

DOCUMENT RESUME

ED 292 870

TM 011 294

AUTHOR Austin, C. Danford; And Others
TITLE Competency Screening Trends for Teacher Education.
INSTITUTION Michigan State Dept. of Education, Lansing. Teacher Preparation and Certification Services.
PUB DATE Feb 87
NOTE 23p.; Paper presented at the Michigan School Testing Conference (February 24-25, 1987).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Competency Based Teacher Education; Personnel Evaluation; Public Opinion; Screening Tests; State Surveys; *Teacher Education; Teacher Effectiveness; Teacher Evaluation; Teacher Qualifications
IDENTIFIERS *Michigan; *Teacher Competency Testing

ABSTRACT

A statewide survey was conducted by the Michigan State Board of Education to determine public opinion on teacher competency testing. Concern about the quality of education in the United States has risen as students' performance on achievement tests has declined. Accountability, competency, and effective teaching are often seen as synonymous with the present reform movement in teacher education. The survey found that 97% of those polled favored competency tests in content areas in which instructors were teaching. To reward superior teaching, 76% agreed that salaries should be connected to an effective evaluation system. Competency screening is only one aspect of the present educational reform movement, but it is one that has captured the attention of the public. The appendix contains a summary of recent changes in teacher preparation, a copy of Enrolled Senate Bill No. 447, and a list of state mandated tests for the whole country. (SLD)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

MICHIGAN SCHOOL TESTING CONFERENCE

FEBRUARY 24-25, 1987

COMPETENCY SCREENING TRENDS

FOR

TEACHER EDUCATION

U S DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it
 Minor changes have been made to improve reproduction quality

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

C. DANFORD AUSTIN

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

By

C. Danford Austin
State Director
Teacher Preparation and Certification Services
Michigan Department of Education

Georgia VanAdestine
Education Policy Coordinator
Michigan Senate

Gary Hawks, Associate Superintendent
Bureau of Postsecondary Education
Michigan Department of Education

ED292370

Full Text Provided by ERIC
ERIC
Full Text Provided by ERIC

TABLE OF CONTENTS

Competency Screening Trends for Teacher Education

	<u>Page</u>
National Trends.	1
Types of Testing	1
Michigan Trends.	2
Incentives	2
Of Concern. . .A Significant Issue	3
Conclusion	3
Summary.	3
References	5
 <u>Appendix</u>	
Recent Changes in Teacher Education Programs (Appendix A).	7
Teacher Testing Map (Appendix B)	9
State-Mandated Testing (Appendix C).	10
Public Act 267 (Appendix D).	13
Distribution of Public School Teachers by Race for Three Defined Groups - 1984-85 (Appendix E).	15

COMPETENCY SCREENING TRENDS FOR TEACHER EDUCATION

National Trends

The concern about quality of education in the United States has manifested itself in the movement toward reform in teacher education. This reform includes standardized testing, the evaluation of scholastic records, including raising the grade-point average for entrance into the schools of education, controlling teacher education curricula, and monitoring preservice and inservice performance.

According to the Education Commission of the States (ECS) survey, 28 states require a minimum grade-point average for entry into a teacher training program, 18 states require teacher training programs to provide some form of early field experience, and 2 states require teacher training programs to coordinate their offerings to meet the needs of elementary and secondary schools. ECS further notes that 35 states require the passing of some kind of test for completion of a teacher training program.¹

The most controversial of the educational reforms is the standardized test. It is significant to note that since 1980, the number of programs requiring standardized or proficiency tests for entry into the schools of education has more than doubled.

Nearly half of the teacher education programs in the U.S. require students to pass a standardized or proficiency test; and also, since 1980, two in five programs have instituted exit testing.²

Types of Testing

State regulations for teacher competency testing vary widely. The competency test can be implemented: 1) as part of the screening of applicants into the schools of education (preprofessional), 2) prior to the student teaching practicum, 3) as exit testing after completion of the teacher training, and 4) as a prerequisite for employment.

