Educator Supply and Demand in Washington

2000 Executive Summary

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State Superintendent of
Public Instruction

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Collaborative Study Involving

- Office of Superintendent of Public Instruction
- Washington School Personnel Association
- American Association for Employment in Education

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Highlights:

- There are considerable shortages in the teaching fields of special education, chemistry, physics, Japanese, bilingual education, mathematics, and technology education.
- There are no teaching fields indicating a surplus of candidates. All remaining fields were either in the categories of slight shortage or balanced. See Table 2.
- Areas of considerable shortage in support staff include school psychologists, occupational therapists, physical therapists, speech-language pathologists, and school nurses. See Table 5.
- Approximately 20 percent of all principals will be eligible to retire in the next five years.
- Approximately 36 percent of Washington superintendents will be eligible to retire in the next five years.

Implications for:

Officials at the Office of Superintendent of Public Instruction and other education agencies involved with policy decisions affecting the field:

- Be aware of the quickly changing educator supply and demand environment within the state.
- Consider strategies for statewide recruitment and retention of educators.
- Additions or deletions to educator preparation program offerings need to be evaluated with knowledge of supply and demand, as well as changing patterns of enrollment in public schools.
- Forecast the impact of legislation (i.e., reduction of class sizes) on the supply and demand of educators.
- Consider compensation and incentives as means of increasing the supply of educators.

Colleges and universities, including students selecting majors, career service representatives advising education students, and deans making decisions about teacher education programs:

Implications for students selecting majors:

- Compare your interests to areas in which there are considerable shortages.
- Consider multiple endorsements where at least one is in a relatively high-demand area.

Implications for career service administrators advising education students:

- Assist students who are interested in education in the selection of their majors, educating students about fields of high demand.

Implications for deans making decisions about teacher education programs:

- Consider ramifications of supply and demand with respect to program modifications, enrollment targets, and/or adding or deleting programs.

Personnel and human resources administrators in school systems searching for qualified candidates and counselors advising future college students:

- School districts may want to consider these data when developing their recruitment strategies.
- School counselors may find this information useful in counseling with students considering vocational choices.

Media and general public to help them understand the issues in educator supply and demand:

- There is a direct relationship between the quality of instruction and the learning of the student.
- Increasing enrollments in the public schools impact not only the hiring of educators, but also have implications for class size, capacity of buildings, and the cost of education.
- The increased opportunities in the labor market compete with attracting and retaining educators.

Background of the Study:

This is the first annual study of educator supply and demand in the state of Washington. It is patterned after the 23 years of supply and demand studies completed by the American Association for Employment in Education (AAEE). The Washington study will also be used as a correlation study for the AAEE national study in 2000. The organization and implementation of the study were supported by the Office of Superintendent of Public Instruction, Washington School Personnel Association, and the American Association for Employment in Education. The statistics were developed by the Research and Data Analysis Consultation Service at Ohio State University. The intent of the study was to provide data for decision making in the following ways:

- It will assist the Office of Superintendent of Public Instruction (OSPI) in planning appropriate actions to be taken in response to what districts are experiencing and what they perceive they will need in the future.
- It will guide policymaking by the State Board of Education.
- It will be shared with legislators, the Governor, and other agencies that make decisions about education funding in Washington.
- It will be shared with all survey respondents so that districts will have an understanding of statewide needs and concerns.

- It will impact decisions made about college and university educator preparation programs.
- It will inform the media and the general public relative to the issues in educator supply and demand.

Methodology:

The survey instrument was patterned after the AAEE national survey. The Washington survey was mailed to all 296 school districts in the state of Washington on January 10, with a return date of January 28. Subsequently, phone calls were made by the Washington School Personnel Association until responses were received by 92 percent of the school districts.

Copies of *Educator Supply and Demand in Washington:*

This report is available at the following Web site: www.k12.wa.us/ProfEd.

Tables

Teacher Demand vs. Availability:

Table 1 documents the actual teaching vacancies by assignment area as reported by the respondents and the number of endorsements on first-year certificates. Areas in which there was a great discrepancy between the number of vacancies and the number of available educators were agricultural education, bilingual education, business education, English/language arts, mathematics, general science, special education, technology education, and traffic safety.

