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# **Educator Supply and Demand in Illinois**

## **2003 Annual Report**

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Illinois State Board of Education

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State Board of Education

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## FOREWORD

The Illinois State Board of Education respectfully submits this report to the Governor, the General Assembly, and institutions of higher education in fulfillment of the requirements of Section 2-3.11C of the School Code [105 ILCS 5/2-3.11c]. This report addresses the relative supply and demand for education staff of Illinois public schools.

Specifically, this report provides information on:

1. the relative supply and demand for teachers, administrators, and other certificated personnel by field, content area, and levels;
2. state and regional analyses of fields, content areas, and levels with an over/under supply of educators; and
3. projections of likely high/low demand for educators in a manner sufficient to advise the public, individuals, and institutions regarding career opportunities in education.

Additional information is provided on workforce composition, retirement projections for educators, and attrition rates.

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# Summary of Findings

Following is a summary of the findings from the 2003 annual report on educator supply and demand prepared to fulfill the requirements of Section 2-3.11c of the Illinois School Code.

## I. Relative Supply and Demand for Educators

### Supply Indicators

Supply includes all educational personnel available to the schools, regardless of whether they are currently employed by schools or not. Indicators of supply include: (1) personnel retained from the previous year; (2) newly certificated personnel; (3) re-entering personnel, i.e., newly hired educators who had prior experience; and (4) students in the pipeline, i.e., those currently enrolled in professional preparation programs.

**(1) Retention rates remain high.** The largest supply of educators is the previous year's workforce. In 2003, 138,119 educators or 93% of the previous year's total workforce were retained to work in Illinois public schools. However, nearly 6,000 of those educators were retained in different positions. On average, this equals six position changes per district. Such changes increase administrative workload and can have serious repercussions in the classrooms, especially at the elementary level.

**(2) There has been an increase in the number of certificates issued over the last four years.** The second largest source of supply is newly certified or "first-time" teachers. Over the last four years, new certificates issued to teachers and school service personnel have increased 11% a year, and administrative certificates have increased 8% per year. Provisional teaching certificates increased 38% a year over the same time period.

**(3) The number of re-entries hired rebounded this year.** The third major source of supply includes educators returning to the profession. Re-entries provide a good gauge of another facet of supply, the "reserve pool" which includes individuals who are credentialed, but not employed as educators. Between 1997 and 2001, the number of re-entries hired increased 67%, from a low of 3,172 to 5,301. The number of re-entries hired decreased over 30% in 2002 but increased by 28% in 2003.

**(4) The number of students in the pipeline increased.** The pipeline, measured at two points, provides a good indicator of future supply. The first point, which includes undergraduate and graduate students enrolled in education programs, showed a 7% average increase from about 40,000 in 1999 to over 48,500 in 2002. The second point, where students complete an Illinois-approved program of teacher education, there was a 9% increase between 1999 and 2002 (from 10,876 to 13,934). These increases bode well for the future supply of educators, provided a large portion of these students ultimately choose to become educators in Illinois public schools.

### Demand Factors

Demand refers to the need for educational personnel to fill positions. Demand factors include: (1) changes in student enrollments; (2) workforce growth; (3) retirement projections; and (4) attrition (i.e., the rate at which educators leave the profession).

**(1) K-12 Student enrollments are expected to continue growing but only at the secondary level.** Illinois public school enrollments have been increasing since 1990 and that overall trend is

expected to continue through 2007. But all of the growth in the next few years will be at the secondary level. Elementary enrollments are expected to decline. Such a change will affect the relative demand for secondary and elementary teachers.

**(2) There was a rebound in educator workforce growth.** Overall, the total educator workforce increased 2.5% from the previous year. Since 1998, the total educator workforce grew by 2% a year. In that time, the growth trend for the teaching force was also 2% and the administrator workforce grew by 3.5% a year. But in 2002, the overall workforce increased by only 205 or 0.1%. In 2003, however, there was a rebound in the trend. While the administrator workforce increased less than 1%, the teaching force showed a 2.6% increase and other certified staff grew by 2.8%.

**(3) Attrition** indicates the rate at which educators leave Illinois public schools. It considers all full-time educators who were in Illinois public schools last year but are not there in the current year.

