



State of Arizona
Department of Education

***Arizona Revised State Plan
and Revised Equity Plan
2006-2007***

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The Highly Qualified Teacher (HQT) report for school year 2006-07 provides information both for elementary and secondary schools overall and for the highest poverty quartile and lowest poverty quartile for elementary and secondary schools. Two sources of poverty level data exist for Arizona schools: data from the Student Accountability Information System (SAIS) and data from the Free and Reduced Lunch (FRL) Report. The SAIS data are submitted by the districts through an automated software interface and although each SAIS transaction is validated, only inconsistencies in format and business rules are flagged. In other words, even though best efforts are utilized to ensure the accuracy of data being reported, there is no formal monitoring or verification process for SAIS poverty data. Districts are also required to submit data for the National School Lunch Program by reporting free-reduced as a percent of total eligible students. In addition to entry validation, these data submissions are monitored and verified on a random basis by Health and Nutrition Services in Arizona Department of Education's (ADE) Academic Achievement Division. Districts selected for monitoring must provide parental documentation of poverty level ensuring accuracy of the poverty level data reported on the Free and Reduced Lunch Report. A comparison of SAIS and FRL data was conducted in order to determine which poverty dataset to use in this current analysis. It was determined that the FRL data were more stable since the data are randomly monitored for accuracy. Those schools without FRL data were not included in the data extraction by poverty quartiles.

ADE designed and implemented the Highly Qualified Teacher Input application to assure increased accuracy for 2006-2007 data collection. Using the Highly Qualified Teacher Input application, district schools access an employee list generated from their School District Employee Report (SDER). The local education agency (LEA) verifies the employment list and adds any new employees and their positions. The LEA reports new employee positions and provides data on which criteria are being used to meet HQT status. The data are sent to ADE and cross-checked by ADE staff using the certification database and conducting one-on-one monitoring. Because charter schools are not required to submit the SDER, they must initially generate the employee list. All other steps in the process are identical to the process identified for district schools. A review of the 2006-2007 data indicated that data were incomplete for 31 reporting public school districts. In addition, 140 charter schools did not report (30 of these schools are for-profit charter schools and are not required by federal law to report).

To arrive at the highest-poverty quartile and lowest-poverty quartile, Arizona schools were first separated into two school levels, elementary and secondary from a dataset containing records for 1911 schools, 1457 elementary and 454 secondary schools (including charter schools). Using only those schools with FRL poverty data, data were extracted for schools at each level, from the top and bottom quartiles. The final dataset used for analysis contained 1553 total schools, 1269 elementary and 284 secondary.

The following section contains several tables that provide an analysis of the number of core academic classes taught by all HQ teachers and non-HQ teachers in the highest and lowest poverty schools using poverty data derived from the National School Lunch and Breakfast Programs, Percentage of Free and Reduced March 2006 Report. Table 1a presents the number of core academic classes taught by all teachers in all schools in the dataset and by non-HQ teachers in high and low poverty schools at elementary and secondary levels. Because middle grade core classes are included in both elementary and secondary level schools, Table 1b was created to

permit closer examination of the core classes being taught by HQ and non-HQ teachers by grade level: elementary core classes, middle grade core classes and secondary level core classes.

Analysis of School Level Data

Accurate HQT data are available at the school level for 2006-07, which includes the 1553 schools reporting with complete datasets for the 2006-07 school year. Of these 1553 schools, 1269 are elementary and 284 are secondary. The overall average percentage of core academic classes being taught by non-highly qualified teachers both in elementary and secondary is 5.3%.

Table 1a. Core Academic Classes Taught by Non-HQT in High and Low Poverty Schools by School Level

School Level	Number of Core Academic Classes Taught by all Teachers	Number of Core Academic Classes Taught by Non-Highly Qualified Teachers	Percentage of Core Academic Classes Taught by Non-Highly Qualified Teachers
	2006-2007	2006-2007	2006-2007
All Elementary	158,397	8,383	5.29%
High-Poverty	36,768	2,882	7.84%
Low-Poverty	35,632	823	2.31%
All Secondary	47,889	2,550	5.32%
High-Poverty	6,754	377	5.58%
Low-Poverty	8,999	348	3.87%
Total	206,286	10,933	5.30%
Total High-Poverty	43,522	3,259	7.49%
Total Low-Poverty	44,631	1,171	2.63%

In the 25% of elementary schools with the highest levels of poverty, 7.84% of classes are taught by teachers who are not HQ. In the 25% of elementary schools with the lowest poverty, this percentage is 2.31%. These results indicate that there is a disparity in the percentages of classes taught by HQ teachers in the high and low poverty elementary schools; that disparity appears to *disadvantage high poverty schools*.

In the 25% of secondary schools with the highest levels of poverty, 5.58% of classes are taught by teachers who are not HQ. In the 25% of secondary schools with the lowest poverty, this percentage is 3.87%. These results indicate that there is a disparity in the percentages of classes taught by HQ teachers in the high and low poverty secondary schools; that disparity appears to *disadvantage high poverty schools*.

Analysis of Grade Level Data

Analyses of grade level data are presented in three separate sections (elementary, middle, secondary) on the following pages. Table 1b presents an overview of the core academic classes taught by non-HQT in high and low poverty schools by grade level.