Testing is usually done in four areas: basic skills - communications, reading, writing, math (approximately 34 states); professional skills - aspects of pedagogy (approximately 25 states); academic knowledge - subject matter (approximately 26 states); and on-the-job-observational performance (approximately 8).³

At the present time, approximately 42 states have mandated standardized tests, however, several of these states have implementation dates of 1986 to 1988. Eight of the 42 states use a combination of standardized and customized tests in some combination to determine teacher competency.⁴ (Note: Teacher Testing Map - Appendix B)

Michigan Trends

National trends in the area of competency screening are reflected in Michigan teacher education colleges and universities. According to a recent report, by the Michigan Department of Education, January 1986, of the 30 public and private teacher education institutions, 32 percent or 10 schools (7 private and 3 public) require basic skills testing prior to admission into teacher education. These tests vary in content to include communication competency in reading, writing, speech, computer literacy, and mathematics. The majority of the colleges and universities in Michigan utilize to some degree college entrance exams and/or SAT/ACT scores as part of the admissions criteria for teacher education.

Twenty-six percent or eight schools (five private and three public) of the State Board approved teacher education colleges and universities require completion of standardized exit exams from their teacher education colleges. These tests cover competency skills in speech, written English, and mathematics.⁵

A recent random telephone survey done by the Department of Education during the week of April 28, 1986, of the large public teacher education institutions in Michigan, indicates changes which have occurred within the last few months. All of the institutions, except one, have increased their GPA requirement for teacher education to 2.5. GPA requirements for majors and minors have also increased. Four of the five institutions are reviewing possible implementation of basic skills testing or preprofessional examination before entering the teacher education departments. One university already provides a competency screening test. Another university will be piloting an exam in 1988.⁶

Incentives

The Education Commission of the States survey identified a significant trend in state policy with regard to teachers: the blending of regulations and incentives. Often the states have increased standards, required competency exams, and created more stringent regulations; yet, the states have also developed program incentives to support efforts to achieve the same goal. These incentives include alternative certification, loan forgiveness programs, and staff development programs linked to evaluation. For example, in the State of Washington, \$1 million has been appropriated for remedial activities for teachers with poor evaluations.⁷

The State Board of Education, the Legislature, K-12 leaders, and teacher educators at Michigan colleges and universities are acknowledging the need to create incentives in teacher education programs. The potential national, as well as state, shortage of qualified teachers created by several economics and demographic factors, which, combined within efforts to enhance the quality of teacher education programs, demands new strategies to meet this challenge. Strategies most often considered include: 1) scholarships for outstanding students in teacher training; 2) early recruiting of students into teacher education programs; 3) development of preferred admission plans; and 4) a one-to-one mentor system guiding potential teacher candidates through their college

career. These are but a few of the potential incentives being considered by state policymakers and teacher educators.

Of Concern. . .A Significant Issue

A significant concern in regard to various competency screening programs is the impact on the public of the underrepresentation of minorities in teaching and administration. One study sponsored by the National Commission for Excellence in Teacher Education reports that prospective teachers are scoring in the bottom quarter on the American College Testing Program and coming from the lower half of their entering college classes. As for minorities, they presently constitute 26 percent of the U.S. population, but less than 12.5 percent of K-12 teachers. By the 1990s, even without considering the possible effects of standardized certification testing, the minority proportions are predicted to be 30 percent of the population, but only 5 percent of the teaching force.⁸ (For information on Michigan minorities in the teaching field, refer to Appendix E.)

Any proposed screening program for prospective teachers, or practicing teachers, must be developed and implemented with great care to insure it is bias free. Screening procedures or rigorous entry-level testing for pre-service teacher educators or exit testing may have serious negative effects on minority group participation in the teaching force.⁹

Conclusion

Competency screening procedures and exams for teacher training candidates and persons seeking employment as teachers are intended to serve as measurements of a person's skills and knowledge of the tools necessary to deal with the classroom intricacies.¹⁰ However, the proponents of competency screening recognize that such evaluation does not necessarily equate to an effective classroom teacher. One perfects the art of teaching through experience.

Summary

Accountability, competency, and effective teaching are often viewed as synonymous with the present reform movement in teacher education.

