

Condition of Teacher Supply and Demand in Ohio – 2005

A Data Summary for the Ohio State Board of Education

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INTRODUCTION

The teacher supply and demand study should provide useful information to state policy makers, educational administrators, institutions of higher education and job seekers. A well-designed study should reveal information about the forces that influence how and why educators move in and out of public school positions, as well as how staffing needs are influenced by within-state shifts in district enrollments. The quality of any such study is dependent upon the quality of existing databases, access to those databases and the quality of new data collection.

The Condition of Teacher Supply and Demand in Ohio 2005 study provides information on student enrollment, teacher workforce demographics, teacher attrition and mobility, teaching vacancies, the pipeline for new teachers in higher education, and staffing issues in community schools.

Enrollments tend to follow predictable patterns from grade to grade. Migration in and out of the state and among districts causes shifts in district enrollments. The demand for teachers is a function of changing enrollment patterns at the district level, class size policies, course-taking patterns in secondary schools, and state and local financial support.

The major source for the supply of teachers is retention. Therefore, understanding the factors that influence attrition is important for ensuring a continued adequate supply of teachers. Mobility is a less important factor in terms of overall supply, but may influence staff stability at the building level. Because “mobility” means the movement of a teacher from one school district to another, it does not produce a net gain in the teacher supply for the education system as a whole. Other sources of supply are licensed teachers returning to the workforce after an absence or from another state, and newly licensed teachers who have matriculated from institutions of higher education.

While state level supply and demand data are of interest, for these data to be of optimal use to various constituencies, they must be disaggregated in different ways. These data are made more useful when considered by region, district socioeconomic status typology or district performance. The Condition of Teacher Supply and Demand in Ohio 2005 provides information on many of these issues.

This data analysis was created by collaboration among staff of the Ohio Department of Education, the firm of Levin, Driscoll, and Fleeter, and The Ohio Collaborative – Research and Policy for Schools, Children, and Families.

EXECUTIVE SUMMARY

The Data Summary is intended to support policy discussions presented in the body of the *Condition of Teaching* report. Numerous tables and graphical displays present data collected by Ohio's Education Management Information System (EMIS) and other Ohio Department of Education data efforts, including project-specific online surveys.

The Condition of Teacher Supply and Demand in Ohio 2004 study provides information on student enrollment, teacher workforce demographics, teacher attrition and mobility, teaching vacancies, the pipeline for new teachers in higher education, and staffing issues in community schools.

Student Enrollment and Projections of Need

Ohio's total K-12 enrollment in regular districts declined by roughly 34,000 students, or two percent, between 2000 and 2005, reaching a level of approximately 1,718,000 million in 2005.

Overall Declines. Assuming that changes in population patterns are consistent, enrollment will continue to decline through 2010.

- Some of the change may be attributed to changes in how enrollment is reported. Prior to 2003-2004, districts aggregated student counts and reported their total enrollment. Currently, districts report individual students and the Ohio Department of Education aggregates the counts.
- Some of the loss of enrollment in regular districts is attributable to the growth of community schools; that enrollment has grown from fewer than 10,000 students in 2000 to nearly 60,000 in 2005.
- Enrollments have declined most rapidly in medium-sized urban districts with very high poverty and major (large) urban districts with high poverty. The decline in these areas was 5.5 percent and 13.7 percent, respectively.
- Of the 15 major urban – very high poverty school districts, all but one (Euclid) lost enrollment over this period. Some of this loss reflects changes in the number of people living in the district – census reports show population decreases in Ohio's urban areas. Some of the loss in large urban districts reflects the rapid increase in community school enrollment.

Enrollment increases. At the same time, enrollments increased by 11 percent in wealthy suburban districts, almost by 4 percent in small town districts with moderate to high income, and by 2.5 percent in suburban districts.

- Continued significant enrollment growth is expected in the wealthy suburban districts. Slight growth is expected during the five-year period in urban districts with high income.

- Enrollment of students with disabilities has increased very slowly, and similarly slow increases are projected for the next few years.

Rapid increases in community school enrollment. Community schools have had a very rapid increase – the 2005 enrollment is more than five times the 2000 enrollment. However, community schools have not been in existence long enough to make projections comparable to those created for regular school districts.

Projections of Teacher Demand

There are several ways to look at projected demand for teachers. Two sets of assumptions are used in this report: assuming staffing levels remain constant and assuming staffing levels across the state are increased so that all districts are staffed similarly to those currently with the fewest students per teacher.

Constant staffing levels. Using current projections of student enrollment and assuming staffing levels remain constant, teacher staffing levels would increase in the types of districts where enrollment is expected to grow fastest: suburban districts and wealthy suburban districts. Altogether, staffing in these districts would grow by nearly 1,175 teachers.

- Teacher staffing also would decrease only slightly in poor rural districts and small town moderate SES districts.
- Using current projections of student enrollment, and assuming staffing levels remain constant, staffing levels would decline most rapidly in major urban districts, down about 1,807 teachers.

Changes in Pupil/Teacher Ratios. It is probable that future staffing ratios will not remain constant. Although it is not possible to foresee all of the economic and policy decisions that will change staffing levels, it is useful to examine what would result if pupil/teacher ratios change.

- Under the assumption that there will be an increase in the pupil/teacher ratio by 2010, the enrollment-teacher ratio for the state as a whole changes from 22.56 in 2005, to 24.82 in 2010. Since the statewide average showed a ratio of 20.9 in 2003, the increase in the ratio from 2003 to 2005 equaled 1.66. The projection of another 2.26 increase over the next five years is not unrealistic given the recent rate of change in the ratio in just two years.
- Under this assumption, all districts would require fewer teachers in 2010, and major urban districts would experience a 22% reduction in regular teachers.

Uniform staffing levels comparable to current best ratios. Although in the current economic environment, the number of students per teacher is not likely to decrease in the immediate future, it is realistic to expect that over the next five years, many districts will be able to approach the staffing levels of the suburban districts.

- The number of regular teachers required at this enrollment-teacher ratio would be about 78,100 up by 1,900 or 2.5 percent from 2005.
- Although student/teacher ratios would improve, major urban, rural districts with high poverty, and urban districts with low income would experience reduced staffing under this alternative.
- Enrollment growth in the wealthy and very wealthy urban/suburban districts would create a need for more staff. The number of teachers in those districts would increase by 2,300.

Ohio Teacher Workforce Demographics

As used in this report, a “teacher” includes a teacher in a regular classroom, special education teachers and vocational teachers. Ohio Local Education Agencies include the “regular” 612 K-12 school districts, 49 joint vocational school districts (JVSD), 60 education service centers (ESC) and community schools. Teachers in private schools are not included in any total presented in the report.

Overall decrease in number of teachers since 1999. Overall, the total number of teachers employed in Ohio public schools decreased by 3.13 percent from 1999 to 2005.

- The percentage of teachers employed by regular school districts fell by almost 2 percentage points over this time period. In 2005 regular K-12 school districts still account for about 94 percent of all classroom teachers employed in public schools.
- ESC schools employ 1.78 percent of classroom teachers, and JVSD schools employ 2.43 percent of classroom teachers. In 2005, community schools employed 1.76 percent of the public school teachers.

Reduction in number of regular teachers between 2004 and 2005. There was a reduction in the total number of teachers from 2003 to 2005 of about 12,000. Most of this reduction occurred in regular K-12 school districts. Approximately a five percent reduction occurred from 2004 to 2005.

- Some of this reduction occurred because financial difficulties forced reductions in teaching staff in a number of Ohio school districts in the 2003-2004 and 2004-2005 school years.
- However, some of the apparent reduction from 2003 to 2004 may not be due to loss of personnel, but rather, resulted from improved methods of record-keeping.

Increase in number of special education teachers. Special education teachers showed a reduction of about 5.8 percent from 2004 to 2005.

The percentage increase in special education teachers from 1998 to 2004 was greater than that of regular classroom teachers.

Minority teachers underrepresented in the teaching profession.

- From 2004 to 2005, white teachers declined by about 3.4 percent, but black teachers fell by the much larger rate of 17.5 percent. These larger reductions in the number of black teachers likely were caused by two variables. First, the large urban school districts where a disproportionate number of black teacher work also experienced a significant share of layoffs in 2004. Second, it is possible that the improvements in data collection achieved in 2004 also had a disproportionate effect on the data reported by large school districts.
- In comparison to the percentage of minority students, black teachers and other minority teachers continue to be dramatically under-represented in the teaching profession.
- In 2005, about 75 percent of black teachers and 59 percent of all other minority teachers taught in major urban-very high poverty school districts.
- In the same year, 87 percent of black teachers taught in just two categories: 1) major urban-very high poverty school districts; and 2) urban low SES school districts.

Average age increasing; number of beginning teachers decreased. The average age of Ohio teachers was 42.00 in 2003. In 2004, the average age increased to 43.24. A very slight increase occurred between 2004 and 2005 to an average of 43.30 years. The median age now falls between 43 and 44.

- The one year change from 2004 to 2005 showed a slight decline in the share of the 21-29 age group.
- Teachers with five or fewer years of experience continued to account for about one-quarter of all teachers in 1999 and 2005. However, a substantial reduction in the percentage of these teachers appears in the one year comparison with 2003. As indicated in the report, fewer inexperienced teachers in 2005 may reflect better record-keeping, but it also probably represents some reduction in the new hiring in that most recent year.

Teacher education-level and credentials have increased. Teachers with master's degrees now account for slightly more than one-half of all teachers in regular K-12 school districts.

- The percentage of teachers with master's degrees in the 612 regular school districts increased by 7 percentage points since 1999 and by 2 percentage points between 2004 and 2005.
- Most of Ohio's teachers met the requirements to be termed "highly qualified."

- With the exception of teachers of geography and foreign languages, teachers in urban districts were the least likely to be highly qualified.

Ohio Teacher Workforce Mobility and Attrition

Every year, some teachers leave public schools entirely. “Attrition” measures the number and percentage of teachers who leave teaching, either for another profession, a non-teaching job within the public education system, or to leave the labor force. Other teachers move from one school district to another. “Mobility” measures the number and percentage of teachers who move to teach in other districts, including ESCs, JVSDs and community schools.

Trends in hiring. The hiring rate for teachers fell in 2005 whether hiring for that year is compared over the long run to 1999 or over the short run to the preceding year.

- The number of experienced teachers hired has declined steadily since 2003, while beginning teachers in 2005 accounted for the highest percentage of new hires than any year since 1999.

Attrition rate steady until 2002, increased last year. Between 1998 and 2002 the number of teachers departing show relatively small variations.

- Between 2004 and 2005, 10,202 teachers departed teaching.
- The number of departures after 2004 exceeds by a large amount the number for any year between 1999 and 2002.
- Departure rates for all categories of minority teachers continue to exceed departure rates from 2002 to 2004 among white teachers.
- Urban very high poverty consistently registered the highest rate of attrition from 1999 to 2004 when compared to all other district typologies.
- The departure rates in the academic emergency and academic watch districts consistently appear higher than the rate in the other categories.
- For each of the general eight subject categories, the highest attrition rate occurred in the 14 Urban very high poverty school districts.

Mobility among district types. Teachers included in “mobility” changes moved from one school district to another within the public school system. “Mobility” does not include teachers who moved to a different school building within the same school district.

- Teachers in urban-very high poverty districts show a lower rate of inter-district movement compared to most other classifications for most years, but in the most recent year movement by teachers in those districts occurred at about average rates.
- The amount of movement by teachers between school districts has declined every year since 1999.
- Rural teachers tend to move within rural areas or to small towns.
- Most teachers who moved from urban very high poverty school districts transferred to other urban or suburban school districts. About 77 percent of the teachers who moved from large urban districts went to other cities or suburbs. Another eight percent went to community schools. Since community schools tend to locate more in urban areas than otherwise, about 85 percent of the movement from large urban school districts involved relocation in urban or suburban places.
- Poor rural, rural, small town and medium size urban districts generally show significantly higher rates of movement when compared to major urban and suburban districts.
- Districts with high (favorable) and very high socio-economic characteristics show low rates of movement. Once teachers obtain employment in these school districts they apparently show less inclination to look for teaching opportunities in other school districts.

Movement among subject matter. Special education, mathematics and English teachers are more likely than other teachers to move to other districts.

Ohio's Teacher Workforce Vacancies

The number of vacant teaching positions across Ohio is not a number that remains constant throughout the school year. Although teachers are employed by individual districts under a school-year contract, forces beyond the control of either the teacher or the district can cause positions to become open after school begins.

Open Teaching Positions

- Overall, there were 3,371 open positions for the 2004-2005 school year. Of these positions, 2,864 were reported as filled.
- The five subject areas with the highest percentage of open positions included: elementary education, special education, English, mathematics and science.
- Schools located in rural/low poverty districts and rural/moderate SES districts reported significantly fewer open elementary education positions (20.7 percent and 20.8 percent of their open positions), and schools in urban/suburban districts with very high SES had one open elementary positions among all schools (26 percent).

- Schools located in Rural/high poverty districts had significantly more special education positions (19 percent) than the percentage of special education positions among all schools.
- The highest percentage of open teaching positions in 2004-2005 (33.8 percent) was reported in grades 9-12.
- Teacher attrition was reported as the reason for 41 percent of open teaching positions in 2004-2005.
- Higher percentages of open positions in the areas of foreign language, library media and health education were due to RIFs than for all positions, indicating that teachers in these subject areas may be let go first when resources are tight.
- Schools without a district typology and those located in urban/suburban districts with very high SES had the highest percentage of open positions that were newly created.
- The majority of all positions were advertised for three or fewer weeks.
- More than 90 percent of all open positions that were filled were done so within 10 weeks.
- Interestingly, while subjects thought to be hard to staff – special education, math, and science – had a small percentage that remained open for more than 20 weeks, more than 90 percent of the open positions in each of these subject areas were filled within the 10 week time frame of all open positions.
- In special education, science, mathematics and foreign language, the distribution of applications for positions has some bi-modal tendencies. For example, the large majority of special education positions received few applicants. However, a small percentage of these positions received 81 or more applications. This would suggest that there are some areas of specialization within each subject area that may be easier to fill than others.
- Schools without a district typology and schools located within major urban/very high poverty districts had substantial percentages of their 2004-2005 open positions (21.9 percent and 16.8 percent respectively) filled after the school year had already commenced.
- Substantial numbers of hires in special education (13.3 percent, library media (16.7 percent, and career development (15.4 percent would be teaching out of field during the 2004-2005 school year).
- A large number of those hired (71.7 percent for the positions reported had a Bachelor of Arts or a Bachelor of Science as their highest degree earned. Almost 28 percent of those hired had a Masters degree, while those holding Specialist and PhD degrees comprised a little less than one percent of those hired).
- Approximately 82 percent of all the reported hires for 2004-2005 open teaching positions were hires that were external to the district and the vast majority of hires were certified through traditional routes.
- Surprisingly, schools located in Major Urban/very high poverty districts also hired a lower percentage of teachers with alternative certification (3.6 percent than all open positions (6.9 percent).

Hiring Practices

- Schools without a district typology and those located in Rural/low poverty districts and rural/moderate SES districts indicated more responsibility for screening applicants at the school level than at the central office. Schools located in urban areas reported that their central office has responsibility for screening applicants more often than for all open positions.
- The majority of responding schools indicated that responsibility for hiring rests with both the central office and the school principal.
- Of all the factors affecting ability to hire, the quality of the applicant pool was perceived by schools to be of the greatest hindrance to hiring.
- The majority of all responding schools do not find it difficult to hire teachers who are certified or who meet Ohio's HQT requirements.

Higher Education Pipeline

- Fifty-one Ohio institutions of higher education reported a combined current enrollment of approximately 44,000 students in teacher education programs, a slight decline from the previous year.
- Approximately 8,395 students completed a teacher preparation program. Not all of them took a Praxis II assessment: some may have chosen not to pursue a teaching career. Some may have been adding credentials to an existing license for which they had previously passed the required exam.
- In these institutions, approximately 442 African American, Asian, Hispanic and Native American students completed teacher education programs. Approximately 331 additional completers were listed as "other" or "unspecified."
- Ohio colleges and universities continue to produce over 7,400 education graduates who are eligible for licensing per year. Approximately 3,452 applied for a first-time license last year.

Most pre-service teachers well prepared. Ohio's institutions of higher education have prepared their students well for most subject-specific Praxis tests

- The pass rate of students in Ohio on Praxis II compares favorably to the national average pass rates.
- Except for certain tests in biology and Spanish, the pass rate is at or above 90 percent; in three content areas it is 100 percent.

Programs don't match need. There is substantial misalignment between the numbers of students enrolled in and graduating from various licensure options in teacher education programs in Ohio and the areas of teacher shortages in the state.

- Early childhood (elementary) education graduates account for 46 percent of the total number of those who passed Praxis tests and are eligible for licensing, yet only 34 percent of vacancies.

Aligning Teacher Preparation with Content Standards. As Ohio has phased in academic contents standards for most subject areas, institutions of higher education have needed to adjust their teacher preparation programs to reflect what K-12 students are now required to know and be able to do.

- Forty-six programs have demonstrated content alignment in all math programs, and forty-six have demonstrated it in language arts programs, both a dramatic increase from the previous year.

STUDENT ENROLLMENT

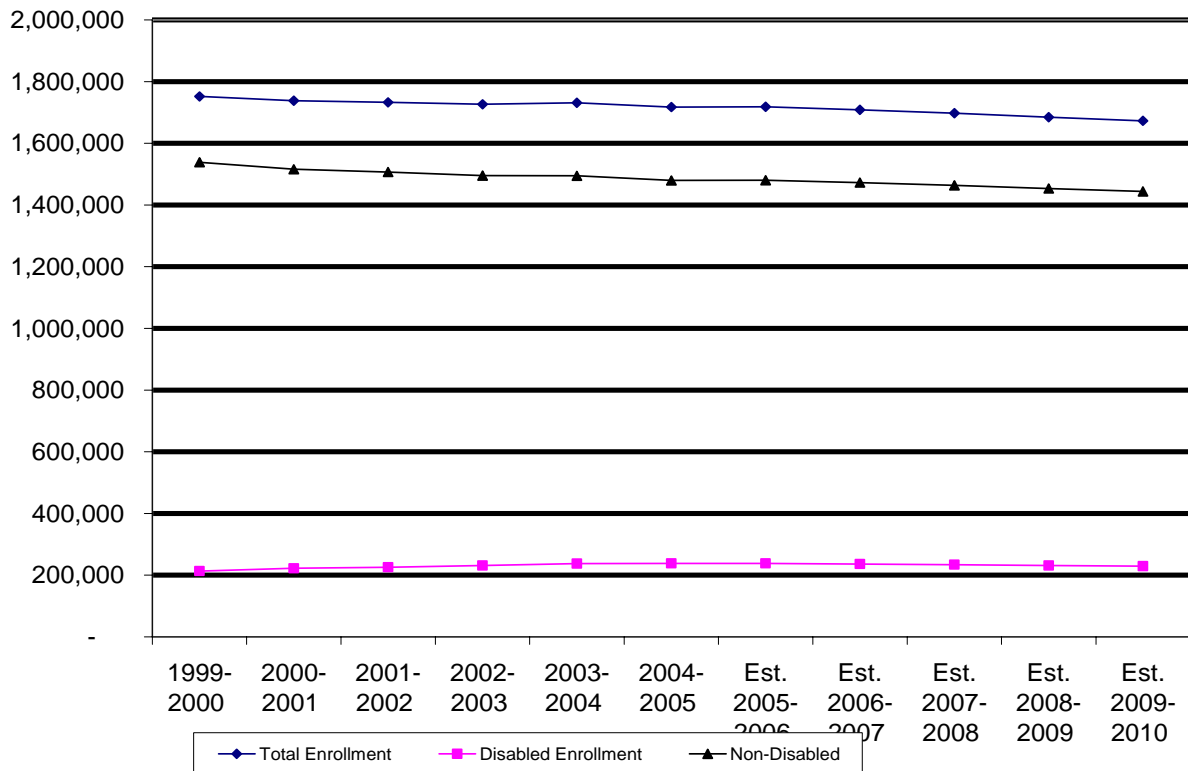
- **2000-2005 Data**
- **2005-2010 Forecasts**

STUDENT ENROLLMENT

Enrollment 2000-2005

- Total K-12 enrollment in Ohio’s regular districts declined by roughly 34,000 students or two percent between 2000 and 2005, reaching a level of approximately 1,718,000 in 2005. Assuming that changes in population patterns are consistent, enrollment will continue to decline through 2010.
- Some of the loss of enrollment in regular districts is attributable to growth of community schools; that enrollment has grown from fewer than 10,000 students in 2000 to nearly 60,000 students in 2005.
- Some of the loss may be attributed to changes in how enrollment is reported. Prior to 2003-2004, districts aggregated student counts and reported their total enrollment. Currently, districts report individual students, and the Ohio Department of Education aggregates the counts.
- Enrollment of students with disabilities has increased very slowly, and similarly slow increases are projected for the next few years.

Figure 1
Ohio’s Enrollment in Regular School Districts – 2000 to 2005 (actual) and 2006 to 2010 (Estimated)

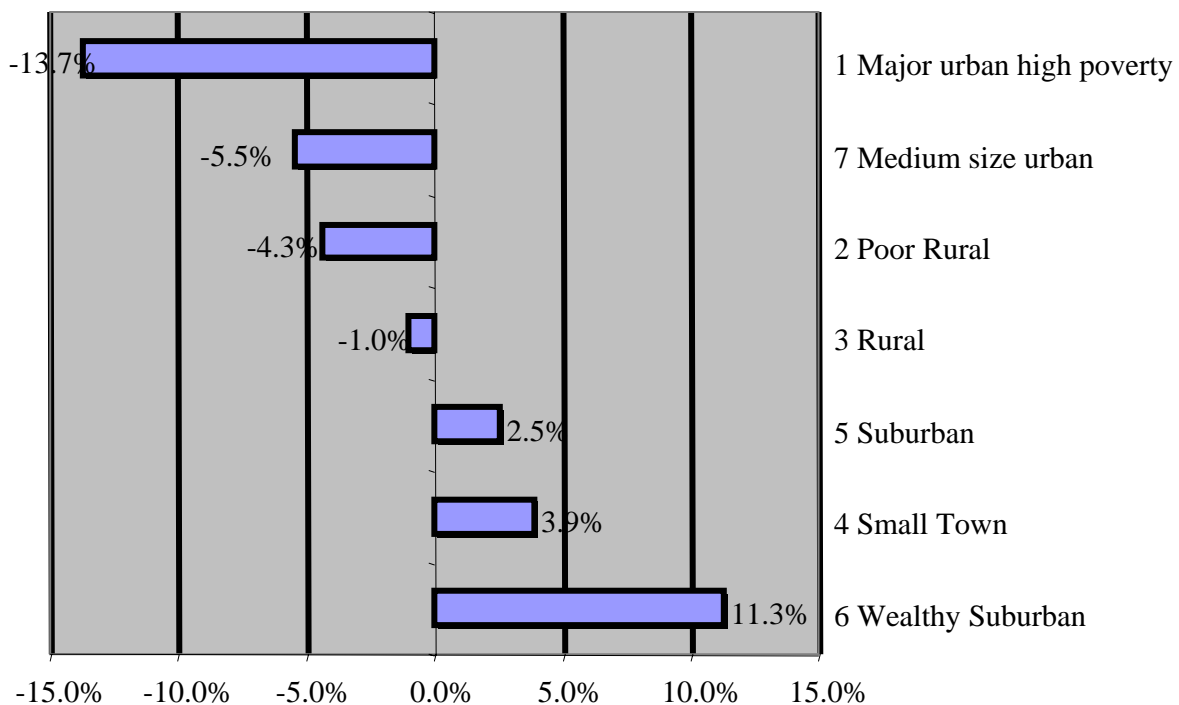


Enrollment Trends by District Typology, 2000 - 2005

The Ohio Department of Education updated their “typology” categorization of school districts beginning with the 2005 school year. There are now 7 categories rather than 8. The new typology system is explained in detail in *Appendix B* to this report. For the sake of brevity, the tables and narrative in this report use shortened versions of the Department’s school district types.

- Enrollments have declined most rapidly in medium sized urban districts with very high poverty and major (large) urban districts with high poverty. The decline in these areas was 5.5 percent and 13.7 percent, respectively. Enrollment also declined by 4.3 percent in poor rural districts.
- Of the 15 major urban – very high poverty school districts, all but one (Euclid) lost enrollment over this period. Of the six largest urban school districts, Akron lost the fewest students (3,751 students) and Cleveland the most (11,666 students). Some of this loss reflects changes in the number of people living in the district – census reports show population decreases in Ohio’s urban areas. Some of the loss in large urban districts reflects the rapid increase in community school enrollment.
- At the same time, enrollments increased by 11 percent in wealthy suburban districts, by almost 4 percent in small town districts with moderate to high income, and by 2.5 percent in suburban districts.

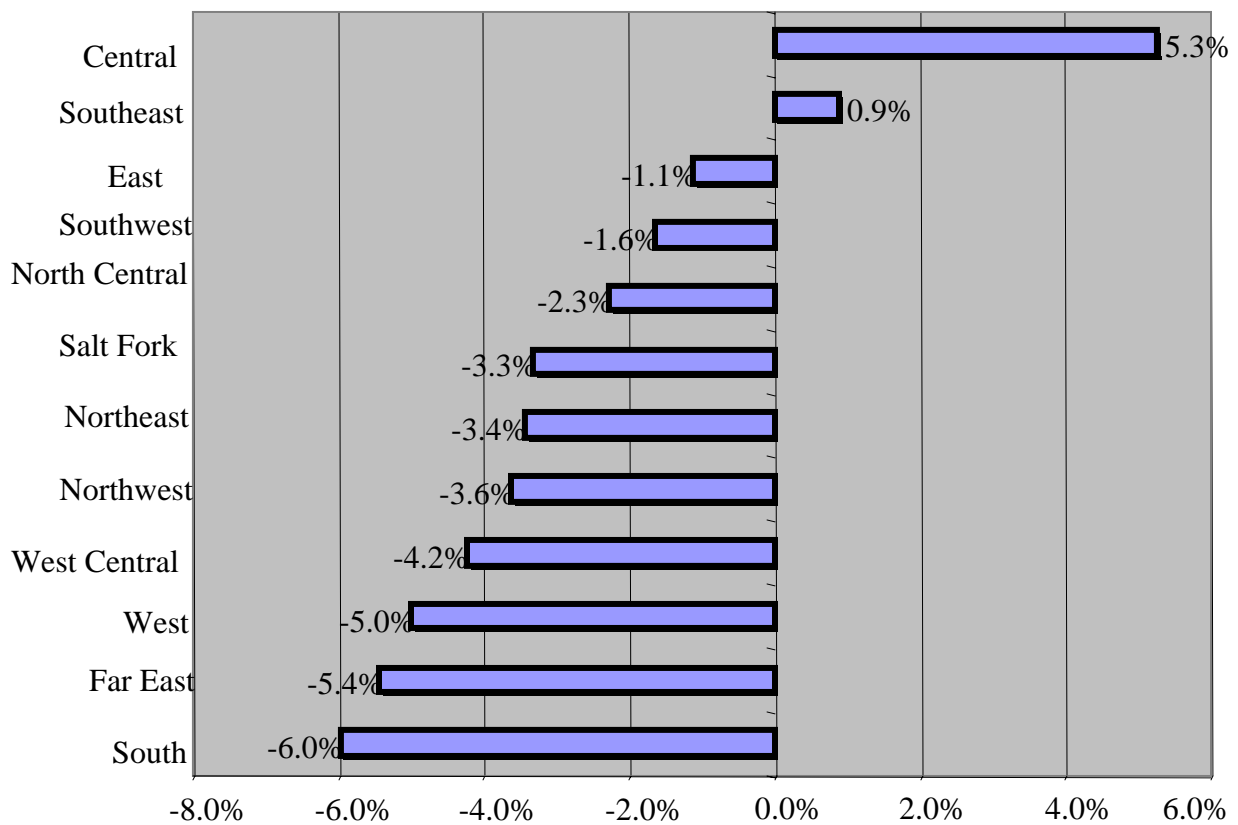
**Figure 2
Enrollment Change by District Typology – 2000-2005**



Enrollment Trends by Region, 2000-2005

- Enrollment dropped by 5 percent or more in the South, West and Far East regions.
- Enrollments declined between 2000 and 2005 in every region of the state except the Central region and the Southeast region.
- Enrollment grew by 5.3 percent in the Central region, driven by rapid growth in some of the suburban districts around Columbus. However, the largest district in the region, Columbus Public Schools, lost enrollment over this period, as did 15 other districts of the 41 districts in the region. Licking Heights, New Albany and Olentangy Local showed increases in enrollment of 75 percent or more over the five-year period.

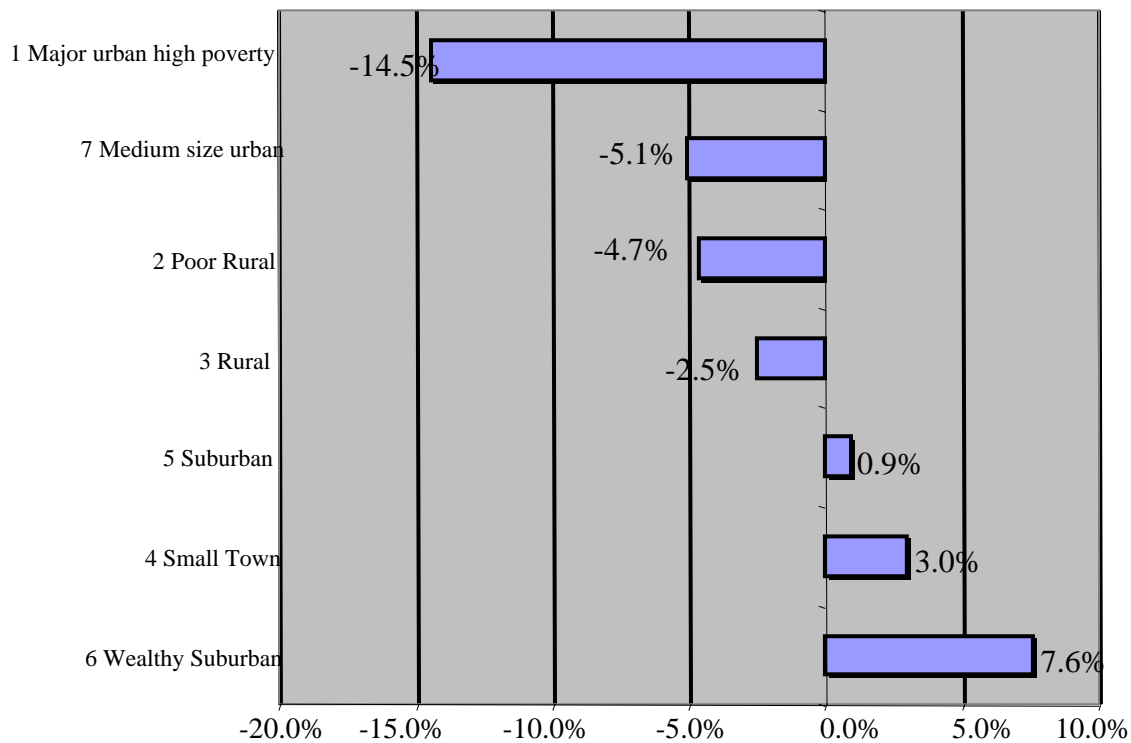
**Figure 3
Regional Change in Ohio – 2000 – 2005**



Enrollment Forecasts by District Type, 2005-2010

- According to Ohio Department of Education enrollment forecasts, K-12 enrollment in regular school districts is expected to continue to decline between 2005 and 2010, dropping by almost 45,000 students.
- Enrollment will decline most rapidly in major urban districts, where a 14.5 percent decline is expected. Less rapid declines are expected in low income urban districts and rural districts.
- Significant enrollment growth is expected in the wealthy suburban districts. Slight growth is expected during the five-year period in urban districts with high income. Rural and small town districts with high income also are projected to grow.
- Community schools have had a very rapid increase – the 2005 enrollment is more than five times the 2000 enrollment. However, community schools have not been in existence long enough to make projections comparable to those created for regular school districts.