Table 1b. Core Academic Classes Taught by Non-HQT in High and Low Poverty Schools by Grade Level

Grade Level	Number of Core Academic Classes Taught by all Teachers	Number of Core Academic Classes Taught by Non-Highly Qualified Teachers	Percentage of Core Academic Classes Taught by Non-Highly Qualified Teachers
	2006-2007	2006-2007	2006-2007
Elementary Grades	128,601	4,986	3.88%
High-Poverty	31,346	2,011	6.42%
Low-Poverty	28,814	360	1.25%
Middle Grades	30,197	3,430	11.36%
High-Poverty	5,517	876	15.88%
Low-Poverty	6,997	472	6.75%
Secondary Grades	47,488	2,517	5.30%
High-Poverty	6,659	372	5.59%
Low-Poverty	8,820	339	3.84%
Total	206,286	10,933	5.30%
Total High-Poverty	43,522	3,259	7.49%
Total Low-Poverty	44,631	1,171	2.63%

Elementary Core Academic Classes

Table 2. Elementary High and Low Poverty School Core Academic Classes Taught by Non-HQ by Subject

	All Schools			High Poverty			Low Poverty		
	Non HQ	Total	%	Non HQ	Total	%	Non HQ	Total	%
Elementary Core	4,986	128,601	3.88%	2011	31,346	6.42%	360	28,814	1.25%
ESL/BLE	129	2,710	4.76%	34	765	4.44%	6	374	1.60%
Cross Categorical	1,201	8,100	14.83%	353	1,916	18.42%	118	1,729	6.82%
Early Childhood	436	1,927	22.63%	72	243	29.63%	81	432	18.75%
Emotional Disability	244	1,534	15.91%	23	300	7.67%	16	252	6.35%
Hearing Impairment	0	253	0.00%	0	26	0.00%	0	33	0.00%
Learning Disability	509	6,158	8.27%	62	1,223	5.07%	97	1,240	7.82%
Mental Retardation	156	1,864	8.37%	64	526	12.17%	16	364	4.40%
Orthopedic Impairments	3	51	5.88%	0	24	0.00%	0	6	0.00%
Severely/Profoundly	61	358	17.04%	16	79	20.25%	9	98	9.18%
Visual Impairment	3	112	2.68%	0	12	0.00%	0	38	0.00%
Special Education Totals	2,613	20,357	12.84%	590	4,349	13.57%	337	4,192	8.04%

In Arizona’s elementary classrooms, data indicate that overall, 3.88% of elementary core classes are taught by teachers who do not meet the requirements of HQT. In the 25% of elementary schools with the highest levels of poverty, 6.42% of classes are taught by teachers who are not HQ. In the 25% of elementary schools with the lowest poverty, this percentage is 1.25%. These results indicate that there is a disparity in the percentages of classes taught by HQ teachers in the high and low poverty elementary schools; that disparity appears to *disadvantage high poverty*

schools. In elementary schools, 4.76% of ESL/BLE classes and 12.84% of special education classes are being taught by non-HQ teachers. In the 25% of elementary schools with the highest levels of poverty, 4.44% of ESL/BLE classes are taught by teachers who are not HQ. In the 25% of elementary schools with the lowest poverty, this percentage is 1.6%. In the 25% of elementary schools with the highest levels of poverty, 13.57% of special education classes are taught by teachers who are not HQ. In the 25% of elementary schools with the lowest poverty, this percentage is 8.04%. These results indicate that there is a disparity in the percentages of ESL/BLE and special education classes taught by HQ teachers in the high and low poverty elementary schools; that disparity appears to *disadvantage high poverty schools.*

Middle Grade Core Academic Classes

Table 3. Middle Grade High and Low Poverty School Core Academic Classes Taught by Non-HQ by Subject

	All Schools			High Poverty			Low Poverty		
	Non HQ	Total	%	Non HQ	Total	%	Non HQ	Total	%
MG Language Arts/Reading	922	10,257	8.99%	280	1,933	14.49%	107	2,287	4.68%
MG Mathematics	897	7,426	12.08%	235	1,346	17.46%	77	1,655	4.65%
MG Science	934	5,857	15.95%	201	1,037	19.38%	141	1,441	9.78%
MG Social Studies	677	6,657	10.17%	160	1,201	13.32%	147	1,614	9.11%
Total MG Core Classes	3,430	30,197	11.36%	876	5,517	15.88%	472	6,997	6.75%

The data indicate that all classes in the middle grades are of concern, based on percentages of teachers who are non-HQ are:

1. Middle Grade Science (16%)
2. Middle Grade Math (12%)
3. Middle Grade Social Studies (10%)
4. Middle Grade Language Arts/Reading (9%)

In the 25% of middle grades in schools with the highest levels of poverty, 15.88% of middle grade classes are taught by teachers who are not HQ. In the 25% of middle grades in schools with the lowest poverty, this percentage is 6.75%. These results indicate that there is a disparity in the percentages of middle grade classes taught by HQ teachers in the high and low poverty schools; that disparity appears to *disadvantage high poverty schools.* This disparity is seen across all the middle grade core academic areas:

- 19% of MG science classes in high poverty schools are taught by non-HQ teachers and 10% of the MG science classes in low poverty schools are taught by non-HQ teachers.
- 17% of MG math classes in high poverty schools are taught by non-HQ teachers while 5% of the MG math classes in low poverty schools are taught by non-HQ teachers.
- 14% of MG language arts/reading classes in high poverty schools are taught by non-HQ teachers while 5% of the language arts/reading classes in low poverty schools are taught by non-HQ teachers.
- 13% of MG social studies classes in high poverty schools are taught by non-HQ teachers while 9% of the MG math classes in low poverty schools are taught by non-HQ teachers.

