

**The 31st Annual
AAEE Educator
Supply and Demand
Research Study**

2007 Results

For the 2007 AAEE Conference

Savannah

**John Snyder
Joyce Burgener
AAEE Research Committee**

**American Association for
Employment in Education**



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AAEE Educator Supply and Demand Research Study

- 31st anniversary of AAEE's supply and demand research
- Have longitudinal data on the Demand for each of 64 teaching, administrative, and other support fields



Research Methodology

- Surveys sent to 1,685 colleges and universities --- career centers and/or deans of education
- Responses on the Web and/or paper
- Examines availability from the supply side
- Regional studies from employers consistently validate the responses (high correlations)



Research Questions

- Survey asked respondents to rate each of 64 education fields on a scale of 1 to 5 according to the demand for their graduates [considerable surplus to considerable shortage].
- Also requested respondents to rate factors that affect educator supply and/or demand, with a rating scale of 1 to 5 [Significant negative influence to significant positive influence].
- Additional questions regarding teachers of color, candidate mobility, and teacher education programs



Correlation Studies Since 1995

*comparing school district employer responses to those
of universities*

1. **AAEE with
Southeast Employers =
.92 correlation**
2. **AAEE with
Mid-Atlantic Employers =
.82 correlation**
3. **AAEE with
Great Lakes Employers =
.83 correlation**



Study for the State of Washington

- 2000
- 2002
- 2004
- 2006

- Coordination between AAEE, Washington School Personnel Administrators, and the State Superintendent's Office

- Study of all school systems in Washington: vacancies, level of difficulty filling vacancies, and retirement numbers by field for the coming 5 years

- Used by the State Superintendent to present to the state legislature

- Convinced the legislature of needs for specific programs in specific disciplines, as well as alternative licensure sites and programs



National & Regional Composites

- The scale of 1-5, with 366 responses, results in the following scale:
 - Considerable Shortage
 - 5.00-4.21
 - Some Shortage
 - 4.20-3.41
 - Balanced supply & demand
 - 3.40-2.61
 - Some Surplus
 - 2.60-1.81
 - Considerable Surplus
 - 1.80-1.00



Fields in Considerable Shortage

5.00-4.21

Multicategorical Sp. Ed.	4.56
Severe/Profound Dis.	4.52
Math Ed	4.48
Emotionally Dis./Behavior Dis.	4.42
Mild/Moderate Dis.	4.42
Physics Ed	4.40
Chemistry Ed	4.39
Mental Retardation	4.38
Learning Disability	4.38
Visually Impaired	4.38
Bilingual Ed	4.28
Dual Cert. Special Ed./"Regular" Ed.	4.28
Hearing Impaired	4.23



Comments about fields in considerable shortage


- All 13 fields are teaching fields
- 9 of the 13 are in special education
- 2 are science (physics and chemistry)
- Math and bilingual education round out the fields with the highest shortage of candidates



Fields in Some Shortage

4.20-3.41

Early Childhood Sp. Ed.	4.17
Speech Pathology	4.16
Biology Ed	4.11
ESL/ELL	4.09
Earth/Physical Ed	4.08
School Nursing	4.05
Gen Science Ed	4.05
Lang - Spanish	3.97
Audiology	3.96
Physical Therapy	3.93
Occupational Therapy	3.83
Technology Ed.	3.64
Lang - Japanese	3.63
Agriculture Ed	3.59
Computer Science Ed	3.58
Superintendent	3.58
School Psychology	3.56
Principal - High School	3.55
Reading	3.52
Principal - Middle School	3.50



Comments about fields with some shortage

- The remaining special education field is at the top of the list
- Of the 20 fields, only 11 are teaching fields
- 6 fields are “specialists” – speech path, nurse, audiology, PT,OT, school psych
 - Most of these positions deal with special education
 - School recruiters often compete with other fields (such as health care) for the services of these specialists
- 3 fields are administration
- The 3 remaining science fields – biology, earth / physical science, general science
- 2 language – Spanish, Japanese
- Some specific teaching fields including tech ed, agriculture, computer science, reading



Fields in Balance

3.40-2.61

Gifted/Talented Ed	3.39
Principal - Elementary	3.39
Speech Ed.	3.36
Lang - French	3.35
Lang - Classics	3.34
Counselor	3.34
Home Ec./Consumer & Family Sciences	3.34
Middle School	3.32
School Social Worker	3.29
Library Science/Media Technology	3.28
Lang - German	3.28
Curriculum Director	3.25
Music - Instrumental	3.25
Human Resources Director	3.14
Music - Vocal	3.13
Business Manager	3.11
Music - General	3.07
English/Language Arts	3.02



