

HB

213

FISCAL NOTE

STATE OF ALASKA
1997 LEGISLATIVE SESSION

BILL NO. HB213

Revision Date: _____ Dept. Affected: EDUCATION
 Title: Requirements for Teacher Certification BRU: Teaching and Learning Support
 Component: Teacher Education and Certification

Sponsor: Rep. Kubina
 Requester: House HESS COMPONENT SERIAL NO. 1240

Expenditures/Revenues: (Thousands of Dollars)

OPERATING EXPENDITURES	FY98	FY99	FY00	FY01	FY02	FY03
PERSONAL SERVICES	0.0	0.0	0.0	0.0	0.0	0.0
TRAVEL	0.0	0.0	0.0	0.0	0.0	0.0
CONTRACTUAL	0.0	0.0	0.0	0.0	0.0	0.0
SUPPLIES	0.0	0.0	0.0	0.0	0.0	0.0
EQUIPMENT	0.0	0.0	0.0	0.0	0.0	0.0
LAND & STRUCTURES	0.0	0.0	0.0	0.0	0.0	0.0
GRANTS, CLAIMS	0.0	0.0	0.0	0.0	0.0	0.0
MISCELLANEOUS	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURES	0	0	0	0	0	0
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CHANGES IN REVENUES	0.0	0.0	0.0	0.0	0.0	0.0
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FUNDING: (Thousands of Dollars)

1002 Federal Receipts	0	0	0	0	0	0
1003 GF Match	0	0	0	0	0	0
1004 GF	0.0	0.0	0.0	0.0	0.0	0.0
1005 GF/Program Receipts	0	0	0	0	0	0
Other:						
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of current year (FY97) cost: \$ \$0

POSITIONS:

FULL-TIME	0.0	0.0	0.0	0.0	0.0	0.0
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

Prepared by: Nancy Buell
 Division: Teaching and Learning Support

Phone: 465-8689
 Date: 4/25/97

Approved by Commissioner: Shirley J. Holloway, Ph D 

Date: 4/25/97

Agency: Department of Education

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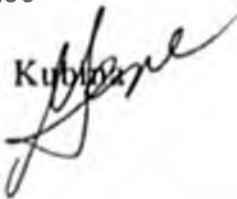
Representative Eugene Kubina
House Minority Leader

During Session:
Alaska State Capitol
Juneau, Alaska 99801-1182

During Interim:
P.O. Box 2463
Valdez, Alaska 99686

Memo

To: Representative Con Bunde, Chairman
House HESS Committee

From: Representative Gene Kubina 

Date: 10 April '97

Re: House Bill 213, "An Act relating to teacher certification"

With the first session of the twentieth Alaska State Legislature moving rapidly to an end, I would appreciate it if you could schedule a hearing for my bill, HB 213, at the earliest possible date.

In my opinion, in the state's pursuit of excellence in education, one natural approach is to raise, and make uniform, the standards required for teacher certification. HB 213 purposes to do this.

I look forward to presenting the merits of this bill before your committee.

Alaska State Legislature



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Representative Eugene Kubina
House Minority Leader

During Session:
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P.O. Box 2463
Valdez, Alaska 99686

Sponsor Statement

The intent of HB 213 is to raise, and to make uniform, the standards required for teacher certification in Alaska.

Over the decades, in its efforts to expand the opportunities for more Alaskans to become teachers, the state has relaxed the requirements necessary to obtain a teaching certificate. While a laudable goal, the negative result is that Alaskan trained and certified teachers now suffer a significant disadvantage when competing with teachers from other states, whose own requirements are more comprehensive and rigorous.

HB 213 purposes to give Alaskan educated, primary and secondary teachers a better competitive edge both within their own state and elsewhere by providing a better curriculum standard necessary to receive a teacher's certificate. Under this bill, beginning July 1, 2001, teacher applicants will be required to earn a baccalaureate degree in a field other than education, thereby expanding their professional area of application.

Further, teacher applicants will also be required under HB 213 to complete a year of teacher training that is two semesters in scope and encompasses both student teaching and course work in education. This training must be from an institution of higher education accredited by a recognized regional accrediting association or approved by the Commissioner of Education.

