DEVELOPMENT AND TEST OF A CONCEPTUAL MODEL
OF TEACHER JOB SATISFACTION

by

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(ABSTRACT)

The purpose of this study was to develop and test a conceptual model of teacher job satisfaction based on prominent job satisfaction theories in business and industry, but focused primarily on the theory of Frederick Herzberg. The variables selected for inclusion in the model were identified from a review of teacher job satisfaction literature and represented both the professional environment of the teacher and the potential for professional development. The Schools and Staffing Survey, an extant database from a national sample, provided the data for the path analysis procedures used in this study. Separate models were analyzed for general and special educators and for elementary and non-elementary general educators.

The path analysis results suggested that the administrative climate (i.e. leadership, teacher participation in decision-making, teacher autonomy) had the greatest effect on perceptions of job satisfaction for both general and special education teachers. Peer support (perceived support from parents and colleagues) also appeared to have a significant direct effect on job satisfaction for general educators. An increase in teaching experience was associated with a decrease in both desire for professional development incentives and job satisfaction. In addition, the descriptive results indicated that very few respondents were currently receiving any type of career incentives. The results of the study also indicated a lack of substantive evidence that salary, teaching assignment, and education level of teachers have

an impact on job satisfaction. The study concluded with the suggestion to school policy makers that the development of a working environment that includes teachers in decision-making, increases teacher autonomy, provides leadership and support, and promotes an atmosphere of collegiality may lead to increased levels of job satisfaction.

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Introduction

In 1983, the National Commission On Excellence in Education reported a shortage of teachers in American public schools. The commission report, "A Nation At Risk", cited particularly acute shortages of sufficient qualified personnel in the content areas of math and science and within the specialty areas of gifted education, bilingual education, and special education (National Commission On Excellence In Education, 1983).

The shortage of teachers in American public schools continues to be a problem in the 1990's. Fewer teachers are entering the teaching profession due to better opportunities in other fields. Within the field of special education, increasing student enrollments have also contributed to a shortage of qualified teaching personnel (Billingsley & Cross, 1991a). Teacher attrition has also contributed to teacher shortages. A recent comprehensive review of the attrition literature revealed many possible reasons for the increasing attrition rates in both general and special education, one of which is lack of job satisfaction (see B. Billingsley, in press).

However, job satisfaction is a phenomenon which still baffles researchers and has resulted in numerous theories with varied definitions and conflicting hypotheses. Research on job satisfaction, although abundant, has not revealed adequate insight into the topic. This may be due to the ambiguity of the term, to a lack of theoretical base, disagreement on the factors which influence job satisfaction, or to difficulties with measurement and study design. This study has attempted to provide additional insight by developing a conceptual model of teacher job satisfaction composed of variables supported by previous research in education and by theories proposed in other organizational arenas.

Theory Base

Beginning with the work of Hoppock in 1935, job satisfaction has been studied extensively in business and industry, resulting in several predominant theories on the topic (Herzberg, 1966; Hoppock, 1935; Moorhead & Griffin, 1989). Today, with increasing teacher shortages, the focus of job satisfaction studies is shifting to the field of education, with the theory base adapted from research in other fields.

Studies of the theoretical basis of teacher job satisfaction have revealed that the phenomenon of satisfaction does not occur solely as a result of institutional factors nor as a result of personal attributes (e.g., Jorde-Bloom, 1986; Moos, 1979). Instead, teacher job satisfaction seems to be primarily an individual behavioral response which emerges from the combination of institutional environments and personal attributes of individuals within the environmental context of teaching. If satisfaction with teaching results from this complex interaction, then any theory attempting to explain how teachers derive satisfaction from their profession would have to consider individual psychology, group sociology, and the interaction between them within institutional environments.

The theoretical basis for this study was developed primarily from the work of Frederick Herzberg (1966), in conjunction with other predominant theories of job satisfaction. Herzberg, in his two-factor theory, views satisfaction and dissatisfaction as two separate continuums. The factors which affect satisfaction (e.g., opportunity for growth, additional responsibility, job challenge) are thought to differ from the factors causing dissatisfaction (e.g., administrative policy, working conditions) (Ashbaugh, 1982; Bullock, 1984; Dunhan & Smith, 1979; Gruenberg, 1979; Herzberg, 1968, 1966; Moorhead & Griffin, 1989).

Herzberg emphasizes the need for challenge and diversity in the components of work as individual workers mature over time and develop in their careers (Shreeve, Norby, Goetter, Stueckle, Midgley, & Goetter, 1987). It is the job challenge, opportunity for advancement, and additional responsibility that is thought to lead to a worker's job satisfaction. Working conditions, salary, and administrative policies, although necessary to prevent dissatisfaction, will not bring satisfaction. For example, salary increases may keep workers from being dissatisfied with their salaries, but increases will not make them more satisfied with their jobs. However, being given a challenging project or being included in decision-making processes may greatly increase satisfaction with the job itself.

Although it is not clearly stated in Herzberg's theory, the necessity of institutional growth and change is implied. Institutional growth requires the organization to have a flexible structure which can be adapted to the needs of workers by providing incentives and avenues for personal growth and job challenge while maintaining efficiency and effectiveness. Herzberg's theory seems to be a useful one in accounting for the influences of the complex components of satisfaction with teaching, since it permits simultaneous linear relations between both individual (personal) and institutional attributes. That is to say, feelings of dissatisfaction with institutional attributes may occur simultaneously with feelings of satisfaction with individual attributes.

The notion that satisfaction and dissatisfaction may be influenced by differing job characteristics is the underlying basis of this study. Also considered were the discrepancy and need-fulfillment approaches to job satisfaction. These congruent theories propose that perceived discrepancies between conditions that an individual needs or desires and those that are actually received from the job will affect job satisfaction. These theories propose that satisfaction results from a process in which needs are first perceived by a worker (teacher) and

opportunities for fulfillment of these needs are identified. The worker (teacher) then acts on the desire for fulfillment and a degree of satisfaction results from the success or failure of this endeavor (Moorhead & Griffin, 1989).

In addition to the theories discussed above, equity theory was also considered. It is proposed in this theory that satisfaction results from an individual's perceptions of fairness in treatment that is received in the workplace in comparison to other workers (Ashbaugh, 1982; Bullock, 1984; Dunham & Smith, 1979; Gruneberg, 1979; Moorhead & Griffin, 1989). The theoretical basis for this study was a merger of these four theories. Herzberg's satisfier's and dissatisfier's were incorporated into a multi-factor model which defined them as appropriate, in terms of needs, discrepancy, and equity issues. It was proposed that personal needs form the basis for individual's perceptions of the factors that satisfy or dissatisfy them. Individuals enter the organizational environment where they compare their desired level of need with the provided level of need and form a discrepancy perception. Individuals may also compare their own needs fulfillment with other's fulfillment and form an equity perception. Depending on whether a particular factor is treated as a satisfier or dissatisfier by the individual, any of the factors can be accounted for in this general theory which resembles Herzberg's two-factor theory, but integrates competing theories as well. For a detailed discussion on the theoretical basis for this study, see Appendix A.

Previous Research of Job Satisfaction

A review of literature on job satisfaction in business, industry, and education facilitated the development of the proposed theory presented above. A review of research studies in general and special education in particular revealed a set of institutional-level and individual level variables exhibiting strong associations with teacher job satisfaction. A conceptual model of teacher job satisfaction was

then developed based upon the proposed theory in conjunction with results of previous studies. The variables selected for the conceptual model represented the professional environment in which teachers work and those which might promote professional development (see Figure 1).

The focus of job satisfaction research shifted from business and industry to education in the 1970's with the work of Sergiovanni, who adapted the two-factor theory to the field of teaching (Sergiovanni & Carver, 1973). Since then, numerous descriptive and quantitative studies have identified some of the variables affecting teacher job satisfaction. Past research results have revealed little influence of demographic variables such as teacher age, marital status, gender, and urbancity on job satisfaction (e. g. Belasco & Alutto, 1972; Billingsley & Cross, 1992; Knoop, 1987; Kreis, 1983). Several recent quantitative studies compared the job satisfaction of specific groups such as black versus white teachers (Culver, Wolfle, & Cross, 1990) and general education versus special education teachers (Billingsley & Cross, 1992) and found little difference in satisfaction among the groups.

Within the realm of the professional environment, previous research studies suggest that positive ratings of administrative climate variables such as salary, working conditions, teacher autonomy, and teacher involvement in decision-making are associated with higher levels of teacher job satisfaction (e.g., Billingsley & Cross, 1992; Frataccia & Hennington, 1982; Galloway, Boswell, Panckhurst, Boswell, & Green, 1985; Knoop, 1987). In addition, researchers have found higher ratings of the leadership abilities of principals and of principals' interest in teacher development to be associated with higher levels of job satisfaction (e.g., Billingsley & Cross, 1992; Knoop, 1987; Litt & Turk, 1985; Miskel, Fevurly, & Stewart, 1979).

Studies of the influence of teaching assignment on job satisfaction have revealed ambiguous results. School level and school size have been found to have non-significant to slight influence on job satisfaction (e.g., Belasco & Alutto, 1972; Benson, 1983; Kaufman, 1984), whereas, Galloway et al. (1985) found no relationship between teacher job satisfaction and school facilities. Miskel et al. (1979) found no significant relationship between teaching specialties and job satisfaction, whereas, Seery (1990) found that teachers assigned to classes for seriously emotionally disturbed students were more satisfied than those assigned to classes for behaviorally disordered students.

Numerous studies have indicated that total teaching experience has little to no effect on job satisfaction (e.g., Benson, 1983; Billingsley & Cross, 1992; Culver et al. 1990). In addition, studies of tenure within an organization and its influence on job satisfaction have shown ambiguous results (Benson, 1983; Billingsley & Cross, 1992; Knoop, 1987; Reyes & Keller, 1986; Reyes, Madson, & Taylor, 1989).

Opportunities to learn new skills and teacher participation in leadership activities are two professional development incentives which have been shown to have an influence on job satisfaction (e.g., Chapman, 1982; Culver, 1990; Galloway et al. 1985). Frataccia and Hennington (1982) found various prospects for advancement significantly changing the satisfaction of teacher. In addition, recognition by supervisors has also been associated with increased levels of job satisfaction (Chapman & Lowther, 1982; Lowther, Stark, & Chapman, 1984; Maehr, Smith, & Midgley, 1990). Conversely, a study by Chapman and Lowther (1982) also suggested that teachers' desires for learning opportunities, participation in leadership activities, and higher salaries to be associated with decreased levels of job satisfaction.

Few studies have looked at the support networks of teachers and the influence on teacher job satisfaction. Galloway et al. (1985) found that positive pupil, colleague, and supervisor relationships are all slightly related to higher levels of teacher satisfaction. In addition, only one study was found relating characteristics of personal resources to teacher satisfaction (Wodlinger, 1986). The results suggested that perceptions of available resources significantly affected the satisfaction of rural and urban teachers.

It seems as if the potential for professional development and its influence on teacher satisfaction have been researched inadequately to date. Additional research to both define and test associations between these critical components of the teaching career is needed if researchers hope to establish a more meaningful explanation of teacher job satisfaction.

Current Study Purposes

The purposes of this study were to construct a theory that incorporates the variables affecting teacher job satisfaction that can be addressed by school policy-makers and to test the theoretical relationships against a national data base.

In this study, the researcher attempted to answer four primary questions. First, how can Herzberg's two-factor theory be integrated with similar and competing theories into a single theory of teacher job satisfaction? Second, what institutional and individual variables can be identified in research literature focused on teacher job satisfaction that is consistent with the proposed theory? Third, what are the direct effects of the identified variables on teacher job satisfaction? Finally, what are the differences in the effects when special education and general education teachers are contrasted?

Method

The Model

The model proposed in this study is shown in Figure 1. The background variables were included because of the significant findings of previous research (e.g., Frataccia & Hennington, 1982; Knoop, 1987; Reyes et al., 1986, 1990; Wangberg, Metzger, & Levitov, 1982). The variables, administrative climate, teaching assignment, education level, and teaching experience, were the background variables considered to define the professional environment in which educators work. The professional development variables were included on a theoretical basis shaped by previous research findings (e.g., Chapman & Lowther, 1982; Culver et al., 1990; Frataccia & Hennington, 1982; Wodlinger, 1986). These moderating variables, which contribute to the professional development potential of educators, were thought to affect satisfaction and to be affected by the background variables. The moderating variables include incentives provided, incentives desired, peer support, and personal resources. (For definitions, see Appendix B.)

Instrumentation and Sampling

The Schools and Staffing Survey (SASS), an extant data base developed by the National Center for Education Statistics was used for this study. The questionnaire was mailed to a national sample of public and private school teachers during the 1987-88 school year. A Teacher Followup Survey (TFS) was administered to a portion of the SASS respondents during the 1988-89 school year. Public schools were stratified by state and then by grade level (elementary, secondary, combined). Sample schools were selected by a systematic sampling procedure based on the teacher population within each school (Bobbitt et al., 1991). While a sample of private schools was also selected, only public schools were included in this study.

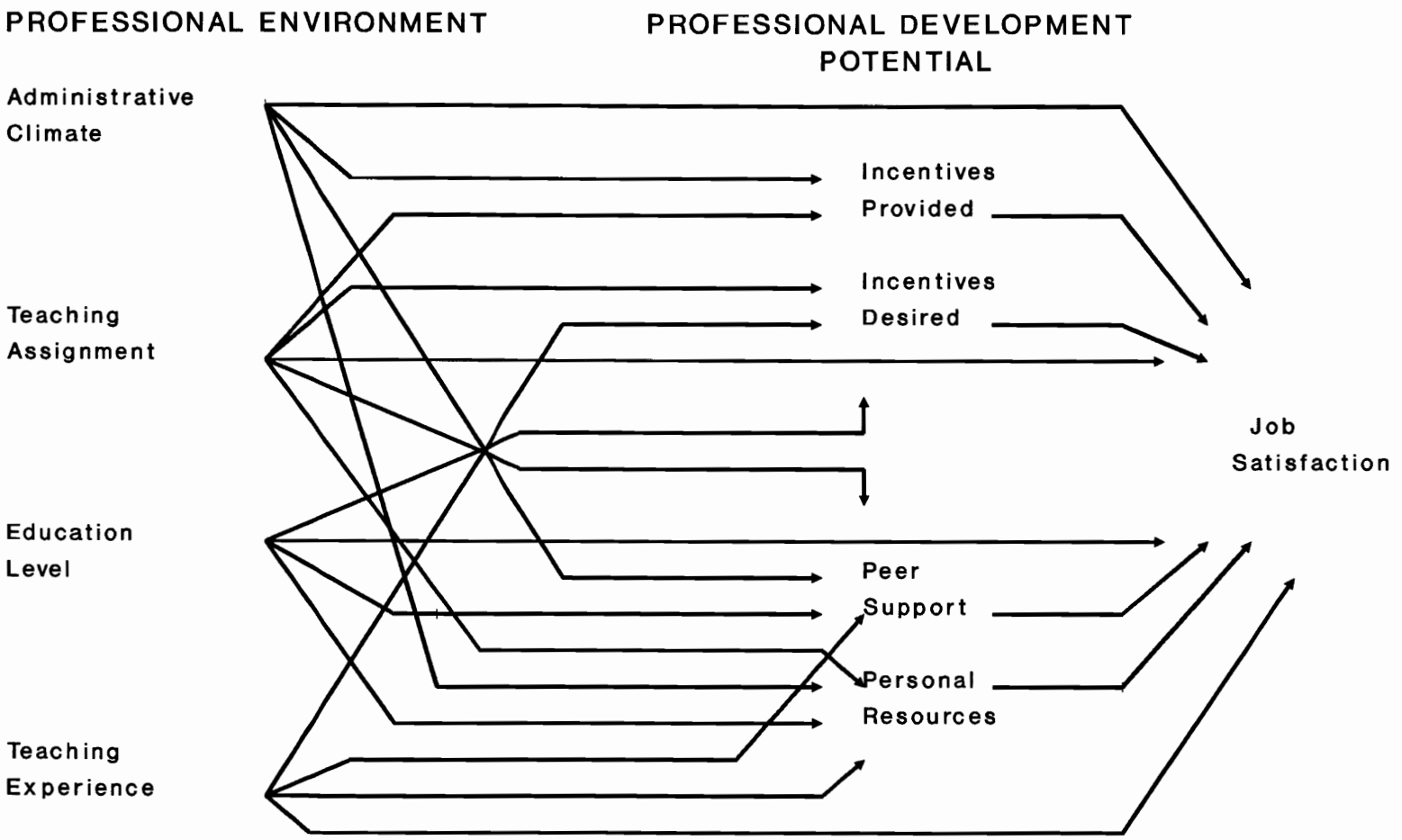

Figure 1. Conceptual Model of Teacher Job Satisfaction

The sample included 56,242 public school teachers selected from the 9,317 sample public schools. Within each school, teachers were stratified by experience. High school teachers were then sorted by subject area taught, whereas elementary teachers were sorted by general education, special education, and other. On average, four teachers from each elementary school, eight teachers from each secondary school, and six teachers from each combined school were selected. The sample was designed to provide a representative cross-section of all teacher types in all school types nationwide. The response rates for public school teachers was over 90% (Bobbitt, Faupel, & Burns, 1991).