Fields in Balance, continued

**These fields, although in “balance,” are at
or below the midpoint of 3.00**

Business Ed	3.00
Journalism Ed	2.98
Intermediate	2.89
Driver Ed/Traffic Safety	2.88
Pre-K	2.83
Theatre/Drama Ed.	2.78
Dance Ed	2.78
Art/Visual Ed	2.71
Kindergarten	2.67
Health Ed	2.62



Fields in Surplus

Fields with Some Surplus (2.60 - 1.81)

Primary	2.51
Physical Ed	2.39
Social Studies Ed	2.38

Fields with Considerable Surplus (1.80 - 1.00)

None



Three-year Trends 2007-2006-2005

Key	+ 0 - Key
4.21-5.00 = Considerable Shortage	"+" = all three years upward
3.41-4.20 = Some Shortage	"-" = all three years downward
2.61-3.40 = Balanced	"0" = three years in different directions
1.81-2.60 = Some Surplus	
1.00-1.80 = Considerable Surplus	

Significance Key

A = 2007 > 2005

B = 2006 > 2005

C = 2007 > 2006

Three-year trend, from left: 07, 06, 05

Agriculture		+	0.19	3.59	3.40	3.33	H	M	L
Art/Visual Education		+	0.01	2.71	2.70	2.66	H	M	L
Bilingual Education	A	+	0.01	4.28	4.27	4.00	H	M	L
Business Education		0	0.04	3.00	2.96	2.97	H	L	M
Computer Science Education	A	+	0.11	3.58	3.47	3.26	H	M	L
Dance Education		0	0.27	2.78	2.51	2.63	H	L	M
Driver Education Traffic Safety		0	(0.12)	2.88	3.00	3.00	L		
Elementary - Pre-K		+	0.02	2.83	2.81	2.77	H	M	L
Elementary - Kindergarten		0	(0.10)	2.67	2.77	2.67		H	
Elementary - Primary		0	(0.16)	2.51	2.67	2.57	L	H	M
Elementary - Intermediate		0	(0.04)	2.89	2.92	2.83	M	H	L
Elementary - Middle School	AB	0	0.00	3.32	3.32	3.09			L
English/Language Arts		0	(0.04)	3.02	3.06	2.96	M	H	L
English as a Second Lang	A	+	0.15	4.09	3.94	3.79	H	M	L
Health Education		+	0.03	2.62	2.59	2.41	H	M	L

Three-year trend: 07, 06, 05

Home Ec/Consumer Science		0	0.09	3.34	3.24	3.36	M	L	H
Journalism Education		0	0.28	2.98	2.71	2.71	H		
Languages - Classics		+	0.16	3.34	3.18	3.09	H	M	L
Languages - French		+	0.17	3.35	3.18	3.16	H	M	L
Languages - German	Sig	+	0.23	3.28	3.04	3.03	H	M	
Languages - Japanese	A	+	0.31	3.63	3.32	3.06	H	M	L
Languages - Spanish		+	0.08	3.97	3.89	3.87	H	M	L
Mathematics Education	A	+	0.13	4.48	4.36	4.21	H	M	L
Music - Instrumental		o	0.12	3.25	3.12	3.18	H	L	M
Music - Vocal		0	0.08	3.13	3.05	3.13		L	
Music - General		0	(0.06)	3.07	3.13	3.07		H	
Physical Education		0	(0.10)	2.39	2.50	2.43	L	H	M
Reading	A	+	0.09	3.52	3.43	3.32	H	M	L

