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ABSTRACT

This study is part of a comprehensive program evaluation effort at Michigan State University. The evaluation traces the progress of students from the time they enter a teacher preparation program through five or six years following graduation. This "short-term" follow-up study was completed in the spring of 1987 and focuses on students who graduated from the school's five teacher preparation programs approximately one to two years prior to the survey. Major sections of the questionnaire provide: (1) background information (e.g., certification level of respondents); (2) employment history (e.g., respondents' first job following graduation); (3) description of school environment (e.g., the type, size, racial composition of the school in which the graduate is teaching); (4) teacher education program critique (e.g., self-ratings of competency, and the contribution of programs/undergraduate experiences to the development of selected teaching competencies; (5) plans for graduate study; (6) characteristics of graduates who are not in teaching; and (7) educational beliefs. (JD)

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# Research and Evaluation in Teacher Education

Program Evaluation Series No. 19

FOLLOW-UP STUDY OF  
MICHIGAN STATE UNIVERSITY  
TEACHER EDUCATION GRADUATES  
Fall, 1984 Through Spring, 1986  
Brad West

SP 030 687



Department of Teacher Education  
and  
Office of Program Evaluation

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The Office of Program Evaluation  
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November, 1987

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MICHIGAN STATE UNIVERSITY  
TEACHER EDUCATION GRADUATES  
Fall, 1984 Through Spring, 1986  
Brad West

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### *Acknowledgment*

More than 250 individuals were involved, either directly or indirectly, in the conception, construction and data collection phases of this follow-up research study. Particular acknowledgment goes to the teacher education program graduates who provided the data for analysis. There was a planning group always at the core of this work: the Undergraduate Program Evaluation Committee comprised of the teacher education program evaluators and members of the Office of Program Evaluation. Special acknowledgment is also given to Bruce Brousseau for assistance in analyzing the data and to Don Freeman for overseeing the design of the survey document and for his advice in the preparation of this report.

Brad West  
East Lansing, Michigan  
Fall, 1987

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TEACHER EDUCATION GRADUATE  
FOLLOW-UP STUDY  
Fall, 1984 through Spring, 1986

This study is part of a comprehensive program evaluation effort at Michigan State University. The overall evaluation design traces the progress of students from the time they enter a teacher preparation program through five or six years following graduation. This "short-term" follow-up study was completed in the Spring of 1987 and focuses on students who graduated from Michigan State's five teacher preparation programs approximately one to two years prior to the survey. The purpose of this report is to provide a summary of the information provided by this group that may contribute to the ongoing development and improvement of Michigan State's teacher preparation programs.

PROCEDURE

Instrument: The "Survey of MSU College of Education Graduates" (see Appendix I) is a 139 item questionnaire designed by the Donald Freeman and the Undergraduate Program Evaluation Committee (UPEC). Major sections of the questionnaire provide:

Background Information (e.g., certification level of respondents)

Employment History (e.g., respondents' first job following graduation)

Description of School Environment (e.g., the type, size, racial composition of the school)

Teacher Education Program Critique (e.g., self-ratings of competency; contribution of programs/undergraduate experiences to the development of selected teaching competencies)

Plans for Graduate Study

Characteristics of Graduates Who Are Not in Teaching

Educational Beliefs

Sample: The short-term follow-up questionnaire was mailed to all students who graduated from the four alternative teacher preparation programs: Academic Learning, Heterogeneous Classrooms, Learning Community, and Multiple Perspectives from Fall term 1984, through Spring term 1986.

Because these four programs have many common features and a relatively small number of graduates, they will be grouped as "Alternative Programs" for analyses. Surveys were also sent to a random sample of one-half of the individuals who graduated from the Standard Program. The questionnaires were sent out in December, 1986. A second mailing was conducted four weeks later to all graduates who had not replied by that time. Of the 540 questionnaires that were mailed, 35 were returned with no forwarding address and were therefore subtracted from the total when computing the final return rate. A total of 254 (50%) questionnaires were completed. Return rates for each program are summarized in Table I.

TABLE I  
Return Rates by Program

PROGRAM	NUMBER SENT	NUMBER RETURNED	RETURN RATE
Standard	339	133	39%
Academic Learning	80	43	54%
Heterogeneous Classrooms	42	23	55%
Learning Community	43	20	47%
Multiple Perspectives	36	20	55%
Undetermined Program		15	
TOTALS	540	254	50%

Because participants chose to skip questions and some questions did not apply to all respondents, the usable sample was generally smaller for any given analysis than may be implied from the above table. Also, one must keep in mind that 50% of the target sample chose not to participate. It is possible that these nonparticipants were systematically different from the participants.