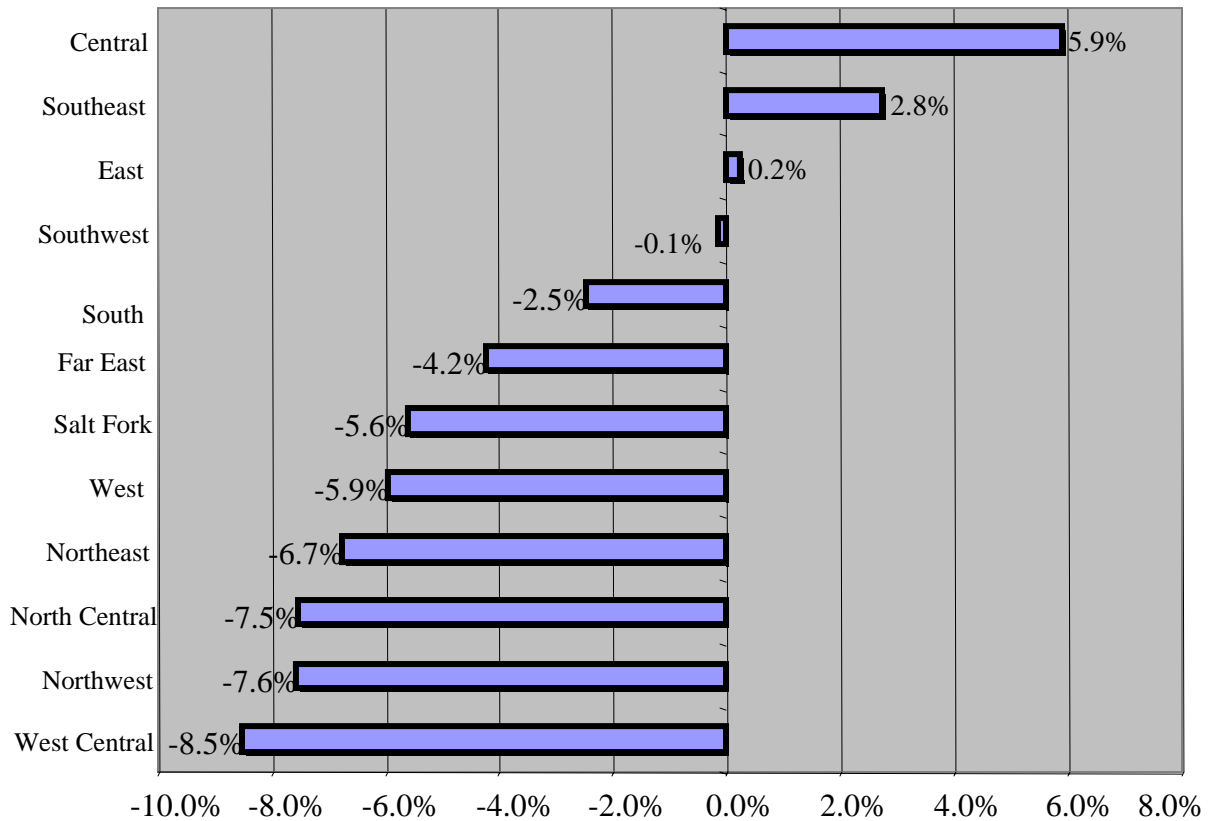
**Figure 4
Projected Change in Enrollment by District Type – 2005 – 2010**



Enrollment Forecasts by Region, 2005-2010

- Projected rates of change in regular districts’ K-12 enrollment vary considerably among the state’s regions.
- The central region is expected to grow the most rapidly, gaining about 6 percent. A small growth rate of 0.2 percent is forecasted for the east (region 9).
- Enrollment growth is expected to continue in southeastern Ohio at a rate of 2.8 percent.
- Enrollment declines are expected in all other regions, with the most rapid declines in the Northwest, West Central and North Central.

Figure 5
Projected Change in Enrollment by Region of Ohio – 2005 – 2010



PROJECTIONS OF TEACHER STAFFING

Using the projected enrollment of students and various levels of staffing, it is possible to anticipate probable overall needs for teachers in the future.

Regular Teacher Staffing in 2010 Using This Year's Patterns

- Staffing levels have changed over the years. Responding to “best practice” pressure to reduce class size and economic realities, the ratio of pupils to teachers became smaller between 1998 and 2004. However, reductions in the number of teachers in 2004 and 2005 caused a reversal of this trend in some areas.
- The ratio of regular teachers to enrollment varies by both district type and the year of analysis. In general, the number of students per regular teacher increased by about 2 pupils per teacher in the past five years. The largest increase occurred in major urban districts. Suburban and rural districts showed smaller increases in the number of students per regular teacher.

**Table 1
Ratio of Students to Regular Classroom Teachers**

2005 Typology Category*	2000 Ratio	2005 Ratio	Change
1. Poor Rural	21.55	21.43	-0.12
2. Rural	22.01	22.12	0.12
3. Small Town	22.22	22.78	0.56
4. Medium Size Urban	21.12	22.02	0.90
5. Major Urban High Poverty	20.12	24.34	4.22
6. Suburban	21.86	22.97	1.11
7. Wealthy Suburban	20.45	21.54	1.09
Statewide Total	20.45	22.56	2.12

*In 2005 the Department of Education changed the district typology by reducing the district types from 8 to 7. This table shows the 2000 pupil teacher ratio for districts sorted according to the 2005 typology.

STUDENT ENROLLMENT and STAFFING FORECASTS

Changes by District Type Using Current Ratios

Because enrollment projections and staffing patterns vary greatly by district typology, it is useful to compare projected changes across typologies.

**Table 2
Projections by Typology**

2005 Typology Category	2005 FTE Regular Classroom Teachers	FY04-05 Student Enrollment	Current (05) Ratio	FY09-10 Projected Enrollment	Projected Teachers Needed, Using Current Ratio
1. Poor Rural	7,271	155,826	21.43	148,531	6,931
2. Rural	9,625	212,943	22.12	207,559	9,381
3. Small Town	5,729	130,470	22.78	134,388	5,901
4. Medium Size Urban	12,361	272,210	22.02	258,317	11,730
5. Major Urban High Poverty	12,492	304,012	24.34	260,041	10,685
6. Suburban	17,569	403,512	22.97	407,185	17,729
7. Wealthy Suburban	11,078	238,615	21.54	256,780	11,921
Statewide Total	76,123	1,717,589	22.56	1,672,801	74,277

- Using this forecast, teacher staffing levels would increase in the types of districts where enrollment is expected to grow fastest: suburban and wealthy suburban districts. A small increase also would occur in small town districts with moderate socio-economic status. Altogether, staffing in these districts would grow by an estimated 1,175 teachers.
- Overall teacher staffing levels would decline by 2.43 percent if the pupil/teacher ratio remains constant and enrollment declines as projected.
- The largest reduction in staff both in absolute (1,807) and percentage (14.47 percent) terms would occur in the major urban districts.

**STUDENT ENROLLMENT and STAFFING
FORECASTS**

**Table 3
Projected Changes in Regular Teachers by Typology**

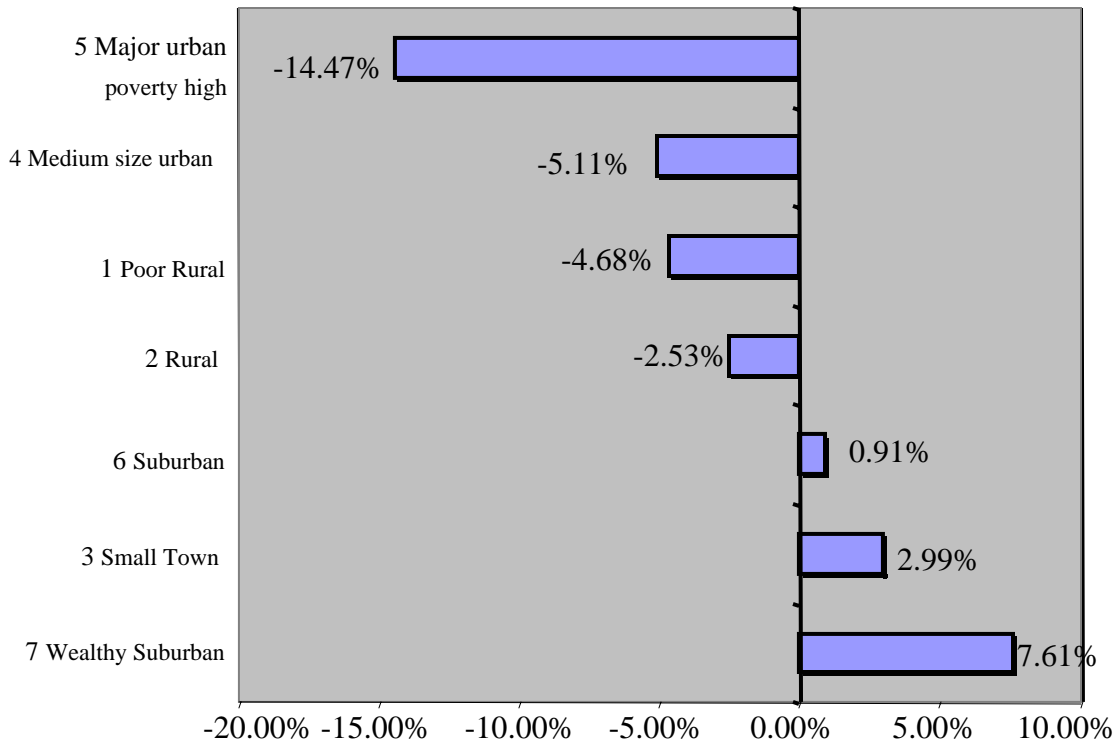
2005 Typology Category*	2000 Regular Classroom Teachers	2005 Regular Classroom Teachers	2010 Projection of Regular Classroom Teachers using Current 05 ratio	Change	Percent Change
1. Poor Rural	5,514	7,271	6,931	(340)	-4.68%
2. Rural	8,534	9,625	9,381	(244)	-2.53%
3. Small Town	10,556	5,729	5,901	172	2.99%
4. Medium Size Urban	7,529	12,361	11,730	(631)	-5.11%
5. Major Urban High Poverty	16,602	12,492	10,685	(1,807)	-14.47%
6. Suburban	16,038	17,569	17,729	160	0.91%
7. Wealthy Suburban	7,023	11,078	11,921	843	7.61%
Statewide Total	80,594	76,123	74,277	(1,846)	-2.43%

*In 2005 the Department of Education changed the district typology by reducing the district types from 8 to 7. The alignment of the new district typology in 2005 with the column for 1999 is approximate.

Table 3 uses the data from Table 2 to show the number and percentage change in regular classroom teachers in school districts grouped according to the typology.

Figure 6 displays the projections from table 3 graphically.

Figure 6
Percent Change in Regular Classroom Teachers Projected According to Current Pupil Teacher Ratios – 2005 to 2010



Regular Teacher Staffing in 2010: Alternative Scenarios Based on Changes in Pupil/Teacher Ratios

It is probable that future staffing ratios will not remain constant. Although it is not possible to foresee all of the economic and policy decisions that will change staffing levels, it is useful to examine what would result under alternative assumption about changes in staffing levels. The two alternatives presented in the following discussion assume a 10 percent increase in the pupil/teacher ratio and a pupil/teacher ratio equal to the current ratio in wealthy suburban districts. It is worth noting that an *increase* in the ratio means a worsening of classroom conditions in the sense that each teacher has more pupils to teach. A 10 percent *decrease* in the ratio means an improvement in conditions as the number of pupils per teacher becomes smaller.

A) 10 percent Increase in Pupil Teacher Ratio

Table 4A shows a worsening of the pupil teacher ratio.

**Table 4A
Projected Changes in Regular Teachers by Typology Assuming a 10 percent Increase in the Pupil/Teacher Ratio**

2005 Typology Category	2005 Regular Classroom Teachers	FY09-10 enrollment projection	Projected teachers using 10% Increase in Ratio	Projected Pupil/Teacher Ratio	Percent Change in Teachers
1. Poor Rural	7,271	148,531	6,300	23.57	-13.35%
2. Rural	9,625	207,559	8,528	24.34	-11.39%
3. Small Town	5,729	134,388	5,364	25.05	-6.36%
4. Medium Size Urban	12,361	258,317	10,663	24.22	-13.73%
5. Major Urban High Poverty	12,492	260,041	9,713	26.77	-22.24%
6. Suburban	17,569	407,185	16,117	25.26	-8.26%
7. Wealthy Suburban	11,078	256,780	10,837	23.69	-2.17%
Statewide Total	76,123	1,672,801	67,398	24.82	-11.46%

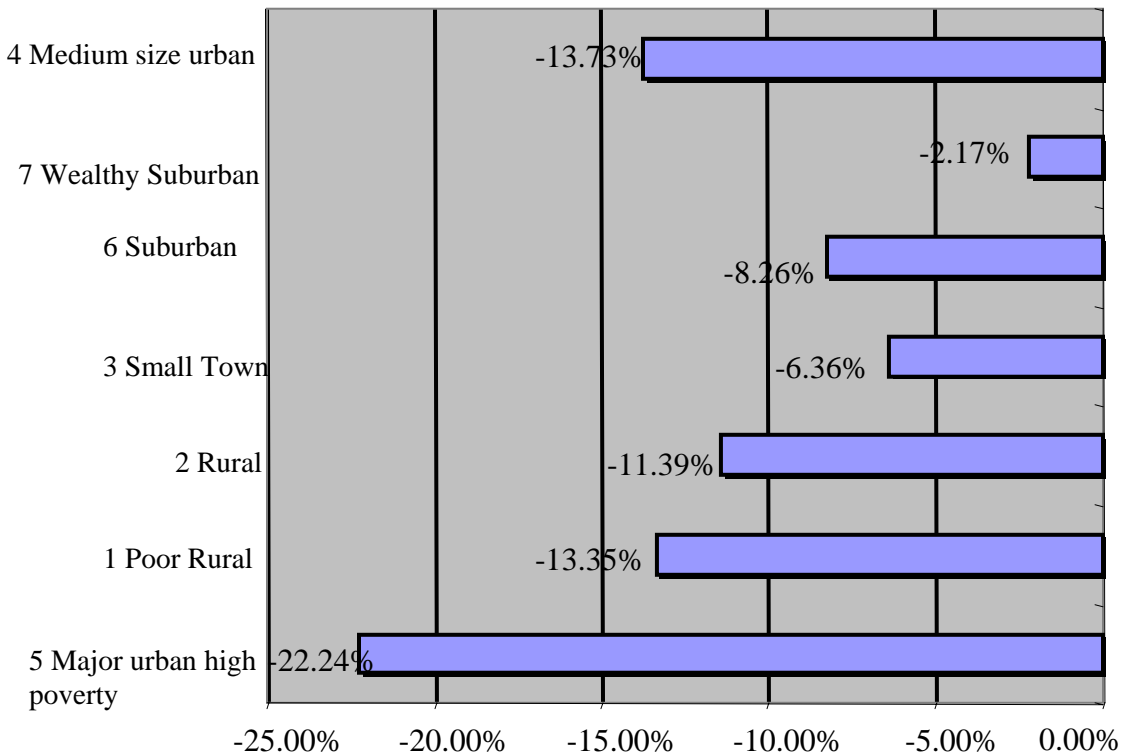
- Under this alternative, the enrollment-teacher ratio for the state as a whole changes from 22.56 in 2005, to 24.82 in 2010. Since the statewide average showed a ratio of 20.9 in 2003, the increase in the ratio from 2003 to 2005 equaled 1.66. The projection of another 2.26 increase over the next five years is not unrealistic given the recent rate of change in the ratio in just two years.

STUDENT ENROLLMENT and STAFFING FORECASTS

- The number of regular teachers required to attain this enrollment-teacher ratio is about 67,400, a loss of 8,700 teachers from 2005, or about 11.5 percent.
- Under this assumption, all districts would require fewer teachers in 2010, but the reduction would equal only about 2 percent in wealthy suburban districts.
- Major urban districts would experience a 22 percent reduction in regular teachers under this scenario.

Figure 7A graphically depicts the projections shown in table 4A.

Figure 7A
Percent Change in Regular Classroom Teachers Projected Assuming a 10% Increase in Current Pupil Teacher Ratios – 2005 to 2010



Regular Teacher Staffing in 2009: If All Types of Districts Had Staffing Ratios Currently Reported by Suburbs

- Although in the current economic environment, the number of students per teacher is not likely to decrease in the immediate future, it is realistic to expect that over the next five years, many districts will be able to approach the staffing levels of the suburban districts.
- The following alternative forecast of teacher staffing level requirements in 2010 assumes that all types of school districts achieve pupil/teacher ratios equal to the best current ratio (2005). Poor rural districts currently register this best ratio at 21.43 percent.

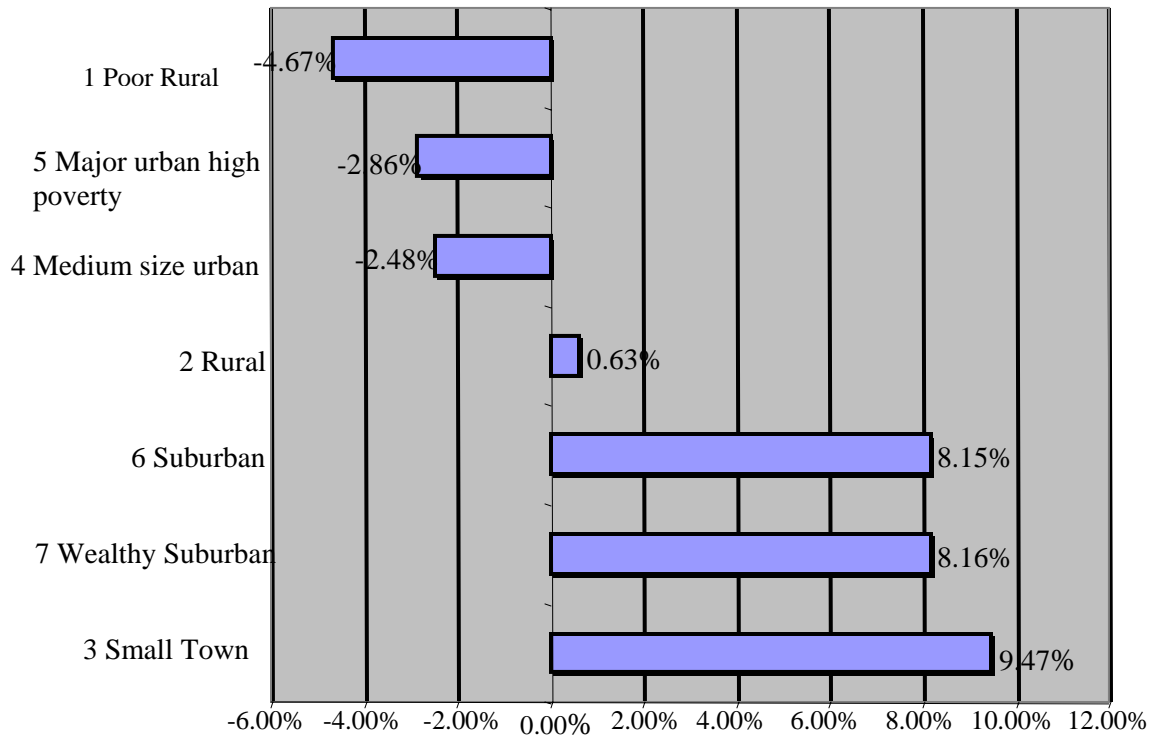
**Table 4B
Projected Changes in Regular Teachers by Typology in 2010 Assuming a Pupil/Teacher Ratio Equal to the Best 2005 Ratio**

2005 Typology Category	2005 Pupil/Teacher Ratio	2010 Projected Ratio Using current best staffing levels achieved	Number of Teachers in 2005	Projected Number Of Teachers in 2010	Change in number of teachers	Percent change in number of teachers
1. Poor Rural	21.43	21.43	7,271	6,931	(340)	-4.67%
2. Rural	22.12	21.43	9,625	9,685	61	0.63%
3. Small Town	22.78	21.43	5,729	6,271	543	9.47%
4. Medium Size Urban	22.02	21.43	12,361	12,054	(307)	-2.48%
5. Major Urban High Poverty	24.34	21.43	12,492	12,134	(357)	-2.86%
6. Suburban	22.97	21.43	17,569	19,001	1,432	8.15%
7. Wealthy Suburban	21.54	21.43	11,078	11,982	904	8.16%
Statewide Total	22.56	21.43	76,123	78,059	1,936	2.54%

- The number of regular teachers required at this enrollment-teacher ratio would be about 78,100 up by 1,900 or 2.5 percent from 2005.
- Although student/teacher ratios would improve, major urban, rural districts with high poverty, and urban districts with low income would experience reduced staffing under this alternative.
- Enrollment growth in the wealthy and very wealthy urban/suburban districts would create a need for more staff. The number of teachers in those districts would increase by 2,300.

STUDENT ENROLLMENT and STAFFING FORECASTS

Figure 7B
Percent Change in Regular Classroom Teachers Projected Assuming Improvement to the Best Current Pupil Teacher Ratios – 2005 to 2010



Ohio Teacher Workforce

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- **Employment Data**
- **Gender**
- **Race & Ethnicity**
- **Age**
- **Experience**
- **Teacher Credentials**
- **Enrollment per Teacher**

OHIO TEACHER WORKFORCE DEMOGRAPHICS

Teacher Employment by Type of Local Education Agency and Job Position

As used here, a “teacher” includes a teacher in a regular classroom, special education teachers, and vocational teachers (These teachers have the position assignment codes 205, 206 and 207, respectively, in the EMIS data collection system). Ohio Local Education Agencies include the “regular” 612 K-12 school districts, 49 joint vocational school districts (JVSD), 60 education service centers (ESC) and community schools. Teachers in private schools are not included in any total presented in the report.

Table 5 shows the number of teachers employed in each type of Local Education Agency for the period 1999 through 2005

- Overall, the total number of teachers employed in Ohio public schools decreased by 3.13 percent from 1999 to 2005.
- The percentage of teachers employed by regular school districts fell by more than 2 percentage points over this time period. In 2005 regular K-12 school districts still account for about 94 percent of all classroom teachers employed in public schools.
- ESC schools employ 1.78 percent of classroom teachers, and JVSD schools employ 2.43 percent of classroom teachers. In 2005, community schools employed 1.76 percent of the public school teachers.

Table 5 Teachers Employed by Different Types of Local Education Agencies – 1998 – 2005

District Type	1999	2000	2001	2002	2003	2004	2005	Percent Increase
Regular K-12	97,100	99,337	99,562	102,588	103,784	95,828	91,796	-5.46%
ESC	1,514	1,644	1,747	1,808	1,893	1,738	1,736	14.64%
JVSD	2,041	2,109	2,326	2,345	2,378	2,359	2,376	16.42%
Community	126	405	575	930	1,439	1,530	1,716	12.62%
Total	100,781	103,494	104,210	107,672	109,493	101,455	97,624	-3.13%
Percent in Regular K-12	96.30%	96.00%	95.50%	95.30%	94.80%	94.45%	94.03%	

The most dramatic result shown on Table 5 is a reduction in the total number of teachers from 2003 to 2004 of about 8,000 and from 2004 to 2005 of an additional 3,800 teachers. Most of this reduction occurred in regular K-12 school districts. In fact, the reduction in teachers in regular K-12 districts over the two years since 2003 totaled almost 12,000 teachers.

The one year change from 2003 to 2004 amounted to a decline in regular school districts of about 7.5 percent. An additional 5 percent reduction occurred from 2004 to 2005. Relative to 2003, the cumulative decrease in regular teachers by 2005 equaled about 11.55 percent. Some of

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this reduction occurred because financial difficulties forced reductions in teaching staff in a number of Ohio school districts in the 2003-2004 and 2004-2005 school years.

However, some of the apparent reduction from 2003 to 2004 may not be due to loss of personnel, but rather resulted from improved methods of record-keeping. In the course of assembling data for the 2004 reporting period, the Office of Data Services, within the Ohio Department of Education, identified and contacted more than 100 school districts with teacher counts that appeared to contain inaccurate information. Many of those districts corrected the erroneous records, and as a result, changed computer codes in records for personnel no longer involved in classroom work. Unfortunately, at the level of analysis involved in the preparation of this report, no method exists for separating the effects of actual reductions in staff from the apparent reductions caused by improvements in data collection and reports.

Changes in data collection procedures may have exaggerated the number by which classroom teachers declined from 2003 to 2004 as a one-time correction in the underlying data. After that transition year, improvement in the accuracy of data collected from school districts makes the reduction from 2004 to 2005 a more reliable indicator of actual changes in employment compared to the transition from 2003 to 2004. Therefore, the continued reduction in the number of classroom teachers from 2004 to 2005 suggests that the real number of teachers declined by a significant number over that period.

Throughout the remainder of this report, ESC and JVSD data will not receive further detailed scrutiny. Community schools are analyzed in their own section later in the report.

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Position Type of Teachers

Table 6: Teachers Employed in Regular School Districts by Position – 1999 – 2005

Position Type	1999	2000	2001	2002	2003	2004	2005	Percent Change
Regular Classroom	80,630	82,651	82,726	85,142	85,899	79,162	76,201	-5.49%
Special Education	12,296	12,782	13,144	13,818	14,415	13,458	12,677	3.10%
Vocational	4,174	3,904	3,692	3,628	3,470	3,207	2,917	-30.11%
Total	97,100	99,337	99,562	102,588	103,784	95,828	91,796	-5.46%
Percent Regular Classroom	83.00%	83.20%	83.10%	83.00%	82.80%	82.61%	83.01%	

Table 6 shows the number of teachers employed in the 612 regular K-12 Ohio school districts, according to their position type.

- While regular teachers increased over the period shown in the table, the one year decrease of 6,737 from 2003 to 2004 equaled about 7.8 percent (note: better data accounts for some of this apparent decrease, but some of the decrease represents actual staff reductions). However, from 2004 to 2005 another reduction of 2,961 regular classroom teachers occurred, a 3.7 percent reduction.
- Special education teachers showed a reduction of about 5.8 percent from 2004 to 2005.
- In spite of reductions from 2003 to 2005, the number of special education teachers increased by about 3 percent from 1999 to 2005.
- The number of vocational teachers decreased by 30 percent over this time frame.
- Overall, the percentage of regular classroom teachers remained at roughly 83 percent of teachers employed.

Teacher Employment by Gender and Race

Table 7 shows the percentage of teachers who are female.

Table 7
Percentage of Female Teachers Employed by Different Local Education Agencies – 1999 – 2005

District Type	1999	2000	2001	2002	2003	2004	2005
Regular	73.70%	74.10%	74.50%	74.50%	74.50%	74.70%	74.52%
ESC	86.70%	86.60%	85.40%	84.00%	84.10%	85.08%	86.26%
JVSD	60.00%	60.20%	59.80%	59.30%	58.90%	58.22%	58.26%
Community	81.00%	76.90%	75.30%	74.60%	74.90%	76.87%	78.65%
Overall	73.70%	74.10%	74.50%	74.50%	74.50%	74.53%	74.41%

- In 2005, 74.52 percent of the teachers in regular school districts were female.
- Approximately, 86 percent of ESC teachers were female, and about 58 percent of JVSD teachers were female.
- From 2001 to 2004, community schools showed approximately the same percentage of female teachers as regular school districts. In 2005, a 4 percent difference opened between the two kinds of districts. Community schools have the higher percentage of female teachers.

Table 8
Percentage of Teachers Employed in Regular School Districts Who Are Female, by Position – 1999 – 2005

Position Type	1999	2000	2001	2002	2003	2004	2005
Regular Classroom	72.70%	73.20%	73.50%	73.40%	73.30%	73.56%	73.39%
Special Education.	85.50%	85.50%	85.90%	85.70%	85.50%	85.25%	84.95%
Vocational	57.30%	57.70%	57.80%	58.10%	58.60%	58.63%	58.89%
Total	73.70%	74.10%	74.50%	74.50%	74.50%	74.70%	74.52%

Table 8 shows the percentage of female teachers in Ohio’s 612 regular K-12 school districts according to their teaching position.

- As was the case in the percentages shown for ESC and JVSD schools in Table 6, a higher percentage of special education teachers are female and a lower percentage of vocational education teachers are female, as compared to regular classroom teachers.

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Table 9
Total Teachers in Regular School Districts by Race – 1999 -2005

Race	1999	2000	2001	2002	2003	2004	2005	Percent Increase
White	90,199	92,241	93,001	94,948	95,880	89,645	86,626	-3.96%
Black	6,124	6,298	5,787	6,729	6,945	5,299	4,371	-28.62%
Other	777	798	774	912	958	883	798	-2.69%
Total	97,100	99,337	99,562	102,588	103,784	95,828	91,796	-5.46%

- Table 9 shows that the number of black teachers increased from 1999 through 2003. From a high point in 2003, the number of black teachers declined by about 1650 from 2003 to 2004 and then by another 900 from 2004 to 2005.

The number of white teachers also reached a high in 2003. The reduction in the number of white teachers from 2003 to 2004 of about 6,000 teachers, and an additional reduction of 3,000 from 2004 to 2005, means a cumulative percentage reduction over the two-year period of almost 10 percent. Compared to 1999, the number of white teachers declined by about 4 percent. These reductions compare with a 37 percent reduction in black teachers since 2003 and a longer term 29 percent reduction since 1999.

- From 2004 to 2005, white teachers declined by about 3.4 percent, but black teachers fell by the much larger rate of 17.5 percent.
- These larger reductions in the number of black teachers probably had two causes. First, the large urban school districts where a disproportionate number of black teachers work also experienced a significant share of layoffs in 2004. Second, it is possible that the improvements in data collection achieved in 2004 also had a disproportionate effect on the data reported by large school districts. Better data collection probably does not explain the reductions in black teachers from 2004 to 2005 since by that year better procedures were already in place.
- The “other” minority teachers showed a similar pattern of increases from 1999 through 2003 followed by substantial decreases in 2004 and 2005. The overall increase in these teachers since 1999 equaled less than 3 percent. These minorities include Asian and Hispanic teachers as well as a few teachers of unknown racial background.

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Table 10
Comparison of Percentages of Teachers and Students in Regular School Districts by Race, 1999 – 2005

Teacher Percentages by Race	1999	2000	2001	2002	2003	2004	2005
White Teachers	92.90%	92.90%	93.40%	92.50%	92.40%	93.55%	94.37%
Black Teachers	6.30%	6.30%	5.80%	6.60%	6.70%	5.53%	4.76%
Other Teachers	0.80%	0.80%	0.80%	0.90%	0.90%	0.92%	0.87%
Student Percentages by Race							
White Students	80.70%	80.40%	80.00%	79.60%	79.20%	78.85%	78.53%
Black Students	15.70%	15.70%	15.80%	15.80%	15.80%	15.65%	15.46%
Other Students	3.60%	3.90%	4.20%	4.60%	5.00%	5.50%	6.01%

- Table 10 shows that the percentage of black teachers increased from 1999 through 2003 and then decreased in 2004 and 2005. The percentage of white teachers reached a low point in 2003 and then increased in the last two years. The percentage of other minority teachers showed little change.
- Over the same period, the percentage of black students remained about constant while the percentages of white students declined, and that of other minority students increased.
- In comparison to the percentage of minority students, black teachers and other minority teachers continue to be dramatically under-represented in the teaching population.

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Table 11
Percentage of White and Black Teachers According to the Department of Education's
School District Typology – 1999 – 2005

Typology Category	1999	2000	2001	2002	2003	2004	2005*
White Teachers							
Rural-High Poverty-Low SES	99.60%	99.70%	99.70%	99.70%	99.70%	99.66%	99.58%
Rural-Low Poverty-Low SES	99.80%	99.80%	99.80%	99.80%	99.70%	99.71%	99.50%
Small Town-Moderate SES	99.60%	99.50%	99.50%	99.50%	99.50%	99.50%	99.73%
(Urban) Low SES-Very High Poverty	97.10%	97.30%	97.40%	97.60%	97.70%	97.66%	96.07%
Urban-Moderate SES	95.50%	95.20%	95.30%	95.10%	95.20%	95.22%	N.A.
Major Urban-Very High Poverty	75.00%	74.80%	76.20%	73.70%	72.70%	75.44%	76.90%
Urban/Suburban-High SES	97.40%	97.40%	97.60%	97.50%	97.50%	97.48%	98.16%
Urban/Suburban-Very High SES	97.00%	97.10%	97.30%	97.40%	97.20%	97.31%	97.46%
Total	92.90%	92.90%	93.40%	92.60%	92.40%	93.55%	94.37%
Black Teachers							
Rural-High Poverty-Low SES	0.30%	0.20%	0.20%	0.20%	0.20%	0.21%	0.21%
Rural-Low Poverty-Low SES	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.30%
Small Town-Moderate SES	0.20%	0.20%	0.20%	0.20%	0.20%	0.24%	0.13%
(Urban) Low SES-Very High Poverty	2.40%	2.30%	2.20%	2.10%	2.00%	1.98%	3.41%
Urban-Moderate SES	4.10%	4.30%	4.20%	4.50%	4.40%	4.25%	N.A.
Major Urban-Very High Poverty	22.70%	22.90%	21.40%	23.70%	24.50%	21.60%	20.21%
Urban/Suburban-High SES	2.20%	2.20%	2.00%	2.00%	2.00%	2.02%	1.34%
Urban/Suburban-Very High SES	2.00%	2.00%	1.90%	1.80%	1.90%	1.82%	1.77%
Total	6.30%	6.30%	5.80%	6.60%	6.70%	5.53%	4.76%

*In 2005 the Department of Education changed the district typology by reducing the district types from 8 to 7. The alignment of the new district typology in the last column of the table with the columns for 1999 through 2004 is approximate.