Areas that seem to have a sufficient supply of candidates appear to be in the fields of drama, early childhood education, elementary education, English, ESL, German, Spanish, history, marketing education, reading, biology, chemistry, earth science, physics, social studies, and visual arts. These areas should be viewed with caution, as some of these are fields where teacher candidates will often have other employment options and may not enter the field of teaching.

Health/fitness was not included on the original survey, by error, and data will be collected as part of the 2001 survey.

Table 1

Number of Actual Vacancies for Educators by Teaching Fields for the 1999–2000 Academic Year

	Teaching Fields	Frequency of Actual Vacancies by Teaching Field	*Endorsements on First Washington Teacher Certificates 1998–99
1.	Agricultural Education	40	26
2.	Bilingual Education	71	45
3.	Business Education	111	78
4.	Dance	10	
5.	Drama	24	68
6.	Early Childhood Ed.	69	556
7.	Early Childhood Special Ed.	93	103
8.	Elementary Education	2039	3292
9.	English	279	806
10.	English/Language Arts	284	161
11.	ESL (English-as-a-Second Language)	126	242
12.	Family Consumer Sciences	77	72
13.	World Language—French	41	64
14.	World Language—German	18	46
15.	World Language—Japanese	13	16
16.	World Language—Spanish	122	219
17.	History	104	588
18.	Library Media	111	
19.	Marketing Education	34	69

*Multiple endorsements may be awarded to individuals.

	Teaching Fields	Frequency of Actual Vacancies by Teaching Field	*Endorsements on First Washington Teacher Certificates 1998–99
20.	Mathematics	422	312
21.	Music—Instrumental	88	97
22.	Music—Choral	69	88
23.	Music—General	126	144
24.	Reading	165	306
25.	Science—General	227	189
26.	Science—Biology	68	313
27.	Science—Chemistry	33	133
28.	Science—Earth Science	30	73
29.	Science—Physics	26	68
30.	Social Studies	263	460
31.	Special Education	941	742
32.	Technology Education	112	25
33.	Traffic Safety	39	29
34.	Visual Arts	56	176

*Multiple endorsements may be awarded to individuals.

Supply vs. Demand for Education Teaching Fields:

Respondents were asked to compare the supply of candidates to the number of openings for each of the fields in which they had a vacancy for the 1999–2000 school year.

Fields with considerable shortage: bilingual education, Japanese, mathematics, chemistry, physics, special education, and technology education.

Fields with slight shortage: agriculture, business, dance, drama, early childhood special education, ESL, family and consumer sciences, French, German, Spanish, library/ media, marketing education, music (all areas), general science, biology, earth science, and traffic safety.

Balanced: early childhood education, elementary education, English, English/language arts, history, reading, social studies, visual arts.

No teaching fields appear in the areas of slight surplus or considerable surplus.

Table 2

Means of School District Administrators' Perceptions of Teacher Supply and Demand for the 1999–2000 Academic Year vs. National Means from University Career Services Directors

	Teaching Fields	Washington State Means	National 1999 Means	Difference for Washington
1.	Agricultural Education	4.19	3.50	+ .69
2.	Bilingual Education	4.22	4.32	- .10
3.	Business Education	3.95	3.16	+ .79
4.	Dance	3.56	2.76	- .20
5.	Drama	3.75	2.84	+ .91
6.	Early Childhood Education	3.35	2.88	+ .47
7.	Early Childhood Special Education	4.20		
8.	Elementary Education	2.74	2.90	- .16
9.	English	3.20	3.05	+ .15
10.	English/Language Arts	3.19	3.05	+ .14
11.	ESL (English-as-a-Second Language)	3.94	3.98	- .04
12.	Family Consumer Sciences	3.79	3.57	+ .22
13.	World Language—French	3.92	3.29	+ .63
14.	World Language—German	3.91	3.16	+ .75
15.	World Language—Japanese	4.26	3.32	+ .94
16.	World Language—Spanish	3.99	4.04	- .05
17.	History	2.78		
18.	Library Media	4.00	3.69	+ .31
19.	Marketing Education	3.81	3.16	+ .65
20.	Mathematics	4.22	4.18	+ .04
21.	Music—Instrumental	4.04	3.35	+ .69
22.	Music—Choral	4.06	3.31	+ .75
23.	Music—General	4.01		