Finally, regarding the two semesters of student teaching, each semester must be a separate unit of study, taking place in a separate classroom and under the supervision of a different teacher.

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SPONSOR STATEMENT

Table A.6

Mean GRE General Test Verbal Scores by Intended Graduate Major Field and Ethnic Group: 1992-93
(U.S. Citizens Only)

Graduate Major		American Indian	Asian/ Pac Amer	Black/ Afr Amer	Mexican- American	Puerto Rican	Oth Hisp Latin-Am	White	Other	No Response	Total
Business	N	74	299	1,635	210	132	177	9,754	138	55	12,474
	Mean	430	447	365	416	392	432	480	471	493	461
	SD	105	110	89	86	91	100	95	111	129	103
Education	N	177	292	1,942	659	164	390	258,834	209	97	29,813
	Mean	411	416	354	372	375	391	43	435	415	434
	SD	89	98	81	77	84	88	91	95	100	94
Engineering	N	70	2,311	1,185	354	295	374	16,092	342	121	21,144
	Mean	491	475	430	466	416	481	531	519	557	515
	SD	90	124	97	89	89	110	100	119	114	108
Humanities and Arts ...	N	240	1,288	2,203	792	408	876	43,313	1,231	416	50,867
	Mean	509	545	439	488	452	505	555	573	582	547
	SD	104	120	107	110	115	109	106	112	113	111
Life Science	N	277	1,524	2,919	765	510	654	43,436	652	236	51,373
	Mean	455	482	392	445	387	445	485	489	520	478
	SD	91	108	83	91	90	94	97	117	117	99
Physical Science	N	107	1,065	1,702	234	212	251	17,474	371	188	21,604
	Mean	491	479	399	475	400	496	537	543	576	521
	SD	97	135	94	110	99	117	108	133	123	117
Social Science	N	436	2,279	6,236	1,406	638	1,440	57,485	1,267	465	71,652
	Mean	485	497	393	443	430	466	505	511	540	493
	SD	102	111	97	96	107	106	102	109	110	107
Other Fields	N	169	704	2,787	395	237	392	21,628	422	149	26,881
	Mean	443	464	379	430	401	451	484	509	512	471
	SD	93	114	94	93	97	104	102	121	116	107
No Response	N	94	431	1,230	239	120	226	13,140	402	752	16,634
	Mean	460	487	373	438	400	463	519	531	523	505
	SD	110	132	94	107	103	112	113	131	118	120
Total	N	1,644	10,593	21,939	5,055	2,716	4,780	248,205	5,034	2,479	302,445
	Mean	468	487	392	442	412	464	506	524	536	495
	SD	102	121	97	101	103	109	107	121	120	111

Table A.7

Mean GRE General Test Quantitative Scores by Intended Graduate Major Field and Ethnic Group: 1992-93
(U.S. Citizens Only)

Graduate Major		American Indian	Asian/ Pac Amer	Black/ Afro Amer	Mexican- American	Puerto Rican	Oth Hisp Latin-Am	White	Other	No Response	Total
Business	N	74	299	1,635	210	132	177	9,754	138	55	12,474
	Mean	465	553	385	463	438	474	535	524	543	512
	SD	112	116	100	118	105	123	111	125	146	122
Education	N	177	292	1,942	659	164	390	25,883	209	97	29,813
	Mean	405	484	360	388	377	411	466	432	422	456
	SD	103	125	91	94	98	106	107	110	117	110
Engineering	N	70	2,311	1,185	354	295	374	16,092	342	121	21,144
	Mean	646	693	570	641	607	644	690	681	698	680
	SD	98	84	116	86	93	99	81	82	88	90
Humanities and Arts ...	N	240	1,288	2,303	792	408	876	43,313	1,231	416	50,867
	Mean	459	568	406	457	427	480	526	532	556	519
	SD	115	119	109	116	119	118	115	120	124	119
Life Science	N	277	1,924	2,919	765	510	654	43,436	652	236	51,373
	Mean	486	584	409	484	434	490	530	532	561	523
	SD	111	121	102	113	99	112	112	125	129	117
Physical Science	N	107	1,065	1,702	234	212	251	17,474	371	188	21,604
	Mean	604	662	510	614	530	608	660	655	670	645
	SD	117	106	116	108	111	117	98	114	121	110
Social Science	N	436	2,279	6,236	1,406	638	1,440	57,485	1,267	465	71,652
	Mean	473	562	393	454	431	480	524	523	556	511
	SD	121	121	105	113	117	119	115	126	125	121
Other Fields	N	169	704	2,787	396	237	392	21,268	422	149	26,784
	Mean	452	537	372	436	424	410	492	499	523	479
	SD	109	128	98	110	113	107	113	125	133	119
No Response	N	94	431	1,230	239	120	226	13,140	402	752	16,634
	Mean	479	599	379	460	435	487	536	545	552	524
	SD	131	130	109	137	128	138	128	138	139	135
Total	N	1,644	10,593	21,939	5,055	2,716	4,780	248,205	5,034	2,479	302,445
	Mean	480	603	408	470	454	493	538	544	563	528
	SD	126	127	117	128	126	129	125	133	138	131