Within the past six years, public pressure for competency measures in teacher education has accelerated as student grades have increased, but performance on achievement tests have declined. There has been a wavering of public confidence in educational institutions. As a partial response to this phenomenon, there has been a call for competency measures for many aspects of education, including the training and performance of teachers. An illustration of this can be interpreted from the results of a state-wide survey conducted by the State Board of Education that indicates public opinion supports competency measures for teachers. The survey found that 97 percent of those polled favored competency tests in content areas in which the instructors are teaching. Seventy-six percent agreed that salaries of teachers should be tied to an effective evaluation system to reward superior teaching.¹¹

The use of tests as one tangible measure of competency has captured the interest of the public and policymakers concerned about the quality of teacher education and the teaching that is offered to our youth. Whether the competency screening of potential teachers will make an impact on future education is not known. What is important to note is that change is occurring, and competency screening is only one aspect of the present educational reform movement.

REFERENCES

1. Piphon, Chris, "Quantity vs. Quality: States Aim to Improve Teaching and Teacher," Education Commission of the States, Phi Delta Kappan, January 1986, p. 334.
2. Holmstrom, Engin I., "Recent Changes in Teacher Education Programs," Higher Education Panel Reports, No. 67, American Council on Education, Washington, DC 200-36, November 1985.
3. Sandefur, J.T., "Competency Assessment of Teachers: The 1984 Report," College of Education, Western Kentucky University, Bowling Green, Kentucky 42101.
4. State-Mandated Testing of Prospective Teachers: Test Used and Purpose, ETS-Berkeley, February 24, 1986.
5. Report on a Study of Teacher Education Institutions' Professional Education Requirements, Teacher Preparation-Certification Services, Bureau of Postsecondary Education, Michigan Department of Education, January 1986, pp. 11-18.
6. Five universities were contacted during the week of April 28, 1986, for a current updating on changes in competency screening in the teacher education colleges.
7. Piphon, Chris, Ibid. p. 332.
8. National Commission for Excellence in Teacher Education, "A Call for Change in Teacher Education," Chronicle of Higher Education 30 (March 6, 1985):1 as reported by Julius Menasker, "Teacher Upgrading: Policy Alternatives," The Educational Forum, Kappa Delta Pi, Vol. 50, No. 2, Winter 1986, p. 124.
9. Educational Testing Service of State Policy from Report on Education Research 17 (February 27, 1985):3, as cited by Julius Menasker, "Teacher Upgrading: Policy Alternatives," The Educational Forum, Kappa Delta Pi, Vol. 50, No. 2, Winter 1986, p. 125.
10. Teacher Development in Schools, A Report to the Ford Foundation, Academy for Educational Development, New York, 1985, pp. 19-25.
11. The National Commission on Excellence in Education Survey, 1983, was conducted by the State Board of Education through the cooperation of Project Outreach.

APPENDIX

RECENT CHANGES IN TEACHER EDUCATION PROGRAMS¹

Admission and Graduation Requirements

- The time of admission to the teacher education program occurs after the freshman year.
- At the time of admission, seven in ten institutions have minimum GPA requirements in university-wide general studies courses. The GPA average is 2.3 for students entering an elementary education program and 2.4 for students entering a secondary education program.
- Four in ten institutions have separate minimum GPA requirements in English courses taken as part of university-wide general studies programs.
- In addition to the admission requirements of the college or university and successful completion of the general studies program, nearly half the teacher education programs require students to pass a standardized or proficiency test. Since 1980 the number of programs requiring standardized or proficiency tests for entry has more than doubled.
- Over three in ten programs also require that entering students pass a speech and hearing test. In addition, nearly half rely on recommendations and one in ten require a personal interview.
- The average number of credit hours required for a baccalaureate degree for teacher candidates is 127.
- The average number of credit hours in education courses required for graduation is about 43 for elementary teacher candidates and 30 for secondary teacher candidates.
- Included within the teacher education program are theory and methods courses that amount to 20 hours for elementary teacher candidates and 9 hours for secondary teacher candidates.
- An average of ten hours of a teaching practicum is required by most programs.
- Nine in ten programs require teacher candidates to spend time in schools prior to graduation. The average student will spend about 85 (secondary education program) to 113 (elementary education program) clock hours in such experiences.

¹Holmstrom, Egin I., "Recent Changes in Teacher Education Programs," Higher Education Panel Reports, No. 67, American Council on Education, Washington, DC 20036, November 1985.

--Most teacher education programs require students to take courses in mathematics, science, and communications. Half the programs require teacher candidates to take courses in computer science.

--One-fourth of secondary education programs have raised their GPA requirements for prospective teachers during the past five years, and one in ten have increased requirements in their subject matter majors.