Three-year trend: 07, 06, 05

Science - Biology	AB	+	0.13	4.11	3.98	3.78	H	M	L
Science - Chemistry	AB	+	0.13	4.39	4.26	4.05	H	M	L
Science - Earth/Physical Science	AC	+	0.21	4.08	3.87	3.79	H	M	L
Science - Physics	A	+	0.12	4.40	4.27	4.13	H	M	L
Science - General	A	+	0.14	4.05	3.91	3.74	H	M	L
Social Studies Education		0	(0.08)	2.38	2.45	2.40	L	H	M
Spec. Ed. - Multicategorical	A	+	0.18	4.56	4.39	4.30	H	M	L
Spec. Ed. - Emotional/Beh. Dis.		0	0.14	4.42	4.29	4.31	H	L	M
Spec. Ed. - Hearing Impaired		0	0.21	4.23	4.02	4.14	H	L	M
Spec. Ed. - Learning Disability		0	0.18	4.38	4.19	4.25	H	L	M
Spec. Ed. - Mental Retardation	Sig	0	0.25	4.38	4.13	4.13	H		
Spec. Ed. - Visually Impaired	C	0	0.52	4.38	3.85	4.25	H	L	M
Spec. Ed. - Mild/Moderate Dis.		+	0.15	4.42	4.27	4.26	H	M	L
Spec. Ed. - Severe/Profound Dis.		0	0.21	4.52	4.31	4.33	H	L	M
Spec. Ed. - Early Child. Spec. Ed.		0	0.17	4.17	4.00	4.09	H	L	M
Spec. Ed. - Dual Cert. (Gen./Spec.)		0	0.13	4.28	4.15	4.16	H	L	M
Speech Education		+	0.08	3.36	3.28	3.13	H	M	L


Three-year trend: 07, 06, 05

Technology Education	0	0.20	3.64	3.44	3.54	H	L	M
Theatre/Drama	0	0.06	2.78	2.72	2.76	H	L	M
Principal - Elementary	0	0.03	3.39	3.36	3.44	M	L	H
Principal - Middle School	0	0.02	3.50	3.48	3.50		L	
Principal - High School	0	0.03	3.55	3.53	3.54	H	L	M
Business Manager	0	(0.07)	3.11	3.19	3.15	L	H	M
Curriculum Director	0	0.21	3.25	3.05	3.11	H	L	M
Human Resources Director	+	0.04	3.14	3.10	3.05	H	M	L
Superintendent	0	(0.04)	3.58	3.62	3.49	M	H	L
Audiologist	+	0.05	3.96	3.91	3.69	H	M	L
Counselor	0	0.01	3.34	3.34	3.22			L
Gifted/Talented Education	+	0.22	<u>3.39</u>	3.17	3.11	H	M	L

Three-year trend: 07, 06, 05

Library Science/Media Tech.	0	0	(0.13)	3.28	3.41	3.39	L	H	M
Occupational Therapist	+	+	0.20	3.83	3.63	3.28	H	M	L
Physical Therapist	+	+	0.08	3.93	3.85	3.75	H	M	L
School Nurse	+	+	0.42	4.05	3.63	3.62	H	M	L
School Psychologist	0	0	0.09	3.56	3.47	3.49	H	L	M
School Social Worker	0	+	0.21	3.29	3.08	3.03	H	M	L
Speech Pathologist	+	+	0.14	4.16	4.02	3.99	H	M	L

Composite	+		0.10	<u>3.56</u>	3.46	3.41	H	M	L



Notable fields with three-year trend of increasing demand:

