and voluntarism variables are all significantly correlated with job satisfaction. Moreover, the magnitudes of the coefficients are nearly identical (.56, .52, .40 and .39 for secondary teachers and .59, .56, .54, .32 and .44 for the higher education teachers). The patterns are the same for the motivation models and perceived job performance across the two samples (.19, .19 and .17). These findings support the generalizability of findings.

Schwab and Cummings[35] state that the hypothesized connection between employee satisfaction and job performance has generated great research and theorectical interest. The present results provide somewhat mixed support for the relationship. For the higher education sample, the .34 correlation coefficient is significant beyond the .01 level of probability and indicates about 12% common variance. For the secondary school sample, the correlation coefficient only approaches the 10% level of probability. The sequence of the linkage, that is satisfaction → performance, performance → satisfaction, or simultaneous occurrence, also is discussed extensively, but was not tested in this study.

Hypothesis Testing

Multiple stepwise regression analysis was used to test the hypotheses. In contrast to the preceding zero-order correlational analysis, multiple regression is a method of analyzing the collective and separate contributions of the independent variables to the variation in the dependent variable.[36]

Hypothesis One. The results comprise Table 3 for the statistical testing of the proposition that the independent variables will be significant predictors of teacher job satisfaction. Three regression analysis procedures were necessary to test the three motivation models for each sample. Therefore, six regression equations were calculated to test the hypothesis. The F values for the equations range from 25.7 to 29.7 and are significant beyond the .01 level. The $R^2$ values also are high with a range of .38 to .47. Overall expectancy motivation, voluntarism and central life interest variables are significant predictors ($p<.05$) of job satisfaction for both groups. No personal or environmental demographic variables entered the equation. Hypothesis one was

strongly supported. The predictive relationships for extrinsic and intrinsic motivation show few differences. Their beta weights and $R^2$ values essentially are the same.

Table 3 about here

Hypothesis two. The regression equations predicting job performance are summarized in Table 4. The F values for the equations range from 4.3 to 5.7 and are significant beyond the 1% probability level. The levels of explained variance are quite low with the $R^2$ values ranging from 8 to 12%. With one exception, the force of motivation variable is a significant predictor ($p<.05$) of job performance, enters the equation as the second variable, and adds 4 or 5% to the explained variance.

Table 4 about here

The only other variable entering the prediction equations for the secondary school sample was complexity. This is a measure of the number of different types of jobs that exist in a school. Principals in more complex environments rated their teachers lower than those in less diverse situations. In the higher education setting, two environmental variables are significant predictors of job performance. The number of degrees offered by the department and the type of institution (junior college, four year college, or university) are positively and negatively related to perceived job performance respectively.

The low levels of explained variance for the force of motivation

variables provide only limited support for hypothesis two. The difference in power of the intrinsic and extrinsic models are small for the secondary school sample. The extrinsic model is a somewhat better predictor for the higher education sample.

Additional Findings.

Mitchell's[37] review of literature revealed that some evidence exists for the assertion that the components of the expectancy formula separately show as much association with criterion variables as when they are combined. To test this contention, correlation coefficients were calculated for the FM=EΣIV model, each component, and the two dependent variables. The results are presented in Table 5. Instrumentality or the anticipation of rewards shows the largest relationships with satisfaction (.57 and .62) for the two samples and with job performance (.26) for the higher education sample. Obviously, these results question the efficacy of combining the expectancy, instrumentality and valence variables.

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Table 5 about here

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These findings also relate to the connection, discussed earlier, between satisfaction and performance. Greene's[38] conclusion is supported. Rewards or anticipated outcomes in this case, more than either criterion variable, are the major factors that determine satisfaction and performance.