--The number of programs with exit testing has increased. Since 1980, two in five programs have instituted exit testing.

Recruitment

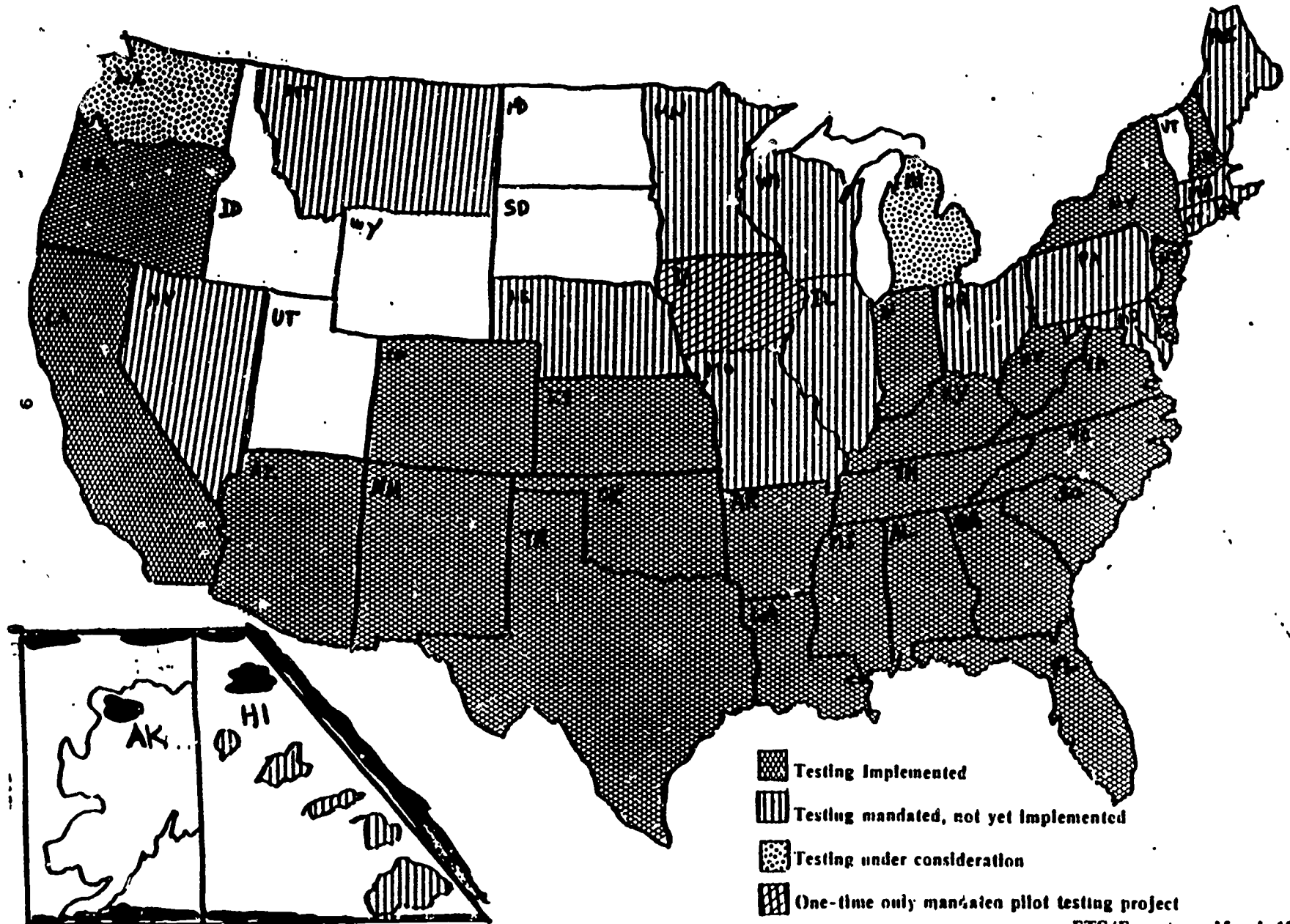
--Only one in four colleges or universities provide scholarships specifically for teacher candidates with high academic ability.





--Scholarships for teacher candidates are more readily available in public than in private programs.