Table A.8

Mean GRE General Test Analytical Scores by Intended Graduate Major Field and Ethnic Group: 1992-93
(U.S. Citizens Only)

Graduate Major		American Indian	Asian/ Pac Amer	Black/ Afro Amer	Mexican- American	Puerto Rican	Oth Hisp Latin-Am	White	Other	No Response	Total
Business	N	74	299	1,635	210	132	177	9,754	138	55	12,474
	Mean	458	510	393	463	433	459	546	512	548	521
	SD	121	133	104	110	116	123	112	137	138	125
Education	N	177	292	1,942	659	164	390	25,883	209	97	29,813
	Mean	431	460	374	400	389	425	498	459	438	485
	SD	107	118	93	94	110	112	109	117	121	113
Engineering	N	70	2,311	1,185	354	295	374	16,092	342	121	21,144
	Mean	571	572	494	540	496	548	626	588	632	607
	SD	104	135	123	117	115	132	108	122	125	119
Humanities and Arts ...	N	240	1,288	2,203	792	408	876	43,313	1,231	416	50,867
	Mean	515	566	438	493	454	508	573	574	596	563
	SD	120	127	114	122	129	125	115	118	119	120
Life Science	N	277	1,924	2,919	765	510	654	43,436	652	236	51,373
	Mean	508	541	417	487	416	487	552	532	570	540
	SD	123	128	102	115	105	124	111	132	135	117
Physical Science	N	107	1,065	1,702	234	212	251	17,474	371	188	21,604
	Mean	568	564	462	557	458	560	624	604	629	605
	SD	114	141	113	121	122	131	111	137	129	123
Social Science	N	436	2,279	6,236	1,406	638	1,440	57,485	1,267	465	71,652
	Mean	512	547	419	479	449	504	561	552	579	544
	SD	124	125	110	118	124	126	115	127	123	123
Other Fields	N	169	704	2,787	396	237	392	21,268	422	149	26,884
	Mean	485	519	399	456	431	462	532	535	558	515
	SD	115	127	105	112	109	120	115	131	136	122
No Response	N	94	431	1,230	239	120	226	13,140	402	752	16,634
	Mean	490	537	386	458	434	483	553	547	556	536
	SD	131	137	106	129	124	135	122	143	133	131
Total	N	1,644	10,593	21,939	5,055	2,716	4,780	248,205	5,034	2,479	302,445
	Mean	503	550	418	477	443	496	560	554	573	546
	SD	124	132	112	121	120	129	118	131	133	125

I. RAISING TEACHER QUALIFICATIONS

David M. Reaume

Juneau students do not score as well as they could on standardized examinations. For at least the past ten years, the median Juneau student in virtually every grade (the student whose test score was right in the middle of the ranking) has scored only slightly better than the median student in the same grade nationally. This result has been obtained on the Iowa Test of Basic Skills and most recently on the California Achievement Test (C.A.T.), which was administered to Alaska students for the first time in 1996.

The comparison can be taken one step further. For at least the past fifteen years, the median U.S. student has consistently scored lower than students from many other countries at the same grade level. Because the median Juneau student out performs the median U.S. student by only a small margin, it follows that on an international scale the median Juneau student finishes well down the list.