To select the public school teachers for the 1988-89 Teacher Followup Survey, teachers were sorted by census region, urbanicity, subject area, and school enrollment within each stratum. Selection was made on a proportional basis. The total sample size (public and private) was 7,172 (2,987 leavers, 4,185 stayers and movers). Response rates were 93.6% for former public school teachers and 97.5% for current public school teachers. The data on the teachers who participated in both the main survey and the follow-up survey were analyzed for this study.

Variables

The SASS provided items which measured all of the variables included in the proposed model. The following variables were either selected or developed from other variables on the 1987-88 SASS Teacher Questionnaire or the 1988-89 Teacher Follow-up Survey (TFS):

1. Job satisfaction ('JS'). Job satisfaction was indexed by twenty items (TFS164-183) on the TFS which measured the satisfaction level of teachers toward various aspects of their jobs. The questionnaire used a 4-point Likert-type scale with response options ranging from (1) very satisfied to (4) very dissatisfied. The primary dependent variable was formed by averaging the scores for each

respondent on all twenty items. A high score indicates low satisfaction.

2. Incentives provided ('IP'). The incentives provided variable was derived from six items on the SASS (TSC293, 295, 297, 299, 301, 303). These items asked whether certain incentives were received (1=yes, 0=no). Incentives provided was computed by adding all six yes/no scores with a resulting range from 0 to 6

3. Incentives desired ('ID'). The incentives desired variable was derived by averaging scores from six items on the SASS (TSC292, 294, 296, 298, 300, 302) asking whether respondents favored or opposed six incentives. These six incentives were: 1) additional pay for added responsibilities; 2) teaching in a shortage field; 3) teaching in a high-priority location; 4) salary increases in a career ladder based on performance; 5) merit pay for performance; and 6) a school-wide bonus for exceptional performance. Responses ranged from (1) strongly in favor to (4) strongly oppose.

4. Peer support ('PS"). The peer support variable was derived by averaging scores from three items on the SASS (TSC244, 251, 253) asking whether respondents agreed with a statement regarding support from parents and colleagues. The responses were on a 4-point scale from (1) strongly agree to (4) strongly disagree.

5. Inkind income ('IK'). The inkind income variable was made up of six dichotomous items (TSC311-316) asking respondents to classify themselves as receiving or not receiving six forms of inkind income (e.g., housing meals, tuition for children, childcare, college tuition for self, car/transportation expenses). Unfortunately, the number of respondents who said they had received any inkind income were too few to statistically analyze. Therefore, the inkind income variable was eliminated from the model.

6. Personal resources ('PR'). Due to the elimination of the inkind income variable, total income (TFS196) was used as the sole variable measuring personal resources. The total income item asked the total household income of all family members including salaries, interest, rent and so forth. Twelve categories divided a salary range from less than $10,000 to more than $100,000.

7. Base salary ('BS'). Base salary was measured by a single item (TFS192) which asked the respondents to choose one of five salary categories ranging from $1,000 to $999,999. The categories were treated as a continuous variable.

8. Pupil/teacher ratio ('PT'). The item measuring pupil/teacher ratio (TSC158) simply asked respondents to state the number of children enrolled in the class or program during the most recent full week of school.

9. Administrative climate ('AC'). The administrative climate variable was comprised of responses to 18 Likert-type scale items on the SASS which asked teachers if they agreed with positively worded statements regarding the administrative climate. The rating scale was a continuum from strongly agree (scored as 1) to strongly disagree (scored as 4). Other items were scaled from 1 to 6. The components represented by the items included leadership, teacher input, and administrative support (TSC239-243, 246-249, 252, 254, 258, 275-278, 284-287). The scores from these items were converted to z scores and averaged together to form a single variable.

10. Teaching assignment ('TA'). The teaching assignment variable was comprised of a single item (TSC157) asking how the respondents' classes were organized (1=self-contained, 2=departmentalized, 3=team teaching, 4=pullout). Due to the low number of respondents in several of the categories, the responses were recoded to form a dichotomous variable (1=departmentalized, 2=non-departmentalized).

11. Degree ('D'). The original degree items (TFS039, 043, 047, 051, 055, 059, 063, 067, 071) contained several categories which had too few respondents to statistically analyze (e.g., 2nd bachelor degree). Therefore, the degree variable was recoded into 4 categories to form a new variable (1=bachelor, 2=master, 3=educational specialist, 4=doctorate).

12. Primary and secondary certification. The primary and secondary certification variables were single items (TFS116, 119) asking whether a certain type of certification (i.e. standard state ('SS'), probationary ('PC'), temporary ('TC'), license other than state ('L") was held by the respondent (0=no, 1=yes).

13. Teaching experience ('TE'). The teaching experience variable was measured by a single item (TSC023) which simply asked how many years the respondent had been teaching full-time.

Analysis

Since no reliability information was reported on the SASS, inter-item consistency reliablility (Cronbach's alpha) was computed for the job satisfaction scale for this study as .81. Path analysis was then used to determine the direct effects of professional environment and professional development potential variables on job satisfaction. Paths were estimated by beta weights (ß) from standard multiple regression analyses. The process of theory trimming (Pedhazur, 1982) was used to delete path coefficients that did not meet statistical significance criteria (alpha $p<.05$). However, paths that had absolute standardized values above .10 were retained, even if not statistically significant. The two criteria were used because of the relatively small sample size of special educators, a precedent set by previous path analysis research (e.g., Arditti & Keith, in press).

In an attempt to gain additional information, a factor analysis was conducted on the job satisfaction items resulting in three factors, organizational satisfaction, reward satisfaction, and workload

satisfaction. The models were then reanalyzed using the factor scores as the dependent variables. All models were analyzed separately for general and special educators.

In addition, the general education group was separated into elementary and non-elementary teaching assignment groups. The model was reanalyzed separately for these two groups.

Results

Descriptive Statistics

The demographic characteristics of the general and special education samples are summarized in Table 1. The percentages indicate that, overall, special educators have a higher level of education than general educators, but on average had less teaching experience. In addition, a slightly higher percentage of special educators held probationary or temporary/emergency certificates. As would be expected, the average pupil/teacher ratio for special educators is lower than that of general educators. Although the teaching assignments of general educators appeared to be split almost equally between departmentalized and non-departmentalized programs, special educators reported being predominantly in non-departmentalized programs. Base salaries and total household incomes appeared to be comparable.

Means and standard deviations for the continuous variables are reported in Table 2. The job satisfaction average was based on 3,259 educators who responded to any of the items on the satisfaction scale. On average, the job satisfaction of general educators (N=2813) was indexed at 2.30 with a standard deviation of 0.40 with a decreasing score indicating greater satisfaction. For special educators (N=442), job satisfaction was indexed at 2.34 with a standard deviation of 0.44. This indicates that most educators who responded to this survey were somewhat satisfied and that there was no substantive difference between the job satisfaction of general and special educators.

Table 1
Demographic Characteristics of General and Special Educators

Variable	General Ed Sample (n=2813)		Special Ed Sample (n=442)	
	Categorical Variables			
	N	%	N	%
Education Level				
bachelors	1811	64.4	233	52.7
masters	826	29.4	176	39.8
specialist	133	4.7	27	6.1
doctorate	22	.8	5	1.1
Primary Certification				
standard state	2220	78.9	305	69.0
probationary	110	3.9	21	4.8
temporary/provisional	209	7.4	47	10.6
license other than state	41	1.5	4	.9
Secondary Certification				
standard state	273	9.7	41	9.3
probationary	14	.5	2	.5
temporary/provisional	27	1.0	7	1.6
license other than state	12	.4	1	.2
Teaching Assignment				
departmentalized	1436	51.0	73	16.5
non-departmentalized	1371	48.7	368	83.3
	Continuous Variables			
	Mean	SD	Mean	SD
Pupil/teacher ratio	26.78	15.46	17.55	14.55
Teaching experience	9.99	8.56	7.16	6.00
Base Salary	$20-25,000		$20-25,000	
Total Income	$35-39,000		$35-39,000	

For the incentives provided variable, the average scores for both general educators (M=.306) and special educators (M=.288) indicated that most respondents did not receive any of the incentives indexed in the survey. The average scores for the incentives desired variables (Gen, M=2.04; Sped, M=1.95) indicates that both groups were mildly in favor of the six incentives presented. The average scores for peer support (Gen, M=2.04; Sped, M=2.11) suggests that respondents somewhat agreed to

Table 2
Correlations General Education

	IP	ID	PS	PR	AC	BS	PT	TA	D	SS	PC	TC	SS2	TE	SAT
IP	1.00														
ID	-.09	1.00													
PS	-.06	-.03	1.00												
PR	-.05	.07	-.01	1.00											
AC	-.06	.09	.49*	-.01	1.00										
BS	.00	.09	.03	.42*	.06	1.00									
PT	.07	-.02	.07	.04	.05	.08	1.00								
TA	.06	-.03	.06	.06	.02	.05	.32	1.00							
D	.00	.02	-.04	.18	.02	.37*	.07	.11	1.00						
SS	.02	.09	-.06	.04	.05	.05	.06	.00	.04	1.00					
PC	-.02	-.00	.06	-.05	-.00	-.09	-.01	-.02	-.07	-.43*	1.00				
TC	-.00	-.04	.02	-.06	-.06	-.04	-.04	-.04	-.05	-.61*	-.07	1.00			
SS2	-.02	.01	-.01	-.05	.06	-.01	.02	.08	.02	.07	-.04	-.04	1.00		
TE	.06	.22*	-.09	.25*	.06	.60*	.08	.04	.35*	.15	-.15	-.07	.03	1.00	
SAT	-.04	-.00	.33*	.02	.37*	.07	.09	-.02	.05	-.05	-.01	.02	-.02	.07	1.00
M	.306	2.04	2.04	7.38	-.04	2.43	26.78	1.11	1.40	.79	.003	.007	.10	9.99	2.30
SD	.642	.69	.60	2.35	.58	1.13	15.46	.32	.63	.41	.19	.26	.30	8.56	.40

Special Education

	IP	ID	PS	PR	AC	BS	PT	TA	D	SS	PC	TC	SS2	TE	SAT
IP	1.00														
ID	-.09	1.00													
PS	.00	.12	1.00												
PR	-.07	.01	-.07	1.00											
AC	-.01	.13	.52*	-.06	1.00										
BS	-.01	-.01	-.05	.38*	-.03	1.00									
PT	-.10	-.00	.00	.02	.07	-.05	1.00								
TA	-.11	.10	-.04	.02	.00	-.06	.39*	1.00							
D	.02	.07	-.06	.26*	.02	.52*	.07	.15	1.00						
SS	.06	.15	-.12	.14	-.01	.08	.05	.00	.09	1.00					
PC	-.04	.05	.19*	-.07	.08	-.02	-.10	-.13	-.10	-.31*	1.00				
TC	.06	-.12	.12	-.08	.06	-.15	.08	.02	-.09	-.47*	-.05	1.00			
SSE	.03	-.04	-.05	-.01	-.13	-.09	-.05	.06	.01	.18	-.06	-.08	1.00		
TE	.01	.07	-.18	.27*	-.09	.57*	.03	.03	.38*	.09	-.14	-.18	.03	1.00	
SAT	.02	.05	.24*	-.10	.31	-.00	.02	.01	.04	-.04	.11	.01	-.07	.02	1.00
M	.29	1.95	2.11	7.29	-.05	2.33	17.55	1.39	1.60	.69	.004	.01	.10	7.16	2.34
SD	.68	.67	.61	2.49	.58	1.23	14.55	.49	.67	.46	.21	.30	.29	6.00	.44

*=p<.05

positive statements about the support they received from parents and colleagues.

The standardized composite administrative climate variable represented leadership, teacher input, and administrative support. The unstandardized, original Likert-type scale ratings for both general and special educators indicated that both groups somewhat agreed to positive statements regarding the administrative climate.

The correlations among the variables used in this study for all 4812 public school teachers in the sample are reported in Table 2 along with means and standard deviations for the variables. The significant correlations range from very low to moderate, with administrative climate, peer support, and teaching experience showing the strongest correlation among variables used in the model. Unfortunately, it appeared as if most of the independent variables in the model were uncorrelated with average satisfaction scores.

Based on the correlation results, it was expected that most of the variable relationships depicted in the original model (Figure 1) would not be supported by evidence collected in the SASS. Nonetheless, the process of theory trimming was pursued in an effort to gain an understanding of potential relationships.

Path Analysis Results for General and Special Education Models

Results of the path analysis procedures are shown in visual form in Figures 2 and 3. A total of 4 independent variables from the professional environment background and one independent variable from professional development potential had statistically significant direct effects on the job satisfaction for general educators. The non-significant paths from incentives provided, incentives desired, and personal resources were retained in the final model because of significant effects from various background variables.