Secondary Core Academic Classes

Table 4. Secondary High and Low Poverty School Core Academic Classes Taught by Non-HQ by Subject

	All Schools			High Poverty			Low Poverty		
	Non HQ	Total	%	Non HQ	Total	%	Non HQ	Total	%
Arts	105	3,747	2.80%	26	418	6.22%	14	732	1.91%
Civics/Government	149	1,489	10.01%	16	253	6.32%	31	360	8.61%
Economics ¹	175	873	20.05%	31	112	27.68%	35	214	16.36%
English	348	11,720	2.97%	48	1,632	2.94%	36	2,074	1.74%
Foreign Language	127	4,136	3.07%	10	475	2.11%	28	865	3.24%
Geography	94	425	22.12%	37	70	52.86%	15	182	8.24%
History	260	6,001	4.33%	21	913	2.30%	53	1,020	5.20%
Mathematics	624	10,603	5.89%	103	1,548	6.65%	24	1,783	1.35%
Science	635	8,494	7.48%	80	1,238	6.46%	103	1,590	6.48%
Total Core Classes	2,517	47,488	5.30%	372	6,659	5.59%	339	8,820	3.84%
ESL/BLE	142	1,334	10.64%	30	388	7.73%	0	125	0.00%
Cross Categorical	438	2,301	19.04%	72	346	20.81%	11	365	3.01%
Emotional Disability	52	398	13.07%	8	56	14.29%	0	83	0.00%
Hearing Impairment	0	23	0.00%	0	1	0.00%	0	5	0.00%
Learning Disability	341	2,782	12.26%	29	450	6.44%	45	478	9.41%
Mental Retardation	44	853	5.16%	10	96	10.42%	10	129	7.75%
Orthopedic Impairments	0	53	0.00%	0	0		0	37	0.00%
Severely/Profoundly	15	99	15.15%	5	7	71.43%	5	20	25.00%
Visual Impairment	0	17	0.00%	0	0	0.00%	0	0	0.00%
Special Education Totals	890	6526	13.64%	124	956	12.97%	71	1117	6.36%

In Arizona's secondary classrooms, data indicate that overall, 5.30% of core classes are taught by teachers who do not meet the requirements of HQT. In the 25% of secondary schools with the highest levels of poverty, 5.59% of classes are taught by teachers who were not HQ. In the 25% of secondary schools with the lowest poverty, this percentage is 3.84%. These results indicate that there is a disparity in the percentages of classes taught by HQ teachers in the high and low poverty schools; that disparity appears to *disadvantage high poverty schools*. The same disparity is true for the ESL/BLE classes and special education classes as seen in Table 4.

Of the individual core academic areas, geography (22%), economics (20%), and civics/government (10%) appear to be the areas with the highest percentage of classes being taught by non-HQ teachers. The individual core areas of math and science have less than 8% of classes being taught by non-HQ teachers, 5.89% and 7.48% respectively. In the highest poverty schools, there is a higher percentage of non-HQ teachers teaching mathematics classes, while percentage of science classes being taught by non-HQ are almost equal at 6.46% and 6.48%. Approximately 14% of special education classes are being taught by non-HQ teachers. The primary areas of concern are:

¹ At the time of data collection, the Arizona State Board of Education had not approved a “pass” score for economics; therefore individuals seeking certification in economics were unable to officially pass the AEPA in their content area and were counted as non-HQT.

1. Cross categorical classes (19%)
2. Severe/profound disability (15%)
3. Emotional disability (13%)
4. Learning disability (12%)

In the 25% of secondary schools with the highest levels of poverty, 12.97% of the special education classes are being taught by non-HQ teachers compared to 6.36% in the low poverty schools. These results indicate that there *is* a disparity in the percentages of classes taught by HQ teachers in the high and low poverty schools; that disparity appears to *disadvantage high poverty schools*. Approximately 11% of the ESL/BLE classes are being taught by non-HQ teachers. In the high poverty schools, 7.73% of ESL/BLE classes are taught by non-HQ teachers while none of the ESL/BLE classes in low poverty schools are taught by non-HQ teachers. These results indicate that there *is* a disparity in the percentages of classes taught by HQ teachers in the high and low poverty schools; that disparity appears to *disadvantage high poverty schools*.

Rural Teachers in Arizona

The data presented in the table below were gathered under the federal Rural Education Achievement Program (REAP) program definitions.

Table 5. Core Academic Classes Taught in REAP Charter Schools and Districts by Non-HQT and HQT

	REAP Charter Schools Number of Courses Taught			REAP District Schools Number of Courses Taught			REAP Total	
	Non HQT	HQT	% Non HQT	Non HQT	HQT	% Non HQT	Total	Total % Non HQT
Elementary Core Content	37	507	6.8%	560	9,678	5.5%	10,782	5.5%
Middle Grades								
MG Language Arts/Reading	0	58	0.0%	111	688	13.9%	857	13.0%
MG Mathematics	0	76	0.0%	158	519	23.3%	753	21.0%
MG General Science	5	38	11.6%	113	346	24.6%	502	23.5%
MG Social Studies	0	44	0.0%	118	436	21.3%	598	19.7%
Secondary Classes								
Arts	10	21	32.3%	61	978	5.9%	1,070	6.6%
Civics/Government	2	6	25.0%	21	122	14.7%	151	15.2%
Economics	1	0	100.0%	2	38	5.0%	41	7.3%
English	7	52	11.9%	77	847	8.3%	983	8.5%
Foreign Language	0	8	0.0%	33	339	8.9%	380	8.7%
Geography	0	0	0.0%	9	53	14.5%	62	14.5%
History	2	35	5.4%	43	422	9.2%	502	9.0%
Mathematics	0	52	0.0%	131	710	15.6%	893	14.7%
Science	0	44	0.0%	76	615	11.0%	735	10.3%
Total Core Classes	64	941	6.4%	1,513	15,791	8.7%	18,309	8.6%
ESL/BLE	0	0	0.0%	24	266	8.3%	290	8.3%
Special Education								
Cross Categorical	7	99	6.6%	241	825	22.6%	1,172	21.2%
Early Childhood	0	0	0.0%	28	114	19.7%	142	19.7%