Statistical Analyses: The primary purpose of the statistical analyses was to summarize participants' responses to the survey. Most of the summary information presented in this report is based on frequency counts tabulated for each response option on each question. However, in some cases, questions that were conceptually related and measured on a Likert Scale were pooled together to create a scale score. For example, an individual's responses to six items dealing with job satisfaction were added together and then averaged to produce a score on the General Job Satisfaction Scale. T-tests were then used to compare graduates of the Standard Program with those of the

Alternative Programs on this scale and on another scale constructed in a similar fashion. Also, for other items measured on a Likert Scale a t-test or Hotelling's T-squared statistic were used to compare the two groups of alumni for the univariate and multivariate cases respectively. Some questions have been cross-tabulated with other related questions in an attempt to determine any statistical association or relationship. A chi-square statistic was usually used to assess this relationship.

Generally, an alpha level of .05 was used as a basis for deciding which results would be presented in this report. Given the large number of statistical tests that were conducted, this criterion is more of an indication of potentially important findings than a strict guard against the probability of a Type I error.

The statistical analyses summarized in this report consider some, but not all of the questions included in the survey questionnaire. These analyses are not meant to exhaust all possibilities of important findings. Rather, this report is intended to provide an overview of some of the results that may have implications for program development.

#### BACKGROUND INFORMATION

Twelve percent of the respondents earned their bachelor's degree in 1984, 49% in 1985 and 39% in 1986. Sixty-three percent of the respondents earned elementary teaching certificates, 27% secondary certificates, and 11% K-12 certificates. Table II includes these percentages along with the number of special education and/or early childhood endorsements received by the respondents. Among all respondents, 12% earned a special education endorsement and 13% an early childhood endorsement.

TABLE II  
Certification of Respondents

A. Certification Level			B. Additional Endorsement	
Elementary	Secondary	K - 12	Special Education	Early Childhood
(160) 63%	(68) 27%	(26) 10%	(30) 12%	(33) 13%

\*Note: The figures in parentheses are the number of respondents in each category.

Only a few respondents reported they had difficulty with teacher certification. Of the 15% who experienced some difficulty, the problem areas stem largely from meeting special certification requirements. These stated problem areas include: (1) a special class (e.g., Texas Government) not required for Michigan certification but required by some other state; (2) professional tests (e.g., Florida Certification Examination, CBEST, NTE) either not available and/or not required at Michigan State; (3) endorsements in special areas (e.g., math) in addition to regular teaching certification; (4) not receiving information or understanding details of Michigan requirements for renewing a provisional certificate or obtaining a continuing certificate.

Most recent graduates of MSU's teacher education programs (76%) continue to live in Michigan (20% in the Lansing area). Evidently, most are able to find satisfactory employment within the state and see no compelling reason to leave. Not only do graduates tend to stay in Michigan, they tend to stay close to home. Twenty-seven percent live in the same community in which they went to high school, 16% in a neighboring community and 19% within 50 - 100 miles of their former high schools.

#### EMPLOYMENT HISTORY

Since teacher preparation programs have a rather specific occupational objective, it is not surprising that a sizable proportion of the sample (70%) felt that finding a job in the field of education was very important or essential. Only fourteen percent said that finding a job in education was somewhat important, or did not search for a teaching position.

When asked to rate the importance of finding a job in a specific geographic area, 7% (18) said this was not important; 20% (50) said it was essential. Responses of the remaining 77% were distributed fairly uniformly among the other categories: somewhat important/important/very important.

The vast majority (83%) of the respondents have taught or held a job in the field of education. The most frequent first job in education was substitute teaching with nearly one-half (49.5%) of graduates beginning their careers as substitute teachers (see TABLE III). TABLE IV is a cross-tabulation of initial and current positions and illustrates, for example, that of the 101 graduates that began their careers as substitute teachers, 43 of those (42.6%) are now full time teachers, 38 (37.6%) continue

as substitute teachers and the remaining 20 are in other positions in education (7.9%) or not in teaching (11.9%).

TABLE III  
Types of Initial Jobs in Education

Job Classification:	A. Initial Job		B. Current Job		
	Frequency	Percent (Adj.)	Frequency	Percent (Adj.)	
Substitute Teaching	102	49.8%	Same as first job	90	43.5%
Teacher's Aide	9	4.4	Full Time Teaching	80	38.6
Part-time Teaching	14	6.9	Other education position	19	9.2
Full-time Teaching	77	36.9	Not in Education	18	8.7
Support Position (librarian, consultant)	4	2.0	Missing	47	-
Not in Education	41	-		203	100%
Missing	7	-			
TOTAL	254				

TABLE IV

Cross Tabulation of (1) The First Job Held In Education with (2) Current Job N=203

Current \ First	Same as First	Full Time Teaching	Other in Education	Not in Education	Row Total
Substitute	38	43	8	12	101
Row %	(37.6%)	(42.6%)	(7.9%)	(11.9%)	(49.8%)
Teachers Aide	0	7	2	0	9
Row %		(77.8%)	(22.2%)		(4.4%)
Part Time Teaching	3	6	2	3	14
Row %	(21.4%)	(42.9%)	(14.39%)	(21.4%)	(6.7%)
Full Time Teaching	46	22	4	3	75
Row %	(61.3%)	(29.3%)	(5.3%)	(4.0%)	(36.9%)
Support Position	2	1	1	0	4
Row %	(50%)	(25%)	(25%)		(2.0%)
Column	89	79	17	18	203
TOTAL	(43.8%)	(38.9%)	(8.4%)	(8.9%)	(100%)

Of the graduates who did find jobs in education, 80% felt that personal contact and/or their own initiative were the most helpful in securing this initial position. These efforts included direct personal contacts with school administrators (9), preparation of a thorough resume (14), contacts made through substitute teaching (13) and, as 24 respondents indicated, "beating the pavement". The Michigan State University Placement Service and/or a faculty member were selected as the most helpful resource by 18% and 2% respectively.