- Table 11 shows the percentage of teachers who are black and white in each of the Ohio Department of Education's district typology categories. The percentage of other minority teachers is not shown for space considerations. It equals the difference between 100 percent and the sum of the black and white percentages.
- The percentage of teachers who are black only exceeds 3 percent in two categories of schools: major urban-very high poverty and urban-moderate SES. The percentage of other minority teachers never exceeds 3 percent.
- In 2005, about 75 percent of black teachers and 59 percent of all other minority teachers taught in major urban-very high poverty school districts.
- In the same year, 87 percent of black teachers taught in just two categories: major urban – very high poverty school districts and urban low SES school districts.

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- Even in major urban high poverty school districts, the percentage of black teachers fell from 1999 to 2005 while the percentage of white teachers increased.

Age Trends

The average age of Ohio teachers was 42.00 in 2003. In 2004, the average age increased to 43.24. A very slight increase occurred between 2004 and 2005 to an average age of 43.30 years. The median age now falls between 43 and 44.

Figure 8
Distribution of Ohio Teachers by Age Group – 1999- 2005

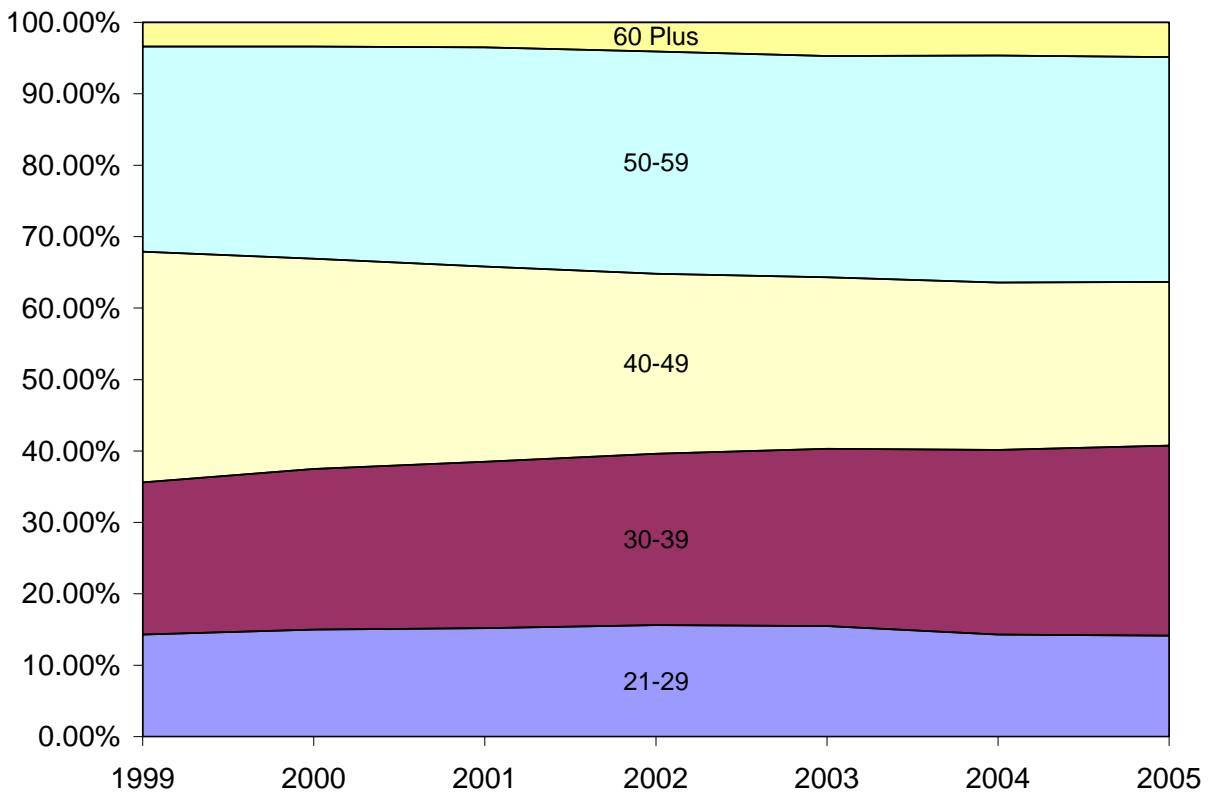


Table 12 shows the same data as graphically presented in Figure 8.

Table 12
Distribution of Ohio Teachers by Age Group – 1999 – 2005

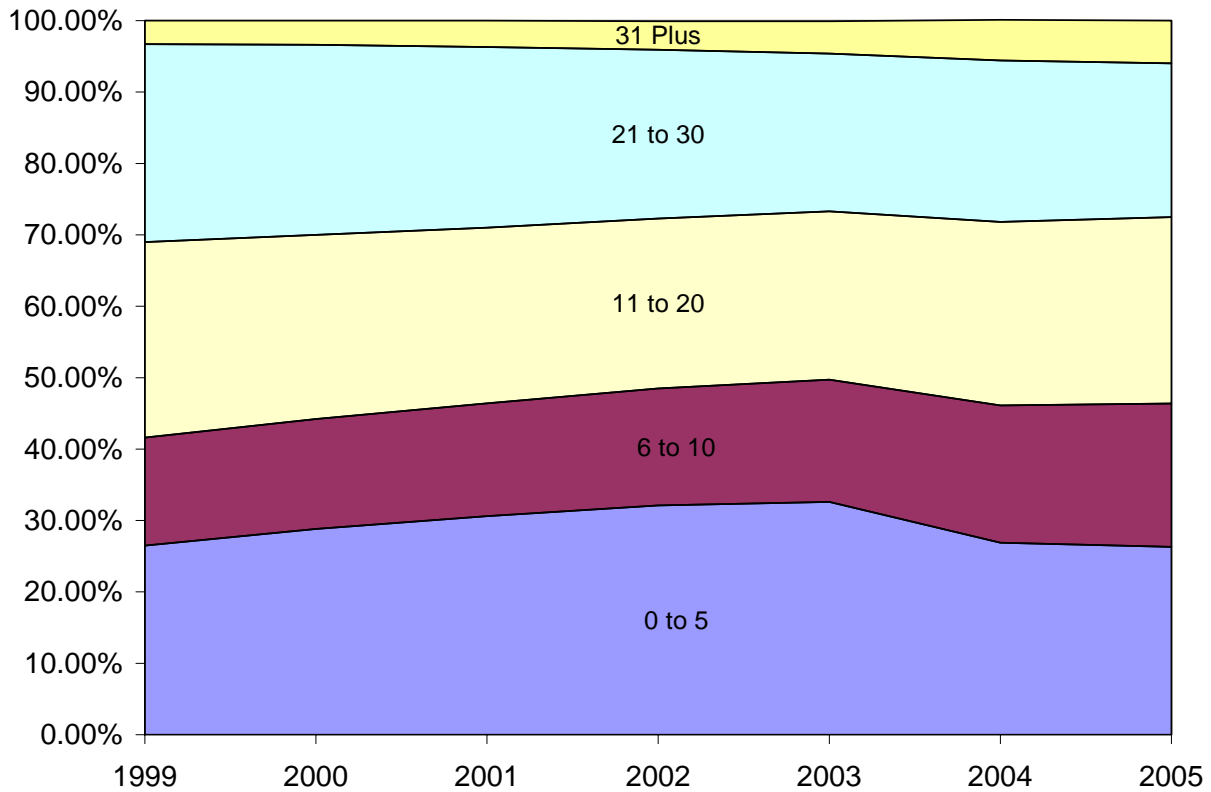
Age Group	1999	2000	2001	2002	2003	2004	2005
21-29	14.30%	15.00%	15.20%	15.60%	15.50%	14.29%	14.14%
30-39	21.30%	22.50%	23.30%	24.00%	24.80%	25.86%	26.63%
40-49	32.30%	29.40%	27.30%	25.20%	24.00%	23.43%	22.91%
50-59	28.70%	29.70%	30.70%	31.10%	31.00%	31.77%	31.47%
60 Plus	3.40%	3.40%	3.50%	4.10%	4.70%	4.65%	4.84%

- The relative share of teachers in the youngest age group (21-29) remained about constant compared to 1999; although, within the 1999-2005 timeframe, the percentage of young teachers increased by over a full percentage point and then declined by 2005 to less than the 1999 level.
- The percentage share of the two oldest age groups increased between 1999 and 2005.
- Long term and year-to-year increases occurred in the second youngest group (30-39) and the second oldest group (50-59). The share of the middle group of teachers in their forties fell dramatically by almost 10 percentage points over the longer term. This group also registered a small decline from 2004 to 2005.
- These data can be compared to data later in this report to show that teachers in community schools tend to be younger than teachers in regular school districts. (See Table 78)

Experience Trends

The average experience¹ level of Ohio teachers equaled about 14.2 years in 1999. By 2005, that average had fallen to about 13.7 years. The median level of experience fell over the same period from more than 13 years to between 12 and 13 years.

**Figure 9
Distribution of Ohio Teachers by Years of Total Experience – 1999 – 2005**



¹The 2003 *Condition of Teaching Report* concluded that the number of teachers with zero years of experience was over-reported by school districts. Better reporting in 2004 appeared to confirm that conclusion. The number of teachers with zero years of experience fell from almost 8,000 in 2003 to about 4,000 in 2004. In 2005, the number of teachers with zero experience was even less at about 3,600. However, in the context of an overall decline in total teachers, some reduction in the number of teachers with zero experience also may have resulted from fewer new hires in 2004 and 2005.

Table 13 shows the data upon which Figure 9 is based.

Table 13
Distribution of Ohio Teachers by Years of Total Experience – 1999 – 2005

	1999	2000	2001	2002	2003	2004	2005
0 to 10	41.60%	44.20%	46.40%	48.50%	49.70%	46.1%	46.36%
0 to 5	26.50%	28.80%	30.60%	32.10%	32.60%	26.9%	26.32%
6 to 10	15.10%	15.40%	15.80%	16.40%	17.10%	19.2%	20.05%
11 to 20	27.40%	25.80%	24.60%	23.80%	23.60%	25.7%	26.11%
21 to 30	27.70%	26.60%	25.30%	23.60%	22.10%	22.6%	21.53%
31 Plus	3.30%	3.40%	3.70%	4.00%	4.50%	5.7%	6.00%

- The percentage of teachers with 10 or fewer years of experience has increased from 41.6 percent to 46.36 percent since 1999.
- Teachers with five or fewer years of experience continued to account for about one-quarter of all teachers in 1999 and 2005. However, a substantial reduction in the percentage of these teachers appears in the one year decline from 2003 to 2004. As indicated in the footnote above, fewer inexperienced teachers in 2005 may reflect better record-keeping, but it also probably represents some reduction in new hiring in that most recent year.
- The percentage of teachers with 11 to 20 years of experience fell by about one percentage point. Teachers between 20 and 30 years of experience fell by even more – 6.17 percentage points.
- At the same time the percentage of teachers with more than 30 years of experience has increased from 3.3 percent to 6 percent.

Teacher Level of Education

Table 14 summarizes education attainment of regular classroom teachers, special education teachers and vocational teachers from 1999 to 2005. The “other” category includes “education specialist degrees,” other unspecified degrees and teachers where no data were reported for the degree item in the EMIS records.

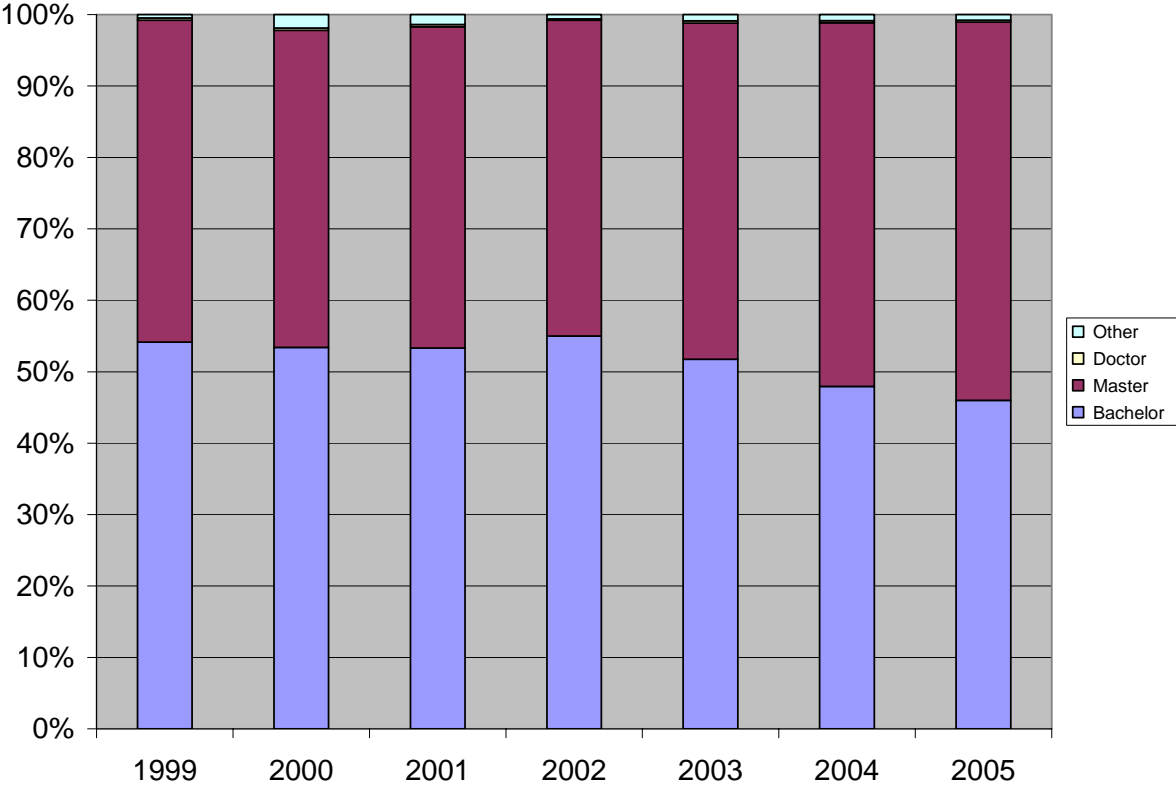
**Table 14
Highest Degree Attained by Teachers in Regular K-12 School Districts – 1999 – 2005**

Degree Level	1999	2000	2001	2002	2003	2004	2005
Bachelor	52,570	53,042	53,059	56,386	53,741	45,945	42,201
Master	43,736	44,100	44,846	45,348	48,837	48,781	48,622
Doctor	269	267	260	250	295	277	256
Other	525	1,928	1,397	604	910	824	716
Total	97,100	99,337	99,562	102,588	103,784	95,828	91,796
Bachelor	54.10%	53.40%	53.30%	55.00%	51.80%	47.95%	45.97%
Master	45.00%	44.40%	45.00%	44.20%	47.10%	50.91%	52.97%
Doctor	0.30%	0.30%	0.30%	0.20%	0.30%	0.29%	0.28%
Other	0.50%	1.90%	1.40%	0.60%	0.90%	0.86%	0.78%

- The percentage of teachers with master’s degrees in the 612 regular school districts increased by 7 percentage points since 1999 and by 2 percentage points between 2004 and 2005.

Figure 10 depicts this information graphically.

Figure 10
Education Level of Ohio Teachers



- Teachers with master’s degrees now account for more than one-half of all teachers in regular K-12 school districts.
- To some extent the percentage increase in the share of master’s degree teachers occurred because the reduction in bachelor’s degree teachers (about 3,700 from 2004 to 2005) far exceeded the reduction in master’s degree teachers (159).

Teacher Credentials

There is increasing attention given to the credentials held by classroom teachers. Ohio’s teacher standards call for all teachers to obtain a master’s degree before a second professional license can be issued. The federal government has defined “highly qualified teachers” both in terms of content knowledge and degrees earned.

Temporary and long-term substitute licenses. Table 15A provides data on the percentage of teachers with temporary and long-term substitute teaching licenses. Utilization of teachers with these licenses is often an indication that the school or district was unable to hire a teacher with a provisional or professional license in the area in which they will be teaching.

**Table 15A
Ratio of Teachers to Temporary and Long-term Substitute Licenses**

Position Type	1999	2000	2002	2004	2005
Temporary Licenses	5.10%	5.60%	3.70%	3.14%	1.23%
Long-term Substitutes, all schools	0.0	0.40%	2.90%	6.96%	0.59%
Long-term Substitutes just Community schools	NA	NA	NA	44.98%	10.87%
Long-term Substitutes, omitting community schools	NA	NA	NA	2.4%	0.41%

- Over time, the use of teachers with temporary licenses has decreased.
- Utilization of long-term substitutes has also decreased over the same period of time after an unusual percentage in 2004 of almost 7 per cent.
- Additional analysis reveals that the large increase in long-term substitutes results from the large-scale utilization of these licenses in community schools. Across all community schools, there are nearly 11 long-term substitute licenses per 100 teachers.
- If community schools are excluded from the analysis, the number of long-term substitutes per 100 teachers is less than one.

Highly Qualified Teachers. Federal law currently requires districts to report if their teachers are “highly qualified.” Teachers who are highly qualified have appropriate certification or licensure, additional training, or have passed a subject matter testing the subjects they are teaching. Tables 15B and 15C compare qualifications across subject areas and across the school district typology.

DEMOGRAPHICS

Table 15B
Percentage of Highly Qualified Teachers in English, Mathematics and Related Subjects by District
Typology – 2005

	English	Language Arts	Reading	Mathematics	Science	Self-contained
Poor Rural	91.1%	95.4%	94.2%	93.0%	94.6%	97.9%
Rural	92.5%	95.3%	93.5%	93.3%	94.7%	97.6%
Small Town	92.9%	95.3%	95.7%	93.4%	95.6%	95.3%
Medium Size Urban	92.4%	93.1%	95.1%	92.3%	93.8%	98.5%
Major Urban	<u>86.6%</u>	<u>80.4%</u>	<u>81.1%</u>	<u>80.8%</u>	<u>81.1%</u>	<u>94.8%</u>
Suburb	93.4%	95.3%	96.3%	94.2%	95.4%	99.1%
Wealthy Suburb	93.7%	97.5%	96.4%	96.4%	97.6%	98.5%

Table 15C
Percentage of Highly Qualified Teachers in Social Studies, Arts, and Foreign Languages by District
Typology – 2005

	Civics and Government	Economics	Geography	History	Arts	Foreign Language
Poor Rural	91.2%	95.0%	92.7%	96.1%	97.0%	<u>88.2%</u>
Rural	94.7%	88.1%	88.6%	94.5%	96.9%	93.2%
Small Town	91.8%	91.4%	96.8%	96.0%	97.7%	97.5%
Medium Size Urban	90.4%	93.6%	<u>83.4%</u>	93.3%	97.8%	95.2%
Major Urban	<u>76.2%</u>	<u>78.3%</u>	85.7%	<u>78.5%</u>	<u>90.2%</u>	92.0%
Suburb	94.0%	95.7%	94.2%	95.3%	99.2%	97.8%
Wealthy Suburb	95.1%	96.5%	98.5%	96.9%	98.9%	97.7%

- Most of Ohio’s teachers met the requirements to be termed “highly qualified.”
- With the exception of teachers of geography and foreign languages, teachers in urban districts were the least likely to be highly qualified (the tables show the type of districts with the lowest HQT percentage in each subject underlined in boldface font).
- In major urban districts, four out of five teachers met the HQT requirement in core subjects of mathematics, science, language arts, reading and social science.

DEMOGRAPHICS

Enrollments and Regular Teachers – 1999-2005

Table 16 summarizes a variety of measures of statewide student enrollment, commonly referred to as average daily membership (ADM), and ratios of enrollment to teachers.

Table 16
Student Enrollment and Pupil/Teacher Ratios in Regular School Districts – 1999 - 2005

Category	1999	2000	2001	2002	2003	2004	2005
Total P-12 ADM	1,839,770	1,826,686	1,817,637	1,806,924	1,802,615	1,797,768	1,785,769
Non-Disability (Regular ADM)	1,628,543	1,609,616	1,595,289	1,579,731	1,568,243	1,557,522	1,543,436
Disability ADM (Special Ed ADM)	211,227	217,070	222,348	227,193	234,372	240,246	242,333
Total ADM/ Total Teachers	18.9	18.4	18.3	17.6	17.4	18.8	19.5
Total ADM/ Regular Teachers*	22.8	22.1	22	21.2	21.0	22.7	23.4
Regular ADM / Regular Teachers	20.2	19.5	19.3	18.6	18.3	19.7	20.3
Special Ed ADM / Spec Ed Teacher	17.2	17	16.9	16.4	16.3	17.9	19.1

*As used in Table 16, the term “regular teacher” refers to teachers with position assignment number 205. These are regular classroom teachers and do not include special education or vocational education teachers.

- Increases in the total number of teachers combined with declines in total enrollment led to decreases in the overall student teacher ratio in Ohio’s 612 school districts from 1999 to 2003. In 2004, the trend reversed, and the ratio began to climb in 2004 and 2005. This was the case whether total ADM was divided by total teachers or just by regular classroom teachers.
- The net effect of these changes over the entire period from 1999 through 2005 shows a change over the period both in the number of pupils per total teachers and in the number of pupils per regular classroom teachers.
- This same pattern also was apparent when the ratio of regular (non-disability) ADM to regular classroom teachers is examined.
- Increases in both the number of special education teachers and students left the special education pupil/teacher ratio at a higher level in 2005 (19.1) than it was in 1999 (17.2).
- While the longer term seven-year ratios of pupils to teachers became smaller from 1999 to 2003, the short term ratios of pupils to teachers grew larger in every category measured on the table from 2003 to 2005.
- The reversal of the long-term trend toward smaller pupil teacher ratios occurred in 2004 because the number of teachers declined much faster than the small reduction in enrollment.

DEMOGRAPHICS

Table 17 examines total enrollment per regular teacher in more detail.

- Ohio’s regular school districts had 23.4 K-12 students per regular teacher in 2005. This number has decreased from 22.8 in 1999. Since 2003, the ratio increased from a low of 21 pupils per regular teacher by more than two pupils per teacher.
- The enrollment per teacher ratio has declined for rural types of regular districts and small towns. From 2003, major city districts went from the lowest enrollment per teacher among all district typologies (19) to the highest enrollment per teacher in 2005 (25.4).

Table 17
Enrollments per Teacher, Regular Districts and Regular Teachers, by District Typology* – 1999-2005

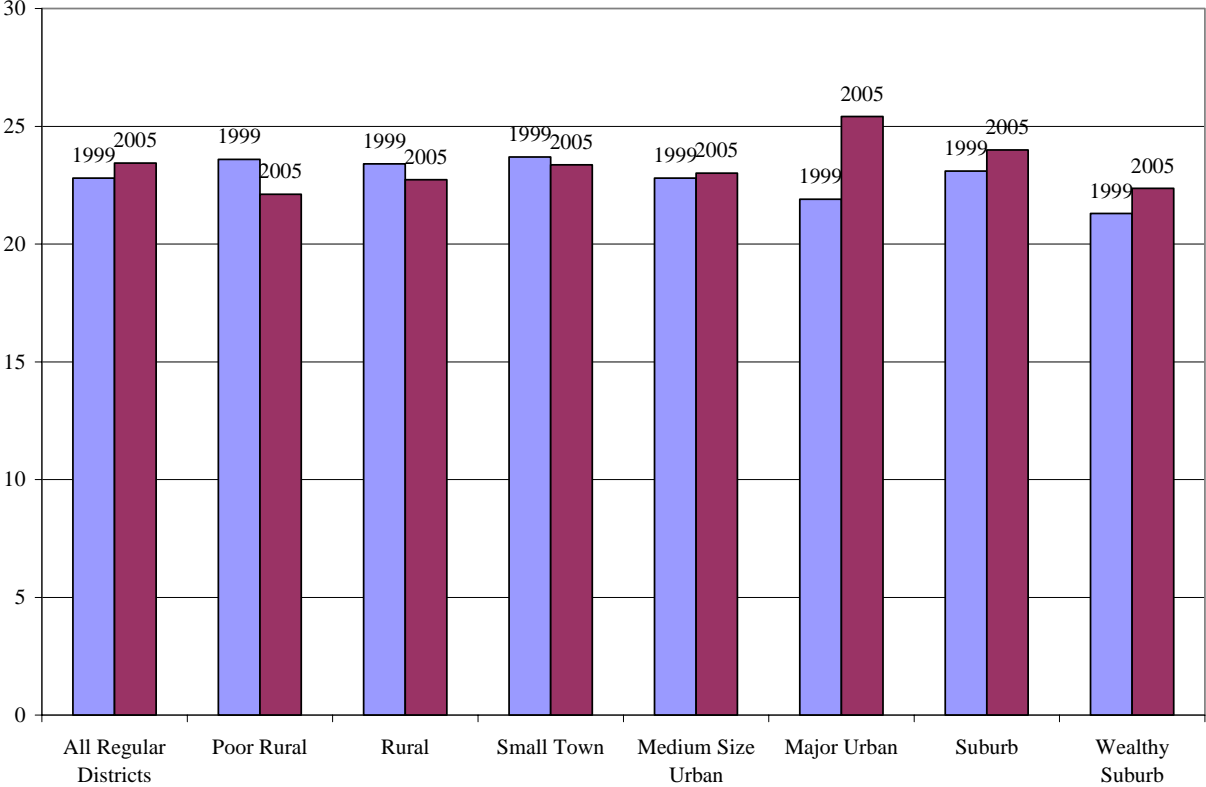
	1999	2000	2001	2002	2003	2004	2005	Change 1999-2005	Percent Change 1999-2005
All Regular Districts	22.8	22.1	22	21.2	21	22.7	23.4	0.63	2.78%
Rural, high poverty(Poor Rural)	23.6	22.5	22.4	21.6	21.1	22.4	22.1	(1.49)	-6.30%
Rural, low poverty (Rural)	23.4	22.8	22.7	22.1	21.5	22.6	22.7	(0.66)	-2.84%
Small town, moderate SES (Small Town)	23.7	23.2	22.8	22.7	22.2	23.5	23.4	(0.34)	-1.44%
Small town, very high poverty (Medium size urban)	22.8	22.1	22.2	21.5	21	22.8	23.0	0.21	0.94%
Major Urban, extremely high poverty	21.9	20.8	21.4	18.6	19	22	25.4	3.51	16.05%
Suburban/urban high SES (Suburban)	23.1	22.4	22.3	22.1	21.8	23.3	24.0	0.90	3.88%
Suburban very high SES(Wealthy Suburban)	21.3	20.9	20.3	20.6	20.3	21.8	22.4	1.07	5.00%
Urban moderate SES	23.2	22.8	22.8	22.3	21.8	23	NA	NA	NA

*The Ohio Department of Education changed the number of classifications in the district typology from eight to seven beginning with 2005. Therefore, the district typology for years 1999 through 2004 only approximately correspond to the typology used in 2005.

DEMOGRAPHICS

Figure 11 summarizes the changes from 1999 to 2005 in a graphic illustration.

**Figure 11
Enrollment to Regular Teacher Ratios by District Typology* – 1999 and 2005**



*The Ohio Department of Education changed the number of classifications in the district typology from eight to seven beginning with 2005. Therefore, the district typology for years 1999 through 2004 only approximately correspond to the typology used in 2005.

Ohio Teacher Workforce

MOBILITY AND ATTRITION

- **Entering Teachers**
- **Departing Teachers**
- **Analysis by District Typology**
- **Analysis by Report Card Category**
- **Analysis by Subject**

OHIO TEACHER WORKFORCE MOBILITY AND ATTRITION

Labor Market Dynamics – Entering Teachers

Ohio school districts hire teachers for four reasons: to replace teachers who have left the school district, to increase the size of the teaching staff, to maintain or improve the ratio of pupils to teachers, or to provide students with content areas that the current staff do not have the capacity to teach. Teachers hired by a school district can come from other districts or from a pool of job applicants derived from first-time (beginning) teachers and from experienced teachers who are returning to the classroom.

Table 18
Hiring Rate for Teachers in Regular K-12 School Districts – 1999 – 2005

Source of Hires	1999	2000	2001	2002	2003	2004	2005
Total Teachers	97,100	99,337	99,562	102,588	103,784	95,828	91,796
New Hires	9,479	10,615	9,265	10,928	9,127	6,134	5,944
Beginning Teachers	4,025	4,738	4,416	5,333	4,173	2,622	3,594
Experienced Teachers	5,454	5,877	4,849	5,595	4,954	3,512	2,350
Move From Other Districts	1,461	1,816	1,913	1,879	1,576	1,522	1,361
Total Teachers Hired	10,940	12,431	11,178	12,807	10,703	7,656	7,305
Hiring Rate	11.30%	12.50%	11.20%	12.50%	10.30%	8.00%	7.96%

- Table 19 provides information about the hiring rate for classroom teachers in the 612 regular K-12 Ohio school districts. “New hires” include both beginning teachers and experienced teachers returning to the classroom.
- The hiring rate for teachers fell in 2005 whether hiring for that year is compared over the long run to 1999 or over the short run to the preceding year. However, the difference in 2004 and 2005 hiring rates is quite negligible. (The “hiring rate” equals the sum of new hires and teachers who moved from another district divided by the total number of teachers for each year.)
- In 2005, new hires declined by a small number from 2004. Compared to 1999 through 2003, the number of new hires in 2005 was about 3,300 to 5,000 less per year.
- In 2005, the number of beginning teachers increased compared to 2004, but it remained less than the beginning teachers hired in every year from 1999 through 2003. The number of experienced teachers hired in 2005 declined relative to the experienced hires in 2004. Compared to the other years on the table, the number of experienced teachers hired in 2005 was less than half of the number hired.

- From 2004 to 2005, movement between districts reached a low point over the period covered by Table 18.
- The decline in hiring between 2004 and 2005 is not surprising in the context of the overall reduction in the total number of teachers as shown in the first row of the table. Table 19 provides information about where school districts obtain teachers.

Table 19
Sources of Teachers Hired in Regular K-12 School Districts – 1999 – 2005

Source of Hires²	1999	2000	2001	2002	2003	2004	2005
Beginning Teachers	36.80%	38.10%	39.50%	41.60%	39.00%	34.25%	49.20%
Experienced Teachers	49.90%	47.30%	43.40%	43.70%	46.30%	45.87%	32.17%
Move from Other District	13.40%	14.60%	17.10%	14.70%	14.70%	19.88%	18.63%

- In 2005, beginning teachers accounted for the highest percentage of new hires than in any year since 1999.
- Beginning teachers account for almost half of all 2005 hiring activity while a decline in the hiring of experienced teachers occurred between 2004 and 2005. In fact, 2005 recorded the lowest rate for hiring experienced teachers for the period shown.
- Teachers who move directly from another district account for the smallest share of hiring activity, but the importance of movement between districts has been higher in the last two years.

Labor Market Dynamics – Departing Teachers

Each year some teachers leave public schools entirely. “Attrition” measures the number and percentage of teachers who leave teaching, either for another profession, a non-teaching job within the public education system, or to leave the labor force. Other teachers move from one school district to another. “Mobility” measures the number and percentage who move to teach in other districts (including ESCs, JVSDs and community schools – for this reason the mobility figures in Table 20 do not correspond with the “Move from Other District” data in Table 19).

Table 20 shows the number and percentage of teachers who left or moved between 1999 and 2005.

²Beginning teachers” are teachers without prior full-time classroom employment. “Experienced teachers” include all teachers who returned to the classroom, transferred from a private school, or moved from another state. Due to some inaccuracies in the districts’ reporting of accumulated experience, the data about “beginning teachers” may overstate the number of teachers who entered the classroom each year with no previous full-time teaching experience

Table 20
Number of Teachers in Regular K-12 School Districts Who Departed Teaching or Moved to a Different School District – 1999 – 2005

Departure Cause	1999	2000	2001	2002	2003	2004	2005
Total Teachers	97,100	99,337	99,562	102,588	103,784	95,828	91,796
Teachers Departing	9,182	9,900	8,963	8,922	13,498	10,202	NA
Attrition	7,066	7,647	6,748	7,057	11,922	8,904	NA
Mobility	2,115	2,253	2,215	1,866	1,575	1,298	NA
Percentage							
Departure Rate	9.50%	10.00%	9.00%	8.70%	13.01%	10.65%	
Attrition Rate	7.30%	7.70%	6.80%	6.90%	11.49%	9.29%	
Mobility Rate	2.20%	2.30%	2.20%	1.80%	1.52%	1.35%	

- Between 1999 and 2002, the number of teachers departing show relatively small variations. However, the number of teachers who departed after 2003 (shown in the column labeled “2003”) increased by more than 50 percent over the departures in the preceding year.