- **Teacher attrition remains relatively stable for the third year in a row.** After increasing nearly 60% since 1996, teacher attrition rates leveled out between 2000 and 2001 at just over 7%. This year 7.5% (9,502) of the 2002 full-time teachers left education. An additional 1,040 teachers changed to non-teaching positions for a total loss of 8.3% of the 2002 full-time teaching force.
- **Administrator attrition continues upward trend.** Since 1996, administrator attrition rates have more than doubled. Between 2002 and 2003, 7.7% of full-time administrators left education. If the trend continues, attrition will be nearly 9% in the 2003 school year. Positions expected to have the highest attrition rates include district superintendents, elementary, and high school principals.

## II. Over/Under-Supply of Educators

Educator shortages were analyzed in three ways: (1) Over/under production of new educators; (2) Unfilled positions; and (3) District ratings of supply.

**(1) Over/under production of new educators** provides an indication of whether enough educators are produced by colleges and universities each year. For each subject area or position, the number of individuals receiving their first certificate in a given year is compared with the number of first-time educators hired the following year. Due to competition from private schools, industry, and other states, it is desirable to produce at least two people for every opening to ensure an adequate supply of quality applicants. The following were found for 2003:

- Areas/positions of **likely under-production** include: Special education, math, music, and physical education.
- Areas/positions with the **greatest over-production** were the same as in 2002: Guidance counselor, social science, English language arts, and health.

**(2) Unfilled positions** were examined to see where regional shortages exist (i.e., where supply has not met local demand despite the relatively large number of teachers entering the workforce each year).

- **Illinois school districts reported 1,630 unfilled positions as of October 1, 2002.** The areas of subjects with the greatest number of unfilled positions were: self-contained elementary (480), cross categorical (191), learning disabled (136), behavior disordered (67), speech and language (65), and Library/Media (59).
- **The number of unfilled positions has decreased significantly the last two years.** The number of unfilled positions peaked in 2000 at 2,637. In 2002, there was an 8% decrease and in 2003, a 34% decrease.
- **Three fourths of the unfilled positions were in the Chicago School District.** There were 222 (14%) unfilled positions in suburban Cook and the collar counties and 170 (10%) unfilled positions in the rest of Illinois.

**(3) District ratings of supply** indicate over/under-supply from the local perspective. Overall, the number of districts reporting shortages decreased from last year.

- While their relative positions changed slightly, the twelve positions with the most severe shortages remained the same as last year with special education topping the list. However, the number of districts reporting shortages dropped by an average of 122 for these areas. Rank ordered by the number of districts reporting shortages, the twelve are:

		<b>#-Districts with Shortages</b>	<b>Change from 2002</b>
1	Special Ed - Speech & Lang. Impaired	301	(139)
2	Special Ed - Behavior Disordered	292	(177)
3	Special Ed - Learning Disabled	297	(157)
4	Special Ed - Cross Categorical	276	(169)
5	Mathematics	273	(42)
6	Foreign Language - Spanish	250	(74)
7	Special Ed - EMH	228	(137)
8	Psychologist	211	(130)
9	Science - Physics	190	(105)
10	Science - Chemistry	199	(101)
11	Guidance Counselor	199	(114)
12	Librarian/Media Specialist	191	(121)

- In 2002, there were only three positions where districts reported more overages than shortages. In 2003, there were five: Self Contained Elementary, Social Science, Physical Education, English Language Arts, and Consultant.



### III. Projected areas of high demand in Illinois

Projections of likely high demand areas were made in order to advise the institutions of higher education of future career opportunities in education. Through 2007, it is estimated that Illinois will need almost 40,000 regular and over 9,000 special education teachers. Historically, re-entries have filled just over 40% of teacher vacancies each year so Illinois schools will need to hire approximately 20,000 re-entries and 29,000 first-time teachers over the next four years. In that same time period, Illinois is expected to need about 3,300 administrators and 4,300 school service personnel and other certified staff.

In terms of ***number***, the greatest needs through 2007 are:

- (a) administrators/other educators
  - Social worker; guidance counselor; coordinator; elementary principal; and assistant elementary principal.
- (b) teachers
  - Self-contained elementary; special education; English/language arts; mathematics; science; social science; and foreign language.

In terms of the ***percent of the 2003 workforce***, the greatest needs through 2007 are:

- (a) administrators/other educators
  - Supervisor; assistant elementary principal; social worker; assistant district superintendent; and assistant junior high principal.
- (b) teachers
  - Reading/remedial reading; English as a second language; cross categorical; vocational-other; foreign language-other; gifted; Spanish; special education (other); and bilingual.