A chi-square test indicated that there was little or no relationship between program affiliation and success in finding a job in education ( $p = .83$ ). Graduates of the Standard Program and Alternative Programs appear to have equal success in finding a job in education. Of those who are no longer in education, one left because teaching did not provide sufficient personal/professional satisfaction, two left to raise a family, two found a more rewarding job outside of education, five could not find a teaching position in the area to which each moved and six indicated other reasons exclusive of those above.

Two scales were created to measure the graduates' satisfaction with their first job in education. The first scale was the General Job Satisfaction Scale and consisted of six items measuring the following dimensions: intellectual stimulation of the workplace, affective/interpersonal climate, geographic location, opportunities for personal advancement, level of personal challenge, and salary/fringe benefits. Each of these items was measured on a five-point Likert Scale ranging from 1-abysmal to 5-excellent. By computing mean responses across the six items, the General Job Satisfaction Scale scores were transformed back to the original metric of the items.

The coefficient alpha (i.e., reliability) for the General Job Satisfaction Scale was .77. The highest mean rating for an item on this scale was for the geographic location of first job. This item received a mean rating of 3.85. Salary and fringe benefits received the lowest mean rating of 2.89. (See also TABLE VI, pg. 8, which compares the mean scores of teachers and non-teachers on all eight of the Job Satisfaction items). The results of a two-tailed t-test indicated that there was not a significant difference between the mean ratings of the Standard (mean = 3.41) and Alternative Programs (mean = 3.52) (see Appendix II, A1).

The other job satisfaction scale was a six item Teaching Satisfaction Scale and was created in the same manner as the General Job Satisfaction Scale. This scale measured the following dimensions: opportunities to apply what they learned in their teacher preparation program, chance to teach favorite grades/subjects, opportunity to teach in their preferred school setting, quality of administrative support, quality of school sponsored professional development opportunities and lead-time in notification of conditions of initial assignment. The average score for the entire sample on this scale was 3.32 and this scale's coefficient alpha was equal to .79. The highest mean, 3.63, was for the graduates' rating of their opportunities to teach in a preferred school setting (e.g., urban versus suburban). The lowest mean rating of an item in this scale, 2.89, was for the respondents' rating of lead time in notification of the conditions of initial assignment (e.g., what subject/grades each would be teaching). A two-tailed t-test (see Appendix II, A2) indicated that the mean score on the Teaching Satisfaction Scale for Alternative Programs graduates (Mean=3.34) was not significantly higher than that for the Standard Program graduates (Mean=3.30).

Respondents were asked to circle one item on the total list of 12 statements in both the satisfaction scales to indicate the specific job characteristic that posed the most serious problem or concern. Table V lists the items on these two scales cited most often as a serious problem to those cited least often by 126 respondents.

TABLE V  
Initial Job Characteristics That Posed Serious Problems/Concerns

Frequency	Job Quality
24	salary/fringe benefits
24	lead time in notification of conditions of assignment
20	quality of administrative supervision/support
15	opportunities for professional advancement
12	chance to teach favorite grades/subjects
8	affective/interpersonal climate
6	geographic location
6	school sponsored professional development opportunities
5	level of personal/professional challenge
4	opportunities to apply what you learned in your teacher preparation program
2	intellectual stimulation of workplace

Shortcomings of the initial job posed serious enough problems for 31% of the 126 respondents to say that they actively searched for another job.

#### GRADUATES WHO DID NOT FIND JOBS IN EDUCATION

Respondents who worked full time or part-time outside of education also responded to eight of the 12 statements in the two job satisfaction scales. Since this group did not include those who have ever been a teacher, or those who have not been employed since graduating, the applicable sample was only 18. Table VI compares the mean responses of this group of non-teachers with those who are or have been teachers across the eight items.