The number of departures after 2003 exceeds by a large amount the number for any year between 1999 and 2002. To some extent the experience at the end of 2003 continued at the end of 2004. The “2004” column shows that 10,202 teachers departed between 2004 and 2005. That number exceeded the departures for any year between 1999 and 2002. The departures after 2004 equaled about 14 per cent more than the departures at the end of 2002.

- The instances of mobility shown for 2004 register the lowest amount in this category over the period since 1999. The amount of movement by teachers between school districts has declined every year since 1999.
- Therefore, the higher rate of departures between 2003 and 2005 resulted from attrition. As noted earlier in this report, not all of this “attrition” resulted from layoffs in school districts; some may represent a purging of obsolete data from the records contributed by school districts.

Table 21 shows the departure rates of regular teachers by race and ethnicity.

Table 21
Percentage of Teacher Departures from Regular School Districts by Race – 1999 – 2004

Race	1999	2000	2001	2002	2003	2004
Asian	12.40%	16.50%	10.30%	12.00%	21.52%	19.49%
Black	13.00%	16.40%	10.40%	12.30%	27.66%	22.10%
Hispanic	9.10%	11.10%	9.40%	9.50%	17.57%	15.57%
White	9.20%	9.50%	8.90%	8.40%	11.89%	9.91%
Total	9.50%	10.00%	9.00%	8.70%	13.00%	10.65%

- The departure rate (attrition plus mobility) of minority teachers was higher than the departure rate for white teachers in every case from FY99 through FY04.
- Attrition accounts for most of the departure rates shown in Table 22. Attrition of black teachers in 2004 accounted for 21.3 percent of the total 22.1 percent departure rate for that group. In other words, slightly more than one of every five black teachers registered in 2004 had departed teaching by 2005. This reduction occurred after an even larger reduction after 2003 of over 27 percent.
- As noted previously, some of the increased attrition rate among black teachers likely resulted from record-keeping improvements between 2003 and 2004, but the reduction from 2004 to 2005 probably rests on more accurate record-keeping.
- The departure rates for all categories of minority teachers continue exceed departure rates from 2002 to 2004 among white teachers.
- The mobility rate of white teachers (not shown in Table 21) was about 1.35 percent in 2004 compared to a mobility rate for black teachers of about 0.78 percent. In other words, white teachers showed more than a 50 percent greater tendency to move between school districts compared to black teachers.

Table 22 provides an alternate view of attrition by showing the percentage of teachers in each year who are still employed after one to eight years. This table can appear confusing at first, but it provides useful information. The table shows how many teachers who began teaching in a given base year remain in the public schools after one to seven years have elapsed. The data on the table take the form of a percentage, which represents a kind of retention rate.

Reading down the columns of the table shows the percentage of teachers who began teaching in each base year and who are still employed after one to eight years. For example, after two years the percentage of teachers employed in FY98 still employed in public schools equaled 87.56 percent. Of the next three base years, the comparable percentage still employed after two years did not differ by more than 1.1 percent. Similar results appear for different periods shown on the table.

Table 22
Percentage of Teachers Employed in a Base Year Still Employed After One to Eight Years

Base Year	1997	1998	1999	2000	2001	2002	2003	2004
After 1 year	95.05%	93.12%	92.72%	92.30%	93.22%	93.12%	88.51%	90.71%
After 2 years	90.86%	87.56%	86.96%	87.50%	88.14%	84.29%	82.93%	
After 3 years	85.41%	82.29%	82.45%	82.95%	80.89%	79.18%		
After 4 years	80.27%	78.15%	78.18%	76.60%	76.07%			
After 5 years	76.20%	74.06%	72.85%	71.55%				
After 6 years	72.14%	68.95%	67.51%					
After 7 years	67.04%	63.84%						
After 8 years	62.00%							

Reading across the tables enables a comparison of retention trends. For example, of the teachers who taught in 1998, the public schools retained 93.12 percent after one year (i.e., the end of the 1999 school year). Five years later, the percentage of teachers who remained from the 2002 cohort equaled the same percentage. Reference to later base years shows some deterioration in the retention rate. For example, after four years 80 percent of the 1997 base year cohort remained in the public schools while only 76.6 percent of the 2000 base year and 76.07 percent of the 2001 base year cohort remained after the same number of years. Of course, the ability to compare attrition rates by base years becomes less as the table approaches the current year. For the 2004 base year, only the retention experience as of the end of 2005 is available to show on the table.

Consistent with other data shown in this report, the retention rate for 2003 after one year shows a significantly lower percentage at 88.5 percent compared to all other base years whose one year retention rate always exceeded 90 percent. The one year retention rate for the 2004 cohort improved over 2003, but it still shows lower retention than any other preceding year on the table.

District Typology Analysis

Table 23 shows the overall departure rate (attrition plus mobility) in different types of districts in Ohio as classified according to the Ohio Department of Education’s district typology. Appendix A of this report provides a more detailed description of the classifications used in the typology.

Table 23
Percentage of Teachers Who Departed Teaching or Moved to a Different School District
Classified According to the Department of Education’s School District Typology* – 1999 – 2004

District Type	1999	2000	2001	2002	2003	2004
Rural-High Poverty-Low SES (Poor Rural)	9.30%	9.10%	9.50%	7.60%	10.39%	6.31%
Rural-Low Poverty-Low SES (Rural)	8.70%	9.40%	8.90%	8.00%	10.48%	6.48%
Small Town-Moderate SES(Small Town)	9.20%	8.70%	9.20%	8.10%	9.49%	15.60%
Low SES-Very High Poverty(Medium size urban)	8.50%	8.70%	9.00%	7.70%	10.63%	4.56%
Urban-Moderate SES	10.30%	11.00%	9.80%	9.00%	13.31%	NA
Major Urban-Very High Poverty	11.30%	12.60%	9.30%	11.40%	20.43%	23.48%
Urban/Suburban-High SES (Suburban)	8.70%	9.00%	8.00%	7.60%	10.98%	8.44%
Urban/Suburban-Very High SES(Wealthy Suburban)	7.70%	8.60%	8.90%	7.30%	10.87%	5.51%

*The Ohio Department of Education changed the number of classifications in the district typology from eight to seven beginning with 2005. Therefore, the district typology for years 1999 through 2004 only approximately correspond to the typology used in 2005.

- Consistent with many other statistics presented in this report, the teacher departures at the end of the 2003 year showed a high rate of departure across all district types. For 2004, departure rates registered in the last column of the table differ significantly depending on the district type.
- The rate of departures from major urban very high poverty districts almost doubled from 2002 to 2003. Departures after 2004 even exceeded 2003 rates. In every other class of district, except small town districts, departures at the end of 2004 conformed to or even fell below recent historical experience.
- Some of the variation in the small town classification’s departure rate at the end of 2003 compared to the end of 2004 probably resulted from the differences in the districts in that classification as a result of the revision in the school district typology implemented by the Department of Education for the 2005 school year.
- The departure rate in the major urban high poverty districts after the 2004 year exceeded the departure rate in very high SES suburban districts by a factor of four.
- The data do not provide information about whether departures resulted from voluntary exits from teaching or forced lay-offs.

Table 24 shows the rate of teacher attrition in different types of districts in Ohio. “Attrition” refers to departures from employment in public schools entirely. Its causes include death, retirement, career change, or lay-offs and other forms of involuntary termination. It does not include transfers to other school districts, ESCs, JVSs or community schools. Attrition also does not include changes in employment status caused when a teacher leaves the classroom for an administrative position within the public school system.

Table 24
Percentage of Departing Teachers Who Left Teaching Classified According to the Department of Education’s School District Typology* – 1999 – 2004

District Type	1999	2000	2001	2002	2003	2004
Rural-High Poverty-Low SES (Poor Rural)	6.00%	5.70%	6.10%	5.30%	8.35%	4.57%
Rural-Low Poverty-Low SES (Rural)	5.40%	6.10%	5.90%	5.50%	8.78%	5.26%
Small Town-Moderate SES (Small Town)	6.50%	6.30%	6.20%	5.90%	7.92%	12.83%
Low SES-Very High Poverty(Medium size urban)	6.20%	6.30%	6.40%	5.80%	9.04%	3.76%
Urban-Moderate SES	8.00%	7.80%	7.40%	6.80%	11.27%	NA
Major Urban-Very High Poverty	9.60%	10.80%	7.70%	9.90%	19.19%	22.17%
Urban/Suburban-High SES (Suburban)	7.10%	7.40%	6.30%	6.10%	9.63%	7.24%
Urban/Suburban-Very High SES(Wealthy Suburban)	6.40%	7.40%	7.50%	6.30%	9.68%	4.90%

*The Ohio Department of Education changed the number of classifications in the district typology from eight to seven beginning with 2005. Therefore, the district typology for years 1999 through 2004 only approximately correspond to the typology used in 2005.

- The total departure rate in Table 23 is the sum of the attrition shown in Table 24 and mobility between school districts (Table 25). A comparison of Table 24 and 25 shows that attrition accounts for most teacher departures. For example, in 2003, large urban districts registered a total departure rate of 23.48 percent. Of those twenty percentage points, attrition accounts for 22.17 percent, as shown on Table 24 and movement among school districts accounts for only 1.32 percent, as shown on Table 25.
- Urban-very high poverty districts consistently registered the highest rate of attrition as measured in Table 24 but in 2003 that rate doubled compared to the preceding year, and the attrition rate in those major urban districts climbed even higher by the end of 2004.
- Some teachers whose departures account for the percentages in Table 24 will return to the classroom. Others include retirements and migration to different careers.

Table 25 shows the mobility rate of teachers in different types of school districts in Ohio.

Table 25
Percentage of Departing Teachers Who Moved to a Different School District Classified
According to the Department of Education’s School District Typology *
1999 – 2004

District Type	1999	2000	2001	2002	2003	2004
Rural-High Poverty-Low SES (Poor Rural)	3.30%	3.40%	3.40%	2.30%	2.04%	1.75%
Rural-Low Poverty-Low SES (Rural)	3.30%	3.30%	3.00%	2.60%	1.70%	1.22%
Small Town-Moderate SES (Small Town)	2.70%	2.50%	3.00%	2.20%	1.56%	2.77%
Low SES-Very High Poverty(Medium size urban)	2.30%	2.40%	2.50%	1.80%	1.59%	0.80%
Urban-Moderate SES	2.30%	3.20%	2.40%	2.20%	2.04%	NA
Major Urban-Very High Poverty	1.70%	1.70%	1.60%	1.50%	1.24%	1.32%
Urban/Suburban-High SES (Suburban)	1.60%	1.60%	1.60%	1.50%	1.35%	1.20%
Urban/Suburban-Very High SES(Wealthy Suburban)	1.30%	1.20%	1.40%	1.10%	1.19%	0.61%

*The Ohio Department of Education changed the number of classifications in the district typology from eight to seven beginning with 2005. Therefore, the district typology for years 1999 through 2004 only approximately correspond to the typology used in 2005.

- The mobility rate accounts for that portion of departures for which attrition does not provide the explanation. Teachers included in mobility changes moved from one school district to another within the public school system. Mobility does not include teachers who moved to a different school building within the same school district.
- While 2003 displayed a sharp increase in departures and attrition compared to 2002, mobility rates remained constant or even declined over 2003 and 2004.
- Teachers in urban very high poverty districts show a lower rate of inter-district movement compared to most other classifications for most years, but in the most recent year movement by teachers in those districts occurred at about average rates.
- Districts with high (favorable) and very high socio-economic characteristics show lower rates of movement. Once teachers obtain employment in these school districts they apparently show less inclination to look for teaching opportunities in other school districts.

District Report Card Ratings and Teacher Mobility

Ohio annually evaluates the performance of schools and districts by using the Local Report Card System. This system is based on proficiency test passage rates, student attendance rates and graduation rates. Since the report card rating system has undergone numerous changes since its inception, districts have been placed in every year according to their placement categories on the 2004 Local Report Card³. For example, this means that the school districts shown on the table as “academic emergency” districts were placed in that classification by 2004 performance data. The teacher mobility and attrition of these same districts for the years 1998 through 2003 then appears in the appropriate columns of the table along with 2004. Thus, the table does *not* show the unique group of academic emergency districts as classified in 1998 and then another unique group of academic emergency districts for 1999 and so on.

Table 26 shows the distribution of teachers among school districts in each of the five Local Report Card Rating categories.

Table 26
Percentage of Total Teachers According to Local Report Card Rating Categories
1999 – 2005

Rating Category	1999	2000	2001	2002	2003	2004	2005
Academic Emergency	2.38%	2.16%	1.85%	1.58%	1.49%	1.31%	1.29%
Academic Watch	21.92%	22.16%	21.78%	23.24%	23.11%	20.70%	18.60%
Continuous Improvement	29.28%	29.09%	29.00%	28.50%	28.48%	29.31%	29.64%
Effective	26.92%	26.86%	27.14%	26.60%	26.62%	27.63%	28.41%
Excellent	19.50%	19.73%	20.23%	20.09%	20.30%	21.06%	22.05%

- Slightly less than one in five teachers teach in a school district in academic emergency or academic watch status.
- Just over one-fifth of teachers teach in excellent districts, and more than one in four teach in an effective district.

³ See Appendix B.

Table 27 shows the overall departure rate (attrition plus mobility) of the teaching staff for school districts in each report card category. For example, at the end of the 2003-2004 school year, about 16 percent of the teachers who taught in that year in a school district ranked in academic emergency (based on 2004 rankings) either left teaching or moved to another school district.

Table 27
Percentage of Teachers Who Left Teaching or Moved to another School District by 2004
Report Card Category
1999 – 2004

Rating Category	1999	2000	2001	2002	2003	2004
Academic Emergency	19.64%	18.06%	15.43%	13.55%	22.83%	15.81%
Academic Watch	10.23%	12.24%	9.24%	11.00%	24.42%	21.18%
Continuous Improvement	9.79%	9.89%	9.42%	8.49%	11.85%	9.87%
Effective	8.64%	8.79%	8.53%	7.60%	10.63%	8.16%
Excellent	7.96%	8.21%	8.20%	7.39%	11.03%	7.86%

- While school districts rated as excellent display departure rates between 7.5 percent and 8.0 percent for most years, the departure rates in the academic emergency and academic watch districts consistently appear higher than the rate in the other categories.
- The departure rate after the 2002-2003 school year (shown in the last column of the table) increased significantly for all classifications, but the most dramatic increase in 2003 departures compared to earlier years occurred in the academic emergency and academic watch school districts.
- Departure rates declined in every report card category when 2004 is compared to 2003.

Figure 12 shows the information in Table 27 in graphic form. On the chart, the lines tracing departure rates in Category 1, academic emergency and Category 2, academic watch generally appear higher than the trend lines for other categories. With two exceptions, the lines follow a pattern consistent with the association of higher departure rates with higher states of academic difficulty.

**Figure 12:
Percentage of Teachers Who Leave or Move to Another School District by 2004 District Report Card Rating 1999 - 2004**



- Excellent schools have the lowest departure rate. Effective schools have the next lowest.
- Continuous improvement districts’ departure rates fall between effective districts and academic watch districts, except for 2001.
- Academic watch districts show higher departure rates than academic emergency districts for the two most recent years on the chart.

Table 28 shows the percentage of teachers from Table 27 who left teaching entirely.

Table 28
Teacher Attrition by 2004 District Report Card Category:
1999 – 2004

Rating Category	1999	2000	2001	2002	2003	2004
Academic Emergency	15.83%	14.29%	11.04%	10.47%	19.15%	13.98%
Academic Watch	8.46%	9.97%	7.26%	9.23%	22.61%	19.59%
Continuous Improvement	7.10%	7.13%	6.83%	6.35%	9.98%	8.14%
Effective	6.37%	6.59%	6.17%	5.78%	9.15%	6.96%
Excellent	6.42%	6.74%	6.62%	6.09%	9.78%	6.77%

- The attrition rate in the academic emergency and academic watch districts more than doubles the attrition rate in the effective and excellent districts in 2004.
- In every other year, attrition in the academic emergency and academic watch districts exceeds attrition in the other categories.
- Attrition rates in continuous improvement districts more closely resemble the attrition in effective and excellent districts than they resemble attrition in academic watch and academic emergency districts.

Table 29 shows the mobility rates of teachers according to Report Card categories.

Table 29
Teachers Who Moved to Another School District by 2004 District Report Card
Category
1999 – 2004

Rating Category	1999	2000	2001	2002	2003	2004
Academic Emergency	2.38%	4.10%	4.39%	4.99%	3.68%	1.84%
Academic Watch	1.25%	1.71%	2.30%	1.79%	1.80%	1.59%
Continuous Improvement	2.26%	2.65%	2.75%	2.57%	1.88%	1.73%
Effective	1.73%	2.23%	2.17%	2.34%	1.48%	1.21%
Excellent	1.21%	1.49%	1.43%	1.55%	1.25%	1.09%

- The school districts in the effective and excellent categories generally show the lowest rate of movement to new school districts.

- The highest movement rates occur in the academic emergency and continuous improvement school districts.

Attrition and Mobility by Course Subject

EMIS data includes a list of courses taught by each teacher. Each course receives a unique code number. Each code number begins with a two digit prefix. The prefix defines the general subject area within which the course falls. Twenty-nine prefix codes define twenty-nine subject areas. The individual subject areas are listed in Table 31.

Generally, the course subject analysis presented here uses the two digit prefix as the basis for a subject area code to analyze the distribution of teachers among different subject areas and different types of school districts. By matching teachers who left teaching or moved between school districts with the course subject data, the analysis adds a new dimension to the attrition and mobility portion of the Condition of Teaching Report for 2005.

Tables 30 and 31 provide some basic information about the distribution of teachers by subject. The first table shows the number of teachers in seven core subject areas in both 1999 and 2005. These seven subject areas account for more than 80 percent of the teachers in Ohio in both 1999 and 2005. The second table shows the number of teachers with courses in each of the 28 subject areas, and the percentage of the total number of teachers with courses in each subject area. As used in this report, “teacher” means a person with a position assignment code of 205, 206 or 207 in one of Ohio’s 612 K-12 public school districts.

In Table 30, the most dramatic difference between 1999 and 2005 appears in the subject area called “General Education.” The number of teachers placed in this category declined by about 22,500 from 1999 to 2005. It is unclear how much this change reflects different educational practice, the change from a teacher certification system to a teacher licensure system, or simply better record-keeping. In general, middle school classes that were “general education” in 1999 now have specific subject areas associated with them. Increases of 35,600 teachers in four core subject areas (English, Mathematics, Science, and Social Studies) more than offset the reduction in the General Education category. Table 30 summarizes the differences in these core subjects.

Table 30
Changes in the Number of Teachers in Selected Subject Areas
1999 to 2005

Subject Area	FY99 FTE	FY05 FTE	Change
English	8,784	30,400	21,616
Foreign Language	2,660	2,823	163
Mathematics	6,875	11,589	4,714
Science	5,756	10,555	4,799
Social Studies	5,649	10,131	4,483
General Education	40,088	10,916	(29,172)
Special Education	7,717	2,219	(5,498)
Other	19,572	13,162	(6,409)
Total Number of Teachers	97,100	91,796	(5,304)

Table 30 also appears to show a dramatic reduction in the number of teachers assigned to the “special education” subject area. Again, this reflects both changes related to teacher licensure and the reforms in the structure of special education, rather than a substantive change in the number of teachers working with students with disabilities. Course codes for special education once reflected that most of the classroom experience of students with disabilities was separate from that of other students. As special education has evolved to reflect the content standards that are now meant for all students, course codes have also evolved. The current “special education” course codes represent, for the most part, “pull out” and “resource room” assignments.

Other data, based on position assignment code (206), show that the number of special education teachers increased by 381 (from 12,296 to 12,677) from 1999 to 2005.

Table 31
Distribution of Teachers by Subject Area in FY99 and FY05 by Number and Percentage

Subject	Subject Code	1999 FTE	1999 Percent	2005 FTE	2005 Percent	1999-2005 Change
No subject match	None	7,880	8.11%	663	0.72%	(7,217)
Agriculture	1	292	0.30%	281	0.31%	(11)
Art	2	1,291	1.33%	1,301	1.42%	10
Business	3	1,289	1.33%	1,026	1.12%	(263)
Marketing	4	212	0.22%	157	0.17%	(55)
English	5	8,784	9.05%	30,400	33.12%	21,616
Foreign Language	6	2,660	2.74%	2,823	3.08%	163
Health Occupations	7	71	0.07%	80	0.09%	9
Physical Education	8	2,621	2.70%	1,557	1.70%	(1,064)
Family/Consumer	9	1,419	1.46%	1,063	1.16%	(356)
Industrial Technology	10	1,154	1.19%	859	0.94%	(295)
Mathematics	11	6,875	7.08%	11,589	12.62%	4,714
Music	12	1,335	1.37%	1,276	1.39%	(59)
Science	13	5,756	5.93%	10,555	11.50%	4,799
Business/Career Tech	14	269	0.28%	397	0.43%	128
Social Studies	15	5,649	5.82%	10,131	11.04%	4,483
Trade & Industrial	17	355	0.37%	316	0.34%	(39)
General Education	18	40,088	41.28%	10,916	11.89%	(29,172)
Special Education	19	7,717	7.95%	2,219	2.42%	(5,498)
Library Media	20	-	0.00%	20	0.02%	20
Driver Education	21	16	0.02%	2	0.00%	(14)
ROTC	22	42	0.04%	61	0.07%	19
Family/Consumer Non Career	23	313	0.32%	371	0.40%	58
Career-Based Intervention	25	780	0.80%	426	0.46%	(353)
Health Education	26	-	0.00%	1,268	1.38%	1,268
Computer Technology	29	-	0.00%	813	0.89%	813
Other	30	-	0.00%	754	0.82%	754
Humanities	31	0	0.00%	14	0.01%	14
Career Development	99	199	0.20%	68	0.07%	(131)
Elementary Education	EL	34	0.04%	389	0.42%	355
Total		97,100		91,796		(5,304)

Table 31 shows a more detailed perspective in which the data include all subject codes tracked in EMIS. The first row of the table includes the number of teachers for whom no subject record exists. The substantial decline in this number from almost 8,000 in 1999 to less than 1,000 in 2005 suggests that the system improved its tracking of teachers and subjects over that period. Between 1999 and 2005, reductions occurred in the number of teachers teaching in 13 of 29 subject areas. From 1999 to 2005, the number of teachers decreased by 5,304.

Attrition – Analysis of Departures from Teaching

The next several tables examine the teachers in 1999 that departed teaching or moved to another school district by 2005. Teachers who depart are called “leavers.” The phenomenon of teachers who depart public school employment is also referred to as “attrition.” Teachers who changed school districts are called “movers.” Mobility is the phenomenon by which teachers move between school districts. The remaining tables will focus on the seven major subjects listed in Table 30, but detailed data for every subject area does exist.

**Table 32
Number and Percentage of Teachers Who Departed from Public Schools between 1999 and 2005
Compared to the Percentage of Teachers in Each Subject Area in 1999**

Position #205,206,207	Code	# of 1999 “leavers”	Percent of All “leavers”	All 1999 Teachers	Percent of All Teachers
No subject match		3,396	10.76%	7,880	8.11%
English	5	3,017	9.56%	8,784	9.05%
Foreign Language	6	872	2.77%	2,660	2.74%
Mathematics	11	2,172	6.89%	6,875	7.08%
Science	13	1,776	5.63%	5,756	5.93%
Social Studies	15	1,911	6.06%	5,649	5.82%
General Education	18	12,249	38.83%	40,088	41.28%
Special Education	19	1,996	6.33%	7,717	7.95%
All Others		4,159	13.18%	11,692	12.04%
Total		31,549	100.00%	97,100	100.00%

The first two columns of Table 32 show the subject area and its EMIS code number. The third column shows the number of “leavers”. These are the teachers who departed from the public schools between 1999 and 2005. The fourth column shows the percentage of all “leavers” in a given subject area relative to the total number of “leavers” . For example, the second row in the fourth column shows 9.56 percent.

This percentage means that 3,017 of the 31,549 total “leavers” ” (9.56 percent) were English teachers. The fifth column shows the total number of teachers who taught in each subject area in 1999. For example, 8,784 English teachers were recorded by EMIS in that year. The final column shows the percentage represented by each subject area of the total number of teachers in 1999. For example, in that year, the 8,784 English teachers accounted for 9.05 percent of all teachers recorded by EMIS in position assignments 205, 206 and 207.

A comparison of the percentages in the fourth and sixth columns indicates whether a disproportionate number of teachers in a particular subject area departed from teaching. For example, English teachers accounted for 9.56 percent of “leavers,” but that subject only accounted for 9.05 percent of all teachers in 1999. This means that slightly more English teachers are included in the list of “leavers” than the percentage of English teachers in the whole system would predict. Another method of examining this issue is to compute directly the percentage of teachers in each subject area that leave. This analysis can be found in Table 33 below.

In the past, some people have speculated that schools have more difficulty retaining teachers in some subject areas, such as mathematics and science, than in other areas. If this hypothesis were true for a given subject, then the percentages for that subject in column four would exceed the percentages in column six. On the other hand, if retention rates are relatively high, then the percentage in column six for a particular subject would exceed its percentage in column four.

The data on Table 32 generally do not confirm the hypothesis that mathematics and science teachers tend to lower retention rates. In both cases, the percentage of “leavers” falls below the percentage that mathematics and science teachers represent of all faculty. These data contradict the theory that mathematics and science teachers show a higher departure rate and lower retention rate.

The data for special education teachers also show a relatively high retention rate. While special education teachers accounted for 6.33 percent of “leavers”, they accounted for 7.95 percent of all teachers. This under-representation of special education teachers among the “leavers” indicates a lower departure rate and a higher retention rate than average. Considering that the number of teachers identified here as special education differs so dramatically from the 206 category counts of special education teachers in both 1999 and 2005, this pattern of attrition may not be accurate, however.

One additional point deserves emphasis when interpreting the above findings. These data represent only the second observation of the five-year attrition rate. While these data show patterns consistent with those found in a similar analysis of the 2004 Condition of Teaching Report, a definitive conclusion about the relationship between subject area and retention will require several more years’ worth of data at minimum.

Finally, the fact that a teacher did not depart from public school employment between 1999 and 2005 does not mean that the teacher still performs the same role in 2005 as in the earlier year. For example, a mathematics teacher in 1999 could have changed to an administrative position by 2005 within the same district. Such a change would not appear as a departure, and such a teacher does not receive the “leaver” characterization as used in this analysis. However, later in this report, an examination of the changes in retained teachers will show what kinds of role changes occur.

Mobility – Analysis of Teachers who Moved Among or Between Districts

“Movers” are teachers in 1999 who remained in public school employment in 2005 but who served in a different school district compared to the earlier year. Table 33 presents information about Movers in the same format as Table 32 addressed the Leaver data.

**Table 33
Number and Percentage of Teachers Who Moved to a Different School District between 1999 and 2005 Compared to the Percentage of Teachers in Each Subject Area in 1999**

Position 205, 206, 207	Code	# of 1999 Movers	Percent of All Movers	All 1999 Teachers	Percent of All Teachers
No subject match		597	9.80%	7,880	8.11%
English	5	592	9.72%	8,784	9.05%
Foreign Language	6	229	3.75%	2,660	2.74%
Mathematics	11	637	10.46%	6,875	7.08%
Science	13	495	8.13%	5,756	5.93%
Social Studies	15	368	6.04%	5,649	5.82%
General Education	18	1,679	27.57%	40,088	41.28%
Special Education	19	698	11.47%	7,717	7.95%
All Others		796	13.07%	11,692	12.04%
Total		6,091	100.00%	97,100	100.00%

In Table 33, a larger percentage for a specific subject area indicates that teachers in that subject showed a higher tendency to move between school districts. For example, mathematics teachers accounted for 7.08 percent of all teachers in 1999. However, of the “movers,” mathematics teachers accounted for 10.46 percent. These data show that a mathematics teacher is more likely than average to move from one school district to another within a five-year period.

All of the specific subject areas showed more movement than their percentage of the total statewide faculty would predict. Only in the area of “general education” does the “mover” percentage fall significantly below the statewide percentage. It seems reasonable to speculate from this result that high school and middle school teachers have a higher tendency to move than elementary school teachers. This speculation relies on the expectation that most teachers in the General Education category teach in lower grades while teachers in middle and high school grades tend to teach in a specific subject area.

These data also show a relatively high tendency for special education teachers to move from district to district. While these teachers accounted for only about 8% of total teachers, they made up 11.47 percent of the “movers.”

Teacher Attrition and Retention Comparisons

Table 34 shows the same data as Tables 32 and 33 from a different perspective. Table 34 compares the percentage of “leavers” or “movers” in each subject area to the number of teachers in that subject area. For example, out of 8,784 English teachers, 3,017 left teaching. This number of departures accounts for an English teacher attrition rate of 34.35 percent. An additional 592 English teachers moved to a different school district by 2005. These moves accounted for a 6.74 percent mobility rate for English teachers. The last column shows that the sum of the attrition and mobility of English teachers equaled 41.09 percent.

Table 34
1999 Teachers, Departures from Teaching, and Movement between School Districts by Number of Teachers and Percentage of Teachers in Each Subject Area

Position #205,206,207	Total Number of 1999 Teachers	# of “leavers” 1999 – 2005	Percent “leavers”	# of “movers” 1999 – 2005	Percent Movers	Percent “leavers” and “movers”
No subject match	7,880	3,396	43.10%	597	7.57%	50.67%
English	8,784	3,017	34.35%	592	6.74%	41.09%
Foreign Language	2,660	872	32.80%	229	8.60%	41.39%
Mathematics	6,875	2,172	31.60%	637	9.27%	40.87%
Science	5,756	1,776	30.85%	495	8.60%	39.45%
Social Studies	5,649	1,911	33.83%	368	6.51%	40.34%
General Education	40,088	12,249	30.55%	1,679	4.19%	34.74%
Special Education	7,717	1,996	25.86%	698	9.05%	34.92%
Other	11,692	4,159	35.57%	796	6.81%	42.38%
Total/ Overall Rate	97,100	31,549	32.49%	6,091	6.27%	38.76%

A comparison with a percentage associated with a specific subject category with the Total Percentage shown on the bottom row indicates whether the specific attrition or mobility rate exceeded the overall rate. For example, by measuring the English teacher attrition rate (“leavers” percent) of 34.35 percent against the overall attrition rate of 32.49 percent as shown in the bottom row of the table, it is clear that English teachers were somewhat more likely than average to leave teaching.

The 25.86 percent attrition rate for special education teachers shows that they were less likely to leave teaching than the 32.49 percent overall attrition rate predicts. The combined attrition and mobility rate for General Education and for Special Education equaled about 35 percent in each of those categories. They tied for the lowest combined rate of attrition and mobility among the subjects shown. This outcome reinforces the conjecture in an earlier section of this paper that retention rates are higher among elementary and special education teachers and lower among teachers in higher grades with a subject area specialization.

Teacher Attrition by District Typology

This section of the paper examines the data about “leavers” and “movers” according to the type of school district in which these teachers work. The typology used is the Department of Education’s system, as revised in 2005, in which seven district types account for all districts (608), except three extremely small outlier districts on Lake Erie Islands and College Corner LSD. In addition, one newly formed district (Manchester LSD, Adams County) remained unassigned in 2005.

Table 35 shows the distribution of teachers by major subject area in each type of school district.

Table 35: Number of Teachers by Subject Area and District Type –1999

District Type*:	Poor Rural	Rural	Small Town	Urban Poor	Major Urban	Suburb – High Income	Suburb Very High Income	Total
Subject Area								
No subject match	556	707	341	1,115	2,862	1,457	830	7,868
English	760	1,118	690	1,571	1,266	2,143	1,233	8,780
Foreign Language	184	297	176	387	430	662	524	2,660
Mathematics	616	876	541	1,185	1,013	1,680	961	6,873
Science	493	720	433	1,017	806	1,445	840	5,755
Social Studies	498	702	429	1,026	819	1,386	788	5,648
General Education	3,865	4,748	2,579	6,636	9,787	8,074	4,382	40,072
Special Education	787	703	429	1,461	2,289	1,436	612	7,717
Other	1,171	1,474	834	1,992	2,458	2,537	1,226	11,691
Total	8,931	11,346	6,453	16,390	21,729	20,820	11,395	97,062

*Table 35 retrofits the new 2005 district typology to FY99 data

The total of 97,062 shown on the table is less than the total shown on Tables 30 and 31 because it does not include four outlier and one unassigned school districts.

Alone, Table 35 does not provide helpful information, but it provides the foundation for evaluating attrition and mobility rates by district type.

Table 36 breaks down the attrition rate by district type. This table takes the number of teachers in each subject area in each district type who departed and divides that number by the total number of teachers in that subject category in that district type.