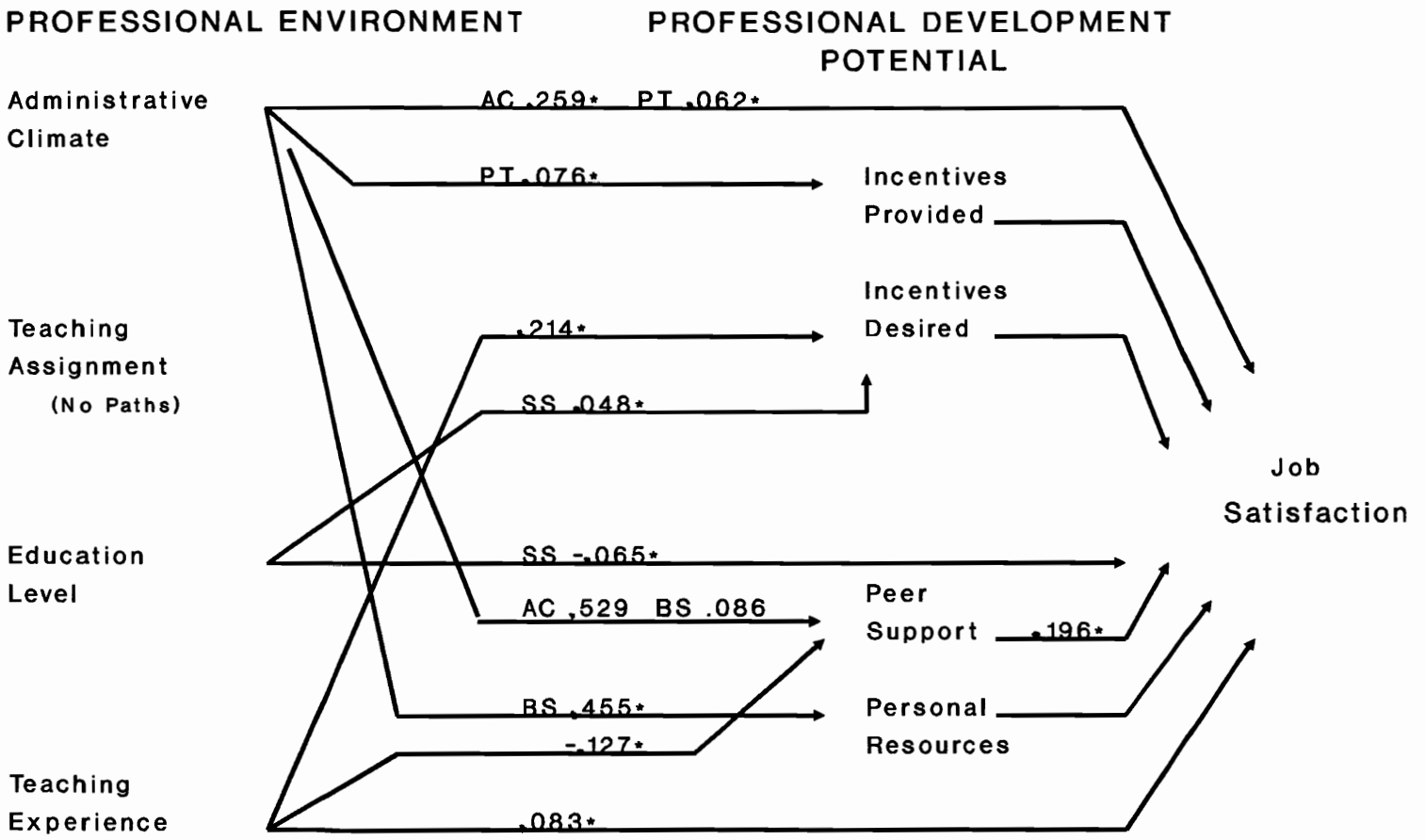

Figure 2. Final Model for General Education

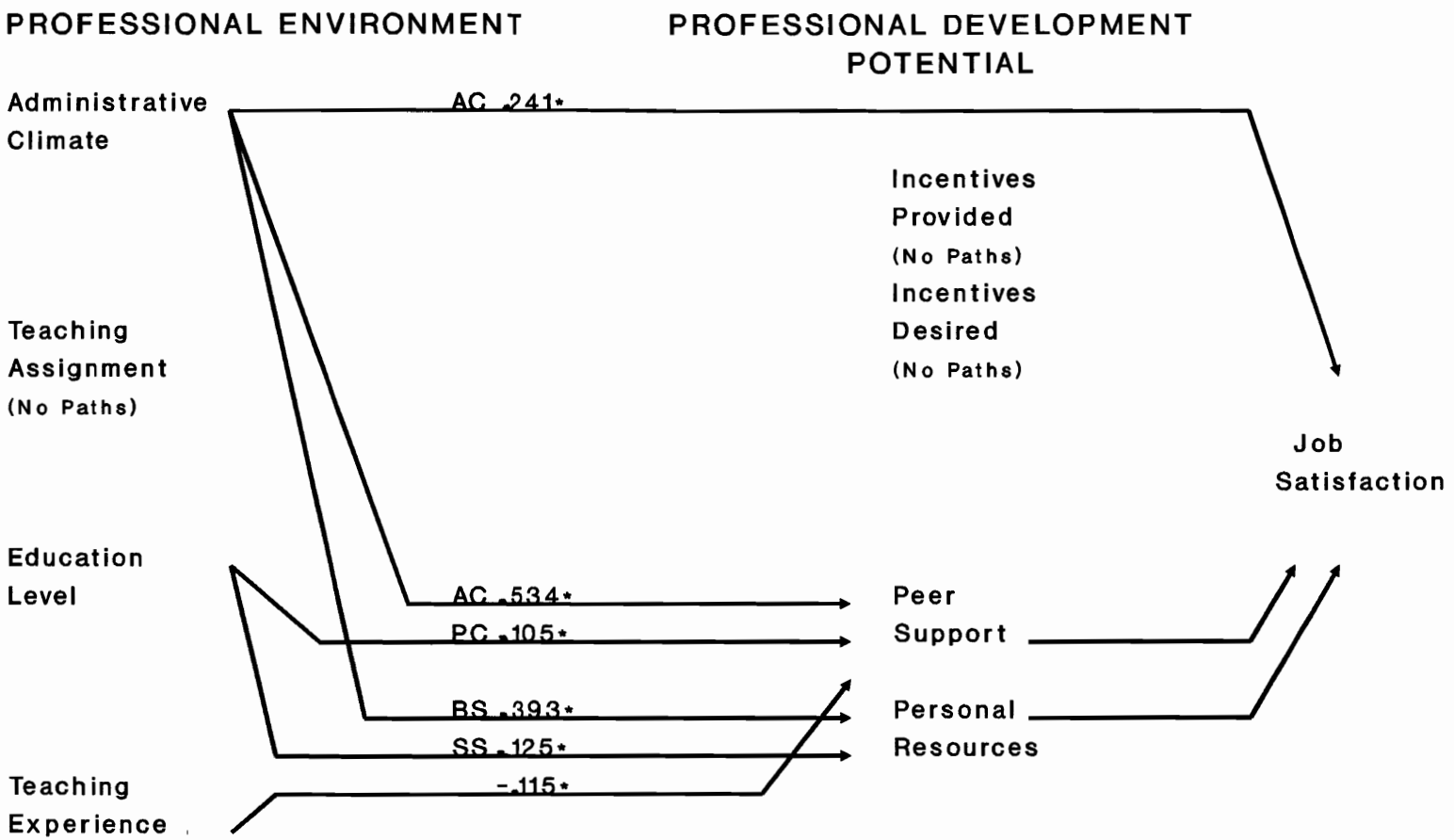

Figure 3. Final Model for Special Education

For the special education model, moderating variables incentives provided and incentives desired were eliminated due to lack of significant paths from any of the background variables. Peer support and personal resources were retained because of the supportive evidence from the background variables. However, neither of these moderating variables had a significant direct effect on job satisfaction for special educators.

Effects on job satisfaction.

For both general and special educators, the strongest direct influence on job satisfaction was from the composite variable, administrative climate (Gen, ß=.259; Sped, ß=.241). This coefficient suggests that as respondents rated the climate (e.g., leadership, teacher input, administrative support) more favorably, job satisfaction increased. The second strongest path with direct effects on job satisfaction for both groups was from peer support (Gen, ß=.196; Sped, ß=.109), suggesting that as support from colleagues and parents is rated more favorably, job satisfaction increases. It should be noted, however, that although the peer support path for special educators was one of the potentially strongest, the path coefficient was not statistically significant.

Other paths with significant direct effects on the job satisfaction of general educators were teaching experience (ß=.083) and pupil/teacher ratio (ß=.062). These coefficients suggest that as teaching experience and the pupil/teacher ratios increased, job satisfaction decreased. Also, general educators with a standard state certification (ß=-.065) had higher levels of satisfaction than those educators with probationary or temporary certification.

Effects on moderating variables.

For both general and special education groups, the strongest direct effect to a moderating variable was from the composite variable, administrative climate, to peer support (Gen, ß=.52; Sped, ß=.534), suggesting that as respondents rated the administrative climate more favorably, peer support was also rated more favorably. Another significant path for both groups was from teaching experience to peer support (Gen, ß=-.127; Sped, ß=-.115); increased teaching experience appeared to result in more positive ratings of peer support. For general educators, base salary also had a small, but significant effect on support (ß=.086), indicating that as base salary increased, peer support decreased.

Base salary had a predictable effect on personal resources for both general and special educators (Gen, ß=.455; Sped, ß=.393); as base salary increased, so did personal resources. For general educators, the path from teaching experience to incentive desired (ß=.214) indicated that as experience increased, incentives were less favored. Also, general educators with a standard state certification rated incentives less favorably. Special educators with probationary certification reported decreased peer support (ß=.105) and those with standard state certification had increased personal resources (ß=.125).

It was expected from the theoretical basis of this study that the professional environment variables would have a significant effect on the professional development variables in the model. However, degree, temporary certification, and secondary certification did not appear to significantly affect any of the moderating variables or the dependent variable. In addition, the generally small effect sizes could be due to a lack of respondents in many categories of the nominal variables. The lack of respondents in categorical groups was a particular problem

with the analysis of the special education sample, which was already smaller than the sample available for the general education group.

Path Analysis Results for Elementary and Non-elementary Models

Effects on job satisfaction.

Figures 4 and 5 illustrate the final models for elementary (N=797) and non-elementary (N=220) general educators. For elementary educators, administrative climate had the strongest effect on job satisfaction (Elem, ß=.305) suggesting again that respondents who rate climate favorably also report greater job satisfaction. Another significant path for both groups was from peer support to job satisfaction (Elem, ß=.189; Non, ß=.268), suggesting that as support from peers increased, so did job satisfaction. For elementary teachers, as pupil teacher ratios increased, job satisfaction decreased (ß=.080). Other paths with significant direct effects on job satisfaction for elementary teachers were standard state certification (ß=-.104) and probationary certification (ß=-.070), suggesting that respondents with these certifications reported increased job satisfaction. For non-elementary teachers, the significant path from incentives desired to job satisfaction (ß=.063) suggests that respondents who favored incentives also reported higher levels of job satisfaction.

Effects on moderating variables.

For both elementary and non-elementary teachers, administrative climate had the strongest effect on peer support (Elem, ß=.509; Non, ß=.518), suggesting that a favorable climate increased peer support. For elementary teachers, the path from base salary to support suggests that as base salary increased, support decreased (ß=.100). However, for non-elementary teachers, as teaching experience increased, support increased (ß=-.057).

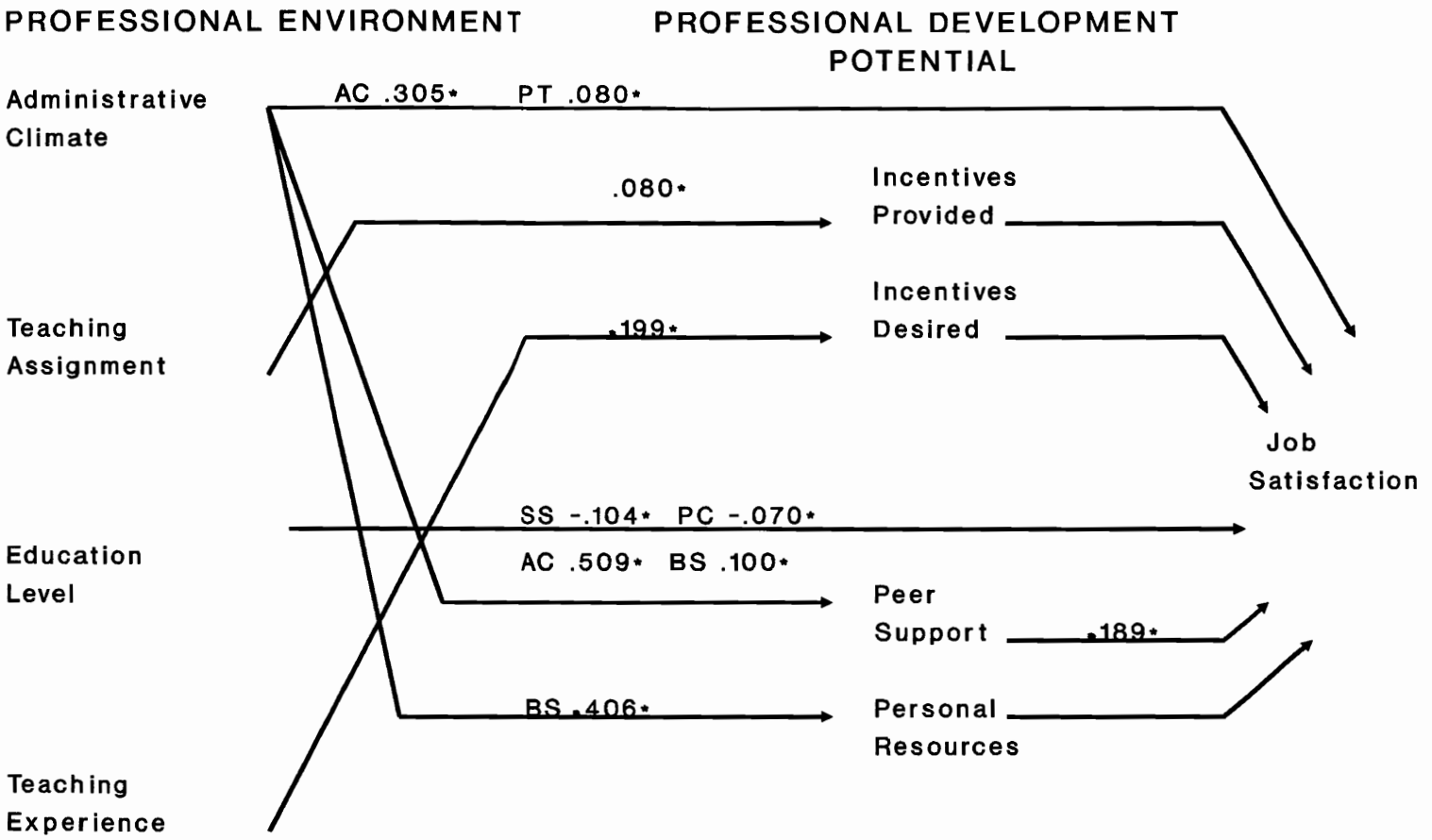

Figure 4. Final Model for Elementary Educators

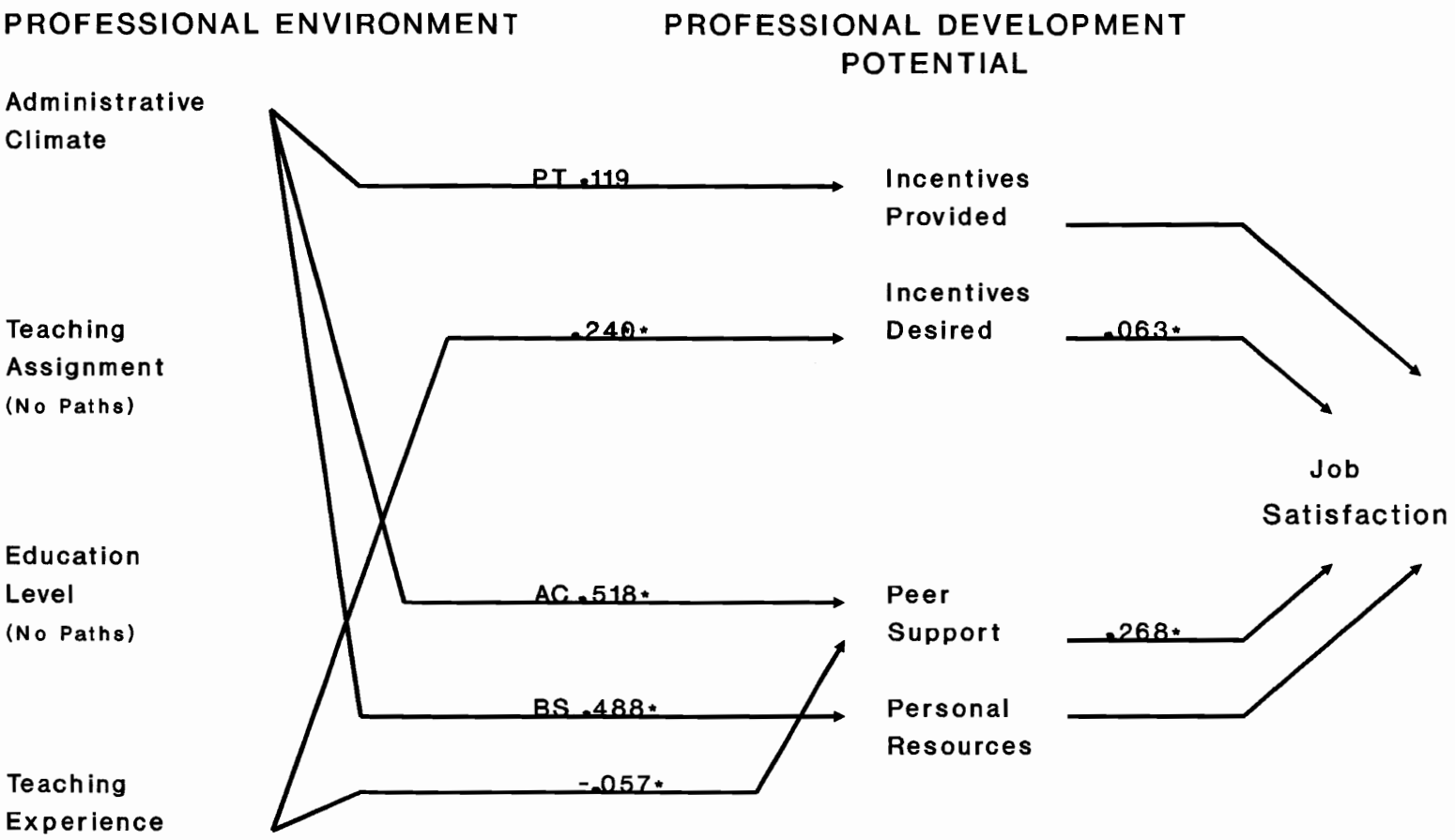

Figure 5. Final Model for Non-elementary Educators

Base salary had a predictable effect on personal resources for both groups (Elem, ß=.406; Non, ß=.488); as base salary increased, personal resources increased. Teaching experience also had a significant effect on incentives desired (Elem, ß=.199; Non, ß=.24), suggesting that for both groups, as teaching experience increased, desire for incentives decreased.

Path Analysis Results for Factor Models

To gain additional information regarding the influence of the independent variables on the various components of job satisfaction, a path model was analyzed using factor scores of job satisfaction as the dependent variable. The final direct effects on the three factors determined by the factor analysis are presented visually in Figure 6.

Factor 1, organizational satisfaction, was composed of the standardized z scores of 14 of the items from the satisfaction scale addressing support, autonomy, esteem, job security, intellectual challenge, and so forth. Factor 2, reward satisfaction, was composed of the three variables addressing satisfaction with salary, benefits, and opportunities for advancement. Factor 3, load satisfaction, addressed satisfaction with workload, materials, and class size.

The final coefficients for general educators suggested that two of the moderating variables, support (ß=.207) and incentives desired (ß=.05), had direct effect on organizational satisfaction, whereas, only one background variable, administrative climate (ß=.113) had a significant direct effect. For special educators, only support was shown to have a direct effect on organizational satisfaction.