TABLE VI  
Mean Score Comparisons On Job Satisfaction  
Measures Between Teachers and Non-Teachers  
(1=Abysmal to 5=Excellent)

	Non-Teacher Mean Score (N=18)	Teacher Mean Score (N=207)
intellectual stimulation of the workplace	3.77	3.52
affective/interpersonal climate	3.77	3.68
geographical location	4.16	3.85
level of personal/professional challenge	3.66	3.78
opportunities for professional advancement	3.11	3.45
salary/fringe benefits	3.38	2.89
opportunities to apply what you learned in your teacher education program	3.11	2.93
quality of administrative supervision/support	3.55	3.35

In comparing the small sample of non-teacher respondents with teacher respondents on these "job satisfaction" items, it is interesting to note that there were no significant differences between the two groups except for one item: salary/fringe benefits. Teacher respondents have a mean rating of 2.89 on this item while non-teacher respondents have a mean rating of 3.38. Only 3 of the 18 in the sample found any of the above cause to look for a new job, and only 4 reported that they were underemployed in their first job. When asked to select a statement that best describes why each has not entered teaching, 3 responded that a teaching job was not available in a desired geographical area, 3 replied that each was offered a job outside of education which promised greater rewards and 4 gave "other" reasons. Eight did not respond to the question. Nine of the 18 replied that they regretted not

teaching although seven said that was not the case. When asked if their study in teacher education contributed to their level of preparation for their current job, one responded "very strongly," two indicated "strong," four replied "moderate," seven selected "little," and one indicated "none."

#### DESCRIPTION OF SCHOOL ENVIRONMENT

All of the graduates who responded to the section of the survey dealing with school environments had at least one year of full-time teaching experience. Since this portion of the survey pertained only to full-time teachers, the applicable sample was reduced to 116 respondents. Including the year of the survey, 55% had one year of teaching experience, 44% two years and one percent three years.

Tables VII and VIII provide some basic descriptive information that characterizes this group of respondents' most recent full-time teaching assignments. Table VII portrays (a) grade level assignments, (b) school characteristics, and (c) student characteristics. Table VIII describes the type of courses taught by secondary teachers.

TABLE VII

Description of Most Recent Recent Full-Time Teaching Assignments

A.		B.		C.	
<u>Grade Assignment</u>	<u>Percent (n=107)</u>	<u>Type of School</u>	<u>Percent (n=113)</u>	<u>School Setting</u>	<u>Percent (n=113)</u>
Preschool	0.9%	Public	82.3%	Inner-City	6.2%
Early Elementary	42.1	Private	9.7	Urban	23.0
Upper Elementary	21.5	Parochial	8.0	Suburban	34.5
Middle/Jr. High	17.8			Rural	36.3
Senior High	17.8				
D.		E.		F.	
<u>School Size</u>	<u>Percent (n=114)</u>	<u>Proportion of Minority Students</u>	<u>Percent (n=114)</u>	<u>Student Motivation</u>	<u>Percent (n=114)</u>
< 250 Students	14.9%	< 5 Percent	53.5%	Very High	9.6%
250-500 Students	50.9	5-24 Percent	15.8	High	23.7
500-1000 Students	25.4	25-49 Percent	14.9	Average	43.9
> 1000 Students	8.8	50-75 Percent	8.8	Low	16.7
		> 75 Percent	7.0	Very Low	6.1

Note: Percentages adjusted for missing data (N=116).

TABLE VIII

Courses Taught in Major and Minor Fields  
by Graduates Teaching in Secondary Schools

A.		B.	
Number of Courses Taught in Your Major	Percent (n=38)	Number of Courses Taught in Your Minor	Percent (n=38)
1	10.5%	1	13.2%
2	13.2	2	7.9
3	21.1	3	15.8
4 or more	44.7	4 or more	7.9
None	10.5	None	55.3

The survey included two questions on relations between the perspective emphasized in the graduates' teacher preparation program and the condition of the current teaching assignment. Responses to these questions are summarized in Table IX.

TABLE IX

Relationship of Teacher Preparation Program Perspective  
to Current Teaching Assignment

A. "To what extent is your teaching consistent with the perspective on teaching that was emphasized in your teacher education program?"

Response Options	Absolute Frequency	Adjusted Frequency (pct.)
Very Consistent	22	19.8%
Somewhat Consistent	55	49.5
Somewhat Inconsistent	19	17.1
Very Inconsistent	8	7.2
No TE Program Emphasis	<u>7</u>	<u>6.3</u>
TOTAL	103	

TABLE IX, (Cont.)

B. "To what extent do other teachers and administrators in the building in which you work support your efforts to apply the perspective on teaching that was emphasized in your teacher education program?"

Response Options	Absolute Frequency	Adjusted Frequency (pct.)
Strong Support	31	30.1
Some Support	30	29.1
Neutral Support	36	35.0
Discourage to Some Extent	4	3.9
Actively Discourage	2	1.9
TOTAL	103	- - -

Differences in the ways graduates of the Standard and Alternative Programs responded to items A and B in Table IX were not statistically significant (probabilities = .12 and .44 respectively: see Appendix II, B, 1, 2).

#### TEACHER EDUCATION PROGRAM CRITIQUE

Ninety-four percent (94%) of the survey participants indicated that if they had it to do over again, they would still earn a teaching certificate and 90% would recommend the MSU teacher education program from which they graduated to a friend. While the recommendations from both groups of graduates were favorable, 96% of the Alternative Program(s) respondents would recommend their program to a friend compared to 82% of the Standard Program respondents. Moreover, 85% of the Alternative Program(s) respondents indicated that their respective programs were responsive or very responsive to their recommendations and concerns, whereas only 48% of the Standard Program graduates indicated the same degree of responsiveness.