--Only four percent of the institutions have loan forgiveness programs designed for teacher candidates.

--Recruitment procedures vary with the programs trying different methods to attract students.

TEACHER TESTING



-  Testing Implemented
-  Testing mandated, not yet implemented
-  Testing under consideration
-  One-time only mandated pilot testing project

ETS/Evanston March 1986

Appendix B

STATE MANDATED TESTING OF PROSPECTIVE TEACHERS:
TEST USED AND PURPOSE

State-conceived and/or developed tests:

Alabama: English language proficiency, teacher education admission
Arkansas: basic skills (IOX-developed); continuing certification
Arizona: basic skills/pedagogy, certification
Connecticut: basic skills, teacher education admission
Florida: basic skills/professional knowledge, certification
South Carolina: basic skills, teacher education admission

Tests developed by National Evaluation Systems (NES):

Alabama, Georgia, Oklahoma, West Virginia: subject matter, certification

California Basic Educational Skills Test (CBEST: reading, writing, mathematics; operated by ETS for the State of California)

California: certification
Oregon: certification

Other standardized tests:

Colorado: California Achievement Test, teacher education admission
Missouri: SAT/ACT, teacher education admissions
Washington: Washington Pre-College Test/SAT, teacher education admission
West Virginia: ACT Comp. Speaking, certification

ETS Pre-Professional Skills Tests (PPST): reading, writing, mathematics, for certification and for admissions into teacher education*

Arizona*	Tennessee*
Delaware	Texas*
Kansas	West Virginia
Nebraska (April 1986)	Wisconsin (pending)
New Hampshire	

*Tests of professional knowledge, general knowledge, and communication skills

**General knowledge, in lieu of courses

***Communication skills and general knowledge used as teacher education screen

****Professional knowledge

Instruments for observational assessment of teaching performance:

Arizona	Oklahoma
Florida	South Carolina
Georgia	Tennessee
Kansas (under development)	Texas (under development)
New Mexico	West Virginia
North Carolina	

Other use of standardized tests (not state-mandated):

Illinois:	PPST, three colleges, teacher education admission
Iowa:	PPST, two universities, teacher education admission
New Mexico:	PPST, two universities, teacher education admission
Ohio:	PPST, six universities, teacher education admission
	PPST, a consortium of school districts, hiring
South Dakota:	Core (Prof. Know. and Comm. Skills) and Specialty Area tests, five teacher training institutions, pilot study
Pennsylvania:	PPST, three universities, teacher education admission
Tennessee:	Core Battery or Specialty Area Tests, to enter optional career ladder

Core Battery, *for certification (ETS, NTE):

Arkansas	Kentucky	Mississippi	New York
California**	Louisiana***	Montana	North Carolina***
Hawaii (hiring)	Maine	New Jersey**	Tennessee
Indiana	Maryland	New Mexico	Virginia
Kansas****			

Specialty Area (subject matter) Tests, for certification (ETS, NTE):

Arkansas	Maryland
California (in lieu of courses)	Mississippi
Florida (career ladder assignment)	New Jersey (alternative cert.)
Hawaii (hiring)	New Mexico
Indiana	North Carolina
Kentucky	South Carolina (specially developed)
Louisiana	Virginia

*Tests of professional knowledge, general knowledge, and communication skills

**General knowledge, in lieu of courses

***Communication skills and general knowledge used as teacher education screen

****Professional knowledge

Proposals, draft legislation, plans (as of 2/24/86):

Arkansas: subject area (or 6 course hours), continuing certification
California: subject matter, certification; general knowledge, teacher education admission
Colorado: general knowledge/professional knowledge/subject area, certification; a basic skills test (with a writing sample), teacher education admission
Connecticut: subject matter, certification
Georgia: subject matter, recertification
Idaho: basic skills, certification
Illinois: basic skills/subject matter, certification
Iowa: basic skills/professional knowledge/subject matter, pilot study
Massachusetts: subject matter/communication and language skills, certification
Michigan: basic skills/subject matter, certification
Minnesota: basic skills, teacher education admission; subject matter, certification
Missouri: basic skills, teacher education admission; subject matter, certification
Nevada: subject matter, certification
Ohio: general education/professional education/curriculum content/area of specialization, certification
Oklahoma: basic skills, teacher education admission
Oregon: NTE Speciality Area tests, alternative certification
Pennsylvania: basic skills/Core-type/subject matter, certification
Rhode Island: Core, certification
South Dakota: Core, teacher education graduation requirement
Texas: subject matter and pedagogy (under development by NES), certification, reading and writing (NCS/IOX/RTI), continuing certification
Washington: pedagogy/observational assessment (state-developed), certification
Wisconsin: subject matter, certification