Table 36
Attrition Rate in Each Type of School District by Subject Area
1999 to 2005

District Type*:	Poor Rural	Rural	Small Town	Medium Size Urban	Major Urban	Suburb	Wealthy Suburb	Total
No subject match	33.57%	30.35%	36.21%	37.12%	54.88%	38.00%	39.69%	43.12%
English	30.45%	26.88%	33.20%	33.59%	43.63%	35.12%	34.28%	34.35%
Foreign Language	27.65%	23.82%	22.94%	29.44%	42.46%	34.22%	35.78%	32.80%
Mathematics	28.65%	24.71%	25.65%	30.19%	41.02%	34.12%	30.58%	31.61%
Science	26.72%	30.45%	25.75%	30.56%	40.24%	31.49%	26.52%	30.85%
Social Studies	28.23%	28.12%	29.47%	37.67%	44.74%	34.09%	28.06%	33.83%
General Education	23.86%	25.21%	26.47%	28.66%	38.97%	30.38%	29.02%	30.55%
Special Education	21.11%	18.16%	24.50%	23.59%	32.90%	23.38%	26.75%	25.86%
Other	31.19%	30.18%	31.20%	37.22%	44.32%	35.00%	30.25%	35.58%
Total	26.56%	26.34%	28.17%	31.11%	41.73%	32.23%	30.57%	32.49%

*Table 36 retrofits the new 2005 district typology to FY99 data

For example, 760 teachers taught English in Rural High Poverty districts. Of these 760 English teachers, 231 departed teaching between 1999 and 2005. These 231 “leavers” divided by 760 yields an attrition percentage of 30.45 percent as shown in column 1 in the English row.

In every subject area shown on the table, the highest attrition rate occurred in the 14 urban very high poverty school districts. Generally, the two rural district categories registered the lowest attrition rates. Attrition in the teaching profession can occur for two kinds of reasons easily summarized as “push” and “pull.” It is possible for unfavorable working conditions to push teachers into alternative employment. Teachers also may leave the classroom because more attractive employment opportunities pull them away.

With respect to these causes of attrition, it seems reasonable to speculate that low attrition rates occur in rural school districts for reasons associated with both push and pull factors. Working conditions in rural schools may offer more attractive environments and lessen the push factor. Also, rural areas offer fewer options for employment in positions for college educated persons. While teachers could move from rural locations to other small town or urban districts in order to widen their employment opportunities, it also seems reasonable to speculate that other factors, such as lifestyle issues or spouse’s employment, prevent such moves. With limited alternatives in the job market and extrinsic limitations on their ability to relocate, rural teachers show a greater tendency to remain in teaching because pull factors operate more weakly in rural areas.

In contrast, higher teacher attrition rates in urban school districts are possibly a consequence of the pull factor derived from the availability of many more employment opportunities for college educated persons. Meanwhile, the difference in the perceived attractiveness of working conditions in urban districts as compared with

neighboring suburban districts creates a *push* factor that also contributes to the higher attrition rate of teachers in urban districts than in suburban districts.

Teacher Mobility by District Typology

The movement of teachers between districts can be analyzed from two fundamental perspectives: 1) Where did the teachers who moved come from? 2) Where did the teachers who moved go?

Analysis of the Origin of Teachers who Moved Between Districts. Table 37 is similar to Table 36, except it shows the “mobility rate” between 1999 and 2005 rather than the “attrition rate.” “Mobility” means the movement of teachers from a school district in 1999 to another school district by 2005. Table 37 shows the district type *from* which teachers moved.

Table 37
Mobility Rate *from* Each Type of School District by Subject Area – 1999 to 2005

District Type*:	Poor Rural	Rural	Small Town	Medium Size Urban	Major Urban	Suburb	Wealthy Suburb	Total
Subject Area								
No subject match	11.02%	11.46%	15.41%	9.62%	4.42%	8.23%	5.29%	7.53%
English	8.11%	9.68%	8.70%	8.66%	4.12%	5.75%	4.05%	6.73%
Foreign Language	13.82%	14.08%	11.68%	12.56%	5.59%	7.18%	3.92%	8.60%
Mathematics	9.90%	14.21%	14.27%	11.01%	6.82%	7.80%	4.56%	9.27%
Science	10.95%	10.38%	12.58%	10.98%	5.77%	7.80%	4.84%	8.60%
Social Studies	10.24%	10.05%	10.05%	6.91%	3.24%	5.92%	3.01%	6.51%
General Education	5.19%	5.77%	4.25%	4.75%	4.10%	3.23%	2.68%	4.19%
Special Education	11.63%	13.31%	15.04%	10.61%	5.96%	8.48%	5.80%	9.05%
Other	9.92%	10.89%	9.80%	7.79%	3.58%	5.91%	3.63%	6.85%
Total	8.09%	9.07%	8.74%	7.51%	4.47%	5.52%	3.69%	6.27%

*Table 37 retrofits the new 2005 district typology to FY99 data

The first four district types on the table generally show significantly higher rates of movement compared to the last three district types. The last three types include: urban very high poverty; suburban high SES; and suburban very high SES. The lowest rate of mobility appears in the last column – very high SES districts. It appears that once a teacher reaches a wealthy suburban school district, they show little tendency to move to a different kind of district. In addition, it appears that teachers in very high poverty urban districts do not move as frequently as teachers in rural or small town districts.

With respect to subject areas, across all district types a low mobility rate characterizes teachers in general education. As in the case of attrition, it appears that teachers with a specialization show a greater tendency to move than the generalist.

MOBILITY AND ATTRITION

Analysis of the Destination of Teachers Who Moved Between Districts. Table 38 presents information about teacher mobility from a second perspective. It shows the destinations where teachers moved. This table matches the teachers who moved between 1999 and 2005 with the data about those teachers as it appears in the 2005 database. It should be noted that some teachers in 1999 no longer staffed position assignments 205, 206, or 207 in 2005.

Table 38 details the placement of the movers according to the subject area in which they teach in 2005.

Table 38
Destination of Teachers Who Moved Between School Districts
1999 to 2005

District Type*:	Poor Rural	Rural	Small Town	Medium Size Urban	Major Urban	Suburb	Wealthy Suburb	Community	ESC	JVS	Outlier	Unassigned	Total
	1	2	3	4	5	6	7						
No subject match	47	52	51	99	40	160	126	19	19	8	1	2	622
English	56	69	48	68	30	128	135	21	9	32	-	3	600
Foreign Language	17	36	20	23	9	53	73	7	-	-	-	-	237
Mathematics	41	90	60	81	34	149	126	22	4	35	-	2	644
Science	37	64	47	66	33	115	92	15	7	30	-	2	507
Social Studies	34	52	34	51	20	75	74	7	5	21	-	1	374
General Education	147	184	135	185	103	402	377	87	26	5	1	20	1,671
Special Education	72	65	45	100	63	170	123	17	35	14	-	4	706
Other	85	140	59	111	44	173	138	19	13	65	-	4	851
Total	537	752	498	783	375	1,424	1,262	214	117	211	2	37	6,212

*Table 38 shows destination by the new 2005 district typology.

The table shows that the FTE of the moving teachers equals 6,212 in 2005. These same teachers accounted for FTE of 6,091 in 1999. Therefore, some increase in the FTE commitment of the same individuals occurred between 1999 and 2005.

MOBILITY AND ATTRITION

Table 39 shows the information in Table 9 in percentage terms.

Table 39
Percentage of Teachers by Subject Area Who Moved to Each District Type
1999 to 2005

District Type*:	Poor Rural	Rural	Small Town	Medium Size Urban	Major Urban	Suburb	Wealthy Suburb	Community	ESC	JVS	Outlier	Unassigned	Total
	1	2	3	4	5	6	7						
No subject match	7.55%	8.29%	8.13%	15.88%	6.35%	25.69%	20.20%	3.05%	3.07%	1.30%	0.16%	0.32%	100.00%
English	9.41%	11.56%	8.00%	11.34%	5.05%	21.29%	22.51%	3.50%	1.50%	5.34%	0.00%	0.50%	100.00%
Foreign Language	7.18%	15.05%	8.32%	9.58%	3.80%	22.33%	30.63%	3.11%	0.00%	0.00%	0.00%	0.00%	100.00%
Mathematics	6.37%	14.04%	9.37%	12.64%	5.20%	23.16%	19.53%	3.39%	0.55%	5.46%	0.00%	0.28%	100.00%
Science	7.25%	12.61%	9.35%	12.92%	6.51%	22.60%	18.09%	2.97%	1.38%	5.94%	0.00%	0.39%	100.00%
Social Studies	9.05%	13.81%	9.10%	13.74%	5.34%	20.03%	19.84%	1.87%	1.34%	5.61%	0.00%	0.27%	100.00%
General Education	8.82%	11.02%	8.06%	11.05%	6.16%	24.06%	22.54%	5.20%	1.53%	0.30%	0.06%	1.20%	100.00%
Special Education	10.20%	9.18%	6.31%	14.11%	8.92%	24.01%	17.37%	2.41%	4.93%	1.98%	0.00%	0.57%	100.00%
Other	10.01%	16.47%	6.96%	13.01%	5.17%	20.38%	16.21%	2.19%	1.53%	7.65%	0.00%	0.43%	100.00%
Total	8.64%	12.10%	8.02%	12.60%	6.04%	22.92%	20.32%	3.44%	1.88%	3.39%	0.03%	0.60%	100.00%

Specifically, the table shows the percentage of teachers in each subject area who moved to each type of school district. For example, the first column of data shows that 9.41 urban very high poverty of the English teachers who moved, moved to a type 1 rural high poverty school district. The suburban typology shows that 21.29 urban very high poverty of the English teachers, who moved, moved to a suburban high SES district. The combination of percentages in Type 6 and Type 7 shows that a plurality of movers in each subject moved to suburban high SES or Very High SES school districts. Cumulatively, movement to these districts accounted for more than 43 urban very high poverty of all moves.

It is important to note that Tables 37 and 39 show different kinds of information. Table 37 shows the percentage of teachers in a district who moved during the 1999 to 2005 period. This percentage is shown subject-by-subject. In contrast, Table 39 shows the percentage of teachers who moved according to their destination.

MOBILITY AND ATTRITION

Together, Tables 37 and 39 show the following picture: If a teacher works in a rural or small town district, a relatively greater likelihood exists that the teacher will move to another school district. This likelihood increases if the teacher teaches in a specialized subject area, as middle school or high school teachers tend to do, rather than in the general education field. Once a teacher moves, the destination reached by that moving teacher tends to exist in an urban or suburban school district with a very high SES profile.

Table 40 tracks the actual movement by teacher from each type of district to each type of destination district. The table shows the percentage of the movers from each type of district of origin to each of the other possible destination types in 2005.

The intersection of the row and column for each district type works as follows. The row shows the district of origin, and the column shows the destination to which the teacher moved. For example, row 1 and column 1 intersect to show a cell with the value 29.75 percent. This means that 29.75 percent of the teachers in 1999 in Rural High Poverty Districts, who moved, moved to other school districts within that same type. Similarly, the intersection of row 1 and column 2 shows that 18.83 percent of the teachers who moved from rural high poverty districts moved to rural low poverty school districts.

Table 40
Teacher from Each Type of District of Origin Who Moved Between 1999 and 2005 and the Type of Destination District to Which They Moved

District Type*:	Poor Rural	Rural	Small Town	Medium Size Urban	Major Urban	Suburb	Wealthy Suburb	Community	ESC	JVS	Outlier	Unassigned
Origin	1	2	3	4	5	6	7					
1	29.75%	18.83%	5.71%	15.64%	1.62%	10.48%	5.18%	1.35%	2.57%	3.94%	0.00%	4.93%
2	11.35%	24.99%	12.82%	14.58%	2.38%	16.17%	8.59%	1.44%	2.24%	5.34%	0.10%	0.00%
3	4.88%	13.73%	16.63%	10.74%	5.10%	21.63%	18.13%	2.64%	1.94%	4.58%	0.00%	0.00%
4	8.47%	11.52%	7.16%	12.48%	6.38%	27.09%	18.46%	3.60%	1.46%	3.29%	0.08%	0.00%
5	2.23%	4.34%	4.08%	13.95%	10.98%	29.75%	22.85%	8.30%	1.82%	1.70%	0.00%	0.00%
6	3.05%	5.86%	6.65%	10.91%	7.19%	26.82%	31.90%	2.63%	1.63%	3.27%	0.00%	0.09%
7	1.05%	3.33%	4.15%	6.74%	8.55%	24.48%	45.33%	4.04%	1.84%	0.51%	0.00%	0.00%
Total	8.66%	12.13%	8.03%	12.60%	6.05%	22.92%	20.23%	3.47%	1.88%	3.39%	0.03%	0.61%

0	Island District or College Corner
1	Poor Rural – Rural/agricultural – high poverty, low median income
2	Rural – Rural/agricultural – small student population, low poverty, low to moderate median income
3	Small Town – Rural/Small Town – moderate to high median income
4	Medium Size Urban – Urban – low median income, high poverty
5	Major Urban – very high poverty
6	Suburb – Urban/Suburban – high median income
7	Wealthy Suburb – Urban/Suburban – very high median income, very low poverty
U	District Unassigned to a Classification in the Typology
JVS	Joint Vocational School District
ESC	Education Service Center
COM	Community School

The distribution of percentages shows that rural teachers tend to move within rural areas or to small towns. For example, about 54 percent of teachers who moved from poor rural school districts moved to other rural or small town school districts. Most teachers who moved from urban very high poverty school districts transferred to other urban or suburban school districts. For example, more than 77 percent of the teachers who moved from large urban districts went to other cities or suburbs, while another 8 percent went to community schools. Since community schools tend to locate more in urban areas than otherwise, about 85 percent of the movement from large urban school districts involved relocation in urban or suburban places.

While 52.6 percent of the movement from the very high poverty urban districts went to school districts with high or very high SES profiles in suburbs, only 7.19 percent of the movement from suburban school districts and 8.55 percent of the movement from wealthy suburban districts went back in the other direction toward the large urban school districts. These data tend to confirm exactly what many might expect. When teachers move, they tend to move from high poverty school districts to high SES school districts.

Teachers Who Remain in the Same School District. The final discussion presents some information about teachers who remained in the same school district from 1999 to 2005. These teachers all filled position assignments of 205 (regular classroom), 206 (special education classroom) or 207 (vocational education classroom) in 1999. By 2005, about 5,000 of these teachers had moved to a different position assignment, although they remained within the same school district in 2005 as the district in which they taught in 1999.

Table 41 shows the distribution of these teachers by position assignment and subject area in 1999. The table does not show all 1999 teachers. It shows only the 1999 teachers who remained on the employment rolls of the same school district in 2005.

Table 41
Teachers in 1999 Who Remained Employed in the Same School District in 2005 by Position Assignment and Subject in 1999

	205 Regular Classroom	206 Special Education	207 Vocational Education	Total
No Subject	2,143	1,801	33	3,977
English	4,849	317	67	5,233
Foreign Language	1,609	3	1	1,612
Mathematics	3,956	105	42	4,103
Science	3,460	41	20	3,520
Social Studies	3,289	82	27	3,398
General Education	25,707	603	9	26,319
Special Education	165	4,937	3	5,105
Other	4,974	65	2,172	7,210
Total	50,151	7,953	2,374	60,478

Table 41 shows that 26,319 of the 60,478 retained teachers taught in the General Education subject area. Therefore, this area accounted for more than five of every 12 retained teachers.

It is also possible to examine the teachers who remain in the same district according to their position assignment type. Table 42 summarizes the position assignment codes used in the EMIS system.

Table 42
Summary of Teaching-Related Position Assignment Codes

Position Code	Description
201	Curriculum Specialist Assignment
202	Counseling Assignment
204	Remedial Specialist Assignment
205	Regular Teaching Assignment
206	Special Education/Learning Center Teaching
207	Vocational Education Teaching Assignment
208	Tutor/Small Group Instructor
211	Educational Services Teacher
212	Supplemental Service Teaching Assignment (Special Education)
225	Permanent Substitute Teacher
226	Teacher Mentor/Evaluator

Table 43 shows the position assignments and subject areas associated with the 1999 teachers who remained employed in the same school district in 2005, as described in Table 42.

Table 43
Teachers in 1999 Who Remained Employed in the Same School District in 2005 by Position
Assignment and Subject in 2005

Position*:	201	202	204	205	206	207	208	211	212	225	226	Total
No Subject	260	441	875	49	324	1	446	1	679	20	58	3,153
English	17	7	217	15,526	2,801	36	43	3	67	-	1	18,720
Foreign Language	-	1	-	1,653	10	0	2	-	-	-	-	1,666
Mathematics	5	5	45	5,864	804	15	12	1	28	-	-	6,778
Science	5	2	9	5,758	320	15	5	1	9	-	-	6,123
Social Studies	4	6	12	5,755	450	31	4	2	15	-	0	6,278
General Education	2	-	36	7,080	76	-	3	-	12	-	1	7,208
Special Education	-	-	4	74	1,131	1	6	-	19	-	-	1,234
Other	4	22	17	5,280	510	1,950	14	1,171	35	-	1	9,004
Total	296	485	1,215	47,039	6,425	2,049	534	1,177	862	20	61	60,163

The table shows that the full-time equivalent of the retained teachers actually increased between 1999 and 2005. This means that some part-time teachers in 1999 increased the FTE status by 2005. It also may be that some 1999 teachers already split their work time between administration and the classroom, but the 1999 data only shows the classroom activity. These employees would not have increased their time on the job. In any case, the increase in FTEs recorded in 2005 relative to 1999 does not appear significant in the context of the total number of FTEs listed on the tables.

Table 43 shows that the distribution of the retained teachers among different position assignments has expanded significantly over the period. In 1999, all of the employees in the table served in one of three position assignments devoted to classroom teaching. By 2005, about 4,650 of these teachers had moved into a different position assignment. Generally, this movement consists of transfers from regular classroom teaching to more specialized assignments. The data for 2005 do not include employees with position codes in the 100 series. Therefore, it is possible that some additional employees listed as “leavers” moved into administrative positions in that 100 sequence of assignments.

Table 44 summarizes the net result obtained by a comparison of Tables 42 and 43.

Table 44
Position Assignments of Teachers Who Remained in the Same School District in 1999 and 2005

Position:	205	206	207	Other	Total
1999	50,151	7,953	2,374	-	60,478
2005	47,039	6,425	2,049	4,650	60,163

The table shows that school districts had 59,479 classroom teachers in 1999 that they still retained as employees by 2005. However, by that later year 4,650 of those teachers had left classroom teaching assignments for more specialized work in the same school district.

Improved data increases utility of future analyses, while limiting the scope of 2005 findings.

The greatest obstacle to analysis of the subject area data results from the apparent change in the designation of General Education teachers over the period covered by this report. The teachers in this subject area declined from 40,088 in 1999 to 10,916 in 2005. Teachers assigned to specific subject areas increased over the same period. For this reason, it is difficult to synthesize the total data for 1999 and 2005 together with data about teachers who left, moved, or changed position assignment to determine exactly how many teachers in each subject area were lost for one reason or another over the period. In later years, more consistent treatment of the General Education category should improve the ability to perform such analyses.

VACANCIES

- **Open Teaching Positions**
- **Hires for Open Positions**
- **Hiring Practices of Schools**

OHIO TEACHER WORKFORCE VACANCIES

Because the number and type of teacher vacancies change from year to year, it is essential to have a mechanism to monitor trends in order to respond to changes in the workforce. A vacancy survey was created as part of the 2004-2005 Conditions of Teaching report to capture data on vacancies as districts do not report this type of information through EMIS.

The Ohio Teacher Vacancy Survey 2004-2005 was developed by the Ohio Collaborative in conjunction with the Ohio Department of Education. This survey built on the previous version conducted for 2003-2004 school year with some significant changes. Although the 2003-2004 vacancy survey collected data about teaching vacancies at the district level, the 2004-2005 vacancy survey targeted all school level administrators in the state. The reason for this change was that districts had difficulty reporting vacancy information in sufficient detail in previous versions of the vacancy survey. Schools were identified as the target for this survey because school administrators were assumed to have specific information regarding positions in their buildings. A web-based survey was also launched after surveys were sent to every school in Ohio in order to facilitate another mechanism for compliance.

Response Rate by District Typology

Approximately two-thirds of all schools surveyed responded to the survey. A far lower rate of response was received from Ohio's Community Schools. Of the 149 Community Schools surveyed, only 39 (26 percent) participated. Respondents were compared with non-respondents using the Ohio Department of Education's district typologies in order to determine whether the respondents differed significantly from all schools in Ohio.

Table 45: Percentage of population, respondents, respondents with vacancies, and respondents without vacancies by district typology

District Typology	% of all schools with Type	% of Respondents with Type	% of schools with vacancies with type	% of schools without vacancies with type
0	3.8	4.2	3.4	2.1
1	10.7	9.1	9.8	11.2
2	15	13	14.6	17.5
3	7.9	10.1	10	10
4	17.1	17.6	18.2	19.2
5	17.9	8.4	9	10
6	18.5	21.3	20.9	20.2
7	9.1	16.4	14	9.9

A lower percentage of schools located in (5) Major Urban, very high poverty districts responded (8.4 percent) than exists in the school population (17.9 percent) and a higher percentage of schools located in (7) Urban/Suburban districts with very high SES responded (16.4 percent) than exists in the school population (9.1 percent). The variation in all other district types is not significant.

A second comparison shown in Table 1 is between the responding schools that reported vacancies and the responding schools that reported no vacancies. Again, the differences between schools with vacancies and those without are significant in only two district typologies. A higher percentage of schools located in (2) rural low poverty districts did not have vacancies than similar schools with vacancies (14.6 percent). A lower percentage of schools located in (7) urban/suburban districts with very high SES had no vacancies (9.9 percent) than similar schools with vacancies (14.0 percent).

Open Teaching Positions for 2004-2005

Overall, there were 3,371 open positions for the 2004-2005 school year reported by responding schools. Of these positions, 2,864 were reported as filled.

Open Positions by Subject Area

In the analysis of the 2004-2005 open teaching positions, the five subject areas with the highest percentage of open positions included: elementary education, special education, English, mathematics and science (see Table 2).

Table 46: 2004-2005 Open and Filled Teaching Positions by Subject Code

Subject Area	Number of Open Positions	Percent of Positions by Subject Area	Percent of All Open Positions	Number of filled Positions	Percent of All Filled Positions
Art	69	0.05	2.0	64	2.2
Business	18	0.02	0.5	16	0.6
Marketing	2	0.01	0.1	0	0
English	315	0.01	9.3	276	9.6
Foreign Language	106	0.04	3.1	99	3.5
Health Occupations	8	0.09	0.2	9	0.3
Physical Education	83	0.05	2.5	78	2.7
Family/Consumer	19	0.02	0.6	13	0.5
Industrial Education	16	0.02	0.5	13	0.5
Mathematics	251	0.02	7.4	229	8
Music	125	0.09	3.7	112	3.9
Science	231	0.02	6.9	222	7.8
Business/Career	14	0.03	0.4	11	0.4
Social Studies	146	0.01	4.3	153	5.3
Trade & Industrial	25	0.07	0.7	22	0.8
General Education	144	0.01	4.3	129	4.5
Special Education	460	0.17	13.6	423	14.8
Library Media	22	0.52	0.7	17	0.6
Driver Education	1	0.33	0	0	0
Family/Consumer non-career	4	0.01	0.1	3	0.1
Career Based Intervention	11	0.03	0.3	10	0.3
Health Education	16	0.01	0.5	12	0.4
Computer Technology	20	0.02	0.6	17	0.6
Other	343	0.31	10.2	51	1.8
Humanities	3	0.18	0.1	0	0
Elementary Education	903	0.7	26.8	851	29.7
Career Development	16	0.19	0.5	14	0.5
Total	3371	n/a	100	2864	100

- Elementary education was the subject area with the most open positions, 903 or 26.8 percent of all open positions.
- Special Education had the second highest number of open positions with 460 or 13.6 percent of all positions.
- There were a surprising number of open English positions in 2004-2005 with 315 positions or 9.3 percent of all reported positions.
- There were 251 open positions, or 7.4 percent of all open positions, in mathematics for the 2004-2005 school year.
- There were 231 open positions, or 6.9 percent of all positions, in science for the 2004-2005 school year.

When comparing open positions in 2004-2005 to filled positions reported by schools⁴:

- In each of the five subject areas with the most open positions (elementary education, special education, English, mathematics and science), fewer positions were reported filled than were reported as open.
- The subject with the lowest percentage of filled positions was English with 88 percent of open positions filled.
- 91 percent of mathematics positions were filled.
- 92 percent of special education positions were filled.
- 94 percent of elementary education positions were filled.
- 96 percent of science positions were filled.

The subject area open positions for 2004-2005 were also sorted by the district typology of the schools. We relied on the Ohio Department of Education's list of district types for this analysis. Each school was given the district typology rating of the district in which it resides. The district type, in this study, is a proxy then for school location – suburban, urban and rural. The district typology also provides information about the poverty level of the district. However, because schools vary significantly in their levels of poverty within districts, the poverty information provided by the district typology is only a gross measure of school level poverty.

A number of significant differences between the district types occur within these open subject area positions (See Table 3). Differences in the district typology analysis are highlighted if the schools in a district type reported +/-3 percent of the total percentage of open positions.

⁴ It is important to note that the difference in numbers between open positions reported by schools and filled positions reported by schools does not necessarily indicate that any one specific position in these subject areas went unfilled. For example, a position could have been reported as an open special education position by a school then reported filled as a social studies position. Thus, the position could be reported as filled but with a different subject area designation.

Table 47: Percentage of 2004-2005 Open teaching positions within District Types by Subject Area

Subject Area	Percentage of Positions within District Typology							
	0	1	2	3	4	5	6	7
Art	2.44	2.23	3.89	2.01	2.87	0.40	1.11	1.65
Business	0.81	0.00	1.04	0.34	0.96	0.00	0.79	0.21
Marketing	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00
English	8.94	7.06	8.81	14.43	8.24	7.63	10.65	7.85
Foreign Language	1.63	2.23	2.33	2.01	2.49	4.02	3.18	6.40
Health Occupations	0.00	0.00	0.00	0.00	0.19	0.00	0.16	0.00
Physical Education	2.44	2.97	3.89	3.36	1.34	1.61	3.18	2.69
Family/Consumer	0.00	1.49	0.52	0.67	0.96	0.40	0.32	0.00
Industrial Education	0.00	1.12	0.26	0.00	0.00	0.00	0.79	0.62
Mathematics	4.07	9.29	10.36	6.71	7.85	7.63	6.52	6.82
Music	1.63	3.35	6.22	3.69	3.26	1.61	4.93	3.93
Science	4.07	6.69	5.70	10.07	6.13	8.03	8.27	4.55
Business/Career	0.00	0.00	0.00	0.67	0.38	0.40	0.32	0.00
Social Studies	2.44	2.97	4.66	6.38	4.21	6.43	4.29	4.13
Trade & Industrial	0.00	0.00	0.00	0.34	0.57	0.40	0.16	0.62
General Education	15.45	1.86	3.63	1.68	7.09	3.61	3.97	3.10
Special Education	10.57	18.96	12.69	16.11	16.28	13.25	14.94	10.12
Library Media	0.00	0.00	1.04	1.68	0.00	1.20	0.32	1.45
Driver Education	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Family/Consumer non-career	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83
Career Based Intervention	2.44	0.00	0.26	0.34	0.57	0.40	0.00	0.00
Health Education	0.00	0.37	1.04	0.00	0.19	1.61	0.32	0.21
Computer Technology	0.00	0.00	1.30	0.00	0.57	0.80	0.48	1.24
Other	1.63	1.12	4.15	2.01	1.53	3.21	1.59	2.07
Humanities	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.21
Elementary Education	28.46	23.42	20.73	20.81	27.59	23.69	26.55	32.23
Career Development	0.00	0.74	0.78	0.34	0.00	0.40	0.32	0.62

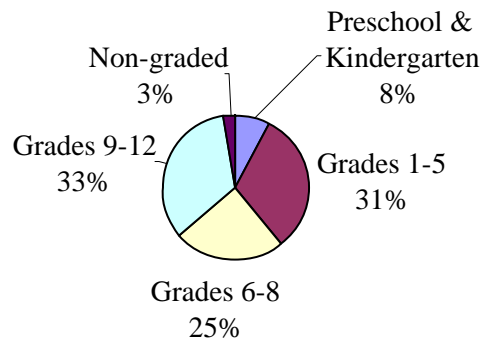
- Schools located in (2) rural/low poverty districts and (3) rural/moderate SES districts reported significantly fewer open elementary education positions (20.7 percent and 20.8 percent of their open positions), and schools in (7) urban/suburban districts with very high SES had more open elementary education positions (32.2 percent) than the percentage of elementary education positions among all schools (26 percent).

- Schools located in (1) rural/high poverty districts had significantly more special education positions (19 percent) than the percentage of special education positions among all schools (13.6 percent).
- Schools located in (3) rural/moderate SES districts had significantly more open science positions (10.1 percent) than the percentage of science positions among all schools (6.9 percent).
- Schools not assigned to a district (community schools) or assigned to a district without a designated typology, had significantly fewer open mathematics positions (4.07 percent) than the percentage of mathematics positions among all schools (7.4 percent).
- Schools located in (3) rural/moderate SES districts had significantly more open positions in English (14.4 percent) than the percentage of English positions among all schools (9.3 percent).
- Schools not assigned a district typology had significantly more open general education positions (15.5 percent) than the percentage of general education positions among all schools (4.3 percent).
- Schools not assigned a district typology had significantly more open career based intervention positions (2.4 percent) than the percentage of career based intervention positions among all schools (0.3 percent).
- Schools located in (7) urban/suburban districts with very high SES had significantly more open foreign language positions (6.4 percent) than the percentage of foreign language positions among all schools (3.1 percent).
- While schools located in (3) rural/moderate SES districts had a lower percentage of open elementary education positions than all schools, they had significantly higher percentages of positions in both science and English.
- Schools not assigned a district typology generally have lower percentages of open positions in all subject areas but much higher percentage of their open positions are in general education and career based intervention.

Open Positions by Grade Level

Of the 3,371 open positions reported by schools, 3,262 were reported with grade level designations (See Figure 13).

Figure 13: Open Positions by Grade Level

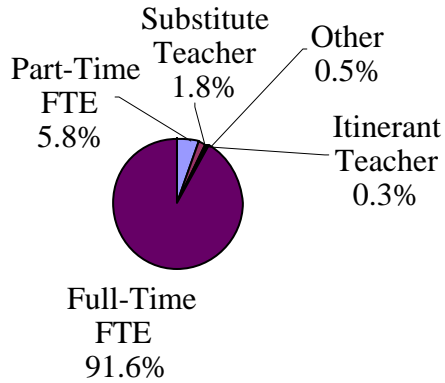


- The highest percentage of open teaching positions in 2004-2005 (33.8 percent) was reported in grades 9-12.
- Almost one third of all positions (31.1 percent) were reported to be in grades one through five.
- Few of the positions (8.0 percent) were reported in grades below first grade and fewer still (2.4 percent) were reported as non-graded.

Open Positions by Position Classification

Of the 3,371 open positions reported by schools, 3,279 were reported with position classifications (See Figure 14).