All respondents were clearly concerned about their programs. When asked, "What characteristics of your teacher preparation program were most beneficial?" 243 (99%) wrote a response. Generally, 47% commented on student teaching/field work (e.g., want more student teaching or more varied field experiences), 39% on specific courses or content areas and 14% on faculty/staff/advisors. When asked, "What changes should be made in the program?" 186 respondents wrote comments. Sixty-six percent recommended

some changes in curriculum/content, 27% urged more practical experiences, 4% suggested changes in faculty/staff/administrators/advisors.

Typical responses include:

"...more field experiences...more student teaching...more practical applications...gear more to practical concerns...more experience in schools...a wider variety of school situations..."

In addition to the pronounced recommendation for more field experiences, several respondents emphasized a need for more extensive preparation in classroom management/control techniques and lesson planning skills. Others suggested that cooperating teachers should be selected carefully and be provided supervisory training. A few suggested that programs should provide information/preparation for the NTE, information about Michigan's continuing certification requirements, and legal issues in teaching.

#### PERCEPTION OF COMPETENCY IN THE CLASSROOM AND THE EXTENT TO WHICH THE TEACHER EDUCATION PROGRAM CONTRIBUTED TO THIS COMPETENCY

In a fairly lengthy section of the survey the teacher education graduates were asked to rate (a) their ability to apply fourteen areas of knowledge or teaching performance in the classroom and then (b) the extent to which their teacher education program contributed to the development of their competence in each of these areas. These fourteen areas are listed in Table X. Only 116 teacher education graduates who indicated they had at least one year of full-time teaching were included in these analyses.

Ratings of teaching performance were made on a four-point Likert Scale, where 1 = exemplary, 2 = very good, 3 = good, and 4 = somewhat limited. The contribution of their teacher education program, however, was measured on a five-point Likert Scale. The five categories were 1 = very strong, 2 = strong, 3 = moderate, 4 = little, and 5 = none. Mean ratings of performance and the contribution of the teacher preparation program are shown for each of the fourteen areas in Table X (presented on the following page).

Graduates of the Standard Program and the Alternative Programs were compared to determine if they rated their teaching performance and the contribution of their teacher preparation program to the development of these abilities in a similar manner. It is interesting to note that the two groups rated their performance in a very similar manner ( $p=.91$ ; see Appendix II, C1). However, graduates of the Alternative Programs group perceived that

their teacher preparation program made a stronger contribution to the development of these fourteen abilities than was true for graduates of the Standard program ( $p=.005$ ; see Appendix II, C2).

TABLE X

Mean Ratings of Performance and Program Contribution  
for 14 Areas of Knowledge and Competency (N = 114)

Performance Means* (4 point scale, 1 to 4)		Contribution Means** (5 point scale, 1 to 5)
2.219	B. Designing lessons, units and courses of study	2.283
2.237	N. Analyzing and improving your own teaching performance.	2.310
2.239	G. Applying effective methods of teaching specific subjects.	2.363
2.184	M. Making instructional decisions in a sound and defensible manner.	2.500
2.425	H. Providing instruction that addresses individual needs and achievements.	2.549
2.377	K. Assessing student learning and development.	2.589
2.342	I. Maximizing student understanding of the subject matter.	2.593
2.372	J. Motivating students to participate in academic tasks.	2.681
2.212	F. Establishing a classroom environment in which students actively take responsibility for themselves and for others in the group.	2.759
2.063	C. Establishing effective working relations with students from diverse cultural and academic backgrounds.	2.839
2.289	A. Deciding what content to teach and what not to teach.	3.081
2.500	E. Responding appropriately to disruptive student behaviors.	3.124
2.202	D. Working effectively with parents.	3.451
3.181	L. Integrating computers into your instruction.	3.705
* 4 point scale: 1 = Exemplary, 4 = somewhat limited		
** 5 point scale: 1 = Very Strong, 5 = None		

The items that appear to have contributed the most to the overall difference between groups were: analyzing and improving your own teaching performance; maximizing student understanding of the subject matter; providing instruction that addresses individual needs and achievements; establishing effective working relations with students from diverse cultural and academic backgrounds; and making instructional decisions in a sound and defensible manner (see Appendix II, C3, C4, C5, C6, and C7 respectively). In addition, group differences on items J, G, A, K, (see Appendix II, C8, C9, C10, C11, and C12 respectively) were large enough to be potentially meaningful.

## CONTRIBUTION OF UNDERGRADUATE EXPERIENCES

One section of the questionnaire focused on graduates' perceptions of the sources of their professional knowledge. Survey participants with at least one year of full-time teaching experience were asked to indicate the extent to which each of the eleven undergraduate experiences listed in Table XI (following page) contributed to their level of preparation for teaching. Each item was scored on a five point Likert Scale where 1 = very strong contribution, 2 = strong contribution, 3 = moderate contribution, 4 = little contribution, and 5 = none. Forty-six graduates from the Standard Program and 59 respondents from the Alternative Programs were included in the analyses described in this section.