No apparent state plans: Alaska, North Dakota, Utah, Vermont, Wyoming

ETS - Berkeley
February 24, 1986

P.A. 267

**STATE OF MICHIGAN
83RD LEGISLATURE
REGULAR SESSION OF 1986**

Introduced by Senators Shinkle, DeGrow, H. Cropsey, Posthumus, DiNello, DeSana, Nichols, Cruce,
Barcia, Geuke, McCollough, Faxon and Engler

ENROLLED SENATE BILL No. 447

AN ACT to amend section 1531 of Act No. 451 of the Public Acts of 1976, entitled as amended "An act to provide a system of public instruction and elementary and secondary schools; to revise, consolidate, and classify the laws relating to elementary and secondary education; to provide for the classification, organization, regulation, and maintenance of schools, school districts, and intermediate school districts; to prescribe rights, powers, duties, and privileges of schools, school districts, and intermediate school districts; to provide for school elections and to prescribe powers and duties with respect thereto; to provide for the levy and collection of taxes; to provide for the borrowing of money and issuance of bonds and other evidences of indebtedness; to provide for and prescribe the powers and duties of certain boards and officials; to provide for licensure of boarding schools; to prescribe penalties; and to repeal certain acts and parts of acts," being section 380.1531 of the Michigan Compiled Laws.

The People of the State of Michigan enact:

Section 1. Section 1531 of Act No. 451 of the Public Acts of 1976, being section 380.1531 of the Michigan Compiled Laws, is amended to read as follows:

Sec. 1531. (1) Except as provided in this section, the state board shall determine the requirements for and issue all licenses and certificates for teachers, including preprimary teachers, and the requirements for an endorsement of teachers as qualified counselors in the public schools of the state.

(2) Beginning September 1, 1991, the state board shall only issue a teaching certificate to a person who has passed both a basic skills examination and each appropriate subject area examination for each subject area in which he or she is to be certified. Beginning September 1, 1991, persons holding teaching degrees from out-of-state teacher preparation institutions and who apply for a Michigan teacher's certificate shall be required to pass both a Michigan state board approved basic skills examination and each appropriate Michigan state board approved subject area examination.

(3) Not later than June 1, 1988, the department, based upon criteria recommended pursuant to subsection (5), shall provide to state board approved teacher education institutions state board approved guidelines and criteria for use in the development or selection of a basic skills examination, and not later than June 1, 1989, approved guidelines and criteria for use in the development or selection of subject area examinations.

(4) Not later than January 1, 1989, the state board, based upon criteria recommended pursuant to subsection (5), shall develop, select, or develop and select 1 or more basic skills examinations, and not later than January 1, 1990, subject area examinations that may be used by an approved teacher education institution.

(5) Within 30 days after the effective date of the amendatory act that adds this subsection, the state board shall appoint an 11-member teacher examination advisory committee comprised of representatives of approved teacher education institutions and Michigan education organizations and associations. Not more than 1/2 of the members comprising this committee shall be certified teachers. Not later than January 1, 1988, this committee shall recommend criteria to be used by the state board in the development, selection, or development and selection of 1 or more basic skills examinations, and not later than January 1, 1989, criteria to be used by the state board in the development, selection, or development and selection of subject area examinations. In addition, by those dates, the committee shall recommend guidelines for the use and administration of those examinations. The basic skills examinations referred to in this subsection may be developed by the state board or selected by the state board from commercially or university developed examinations. In addition, an approved teacher education institution, pursuant to guidelines and criteria described in subsection (3), may develop an examination at its own expense for approval by the state board. An approved teacher education institution that develops its own examination shall be liable for any litigation that results from the use of its examination.

(6) Within 30 days after the effective date of the amendatory act that adds this subsection, the state board shall appoint a 7-member standing technical advisory council comprised of persons who are experts in measurement and assessment. This council shall advise the state board and the teacher examination committee on the validity, reliability, and other technical standards of the examinations that will be used or are being used and of the administration and use of those examinations.