	Teaching Fields	Washington State Means	National 1999 Means	Difference for Washington
24.	Reading	3.33	3.43	- .10
25.	Science—General	3.97	3.86	+ .11
26.	Science—Biology	4.01	3.88	+ .13
27.	Science—Chemistry	4.32	4.17	+ .15
28.	Science—Earth Science	3.93	3.90	+ .03
29.	Science—Physics	4.32	4.26	+ .06
30.	Social Studies	2.72	2.45	+ .27
31.	Special Education	4.51	4.25	+ .26
32.	Technology Education	4.22	4.03	+ .19
33.	Traffic Safety	3.45	2.91	+ .54
34.	Visual Arts	3.35	2.78	+ .57

Note: 5 = Considerable shortage
4 = Slight shortage
3 = Balanced
2 = Slight surplus
1 = Considerable surplus

Number of Projected Retirements:

School districts were asked to list the number of staff currently teaching/working in the fields listed who will be eligible to retire during the academic years of 2000–2005. The reader should be cautioned that eligibility to retire does not always equate to the number of actual retirements that could occur during that time, as individuals may decide to remain in their positions longer. Salaries, benefits, change in retirement laws, economics, and health are all factors that could impact the decision to retire.

The total listed below are 7,303 or 14 percent of the 1998–99 teaching force in the State of Washington (51,523).

Table 3

Number of Eligible Projected Retirees by Teaching Fields for the 2000–2005 Academic Years*

	Teaching Fields	Frequency of Projected Retirees
1.	Agricultural Education	46
2.	Bilingual Education	40
3.	Business Education	132
4.	Dance	4
5.	Drama	26
6.	Early Childhood Ed.	130
7.	Early Childhood Special Ed.	37
8.	Elementary Education	2966
9.	English	330
10.	English/Language Arts	332
11.	ESL (English-as-a-Second Language)	58
12.	Family Consumer Sciences	98
13.	World Language—French	45
14.	World Language—German	18
15.	World Language—Japanese	13
16.	World Language—Spanish	122
17.	History	104
18.	Library Media	118
19.	Marketing Education	34
20.	Mathematics	422
21.	Music—Instrumental	90
22.	Music—Choral	69
23.	Music—General	126
24.	Reading	165
25.	Science—General	227
26.	Science—Biology	68
27.	Science—Chemistry	33
28.	Science—Earth Science	30
29.	Science—Physics	26
30.	Social Studies	263
31.	Special Education	924
32.	Technology Education	112
33.	Traffic Safety	39
34.	Visual Arts	56

*75 additional teachers are eligible to retire from the Seattle Public Schools who are not included in the categories

Supply and Demand for Support Staff and Administrators:

Respondents were asked to identify the number of vacancies in support staff and administrative areas. OSPI supplied the number of first-issue certificates for 1998–99. Considerable discrepancies existed in the areas of school psychologists, occupational therapists, physical therapists, speech-language pathologists, and nurses.

Table 4

Number of Actual Vacancies for Support Staff and Administrators for the 1999–2000 Academic Year

	Support Staff and Administrators	Frequency of Actual Vacancies for Support Staff and Administrators	Number of First-Issue Certificates 1998–99
1.	Counselor	238	248
2.	School Psychologist	157	69
3.	Occupational Therapist	84	57
4.	Physical Therapist	50	21
5.	Social Worker	16	37
6.	Speech-Language Pathologist	171	113
7.	School Nurse	87	55
8.	Principal—Elementary	130	
9.	Principal—Middle School	61	458 total for 8-9-10
10.	Principal—High School	68	
11.	Human Resources	27	NA
12.	Business Manager	22	NA
13.	Superintendent	46	56

Supply and Demand for Administrators and Support Staff:

Comparing the Washington study with the national study of supply and demand fields, four fields are found on both surveys, with Washington means being higher than the national means in all four cases, indicating more of a shortage in Washington than across the country. In combination with the shortages of special education teachers, the shortages of support staff threatens the levels of services to students with disabilities.