A multivariate test comparing the two teacher preparation groups on the eleven items indicated that responses of graduates of the Alternative Programs were statistically different from those of the Standard Program, ( $p < .03$ , see Appendix II, D1). The items that yielded statistically significant differences and appear to have contributed most to the overall difference between the two groups were items number 94, 93, and 92 (see Appendix II, D2, D3, and D4 respectively). These items dealt with other students in the program, college faculty who worked with the respondents in K-12 classrooms, and other teacher education faculty, (see Table XI). Also, item 86, courses that focus on methods of teaching, appears to have made some contribution to the difference between the two groups (see Appendix D5).

Items focusing on sources of professional knowledge are listed in Table XI along with the ranking of their importance by each of the two teacher preparation groups. The 11 items are ranked from the source with the smallest mean (most contribution) to the source with the largest mean (least contribution) for each program group. The item numbers in this table refer to the item numbers in the survey.

TABLE XI

Contribution of Undergraduate Experiences  
To Preparation for Teaching

Item No.	Undergraduate Experiences	Mean Ratings: $\bar{x}$	
		Standard Program	Alternative Programs
		$\bar{x}$	$\bar{x}$
90.	student teaching (or its equivalent)	1.21	1.37
91.	the K-12 teachers with whom you worked	1.76	1.71
84.	courses in the content area you intend to teach	2.15	2.30
89.	early teaching experiences that were required in your program (prestudent teaching)	2.17	1.95
86.	methods of teaching courses	2.47	2.37
94.	other students in your program	2.63	2.00
92.	college faculty who worked with you in K-12 classrooms	2.71	2.03
93.	other teacher education faculty	2.76	2.32
87.	educational psychology courses (e.g., child growth and development, psychology of instruction)	2.82	2.69
85.	general education courses required by the university (e.g., ATL or natural science)	3.06	3.1017
88.	courses in the foundations of education	3.34	3.1017

\* 5-point scale: 1=very strong contribution; 5=none/does not apply

As an extension of courses that contributed to preparation for teaching, respondents were asked to recommend one or two graduate courses that would be most beneficial at the present time:

- 28 recommended specific courses (e.g., reading, math, counseling).
- 22 recommended "discipline"
- 19 recommended "classroom management techniques"
- 12 recommended "use of computers in the classroom"
- 11 recommended "motivation"
- 7 recommended "psychology"
- 4 recommended "time management"

## PLANS FOR GRADUATE STUDY

In light of Michigan's continuing certification requirements, it is not surprising that almost all graduates (92%) intend to enroll in graduate school. Seven percent intend to earn the graduate credits needed for continuing certification and 66% plan to earn a master's degree. But a significant number have even higher academic aspirations. Fifteen percent intend to study for a doctoral degree and 4% for a specialist's degree. Seventy-five percent of the respondents (170 out of 254) plan to do their graduate work in education. Twenty-nine percent have already taken one or more graduate courses at Michigan State (26) or elsewhere (40).

Sixty-four percent have earned less than 10 quarter hours of graduate study, 30% between 10-30 hours, 2% more than 30 hours and 5% have already earned a master's degree. Four percent are full time graduate students who still plan to pursue a career in teaching. Of the 66 respondents currently enrolled in graduate study, 31 report that their work in their teacher preparation program contributed strongly/very strongly to their preparation for graduate study, although 9 judged that there was little/no contribution. Two-thirds (40) of those enrolled in graduate study are very satisfied/satisfied that their graduate program is addressing their professional needs.

## EDUCATIONAL BELIEFS

The final section of the survey asked respondents to indicate the extent to which they agreed or disagreed with each of 24 statements describing educational beliefs. Table XII lists the statements as presented in the survey. The column on the left depicts the percent of respondents (graduates) who agreed (%A) or disagreed (%D), with each statement. For comparison, the column on the right describes the corresponding percentages for teacher candidates at the time they entered a teacher preparation program. (Note: The percent who said they "neither agreed nor disagreed" with a given statement may be determined by subtracting the total percent who either agreed and disagreed from 100%.)