For the factors of reward satisfaction and load satisfaction, all significant influence for both groups came from the background variables of the professional environment with no significant direct effects

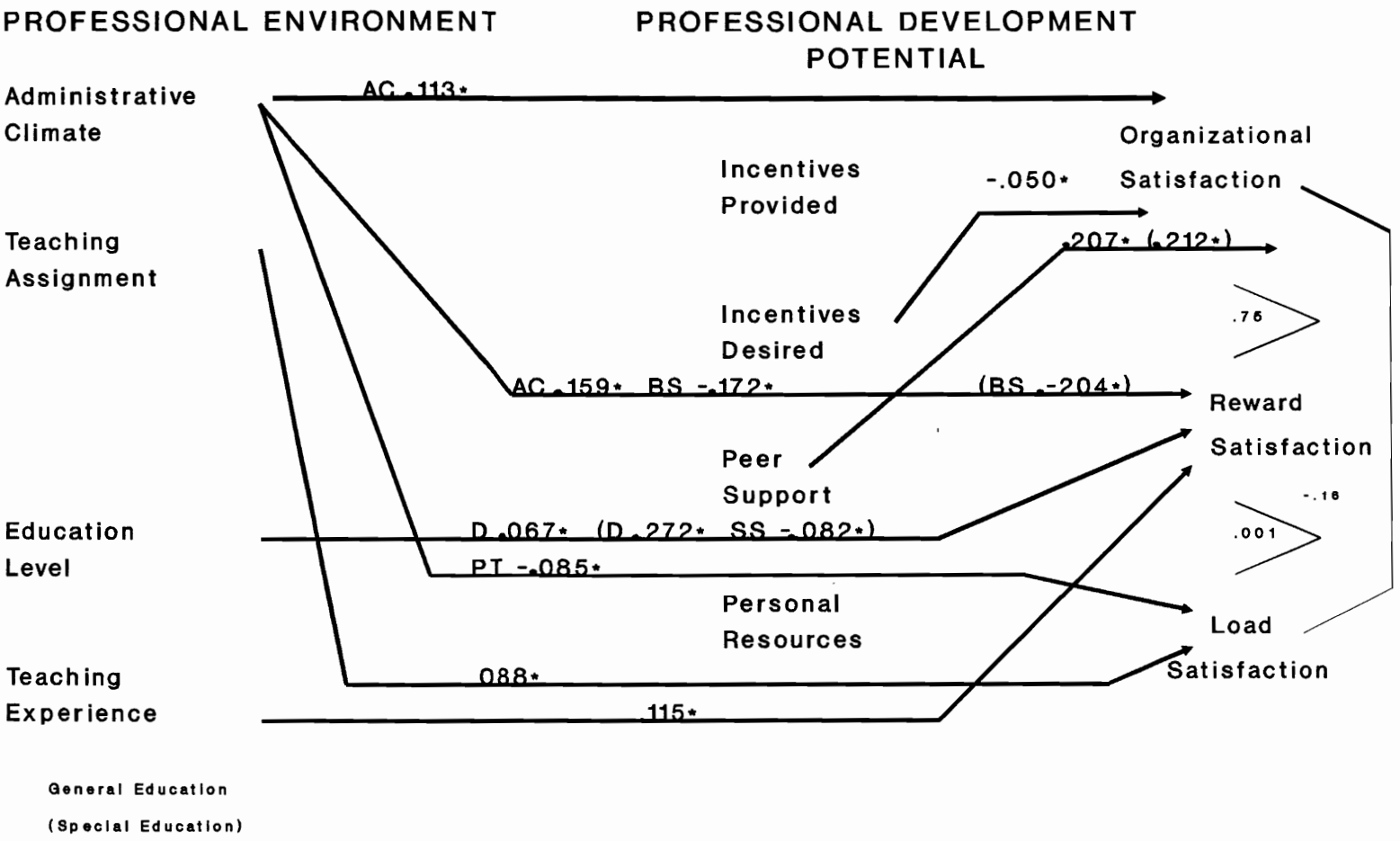

Figure 6. Direct Paths for Final Factor Models

produced by the moderating variables. In fact, for the special educators, there was no direct effect on load satisfaction whatsoever.

Discussion

Previous research has suggested that job satisfaction is affected by attributes of the work environment (e.g., Knoop, 1987; Litt & Turk, 1985) and by those of the individual worker (e.g., Belasco & Alutto, 1972; Reyes et al., 1989). One prominent theory (Herzberg, 1966) proposes that some of these attributes may contribute to a worker's increased satisfaction (e.g., autonomy, responsibility), whereas other attributes may prevent dissatisfaction (e.g., salary, working conditions). It was the purpose of this study to identify variables measuring attributes of the teaching environment (e.g., climate, salary, support) and individual attributes of educators (e.g., desires, personal resources) to empirically describe their effects within a theory-based conceptual model of teacher job satisfaction.

The conceptual model (see Figure 1) proposed that there were variables within the professional environment of all teachers which affect job satisfaction. The results of previous research have suggested that the administrative climate of the school is one of these variables (e.g., Frataccia & Hennington, 1982; Knoop, 1987; Wodlinger, 1986). Components of the administrative climate, such as positive leadership, teacher participation in decision-making, and teacher autonomy were included in this study as a composite variable, and resulted in the strongest direct effect on job satisfaction for both general and special educators. This finding lends supportive evidence to previous research which found that increased participation of teachers in organizational decisions (Belasco & Alutto, 1972; Lipham, Dunstan, & Rankin, 1982; Lowther et al., 1984; Miskel et al., 1979; Wodlinger, 1986) and the opportunity for self-direction (Galloway et

al., 1985; Miskel et al., 1989) may lead to increased job satisfaction. Because administrative climate was a composite variable, it suggests that positive leadership and administrative support also have positive effects on job satisfaction, supporting the findings of previous research (Billingsley & Cross, 1992; Miskel et al., 1979).

Galloway et al. (1985) found that positive colleague relationships to be slightly related to higher levels of teacher job satisfaction. This study indicated that peer support (perceived support from parents and colleagues) also appeared to have a significant direct effect on job satisfaction for general educators. In addition, the strongest path to peer support was from administrative climate, indicating that a positive administrative influence may foster not only teacher collegiality, but also parent support. It should be noted, however, that the items addressing support were very general and did not give a good indication of types of support provided (e.g., technical assistance vs. support for career advancement). Researchers may want to further investigate types and sources of peer support to determine influences on job satisfaction.

Because of theoretical support and the findings of previous research, professional development incentives such as increased responsibility and opportunity for leadership (Chapman & Lowther, 1982; Culver et al., 1984; Lowther et al., 1984) were included in the conceptual model. Unfortunately, the analysis of the SASS data indicated that very few public school teachers received any type of career incentives. In fact, the descriptive analysis revealed that both groups were only mildly in favor of a set of monetary rewards for various career options presented. This neutrality may be due to the manner in which the SASS data were gathered or it could be attributable to respondents' lack of familiarity with career incentive programs (e.g., career ladders; mentorships). Since the conceptual model is well-

grounded in theory, it is speculated that a test of the conceptual model using a different type of data inquiry may be more informative.

Previous research findings had indicated slight to non-significant associations between teaching experience and job satisfaction (e.g., Benson, 1983; Billingsley & Cross, 1992; Reyes et al., 1986, 1989). In this study, teaching experience produced puzzling effects within the conceptual model. For both general and special educators, increased experience resulted in decreased satisfaction and a decreased desire for career incentives. However, increased experience led to an increase in peer support. Perhaps as teachers gain more experience, the job of teaching becomes less of a challenge, especially if no career incentives are provided. In addition, experienced teachers may become more comfortable with their peers and interpret this feeling as support. Could it be that as the job becomes more routine and comfortable job satisfaction wanes?

In contrast to the significant findings of previous studies of salary and job satisfaction (e.g., Frataccia & Hennington, 1982, Galloway et al., 1985, Wangberg et al., 1982), the results of this study indicated a lack of evidence that salary has an impact on job satisfaction. There was also a lack of evidence that level of educational degree influences job satisfaction. However, possession of a standard state teaching certificate was associated with increased levels of satisfaction for general educators. For special educators possession of a probationary certificate was associated with decreased peer support, but had no significant effect on job satisfaction. The effects of certification on support and job satisfaction warrants further study.

Insofar as differences between the models for general and special educators, the path coefficients differed little in the initial and intermediate models. However, in the final model for special educators, the only path with a significant effect on job satisfaction was from administrative climate. This lack of significant direct effects is probably due primarily to the much smaller sample size of special educators available for analysis.

Limitations of the Study

Characteristics of the population.

The population studied by the SASS is nationally representative of all teacher types and school types in the United States. However, this study neither differentiated demographic characteristics of teachers or schools nor distinguished the satisfaction of various potential groupings (e.g., school size, subject area) of teachers. Obviously, the satisfaction of teachers will vary somewhat between schools, school districts, and geographic regions, but the amount of variance in job satisfaction accounted for by demographic variables has been historically low. Therefore, this study did not attempt to differentiate satisfaction of teacher groups with the exception of contrasts between special education and general education teachers and between elementary and non-elementary general education teachers.

Measurement Issues.

No published studies of reliability and validity of the SASS had been reported at the time of this study. However, the inter-item consistency estimate of reliability (Cronbach's alpha) for the satisfaction scale was computed for this study (.81). Also, the SASS appeared to have at least face validity since all of the satisfaction items appeared to be worded like one or more of the currently published satisfaction scales discussed in the literature review (Appendix A).

It should be noted that the items measuring administrative climate shared much in common with the items on the satisfaction scale. It may be that the strong path coefficient between administrative climate and job satisfaction is due to an overlap between the two constructs being measured.

A cursory review of the non-significant paths might indicate a lack of substantive effects from several of the variables included in the conceptual model (i.e. incentives provided, incentives desired, personal resources, teaching assignment). Alternatively, it seems possible that the design of the SASS survey did not provide adequate measures of these variables. For example, the categories used in items regarding teaching assignment precluded analysis of endorsement areas for elementary special education teachers. For another example, inkind income benefits, such as tuition payments for professional development, appeared to be unavailable to most respondents. As a result, the inkind income variable could not be used in analysis. Therefore, it is possible that alternative instrumentation could provide more adequate variable measurements to support the theoretical basis for this model.

Implications for School Policymakers

Although the conceptual model was not supported in its entirety, the study did result in some useful information for school administrators. The effects of administrative climate on both peer support and job satisfaction indicates that efforts should be made to improve the conditions under which teachers work. The evidence presented suggests that it is not the salary that brings satisfaction, and therefore, increased salaries and other monetary incentives may not be useful beyond their expected maintenance effects. However, a supportive, well-organized, collaborative atmosphere in which to work may result in more satisfied teachers. Including teachers in decision-

making, increasing teacher autonomy, providing leadership and support, and promoting an atmosphere of collegiality are issues that can be addressed at the school level and have little or no financial cost.

Appendix A

Review of the Literature

The purpose of this literature review was to synthesize the research literature related to the job satisfaction of general and special education teachers. To accomplish this task, a review of literature on job satisfaction was completed to identify the theories most commonly used in business, industry, and education. This review facilitated the development of a single theoretical model incorporating the four most commonly used theories of job satisfaction. The theory is proposed as the basis for the development of a conceptual model of teacher job satisfaction. A review of research studies in general and special education in particular revealed a set of institutional-level and individual-level variables exhibiting strong associations with teacher job satisfaction.

The literature review begins with the presentation of the conceptual model of teacher job satisfaction. The model defines attributes of the professional environment (institutional features and individual features) and the professional career development potential of the teaching within professional environment. These attributes are then related to satisfaction with the career components of teaching. The review continues with a discussion of studies defining job satisfaction in general and with those defining teacher job satisfaction specifically. Included in this section are definitions of terms used in the previously mentioned conceptual model. Next, a discussion of studies involving the theoretical basis for the development, observation, and measurement of teacher job satisfaction and its components is presented, followed by a brief description of the most frequently used scales of job satisfaction. Studies which report

descriptive surveys, factor analyses, and quantitative relationships of the components of teacher job satisfaction are then discussed.

Criteria for Selection

A literature search of the ERIC and Psychological Abstracts data bases from 1970 to the present served as a foundation for this review. Published works in business, industry, and sociology were reviewed and included to give theoretical support to more recent empirical studies. The studies selected for inclusion in this review used teacher job satisfaction as the dependent variable. Although the majority of the studies selected for inclusion were quantitative research studies related to teacher satisfaction, several qualitative studies provided descriptive results. Research studies linked to Herzberg's two-factor theory were included to exemplify this theory of job satisfaction as used in educational research. Studies that dealt only with teacher morale, commitment, and other covariates of satisfaction as dependent variables were not included in this review nor were any studies that confused satisfaction with morale or commitment. Discussion papers that did not provide specific measurement results were also excluded.

Variables used in multiple studies which were found to have significant effects ($p<.05$) were tabulated under demographic, professional environment (primarily institutional), and professional development potential (primarily individual) categories. Variables used in single studies were described in text. Only two quantitative studies of job satisfaction in special education were found.

Definition of Teacher Job Satisfaction and Its Components

A review of the literature makes it apparent that researchers cannot agree on the influences of job satisfaction. This may be due to the ambiguity of the term. Blum and Naylor view job satisfaction as "...a general attitude which is the result of many specific attitudes in

three areas, namely, specific job factors, individual characteristics, and group relationships outside the job" (Pound, 1975). Lawler states it as "one measure of the quality of life in organizations" (Holdaway, 1978, p. 30). Argyris (cited in Holdaway, 1978) presented a "personality and organizational" view of job satisfaction by defining it as "the degree of congruence between an individual's aspiration and the organization's requirements for the work of that individual" p.31.

However, it is Locke's (1969) definition of job satisfaction "the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating one's job values" (p. 316) which appears to be one of the more widely accepted views on the subject. In contrast, job dissatisfaction is said to be "the unpleasurable emotional state resulting from the appraisal of one's job as frustrating or blocking the attainment of one's job values or as entailing disvalues" (Locke, 1969, p. 316). Therefore, "job satisfaction and dissatisfaction are a function of the perceived relationship between what one wants from one's job and what one perceives it as offering or entailing" (Locke, 1969, p. 316).

A review of teacher job satisfaction studies revealed that a large portion of the research was completed without a definition of job satisfaction being given. Some of the studies defined job satisfaction in terms of a score on a specific measurement scale (Chapman & Lowther, 1982; Lowther, Gill & Coppard, 1985). Two studies defined job satisfaction as commitment to their organization or "a willingness to remain within the current school organization despite inducement to leave" (Belasco & Alluto, 1972; Benson, 1983). Two other studies used the overall affective orientation that teachers have toward their work within the school organization as the definition of job satisfaction

(Miskel, Fevurly, & Stewart, 1979; Reyes, Madsen, & Taylor, 1989). The definition of terms for this study are contained in Appendix B.

A Conceptual Model Accounting for Teacher Satisfaction with the Career Components of Teaching

Consideration of the research literature concerned with the psychology, definition, and operational measurement of teacher job satisfaction and its possible influences suggests the following conceptual model (see Figure A-1) to describe teacher satisfaction in terms of the career components of teaching.

This model is based first upon the two-factor theory of Herzberg and others (1966) and includes satisfying and dissatisfying variables. In keeping with findings from descriptive surveys of teachers and the structure of typical satisfaction measurement scales, the model also includes professional environment components and professional development of individual career components. This model implies that a teacher first enters an established professional environment defined by the individual's career training and experience, characteristics of the institution in which he/she works, and the administrative climate of management of the institution.

Next, the teacher works in the professional environment for some period of time during which various satisfying and dissatisfying components of work are experienced. The model also implies that teachers show professional growth as they gain experience and therefore, develop a potential to advance in the profession (e.g., advanced degrees; input in school decisions), based upon both individual resources and institutional incentives. The interplay between the professional environment and the professional development potential experienced by a teacher may then result in an attitude toward work that can be measured as job satisfaction. This model is used throughout this

CAREER COMPONENTS OF TEACHING

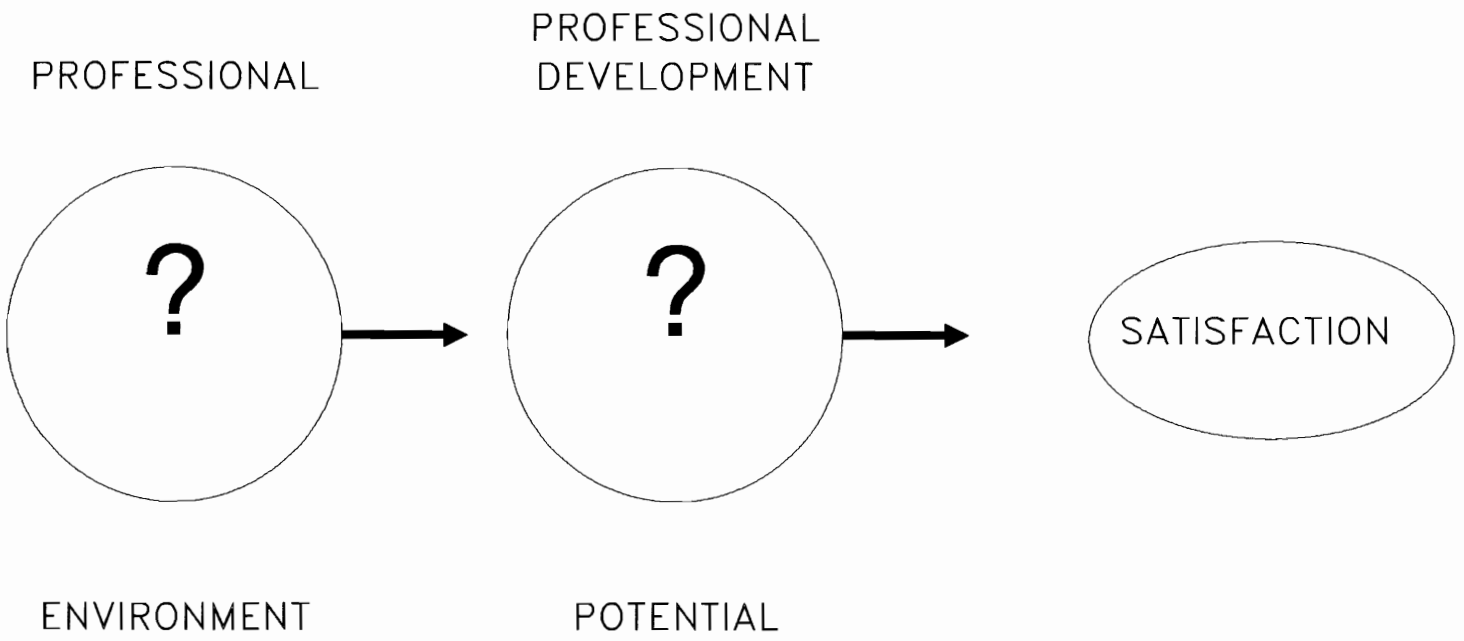

Figure A-1. Initial Conceptual Model of Teacher Satisfaction

review to provide a framework for discussing the psychology of satisfaction and for relating the results of diverse studies.