Although educational reformers have tried for many years to improve student performance in the United States and also here in Juneau, their efforts have focused on new ways to teach and new techniques of examination, rather than on raising the knowledge requirements imposed on the teacher. Since the release of the 1984 report of the President's Commission On Education (A NATION AT RISK), increased emphasis has been placed on raising teacher qualifications. In particular, a growing number of universities have changed the way they prepare teachers. Most notably, schools of education which are accredited by the National Council for Accreditation of Teacher Education (NCATE) now require that prospective high school teachers obtain a college major or minor in a subject to be taught in addition to the pedagogical training they have traditionally received. As of the 1995/1996 school year slightly fewer than one-half of all schools of education in the United States were accredited by NCATE. In Alaska the University of Alaska Fairbanks School of Education is the only NCATE accredited institution. However, the University of Alaska Southeast (UAS) has adopted virtually all of the NCATE standards, but has not applied for NCATE accreditation because it cannot afford the dollar cost of preparing a formal application.

Although our universities are moving to improve teacher knowledge of the subjects they teach, school districts have been slow to impose similar requirements. It goes without saying that if school districts do not follow the lead of our schools of education then reform of teacher training will have little or no impact on our children's education. This paper identifies the problem and offers a solution in the form of a proposed change in hiring and teacher assignment policy for the Juneau School District. A question/answer format has been adopted in order to more sharply define the different points being made.

[1] Do U.S. students really do poorly on international examinations compared to students from other countries?

Yes. For just one example, the organizers of the Third International Mathematics and Science Study gave examinations to groups of eighth graders from over forty countries. According to the results which were just released (November 1996), the median U.S. score ranked twenty-eighth out of forty-one national median scores on the mathematics examination and seventeenth out of forty-one national median scores on the science examination. The countries whose median mathematics scores were higher than the U. S. median (in rank order) are: Singapore, Korea, Japan, Hong Kong, Belgium (Flemish speaking students), Czech Republic, Slovak Republic, Switzerland, Netherlands, Slovenia, Bulgaria, Austria, France, Hungary, Russian Federation, Australia, Ireland, Canada, Belgium (French speaking students), Thailand, Israel, Sweden, Germany, New Zealand, England, Norway and Denmark. (Source: Center for the Study of Testing, Evaluation, and Educational Policy, Boston College, Chestnut Hill Massachusetts 02167. telephone (617) 552-4521)

[2] How do Juneau students fare when compared to other students in the United States?

This past school year Alaska school districts replaced the Iowa Test of Basic Skills with the California Achievement Test (C.A.T.). Neither test is used by all U.S. school districts, but both of the testing companies claim to have enrolled a representative national sample of school districts. At this writing I am waiting for further information from the Alaska Department of Education which will allow us to judge for ourselves just how representative the C.A.T. sample really is. In particular I have requested the names of the states which have adopted the C.A.T., the names of the states whose median composite test score was higher than that recorded in Alaska, and the names of the school districts from which came the top ten median composite test scores.

What we have at the moment are percentile rankings of the median Alaska scores in reading, language arts and mathematics. The C.A.T. was given to students in the fourth, eighth and eleventh grade. The following is the summary of results pertinent to the Juneau School District.

MEDIAN TEST SCORES, 1996 C.A.T.
JUNEAU SCHOOL DISTRICT

	grade level		
	<u>4TH</u>	<u>8TH</u>	<u>11TH</u>
READING	61	66	60
LANG. ARTS	54	59	58
MATHEMATICS	74	60	68
COMPOSITE	63	65	65

Overall (that is based on the composite score) the median Juneau score is in roughly the 64th percentile. This means that about 36 percent of all school districts which used the C.A.T. test had median test scores which were higher than the median test score from the Juneau school district. In previous years, the Iowa Test of Basic Skills placed the median Juneau student at approximately the 60th percentile. Given the fact that the school districts using the C.A.T. are not the same districts as those that use the Iowa test, we can only conclude that the results are roughly consistent with the results posted by Juneau students in prior years.