TABLE XII.  
Comparison of Agree/Disagree Percentages on Selected  
Educational Beliefs Between Graduates and  
Entering Teacher Education Candidates

1984-1986 Graduates (N = 254)		Educational Belief	1985-1986 Entering Candidates (N = 545)	
%A	%D		%A	%D
96%	2%	School-aged youngsters are capable of learning to accept responsibility for their own actions.	85%	7%
69	8	Learning that is motivated by intrinsic rewards (e.g., needs and interests) is superior to that which is motivated by extrinsic rewards (e.g., grades, special awards, privileges).	63	13
6	60	Students learn more when they work alone than when they work in groups.	5	63
85	5	The development and delivery of a lesson plan should always be guided by a clear statement of what students are expected to learn.	86	5
16	66	Teachers should use the same standards in evaluating the work of <u>all</u> students in the class.	34	43
80	9	Academic success plays a central role in the development of a healthy self-concept.	70	7
73	14	In even the most demanding subject areas, acquisition of academic knowledge is or can be made interesting and appealing to everyone.	76	14
56	21	No matter how hard they and their teachers try, some students who are placed in regular classrooms will never master all of the basic skills in reading and mathematics.	43	32
42	13	Schools should function as agents to change society rather than as reinforcers of the status quo.	37	13
20	53	Exceptional students (e.g., gifted, mentally or physically handicapped) can be best served in special schools or centers.	29	40
66	7	Teachers should strive to establish a student-centered classroom rather than a teacher-centered classroom.	77	4

(Continued on Following Page)

GRADUATES			ENTERING STUDENTS	
%A	%D		%A	%D
44%	17%	To provide educational equity, schools must allocate more resources (personnel and finances) to some groups of students than to others.	37%	25%
18	32	Students who disrupt class activities day after day should be removed from regular classrooms.	24	45
51	17	In general, teachers' decisions regarding "how to teach" are more important than their decisions of "what to teach."	60	14
33	30	Teachers in grades 4-6 should assign at least one hour of homework every night.	41	26
41	36	The ultimate criterion in deciding what to include in the curriculum should be: "Does this content have practical application in daily living?"	40	33
54	9	Instructional programs that seek to address interdisciplinary problems or themes (e.g., energy crisis, social equity) are generally superior to those that treat subject matter as isolated disciplines.	38	13
22	53	Instead of mixing students with different levels of ability, required high school courses should have separate classes for low achieving and high achieving students.	27	53
89	4	Planning for instruction should almost always begin with a systematic diagnosis of student needs.	84	3
73	10	Teachers are obligated to provide all of their students with the remediation necessary to achieve mastery of essential knowledge and skills.	67	7
49	16	When making educational decisions, teachers should rely on what "feels right" instead of "what available information suggests is right" whenever these two sources conflict.	41	21
72	19	In general, the more a teacher knows about a subject, the better able s/he is to teach the subject effectively.	73	17

(Continued on Following Page)

GRADUATES			ENTERING STUDENTS	
%A	%D		%A	%D
58%	20%	The most important measure of a good teacher is that teacher's ability to enhance the academic achievement of students.	62%	15%
92	2	To be a good teacher, one must continually test and refine the assumptions and beliefs that guide his/her approach to teaching.	91	2

The comparison of agree/disagree/neither percentages on selected educational beliefs between (1) entering and (2) graduated students with initial teaching experience demonstrates a remarkable degree of similarity. There are, however, some notable trends:

- (1) "Teachers should use the same standards in evaluating the work of all students in the class."

Approximately, 80% of both entering and graduates students either agree or disagree with the above statement. That is, only 20% respond "neither." And while 34% of entering candidates agree, only 16% of graduates agree. The trend seems to be for graduates with teaching experience not to use the same standards in evaluating the work of all students.

- (2) "Instructional programs that seek to address interdisciplinary programs or themes are generally superior to those that treat subject matter as isolated disciplines."

Approximately 37% of both entering and graduated students either agree or disagree with the above statement. That is, a significant number appear to be undecided on the merits of interdisciplinary themes. But once on the job, 54% of the graduates agree compared to 38% of entering candidates.

These, and other belief/attitude comparisons between graduates and entering candidates suggest areas for teacher preparation program/curriculum consideration. For example, would the various program faculties maintain that it is important for graduates to have an informed position on these educational beliefs? Are the positions of graduates consistent with the preparation program goals/curriculum? Do various program faculty agree on the position their program graduates should have on specific beliefs? Does the program curriculum provide opportunities for students to acquire the knowledge requisite to taking a position on a specific belief?

As an important extension of this follow-up study, the final question (for active teachers only, N = 116) asked for the name/address of each respondent's principal/supervising administrator so that the Undergraduate Program Evaluation Committee could evaluate programs as seen by administrators. Eighty-four respondents provided this information and ultimately 62 supervisors returned the program evaluation questionnaire. The results of the supervisor survey are reported in Program Evaluation Series #21, HOW SUPERVISORS EVALUATE M.S.U.'S TEACHER PREPARATION PROGRAMS.

## APPENDIX I

The data collection instrument, SURVEY OF MSU COLLEGE OF EDUCATION GRADUATES is not included in this report due to its length.

However, interested readers may obtain a copy of the instrument by request: .