Table 5

Means and Standard Deviations of Support Staff and Administrators Projected Supply and Demand for the 1999-–2000 Academic Year

	Support Staff and Administrators	Means	National	Difference
1.	Counselor	3.86	3.40	+ .46
2.	School Psychologist	4.41	3.51	+ .90
3.	Occupational Therapist	4.52	NA	
4.	Physical Therapist	4.49	NA	
5.	Social Worker	3.56	3.20	+ .36
6.	Speech-Language Pathologist	4.44	4.18	+ .26
7.	School Nurse	4.04	NA	
8.	Principal—Elementary	3.63	NA	
9.	Principal—Middle School	3.81	NA	
10.	Principal—High School	4.02	NA	
11.	Human Resources	3.45	NA	
12.	Business Manager	3.47	NA	
13.	Superintendent	3.37	NA	

Note: 5 = Considerable shortage
4 = Slight shortage
3 = Balanced
2 = Slight surplus
1 = Considerable surplus

As seen below, all fields fall into considerable shortage or slight shortage with the exception of superintendent. However, the mean for superintendent is only .04 away from slight shortage. Table 6 will confirm the concerns for the future supply of superintendents and principals.

Relative Demand of Support Staff and School Administrators

Occupational Therapist	4.52
Physical Therapist	4.49
Speech-Language Pathologist	4.44
School Psychologist	4.41
School Nurse	4.04
Principal—High School	4.02
Counselor	3.86
Principal—Middle School	3.81
Principal—Elementary	3.63
Social Worker	3.56
Business Manager	3.47
Human Resources	3.45
Superintendent	3.37

Projected Retirements of Support Staff and Administrators:

School districts were asked to identify the number of support staff and administrators who will be eligible to retire within the 2000–2005 years.

It is particularly noteworthy that over one-third of the superintendents will be eligible to retire during this period of time. In addition, the percentage of principals eligible to retire in the next five years is of great concern.

Table 6

Number of Eligible Projected Retirees of Support Staff and Administrators for the 2000–2005 Academic Years

	Support Staff and Administrators	Frequency of Retirees Projected	Total Employed in 1998–99	Percentage Eligible to Retire During 2000–2005
1.	Counselor	319	1,918	17%
2.	School Psychologist	115	805	14%
3.	Occupational Therapist	34	280	12%
4.	Physical Therapist	20	134	15%
5.	Social Worker	9		
6.	Speech-Language Pathologist	86	911	9%
7.	School Nurse	53	424	13%
8.	Principal—Elementary	256	1,229	21%
9.	Principal—Middle School	106	1,246	20%
10.	Principal—High School	140	Merged with MS	Merged with MS
11.	Human Resources	43		
12.	Business Manager	53		
13.	Superintendent	99	274	36%

Factors Impacting Supply and Demand:

Schools were asked to respond to a standardized list of factors used on the AAEE national survey for the past five years impacting supply and demand of educators. Respondents were also asked to provide comments regarding specific factors unique to Washington State.

Table 7

Means of School District Administrators' Perceptions of Factors Influencing New Teacher Hires in Descending Order

2-2	Routine Retirement	3.39
1-1	Federal Funding	3.30
3-1	State Mandates	3.30
4-6	Class Size	3.26
3-2	Federal Mandates	3.25
1-2	State Funding	3.18
4-1	Limited English-Proficient Students	3.15
1-3	Local Funding	3.03
2-3	Early Retirement	3.03
4-2	Shifts of Teachers	3.03
4-4	Student Enrollment	3.02
4-3	Shifts of Students	2.97
4-7	Military Demobilization	2.95
2-1	Postponed Retirement	2.88
4-5	Private Schools/Home Schooling	2.87

Note: 5 = has significantly increased my need to hire teacher
4 = has moderately increased my need to hire teachers
3 = has had no influence on my need to hire teachers
2 = has moderately decreased my need to hire teachers
1 = has significantly decreased my need to hire teachers

The following comments and factors were added by respondents as being unique or important to Washington districts.

1. Shortages by teaching field: math, special education.
2. National and local economy.
3. Time: mid-year opening, difficulty to find applicants.
4. Low starting pay and unsafe working conditions.
5. Varies by school level.
6. School/district size.
7. Low pay.
8. Small or large class size and new certification policies.
9. Location.
10. Lack of new college graduates.
11. New certification standards.
12. Increase in workload, but low pay.