A Theoretical Basis for the Development, Observation, and Measurement of Teacher Job Satisfaction and Its Components

Research studies on the theoretical basis of teacher job satisfaction have revealed that the phenomenon of satisfaction does not occur solely as a result of institutional factors nor as a result of personal attributes (Jorde-Bloom, 1986; Moos, 1979). Instead, teacher job satisfaction seems to be primarily an individual behavioral response which emerges from the interaction of institutional environments and personal attributes of individuals within the environmental context of teaching.

Teaching is a work activity which differs from many other occupations. Although guided by institutional policies and constraints, the teaching profession permits a certain degree of autonomy and self-direction which allows the individual to strive for satisfaction in a variety of ways. This means that satisfaction in the teaching profession is probably the result of a complex interaction between individual attributes and various professional settings in the social environmental context of teaching. Figure A-2 illustrates one view of the interaction between institutional and individual attributes and their influences on satisfaction with teaching.

If satisfaction with teaching results from this complex interaction, then any theory attempting to explain how teachers derive satisfaction from their profession would have to consider individual psychology, group sociology, and the interaction between them within institutional environments. Four major theories have been developed that purport to explain how people derive satisfaction from jobs,

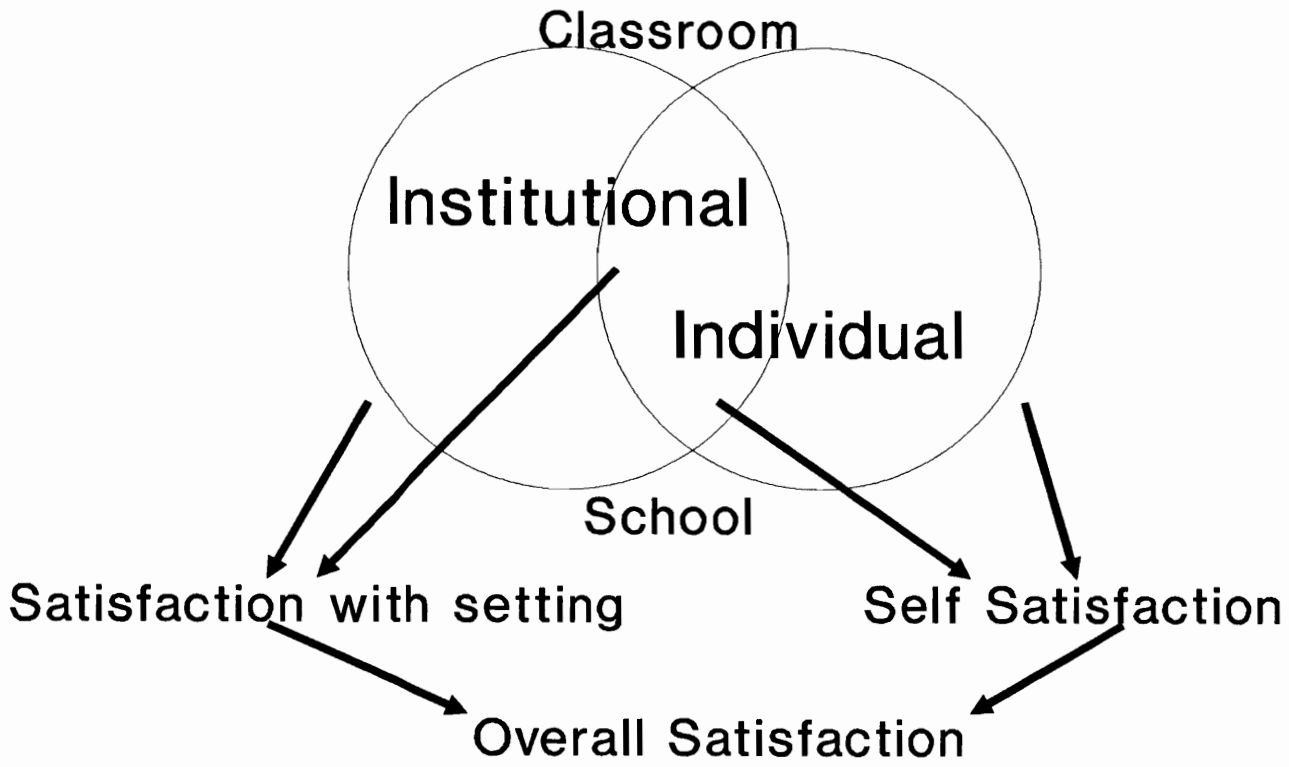

Figure A-2. Teaching as a Social Activity: Sources of Satisfaction

including teaching. These are: a) the need-fulfillment theory; b) the discrepancy theory; c) the equity theory; and d) the two-factor theory developed by Herzberg and others (Ashbaugh, 1982; Bullock, 1984; Dunham & Smith, 1979; Gruneberg, 1979; Herzberg, 1966; Moorhead & Griffin, 1989).

Four Major Theories of Satisfaction

The need-fulfillment approach measures the degree to which an individual's needs are being satisfied. Therefore, satisfaction results from a process in which needs are first perceived by a worker (teacher) and opportunities for fulfillment of these needs are identified. The worker (teacher) then acts on the desire for fulfillment and a degree of satisfaction results from the success or failure of this endeavor (Moorhead & Griffin, 1989). Job satisfaction in this theory is simply a linear function of individual attributes and does not provide a comprehensive framework for explaining how teachers are satisfied.

The discrepancy approach to job satisfaction measures the difference between conditions an individual desires and those an individual actually receives from the job (Ashbaugh, 1982). Most of these desires are analogous to needs, so this theory is an extension of the need fulfillment approach, which is limited to the perceptions and responses of individuals alone. This theory also seems too simple to account for satisfaction in the complex professional environment of teaching.

Equity theory describes job satisfaction as the individual's perceptions of the fairness of the treatment that is received at work in comparison to other workers. Satisfaction equity is measured as a ratio of individual worker effort over the benefit derived from the job compared to the equity of equivalent workers performing under the same conditions. (Ashbaugh, 1982; Bullock, 1984; Dunham & Smith, 1979;

Gruneberg, 1979; Moorhead & Griffin, 1989). This theory is clearly inadequate to account for teacher satisfaction since teachers with differing classroom compositions cannot logically be considered equivalent workers and certainly are not operating under equivalent conditions.

A general model evolving from the combination of these first three approaches might view job satisfaction as a linear construct on a single bipolar continuum (Hultaker, 1977). In the equity, discrepancy, and need-fulfillment theories, the amount of satisfaction perceived by a worker is dependent upon how much of a satisfying factor is present in the work environment and could be represented by a point on a continuum ranging from total dissatisfaction to total satisfaction. The absence of a satisfying factor may lead to job dissatisfaction, whereas an adequate or abundant amount of a satisfying factor may directly lead to increased job satisfaction (Hultaker, 1977).

The fourth approach used in studies of job satisfaction is the <u>two-factor</u> theory developed by Herzberg, Mauser, Peterson and Capwell in the late 1950's. The two-factor theory of job satisfaction views satisfaction and dissatisfaction as being on two separate continuums, rather than as opposite ends of the same linear continuum. Not only are the continuums separate, but the factors causing satisfaction and dissatisfaction are of differing categories (Ashbaugh, 1982; Bullock, 1984; Dunham & Smith, 1979; Gruneberg, 1979; Herzberg, 1968, 1966; Moorhead & Griffin, 1989). Herzberg (1966) refers to factors that lead to satisfaction as motivators and those that lead to dissatisfaction as hygiene factors. One of the problems with Herzberg's two-factor theory is the difficulty of identifying whether an independent variable affecting satisfaction is a satisfier or dissatisfier (Bellot & Dexter, 1990).

However, Herzberg's theory seems to come closest to accounting for the influences of complex teaching components on satisfaction, since it permits simultaneous linear relationships between both individual and institutional attributes. This theory views satisfaction as being comprised of at least two independent factors, and it also incorporates the concepts of growth and change in the components of work as individual workers mature over time and develop in their careers (Shreeve, et al., 1987). Herzberg's theory also implies that institutions will grow along with the individuals, but this is not clearly stated in the theory.

Within the school setting, those persons (administrators) who wish to improve teacher satisfaction could expect to contend with both the varying conditions of the work environment, as well as those of individual teachers. If teaching satisfaction results from a process similar to Herzberg's theory, school personnel concerned with improvement of teacher satisfaction would have to address the working conditions in the school environment and opportunities for individual change and growth.

However appealing Herzberg's two-factor theory may be for providing an explanation of job satisfaction for teachers and other types of workers, the theory still fails to address issues of equity or discrepancies between perceived and actualized needs. This theory, therefore, cannot serve as a sole comprehensive theoretical basis for explaining teacher satisfaction.

A Proposed Theory of Job Satisfaction

Contemplation of all the individual and institutional components involved in the needs-fulfillment, discrepancy, equity, and two-factor theories suggested that a single theory for teacher job satisfaction may be possible. Basically, what Herzberg has said is that there are

factors that lead to satisfaction and others that prevent dissatisfaction. Some of the items that Herzberg considers "hygiene factors" are factors that the average worker would consider equity issues. Salary, working conditions, company policy, and supervision practices are all factors that should be "fair" for everyone. Most workers would not be dissatisfied as long as their pay was commensurate with their peers, working conditions were similar, and policy and supervision practices were uniform for all workers.

Two other hygiene factors, relationships with supervisors and relationship with peers, fit into the need-fulfillment theory. Companionship and acceptance in the workplace, although not necessary for work efficiency, contribute to job satisfaction. Similarly, responsibility for some aspect of a job leads to a feeling of self-worth and, therefore, would be a factor in the need-fulfillment theory that leads to satisfaction.

The discrepancy theory implies that dissatisfaction occurs if there are differences between desired outcomes and actual outcomes. Therefore, it would appear that if workers are given the opportunity for achievement and recognition for endeavors, they would experience job satisfaction. Variety and challenge of the work itself may also help to increase satisfaction by reducing the discrepancy between what teachers want from their jobs and what they actually are required to do.

A merger of these four theories is possible by incorporating Herzberg's satisfiers and dissatisfiers into a multi-factor model which defines them, as appropriate, in terms of needs, discrepancy, and equity issues. In the theory represented by Figure A-3, needs form the basis for individual's perceptions of the factors that satisfy or dissatisfy them. Individuals enter the organizational environment where they compare their desired level of need with the provided level of need and

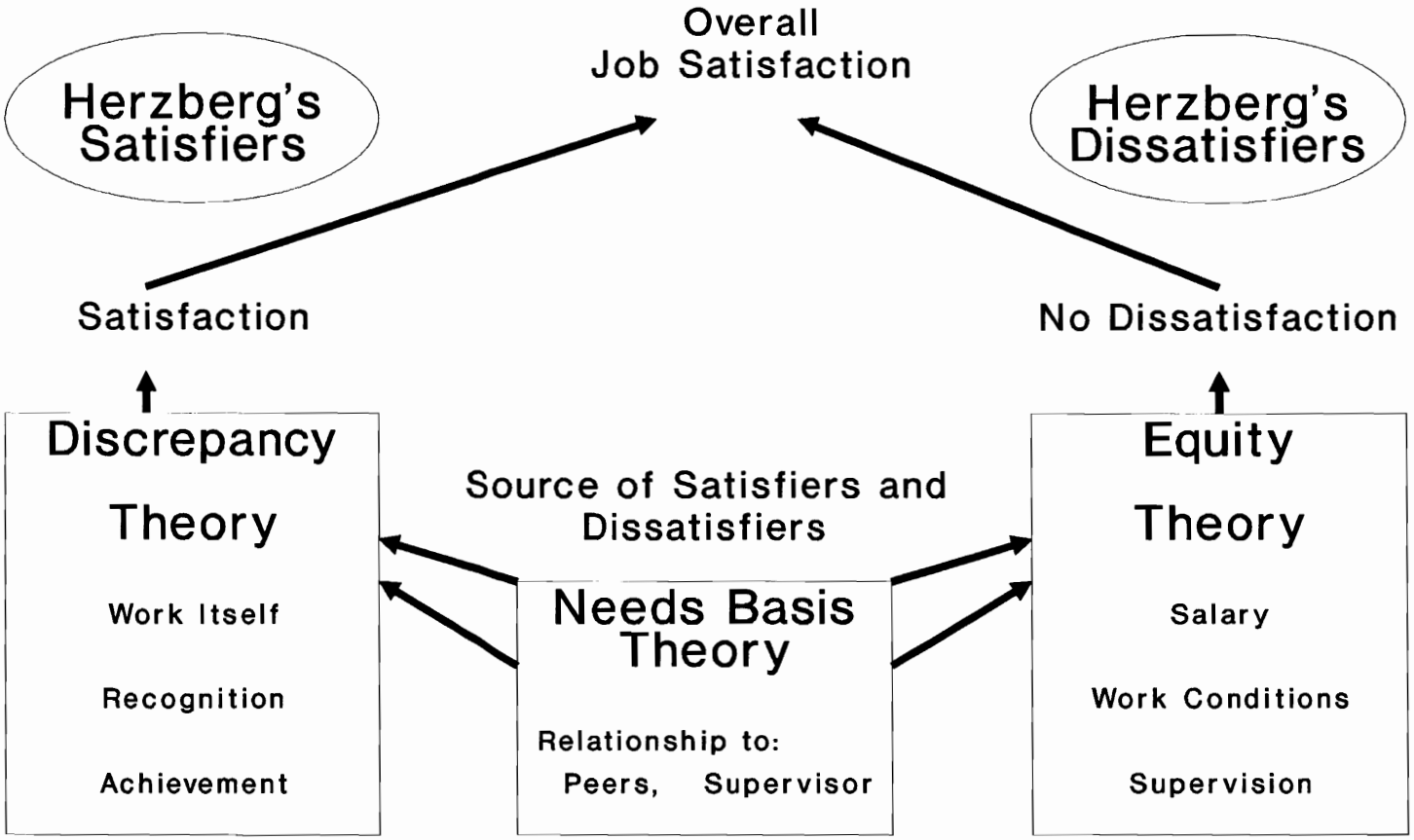

Figure A-3. A Psychological Theory of Teacher Job Satisfaction

form a discrepancy perception. Individuals may also compare their own needs fulfillment with other's fulfillment and form an equity perception. Depending on whether a particular factor is treated as a satisfier or dissatisfier by the individual, any of the factors can be accounted for in this general theory which resembles Herzberg's two-factor theory, but integrates competing theories as well.

This model may provide a theoretical basis for the development, observation, and measurement of teacher job satisfaction and its components. To test the efficacy of this model in explaining teacher job satisfaction, ways to accurately and reliably measure satisfaction, as well as the independent variables which lead to it, must be identified. A review of the published test and measurement literature was conducted to locate and describe the results of reliability and validity studies of job satisfaction measures. The results of this review follow.

Measurement of the Components of Teacher Job Satisfaction

The measurement of job satisfaction has been as controversial as the definition itself. There are two basic ways of determining a worker's satisfaction: global and facet measurement. Global measures sometimes include single items to evaluate overall job satisfaction and can be useful when comparing job satisfaction over time or across work sites. However, global measures give little information as to the factors associated with satisfaction or dissatisfaction and, therefore, are not very useful when trying to determine areas in need of policy change, staff development, or any other alteration (Scarpello & Campbell, 1983).

Facet measures target individual factors that lead to satisfaction and give more information as to the attitudes of individual workers on specific aspects of their jobs. However, facet measures do not always

include all of the factors that may influence satisfaction. Therefore, a worker responding to a facet questionnaire may not have the opportunity to respond accurately to satisfaction/dissatisfaction with all aspects of the job (Scarpello & Campbell, 1983).

Some researchers have used both types of measures in their studies of job satisfaction. However, studies have shown that overall satisfaction is not necessarily the sum of its parts. If several facets have been omitted from the study, the overall score may not accurately reflect the sum of the scores on the individual facets (Scarpello & Campbell, 1983). Complicating this picture is the type of instrumentation used to measure satisfaction.