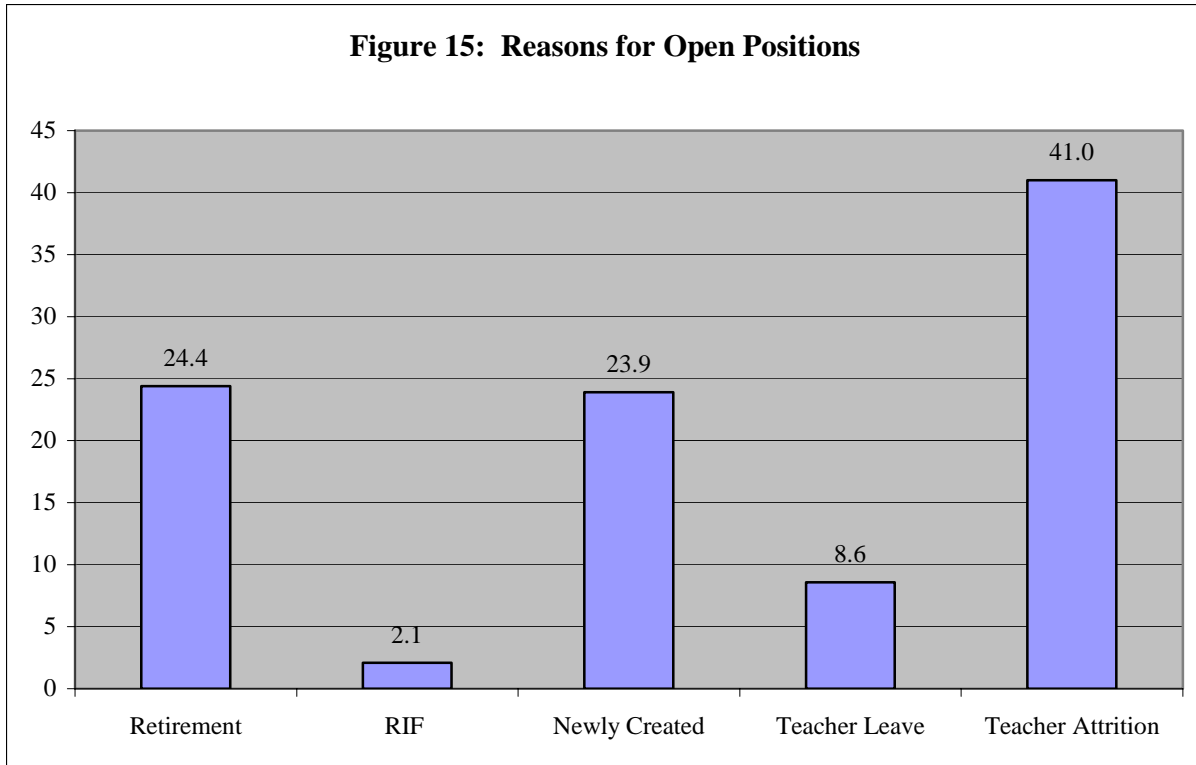
Figure 14: Open Teaching Positions by Classification



- For the most part, open teaching positions in 2004-2005 were full-time teaching positions (91.7 percent).
- Few of the 2004-2005 open positions reported by schools were part-time teaching positions (5.8 percent) and fewer still were substitute teaching positions (1.8 percent).

Open Positions by Reason for Position

Of the 3,371 open positions reported by schools, reasons for the opening were reported for 3,244 of the positions (Figure 15).



- Teacher attrition was reported as the reason for 41% of open teaching positions in 2004-2005.
- Approximately one quarter (24.4 percent) of the openings were due to retirement and almost another quarter of the openings (23.9 percent) were newly created positions.

Differences in reasons for the openings do appear when the positions are sorted by subject area (See Table 48).

Table 48: Reason for Open 2004-2005 Teaching Positions by Subject Area

Subject Area	Percentage within Reason for Open Position				
	Retired	RIF	Newly Created	Teacher Leave	Teacher Attrition
Art	26.9	3.0	22.4	4.5	43.3
Business	44.4	0.0	16.7	0.0	38.9
Marketing	0.0	0.0	0.0	0.0	100.0
English	29.9	2.3	19.3	8.7	39.9
Foreign Language	30.0	5.0	19.0	7.0	39.0
Health Occupations	0.0	0.0	75.0	12.5	12.5
Physical Education	30.1	1.2	14.5	4.8	49.4
Family/Consumer	11.1	0.0	33.3	11.1	44.4
Industrial Education	31.3	0.0	12.5	0.0	56.3
Mathematics	22.8	0.4	19.2	8.0	49.6
Music	25.2	1.7	5.9	11.8	55.5
Science	29.1	0.4	14.5	7.9	48.0
Business/Career	23.1	0.0	23.1	15.4	38.5
Social Studies	32.4	0.0	24.1	4.1	39.3
Trade & Industrial	36.0	4.0	20.0	8.0	32.0
General Education	24.5	0.7	30.1	11.9	32.9
Special Education	12.5	3.1	24.3	8.8	51.4
Library Media	50.0	5.0	20.0	0.0	25.0
Driver Education	0.0	0.0	100.0	0.0	0.0
Family/Consumer non-career	50.0	0.0	25.0	0.0	25.0
Career Based Intervention	18.2	0.0	9.1	0.0	72.7
Health Education	26.7	6.7	26.7	6.7	33.3
Computer Technology	15.0	0.0	15.0	15.0	55.0
Other	21.1	2.8	27.2	6.1	42.7
Humanities	33.3	0.0	0.0	0.0	66.7
Elementary Education	25.0	2.7	31.3	10.6	30.3
Career Development	33.3	0.0	26.7	13.3	26.7
Total Positions	24.4	2.1	23.9	8.6	41.0

- Higher percentages of open positions in the areas of foreign language (5.0 percent), library media (5.0 percent), and health education (6.7 percent) were due to RIFs than for all positions (2.1 percent), indicating that teachers in these subject areas may be let go first when resources are tight; positions then return as finances improve.
- The subject areas of business (16.7 percent), marketing (0.0 percent), physical education (14.5 percent), industrial education (12.5 percent), music (5.9 percent), science (14.5 percent), career-based intervention (9.1 percent), computer technology (15.0 percent),

and humanities (0.0 percent) had significantly lower percentages of newly created positions than all open positions (23.9 percent).

- In the subject areas of marketing (100 percent), industrial education (56.3 percent), music (55.5 percent), special education (51.4 percent), career-based intervention (72.7 percent), computer technology (55 percent), and humanities (66.7 percent), more than half of the open positions in 2004-2005 were due to teacher attrition.

Differences in reasons for open positions also emerge between schools, when sorted by district type (See Table 49).

Table 49: Percentage of Open Positions within Each District Typology by Reason for Opening

Reason for Opening	District Typology							
	0	1	2	3	4	5	6	7
Retirement	0.8	19.0	25.9	26.5	26.6	22.1	29.3	20.7
RIF	0.8	0.4	1.6	1.3	2.3	8.0	2.2	0.4
Newly Created	47.2	12.3	11.7	16.8	16.7	22.5	16.7	32.0
Teacher Leave	8.1	7.1	5.7	10.1	7.5	4.0	9.1	12.2
Teacher Attrition	35.8	53.2	50.8	40.6	43.9	32.1	37.5	29.8

- Schools without a district typology had the lowest percentage of open positions due to retirement (0.8 percent).
- Schools located in (5) major urban/very high poverty districts had the largest percentage of open positions due to RIF (8.0 percent).
- Schools without a district typology (47.2 percent) and those located in (7) urban/suburban districts with very high SES had the highest percentage (32.0 percent) of open positions that were newly created.
- Schools located in (1) rural/high poverty districts (12.3 percent) and (2) rural/low poverty districts (11.7 percent) had the lowest percentage of their open positions that were newly created.
- Schools located in (7) urban/suburban districts with very high SES had the highest percentage of open positions due to teacher leave (12.2 percent).
- Schools located in (1) rural/high poverty districts (53.2 percent) and in (2) rural/low poverty districts (50.8 percent) had the highest percentage of open positions due to teacher attrition.

Open Positions by Weeks the Position was Advertised

Of the 3,371 open positions reported by schools, the number of weeks the position was advertised was reported for 3,223 of the positions⁵.

⁵ Data for this section has been summarized. Refer to page 16 of the 2004-2005 Ohio Teacher Vacancy Survey: Presentation of Results and Findings for comprehensive data.

- The majority of all positions (59.5 percent) were advertised for three or fewer weeks.
- A little more than a quarter of all the open positions reported (28.1 percent) were advertised for four to six weeks.
- A little more than four percent of all positions are advertised for 11 weeks or more.

Open Positions by Number of Weeks Position Remained Open

Of the 3,371 open positions reported by schools, the number of weeks the position remained open was reported for 3,210 of the positions⁶.

- The average number of weeks open for filled teaching positions in 2004-2005 was zero to three weeks.
- More than 90 percent of all open positions that were filled were done so within 10 weeks.

When positions are sorted by subject area, the vast majority of subjects area positions were filled within the timeframe for all open positions of within 10 weeks⁷.

- A number of subject areas had substantial percentages of positions that remained open for 20 or more weeks including foreign language (5.8 percent), physical education (6.2 percent), family/consumer (5.6 percent), industrial education (6.7 percent), business/career (7.1 percent), library media (9.5 percent), and career based intervention (9.1 percent).
- Interestingly, while subjects thought to be hard to staff – special education, mathematics and science – had a small percentage that remained open for more than 20 weeks, more than 90 percent of the open positions in each of these subject areas were filled within the 10-week timeframe of all open positions.

While the open positions in subject areas traditionally thought of as hard to staff may not have appeared to remain open longer than other types of positions, certain types of schools do have higher percentages of their positions remain open for longer periods than other schools.

⁶ Data for this section has been summarized. Refer to page 17 of the 2004-2005 Ohio Teacher Vacancy Survey: Presentation of Results and Findings for comprehensive data.

⁷ Data for this section has been summarized. Refer to page 18 of the 2004-2005 Ohio Teacher Vacancy Survey: Presentation of Results and Findings for comprehensive data.

Table 50: Percentage of 2004-2005 Open Teaching Positions, the Number of Weeks Open by District Typology

Number of Weeks Positions Remained Open	District Typology							
	0	1	2	3	4	5	6	7
0-3 Weeks	45.5	37.9	43.8	45.3	56.3	43.8	50.7	46.1
4-6 Weeks	33.3	36.1	29.0	29.9	22.4	18.1	30.4	34.9
2-10 Weeks	6.5	10.4	14.2	15.4	10.9	10.8	9.4	9.1
11-15 Weeks	4.1	3.3	3.6	2.3	3.1	6.0	0.6	3.7
16-20 Weeks	0.0	0.4	3.9	1.0	1.9	0.8	1.6	0.2
20+ Weeks	0.8	1.9	0.8	0.3	0.8	5.6	1.1	1.9

- Schools located in (5) major urban/very high poverty districts have higher percentages of their positions remain open for more than weeks (5.6 percent) than any other type of schools. In fact, only 72.7 percent of all the positions for schools in (5) major urban/very high poverty districts are filled within the typical 10-week period experienced for most positions.

Number of Applicants for Open Positions

The average number of applications received for all open positions was 24 (sd ± 28). The fewest number of applicants received for any position was 1 while some positions received more than 99.

As would be expected, when open positions are sorted by subject area, significant variability in the number of applicants results⁸.

- There is a tendency for positions in the subject areas of family/consumer (47.4 percent), industrial education (50 percent), and health education (43.8 percent) to receive less than four applications per position.
- On the opposite end of the spectrum, a significant percentage of elementary education positions (28.2 percent) receive 81 or more applications per position.
- In special education, the distribution of applications for positions has some bi-modal tendencies. The large majority of special education positions received few applicants (65 percent receive 10 or less). However, a small percentage of these positions (12.5 percent) received 81 or more applications. This would suggest that there are some areas of specialization within special education that may be easier to fill than others.
- The same bi-modal tendency that exists in special education can also be seen for science, mathematics and foreign language positions.

⁸ Data for this section has been summarized. Refer to page 20 of the 2004-2005 Ohio Teacher Vacancy Survey: Presentation of Results and Findings for comprehensive data.

As with the subject area analysis by number of applications received, a bi-modal distribution of applications exists in schools located in specific types of districts⁹.

- Schools located in (1) rural/high poverty districts, (4) urban/high poverty districts, and (5) major urban/very high poverty districts all have a bi-modal distribution of applications for their positions. Each of these districts has between 25—30 percent of their open positions that receive four or fewer applications. At the same time, they have a substantial percentage of positions (more than 14 percent) that receive 81 or more applications. As with hard to staff subjects, the pattern in these schools may suggest that it is specific positions within these schools that are “hard to staff” while other positions are relatively easy to fill.

Open Positions by Date When Filled

Of the 3,371 open positions reported by schools, the month and year the position was filled was reported for 3,004 of the positions¹⁰.

- The typical open teaching position was filled in June, 2004 for the 2003-2005 school year.
- The earliest a position was reported filled was January, 2005 for a 2004-2005 teaching position.
- The latest a position was filled was June, 2005, after the 2004-2005 school year was completed.
- The substantial majority of all positions were filled between May and August.

Most subject area positions follow this same hiring pattern with the vast majority of positions being filled between May and August and few patterns emerge for subject area specific positions and the month and year filled¹¹.

When the hire date of open positions is sorted by schools within district typology, the pattern continues to hold. The majority of positions, regardless of district typology are filled during the summer months. Two district types do evidence some variation from this pattern¹².

- Schools without a district typology and schools located within (5) Major Urban/very high poverty districts had substantial percentages of their 2004-2005 open positions (21.9

⁹ Data for this section has been summarized. Refer to page 21 of the 2004-2005 Ohio Teacher Vacancy Survey: Presentation of Results and Findings for comprehensive data.

¹⁰ Data for this section has been summarized. Refer to pages 21-22 of the 2004-2005 Ohio Teacher Vacancy Survey: Presentation of Results and Findings for comprehensive data.

¹¹ Data for this section has been summarized. Refer to page 23 of the 2004-2005 Ohio Teacher Vacancy Survey: Presentation of Results and Findings for comprehensive data.

¹² Data for this section has been summarized. Refer to page 24 of the 2004-2005 Ohio Teacher Vacancy Survey: Presentation of Results and Findings for comprehensive data.

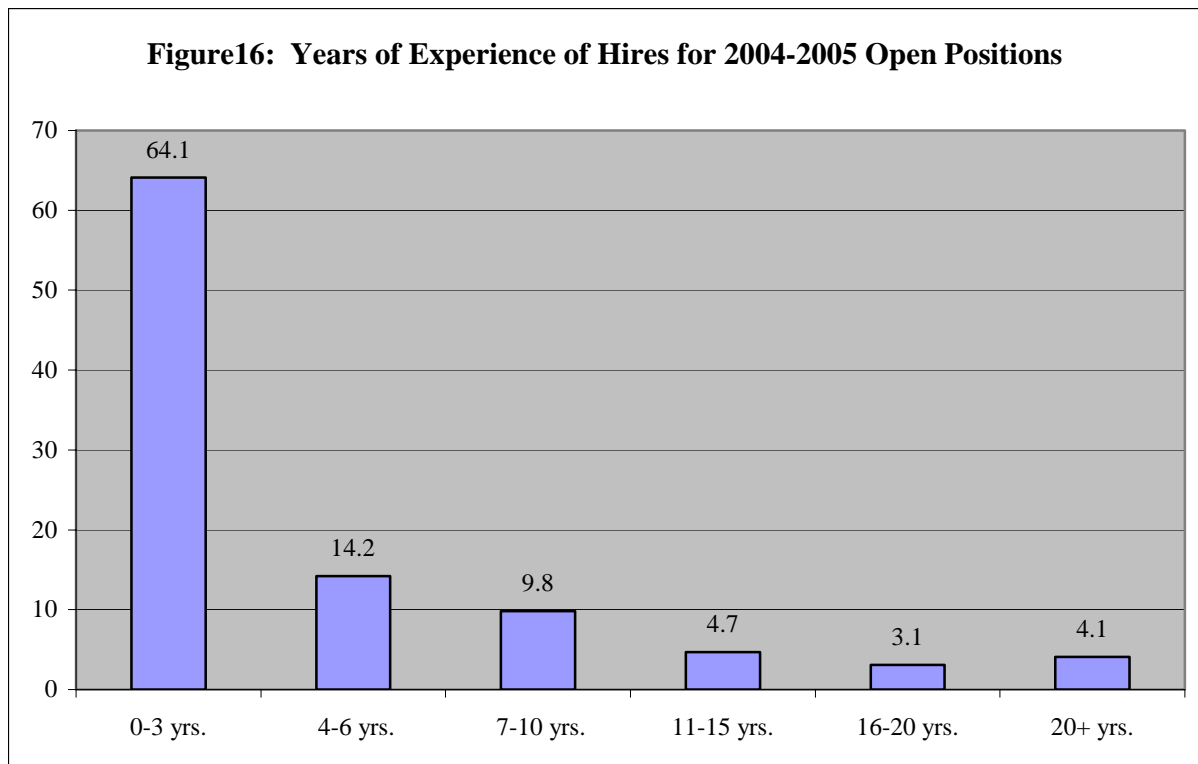
percent and 16.8 percent respectively) filled after the school year had already commenced.

Hires for Open Positions

Information about those hired was collected for the 3,244 open positions that were filled for the 2004-2005 school year. This information included the years of experience of those hired, the type of teaching certificate held at time of hire, if teaching in field or out of field, the highest degree earned, if an internal district transfer, and if certified through alternative means.

Years of Experience

Most of the teachers hired to fill teaching positions open for the 2004-2005 year had little teaching experience (See Figure 16).



- The majority of the teachers (64.1 percent) hired for the open positions reported here had less than 3 years of teaching experience.

While the majority of the hires for open teaching positions had relatively little experience, the amount of experience did have some variation by subject area (See Table 51).

Table 51: Years of Experience of Hires for 2004-2005 Open Positions by Subject Area of Position

Subject Area	Years of Experience of Hires					
	0-3 Years	4-6 Years	7-10 Years	11-15 Years	16-20 Years	20+ Years
Art	66.1	8.9	8.9	3.6	5.4	7.1
Business	62.5	6.3	6.3	0	12.5	12.5
Marketing	100	0	0	0	0	0
English	66.5	15.5	10.4	3.2	2.5	1.8
Foreign Language	69.9	10.8	11.8	3.2	2.2	2.2
Health Occupations	87.5	0	12.5	0	0	0
Physical Education	60	21.4	7.1	4.3	0	7.1
Family/Consumer	57.1	0	14.3	21.4	0	7.1
Industrial Education	75	0	16.7	8.3	0	0
Mathematics	69.9	10.6	9.7	3.1	3.5	3.1
Music	64.5	9.3	9.3	5.6	6.5	4.7
Science	67.6	9.7	10.6	3.9	2.9	5.3
Business/Career	40	30	10	0	10	10
Social Studies	70.4	15.6	7.4	3	2.2	1.5
Trade & Industrial	65.2	8.7	13	0	4.3	8.7
General Education	72.2	16.7	3.2	3.2	2.4	2.4
Special Education	61.3	14.2	12.4	5.8	3	3
Library Media	33.3	11.1	16.7	27.8	5.6	5.6
Driver Education	0	0	0	0	0	100
Family/Consumer non-career	33.3	33.3	0	33.3	0	0
Career Based Intervention	22.2	11.1	33.3	22.2	0	11.1
Health Education	64.3	7.1	7.1	7.1	0	14.3
Computer Technology	47.1	5.9	11.8	11.8	0	23.5
Other	55.2	19.2	10.7	6.2	3.9	4.9
Humanities	100	0	0	0	0	0
Elementary Education	65.6	14.6	8.3	4.1	3.2	4.2
Career Development	21.4	21.4	21.4	21.4	0	14.3

- The subject areas of business, business/career, health education, computer technology, and career development had higher percentages of hires with substantial teaching experience (more than 16 years).
- What is most striking is the number of subject areas that had few, if any hires, with 11-20 years of teaching experience.
- Positions in health occupations (87.5 percent), industrial education (75 percent), social studies (70.4 percent), general education (72.2 percent), and humanities (100 percent) had higher percentages of teachers hired with 3 or fewer years of experience.

When the years of experience for hires was analyzed by schools located within each district type, the pattern of substantial percentages of inexperienced hires holds, except for in one type (See Table 52).

Table 52: Years of Experience of Hires within Each District Typology

Years of Experience	District Typology							
	0	1	2	3	4	5	6	7
0-3 Years	54.5	61.3	61.1	61.4	54.8	35.7	60.6	56.6
4-6 Years	16.3	8.9	7.3	10.7	14.4	17.7	12.7	15.1
7-10 Years	6.5	7.8	9.6	6.4	6.7	9.6	7.8	10.5
11-15 Years	7.3	6.3	3.9	3.4	5.0	2.4	3.0	3.7
16-20 Years	2.4	2.2	2.8	1.0	3.8	3.2	2.4	2.3
20+ Years	4.1	3.0	3.1	3.0	4.4	9.2	2.2	2.5

- Schools located in (5) major urban/very high poverty districts hired a substantially lower percentage of teachers with little teaching experience (35.7 percent versus 64 percent for all positions) and also hired higher percentages (9.2 percent) of teachers with 20+ years of experience.

Types of Teaching Certificates Held by Hires

Commensurate with their years of experience, hires for 2004-2005 open teaching positions held certificates and licenses with limited time frames (See Table 53).

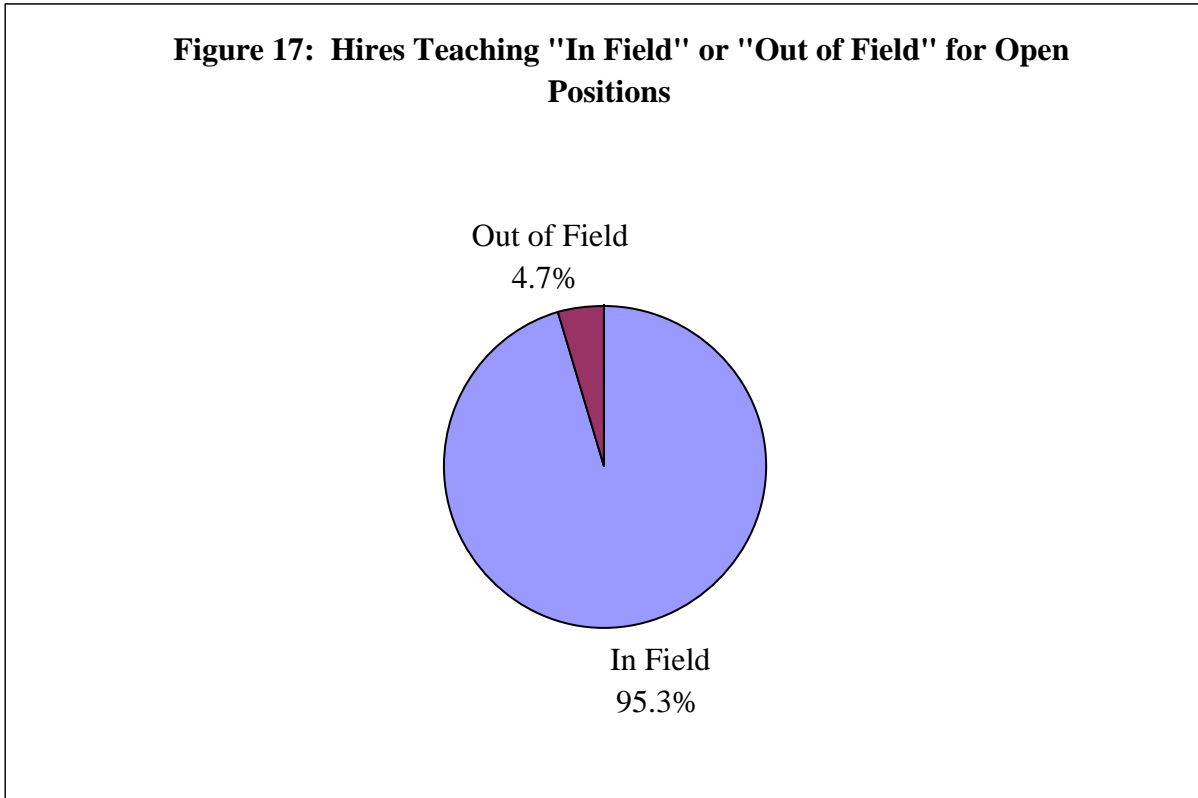
Table 53: Type of Teaching Certificate Possessed by Hires for 2004-2005 Open Positions

Type of Certificate	Frequency	Percent of All Positions
4 yr. Certificate	702	24.1
8 yr. Certificate	256	8.8
Permanent	148	5.1
Non-Tax	15	0.5
2 yr. License	1030	35.3
5 yr. License	468	16
1 yr. Interim License	59	2.0
Temporary License	86	2.9
1 yr. Short Term Substitute	5	0.2
5 yr. Short Term Substitute	2	0.1
1 yr. Long Term Substitute	23	0.8
5 yr. Long Term Substitute	8	0.3
2 yr. Alternative License	37	1.3
3 yr. Special Provisional License	11	0.4
1 yr. Conditional Teaching Permit	24	0.8
1 yr. Temporary Teaching Permit	30	1.0
1 yr. Intern Certificate	2	0.1
Teacher Aide	12	0.4
Total	2918	100

- The majority of the hires for open positions in 2004-2005 (59.4%) held either a 4 year certificate or a 2 year teaching license.

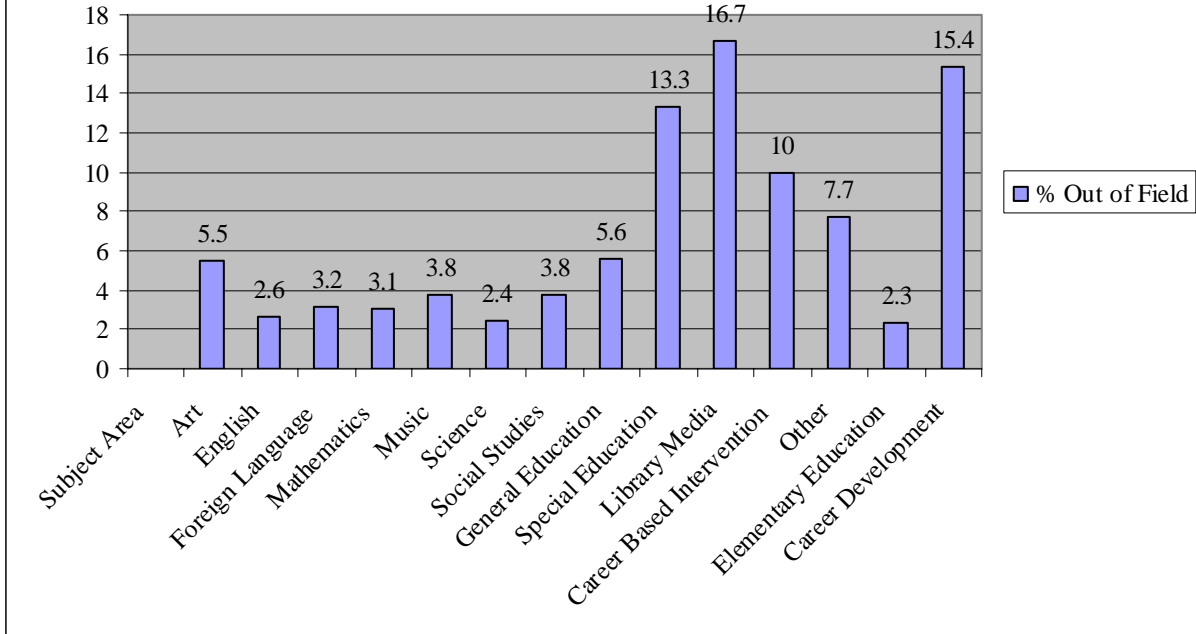
Hires Teaching In Field

Virtually all those hired to fill open teaching positions in 2004-2005 would be teaching in field (See Figure 17).



When positions were analyzed by subject area, some variation in those teaching in field versus out of field emerged (See Figure 18).

Figure 18: Percentage of Hires for 2004-2005 Open Positions Teaching Out of Field by Subject Area

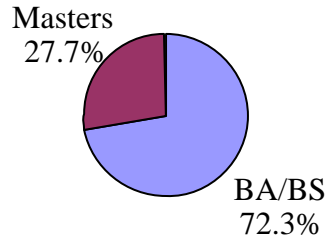


- Substantial numbers of hires in special education (13.3 percent), library media (16.7 percent), and career development (15.4 percent) would be teaching out of field during the 2004-2005 school year.
- Thirteen subject areas (Business, Marketing, Health Occupations, Physical Education, Family/Consumer, Industrial Education, Business/Career, Trade & Industrial, Driver Education, Family/Consumer non-career, Health Education, Computer Technology, Humanities) had 100 percent of hires teaching in field during the 2004-2005 school year.

Highest Degree Earned by Hires for 2004-2005 Open Teaching Positions

The highest degree earned by hires was reported for 3,001 positions (See Figure 19.)

Figure 19: Highest Degree Earned by Hires for 2004-2005 Open Positions



- A large majority of those hired (71.7 percent) for the positions reported had a Bachelor of Arts or a Bachelor of Science as their highest degree earned.
- Almost 28 percent of those hired had a Masters degree, while those holding Specialist and PhD degrees comprised a little less than one percent of those hired.

Some differences between subject area positions exist in the percentages of hires with advance degrees (See Table 54).

Table 54: Percentage of Hires with Degree for 2004-2005 Open Teaching Positions by Subject Area

Subject Area	Percentage of Hires with Degree			
	BA/BS	Masters	Specialist	PhD
Art	78.6	21.4	0	0
Business	56.3	37.5	6.3	0
Marketing	100	0	0	0
English	73.4	26.6	0	0
Foreign Language	71.1	28.9	0	0
Health Occupations	75.0	12.5	12.5	0
Physical Education	85.5	14.5	0	0
Family/Consumer	78.6	21.4	0	0
Industrial Education	66.7	33.3	0	0
Mathematics	73.8	26.2	0	0
Music	86.9	13.1	0	0
Science	66.8	32.7	0	0.5
Business/Career	50.0	50.0	0	0
Social Studies	78.9	21.1	0	0
Trade & Industrial	66.7	16.7	16.7	0
General Education	74.8	25.2	0	0
Special Education	69.2	29.5	1.3	0
Library Media	22.2	72.2	5.6	0
Driver Education	0	100	0	0
Family/Consumer non-career	66.7	33.3	0	0
Career Based Intervention	60.0	40.0	0	0
Health Education	71.4	28.6	0	0
Computer Technology	58.8	41.2	0	0
Other	64.5	34.2	1.3	0
Humanities	100	0	0	0
Elementary Education	74.0	25.6	0.1	0.3
Career Development	21.4	64.3	14.3	0

- There were two subject areas where the percentage of hires with an advanced degree was significantly lower than all open positions (28.2 percent). These subject areas were physical education (14.5 percent), and music (13.1 percent).
- Four subject areas had higher percentages of hires with advanced degrees than all open positions – business (43.8 percent), business/career (50 percent), library media (77.8 percent), and career development (78.6 percent).

Variation in highest degree earned by hires is also evident in the analysis of positions by schools within district typology (See Table 55).

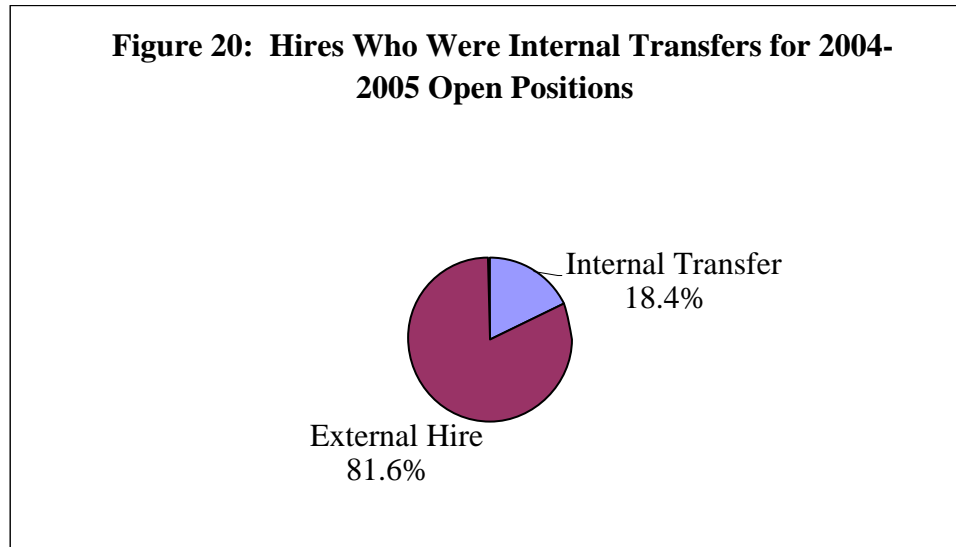
Table 55: Percentage of Hires within Each District Type by Highest Degree Earned

Highest Degree Earned	District Typology							
	0	1	2	3	4	5	6	7
BA/BS	69.1	73.2	68.7	65.1	63.8	49.8	64.2	54.1
Masters	20.3	17.8	16.8	21.5	23.9	25.3	23.5	35.7
Specialist	0	1.5	0.3	0	0.6	1.2	0.5	0
PhD	0.8	0	0	0	0.2	0.4	0.2	0

- Schools located in (7) urban/suburban districts with very high SES hired a higher percentage of teachers (35.7 percent) with a master’s degree than all other types of schools (27.5 percent).
- Schools located in (1) rural/high poverty districts and (2) rural/low poverty districts had substantially lower percentages of hires with advanced degrees (19.2 percent and 17.1 percent respectively) than all open positions (28.2 percent).