	REAP Charter Schools Number of Courses Taught			REAP District Schools Number of Courses Taught			REAP Total	
	Non HQT	HQT	% Non HQT	Non HQT	HQT	% Non HQT	Total	Total % Non HQT
Emotional Disability	5	7	41.7%	24	80	23.1%	116	25.0%
Hearing Impairment	0	0	0.0%	0	9	0.0%	9	0.0%
Learning Disability	18	39	31.6%	103	632	14.0%	792	15.3%
Mental Retardation	0	4	0.0%	6	121	4.7%	131	4.6%
Orthopedic Impairments	0	0	0.0%	0	7	0.0%	7	0.0%
Severely/Profoundly	0	0	0.0%	4	29	12.1%	33	12.1%
Visual Impairment	0	0	0.0%	0	12	0.0%	12	0.0%
Special Education Totals	30	149	20.13%	406	1829	22.20%	2414	0.01%

In Arizona’s REAP charter schools, data indicate that 6.4% of the core classes taught in REAP charter schools and 8.7% of the core classes taught in REAP districts are being taught by non-HQ teachers. These results indicate that there *is* a small disparity in the percentages of classes taught by HQ teachers in charter school and district schools in the most rural areas of the state. When compared to the totals for elementary and secondary core classes taught by non-HQ teachers in Tables 2 and 3, these percentages are somewhat higher, indicating a small disparity between REAP schools and the aggregate of all other schools. The percentages in REAP schools are slightly higher.

As has been reported in the elementary and secondary data for all Arizona schools, the greatest percentage of classes being taught by non-HQ teachers in REAP schools fall in the middle grades. The primary areas of concern for both REAP charter and REAP districts are:

1. Middle grade core areas (all four areas)
2. Civics/Government
3. Mathematics
4. Geography
5. Science

Approximately 18% of the special education classes are being taught by non-HQ teachers. The primary areas of concern are:

1. Emotional Disability (25%)
2. Cross Categorical (21%)
3. Early Childhood (20%)
4. Learning Disability (15%)
5. Severely/Profoundly Disabled (12%)

Analysis by County

In the display of data below, the number and percentage of core academic classes taught by HQ and non-HQ teachers are displayed by county. The data are sorted by percent of classes taught.

Table 6. HQ and Non-HQ Status of Arizona Core Classes by County

County	Number of classes taught by non- HQ teachers	Number of classes taught by HQ teachers	Total Number of classes taught	Percent of classes taught by non-HQ teachers	Percent of classes taught by HQ teachers
Pima	954	30,979	31,933	2.99%	97.01%
Cochise	281	5,768	6,049	4.65%	95.35%
Maricopa	8,415	156,723	165,138	5.10%	94.90%
Yavapai	395	6,013	6,408	6.16%	93.84%
Santa Cruz	143	1,921	2,064	6.93%	93.07%
Coconino	372	4,970	5,342	6.96%	93.04%
Apache	374	3,419	3,793	9.86%	90.14%
Navajo	546	4,829	5,375	10.16%	89.84%
Graham	195	1,476	1,671	11.67%	88.33%
Mohave	794	5,892	6,686	11.88%	88.12%
Pinal	1,267	9,172	10,439	12.14%	87.86%
Gila	299	1,672	1,971	15.17%	84.83%
La Paz	123	676	799	15.39%	84.61%
Yuma	1,568	6,983	8,551	18.34%	81.66%
Greenlee	98	360	458	21.40%	78.60%
TOTAL	15,824	240,853	256,677	6.16%	93.84%

The state average for percent of classes taught by non-HQ teachers is 6.16%. Eleven of Arizona’s 15 counties exceed that state average. These counties have traditionally been considered rural counties and most are located far from the major population centers, which are located in Maricopa and Pima counties. Several of these counties face significant challenges in the recruitment and retention of highly qualified teachers because of rapid growth rate. The population growth rate for the entire state between 1990 and 2000 is 40.0%. The chart on the following page provides the growth rates for each county between 1990 and 2000.

Population by County (Source: U.S. Bureau of Census)

	Census 2000 Population	Change from 1990	Percent Change
ARIZONA	5,130,632	1,465,404	40.0
Apache County	69,423	7,832	12.7
Cochise County	117,755	20,131	20.6
Coconino County	116,320	19,729	20.4
Gila County	51,335	11,119	27.6
Graham County	33,489	6,935	26.1
Greenlee County	8,547	539	6.7
La Paz County	19,715	5,871	42.4
Maricopa County	3,072,149	950,048	44.8
Mohave County	155,032	61,535	65.8
Navajo County	97,470	19,812	25.5
Pima County	843,746	176,866	26.5
Pinal County	179,727	63,348	54.4
Santa Cruz County	38,381	8,705	29.3
Yavapai County	167,517	59,803	55.5
Yuma County	160,026	53,131	49.7