A comparison of this sort puts a better face on the Juneau school district's performance than is warranted. When one considers how truly awful many of the inner city and rural school systems in the country really are, it is not surprising that the median Juneau score lies above the 50th percentile. If Juneau scores were compared only to scores from school districts located in places which were demographically similar to Juneau, one would get a much better picture of just how middling the Juneau performance really is.

We can and should do much better.

[3] Must a teacher be well trained in a subject in order to teach it well?

Yes. It is now widely understood that in depth knowledge of a subject is a necessary condition for good teaching. This does not mean that other factors are not important, but rather that without in depth knowledge a teacher cannot perform up to the level needed to prepare our children to excel academically in today's world. The National Commission On Teaching and America's Future had this to say:

"At a time when all students must meet higher standards for learning, access to good teaching is a necessity, not a privilege to be left to chance. *And competent teaching depends on educators who deeply understand subject matter and how to teach in ways that motivate children and help them learn.* (Source: "What Matters Most: Teaching for America's Future," prepared by the National Commission on Teaching & America's Future, September 1996, page 8)

[4] What is meant by a "subject"? When I called Juneau-Douglas High School I was told that teachers are assigned to subjects in which they are endorsed.

As far as most state teacher certification processes are concerned a "subject" is either (a) math/science, (b) language arts, (c) social studies, (d) early childhood education, (e) elementary education, (f) educational technology, or (g) physical education/health. When NCATE and the National Commission on Teaching & America's Future use the word "subject" they mean history, geography, mathematics, physics, chemistry... A teacher who has been endorsed by the State of Alaska in, say social studies, may have taken no more than two or three college level classes in each of the subjects which are grouped into the broad category called by this name. In brief, the State certifier's subjects are not subjects in the sense in which that word is used in this report, but are instead groups of related subjects. For example, social studies is really five different subjects: history, economics, geography, anthropology and government. Calling social studies and the other broad categories "subjects" is an obfuscation.

[5] Are you telling me that not all teachers have college degrees in the subjects they teach?

That is what I am saying. Until recently most schools of education have emphasized courses in pedagogy (how to teach), giving relatively little attention to training future teachers in the subjects which they were hoping to teach. The problem is made worse by the fact that many school districts (including the Juneau school district) assign teachers to classes with little or no regard for the subject area training they may have received. (Again, by "subject" I mean history, physics, geography,... and not social studies, language arts, science,...) The National Commission on Teaching & America's Future has highlighted the problem with the following facts (pages 15 and 16 of "What Matters Most...").

* "In recent years, more than 50,000 people who lack the training required for their jobs have entered teaching annually on emergency or substandard licenses."

- * "Nearly one-fourth (23%) of all secondary teachers do not have even a college minor in their main teaching field. This is true for more than 30% of mathematics teachers."
- * "Among teachers who teach a second subject, 36% are unlicensed in the field and 50% lack a minor."
- * "56% of high school students taking physical science are taught by out-of-field teachers, as are 27% of those taking mathematics and 21% of those taking English."
- * "In schools with high minority enrollments, students have less than a 50% chance of getting a science or a mathematics teacher who holds a license and a degree in the field he or she teaches."

The Commission noted the irony of the problem when it observed that:

"Although no state will allow a person to fix plumbing, guard swimming pools, style hair, write wills, design a building, or practice medicine without completing training and passing an examination, more than 40 states allow school districts to hire teachers on emergency licenses who have not met these basic requirements. States pay more attention to the qualifications of veterinarians treating the nation's cats and dogs than to those of teachers educating the nation's children and youth." ("What Matters Most...", pp. 14,15)

[6] Is the problem as bad in Alaska as it is elsewhere in the United States?