# I. Relative Supply and Demand for Educators

## Supply Indicators

Supply, in its broadest sense, includes all educational personnel available to the schools, regardless of whether or not they are currently employed within the school system. This section provides information on various indicators of supply, including: (1) personnel retained from the previous year; (2) newly certified individuals; (3) re-entering personnel (i.e., newly hired educators who had prior experience); and (4) students in the pipeline (i.e., those currently enrolled in professional preparation programs).

## Personnel Retained from the Previous Year

Historically, the largest supply of educators is the previous year's workforce. The total educator workforce includes teachers, administrators, school service personnel, and other certified staff. In Illinois, 89% of the previous year's educational workforce was employed in the same position in school year 2003 (see **Table 1**). Another 4% were retained in Illinois public schools, but in a different position. Thus, 93% of all educators in Illinois were still in public education in 2003, which is virtually the same percentage retained in 2002 and 2001 and is slightly up from the 91% reported in 2000.

Position	Total FT 2002	Retained in 2003		Total Retained in 2003	
		In Same Position	In Different Position		
Administrative	9,411	84%	8%	8,684	92%
Instructional	127,408	89%	4%	117,906	93%
Other Certified Staff	4,505	86%	7%	4,171	93%
School Service Personnel	7,910	92%	1%	7,358	93%
<b>All Educators</b>	<b>149,234</b>	<b>89%</b>	<b>4%</b>	<b>138,119</b>	<b>93%</b>

While the vast majority of Illinois' educators are retained from year to year at the state level, there is considerable flux at the local level. For example, nearly 6,000 educators switched positions between 2002 and 2003. Although that amounts to less than 4% of the 2002 workforce at the state level, it equals over six position changes at the district level, on average, and nearly two changes for each attendance center. This positional "musical chairs" increases administrator workload and can have serious repercussions in the classroom, especially at the elementary level.

## Newly Certified Educators

The second largest source of supply is newly certified educators. In Illinois, the number of new certificates issued is counted annually according to the fiscal year (i.e., July 1 to June 30). In order to be considered as supply for the 2002-03 school year, teachers had to be certified in the previous fiscal year (i.e., July 2001 to June 2002).

Since fiscal year 1999, the number of new instructional certificates issued has increased 11% a year, school service personnel certificates have increased 11%, and administrative certificates have

increased 8% (see **Table 2**). During that same period, the number of substitute certificates issued has increased 15% a year.

While the number of teaching certificates has increased an average of 11% over the last three years, the number of *individuals* receiving them has only increased around 9% (from 9,636 in 2000 to 12,314 in 2003). Thus, part of the increase in the number of elementary and secondary certificates (and the corresponding decrease in special teaching certificates), is probably due to teachers choosing to “split” their K-12 special teaching certificates and instead receive an elementary and a secondary certificate this year. As a result, the 11% increase in instructional certificates may be slightly exaggerated.

Type	2000	2001	2002	2003	Average Change
<b>3</b> Elementary	4,987	7,433	7,318	7,634	17%
<b>4</b> Early Childhood	641	773	785	766	7%
<b>9</b> Secondary	3,324	5,599	5,358	5,622	23%
<b>10</b> Special Teaching	2,753	1,874	1,700	1,286	-22%
<b>Total Instructional</b>	<b>11,705</b>	<b>15,679</b>	<b>15,161</b>	<b>15,308</b>	<b>11%</b>
<b>5</b> Provisional Early Childhood	11	5	14	13	39%
<b>30</b> Provisional Elementary	45	59	116	50	24%
<b>31</b> Provisional High School	37	47	126	72	51%
<b>33</b> Provisional Special Teaching	36	68	142	76	21%
<b>Total Provisional</b>	<b>129</b>	<b>179</b>	<b>398</b>	<b>211</b>	<b>38%</b>
<b>73</b> School Service Personnel	708	784	865	967	11%
<b>74</b> Provisional SSP	26	28	43	40	8%
<b>Total SSP</b>	<b>734</b>	<b>812</b>	<b>908</b>	<b>1,007</b>	<b>11%</b>
<b>75</b> Administrative	1,403	1,536	1,628	1,745	8%
<b>76</b> Provisional Admin.	12	11	16	17	14%
<b>Total Administrative</b>	<b>1,415</b>	<b>1,547</b>	<b>1,644</b>	<b>1,762</b>	<b>8%</b>
<b>39 Substitute</b>	<b>12,117</b>	<b>12,528</b>	<b>17,726</b>	<b>17,540</b>	<b>15%</b>

Another positive finding is the 38% average increase in the number of provisional certificates issued to teachers over the last four years. Provisional teaching certificates are issued to individuals that hold an equivalent certificate from another state but lack one or more of Illinois requirements (e.g., testing). While the number is relatively small, an increase in the number of provisional certificates shows Illinois is attracting teachers from other states.