In Pinal, Gila, La Paz, Yuma, and Greenlee, classes taught by non-HQ teachers exceed the state average by more than ten percentage points. Each of these counties faces unique challenges. Greenlee and Gila counties have several former mining communities with sharply declining populations and low teacher salaries. Pinal County faces different but equally challenging circumstances. Sandwiched between the two largest metropolitan areas in Arizona, this formerly rural county faces difficulty in attracting and keeping HQ teachers who are drawn to the higher salaries of the nearby metropolitan areas. In addition to rapidly growing counties, Pinal, Yuma and La Paz counties are also have large influxes of seasonal populations. Yuma is home to large migrant populations and La Paz is home to winter visitors and tourists during high seasons. In addition a very small percentage of land in La Paz County is privately owned making it difficult to market the community to teachers with families interested in buying homes and settling in the community.

Teacher Assignment in Arizona

Identifying the Courses Often Taught by Non-HQ Teachers

In addition to the analysis above, which examines core classes most often taught by Non-HQ teachers, ADE used another method to identify and track particular courses that are often taught by non-HQT teachers. In this analyses ADE staff examined statewide requests to the Arizona State Board of Education for the issuance of Emergency Teaching Certificates. Using this

methodology, the following courses were identified as often taught by non-highly qualified teachers:

1. Special Education (all nine areas combined)
2. Elementary Education
3. Mathematics
4. English
5. Science

The table on the following page presents the number and areas in which the Arizona State Board of Education issued Emergency Teaching Certificates for the 2005-06 school year and the number of certificates issued in the *year to date* for 2006-07. It is displayed from the greatest to least number issued. The content areas in which the most Emergency Teaching Certificates issued in this group were:

1. Elementary Education
2. Cross Categorical Special Education
3. Mathematics
4. English
5. Learning Disability Special Education
6. Early Childhood Special Education
7. General Science

The overall number of Emergency Teaching Certificates issued shows a 10.84% decline between the fiscal year 2005-06 and the period of July 1, 2006 and April 30, 2007. The largest number of certificates issued in a single area in 2006-2007 was 817 for elementary education; however, there has been a 12% decrease in the number of certificates being issued in this area. Even with a 7.7% reduction in the number, there continues to be a high need for emergency certificates in the category of Special Education with 825 certificates being issued in 2006-2007. Emergency certificates in Science areas have decreased by approximately 20%. Certificates issued in Mathematics have also been reduced by approximately 9%, but requests for emergency certificates for both middle grade science and middle grade mathematics have increased.

Table 7. Comparison of Emergency Teaching Certificates Issued in Full Year 2005-06 to First 10 Months of 2006-07

Certificate Area	Full Year 2005-06 July 1 to June 30	10 Months 2006-2007 July 1 to April 30	Difference between 2005-06 and 2006-07	% Decline (-) or % Increase
Elementary Education	928	817	-111	-12.00%
<i>Special Education</i>	878	825	-53	-6.04%
Cross Categorical Special Educ	528	506	-22	-4.20%
Learning Disability Special Educ	150	108	-42	-28.00%
Early Childhood Special Educ	85	96	11	12.90%
Emotional Disability Special Educ	40	41	1	2.50%
Mental Retardation Special Educ	39	33	-6	-15.40%
Severely and Profoundly Special Educ	16	23	7	43.80%
Hearing Impaired Special Educ	10	11	1	10.00%
Visually Impaired Special Educ	10	7	-3	-30.00%
<i>Mathematics</i>	205	190	-15	-7.30%
Mathematics	205	187	-18	-8.80%
Middle Grades Mathematics 7-8	0	3	3	100.00%
<i>Science</i>	140	113	-27	-19.30%
General Science	98	79	-19	-19.40%
Biology	19	24	5	26.30%
Chemistry	8	3	-5	-62.50%
Earth Science	10	3	-7	-70.00%
Physical Science	2	0	-2	-100.00%
Physics	3	3	0	0.00%
Middle Grades General Science 7-8	0	1	1	100.00%
<i>Arts</i>	64	58	-6	-9.38%
Music	38	39	1	2.60%
Art	26	19	-7	-26.90%
<i>Foreign Language</i>	62	54	-8	-12.90%
Spanish	47	39	-8	-17.00%
French	8	7	-1	-12.50%
German	2	4	2	100.00%
Japanese	1	2	1	100.00%
American Sign Language	2	1	-1	-50.00%
Chinese	2	1	-1	-50.00%
English	145	142	-3	-2.10%
Social Studies	67	48	-19	-28.40%
History	13	11	-2	-15.40%
Communication Arts	1	1	0	0.00%
Language Arts	27	1	-26	-96.30%
Reading	4	1	-3	-75.00%
Political Science/American Government	2	0	-2	-100.00%
Totals and Difference 2005-06 and Year to Date 2006-07	2,536	2,261	-275	-10.84%

Tables 8 and 9 provide a further breakdown of where the emergency certificates are being issued by county and by school district. In proportion to their county population, the highest proportions of emergency certificates are being issued in the following counties:

1. Apache (.17%)
2. Yuma (.15%)
3. Greenlee (.12%)
4. Pinal (.13%)
5. Navajo (.10%)

Table 8. Number of Emergency Teaching Certificates Issued in First 10 Months of 2006-07 by County

County	2000 Census Population	Number of Emergency Certificates	Proportion EC to Population
Apache	69,423	117	0.17%
Cochise	117,755	57	0.05%
Coconino	116,320	44	0.04%
Gila	51,335	36	0.07%
Graham	33,489	18	0.06%
Greenlee	8,547	10	0.12%
La Paz	19,715	15	0.08%
Maricopa	3,072,149	934	0.03%
Mohave	155,032	109	0.07%
Navajo	97,470	95	0.10%
Pima	843,746	268	0.03%
Pinal	179,727	228	0.13%
Santa Cruz	38,381	26	0.07%
Yavapai	167,517	53	0.03%
Yuma	160,026	233	0.15%
Other (State LEAs)	---	18	--
TOTAL	5,130,632	2261	---

The following table provides a breakdown of emergency certificates issued by school district. Ten of the 12 districts with the most certificates being issued are located on Indian reservations.