Alaska school districts are among the worst offenders in the nation when it comes to assigning teachers to teach subjects for which they are ill prepared, according to the U.S. Department of Education's 1990-91 "Schools and Staffing Survey." In Appendix Table F of "What Matters Most..." (cited above), the U.S. Department of Education results are reprinted. Here is a summary of those results:

PERCENTAGE OF PUBLIC HIGH SCHOOL TEACHERS
WHO TAUGHT ONE OR MORE CLASSES IN A FIELD
WITHOUT AT LEAST A MINOR IN THAT FIELD,
1990-91

	<u>Math</u>	<u>Science</u>	<u>Soc. Studies</u>	<u>English</u>	<u>Phys. Educ.</u>
All U.S.	30.5	16.9	16.9	21.9	14.6
ALASKA	63.3	22.3	34.9	27.7	48.5
Worst Score	63.3	43.9	34.9	41.0	48.5
Best Score	11.1	4.6	4.9	2.1	2.4

In mathematics, social studies and physical education no state scored worse than Alaska in placing poorly qualified teachers in the high school classroom. In science Alaska placed forty-first, and in English Alaska tied for forty-second place. Data for Alaska were not published for foreign languages nor for art & music.

[7] Do we know how many classes are taught in Juneau schools by teachers who have not obtained at least a college level minor in the subject being taught?

No. The Juneau school district has not released specific information on teacher subject qualifications and it is not possible to extract Juneau data from the 1990/91 survey conducted by the U.S. Department of Education because the Juneau numbers are bundled into an Alaska composite. However, we do know that there is no requirement that Juneau teachers have college minors or majors in the subjects which they teach.

We also know that until the 1993/94 school year the University of Alaska Southeast School of Education graduated teachers with secondary education endorsements in broad categories such as "social science." With one exception, such students almost never obtained so much as a minor in any of the narrowly defined subjects included under the broad category for which they were endorsed. That exception was the endorsement for math/science. Because of course availability constraints at UAS, students with a secondary education math/science endorsement nearly always took enough mathematics classes to qualify for a mathematics minor.

Finally, we know that Juneau middle school teachers are required to have only an endorsement in elementary education. To see what this means one need only consult the 1996/97 UAS academic catalogue. With one exception, the degree requirements for elementary education majors at UAS include no specific subject courses, (such as history, geography etc.) beyond the sophomore

year level. The exception is History of Alaska (HIST-341) or a substitute for that course entitled "Alaska Studies." What elementary education majors at UAS are required to obtain are fifty-five (55) credit hours of pedagogy. This absorbs virtually their entire junior and senior years of college.

The teacher training guidelines for middle school teachers prepared by the National Middle School Association and adopted by NCATE call for "preparation in two teaching fields which are broad, multidisciplinary, and encompass the major areas within the field." (NCATE, "Approved Curriculum Guidelines, September 1995, page 327) Under the NCATE standards, middle school teachers are distinguished from elementary school teachers and are required to prepare themselves in two teaching fields. As currently stated, the NCATE middle school guidelines are less focused on specific subjects than are the guidelines for high school teachers, but considerably more focused than are the guidelines for elementary school teachers (with the exception of the guidelines for elementary school reading teachers).

[8] Who were the members of the National Commission on Teaching and America's Future which issued the report "What Matters Most: Teaching for America's Future"?

They are identified in the report. A partial list of names includes Keith Geiger (former president of the National Education Association), Albert Shanker (president of the American Federation of Teachers), James P. Comer (professor of child psychiatry, Yale University), James Kelly (President & CEO, National Board for Professional Teaching Standards), William G. Demmert (visiting professor of education, Western Washington University and former dean of the School of Education, Liberal Arts & Sciences at the University of Alaska Southeast), Dolores A. Escobar (Dean, College of Education, San Jose State University), as well as two state governors, an elementary school principal, a district superintendent, three teachers, and a member of Congress. The work of the National Commission was funded by the Rockefeller Foundation and the Carnegie Corporation of New York.

It is worth emphasizing that the findings of the Commission have been endorsed by Commission member Keith Geiger. Mr. Geiger is the recent past president and co-founder of the National Education Association, the national teachers' union with which the Juneau teachers union (the Juneau Education Association) is affiliated.

Every member of the Juneau School Board has received a copy of the Commission's report, as have the Superintendent of Juneau Schools and the president of the Juneau Education Association.

[9] Be specific. What are the teacher qualifications required by the National Council for Accreditation of Teacher Education (NCATE)?

The document "Approved Curriculum Guidelines" spells these standards out in detail and requires over three hundred pages to do so. Guidelines cover both subject training requirements and pedagogical training requirements. To give the flavor of the subject training requirements here is what is required of teachers of science. (See page 340 of the above report.)