Hires for 2004-2005 Open Teaching Positions Who Were Internal District Transfers

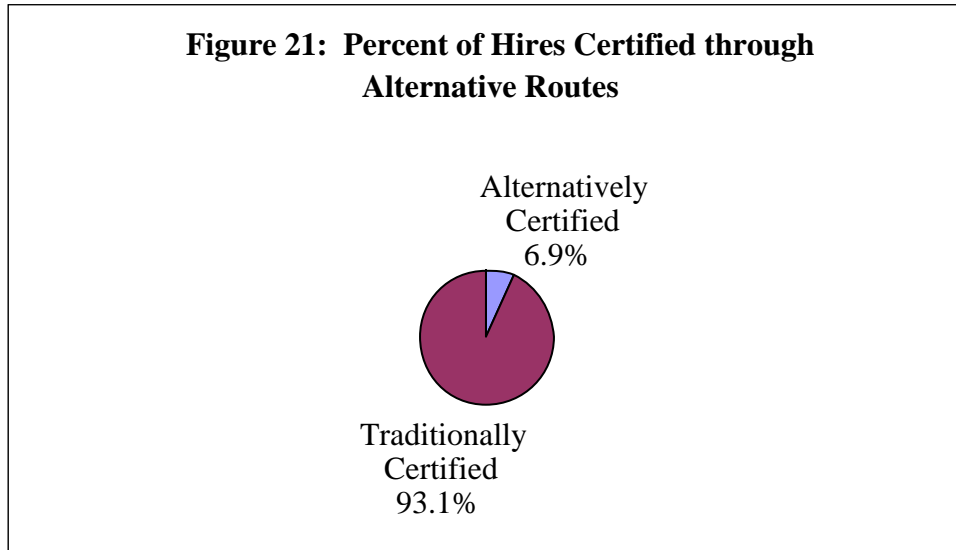
The majority of the hires for the 2004-2005 reported open teaching positions were external hires (See Figure 20).



- Approximately 82 percent of all the reported hires for 2004-2005 open teaching positions were hires that were external to the district.
- Of the hires for 2004-2005 open teaching positions, 18 percent were internal transfers from other schools within the district.

Hires Certified Through Alternative Routes

Responding principals indicated whether their hire was certified through an alternative route for 2,967 positions (See Figure 21).



- The vast majority (93.1 percent) of the reported hires were certified through traditional routes.
- A small percentage of hires for the 2004-2005 open positions (6.9 percent) were certified through alternative routes.

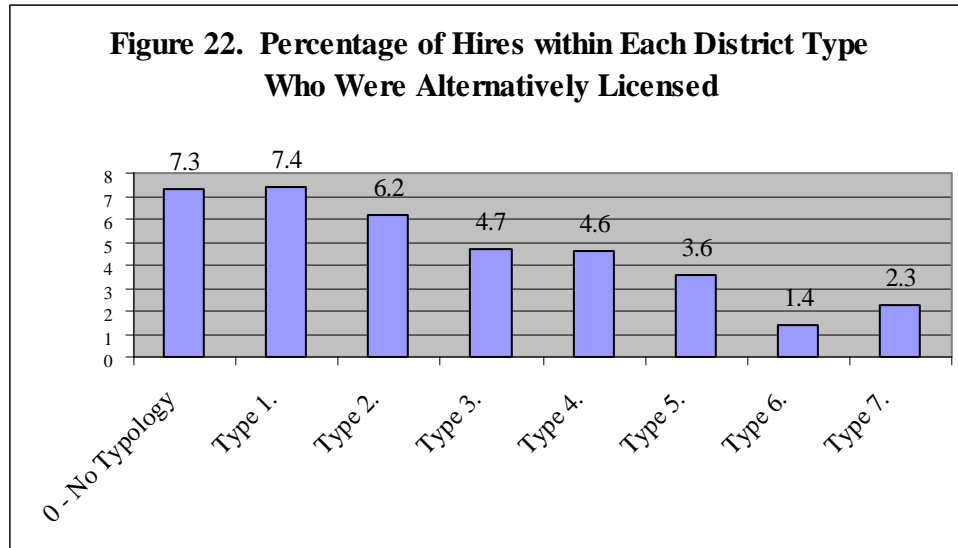
When the hires are sorted by position subject areas, more variation in route to certification emerges (See Table 56).

- Subject areas requiring some degree of technical expertise have higher percentages of hires that have received certification through alternative routes than all open positions (6.9 percent). These subject areas include: health occupations (37.5 percent), business/career (20 percent), trade & industrial (36.4 percent), health education (21.4 percent), and career development (28.6 percent).
- Two other subject areas have higher percentages of alternatively certified hires than all open positions – special education (15.7 percent) and humanities (50 percent).

Table 56: Percentage of Hires for 2004-2005 Open Teaching Positions Who Were Licensed by Alternative Routes by Subject Area

Subject Area	Percent Licensed Alternatively
Art	7.4
Business	0
Marketing	0
English	2.9
Foreign Language	6.5
Health Occupations	37.5
Physical Education	1.4
Family/Consumer	0
Industrial Education	0
Mathematics	4.5
Music	0
Science	6.9
Business/Career	20.0
Social Studies	5.3
Trade & Industrial	36.4
General Education	2.4
Special Education	15.7
Library Media	5.6
Driver Education	0
Family/Consumer non-career	0
Career Based Intervention	0
Health Education	21.4
Computer Technology	5.9
Other	7.9
Humanities	50.0
Elementary Education	5.1
Career Development	28.6

There is also some variation in the percentage of hires who have received certification through alternative routes when schools are sorted by the district typology (See Figure 22).



- Schools located in (6) Urban/Suburban districts with high SES and in (7) Urban/Suburban districts with very high SES hired a significantly lower percentage of teachers (1.4 percent and 2.3 percent respectively) that had been certified through alternative routes.
- Surprisingly, schools located in (5) Major Urban/very high poverty districts also hired a lower percentage of teachers with alternative certification (3.6 percent) than all open positions (6.9 percent).

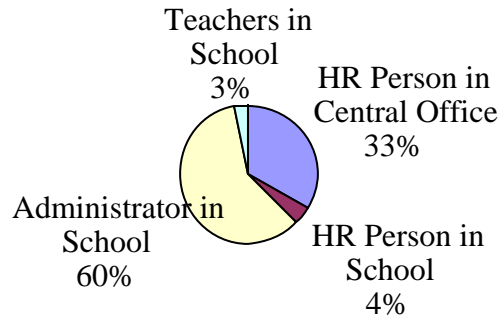
Hiring Practices of Schools

Schools were asked a series of questions about their hiring practices. These questions queried schools about the person or persons responsible for screening and hiring, about the hiring of internal transfers, the factors that affect their hiring, and the difficulty they experience in hiring teachers.

Responsibility for Screening Applicants

The responsibility for screening applicants tends to be split among the schools between administrators in the central office and administrators at the school level (See Figure 23).

Figure 23: Person/Persons Responsible for Screening Applicants



- While the majority (59.9%) of responding schools indicated that an administrator in their school is responsible for screening applicants, a significant number of schools (33.5%) reported that the screening of applicants is handled at the central district office.
- Very few schools (2.7%) reported that teachers were responsible for screening applicants for teaching positions.

There are significant differences in responsibility for screening applicants when schools are sorted by the district typology (See Table 57).

Table: 57 Percentage of Responding Schools within Each District Typology by Persons Responsible for Screening Applicants

Persons Responsible for Screening	Percentage of Schools in District Typology							
	0	1	2	3	4	5	6	7
HR Person in Central Office	4.9	21.6	8.0	14.1	37.7	73.9	34.5	50.2
HR Person or Assistant in School	8.9	2.2	3.9	3.4	6.9	2.0	5.7	3.3
Administrator in School	65.0	75.1	83.7	76.8	51.1	14.5	54.4	38
Teachers in School	2.4	0.4	1.8	3.4	2.1	6.8	3.8	0.4

- Schools without a district typology and those located in (2) Rural/low poverty districts and in (3) Rural/moderate SES districts indicated more responsibility for screening applicants at the school level than at the central office.
- Schools located in (5) Major Urban/very high poverty districts (73.9%) and in (7) Urban/Suburban districts with very high SES (50.2%) indicated that their central office has responsibility for screening applicants more often than for all open positions (33.5%).

Responsibility for Hiring

Responding schools indicated that much of the responsibility for hiring lies with both the central office and the school principal working together (See Table 58).

Table 58: Person/Persons Responsible for Hiring

Person responsible for Hiring	Frequency	Valid Percent
Person in Central Office	183	9.4
Principal and Central Office	1059	54.3
Principal in School	232	11.9
Committee of Teachers in School	8	0.4
Committee of Teachers and Administrators in School	401	20.6
Committee of Teachers, Administrators and Parents and/or Community Members	66	3.4
Total	1949	100

- The majority of responding schools indicated that responsibility for hiring rests with both the central office and the school principal (54.3%).
- More teachers are responsible for hiring decisions (20.6%) than were responsible for screening applicants (2.7%).
- Very few schools (3.4%) indicated that they involve parents and community members in the hiring decision.

There is some variation in school responses about the responsibility for hiring when schools are sorted by the district typology (See Table 59).

Table 59: Percentage of Responding Schools within Each District Typology by Persons Responsible for Hiring

Persons Responsible for Hiring	Percentage of Schools in District Typology							
	0	1	2	3	4	5	6	7
Central Office	4.9	9.3	3.6	3.7	4.2	24.5	0.8	2.9
School Level Administrator and Central Office	10.6	63.6	59.3	46.3	64.2	35.3	56.3	44.4
School Level Administrator	46.3	12.6	15.5	20.8	7.7	7.6	10.8	10.5
Committee of Teachers	0.0	0.0	0.0	0.0	4.2	1.2	0.0	6.4
Committee of Teachers and School Level Administrator	19.5	10.8	16.1	21.8	17.4	22.9	25.1	25.6
Committee of Teachers, School Level Administrator, and Parents and/or Community Members	0.0	3.0	2.8	4.7	0.0	6.0	3.5	3.7

- A higher percentage of schools located in (5) Major Urban/very high poverty districts (24.5 percent) indicated that their central office had responsibility for hiring than all schools (9.4 percent).
- Schools with no district typology tend to have more school based responsibility for hiring than do schools located in the district typologies.
- Schools located in (1) Rural/high poverty districts give significantly less responsibility to teachers in the hiring decision than do other types of schools.

Hiring Internal Transfers

Schools responding to the vacancy survey provided information about the requirements for hiring internal district transfers for open teaching positions.

- Of the responding schools, 86.9 percent indicated that they are required to consider internal district transfers for open teaching positions.
- Far fewer schools (33.3 percent) indicated that they are required to hire internal district transfers for open positions.

For the most part, this pattern of consideration and hiring of internal district transfers holds when the schools are sorted by district typology with two exceptions (See Table 60).

Table 60: Percentage of Responding Schools within Each District Typology Who Are Required to Consider and Hire Internal Transfers

Required to:	Percentage of Schools in District Typology							
	0	1	2	3	4	5	6	7
Consider Internal District Transfers	32.5	89.6	85.0	88.3	88.7	93.6	88.1	82.4
Hire Internal District Transfers	10.6	36.1	22.3	16.4	29.7	79.9	16.2	13.4

- Far fewer schools without a district typology indicated that they are required to consider and hire internal district transfers than all other schools.
- A significantly higher proportion of schools in (5) major urban/very high poverty districts indicated that they are required to hire internal district transfers than all other school types.

Factors Affecting Ability to Hire

Responding schools were asked a series of questions about factors that hindered or helped their ability to hire. School demographics tend to have a neutral effect – neither hindering nor helping hiring. Other factors do play a more significant role (See Table 61).

Table 61: Percentage of Schools Responding that Factors Affect Ability to Hire

Factors	Hinder	No Effect	Helped
Central Office	11.3	31.9	56.8
Overall Quality of Applicant Pool	20.3	32.0	47.6
Level of Student Achievement at Your School	7.2	50.9	41.9
Student Racial Composition	3.0	88.3	8.7
Student Poverty Rate	8.3	83.2	8.5
Neighborhood in which School Resides	8.5	62.0	29.5
Level of School Resources	17.2	49.4	33.4
Opportunities for Career Development	7.0	59.9	33.1

- The majority of schools responded that school demographic factors such as student racial composition, student poverty, and neighborhood of the school had no affect on their ability to hire, although about 30 percent of respondents did indicate that the neighborhood of the school could help hiring.
- The responding schools were split over the effect of the central office, quality of the applicant pool, and level of school resources on their ability to hire.
- More schools responded that the central could be a help (56.8 percent) rather than a hindrance (11.3 percent) in hiring.
- Of all the factors, the quality of the applicant pool was perceived by schools to be of the greatest hindrance to hiring.

When schools were sorted by district typology, some variation emerged in the factors they felt hindered their ability to hire (See Table 62).

Table 62: Percentage of Responding Schools in Each District Type Whose Hiring Was Hindered

Factor Hindering Hiring	District Typology								
	0	1	2	3	4	5	6	7	all schools
Central Office	4.9	16.0	9.6	5.4	7.1	32.5	9.4	9.1	11.3
Quality of Applicant Pool	36.6	31.6	29	21.8	27.8	31.7	15.7	11	20.3
Level of Student Achievement at School	28.5	15.2	7.3	1.0	12.8	14.5	1.7	4.3	7.2
Student Racial Composition	24.4	0	0	0	10.9	9.6	2.5	1	3.0
Student Poverty Rate	31.7	15.6	9.6	1.3	18.2	17.7	2.9	0.4	8.3
Neighborhood in which School is Located	11.4	14.9	13.7	5	17.2	15.3	2.9	0	8.5
Level of Resources in School	32.5	33.1	27.5	13.8	17.2	12.4	13.4	1.4	17.2
Opportunities for Career Development	10.6	17.1	14.8	6.7	3.1	2.8	3.5	3.5	7.0

- More schools without a district typology (36.6 percent) felt the applicant pool hindered their hiring than schools from any other district type.
- Schools located in (7) urban/suburban districts with very high SES (11.0 percent) felt that the applicant pool hindered them far less than all schools (20.3 percent).
- Schools located in (5) Major urban/very high poverty districts (32.5 percent) perceived their central office to be a hindrance more often than all schools (11.0 percent).
- Schools located in three district types indicated more often than schools in other district types that the achievement level of their students affected hiring – schools without a district type (28.5 percent), schools located in (1) rural/high poverty districts (15.2 percent), and schools located in (5) major urban/very high poverty districts (14.5 percent).
- Schools located in three district types indicated more often than schools in other district types that the level of resources in the school affected hiring – schools without a district type (32.5 percent), schools located in (1) rural/high poverty districts (33.1 percent), and schools located in (2) Rural/low poverty districts (27.5 percent).
- Schools located in two district types responded more often than other types of schools that student racial composition hindered their ability to hire – schools without a district typology (24.4 percent) and schools located in (4) urban/high poverty districts (10.9 percent).
- Schools located in four district types responded more often than other types of schools that student poverty hindered their ability to hire – schools without a district typology (31.7 percent), schools located in (1) rural/high poverty districts (15.6 percent), schools located in (4) urban/high poverty districts (18.2 percent), and schools located in (5) major urban/very high poverty districts (17.7 percent).

- Schools located in four district types responded more often than other types of schools that the neighborhood in which their school was located hindered their ability to hire – schools located in (1) rural/high poverty districts (14.9 percent), schools located in (2) Rural/low poverty districts (13.7 percent), schools located in (4) urban/high poverty districts (17.2 percent), and schools located in (5) major urban/very high poverty districts (15.3 percent).
- Schools located in two district types responded more often than other types of schools that opportunities for career development hindered their ability to hire – schools located in (1) rural/high poverty districts (17.1 percent), and schools located in (2) rural/low poverty districts (14.8 percent).
- Schools located in (7) urban/suburban districts with very high SES responded far less frequently (1.4 percent) than all other schools (17.0 percent) where resources hindered their ability to hire.

This variation in schools by district type continues when the same factors are considered as helping in the hiring of teachers (See Table 63).

Table 63: Percentage of Responding Schools in Each District Type Whose Hiring Was Helped

Factor Helping Hiring	District Typology								
	0	1	2	3	4	5	6	7	all schools
Central Office	24.4	55.8	52.6	52.7	62.3	35.7	68.8	69.4	56.8
Quality of Applicant Pool	28.5	38.7	34.7	34.9	44.4	30.1	61.8	71.5	47.6
Level of Student Achievement at School	17.1	21.6	38.3	50.7	29.1	34.5	53.4	68.6	41.9
Student Racial Composition	0.8	5.6	4.9	6.4	6.1	13.3	8.1	14.9	8.7
Student Poverty Rate	0	2.6	4.7	6.0	2.9	4.0	9.1	17.6	8.5
Neighborhood in which School is Located	8.1	10.4	22.8	37.6	10.7	19.7	45.0	69.8	29.5
Level of Resources in School	22.0	17.8	22.3	38.3	27.4	16.9	42.6	76.7	33.4
Opportunities for Career Development	18.7	17.8	21.8	31.5	37.7	23.7	37.4	65.1	33.1

- Far fewer schools in districts without a type (24.4 percent) and schools in (5) major urban/very high poverty districts (35.7 percent) felt that their central office was a help with hiring when compared to all schools (56.8 percent).
- Schools located in two district types responded less often than other types of schools that the quality of the applicant pool helped their ability to hire – schools without a district typology, and schools located in (5) major urban/very high poverty districts.

- Schools located in (7) urban/suburban districts with very high SES responded far more frequently (71.5 percent) than all other schools (47.6 percent) that the quality of the applicant pool was a help in hiring.
- Schools located in two district types responded more often than other types of schools that the neighborhood in which their school was located helped their ability to hire – schools located in (6) urban/suburban districts with high SES, and schools located in (7) urban/suburban districts with very high SES.
- Schools located in (7) urban/suburban districts with very high SES responded far more frequently (65.1 percent) than all other schools (33.1 percent) that the opportunities for career development was a help in hiring.
- Schools located in (7) urban/suburban districts with very high SES responded far more frequently (76.7 percent) than all other schools (33.4 percent) that the level of resources in the school was a help in hiring.
- Schools in (1) rural/high poverty districts (17.8 percent) and schools located in (5) major urban/very high poverty districts (16.9 percent) responded far less frequently than all schools (33.4 percent) that resources were a help in hiring.

Difficulty in Hiring

Responding schools were also asked a series of questions about how difficult it was for them to hire teachers with specific characteristics. The majority of schools responded that it was not difficult to hire teachers with these characteristics (See Table 64).

Table 64: Percentage of Responding Schools Who Have Difficulty Hiring Teachers

Difficulty in hiring teachers who:	Not Difficult	Somewhat Difficult	Difficult	Very Difficult
Are Certified	71.3	22.4	4.9	1.4
Meet Ohio’s HQT Requirements	57.8	32.3	6.8	3.1
Have Certification in Field	61.8	28.8	7.2	2.2
Relate Well to Students	73.7	20.6	4.7	1.0
Have the Ability to Teach All Students Well	62.0	30.6	5.8	1.6
Have Beliefs Consistent with School Mission	74.3	21.6	3.4	0.7
Have Knowledge and Skills to Advance School Goals	69.2	24.5	5.3	1.1

- The majority of all responding schools do not find it difficult to hire teachers.
- A small percentage (9.9 percent) of schools find it difficult to very difficult to hire teachers who meet Ohio’s Highly Qualified Teacher Standards, although as much as a third (32.3 percent) of responds experience some difficulty with this issue.

- Approximately 38 percent of all respondents indicated that they experienced at least some difficulty hiring teachers who had the ability to teach all students well.

Schools in different types of districts experience varying degrees of difficulty with hiring teachers who possess specific characteristics (See Table 65).

Table 65: Percentage of Responding Schools in Each District Type That Found Hiring Difficult or Very Difficult

Hiring teachers who...	District Typology								
	0	1	2	3	4	5	6	7	all schools
Are certified	16.3	10.0	7.8	8.4	3.2	8.8	2.3	0.8	6.3
Meet Ohio’s High Quality Teaching requirements	17.1	21.2	19.5	9.4	11.5	7.6	7.9	7.0	9.9
Have certification in fields they are to teach	14.7	16.7	11.9	14.8	5.1	6.4	5.8	4.5	9.4
Relate well to their students	39.8	4.1	4.9	4.0	7.8	11.2	5.8	0	5.7
Have the ability to teach all students well	34.2	11.2	5.4	5.7	15.1	13.7	6.5	8.7	7.4
Have beliefs consistent with school’s mission	15.5	3.0	4.7	9.7	6.9	7.6	2.1	3.9	4.1
Have knowledge and skills to advance goals of school	24.4	6.3	2.8	8.7	9.2	10.4	4.0	7.8	6.4

- Schools without a district typology responded more frequently (16.3 percent) than other types of schools (6.3 percent) that they found hiring certified teachers difficult or very difficult.
- Schools located in three typologies responded more frequently than other types of schools (9.9 percent) that they found hiring teachers who met Ohio’s HQT standards difficult or very difficult – schools without a district typology (17.1 percent), schools located in (1) Rural/high poverty districts (21.2 percent), and schools located in (2) Rural/low poverty districts (19.5 percent).
- Schools located in three typologies responded more frequently than other types of schools (9.4 percent) that they found hiring teachers with certification in the fields they were to teach difficult or very difficult – schools without a district typology (14.7 percent), schools located in (1) Rural/high poverty districts (16.7 percent), and schools located in (3) Rural/moderate SES districts (14.8 percent).
- Schools located in two typologies responded more frequently than other types of schools (5.7 percent) that they found hiring teachers who related well to their students difficult or very difficult – schools without a district typology (39.8 percent), and schools located in (5) major urban/very high poverty districts (11.2 percent).

VACANCIES

- Schools located in three typologies responded more frequently than other types of schools (7.4 percent) that they found hiring teachers who had the ability to teach all students well difficult or very difficult – schools without a district typology (34.2 percent), schools located in (4) urban/high poverty districts (15.1 percent), and schools located in (5) major Urban/very high poverty districts (13.7 percent).
- Schools located in two typologies responded more frequently than other types of schools (4.1 percent) that they found hiring teachers with beliefs consistent with the school’s mission difficult or very difficult – schools without a district typology (15.5 percent), and schools located in (3) rural/moderate SES districts (9.7 percent).
- Schools located in two typologies responded more frequently than other types of schools (6.4 percent) that they found hiring teachers who possessed the knowledge and skills to advance school goals difficult or very difficult – schools without a district typology (24.4 percent), and schools located in (5) major urban/very high poverty districts (10.4 percent).
- Schools located in (7) urban/suburban districts with very high SES appeared to have the least difficulty in hiring certified teachers (0.8 percent) and teachers who related well to their students (0.0 percent).

Ohio Teacher Workforce Preparation

- **Enrollment and Graduates**
- **Praxis Exam Results**
- **Content Alignment**
- **New Teaching Licenses**

HIGHER EDUCATION PIPELINE

Enrollment and Graduates Data from Title II Report

There are 51 colleges and universities approved to prepare teachers in Ohio; 13 public and 37 private institutions. In the 2003-2004 academic year, 43,819 students were enrolled in teacher preparation programs and 8,395 students completed their program.

Table 66 illustrates the race/ethnicity of teacher preparation program enrollees and completers.

Table 66
Enrollment and Completion of Teacher Preparation Courses
2003-2004 School Year

	Enrollment		Completers	
	N	%	N	%
African American	2,553	5.8	299	3.6
Asian American	256	0.6	46	0.5
Hispanic	513	1.2	81	1
Native American	125	0.3	15	0.2
Pacific Islander	4	0	1	0
White	38,576	88	7,572	90.2
Other/ Unknown	1,742	4	331	3.9
Total Across All Groups	43,819	100	8,395	100

Praxis Exam Subject Specific Results. In order to be eligible for licensing, potential teachers must pass a Praxis test. Overall, Ohio's institutions of higher education have prepared their students well for most subject-specific Praxis tests. Table 67 compares the Praxis passage rate for each academic content area for Ohio and the nation as a whole.

**Table 67
Academic Content Area Praxis Assessment Results
2003-2004 Cohort**

Academic Content Area	OHIO			NATION
	# Taking Praxis	#Passing Praxis	Passage Rate	Passage Rate
Early Childhood Education	3010	2972	99%	88%
Biology and General Science	19	19	100%	76%
Eng Lang Lit Comp Content Knowledge	459	417	91%	70%
Middle School English Language Arts	619	595	96%	84%
Mathematics: Content Knowledge	312	287	92%	53%
Middle School Mathematics	556	548	99%	85%
Chem Physics and General Science	44	41	93%	70%
Social Studies: Content Knowledge	596	547	92%	70%
Middle School Social Studies	664	624	94%	80%
Physical Education	2	<10 test takers, no passage rate calculated		
Physical Ed: Content Knowledge	271	243	90%	62%
Business Education	47	44	94%	76%
Music: Content Knowledge	287	276	96%	79%
Art: Content Knowledge	296	278	94%	82%
French Content Knowledge	33	33	100%	81%
German Content Knowledge	9	<10 test takers, no passage rate calculated		
Spanish	1	<10 test takers, no passage rate calculated		
Spanish Content Knowledge	83	72	87%	73%
Biology Content Knowledge Part 1	202	189	94%	74%
Biology Content Knowledge Part 2	199	170	85%	56%
Chemistry Content Knowledge	40	32	80%	56%
Physics Content Knowledge	24	22	92%	47%
Earth Science Content Knowledge	28	28	100%	76%

- For each academic content area (with at least 10 test takers), Ohio exceeded the national Praxis passage rate by fairly substantial margins.
- Ohio’s lowest Praxis results were in the area of Chemistry Content Knowledge at 80%.

Table 68 compares the pass rate of subject-specific Praxis tests to the percentage that that subject represents of all the vacancies reported in the vacancy survey. Similarities in these

two percentages would indicate that teachers are being prepared for the areas in which there is a corresponding demand.

Table 68
Percent by Subject, Praxis Test Passing and Vacancies

Content Area	% Total Praxis Passers 2003-04	% Vacancies Fall 2004
Art	4%	3%
Early Childhood	46%	34%
English and Language Arts	7%	12%
Foreign Language	2%	4%
Math	4%	9%
Music	4%	5%
Phys Ed	4%	3%
Science	7%	9%
Social Studies	9%	5%
Special Education	12%	17%

As Table 68 illustrates, there is a misalignment between preparation and demand in the area of Early Childhood which accounts for 46 percent of Praxis test passers and only 34 percent of vacancies.

Where Preparation is Offered. There are currently 51 institutions of higher education that offer teacher preparation programs. Not all institutions offer all programs. The following table identifies the number of institutions approved to offer each program.

**Table 69
Institutional Offerings
2003-2004 School Year**

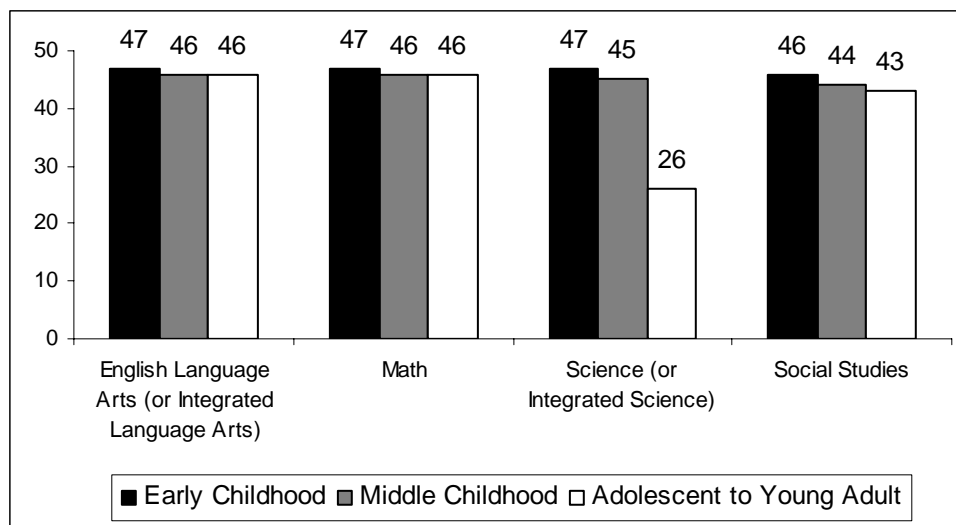
	Number Institutions Offering Programs		Number of Institutions Offering Programs
<u>Early Childhood and Middle Childhood</u>		<u>Intervention Specialist (IS)</u>	
Early Childhood	49	IS – Early Childhood	18
MC – Math	46	IS – Gifted	10
MC – Reading and Language Arts	46	IS – Hearing Impaired	3
MC – Science	46	IS – Mild/Moderate	36
MC – Social Studies	46	IS – Moderate/Intensive	19
<u>Adolescent to Young Adult (AYA)</u>		IS – Visually Impaired	2
AYA – Earth Science	22		
AYA – Earth/Chemistry	12	<u>Endorsement</u>	
AYA – Earth/Physics	9	Adapted Physical Education	7
AYA – Integrated Language Arts	47	Adult Education	3
AYA – Integrated Mathematics	47	Bilingual Education	1
AYA – Integrated Science	27	Computer/Technology	21
AYA – Integrated Social Studies	47	Driver Education	1
AYA – Life Science	46	Early Education of the Handicapped	6
AYA – Life Science/Chemistry	22	Career Based Intervention	3
AYA – Life Earth	10	Pre-Kindergarten	4
AYA – Life/Physics	11	Reading	36
AYA – Physical Science: Chemistry	15	TESOL	11
AYA – Physical Science: Chemistry/Physics	28	Transition-to-work	4
AYA – Physical Science: Physics	11	Middle Childhood Generalist	26
		Career Technical work-site Teacher	4

Aligning Teacher Preparation with Ohio’s Academic Content Standards for K-12 Students

As Ohio has phased in academic contents standards for most subject areas, institutions of higher education have needed to adjust their teacher preparation programs to reflect what K-12 students are now required to know and be able to do.

Figure 24 illustrates the number of institutions of higher education (IHE) whose instruction is aligned with the academic content standards for English language arts, math, science (including integrated science) and social studies.

Figure 24
Number of IHE's Aligned with the Academic Content Standards
(January 2006)



Tracking Recent Graduates with a New Teaching License

Table 70 shows the number of graduates from 2001 who also received a teaching license effective in 2001 according to the type of district where they obtained employment. The table shows employment of permanent classroom teachers as well as certain additional teaching related assignments.

Table 70
2001 Graduates with Teaching Licenses Effective in 2001 Employed by Different Types of School Districts, 2002 – 2005 (All Position Assignments)

	2002	2003	2004	2005
City School District	820	1,086	1,093	1009
Local School District	493	670	697	695
Village School District	43	72	86	82
ESC	40	51	49	49
Community School	28	46	46	48
JVSD	11	15	21	26
Total Employed	1,435	1,940	1,992	1,909
Total 2001 Graduates with teaching licenses	3,452	3,452	3,452	3,452

- As there are roughly 7000 education graduates annually, the total of 3,452 indicates that slightly less than 50 of the graduates received licenses.
- By 2004, the table shows that 1,992 of 3,452 licensed graduates from the 2001 cohort of new graduates worked in the Ohio public schools. This represents an employment rate of about 58 percent of the license-receiving cohort.
- By 2005, the rate of employment among the 2001 graduates had fallen to 1,909 or about 55 percent of the license-receiving cohort.

Table 71 provides a similar perspective as Table 70, but Table 71 shows only the regular teaching positions (position assignments 205, 206 and 207).