Table 9. Number of Emergency Teaching Certificates issued in first 10 months of 2006-07 by REAP District

District	Number of Emergency Certificates
Ganado Unified School District	26
Chinle Unified District	19
Flagstaff Unified District	18
Whiteriver Unified District	18
Kayenta Unified District	15
Pinon Unified District	15
Red Mesa Unified District	15
Window Rock Unified District	14
Sanders Unified District	13

District	Number of Emergency Certificates
Parker Unified School District	12
Ft Thomas Unified District	9
Sacaton Elementary District	9
Casa Blanca Middle School	8
Morenci Unified District	7
Snowflake Unified District	7
Grand Canyon Unified District	6
St Johns Unified District	6
Ajo Unified District	5
Show Low Unified District	5
Williams Unified District	5
Paloma Elementary District	4
Peach Springs Unified District	4
Safford Unified District	4
Thatcher Unified District	4
Blue Ridge Unified District	3
Cedar Unified District	3
Gila Bend Unified District	3
Hayden-Winkelman Unified District	3
Joseph City Unified District	3
Winslow Unified District	3
Ash Creek Elementary District	2
Beaver Creek Elementary District	2
Bicentennial Union High School District	2
Clifton Unified District	2
Duncan Unified District	2
Holbrook Unified District	2
Little Singer Community School Board Inc.	2
Littlefield Unified District	2
Mcnary Elementary District	2
Palo Verde Elementary District	2
Pima Unified District	2
Vechij Himdag Alternative School, Inc.	2
Aguila Elementary District	1
Apache Elementary District	1
Bagdad Unified District	1
Bowie Unified District	1
Colorado City Unified District	1
Concho Elementary District	1
Congress Elementary District	1
Continental Elementary District	1
Graham County Special Services	1
Hillside Elementary District	1
Hopi Jr Sr High School	1

District	Number of Emergency Certificates
Hyder Elementary District	1
Ira H. Hayes Memorial Applied Learning Center, Inc.	1
Mary Ellen Halvorson Educational Foundation. dba: Tri-City Prep High School	1
Mayer Unified School District	1
Morristown Elementary District	1
Patagonia Union High School District	1
Pearce Elementary District	1
Picacho Elementary District	1
Pine Strawberry Elementary District	1
Pomerene Elementary District	1
Salome Consolidated Elementary District	1
Santa Cruz Elementary District	1
Topock Elementary District	1
Tuba City Unified District	1
Valentine Elementary District	1
Young Elementary District	1
TOTAL	317

Novice and Experienced Teachers

Level of teacher experience is an important data element in considering how ADE should best service its lowest performing schools. Too often the least experienced teachers are assigned to teach in those schools with the highest levels of poverty and often the lowest levels of student achievement. In the collection of this current dataset, data were collected on the number of novice teachers (fewer than 3 years of teaching experience) and the number of experienced teachers (at least 3 years of teaching experience) in high and low poverty level schools. The table on the next page presents a breakdown of novice and experienced teachers by school level and by poverty level from the dataset containing valid FRL data..

In Arizona’s elementary classrooms, 23% of the teachers are novice teachers and 77% are experienced teachers. In the 25% of elementary schools with the highest levels of poverty, 27.6% of teachers were novices; in the 25% of schools with the lowest poverty levels, 21.9% are novice teachers. There appears a slight increase in the number of novice teachers in high poverty elementary schools, but there is not a large disparity.

In Arizona’s secondary classrooms, 16% of teachers are novice teachers and 84% are experienced teachers. In the 25% of secondary schools with the highest levels of poverty, 14.8% of teachers are novices; in the 25% of schools with the lowest poverty levels, 10.2% are novice teachers. These results indicate that there *is* a disparity in the percentages of classes taught by novice teachers in the high and low poverty secondary schools; that disparity appears to *disadvantage high poverty schools*. There are a higher number of novice teachers in highest poverty secondary schools.

Table 10. Experience Level of Teachers by Poverty Level

Number of Years Experience	Total Number of Teachers	Percent of Teachers	Number of Teachers High Poverty	Number of Teachers Low Poverty	Percent of Teachers High Poverty	Percent of Teachers Low Poverty
Elementary Novice (<3 years)	9,123	22.8%	2,515	2,000	27.57%	21.92%
Elementary Experienced (3+ years)	30,874	77.2%	7,242	7,228	23.46%	23.41%
Total Elementary	39,997	100.0%	9,757	9,228	24.39%	23.07%
Secondary Novice (<3 years)	2,250	16.4%	332	229	14.76%	10.18%
Secondary Experienced (3+ years)	11,486	83.6%	1,847	1,540	16.08%	13.41%
Total Secondary	13,736	100.0%	2,179	1,769	15.86%	12.88%
GRAND TOTAL	53,733		11,936	10,997	22.21%	20.47%

Highly Qualified Criteria in Arizona

The NCLB criteria for determining whether a teacher meets the definition of “highly qualified” are as follows: (1) hold a bachelor’s degree, and (2) hold a valid state certification (charters are exempt from this portion), and (3) demonstrated content competency by one of the following: (a) passed a rigorous subject knowledge test in the subject area you are teaching, (b) hold an advanced degree in the subject area you are teaching, (c) hold National Board Certification in the subject area you are teaching (d) have 24 semester/credit hours in the subject you are teaching (for middle and high school level courses only), or (e) HOUSSSE rubric. The following section provides the data for highly qualified criteria in Arizona.