Donald Freeman  
OFFICE OF PROGRAM EVALUATION  
134 ERICKSON HALL  
MICHIGAN STATE UNIVERSITY  
EAST LANSING, MICHIGAN 48824

APPENDIX II  
t-Test Results

A. Employment History

1. Two group comparison using the General Job Satisfaction Scale score is given below.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard Program	102	3.4167	.720	-1.02	.308
Alternative Program	90	3.5222	.709		

2. Two group comparison using the Teaching Satisfaction Scale is given below.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard Program	97	3.3041	.789		
Alternative Program	86	3.3469	.793	- .37	.715

B. Description of School Environment

1. Two group comparison using the ratings of the consistency of their current teaching with the perspective on teaching that was emphasized in their teacher education program is given below.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard Program	47	2.5106	1.317		
Alternative Program	60	2.1833	.833	1.57	.120

2. Two group comparison using the ratings of support they were given by the current staff they work with for their efforts to apply the perspective on teaching that was emphasized in their teacher education program is given below.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard Program	41	2.2927	1.146		
Alternative Program	58	2.1379	.847	.77	.441

C. Perception of Competency in the Classroom and the Extent to Which the Teacher Education Program Contributed to this Competency

1. Two group comparison using all thirteen teaching performance ratings is below.

<u>T Squared Statistic</u>	<u>F Ratio</u>	<u>Degrees of Freedom</u>		<u>Significance</u>
8.4177	.5207	14	84	.9147

2. Two group comparison using the ratings of the contribution of their respective teacher preparation programs to the development of all thirteen knowledge and competency areas is given below.

<u>T Squared Statistic</u>	<u>F Ratio</u>	<u>Degrees of Freedom</u>		<u>Significance</u>
40.0082	2.4935	14	89	.0049

- 3.(N) Two group comparisons using the ratings of the contribution of their teacher education program to their ability to analyze and improve their own teaching performance.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard	46	2.6522	.875	3.47	.001
Alternative	58	2.0000	1.009		

- 4.(I) Two group comparison using the ratings of the contribution of their teacher education program to their ability to maximize student understanding of the subject matter.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard	46	2.8913	.875	3.42	.001
Alternative	58	2.3276	.803		

5.(H) Two group comparison using the ratings of the contribution of their teacher education program to their ability to provide instruction that addresses individual needs and achievements.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard	46	2.8478	.942	3.13	.002
Alternative	58	2.2931	.859		

6.(C) Two group comparison using the ratings of the contribution of their teacher education program to their ability to establish effective working relations with students from diverse cultural and academic backgrounds.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard	46	3.1957	.910	3.09	.003
Alternative	58	2.5345	1.203		

7.(M) Two group comparison using the ratings of the contribution of their teacher education program to their ability to make instructional decisions in a sound and defensible manner.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard	46	2.8478	1.032	3.09	.003
Alternative	58	2.2241	1.027		

8.(J) Two group comparison using the ratings of the contribution of their teacher education program to their ability to motivate students to participate in academic tasks is given below.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard Program	46	2.9130	.865	2.45	.016
Alternative Program	58	2.5000	.843		

9.(G) Two group comparison using the ratings of the contribution of their teacher education program to their ability to apply effective methods of teaching specific subjects is given below.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard Program	46	2.5870	.858	2.39	.018
Alternative Program	58	2.1897	.826		

10.(A) Two group comparison using the ratings of the contribution of their teacher education program to their competence in deciding what content to teach is given below.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard Program	46	3.2391	.848	2.23	.028
Alternative Program	58	2.8448	.933		

11.(K) Two group comparison using the ratings of the contribution of their teacher education program to assess student learning and development is given below.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard Program	46	2.7391	.976	1.95	.054
Alternative Program	58	2.3966	.815		

12.(F) Two group comparison using the ratings of the contribution of their teacher education program to their ability to establish a classroom environment in which students actively take responsibility for others in the group is given below.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard Program	46	2.9783	1.105	1.77	.079
Alternative Program	58	2.6034	1.042		

#### D. Contribution of Undergraduate Experiences

1. Two group comparison using all eleven undergraduate experiences ratings as to the extent these contributed to their level of preparation for teaching is given below.

<u>T Squared Statistic</u>	<u>F Ratio</u>	<u>Degrees of Freedom</u>		<u>Significance</u>
25.0092	2.0528	.11	93	.0317

2.(94) Two group comparison using the ratings of the contribution of other students in the program is given below.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard Program	46	2.6304	1.082	3.38	.001
Alternative Program	59	2.0000	.830		

3.(93) Two group comparison using the ratings of the contribution of other teacher education faculty is given below.

<u>Two-Tailed Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Probability</u>
Standard Program	46	2.8261	1.122	2.51	.014
Alternative Program	59	2.3220	.937		

4.(92) Two group comparison using the ratings of the contribution of college faculty who worked with the teacher education graduates in K-12 classrooms to their level of preparation for teaching is given below.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard Program	46	2.4783	1.188	2.13	.035
Alternative Program	59	2.0339	.946		

5.(86) Two group comparison using the ratings of the courses that focus on the methods of teaching is given below.

<u>Group Labels</u>	<u>Number of Cases</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>T Value</u>	<u>Two-Tailed Probability</u>
Standard Program	46	2.7174	1.109	1.72	.089
Alternative Program	59	2.3729	.945		