## Summary and Conclusions

The purpose of this investigation was to test the combined predictive powers of expectancy motivation theory, as a cognitive

process model, the allied concepts of central life interests and voluntarism, and personal and environmental characteristics. Strong support was found for hypothesis one regarding job satisfaction. For both groups of educators, expectancy motivation force, central life interests, and voluntarism explained large portions (38-47%) of the variance in job satisfaction. Clearly, this cluster of cognitive variables is important in maintaining the quality of working life in educational organizations. Anticipation that successful performance will lead to important outcomes desired by the individual, perceived freedom to modify the job situation, and work attachment are necessary for educator job satisfaction.

The second hypothesis was only mildly supported. The prediction of perceived job performance was made by the expectancy force model but the levels of explained variance were low. The personal and environmental variables added little to the predictions. One potential remedy to this lack of explanation is to add variables. The large number of variables in this study and their closeness to the teachers does not provide promise that the predictions will be improved by such action. A second alternative is to investigate the raters or the principals and chairpeople. Perhaps their judgments are based on personal and environmental factors related to their own conditions and are only partly affected by the subordinates' characteristics.

Little support was found for the proposition that expectancy forces based on intrinsic content would be better predictors than extrinsic content for job satisfaction and performance. However, both groups indicated higher levels of motivational force for the intrinsic content than for the extrinsic. One explanation for this is that the expectancy of outcomes will be higher when rewards are self administered. Both in-

trinsic and extrinsic rewards will impact behavior. The requirement is that the outcomes be valued by the individual. Given the present findings, the emphasis on intrinsic or higher-order needs may be overstated in the educational literature. Further tests are needed, however, to determine the role of intrinsic and extrinsic outcomes and investigators probably should treat them separately in empirical tests of the model.

The overall results are similar to those generally reported in the literature for other organizational settings.[39] For example, the expectancy model is a good predictor for job satisfaction and a minimal but statistically significant one for job performance. The parallel findings for the different samples suggest that the theory promises to be generalizable to other educational levels. On the negative side, a large amount of the criterion variance remains unexplained, especially for job performance. The model is meant to predict only the force to behave, however. Limitations on the individual's ability and other constraints will lower the ΣIV → behavior relationship. In addition, Alderfer[40] observed that unexplained variance partly results from not only imperfect reliability of measurement but also from the incompleteness of expectancy theory as an explanatory framework.

While the incompleteness does not refute the expectancy model, the findings question the multiplicative interaction of the components. Instrumentality had higher correlation coefficients with the criterion variables than did the combined components. Peters[41] reported five experimental studies that also indicated support for the instrumentality variable as the determinant of both work performance and effort. Peters' own research, however, supported the linkage of the parts into ΣIV. In either case evidence exists which suggests that alternative

theories should be considered. The lowest correlations were between the valence and the criterion variables. These findings highlight the importance of incentives or outcomes. Jobs in educational organizations need to provide the reinforcements that will enhance the anticipation of receiving rewards. Perhaps more attention should be given to behaviorism or operant conditioning by researchers as urged by Luthans and Kreitner[42] and Nord.[43] Potentially more important theoretically and practically is the merger of cognitive and behavioral approaches to understanding human behavior in work settings.

Finally, the factors that make the understanding of the individual educator so important will only increase. The findings of this study serve to emphasize the need for additional theory and research on educator work motivation, attitudes, and performance.

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TABLE 1

Means and Standard Deviations of the Variables
for the Secondary and Higher Education Samples