Almost all studies of teacher job satisfaction use questionnaire instruments with Likert-type scales, presumably because they are easy to administer and score. Some researchers, however, feel that a semi-structured interview is potentially more valid than a questionnaire because of the respondent's ability to state attitudes toward facets not considered on a questionnaire. Scarpello and Campbell (1983) believe it is possible that responses to semi-structured interviews may be more generalizable to all sectors of an organization than questionnaire scales.

In the studies included in this review, 17 different types of measures of teacher job satisfaction were used. Of the twenty-two quantitative studies included in the review, nine used researcher designed questionnaires. Thirteen of the studies used published or unpublished scales developed by other researchers. The following critiques include a brief overview of the design, intent, validity, and reliability of the six major job satisfaction measurement scales reviewed and published in educational and sociological measurement literature.

Review of Published Job Satisfaction Scales

The Index of Organizational Reactions (IOR), developed by Sears, Roebuck, and Company (1962), targets eight facets of job satisfaction. It requires moderate language skills and approximately 15 minutes to administer. Normative data, reliability, and validity are based on data collected on Sears & Roebuck employees. The IOR has been used as the core for twelve other questionnaires. These questionnaires "have been used in several thousand locations among distinctly different work functions within a single large organization" (Dunham & Smith, 1978, p. 156).

Factor analyses have indicated that the facets of satisfaction measured by the IOR can be clearly distinguished from one another. In addition, several items of each facet show evidence of measuring the same construct. "The IOR scales were shown to produce virtually identical factorial structure across five different samples of workers and across time, reflecting upon the flexibility of the instrument for use with a wide range of persons from a wide range of jobs and a variety of situations" (Dunham & Smith, 1978, p.166). The instrument has also been determined to be "short, easy to administer or self-administer, allows group administration of large size, and requires low expenditure of time and money due to its simplicity, ease of scoring, etc." (Dunham & Smith, 1978).

Porter's Need Satisfaction Questionnaire (PNSQ) (Porter, 1961; Porter & Lawler, 1968) is based on expectancy theory and, therefore, measures job satisfaction in two stages: a) how much of an opportunity there is to satisfy a need, and b) how much of an opportunity there should be (Imparato, 1974). The instrument measures satisfaction in five areas, using 7-point scales. Some of the scales target the respondent's level of satisfaction; others target how much of a certain

characteristic he/she feels should be present in the workplace. There is some debate as to whether the respondent actually reports how much of a characteristic **should** be present or whether it is more accurately, the amount of the characteristic **conceivable** in the workplace. The amount of satisfaction is then determined by analyzing the discrepancy between rewards expected and rewards received. Scores are summed for each scale and also across scales to achieve an overall score (Imparato, 1974).

An area of controversy regarding the PNSQ is the notion that a discrepancy at the high end of the scale is equal to a discrepancy at the low end. A comparison study with the Job Descriptive Index (JDI) completed by Imparato indicated only a moderate correlation between the two instruments even though both reveal satisfaction scores for each scale. It was recommended that a weighting system be developed for the PNSQ or that it be used in conjunction with other instruments (Imparato, 1974).

The Job Descriptive Index (JDI) (Smith, Kendall, & Hulin, 1969) is a 72-item modified adjective checklist which targets the following factors: quality of work, co-workers, supervision, promotion, and pay. It requires only fifteen minutes for its administration and is useful with low literacy employees (Dunham & Smith, 1979). The JDI is "based on extensive empirical research, provides reliable scores, has evidence of construct validity, and is extensively normed" (Buros, 1978). The five JDI scales are independent and are inappropriate for developing an additive score. Evaluations of construct validity are based on "factor analyses of individual items, yielding factors confirming the five scales" (Buros, 1978, p. 1052). Demographic norms are provided in the manual for the JDI (Buros, 1978).

The Minnesota Satisfaction Questionnaire (MSQ) (Weiss, Dawiss, England, & Lofquist, 1967) is a 100-item instrument measuring 20 facets of job satisfaction. It takes 20 to 40 minutes to administer and requires a moderate level of literacy. Analyses have revealed good validity on most, but not all twenty dimensions. Reliability has been determined adequate on all dimensions (Buros, 1978; Dunham & Smith, 1979). An overall measure is obtainable by summing scores of the item on each scale that has the highest part-whole correlation. Neither the psychometric history nor the theoretical foundations of this scale are given in the manual. Occupational norms are provided (Buros, 1978).

When comparing the MSQ to the JDI, the MSQ has more scales, but the scales of the JDI are more independent. Construct validity of the MSQ is based on confirmation of predictions from theory whereas the JDI validity is based on factor analyses (Buros, 1978).

The Faces Scale (Kunin, 1955; Dunham & Herman, 1975) consists of sets of faces indicating various expressions ranging from extreme dissatisfaction to extreme satisfaction. The sets exhibit both male and female faces with matching expressions. Originally, the instrument was designed to measure overall satisfaction. However, it has been determined that the faces can be used to measure eight facets of satisfaction, if the wording of the instructions is carefully altered. This instrument takes little time to administer and can be used with respondents having very low language skills. Great flexibility is possible due to the fact that the characteristics of the response scale have been validated for use with any satisfaction facet. The limited reliability information available supports the stability of the scale. No normative data is given (Dunham & Smith, 1978).

The Purdue Teacher Opinionaire (PTO) (Bentley & Rempel, 1961; revised 1979, 1980) was designed to measure teacher morale. However, because of the controversy over the definitions of morale and job satisfaction, many researchers have used this instrument in studies of job satisfaction. The instrument is a 100-item questionnaire targeting 10 facets of morale (Bentley & Rempel, 1980; Buros, 1972).

Test-retest reliability for the PTO is reported by the authors. Bentley and Rempel have stated that the inter-factor correlations "in most instances, appear to be sufficiently low to make factor scores meaningful in assessing the status of morale for an individual or for a group" (Nelson, 1983, p. 94). Weak evidence of validity is available for the PTO. The PTO manual does not clarify if the reliability and validity information is for the original version of the test or for the most current revision (Nelson, 1983). Although the validity and reliability is questionable (Buros, 1972), the PTO is used in many educational studies due to the unavailability of other instruments. It was noted during this review of the literature, that many studies in education use an adapted version of the PTO as a data collection instrument.

Of these six scales with validated and reported characteristics, four were used in the quantitative studies reported below. These are the Job Description Index, Minnesota Satisfaction Questionnaire, Faces Index, and the satisfaction component of the Purdue Teacher Opinionaire.

Reliability and Validity of Satisfaction Scales

Are Teacher Job Satisfaction Questionnaires Reliable?

Scales in the quantitative studies included in this review have reported reliabilities ranging from .67 to .93 for researcher-designed and published scales. Most of these are inter-item consistency reliability estimates and a few are reported as test-retest reliability

estimates. It appears that teacher job satisfaction levels can be consistently estimated using measurement scales similar to those reported in the literature.

Are Teacher Job Satisfaction Questionnaires Valid?

Validity estimates reported in the literature consist primarily of construct validity determined from factor analysis of survey results and a few criterion-related validity estimates derived from correlating satisfaction measurements with morale and commitment scales. Satisfaction scales are moderately correlated with morale and commitment scales suggesting that either a) satisfaction measurements are validated by their relationship with psychological constructs which are also part of some larger construct of worker attitudes or b) the construct being measured by satisfaction scales is very similar to that being measured by morale and commitment scales.

Measurement Summary

Can we measure teacher job satisfaction?

There are many types of scales being used to measure teacher job satisfaction, some published and many designed by researchers for use in a single study. Although most of the scales are fairly reliable in measuring whatever it is they measure, there has been relatively little validation of the scales in use. Since satisfaction is difficult to measure or even define, it appears that much additional work needs to be done in development of measurement scales for this construct.

In addition to these limitations, most of the measurement scales used in the study of teacher job satisfaction have been applied in the very narrow context of cross-sectional and geographically limited surveys. Improved validation and enhanced reliability of teacher job satisfaction scales might be gained by taking the best items from a number of published and researcher-designed questionnaires and combining

them into a single, simple satisfaction scale and then, applying this scale to repeated measurements of national or regional cross-sectional samples.

Just such a scale has recently been developed by the National Center for Educational Statistics in conjunction with the Schools and Staffing Survey of 1988 (US Department of Education, 1991). The job satisfaction component consists of 20 short items apparently drawn from one or more of the most reliable and valid published satisfaction scales. Although reliability and validity studies have yet to be completed, the availability of results from a longitudinal nationwide study of teaching satisfaction would seem to offer the best hope for improving these measurement characteristics.

Four studies using the SASS data base have been reported (Bobbitt, 1991; Boe, 1990a, 1990b, 1990c). Response rates from the SASS are very high (>90%) and researchers have found the longitudinal aspects of the survey valuable in developing better frameworks for the study of teacher retention and attrition (Boe, 1990c). It remains for future researchers to use the SASS in development of an improved model of teacher job satisfaction.

Using either the SASS or the best items from currently published scales reported in the literature, it seems possible for researchers to reliably and validly measure levels of teacher job satisfaction. The items included in these various measurement scales suggests that it is also possible to measure the five career components of teaching included in the proposed model of teacher satisfaction. These five components (individual characteristics, social relationships, characteristics of institutions, administrative climate, and career opportunities) appear to be assessed in some manner by the SASS and by most of the researcher-designed questionnaires. The following review of descriptive and factor

analysis studies aided in the identification and definition of the components of teaching included in the proposed model of teacher satisfaction.

Results of Descriptive and Factor Analysis Studies

The results of a number of descriptive studies of teacher satisfaction are summarized in Table A-1. These studies investigated various facets of the teaching profession and included both institutional factors and individual factors. These various facets of teaching are hereinafter termed career components of teaching. Career components which were declared satisfying or dissatisfying by 50% or more of the respondents are included. For studies in which no components were declared satisfying or dissatisfying by 50% of respondents, the components receiving a simple majority of response were included.

Most of the satisfying and dissatisfying components of teaching evidenced in descriptive studies are corroborated by ten factor analysis studies. Table A-2 summarizes the underlying factors of teaching career components associated with teacher job satisfaction. Factors are listed for nine of the studies along with the proportion of variance in total satisfaction scores accounted for by each factor.

Table A-1
Results of Descriptive Studies of the Career Components of Teaching

Study	Satisfiers	Dissatisfiers
Bobbitt (1991)	retirement (22.3%) pregnancy (21.1%) (reasons for leaving) higher salaries & better benefits (46.1-64.7%)	inadequate support from administration (22.2%, 26.4%)
Seery (1990)	excellent quality of support (52-68%) personal decisions for change (27%) (reasons for leaving)	lack of experience (39%)
Lombardi & Donaldson (1987)	belief that individual efforts make a difference (94%) teaching in special education (88%) quality of teacher training (59%)	more in-class experience during training (72%) special educators receive more than their share of discipline problems (64%) extensive recordkeeping (64%)
Marlow & Hierlmeir (1987)	principals support creativity (69%)	negative student attitudes and discipline problems (51%) emotional aspects: boredom routine, stress, frustration (50%) lack of expected professional prestige (58%)
Chissom et al. (1986)	faculty cooperation (24.71%)	working conditions (27.18%)
Engelking (1986)	recognition (53%)	relations with students/parents (28%)
Bina (1982)	friendly and cooperative co-workers (52%)	salary and fringe benefits (39%)
Holdaway (1978)	working with students (70.2%)	attitudes of society and parents (30.8%)

Table A-2
Results of Factor Analysis Studies of the Career Components of Teaching

	Pezzi 1991	Pelsma 1989	Lester 1987	Wodlinger 1986	Galloway 1985	Litt 1985	Wangberg 1985	Holdaway 1978
Factors	Proportion of Total Variance Explained							
Satisfiers								
supervision/ administration	33%	8%	18.7%	NR	NR			3.7%
workload/ environment	8%	8.7%	5.8%	NR			31.6%	3.1%
coworkers/ internal support	7%	8.3%	7.4%		NR			5.4%
evaluation		8.5%						
time/ interruptions		5.5% 8.0%						
students/ attitudes		6.7%			NR			5.7%
extrinsic rewards/ salary/ security		5.5% 8.3%	3.9% 2.2%					2.7%
responsibility			3.6%		NR			
work itself			3.0%					4.2%
advancement		7.3%	2.5%				16.8%	
recognition			2.1%		NR			2.5%
Dissatisfiers								
general dissatisfaction/ negative well-being/intent to leave						71% 8% .04%		

NR=not reported

One study (Abelson, 1986) did not report percentage of variance accounted for by seven factors identified in a questionnaire survey of special education teachers. Abelson named these factors behavior management skills, administrative relationship and feedback, positive feelings, working conditions, leadership opportunities, authority and control, and collegiality. These roughly corroborate the factors identified in research discussed above. Abelson did find three of the seven factors able to differentiate the satisfaction of special education teachers of the mentally retarded, learning disabled, emotionally disturbed, and severely handicapped students.

Overall, both descriptive surveys and factor analysis studies suggest that the primary career components of teaching involve individual characteristics (e.g., health, retirement), social relationships with students and other school personnel (e.g., cooperation, attitudes), characteristics of institutions (e.g., salary, working conditions), administrative climate (e.g., quality of support, evaluation), and career opportunities (e.g., advancement, recognition). Although individual studies use many different labels to describe these components, this review of literature suggests that these five factors account for an average of 56% (minimum of 47%, maximum of 79%) of the variance in levels of satisfaction with teaching.

Assuming that these five factors and associated variables are the career components most strongly associated with teaching satisfaction, the next important step in development of a research model explaining teacher satisfaction is the accurate and reliable measurement of satisfaction and its components.

Results of Quantitative Studies

A continued study of the research literature, focused on quantitative results from surveys of teacher satisfaction, provided evidence supporting the conceptual model presented in this review. These studies are discussed below within four categories. These are: 1) dependent variables; 2) demographic variables; 3) professional environment variables; and 4) professional development variables. Within each category, study results are discussd under three analytical headings. These are: 1) group comparison findings; 2) association findings; 3) linear relationship findings.

Tables A-3 through A-5 summarize twenty-two quantitative studies with the measurement scales used (key follows as Table A-6), and reliabilities and sample sizes reported. For each category of variables, a table describing the variables analyzed, the type of analysis used, the reported statistics and the primary author of each study is presented. Summary comments for each category of variables follow the tables which reflect the evidence supporting the conceptual model above.

About one third (8/22) of the quantitative studies reviewed used simple group comparisons to test for differences in satisfaction resulting from the actions of individual variables on teachers, other professionals, general and special educators, administrators, and other group classifications (see Table A-3). Only two of the six group comparison studies reported measurement reliabilities and one study provided evidence of measurement validity. Sample sizes for the studies varied from a low of 37 to a high of 900. Most of the studies seem to provide enough sample size for adequate statistical power, but five studies (N<300) have relatively small samples for the number of variables (K=>10) analyzed.

Table A-3
Group Comparisons: T-tests, ANOVA, MANOVA, Discriminant Analysis

STUDY #	PRIMARY AUTHOR, DATE	SCALE, FACTORS*	RELIABILITY (alpha)	SAMPLE SIZE
1	Frataccia (1982)	RDQ	Not reported	N= 37
2	Wodlinger (1986)	RDQ	Not reported	N=143
3	Clarke (1985)	JDI	Not reported	N=166
4	Kaufman (1984)	RDQ	r=.87-.91	N=198
5	Belasco (1972)	TSS	Not reported	N=255
6	Reyes (1989)	OCQ FMS MSQ	r=.82-.93; .89 .90 construct validity (FMS) with employee commitment r=.68	N=500
7	Lowther (1984)	reanalysis of Chapman, 1982	Not reported	N=732
8	Kreis (1983)	JSI; NSWS(D)	Not reported	N=900

*Scale key follows as Table A-6

The majority of quantitative studies of teacher job satisfaction (10/22) focused on correlational analysis of dependent and independent variables (see Table A-4). Surveys used in these studies had high reported reliabilities ranging from .67-.94. None of the studies reported validity of the instruments used. This seems particularly limiting for the four studies which used researcher designed questionnaires. Sample sizes vary from a low of 151 to a high of 1865 and most studies seem to provide enough sample for adequate statistical power. However, seven of the studies (N<300) had small sample sizes for the number of variables (K=>10) tested.

Table A-4
Associations: Correlation; Chi-square

STUDY #	PRIMARY AUTHOR, DATE	SCALE, FACTORS*	RELIABILITY	SAMPLE SIZE
9	Miskel (1979)	RDQ	r=.71	N= 114
10	Reyes (1986, 1990)	MSQ OCQ TWOQ	r=.90 .90 .89	N= 133
11	Lipham (1981)	JSS	r=.89	N= 151
12	Wangberg, (1982)	RDQ	Not reported	N= 255; female
13	Benson (1983)	TSS	Not reported	N= 255
14	Litt (1985)	JDS	r=.85	N= 291
15	Galloway (1985)	STQ	Not reported	N= 292
16	Seery (1990)	RDQ WESS subset	r=.70 .77	N= 669
17	Billingsley (1992)	RDQ	r=.76-.94	N= 956
18	Knoop (1987)	Hoppock; Faces	r=.67 .73	N=1865

*Scale key follows as Table A-6

Only four quantitative studies of teacher job satisfaction used multiple regression or LISREL analytical methods (see Table A-5). Three of these four used researcher designed questionnaires. None of the studies reported validity information and only one reported a high internal consistency reliability of .87. Sample sizes in these studies varied from 57 to 542 and seem rather low for the number of items analyzed and the number of variables included in models being tested.