- *Bilingual ed and ESL

- *All 5 languages

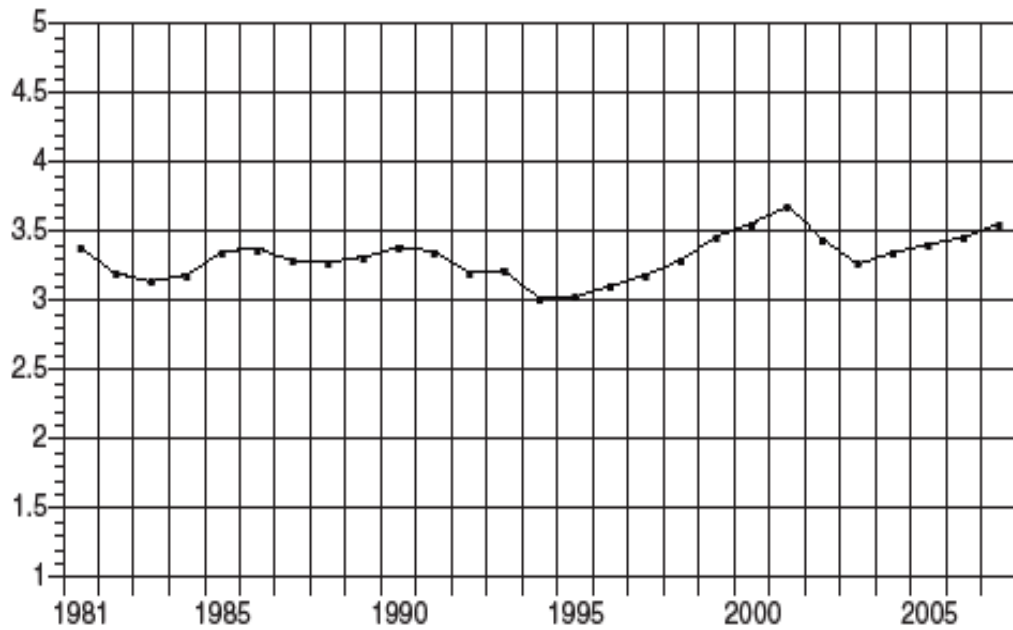
- *Math

- *All 5 sciences

All 10 special ed fields are at their highest scores in three years

The fields in the most demand continue to increase in demand

27-Year Trend (available composites)





Factors Affecting Supply of Educators

5.00 - 4.21 = Significant Positive Influence

4.20 – 3.41 = Moderate Positive Influence

3.40 – 2.61 = Midpoint – small direction of positive or negative

2.60 – 1.81 = Moderate Negative Influence

1.80 – 1.00 = Significant Negative Influence

<u>Career shifts - (into education)</u>	3.51	
Alternative Certification/Licensure	3.39	
Teacher benefits	3.30	
Distance Learning TEd	3.19	
State Funding	3.16	
Amount of Teacher Influence	3.11	
Local Funding	3.06	
Federal Funding	3.04	
Hiring of retirees	3.00	Midpoint



Factors Affecting Supply of Educators, cont.

5.00 - 4.21 = Significant Positive Influence

4.20 – 3.41 = Moderate Positive Influence

3.40 – 2.61 = Midpoint – small direction of positive or negative

2.60 – 1.81 = Moderate Negative Influence

1.80 – 1.00 = Significant Negative Influence

Foreign-prepared teachers	2.97
Economic Conditions	2.90
Working Conditions	2.87
Amount of Administrative Support	2.86
Teacher salaries	2.82
Amount of Student Motivation	2.81
Postponed Retirement	2.80
Local Board Policies	2.79
School Safety	2.75
Career shifts (out of education)	2.71
Amount of Teaching Time	2.69
State Mandates	2.64
Classroom Intrusions	2.63
<u>Testing of teachers</u>	2.52
<u>Federal Mandates</u>	2.52
Discipline Problems	2.21



While career shifts into education (often nontraditional career changers) is perceived as a moderately positive influence in teacher supply, testing of teachers and federal mandates (NCLB) are moderate negative influences in teacher supply.



Factors Affecting Demand for Educators

5.00 - 4.21 = Significant Positive Influence

4.20 – 3.41 = Moderate Positive Influence

3.40 – 2.61 = Midpoint – small direction of positive or negative

2.60 – 1.81 = Moderate Negative Influence

1.80 – 1.00 = Significant Negative Influence

<u>Student Enrollment - growing</u>	3.60
<u>Early Retirement</u>	3.45
<u>Routine Retirement</u>	3.40
Class Size - decreasing	3.32
Limited Eng. Prof. Students	3.26
	Mid-point
Federal Funding	2.98
Local Board Policies	2.98
State Mandates	2.92
State Funding	2.91
Local Funding	2.90
Class Size increasing	2.77
Postponed Retirement	2.73
Federal Mandates	2.68
Student Enrollment declining	2.42



Of course, increasing student enrollment leads to increasing demand for teachers. The other two factors most influencing teacher demand, early and routine retirement, do not always lead to new teachers being hired. In areas of the northeast, midwest, and mountain states, retiring teachers in districts experiencing decreasing enrollment are sometimes not replaced.



Availability of Minority Candidates

Research Question:

Describe the number of minority education candidates this year as compared with last year in fields offered by your institution/program. The following tables will show that minority student enrollment in education increased only 1 to 5% in a fifth or less of the schools of education and not at all in most schools.