Educational Level of Teachers

Arizona’s rules and statutes governing charter schools do not require charter school teachers to hold state certification, nor is there a requirement designating a minimum level of educational attainment, as a requirement for employment as a teacher in an Arizona charter school. In accordance with federal guidelines, the ADE is interpreting that all charter school teachers of core academic content must meet the HQ requirements under NCLB, other than the requirement for state certification. The data in the table below presents the educational level for all teachers and also contains data from charter school teachers. Less than 1% of teachers in all schools do not hold a degree. Table 14 provides additional data on charter and public school teacher educational levels.

Table 11. Educational Level of Teachers by Poverty Level

Highest Degree Held	Total # of Teachers	Number of Teachers Low Poverty	Number of Teachers High Poverty	Percent of Teachers Low Poverty	Percent of Teachers High Poverty
No Degree	124	10	29	8.06%	23.39%
Bachelors	33,089	4,986	6,127	15.07%	18.52%
Masters	25,562	4,179	3,524	16.35%	13.79%
Doctorate	550	38	61	6.91%	11.09%
Ed. Specialist	72	14	13	19.44%	18.06%
TOTAL	59,397	9,227	9,754	15.53%	16.42%

The majority of teachers (56%) hold their bachelors degree with 15% teaching in low poverty schools and 19% teaching in high poverty schools. Approximately 16% of teachers holding a masters degree are teaching in low poverty schools and 14% are teaching in high poverty schools. Less than 1% of teachers hold an advanced degree; however, 11% of those teachers holding a doctorate are teaching in high poverty schools as compared to 7% in low poverty schools.

National Board Certified Teachers (NBCT)

National Board Certification® is a voluntary process to ascertain “highly accomplished teaching.” Table 12 presents the number of NBCT by poverty level and by elementary and secondary level schools. In 96 cases there were no identifiers to indicate either elementary or secondary assignment; these cases were not included in the analysis by poverty level at the elementary and secondary levels. Of the 251 NBC teachers included in the analysis, 16.4% teach in 25% of elementary schools with the highest levels of poverty, and 51.85% teach in the 25% of elementary schools with the lowest poverty. These results indicate that there is a disparity in the percentages of classes taught by NBC teachers in the high and low poverty schools; that disparity appears to *disadvantage high poverty schools*. In the 25% of secondary schools with the highest levels of poverty, 12.9% of classes are taught by teachers who are NBCT. In the 25% of secondary schools with the lowest poverty, this percentage is 14.52%. These results indicate that there is some disparity in the percentages of classes taught by NBC teachers in the high and low poverty schools; while not as great as in the elementary schools, that disparity appears to *disadvantage high poverty schools*.

Table 12. Number of National Board Certified Teachers by Poverty Level

	Total Number of NBCT Teachers	Number of NBCT Teachers Low Poverty	Number of NBCT Teachers High Poverty	Percent of NBCT Teachers Low Poverty	Percent of NBCT Teachers High Poverty
Elementary	189	98	31	51.85%	16.40%
Secondary	62	9	8	14.52%	12.90%
No ID Match	96				
TOTAL	347	107	39	42.63%	15.5%

Number of Core Academic Classes by Qualifying Criteria

Table 13 provides further analysis of the qualifying criteria for HQ teachers by the number of core academic classes taught. The qualifying criteria also include the HOUSSE. On October 12, 2006, the Arizona Department of Education received approval to extend the use of the HOUSSE until the beginning of the 2007-08 school year. It should be noted that a teacher may be qualified by more than one criterion; for example, a teacher may be qualified with HOUSSE and 24 semester hours. Therefore, the “total” number of core academic classes taught by HQ teachers by qualifying criteria will not be equal to the total number of core academic classes for elementary, middle, and secondary grade levels found in Tables 1b, 2, 3, and 4. In the academic core areas for elementary, middle, and secondary grade levels, the majority of classes taught by HQ teachers are taught by those who passed the AEPA. For ESL/BLE area, the majority of classes are taught by HQ teachers who successfully completed the HOUSSE rubric. As might be expected in the special education category, the majority of classes are being taught by teachers who have a special education certificate.