(7) Not later than September 1, 1992 and each year thereafter, the state board shall submit in writing a report on the development or selection and use of the basic skills examination and the subject area examination to the house and senate education committees. The report shall also contain a financial statement regarding revenue received from the assessment of fees levied pursuant to subsection (9) and the amount of and an purposes for which that revenue was expended.

(8) The basic skills examination and the subject area examinations required by this section may be taken at different times during an approved teacher preparation program, but must be passed before a person is enrolled for student teaching.

(9) The department, or if approved by the state board, a private testing service, may assess a fee for taking the basic skills and the subject area examinations. The fees, which shall be set by the state board, shall not exceed \$50.00 for a basic skills examination nor \$75.00 for a subject area examination. Fees received by the department shall be expended solely for administrative expenses that it incurs in implementing subsections (2) to (12).

(10) As used in this section:

(a) "Basic skills examination" means an examination developed or selected by the state board or developed pursuant to subsection (5) by an approved teacher education institution for the purpose of demonstrating the applicant's knowledge and understanding of basic language and mathematical skills and other skills necessary for the certificate sought, and for determining whether or not a teacher education graduate is eligible for a provisional or probationary Michigan teaching certificate. Not later than June 30, 1987, the department shall advise the state board and the legislature whether or not the department recommends that the basic skills examination include an examination of a person's knowledge and understanding of 1 or more of the following: brain function, learning styles, and learning processes.

(b) "Subject area examination" means an examination related to a specific area of certification, which examination has been developed or selected by the state board for the purpose of demonstrating the applicant's knowledge and understanding of the subject matter and determining whether or not a teacher education graduate is eligible for a provisional or probationary Michigan teaching certificate.

(11) The state board shall certify as qualified the supervisors required in section 1506. The state board shall certify teachers as qualified to teach the class described in section 1507(1), based upon the recommendation of a teacher training institution, upon an evaluation of the teacher's educational qualifications and experience, and upon any additional requirements the state board considers necessary.

(12) The state board shall promulgate rules for the implementation of this section.

**DISTRIBUTION OF PUBLIC SCHOOL TEACHERS
BY RACE FOR THREE DEFINED GROUPS
1984-85**

=====

Race

Groups	American Indian	White	Black	Asian/Pacific Islander	Hispanic	Total
1. New teachers with no prior experience	16	1,616	665	17	33	2,347
2. New teachers with prior experience	11	4,413	420	39	24	4,907
3. Terminated teachers	-21	-5,100	-973	-27	-53	-6,174
Net Change Percent	6 (0.6%)	929 (86.0%)	112 (10.4%)	29 (2.7%)	4 (0.4%)	1,080 (100%)

=====

Teacher Preparation and Certification Services
Michigan Department of Education

**DISTRIBUTION OF PUBLIC STAFF TEACHERS
BY RACE AND MAJOR ASSIGNMENT AREAS
1985-86**

Major Assignment Areas	Race					Total
	American Indian	White	Black	Asian or Pacific Islander	Hispanic	
Administration						
New & no prior exp.	1	56	41	0	0	98
New & prior exp.	1	300	21	1	2	325
Terminated	-2	-583	-131	1	3	-720
Language Arts						
New & no prior exp.	1	115	69	0	2	187
New & prior exp.	0	402	53	1	1	457
Terminated	-1	-513	-108	-2	-5	-629
Social Sciences						
New & no prior exp.	1	52	33	1	0	86
New & prior exp.	3	152	29	0	0	184
Terminated	-2	-232	-50	-3	-2	-289
Natural Sciences						
New & no prior exp.	2	74	21	1	2	100
New & prior exp.	0	138	14	0	0	152
Terminated	0	-208	-19	0	-1	-228
Mathematics						
New & no prior exp.	2	115	65	1	2	185
New & prior exp.	0	218	17	2	1	238
Terminated	-3	-258	-83	-1	-2	-347
Foreign Languages						
New & no prior exp.	0	48	1	1	4	54
New & prior exp.	1	81	0	0	3	85
Terminated	0	-71	-2	0	-3	-76
Business Education						
New & no prior exp.	1	18	22	0	0	41
New & prior exp.	0	85	15	0	1	101
Terminated	0	-109	-18	0	0	-127
Agricultural Education						
New & no prior exp.	0	2	0	0	0	2
New & prior exp.	0	6	0	0	0	6
Terminated	0	-8	0	0	0	-8
Industrial Arts						
New & no prior exp.	1	22	7	0	0	30
New & prior exp.	0	81	2	1	0	84
Terminated	0	-122	-7	0	0	-129
Music Education						
New & no prior exp.	2	93	15	5	2	112
New & prior exp.	0	131	12	2	0	145
Terminated	0	-180	-30	0	-1	-211
Home Economics						
New & no prior exp.	0	9	11	0	0	20
New & prior exp.	2	73	4	0	0	79
Terminated	-1	-80	-16	0	0	-97