| Variable | Secondary School Sample | | Higher Education Sample | |
|---|---|---|---|---|
| | Mean | SD | Mean | SD |
| Independent Variables | | | | |
| A. Expectancy Motivation | | | | |
| FM=EΣ IV | 4445.06 | 1248.69 | 4109.15 | 1296.92 |
| FM=EΣ IexVex | 2141.44 | 614.31 | 1821.33 | 660.17 |
| FM=EΣ Iin Vix | 2303.62 | 714.03 | 2287.82 | 726.52 |
| B. Central Life Interests | 11.93 | 2.03 | 12.98 | 2.37 |
| C. Voluntarism | 11.39 | 2.57 | 12.14 | 3.08 |
| D. Personal Characteristics | | | | |
| Highest College Degree | 1.52 | .50 | 2.70 | 1.07 |
| Years Since Degree | 8.39 | 6.63 | 8.76 | 8.54 |
| Years Experience-Present Job | 7.94 | 5.60 | 6.87 | 5.09 |
| Sex: Male=1; Female=2 | 1.47 | .50 | 1.52 | .50 |
| Professional Memberships | 1.99 | 1.23 | 2.81 | 2.09 |
| Professional Offices Held | .29 | .75 | .65 | 1.23 |
| Publications Read | 1.89 | 1.13 | 3.46 | 2.20 |
| Faculty Committees | .75 | .98 | 2.44 | 2.03 |
| E. Environmental Characteristics | | | | |
| Faculty Size | | | 13.48 | 10.82 |
| Courses Offered | | | 36.33 | 24.64 |
| Degrees Offered | | | 1.79 | .80 |
| Type | | | 2.74 | 8.00 |
| Size | | | 5694.05 | 2536.61 |
| White Faculty (Percent) | | | 85.23 | 23.15 |
| White Students (Percent) | | | 75.66 | 26.70 |
| Teaching Load (Hours/week) | | | 12.27 | 11.99 |
| Teaching Load-Required Courses | 3.70 | 2.78 | | |
| Study Hall Supervision | .52 | 1.34 | | |
| Students/day | 139.47 | 41.49 | | |
| Complexity | 23.71 | 4.05 | | |
| Income | 20352.53 | 3584.06 | | |
| Education | 13.32 | .68 | | |
| Dependent Variables | | | | |
| F. Job Satisfaction | 16.70 | 4.24 | 17.91 | 3.75 |
| G. Job Performance | 20.37 | 2.99 | 20.21 | 2.92 |

TABLE 2

Correlation Coefficients for the Variables Correlating with Either Criterion at or beyond the .10 Level of Probability

| Higher Educ. Teachers \ Secondary Educ. Teachers | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. FM=EΣIV | - | 93 | 95 | 30 | 30 | - | - | - | 13 | - | - | 56 | 19 |
| 2. FM=EΣIexVex | 93 | - | 77 | 29 | 24 | - | - | - | 13 | - | - | 52 | 19 |
| 3. FM=EΣIinVin | 94 | 75 | - | 28 | 31 | - | - | - | 11 | - | - | 54 | 17 |
| 4. CLI | 31 | 23 | 35 | - | 16 | - | - | - | 12 | - | - | 48 | 11 |
| 5. Vol | 41 | 39 | 38 | 14 | - | - | - | - | 12 | - | - | 39 | 16 |
| 6. Degree | 01 | -06 | -06 | -05 | 14 | - | - | - | - | - | - | - | - |
| 7. Experience | 21 | -19 | -19 | 08 | -24 | -04 | - | - | - | - | - | - | - |
| 8. Comm | -08 | -10 | -05 | 13 | 11 | 40 | 02 | - | - | - | - | - | - |
| 9. Complexity | - | - | - | - | - | - | - | - | - | - | - | 16 | -21 |
| 10. Deg Off | 05 | -05 | 13 | -04 | 19 | 55 | -33 | 36 | - | - | - | - | - |
| 11. Type | 00 | -05 | 04 | 07 | 02 | 17 | 09 | 20 | - | -09 | - | - | - |
| 12. JS | 59 | 56 | 54 | 32 | 44 | 04 | -08 | 06 | - | 07 | -05 | - | 13 |
| 13. JP | 19 | 19 | 17 | 08 | 02 | 23 | -20 | 17 | - | 23 | -19 | 34 | - |

Note. FM's = Different Models of Expectancy Motivation; CLI = Central Life Interests; Vol = Voluntarism; Degree = Highest College Degree; Experience = Years Experience in present position; Comm = Number of memberships on faculty committees; Deg Off = Number of degrees offered; Type = Kind of institution; JS = Job Satisfaction; JP = Job Performance.

The upper and lower portions contain the correlation efficients for the secondary school sample and the higher education sample respectively. The coefficients have been multiplied by 100.