Table A-5
Evidence of Linear relationships: Multiple regression, LISREL

STUDY #	PRIMARY AUTHOR, DATE	SCALE, FACTORS*	RELIABILITY	SAMPLE SIZE
19	Lowther (1985)	SWC QES		N= 57; 63; 62
20	Maehr (1990)	RDQ		N=101
21	Culver (1990)	RDQ	r=.83; .87	N=512
22	Chapman (1982)	RDQ		N=542

*Scale key follows as Table A-6

Table A-6
Key for Scale Identification

Scale Abbreviations	Scale Titles	Authors (Date)
Faces	Faces Scale	Kunin (1955)
FMS	Faculty Morale survey	not given
Hoppock	Hoppock' 4-item Measure	Hoppock (1935)
JDI	Job Description Index	Smith, Kendall, & Hulin (1969)
JDS	Job Diagnostic Survey	Hackman & Oldman (1974)
JSI	Job Satisfaction Index	Brayfield & Roth (1951)
JSS	Job Satisfaction Survey	Speed (1979)
MSQ	Minnesota Satisfaction Questionnaire	Weiss, Dawiss, England, & Lowfquist (1967)
NSWS	Needs Satisfaction in Work Survey (D)	Schaffer (1953)
OCQ	Organizational Commitment Questionnaire	Mowday & Steers (1979)
QES	Quality of Employment Survey	University of Michigan (1973, 1977)
RDQ	researcher designed questionnaires	
STQ	Satisfaction with Teaching Questionnaire	Holdaway (1978); modified by Ainley (1981); Galloway et al. (1982)
SWC	Survey of Working Conditions	University of Michigan (1969)
TSS	Teacher Satisfaction Scale	Belasco & Alutto (1972)
TWOQ	Teacher Work Orientation Questionnaire	not given
WESS	Work Environment Satisfaction Survey	adapted from JDS

Dependent Variables

Most of the quantitative studies included in this review have used "overall job satisfaction" as the single dependent variable while others have included job "commitment" as an additional dependent variable. Both dependent variables are included in Table A-7, but emphasis in this

review is placed upon overall satisfaction with teaching so commitment will not be discussed after this section. Table A-7 presents the name of dependent variables, the major findings of the studies, the primary statistically measured results, author names, dates of publication and analytical methods.

The group comparison findings in Table A-7 suggest that overall satisfaction can distinguish between teachers and persons in other occupations and that non-teachers have more general satisfaction than teachers. No group comparison studies of other types of satisfaction have been found. Associational studies indicate that overall satisfaction with teaching also has significant and generally moderate correlations with other types of satisfaction (e.g., satisfaction with supervisors; satisfaction with co-workers) and with satisfaction among different groups of teachers (special educators, general educators, elementary, secondary), as well as with other dependent variables such as level of commitment to teaching. No studies drawing linear relationships between various satisfaction variables were found. However, one study (Culver, Wolfle, & Cross, 1990) presented evidence of a linear relationship between overall satisfaction and commitment to the teaching profession.

A number of studies revealed dependent variable results related to teaching satisfaction that were not found in other studies. Reyes, Madsen, and Taylor (1989) presented evidence of a significant, but slight correlation of job satisfaction with morale ($r=.17$, $p<.05$). A study by Miskel and colleagues (1979) revealed a moderate correlation ($r=.54$, $p<.05$) between job satisfaction and organizational effectiveness, whereas a study by Benson (1983) indicated a slight correlation of job satisfaction to the type of bureaucracy present in an organization ($r=.28$). A study of desired and actual levels of

Table A-7
Synthesis of Study Findings of Dependent Variables Related to Levels of Satisfaction with Career Components of Teaching

Dependent Variable	Finding	Effect	Study *Method*
Specific Components of Satisfaction			
1. overall	One study revealed that non-teachers have more general satisfaction than teachers.	F=33.07	Lowther (1984) *ANOVA*
	Both elementary and secondary teachers are moderately more satisfied with teaching as general satisfaction increases.	r= .29; r= .34	Knoop (1987) *correlation*
2. with supervision	Both elementary and secondary teachers are moderately more satisfied with teaching as general satisfaction increases.	r= .33 r= .31	Knoop (1987) *correlation*
3. with co-workers	Both elementary and secondary teachers are slightly more satisfied with teaching as satisfaction with co-workers increases.	r= .12 r= .15	Knoop (1987) *correlation*
Level of commitment to teaching (correlate of satisfaction)			
4. to profession	Teachers are more committed to their profession than non-teachers.	F=64.76	Lowther (1984) *ANOVA*
	Both elementary and secondary, black and white teachers are moderately more committed to the profession as level of satisfaction increases.	r= .41 r= .57	Knoop (1987) *correlation*
		r= .47 r= .47	Culver (1990) *LISREL*

Table A-7 (cont.)

5. to organization	Teachers with greater satisfaction and higher levels of morale are more committed to the profession. Both special and general education teachers are more committed to organizations as level of satisfaction increases.	t= 4.47	Kaufman (1984) *t-test*
		r= .14	Reyes (1989) *correlation*
		r= .16	
		sped	Billingsley (1992) *correlation*
		r= .53	
		r= .54	
		r= .38	
		gened	
		r= .55	
		r= .38	
		r= .29	
		NT	Maehr (1990) *multiple regression*
6. only to individual goals	Higher satisfaction levels are associated with fewer absences from work.	sign.	Kreis (1983) *t-test*
		r= .31	Litt (1985) *correlation*
7. lowest level (intent to leave)	Results of three studies were ambiguous. One revealed non-significant findings, while two studies found that higher levels of satisfaction are associated with staying in teaching.	NS	Kaufman (1984)
		r= .39	Litt (1985) *correlation*
		r= .32	Billingsley (1992) *correlation*

involvement in organizational decision-making and job satisfaction revealed a slight to moderate correlation between increasing involvement and higher satisfaction ($r=.21-.58$; $p<.001$) (Lipham, Dunstan, & Rankin, 1981). The same study showed a moderate correlation between ratings of principal leadership and job satisfaction ($r=.16-.28$). A study by Litt and Turk (1985) indicated that less satisfaction results in more negative well-being ($r=-.33$, $p<001$).

In summary, this review of dependent variables suggests that overall satisfaction is a common and reliably measurable variable which is significantly correlated with other important teacher attitudes such as morale, commitment, and perceptions of organizational effectiveness. It is for this reason that it was selected as the terminal dependent variable of the conceptual model previously presented. The effects that independent variables have on overall job satisfaction will be explored in more detail in the following sections.

Demographic Variables

The effects of demographic variables (age, gender, marital status, white/nonwhite, urban/rural) on teacher job satisfaction are shown in Table A-8. The effects of most demographic variables in many studies of teacher job satisfaction are either nonsignificant or very small. Therefore, the demographic variables listed in Table A-8 are not considered in the conceptual model of this study.

Although Table A-8 shows that teacher age has some slight effect on teacher job satisfaction, it will not be included in the proposed model because of its known correlation with teaching experience. Teaching experience is an individual characteristic that would seem to be more logically connected with teacher job satisfaction since inexperienced teachers tend to be satisfied because of the newness of the teaching environment while very experienced teachers tend to be

TABLE A-8
Effects of Demographic Variables on Levels of Satisfaction with Career Components of Teaching

Independent variable	Finding	Effect size	Study (Date) *Method*
1. teacher age	There is a slight association of increasing age with increased levels of job satisfaction.	sign.	Clarke (1985) *ANOVA* Reyes (1989) *MANOVA*
		F=10.54	Belasco (1972) *ANOVA*
		F=10.15	Lowther (1984) *ANOVA*
		r= .27	Reyes (1986, 1990) *correlation*
		ß= -.15 ß= -.02	Culver (1990) *LISREL*
		NS	Benson (1983) Kreis (1983) Billingsley (1992) Knoop (1987)
2. marital status	No studies revealed a relationship between marital status and job satisfaction.	NS	Kaufman (1984) Kreis (1983) Knoop (1987)

Table A-8
(continued)

3. gender	There is a slight to non-significant effect of gender on job satisfaction.	NS	Kaufman (1984) Reyes (1990, 1989, 1986) Lowther (1984) Chapman (1982)
		F= 9.94	Belasco (1972) *ANOVA*
		r= .11 (elem) NS (sec)	Knoop (1987) *correlation*
		f>m	Kreis (1983) *t-test*
		ß= .09 ß= -.10	Culver (1990) *LISREL*
4. white/non-white	There in no relationship between white/nonwhite and job satisfaction.	NS	Billingsley (1992) Culver (1990)
5. urban/rural	There is small to insignificant differences between urban and rural teachers' job satisfaction.	F= 5.78 to 16.05	Lipham (1981) *ANOVA*
		NS	Benson (1983)
		NS (elem) r= .05 (sec)	Knoop (1987) *correlation*

satisfied as they approach retirement (Reyes, 1990, 1986). Moreover, teacher experience has been shown to be highly correlated with satisfaction. Teacher job experience has been included in the conceptual model of this review as an individual level characteristic of the professional environment, but not as a demographic variable descriptive of an entire population of teachers. Since teacher age is a strong correlate of experience, it has been omitted from the conceptual model.

Professional Environment Components

Administrative Climate/General and Leadership Variables.

The general administrative climate of schools discussed in teacher satisfaction studies is characterized by several types of variables which have slight to strong effects on teacher satisfaction (Table A-9). General descriptors of the overall climate of the school seem to be slightly correlated with increasing satisfaction as these variables reflect a more positive climate. General descriptors of climate that suggest teachers have a clearly defined role in decision-making are moderately correlated with increasing satisfaction as teachers are more involved in decisions. Specific descriptors of working conditions are the most strongly correlated variables with teacher satisfaction. Generally, as work conditions improve for teachers, satisfaction increases.

The leadership portion of the administrative climate of schools component is characterized largely by the roles of teachers and principals and the quality of leadership. Teacher satisfaction does not seem to be affected much by the task orientation of leaders or by how closely administrators supervise teachers. Teacher satisfaction is moderately associated with the interest principals show in their career development and the quality of leadership.

Table A-9
Effects of Administrative Climate Variables on Levels of Satisfaction with Career Components of Teaching

Independent Variable	Findings	Effect Size	Study (Date) *Method*
Climate (general)			
6. salary	Higher salary levels are moderately associated with higher levels of satisfaction.	t=10.8	Frataccia (1982) *t-test*
		F= 5.69	Lowther (1984) *ANOVA*
		sign.	Kreis (1983) *t-test*
		r= .65	Wangberg (1982) *corr.*
		r= .14	Galloway (1985) *corr.*
		NS	Knoop (1987) *correlation*
7. working conditions	Higher positive ratings of working conditions are strongly associated with higher levels of job satisfaction.	t=10.3	Frataccia (1982) *t-test*
		r= .71	Wangberg (1982) *corr.*
		r= .74	Litt (1985) *correlation*
8. overall school administrative policies	Positive ratings of overall policies are slightly associated with higher levels of job satisfaction.	t= 5.8	Frataccia (1982) *t-test*
		t= 3.9 NS	Wodlinger (1986) *t-test*
9. autonomy	Higher levels of autonomy are slightly associated with higher levels of satisfaction.	r= .18	Miskel (1989) *correlation*
		r= .31 r= .20	Galloway (1985) *corr.*
		r= .26	Knoop (1987) *correlation*

Table A-9
(continued)

10. role ambiguity	Higher levels of ambiguity are moderately associated with lower levels of satisfaction.	r= -.43	Litt (1985) *correlation*
		r= -.47 r= -.48	Billingsley (1992) *corr.*
		r= -.22 r= -.20	Knoop (1987) correlation
11. low involvement	Higher levels of teacher involvement in administration are moderately associated with higher levels of job satisfaction.	r= .34 r= .39	Billingsley (1992) *correlation*
		r= .32 r= .42	Knoop (1987) *correlation*
12. school organization	Higher levels of school organization ratings are slightly associated with higher levels of satisfaction.	r= .43	Litt (1985) *correlation*
		r= .12 r= .22	Knoop (1987) *correlation*
13. involvement in making curricular decisions	Higher levels of involvement in curricular decisions are slightly associated with higher levels of satisfaction.	t= 4.32 NS	Wodlinger (1986) *t-test*
		t= -.25	Miskel (1979) *correlation*
14. participation in decision-making	Higher levels of participation in decision-making are moderately associated with higher levels of satisfaction.	F= 3.88	Belasco (1972) *ANOVA*
		F=35.54	Lowther (1984) *ANOVA*
		F=11.88 F=17.32	Lipham (1981) *ANOVA*
		r= .44	Litt (1985) *correlation*
		r= .15	Galloway (1985) *corr.*
		r= .47 r= .46	Knoop (1987) *correlation*

Table A-9
(continued)

15. interpersonal relations/ contact with other adults	Higher levels of contact with other adults are slightly associated with higher levels of satisfaction.	t= 3.57	Frataccia (1982) *t-test*
		r= .59	Wangberg (1982) *corr.*
		r= .25	Litt (1985) *correlation*
		r= .10 r= .13	Knoop (1987) *correlation*
16. flexible hours	Greater flexibility of working hours is moderately associated with higher levels of satisfaction.	r= .65	Wangberg (1982) *corr.*
		r= .29	Galloway (1985) *corr.*
Climate (leadership)			
17. principal's interest in teacher development	Higher levels of principal interest in teacher development are moderately associated with higher levels of satisfaction.	r= .53	Litt (1985) *correlation*
		r= .29 r= .23	Knoop (1987) *correlation*
18. task orientation/ goal emphasis	There is a slight to non-significant association between leader task orientation and satisfaction.	NS	Lipham (1981) *ANOVA* Maehr (1990) *multiple regression*
		r= .20 r= .17	Knoop (1987) *correlation*
19. closeness of supervision	Studies indicate contradictory results regarding closeness of supervision and its effect on job satisfaction.	NS; NS; NS F= 3.31	Belasco (1972) *ANOVA*
		r= .45 r= .35	Knoop (1987) *correlation*
20. principal's leadership	Higher levels of principal leadership are moderately associated with higher levels of satisfaction.	r= .47	Miskel (1979) *correlation*
		r= .46 r= .57	Billingsley (1992) *corr.*

A number of studies revealed unique independent variable relationships of administrative climate variables with teacher satisfaction. Litt and Turk (1985) found a negative correlation between evaluation by supervisors and teacher satisfaction ($r=-.61$; $p<.001$). Galloway, Boswell, Panckhurst, Boswell, & Green (1985) found that the use of "better" methods of evaluation was slightly correlated ($r=.05$) with teacher satisfaction. Litt and Turk also found a moderate positive correlation between job orientation ($r=.52$; $p<.001$) and communication with the community ($r=.39$; $p<.001$). The same study found a moderate correlation between sensitivity of principals ($r=.58$; $p<.001$), their concern for teachers' problems ($r=.55$; $p<.001$) and teacher satisfaction.

Miskel and colleagues (1979) found slight positive correlations between staff and student ratings of climate and teacher satisfaction ($r=.32$; $.22$). Miskel and others (1979) also found a moderate correlation between standardized school rules and teacher satisfaction ($r=.47$), but no relationship between specific rules regarding lesson plans and teacher study centers and teacher satisfaction. This study also found a slight negative correlation between hierarchical decision-making and teacher satisfaction ($r=-.33$, $-.28$), but no relationship between the amount of professional latitude given to teachers by principals. The same study revealed no relationship between classroom decision-making and teacher satisfaction. Miskel also found a slight positive relationship between the amount of experience principals have and teacher satisfaction ($r=.23$). In addition, as teachers had more leadership responsibilities, they tended to be more satisfied ($r=.31$).

Belasco and Alluto (1972) found significant differences in the personal feelings and satisfaction of teachers who had varying levels of involvement in decision-making at their schools. In particular, less involved teachers felt more tense and held stronger views of strikes and

unions than more involved teachers ($F=34.5$, $p<.01$; $F=9.5$, $p<.05$). The same study found no difference in teachers' feelings about collective bargaining. Belasco and Alluto also looked at role characteristics of teachers and found no relationship between teacher satisfaction and these characteristics (authoritarianism, trust, equitable decision-making, teacher driven decision-making). They did find a significant difference in satisfaction between those deprived of decision-making and teachers who were not ($F=5.22$, $p<.05$).

Lipham and colleagues (1981) found slight positive linear relationships between teacher satisfaction and leadership which facilitates work (ß=.26, p,.05), facilitates staff interactions (ß=.17; P<.05), and supports teachers (ß=.24, p<.05). Finally, Wodlinger (1986) found differences in the satisfaction of male and female teachers with the overall content and context of their jobs ($t=3.1$, 7.5, 17.6, 42.2; $p<.05$).