Teacher Preparation and Certification Services
Michigan Department of Education

**DISTRIBUTION OF PUBLIC SCHOOL TEACHERS
BY SEX FOR THREE DEFINED GROUPS
1984-85**

=====

Groups	Sex		Total
	Male	Female	
1. New teachers with no prior experience	547	1,800	2,347
2. New teachers with prior experience	1,160	3,747	4,907
3. Terminated teachers	-1,801	-4,373	-6,174
Net change	-94	1,174	1,080

=====

DISTRIBUTION OF PUBLIC SCHOOL TEACHERS
BY SEX AND RACE FOR THREE DEFINED GROUPS
1985-86

Group	Sex		
	Male	Female	Total
1. New teachers with no prior experience			
Race			
American Indian	7	10	17
White	448	1,224	1,672
Black	137	569	706
Asian or Pacific Islander	5	12	17
Hispanic	5	28	33
Total	602	1,843	2,445
2. New teachers with prior experience			
Race			
American Indian	4	8	12
White	1,259	3,454	4,713
Black	94	347	441
Asian or Pacific Islander	5	35	40
Hispanic	9	17	26
Total	1,371	3,861	5,232
3. Terminated teachers			
Race			
American Indian	-6	-17	-23
White	-2,048	-3,653	-5,701
Black	-260	-853	-1,113
Asian or Pacific Islander	-12	-16	-28
Hispanic	-17	-39	-56
Total	-2,343	-4,578	-6,921
Net Change	-370	1,126	756

Teacher Preparation and Certification Services
Michigan Department of Education

Race

Major Assignment Areas	American Indian	White	Black	Asian or Pacific Islander	Hispanic	Total
Art Education						
New & no prior exp.	1	30	9	1	0	41
New & prior exp.	0	97	4	0	0	101
Terminated	0	-103	-13	-1	0	-117
Health, Phys. Ed., Rec.						
New & no prior exp.	1	61	29	0	1	92
New & prior exp.	1	163	12	0	0	176
Terminated	-1	-189	-30	0	-1	-221
Miscellaneous						
New & no prior exp.	1	93	43	0	1	138
New & prior exp.	1	364	31	4	1	401
Terminated	-5	-530	-122	-1	-4	-662
Elementary Grades						
New & no prior exp.	1	337	180	1	8	527
New & prior exp.	2	1,402	147	20	4	1,575
Terminated	-3	-1,543	-271	-5	-9	-1,831
Fine Arts						
New & no prior exp.	0	0	0	0	0	0
New & prior exp.	0	3	1	0	0	4
Terminated	0	0	0	0	0	0
Humanities, Philosophy						
New & no prior exp.	0	0	0	0	0	0
New & prior exp.	0	2	0	0	0	2
Terminated	0	-2	0	0	0	-2
Special Education						
New & no prior exp.	2	441	134	4	6	587
New & prior exp.	1	844	60	8	5	916
Terminated	-3	-747	-153	-6	-5	-914
Vocational-Technical						
New & no prior exp.	0	65	22	3	0	90
New & prior exp.	0	96	12	0	1	109
Terminated	-1	-168	-51	-3	-1	-225
Bilingual Education						
New & no prior exp.	0	26	1	4	5	36
New & prior exp.	0	20	0	0	7	27
Terminated	-1	-16	-2	-5	-19	-43
Early Childhood Education						
New & no prior exp.	0	15	3	0	0	18
New & prior exp.	0	55	7	1	0	63
Terminated	0	-38	-7	0	0	-45