Minority Preparation - Elementary

	+10%	+6-9%	+1-5%	Same	-1-5%	-6-9%	-10%
National 2007			20.3	71.9	7.8		
National 2006	2.4	3.6	20.1	63.8	8.1	0.9	1.2
National 2005	1.6	1.9	17.2	69.9	7.1	0.8	1.4
National 2004	2.7	1.5	17.8	63.5	11.4	1.5	1.7
National 2003	1.0	2.7	23.7	64.3	5.6	0.6	2.1
National 2002	1.6	3.6	22.8	63.7	5.4	2.2	0.8
National 2001	2.1	2.8	21.2	67.5	4.7	0.6	1.1
National 2000	2.4	3.9	19.3	67.2	5.8	0.6	0.9
National 1999	3.2	4.3	18.1	64.7	8.1	0.4	1.1
National 1998	5.1	6.5	19.4	58.0	8.5	0.9	1.6
National 1997	4.3	4.9	24.3	57.6	7.2	0.4	1.3
National 1996	3.6	3.8	27.1	55.9	5.8	1.6	1.6

Minority Preparation - Secondary

	+10%	+6-9%	+1-5%	Same	-1-5%	-6-9%	-10%
National 2007			17.9	74.1	8.0		
National 2006	2.4	3.3	19.1	67.3	4.8	1.8	1.2
National 2005	1.4	2.7	14.5	74.0	4.1	1.4	1.9
National 2004	1.7	2.4	14.9	66.6	10.7	2.2	1.5
National 2003	1.0	2.7	17.9	69.6	5.8	0.8	2.1
National 2002	1.2	3.0	19.7	68.0	5.0	2.0	1.2
National 2001	1.5	2.7	20.0	68.1	4.6	1.3	1.7
National 2000	2.4	3.2	19.0	67.6	5.6	0.9	1.3
National 1999	2.6	2.4	15.6	68.5	8.4	1.1	1.3
National 1998	3.7	5.7	17.0	64.2	7.1	0.9	1.5
National 1997	2.9	3.7	20.6	63.7	7.0	0.6	1.5
National 1996	3.6	3.4	23.1	31.4	4.6	2.0	1.8

Minority Preparation – Special Education

	+10%	+6-9%	+1-5%	Same	-1-5%	-6-9%	-10%
National 2007			13.8	78.3	7.9		
National 2006	2.3	2.7	15.1	72.5	3.1	3.1	1.2
National 2005	0.9	3.6	13.6	74.3	4.5	0.9	2.1
National 2004	2.2	1.9	10.8	72.6	8.9	1.6	1.9
National 2003	1.4	1.2	14.1	76.0	4.1	0.9	2.3
National 2002	1.8	2.5	17.2	70.6	3.6	2.3	2.0
National 2001	1.3	2.5	11.5	78.5	3.2	0.9	1.6
National 2000	2.6	1.7	12.0	74.4	6.7	1.0	1.7



Highlights & Conclusions

- **Job opportunities continue to increase for teachers and other educators, particularly in:**
 - **Special education**
 - **Math**
 - **Science**
 - **Bilingual education**
- **29 of 64 fields showed increased demand for the last three years**



Highlights, continued

- **Of 64 fields studied:**
 - **13 reported in Considerable Shortage**
 - **20 reported in Some Shortage**

- **Total of 33 in Shortage categories**
 - **28 reported in a Balance**

 - **3 reported in Some Surplus**
 - **0 reported in Considerable Surplus**



Highlights, continued

- **Composite is the second highest in the 27 years of analyzing a composite rating.**
- **17 fields show statistically significant increases over the past 3 years, including the national composite rating for 2007**
- **Continued perception of “no change” in the numbers of teachers of color coming through education programs**
- **In spite of decades-long shortages in special education, the shortage continues to increase while NCLB / HQT requirements become more demanding**



Highlights, continued

- **Comments indicated differences in rural, urban, suburban locations**
- **National demand ratings are stable and have increased over the past three years**
- **Regional demand ratings vary considerably and should be reviewed for regional variations**
 - **Comments indicate that there are even significant differences in teacher demand within some regions – demand is a local issue**
 - **Demand is driven mostly by increasing enrollment**
- **Trends in demand seem to be affected by requirements of NCLB and other mandates; many comments from respondents indicated the negative influences on the supply of educators**



Summary of the committee's discussions when analyzing the data and comments

- ❑ **NCLB demands on future and current teachers**
- ❑ **The crisis in the supply of special education teachers, and particularly in secondary special education**
- ❑ **Teaching salaries that do not allow new teachers to live reasonably in areas with high costs of living**
- ❑ **Lack of geographic flexibility of many teacher candidates**
- ❑ **Some districts experiencing decreasing enrollment do not replace retiring teachers**
- ❑ **Regional differences: teacher demand in the southeast and the southwest while surplus in the northeast and midwest**
- ❑ **Lack of diversity among teacher candidates and education majors**

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