Elementary Level: "A minimum of 12 semester hours of content preparation in science distributed among the biological, earth/space, physical and environmental sciences..."

Middle Level: "A minimum of 24 semester hours of content preparation in science distributed evenly among the biological, earth/space, physical and environmental sciences..."

High School Level

Three variations are approved at the high school level: a Single-Field model, a Dual-Field model and a Broad-Field model. The Broad-Field model:

"prepares teachers to teach courses in three, or all four of the primary disciplines." (The four primary disciplines are biological science, earth/space science, physical science and environmental science.) "It is recommended that such a program include a minimum of 24 semester hours in a primary discipline, 15 semester hours in each of two other primary disciplines and nine semester hours in the fourth primary discipline. The Broad-Field model includes 63 semester hours of science."

In rather sharp contrast, the Juneau school district imposes no formal subject training requirements on its science teachers at any grade level. Teachers who have received a secondary math/science endorsement generally teach science at Juneau-Douglas high school. But even these teachers may have received fewer than thirty-one semester hours of training in science, and these hours may have been spread among five or more specific sciences. For example, a teacher who received a math/science endorsement in secondary education at UAS (before the 1993/94 school year) with an emphasis in physical science, was required to take only the following physical science courses.

General Physics I, General Physics II, Chemistry II, Elementary Geology, Organic Chemistry, Physics For Teachers, and two elective courses

Such a program is roughly what the NCATE standards require of middle school science teachers and falls far short of the NCATE standards for teaching science at the high school level.

[10] Tell us what you think the Juneau school district should do in order to assure that teachers bring NCATE-level training requirements into the classroom.

(a) For each teacher in the school system, identify the subjects in which each meets NCATE standards. (Again, by subjects I mean history, geology, chemistry,... and not social studies, language arts,...) As far as is presently possible, assign teachers to subjects for which they meet NCATE standards.

(b) Fill current and future teaching vacancies only with new teachers whose training meets NCATE standards, subject to the constraint that their specific subject training allows them to best fill the gaps in the system.

(c) Work with the University of Alaska Southeast to develop a special program that will allow teachers now in the system to upgrade their qualifications to NCATE standards in specific subjects where there is the greatest need.

(d) Set a date in the future after which all classes in the Juneau school district will be taught by teachers whose qualifications meet NCATE standards (except in well defined emergencies).

[11] Are enough teachers available to meet these requirements?

Yes. In Alaska the University of Alaska Fairbanks School of Education is NCATE accredited. The University of Alaska Southeast has recently upgraded its program to meet equivalent standards. Across the country nearly one-half of all schools of education are NCATE accredited. Through a cooperative UAS-Juneau school district program teachers now in the system can have their qualifications upgraded to meet NCATE standards.

David M. Reaume
November, 1996



NEA-ALASKA

Affiliated with the National Education Association

Position Paper HB 213

April 25, 1997

Efforts to prepare prospective applicants for teaching opportunities must be continually evaluated and expectations increased. HB 213 primarily requires an applicant for a teaching certificate to have a baccalaureate degree in a subject and complete a year of teacher training.

With the passage of HB 213, a person preparing to teach in Alaska can gain greater knowledge of their teaching discipline. The extended period of training will provide a prospective teacher with greater exposure to the student learning process. This interim experience prior to certification will enable the prospective teacher to gain valuable experience in several teaching environments. The participant can take advantage of developing research concerning student learning and interact closely with supervising teachers from the public school and university.

The requirements prescribed in HB 213 is an additional important step toward the increased professionalization of teachers. For this process to succeed it is important for both the university and public school system to provide sufficient time for supervising teachers. Time to develop valuable interactive and pertinent experiences for the person preparing to teach seems critical to the additional year.

Teaching in the new century will be quite different from instruction provided students in the mid to last half of this century. The volume of information at students' finger tips is phenomenal. How they access and use that information is critical. It is important that the professionals who serve students in the future are fully prepared for a changing society.

Parents want better lives and opportunities for their children. Teachers and support employees are integral to providing students the kinds of opportunities today that will contribute to an improved quality of life for them tomorrow.

NEA-Alaska recommends passage of HB 213.