TABLE 3

Multiple Stepwise Regression Analyses Summaries for Testing Hypothesis One with Job Satisfaction Being the Dependent Variable

| Independent Variables | beta | F | $R^2$ |
|---|---|---|---|
| Secondary School Sample (N = 102) | | | |
| FM=EΣIV | .40 | 24.9 | .32 |
| Central Life Interests | .33 | 18.2 | .43 |
| Voluntarism | .22 | 8.4 | .47 |
| Equation | | 29.1 | .47 |
| FM=EΣIexVex | .36 | 20.6 | .27 |
| Central Life Interests | .34 | 18.7 | .39 |
| Voluntarism | .25 | 10.5 | .45 |
| Equation | | 26.9 | .45 |
| FM=EΣIinVin | .37 | 21.2 | .29 |
| | .35 | 19.7 | .41 |
| | .22 | 8.1 | .45 |
| Equation | | 27.2 | .45 |
| Higher Education Sample (N = 131) | | | |
| FM=EΣIV | .45 | 32.8 | .35 |
| Voluntarism | .23 | 9.6 | .39 |
| Central Life Interests | .15 | 4.4 | .41 |
| Equation | | 29.7 | .41 |
| FM=EΣIexVex | .42 | 29.9 | .31 |
| Voluntarism | .25 | 10.8 | .37 |
| Central Life Interests | .19 | 7.6 | .40 |
| Equation | | 28.3 | .40 |
| FM=EΣIinVin | .39 | 24.0 | .30 |
| Voluntarism | .27 | 12.5 | .36 |
| Central Life Interests | .15 | 3.8 | .38 |
| Equation | | 25.7 | .38 |

TABLE 4

Multiple Stepwise Regression Analyses Summaries for Testing Hypothesis Two with Perceived Job Performance Being the Dependent Variable

| Independent Variables | beta | F | $R^2$ |
|---|---|---|---|
| Secondary School Sample (N = 102) | | | |
| Complexity | -.24 | 5.9 | .04 |
| FM=EΣIV | .22 | 5.2 | .09 |
| Equation | | 4.9 | .09 |
| Complexity | -.24 | 6.0 | .04 |
| FM=EΣIexVex | .22 | 5.4 | .09 |
| Equation | | 5.0 | .09 |
| Complexity | -.23 | 5.6 | .04 |
| FM=EΣIinVin | .19 | 4.0 | .08 |
| Equation | | 4.3 | .08 |
| Higher Education Sample (N = 131) | | | |
| Degrees Offered | .20 | 5.8 | .05 |
| FM=EΣIV | .18 | 4.8 | .09 |
| Type | -.17 | 4.0 | .11 |
| Equation | | 5.4 | .11 |
| Degrees Offered | .22 | 7.1 | .05 |
| FM=EΣIexVex | .20 | 5.5 | .09 |
| Type | -.16 | 3.5 | .12 |
| Equation | | 5.7 | .12 |
| Degrees Offered | .21 | 6.2 | .05 |
| Type | -.17 | 3.8 | .08 |
| Equation | | 5.6 | .08 |

TABLE 5

Correlation Coefficients for Expectancy, Instrumentality, and Valence as Components of the Motivation Model and the Criterion Variables

| Higher Education Teachers | Secondary Education Teachers | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| 1. | FM-EΣIV | - | 74 | 83 | 59 | 56 | 19 |
| 2. | Expectancy | 70 | - | 38 | 21 | 43 | 18 |
| 3. | Instrumentality | 86 | 41 | - | 34 | 57 | 18 |
| 4. | Valence | 41 | 03 | 17 | - | 16 | -03 |
| 5. | Job Satisfaction | 59 | 42 | 62 | 00 | - | 13 |
| 6. | Job Performance | 19 | 18 | 26 | -11 | 34 | - |

Note. The upper and lower portions contain the correlation coefficients for the secondary school sample and the higher education sample respectively. The coefficients have been multiplied by 100.