In summary, Table A-9 and the review of unique study results suggests that an administrative climate which is characterized by professional treatment of teachers and involvement of teachers in administrative decisions seems to be moderately associated with more highly satisfied teachers. Professional treatment of teachers is characterized by:

1) higher salaries (Frataccia & Hennington, 1982; Wangberg, et al, 1982);

2) good working conditions (Litt & Turk, 1985; Wangberg, et al., 1982);

3) autonomy (Galloway, et al., 1985);

4) cleary defined roles (Billingsley & Cross, 1992; Litt & Turk, 1985);

5) high involvement in decision-making (Knoop, 1987; Lipham, et al, 1981);

6) high levels of contact with other adults (Wangberg, et al., 1982); and

7) high levels of leadership interest in the work of teachers (Litt & Turk, 1985).

Teaching Assignment Components of Teacher Satisfaction.

Most of the research of teaching assignment variables has been focused on school size and no significant association appears to exist between the size of the school and teacher satisfaction (Table A-10). It does appear as if a small association exists between school level and satisfaction. Teachers with more preparation time also appear to have more satisfaction than those who have limited preparation time.

A number of studies of unique teacher assignment variables have been conducted. Galloway et al. (1985) found no relationship between teacher satisfaction and amount of playground space or adequacy of school facilities. However, teachers with more aides available to them were more satisfied ($r=.253$). This study also found that input in choice of assignment was slightly correlated with greater satisfaction ($r=.15$). The same study revealed that characteristics of pupils, including achievement level and general behavior, were moderately correlated with satisfaction ($r=.41, .35$). However, pupil ethnicity had no significant effect on teacher satisfaction.

Miskel et al. (1979) found no significant relationship between teaching specialties and satisfaction. Likewise, no relationship was found between public and private institutions and satisfaction. Finally, Seery (1990) found teachers assigned to classes for seriously emotionally disturbed students were more satisfied than those assigned to classes for behaviorally disordered students ($F=16.8$, $p<.01$). In

Table A-10
Effects of Teaching Assignment Variables on Levels of Satisfaction with Career Components of Teaching

Independent Variables	Findings	Effect Size	Study (Date) *Method*
21. school level	Results of these studies are ambiguous, ranging from a non-significant to a slight association between school level to and level of job satisfaction.	NS	Kaufman (1984) *t-test*
			Belasco (1972) *t-test*
		r= -.32	Miskel (1979) *correlation*
		sign.	Knoop (1987) *correlation*
22. school size	There is a slight to non-significant association of school size and level of satisfaction.	NS	Kaufman (1984)
			Reyes (1989, 1986, 1990)
			Benson (1983)
		sign.	Kreis (1983) *correlation*
		r= .26 NS	Knoop (1987) *correlation*
23. scheduling; preparation time	There is a slight association between having a "good" schedule and adequate planning time and increasing levels of teacher satisfaction.	t= 3.39 t= 3.61 t= 8.0 NS	Wodlinger (1986) *t-test*
		r= .28 r= .31 r= .21	Galloway (1985) ANOVA

general, type of teaching assignment appears to have a small effect on teacher satisfaction.

Educational Ability Components of Teacher Job Satisfaction.

Only two studies were found which related educational abilities of teachers and job satisfaction. Chapman and Lowther (1982) found statistically significant, but near zero, positive linear relationships of teacher satisfaction with self-ratings of speaking, persuasion, and planning abilities. However, they found near zero and negative relationships of satisfaction with writing, communication, supervision, and time organization abilities. Culver et al. (1990) similarly found a statistically significant, but near zero, relationship of higher education level with satisfaction. Although there was no difference in the models developed for white and black teachers, Culver reports a negative (ß=-.109) relationship for white teachers and a positive (ß=.04) relationship for black teachers. It appears as if a slight and somewhat ambiguous association exists between educational abilities and teacher satisfaction.

Teaching Experience.

There does appear to be a slight to moderate association between increasing job status, greater tenure in a particular school and greater teacher satisfaction (see Table A-11). However, there appears to be very little association between total experience and teacher satisfaction. Perhaps these results come not from simply having experience in any quantity, but from the type (quality) of experiences one has.

Table A-11
Effects of Teacher Experience Variables on Levels of Satisfaction with Career Components of Teaching

Independent Variables	Findings	Effect Size	Study (Date) *Method*
24. years of experience	There is a slight to non-significant association of increasing experience with increased levels of job satisfaction.	F= 2.03 NS; NS	Reyes (1989) *MANOVA*
		NS	Miskel (1979) Knoop (1987)
		r= .19	Reyes (1986, 1990) *correlation*
		r= -.13	Benson (1983) *correlation*
		NS; NS	Billingsley (1992) *correlation*
		r= .01 r= .01	Culver (1990) *LISREL*
25. job status	There is a slight to strong association of increasing job status to increased levels of job satisfaction.	F=40.57	Lowther (1984) *ANOVA*
		r= .68 r= .79	Reyes (1986, 1990) *correlation*
		r= .21 r= .22	Galloway (1985) *correlation*
		NS r= .06	Knoop (1987) *correlation*
26. tenure in organization	Studies revealed ambiguous effects of tenure in organization on levels of satisfaction.	r= .39	Reyes (1986, 1990) *correlation*
		r= -.13	Benson (1983) *correlation*
		NS; NS	Billingsley (1992)

Professional Development Potential

Institutional Incentives Provided and Desired.

There have been a number of studies of the relationships between incentives an institution might provide or incentives teachers might desire and teacher job satisfaction. Incentives providing opportunities to learn, to be a leader, and to be given more responsibility are slightly associated with increased teacher satisfaction. Likewise, recognition of teacher accomplishments by family and supervisors seems to have a moderate effect on teacher satisfaction. Findings of studies relating provided and desired incentives to satisfaction are given in Table A-12.

Several studies using unique institutional incentives provided variables have been conducted. Kreis (1983) showed that the fulfillment of teacher needs was positively correlated with teacher satisfaction ($r=.37$, $p<.05$). Lowther et al. (1985) studied differences between younger (under 35 yrs) and older teachers (over 35 yrs) in their satisfaction responses to six types of rewards offered at three different times over eight years. Lowther found younger teachers to be more satisfied than older teachers with intrinsic rewards, resource adequacy, and intrinsic value rewards ($F=8.5$, 7.3, 18.9). Older teachers were more satisfied with convenience, career, financial, and co-worker rewards ($F=8.4$, 5.1, 4.8). Lowther et al. (1984) found that teachers with fewer prospects for advancement than nonteachers were also less satisfied ($F=56.4$).

Several other studies using unique institutional incentives desired variables have also been conducted. Wangberg et al. (1982) found a strong relationship between career options desired by females and their satisfaction with teaching. Chapman and Lowther (1982) found a significant, but near zero, relationship between a desire for higher

salaries and teacher satisfaction (ß=-.04). Chapman and Lowther found a similar relationship between a desire for leadership activities and job satisfaction (ß=-.08). They also found the desire for peer recognition to be unrelated to satisfaction. However, teachers' desire for opportunities to learn was significantly and negatively related to job satisfaction (ß=-.05).

Frataccia and Hennington (1982) studied satisfaction with the expressed needs of teachers and how well those needs were met by their respective institutions. No relationship was found between satisfaction and the need for work itself and satisfaction for actual work itself. However, they did find teachers satisfaction with the need to achieve work goals greater than the satisfaction with actual achievement of work goals. Frataccia and Hennington also found varying prospects for advancement significantly changing the satisfaction of teachers ($t=8.0$, $p<.05$).

In summary, Table A-12 and the review of unique studies of professional development indicates that the provision of institutional incentives for professional development of teachers which teachers desire seems to have a positive effect on teacher job satisfaction. In particular, providing opportunities to learn (Chapman & Lowther, 1982), lead (Lowther et al., 1984) and be recognized (Maehr, Smith, & Midgley, 1990) have positive effects on teacher job satisfaction. Teachers also seem to desire responsibility (Lowther et al., 1984) and the approval of supervisors and family (Lowther et al., 1984; Frataccia & Hennington, 1982).

Table A-12
Effects of Institutional Incentives Provided and Desired Variables on Levels of Satisfaction with Career Components of Teaching

Independent Variable	Findings	Effect Size	Study (Date) *Method*
Incentives provided			
27. opportunity to learn	Increasing levels of satisfaction are slightly associated with more opportunities to learn.	NS	Miskel (1979)
		r= .16	Galloway (1985) *correlation*
		ß= .34	Chapman (1982) *multiple regression*
28. leadership activities	Increasing levels of satisfaction are slightly associated with provision of leadership activities.	F=47.5	Lowther (1984) *ANOVA*
		ß= .21	Culver (1990) *LISREL*
29. recognition by supervisors	Increasing levels of satisfaction are slightly associated with provision of supervisory recognition.	F=37.7	Lowther (1984) *ANOVA*
		ß= .37	Maehr (1990)
		ß= .37	*multiple regression*
		ß= .22	Chapman (1982) *multiple regression*

Table A-12 (cont.)
Incentives Desired

30. responsibility autonomy	Lowther (1984) showed that teachers generally have less autonomy than non-teachers. Additional studies revealed that there is little relationship between a desire for autonomy and levels of satisfaction.	NS F=51.5 ß= .05	Frataccia (1982) *t-test* Lowther (1984) *ANOVA* Chapman (1982) *multiple regression*
31. recognition by supervisors	There is little relationship between desire for recognition by supervisors and levels of satisfaction.	t= 4.1 ß= .06	Frataccia (1982) *t-test* Chapman (1982) *multiple regression*
32. approval of family	Lowther (1984) showed that more teachers desire approval of family than non-teachers. Another study revealed a very slight association between desire for family approval and levels of satisfaction.	F=57.3 ß= -.01	Lowther (1984) *ANOVA* Chapman (1982) *multiple regression*

Support Network Component of Teacher Satisfaction.

Only one study looked at the support network component of teacher job satisfaction. Galloway et al. (1985) found that positive pupil, colleague, and supervisor relationships are all slightly related to higher levels of teacher satisfaction (r=.33, .24, .18).

Personal Resource Component of Teacher Satisfaction.

One study was found (Wodlinger, 1986) relating characteristics of personal resources to teacher satisfaction. He found that perceptions of available resources significantly affected the satisfaction of rural and urban teachers (t=4.3, 3.3).

It seems as if the professional development potential component of teacher satisfaction has been researched inadequately to date. Additional research to both define and test associations between these critical components of the teaching career is needed if researchers hope to establish a more significant explanation of teacher job satisfaction. Of all the conceptual model components reviewed, this area has the least research support and warrants future investigation.

Summary of the Literature of Teacher Job Satisfaction

The purpose of this literature review was to identify studies dealing with teacher job satisfaction in order to describe a research-based set of independent variables having strong associations with teacher job satisfaction. Institutional-level and individual-level variables with the strongest associations have been used to provide evidence for a conceptual model of teacher job satisfaction.

First, a general theory for teacher job satisfaction was developed by merging concepts from Herzberg's two-factor theory with concepts from equity, discrepancy, and need-based theories. Descriptive surveys and factor analysis studies were examined to establish a consensus of definitions of teacher satisfaction and components of the teaching

career. It was concluded that teacher satisfaction can be defined as the affective orientation of an individual toward their work in the teaching environment. That environment is defined by individual and institutional characteristics of the teaching environment.

A review of the measurement aspects of teacher job satisfaction and its components suggested that overall satisfaction could be consistently and validly measured using one of a number of published scales or, preferably, the SASS with a national sample.

A conceptual model based upon the general theory developed in this review was then proposed. This model places an entering teacher in a "professional environment", then assumes they experience teaching for some period of time and that they develop a career potential for individual growth in the profession while teaching. During this period, individuals develop the affective orientation toward their work that researchers hope to measure with scales of teacher job satisfaction.

Twenty-two quantitative studies of relationships between the career components of teaching and teacher job satisfaction were then reviewed for evidence of the strength and direction of relationships between independent and dependent variables. Variables were organized within the professional environment and professional career development potential components of the conceptual model. Evidence of significantly related variables pertinent to this conceptual model was found for every component. Figure 4 presents the conceptual model with identified variables.

The professional environment component is the more highly supported part of the conceptual model. The professional career development potential component is supported by fewer existing research studies and needs the most current and future work. However, sufficient research evidence exists to support a decision to develop and explore a

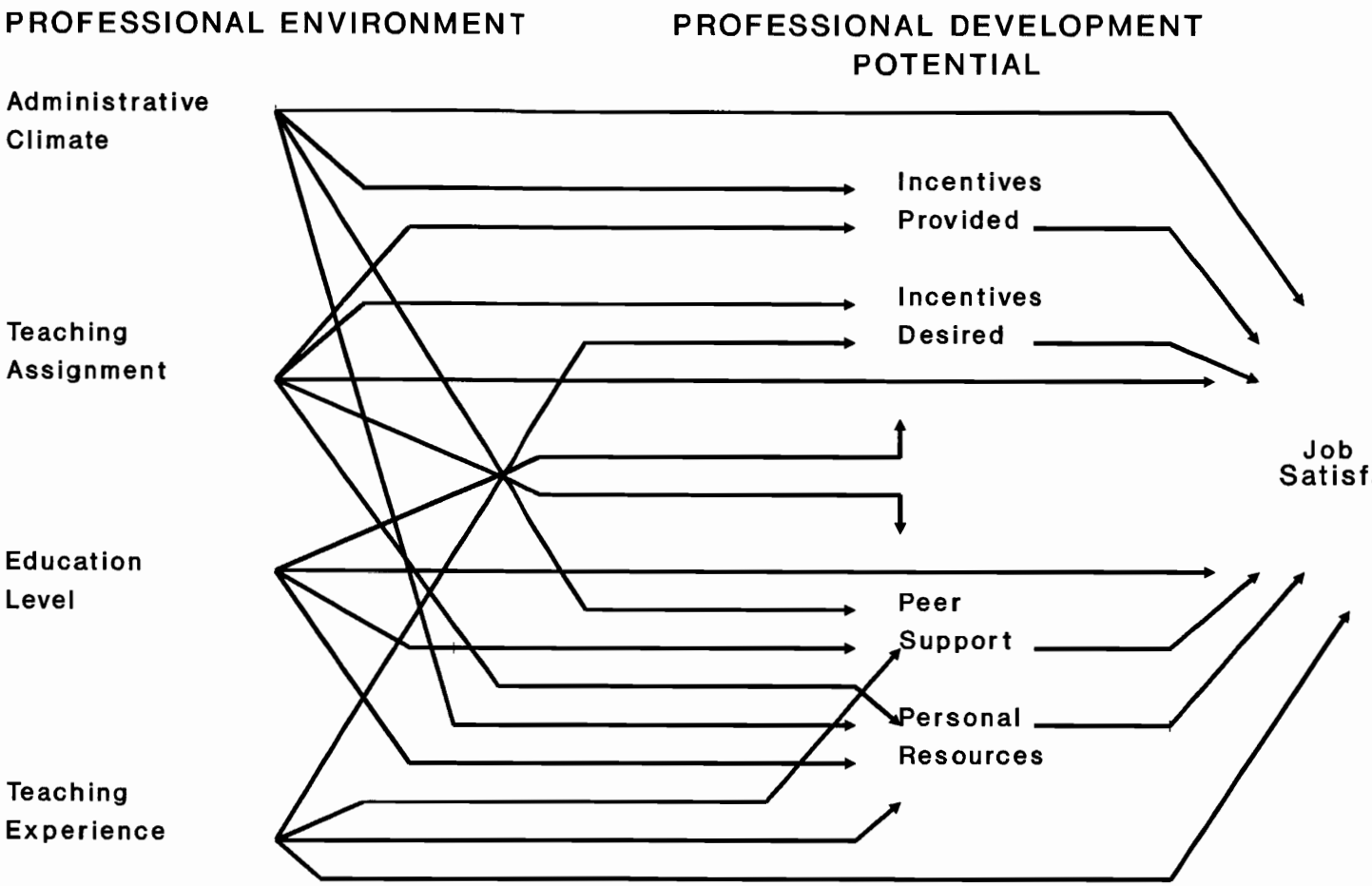

Figure A-4. Conceptual Model of Teacher Job Satisfaction

newly refined theoretical model of teacher job satisfaction and evaluate existing measures of association between professional environment, professional career development and satisfaction variables. The comparison of separate models for special and general educators may give insight into differences in levels of satisfaction due to variables such as certification, teaching assignment, and administrative support.

Appendix B

Definitions of Terms

1. *Teacher job satisfaction* is defined as the affective orientation (feelings, perceptions, attitudes) toward the career components of teaching.

2. *Career components of teaching* are the institutional and individual characteristics that make up the job of teaching. The institutional characteristics are those that distinguish teaching as a unique professional activity, such as the teaching setting, organizational attributes, clients, and the criteria for participation in the profession. Individual characteristics are those identified as personally rewarding, such as intellectual stimulation, colleague relationships, student qualities and approval of family.

   A. *Professional* environment is comprised of the elements of teaching job that are present upon entrance to the workplace. These elements include administrative climate, teaching assignment, educational level, and teaching experience. The first two of these elements are established prior to the teacher's entrance and may be influenced by institutional policies, procedures, resource availability, and programming needs. The last two elements, education level and teaching experience are brought to the workplace by the individual teacher. These four elements together form the environment in which teaching takes place.

   B. *Professional development potential* refers to the individual's perceptions of availability of incentives, resources, and support necessary for professional growth.

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