Table 13. Number of Core Classes Taught by HQ Teachers by Qualifying Criteria

	24 Sem Hours	AEPA	HOUSSE	HQT Reciprocity	Major	NBCT	SPED Certificate
Elementary Core	20	64,549	57,227	1,895	13	12	
Middle Core							
MG LangArts/Reading	3,319	2,960	2,028	59	933	36	
MG Mathematics	1,250	3,678	1,329	19	247	6	
MG Science	2,199	764	1,486	15	459	0	
MG Social Studies	1,950	2,321	1,134	58	496	21	
Secondary Core							
Arts	3,948	4,824	2,531	54	3,400	53	
Civics/Government	506	254	380	11	214	0	
Economics	194	185	233	2	106	0	
English	3,892	4,946	724	28	2,295	59	
Foreign Language	1,937	1,756	376	26	0	5	
Geography	134	112	83	0	49	0	
History	2,352	1,985	623	30	1,087	5	
Mathematics	3,592	4,519	730	27	1,592	36	
Science	3,544	2,295	1,034	43	1,452	15	
Total Core	28,837	95,148	69,918	2,267	12,343	248	
% Total Core	13.0%	43.0%	31.6%	1.0%	5.6%	0.1%	
ESL/BLE	611	1,262	1,580	37	253	30	
% Total ESL/BLE	15.1%	31.2%	39.1%	0.9%	6.3%	0.7%	
Cross Categorical	191	3,421	2,181	148	53	0	2,768
Early Childhood	0	0	0	0	0	0	1,491
Emotional Disability	65	365	635	23	38	0	510
Hearing Impairment	5	44	80	8	0	0	139
Learning Disability	299	1,314	2,788	50	128	0	3,511
Mental Retardation	9	495	831	48	10	0	1,124
Orthopedic Impairment	0	0	19	0	32	0	50
Severely/Profoundly	0	124	89	0	0	0	168
Visual Impairment		11	5	0	0	0	110
Special Education Totals	569	5,774	6,628	277	261	0	9,871
% Total SpED	2.12%	21.48%	24.65%	1.03%	0.97%		36.72%

Comparison of Charter Schools and District Schools in Arizona

Core Academic Courses Taught by HQ and Non-HQ Teachers

The following chart provides a comparison of the number of core academic classes taught by both HQ and non-HQ teachers in charter and district schools in Arizona. In order to compile the data for this table, queries were run on schools in the database without using poverty level as a screening criterion. Therefore, the results reported in this table should not be compared to results from tables where poverty level quartiles are being reported.

Table 14. Number of Core Classes Taught by Non-HQT and HQT by Type of School

	Charter Schools			District Schools		
	Non HQT	HQT	% of Non HQT	Non HQT	HQT	% of Non HQT
Elementary Content	902	7,403	10.86%	4,094	116,313	3.40%
Middle Grades						
MG Language Arts/Reading	46	438	9.50%	876	8,897	8.96%
MG Mathematics	48	401	10.69%	849	6,128	12.17%
MG Science	46	338	11.98%	888	4,585	16.23%
MG Social Studies	39	328	10.63%	638	5,652	10.14%
Secondary Grades						
Civics/Government	36	324	10.00%	127	1,041	10.87%
Economics	31	160	16.23%	151	560	21.24%
English	74	1,526	4.63%	310	10,418	2.89%
Foreign Language	23	539	4.09%	143	4,472	3.10%
Geography	39	100	28.06%	76	278	21.47%
History	26	905	2.79%	250	5,177	4.61%
Mathematics	72	1,241	5.48%	599	9,255	6.08%
Science	73	1,182	5.82%	605	7,201	7.75%
Total Core Classes	1,531	15,638	8.92%	10,273	194,034	5.03%
ESL/BLE	22	112	16.42%	249	3,661	6.37%
Special Education						
Cross Categorical	81	590	12.07%	1,558	8,172	16.01%
Early Childhood	0	0	0.00%	436	1,491	22.63%
Emotional Disability	5	72	6.49%	291	1,564	15.69%
Hearing Impairment	0	0	0.00%	0	276	0.00%
Learning Disability	22	345	5.99%	828	7,745	9.66%
Mental Retardation	2	61	3.17%	198	2,456	7.46%
Orthopedic Impairments	0	35	0.00%	3	66	4.35%
Severely/Profoundly	0	0	0.00%	76	181	16.63%
Visual Impairment	0	0	0.00%	3	126	2.38%
Special Education Totals	110	1,103	9.97%	3,393	22,077	15.37%

A comparison of the number of core academic classes being taught by non-HQ teachers in charter schools with those being taught by non-HQ teachers in district schools reveals that overall a higher percentage of core academic classes are being taught by non-HQ teachers in charter schools. Approximately 11% of elementary core content is being taught by non-HQT compared to 3.40% of elementary core content in district schools. Mathematics and science classes are being taught by a higher percentage of non-HQT in district schools than in charter schools. More ESL/BLE classes are being taught by non-HQT in charter schools (16.42%) than

in district schools (6.37%). A higher percentage of special education classes are being taught by non-HQT in district schools (15.37%) than in charter schools (9.97%).

Educational Level of Teachers

Arizona’s rules and statutes governing charter schools do not require charter school teachers to hold state certification, nor is there a requirement designating a minimum level of educational attainment, as a requirement for employment as a teacher in an Arizona charter school. The next table presents a comparison of educational level of both non-HQ and HQ charter school teachers and non-HQ and HQ public school teachers.

Table 15. Educational Level of Teachers by School Type

Highest Degree Held	Total Number of Charter Teachers Holding Degree	Percent	Total Number of Public School Teachers Holding Degree	Percent
No Degree	98	2.15%	26	.05%
Bachelors	2,783	61.2%	30,306	55.1%
Masters	1,513	33.3%	24,049	43.8%
Doctorate	113	2.48%	437	.8%
Ed. Specialist	8	.17%	64	.1%
TOTAL	4,546		54,954	

Data collection on educational level of teachers indicates that 61% of the teachers in charter schools hold a bachelors degree and 33% hold a masters degree. In comparison, 55% of teachers in district schools hold a bachelors degree and 44% hold a masters degree. Approximately 2% of charter school teachers and .05% of public school teachers do not hold a degree.