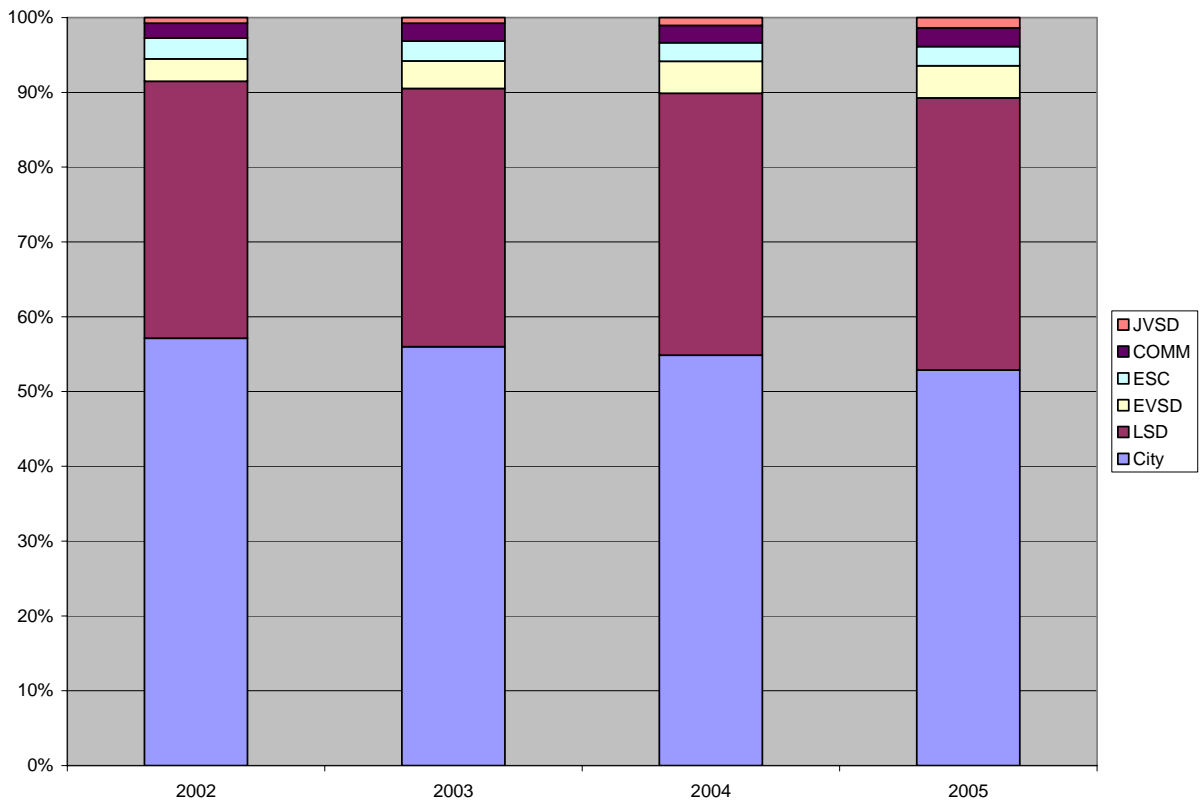
Table 71
2001 Graduates with Teaching Licenses Effective in 2001 Employed by Different Types of School Districts – 2002 – 2005 (Regular Teaching Assignments)

District Type	2002	2003	2004	2005
City School District	724	978	973	883
Local School District	420	591	601	592
Village School District	38	60	73	66
ESC	38	50	44	45
Community School	28	45	42	38
JVSD	11	13	19	23
Total Employed	1,259	1,737	1,752	1,646
Total 2001 Graduates	3,452	3,452	3,452	3,452

- A comparison of Tables 70 and 71 shows that most recent graduates begin their employment in regular teaching assignments.

Figure 25 shows the relationships from Table 71 in percentage terms. The 612 regular K-12 districts are comprised of city, local and exempted village school districts.

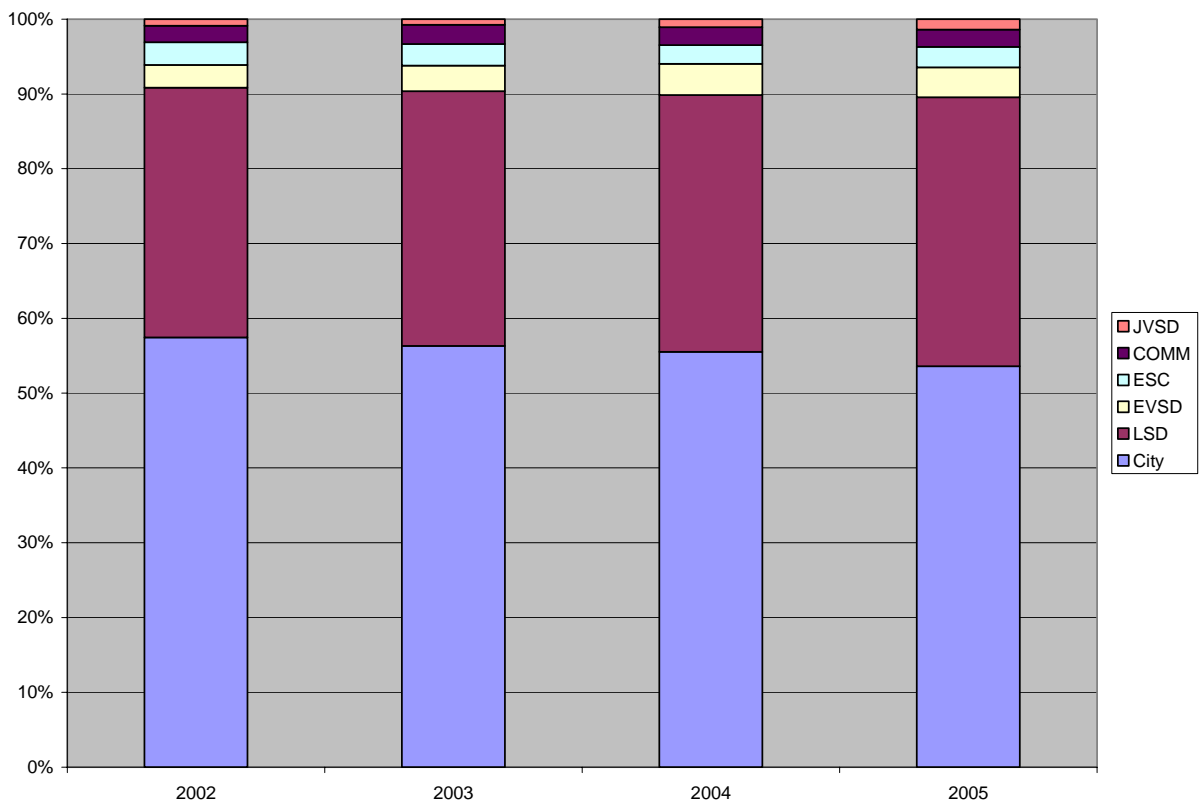
Figure 25
Percentage of 2001 Graduates with Teaching Licenses Effective in 2001 Employed by Different Types of School Districts – 2002– 2005 (All Position Assignments)



- In 2002, about 42 percent of the 2001 graduates with licenses effective in 2001 had obtained employment in public schools. By far most of these new teachers went to city or local school districts. The percentage of teachers who went to other kinds of districts was so small that they do not appear easily distinguishable at the top of each column bar.
- About 42 percent of the newly licensed graduates in 2001 obtained a position in the 2001-2002 school year. By the next year, about 56 percent were hired.
- The percentage peaked in the 2003-2004 school year at 58 percent. Then, in the fourth school year (2004-2005) after graduation, the percentage of 2001 licensed graduates employed somewhere in the system fell to 55 percent.

Figure 26 shows a similar perspective as Figure 25, but it uses the results obtained from Table 71 for regular classroom teachers.

Figure 26
2001 Graduates with Teaching Licenses Effective in 2001 Employed by Different Types of School Districts – 2002 – 2005 (Regular Teaching Assignments)



- Approximately 36 percent of the newly licensed 2001 graduates obtained a position as a regular teacher (position assignments 205, 206 or 207) in 2002.
- The percentage increased to 50 percent in 2003 and to 51 percent in 2004 before falling to 48 percent in 2005.

A comparison with the hiring trends for the class of 1999 and 2000 graduates, as reported in the Condition of Teaching Report for 2003 and for 2004, shows a very similar pattern for each of the three classes of new licensees (1999, 2000 and 2001). Initial placement rates equaled around 40 percent in the first year for all three cohorts. New graduates hiring increased each year for two more years to a maximum of 58 percent and then fell back to 54 percent or 55 percent. However, a large difference existed in the total number of new graduates who obtained a teaching license:

1999 – 4,147, 2000 – 2,790, and 2001 – 3,452.

Table 72 demonstrates how information about newly licensed teachers provides a method for estimating attrition among new teachers.

- 3,452 persons graduated and received teaching licenses in calendar year 2001.
- Of this number, 2,064 obtained regular teaching positions in Ohio public and community schools during the four following school years. These years include the school years ending in June 2002, 2003, 2004 and 2005.
- An additional 319 persons from the pool of newly licensed teachers obtained other teaching-related positions.

**Table 72
Employment and Attrition of Teachers and Related Positions Filled by Persons Newly Graduated and Licensed in 2001 from 2002 through 2005**

	Teachers	Teaching-Related	Total Licenses-Positions
Licenses Effective in 2001			3,452
Employed 2002-2005	2,064	319	2,383
Employed in 2005	1,658	265	1,923
Attrition	406	54	460
Attrition Percent	19.67%	16.93%	19.30%

The third row of data on Table 72 shows the number of positions of each type still held by one of the 2001 new licensees in the 2005 school year. The difference between the total of these licensees employed during the four year period and the number employed in 2005 yields the attrition for the period.

- Of 2,064 classroom teachers hired from the 2001 pool of new graduates, 1,658 remained in the classroom in 2005.
- The difference of 406 teachers shows the number of teachers who left teaching during the first three years after initial employment.

The final row of the table converts attrition into a percentage by dividing the Attrition by the total number of new licensees employed over the four year period.

- The teacher attrition rate of 19.67 percent over three years equals an annual rate of about 6.5 percent.

Ohio Teacher Workforce

COMMUNITY SCHOOLS

- **Demographics**
- **Attrition and Mobility**
- **Age and Experience**

OHIO TEACHER WORKFORCE COMMUNITY SCHOOLS

Community Schools' Demographics

Table 73 provides information on the racial breakdown of teachers and students in community schools from 2000 to 2005. In the years before 2000, either community schools did not exist or the number of teachers employed in them was too small to allow relevant comparisons.

The data in this table can be compared to similar data in Table 10 for Ohio's 612 regular K-12 school districts.

Table 73
Percentage of Teachers by Racial Group in Community Schools and
Total Number of Community School Teachers, 2000 – 2005

	2000	2001	2002	2003	2004	2005
Number of Teachers	405	575	930	1,439	1,530	1,716
Percent White Teachers	68.70%	71.30%	66.00%	68.20%	71.38%	76.49%
Percent Black Teachers	29.00%	25.90%	30.80%	30.00%	26.50%	21.40%
Percent Other Minority	2.30%	2.80%	3.20%	1.80%	2.13%	2.11%
Number of Students	9,805	17,251	24,034	34,039	46,016	59,443
Percent White Students	14.90%	21.40%	26.50%	33.10%	38.01%	39.67%
Percent Black Students	81.10%	74.60%	69.00%	62.10%	56.25%	54.39%
Percent Other Minority	4.00%	4.00%	4.50%	4.80%	5.75%	5.94%
Pupil/Teacher Ratio	24.2	30	25.8	23.7	30.1	34.63

- Community schools show a higher percentage of minority teachers than any of the categories used in the Department of Education school district typology.
- Community schools also enroll a much higher percentage of minority students than do the 612 regular school districts as a whole.
- Consequently, minority teachers in community schools also are under-represented relative to minority pupils.
- Total pupil/teacher ratios are also higher in community schools than in the regular school districts. (Community schools – 34.63 and regular K-12 districts – 19.45)

- From 2004 to 2005, the number of teachers in community schools increased by about 12 percent, but enrollment grew by about 29 percent. Faculty growth has not kept pace with enrollment increases, the pupil teacher ratio increased from 23.7 in 2003 to 30.1 in 2004 to 34.63 in 2005.

Attrition and Mobility

Table 74 shows the number of teachers leaving community schools and the rates of departure for the years 2000-2004. These data can be compared to similar data in Tables 20 and 21 for Ohio’s 612 regular K-12 school districts.

**Table 74
Number and Percentage of Community School Teachers Who Departed Teaching or Moved to a Different School District – 2000 to 2004**

Race	2000	2001	2002	2003	2004
Asian	3	6	9	4	9
Black	72	71	108	223	206
Hispanic	5	6	10	5	9
White	134	176	285	466	406
American Indian	0	0	0	0	1
Total	214	259	412	699	632
Asian	60.00%	75.00%	64.30%	36.40%	77.69%
Black	61.60%	47.80%	37.70%	51.70%	56.16%
Hispanic	100.00%	75.00%	64.50%	37.00%	42.65%
White	48.30%	42.90%	46.50%	50.00%	33.33%
American Indian	0%	0%	0%	0%	30.94%
Total	52.80%	45.10%	44.30%	48.60%	41.31%

- Table 74 shows departure rates of community school teachers are much higher than are the rates for teachers of all race and ethnicity in regular public school districts.
- Table 74 also shows departure rates of community school teachers are much higher than are the rates for any category of public school district.
- For example, after 2004, over one-half of the black teachers in community schools left teaching, moved to another community school, or moved to a regular public school district. The highest percentage of such changes in any category of public school district for that year equaled about 22 percent for major urban – very high poverty school districts.

- While the combined percentage of attrition and movement for community schools declined for whites after the 2004 school year, it increased for black teachers in both 2003 and 2004.

Table 75 summarizes the number of teachers who left teaching or moved between schools at the end of spring 2000, 2001, 2002, 2003 and 2004.

Table 75
Attrition and Movement of Community School Teachers in Numbers of Teachers
2000 – 2004

Departure Cause	2000	2001	2002	2003	2004
Total Teachers	405	575	930	1,439	1,530
Change At End of Year	214	259	412	699	632
Attrition (Left Entirely)	160	154	309	568	522
Movers				131	110**
To Another Community School	16	38	38	40	46
To a Regular School District*	38	67	65	91	64

*Includes 1 move to an ESC and 2 moves to a JVSD

**Moves to another Community School and to a Regular school district sum to more than the number of movers in FY05 because the number of movers refers to the FTE total in FY04, the destination numbers in FY05 equaled 52 FTE in Community Schools and 72 FTE in Regular districts.

Table 76 shows the same information from Table 75 in percentage form.

Table 76
Attrition and Movement of Community School Teachers in Percentage of Teachers
2000 – 2004

Departure Cause	2000	2001	2002	2003	2004
Change At End of Year	52.80%	45.10%	44.30%	48.57%	41.31%
Attrition (Left Entirely)	39.70%	26.70%	33.20%	39.47%	34.12%
Movers					
To Another Community School	3.90%	6.70%	4.10%	2.78%	3.02%
To a Regular School District	9.50%	11.70%	7.00%	6.32%	4.18%

- These data show that both the percentages of teachers who left teaching and who moved to a different school district significantly exceed the comparable percentages for teachers in regular public school districts as shown in Table 20. Just more than one-half of the

COMMUNITY SCHOOLS

community school teachers who taught in 2003 returned to the same community school at the beginning of 2004. Retention improved to almost 60 percent in 2004.

- By comparison, in regular school districts, about 89% of 2004 teachers returned to the same school district in 2005.

Age of Teachers in Community Schools

Figure 27 provides a graph of the age distribution of community school teachers from 2000 to 2005. Table 77 shows the same data as is used in Figure 27. This information can be compared with similar data for Ohio's 612 regular K-12 school districts. (See Figure 8 and Table 12.)

Figure 27
Age of Community School Teachers - 2000 to 2005

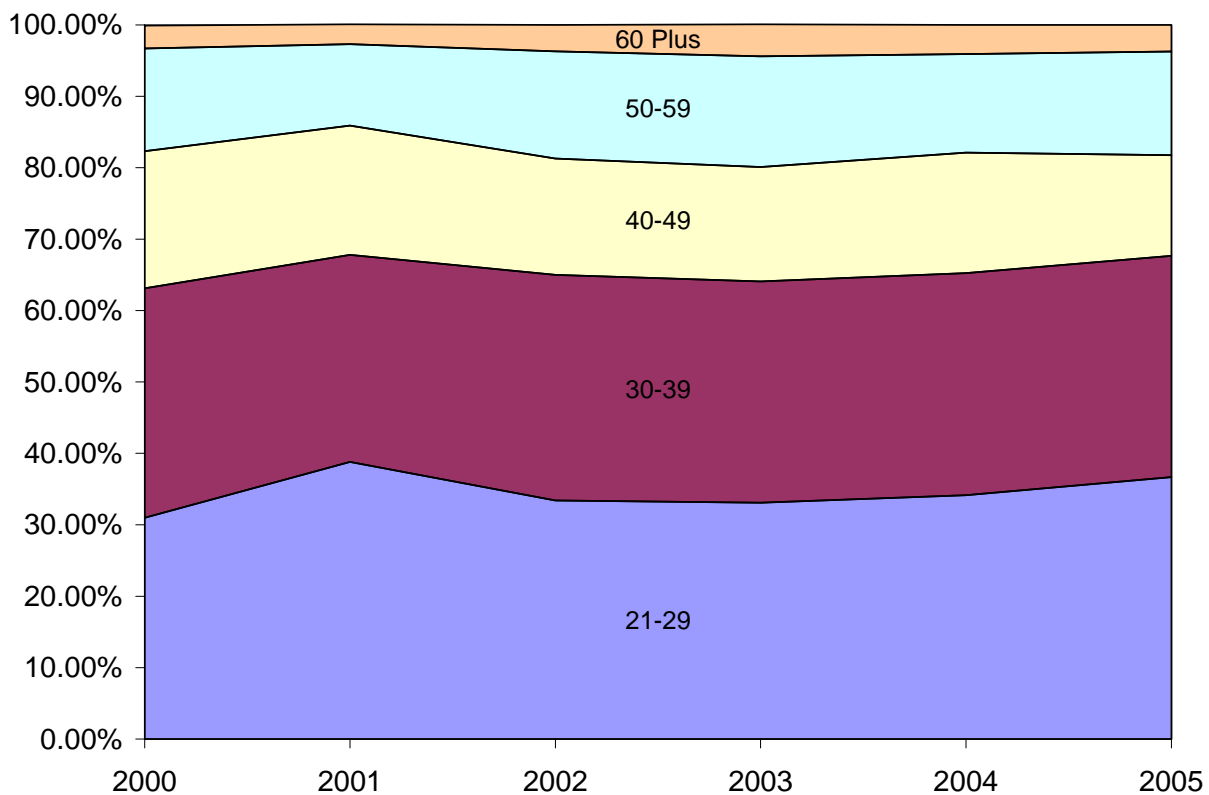


Table 77
Age of Teachers in Community Schools – 2000 – 2005

Age Range	2000	2001	2002	2003	2004	2005
21-29	31.00%	38.80%	33.40%	33.10%	34.15%	36.69%
30-39	32.10%	29.00%	31.60%	31.00%	31.10%	30.96%
40-49	19.20%	18.10%	16.30%	16.00%	16.86%	14.09%
50-59	14.40%	11.40%	15.00%	15.50%	13.80%	14.53%
60 Plus	3.20%	2.80%	3.70%	4.50%	4.09%	3.73%

- Teachers in community schools tend to be younger than teachers in regular school districts. While just more than 40 percent of teachers in regular school districts were under 40 in 2005, more than 67 percent of community school teachers were under 40 in the same year.
- More than one of three community school teachers are in his or her twenties. In regular school districts, about one in seven teachers are in that age group.
- The share of the total teaching staff in community schools for each age group does not show a consistent pattern of change over the period covered by the table.

Experience of Teachers in Community Schools

Figure 28 provides a graph of the age distribution of community school teachers from 2000 to 2005.

Figure 28
Community School Teachers by Years of Experience – 2000 – 2005

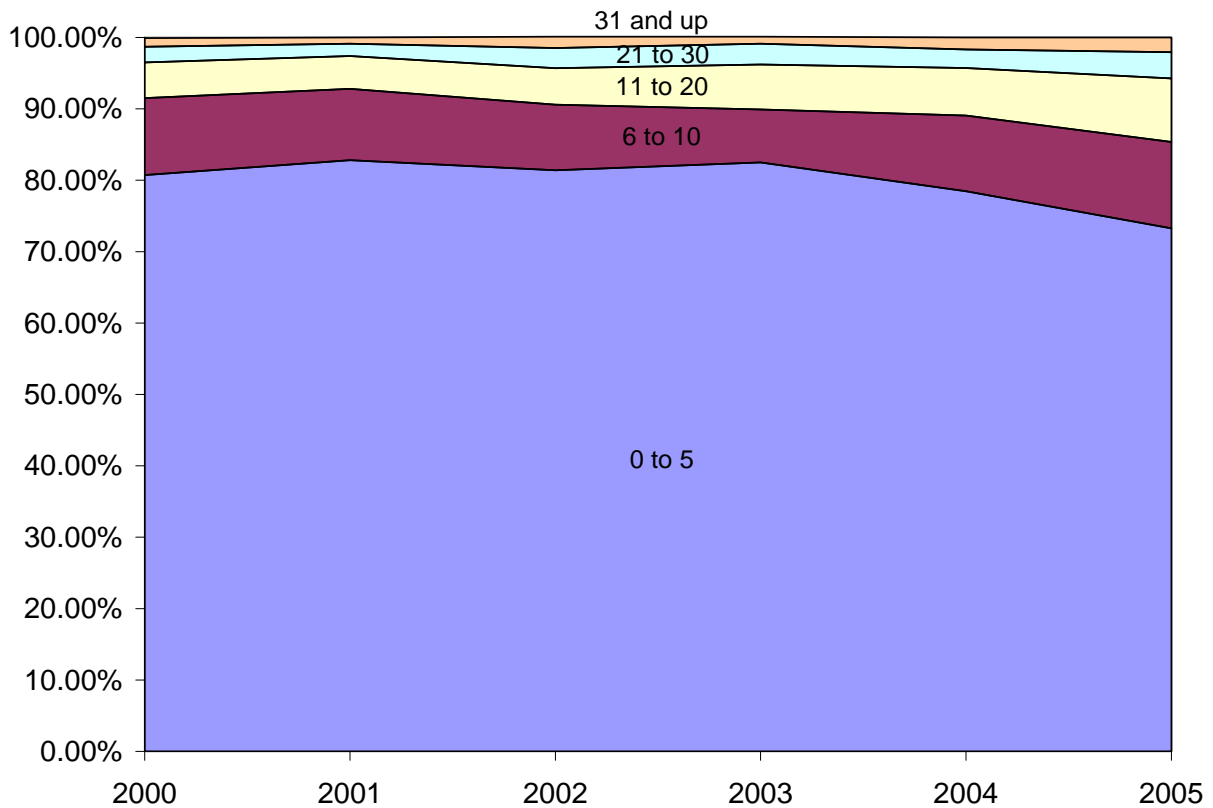


Table 78 shows the same data as is used in Figure 28. These data can be compared with similar data for Ohio’s 612 regular K-12 school districts. (See Figure 9 and Table 13.)

Table 78
Community School Teachers by Years of Experience – 2000 – 2005

Experience Range	2000	2001	2002	2003	2004	2005
0 to 10	91.50%	92.80%	90.60%	89.80%	89.05%	85.36%
0 to 5	80.70%	82.80%	81.40%	82.50%	78.46%	73.26%
6 to 10	10.80%	10.00%	9.20%	7.40%	10.59%	12.10%
11 to 20	5.00%	4.60%	5.10%	6.30%	6.68%	8.90%
21 to 30	2.20%	1.70%	2.80%	2.90%	2.58%	3.67%
31 and up	1.20%	0.90%	1.60%	1.00%	1.68%	2.07%

- The years of experience reported for community school teachers show them as much less experienced than teachers in regular school districts.
- About 73 percent of community school teachers have five or fewer years of experience. In contrast, regular school districts report about 26 percent of their teachers fall in the zero to five years range of experience.
- A comparison of 2003, 2004 and 2005 shows some increase in the percentage of community school teachers with 6 to 10 years of experience.

APPENDICES

Appendix A: Typology of Ohio School Districts, Revised 1996

Ohio Department of Education
Office of Policy and Research Analysis

Rural – high poverty, low SES

These districts tend to be rural districts from the Appalachian area of Ohio. As a group they have the lowest SES profiles as measured by average income levels and percent of population with some college experience.

Rural – low poverty, low SES

These tend to be small, very rural districts outside of Appalachia. They have a work force profile that is similar to districts in Group 1, but with much lower poverty rates.

Small Town – moderate SES

These districts tend to be small economic centers in rural areas of the state outside of Appalachia. The districts tend to contain both some agricultural and some small town economic characteristics.

Small Cities/Towns – low SES, very high poverty

These districts tend to be small or medium size “blue collar” cities and towns with very high poverty rates. Among small cities and towns, they generally have the lowest SES characteristics.

Urban – moderate SES, average poverty

These districts tend to be both larger and have a higher SES profile than group 4 districts. Poverty levels are average.

Major Urban – very high poverty

This group of districts includes all of the 6 largest core cities. It also includes large urban centers that have high concentrations of poverty.

Urban/Suburban – high SES

These districts typically surround major urban centers. While they often contain industrial economic activity and modest poverty levels, they are more generally characterized as upper SES communities with a highly professional/administrative population.

Urban/Suburban – very high SES

These districts also surround major urban centers. They are distinguished by very high income levels, almost no poverty, and a very high proportion of its population characterized as professional/administrative.

Appendix B: Typology of Ohio School Districts, Revised September 2004 (Effective for 2004-05 School Year)

**Ohio Department of Education
Office of Policy and Accountability**

The purpose of developing a typology of districts is to provide a rational basis for making data-driven comparisons of groups of districts. Such groups include districts that share certain demographic characteristics. As a result, the groups can serve as a basis for a stratified sample of districts in the state.

This typology replaces the one that had been developed using FY1996 data. All of the data have been updated, including 2000 Census data. While the methodology for developing the 2004 groups is comparable to the one used earlier, the selection of variables specifically mirrors the data used to compute “Similar Districts” (see http://webapp2.ode.state.oh.us/similar_districts/).

Nine different group types were identified. Seven of these groups characterize the K-12 public school districts. Another, Group 0, consists of districts that are extremely small and either geographically isolated (islands) or have special circumstances (College Corner). The final group, Group 8, consists of all Joint Vocational School Districts.

The following list provides a brief description of each group.

0 Kelly’s Island LSD, North Bass Island LSD, Middle Bass Island LSD, Put-in-Bay Island LSD, College Corner LSD

1 “Poor Rural”: Rural/agricultural – high poverty, low median income

These districts are rural agricultural districts and tend to be located in the Appalachian area of Ohio. As a group they have higher-than-average poverty, the lowest average median income level, and the lowest percent of population with college degree or higher compared to all of the groups. N=96, Approximate total ADM=160,000.

2 “Rural”: Rural/agricultural – small student population, low poverty, low to moderate median income

These tend to be small, very rural districts outside of Appalachia. They have an adult population that is similar to districts in Group 1 in terms of education level, but their median income level is higher and their poverty rates are much lower. N=161, Approximate total ADM=220,000.

3 “Small Town”: Rural/Small Town – moderate to high median income

These districts tend to be small towns located in rural areas of the state outside of Appalachia. The districts tend to have median income levels similar to Group 6 suburban districts but with lower rates of both college attendance and managerial/professional occupations among adults. Their poverty percentage is also below average. N=81, Approximate total ADM=130,000.

4 “Medium Size Urban”: Urban – low median income, high poverty

This category includes urban (i.e. high population density) districts that encompass small or medium size towns and cities. They are characterized by low median incomes and very high poverty rates. N=102, Approximate total ADM=290,000.

5 “Major Urban”: Urban – very high poverty

This group of districts includes all of the six largest core cities and other urban districts that encompass major cities. Population densities are very high. The districts all have very high poverty rates and typically have a very high percentage of minority students. N=15, Approximate total ADM=360,000.

6 “Suburban”: Urban/Suburban – high median income

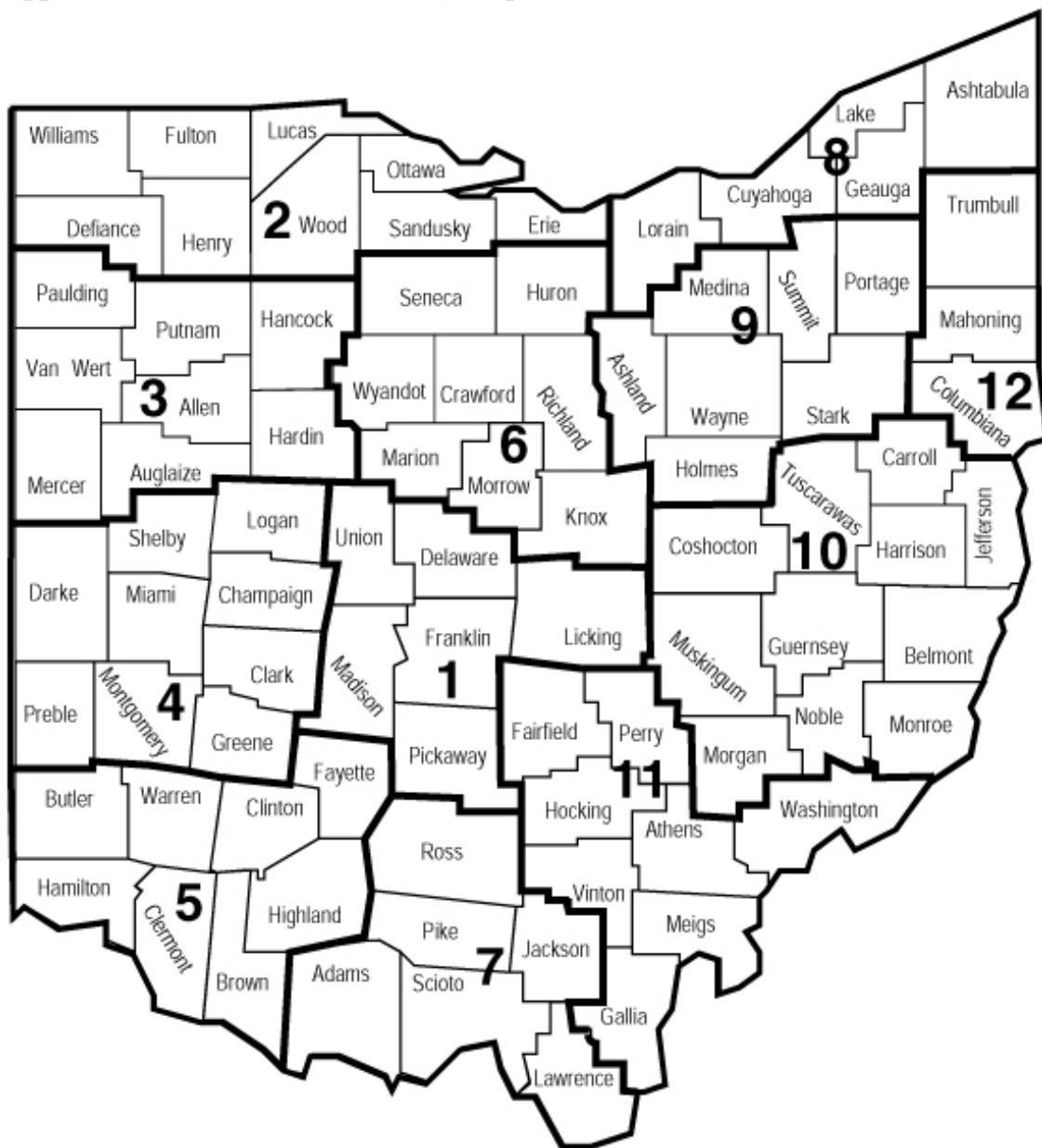
These districts typically surround major urban centers. While their poverty levels range from low to above average, they are more generally characterized as communities with high median incomes and high percentages of college completers and professional/administrative workforce. N=107, Approximate total ADM=420,000.

7 “Wealthy Suburban”: Urban/Suburban – very high median income, very low poverty

These districts also surround major urban centers. They are distinguished by very high income levels and almost no poverty. A very high percentage of the adult population has a college degree, and a similarly high percentage works in professional/administrative occupations. N=46, Approximate total ADM=240,000.

8 Joint Vocational School Districts

Appendix C: Ohio Region/County Map



Appendix D: 2004 Ohio School District Report Card Rating Definitions

All ratings are based on data from the 2003-2004 school year.

The following 18 Indicators are used in the 2004 Local Report Card rating system:

1 – **3rd Grade Reading** – 75 percent of students in the district taking the achievement test must pass.

2-6. Percentage of students passing Ohio's **4th Grade Proficiency Test** in each of five categories (Reading, Writing, Math, Science and Citizenship). 75 Percent of students in the district taking the test must pass to meet state standards.

7-11. Percentage of students passing Ohio's **6th Grade Proficiency Test** in each of five categories (Reading, Writing, Math, Science and Citizenship). 75 Percent of students in the district taking the test must pass to meet state standards.

12-16. Percentage of students passing Ohio's **9th Grade Proficiency Test** in each of five categories (Reading, Writing, Math, Science and Citizenship) by the end of 10th Grade. 85 Percent of students in the district taking the test must pass to meet state standards.

17. **Attendance Rate of Students.** Attendance must be at or above 93% across the district to meet state standards.

18. **Graduation Rate.** 90 percent graduation rate is needed to meet state standards.

The following 5 rating categories are used in 2004 to summarize school district performance:

- 1) **Excellent** districts meet 17 or 18 indicators or 100 or above on the Performance Index (PI).
- 2) **Effective** meet 14 to 16 indicators or score 90 to 99.9 on the PI.
- 3) **Continuous Improvement** meets 9 to 13 indicators or 80 to 89.9 on the PI OR they meet AYP (the lowest a district can be rated if they meet AYP is CI).
- 4) **Academic Watch** districts meet 6 to 8 indicators or score 70 to 79.9 and have missed AYP.
- 5) **Academic Emergency** districts are those that met 5 or fewer indicators, scored less than a 70 and missed AYP.

Rating Category	Number of Standards Met	Number of Districts
Excellent	17-18	117
Effective	14-16	229
Continuous Improvement	9-13	224
Academic Watch	6-8	34
Academic Emergency	0-5	4