## Re-entering Personnel

Educators returning to the profession are the third largest source of supply. In addition to being an important source of new hires, the number of re-entries is an important indicator of another facet of supply—namely, the reserve pool. For example, the historical data shows that the number of teachers returning to the profession had a dramatic peak in school year 1995, which is most likely due to the large number of vacancies created by the early retirement incentive that year. In 1994, only 3,300 re-entering teachers were hired. The following year the number ballooned to more than 5,400,

an increase of 62%, or nearly 2,100. There was a large drop in 1996 and a minor decline in 1997, but then, between 1997 and 2001, the number of re-entries hired increased 67%, from 3,172 to 5,301. Then in 2002, only 3,641 teachers re-entered the Illinois public school system, a decrease of over 30% (or 1,660) from the previous year.

This year, however, there was a steep rebound in the number of re-entries hired. For the 2003 school year, over 5,300 re-entries were hired, an increase of 28% over 2002 (see **Table 3**). While being relatively small in number, the administrative and other certified staff categories both experienced a 42% increase in re-entries over last year.

Position	Total FT 2003	Re-entries		Change from 02
		N	%-FT	
Administrative	9,438	215	2%	42%
Instructional	130,773	4,680	4%	29%
Other Certified Staff	4,633	150	3%	42%
School Service Personnel	8,041	276	3%	9%
<b>All Educators</b>	<b>152,885</b>	<b>5,321</b>	<b>3%</b>	<b>28%</b>

## Students in the Pipeline

Students currently enrolled in Illinois professional preparation programs are the best indicator of future supply. Tracking enrollment trends in both teacher preparation and alternative routes to certification, should indicate whether the educator supply is likely to increase or decrease in the next three to four years. Projections of the future supply could be improved by tracking how many program completers (i.e., students who completed all requirements of an approved teacher education program), actually receive certification in Illinois.

As **Table 4** shows, there were 26,348 undergraduate and 22,195 graduate students enrolled in professional preparation programs in 2002. While nearly all of the undergraduates (88%) were enrolled full-time, the vast majority of graduate students (78%) were enrolled only part-time.

Professional Preparation Enrollments					Avg. Change	
	1999	2000	2001	2002	n	%
Undergraduate Full-Time	21,806	19,612	22,277	23,299	498	3%
Undergraduate Part-Time	3,087	2,744	3,236	3,049	-13	0%
<b>Total</b>	<b>24,893</b>	<b>22,356</b>	<b>25,513</b>	<b>26,348</b>	<b>485</b>	<b>2%</b>
Graduate Full-Time	3,415	3,857	4,884	4,980	522	14%
Graduate Part-Time	11,709	12,114	13,898	17,215	1,835	14%
<b>Total</b>	<b>15,124</b>	<b>15,971</b>	<b>18,782</b>	<b>22,195</b>	<b>2,357</b>	<b>14%</b>

SOURCE: Division of Professional Preparation

A major concern last year was the 10% decline in undergraduate enrollments between 1999 and 2000. However, a 14% increase in undergraduate enrollments in 2001 more than made up for that dip, and the average growth over the last three years in undergraduate enrollments is a modest 2%, or 485 students, a year.

Graduate enrollments, on the other hand, continue to grow at a healthy pace. In 2002, part-time enrollments were up 24% or 3,317 students. While full-time graduate enrollments were only up 2% this year, they increased nearly 27% the previous year. Over the last three years, graduate enrollments have grown 14% a year for both part-time and full-time students.

As **Table 5** shows, the number of program completers increased by an average of 6% a year since 1999 with the biggest increase occurring in Administrative programs (14%). During this time period, all of the other program areas have increased moderately (4-8%) except for Early Childhood, which had a significant decrease in 2001.

	1999	2000	2001	2002	Average Change (00-02)
Early Childhood	638	638	584	621	-1%
Elementary	3,953	3,715	4,243	4,453	4%
Secondary Programs	2,228	2,882	2,506	2,719	8%
K-12 Programs	854	788	948	1,065	8%
Special Education Programs	1,495	1,322	1,889	1,770	8%
School Service Personnel	528	677	508	555	4%
Administrative Programs	1,180	1,179	1,760	1,659	14%
Alternative Certification	0	0	66	1,092	-
<b>Total:</b>	<b>10,876</b>	<b>11,201</b>	<b>12,504</b>	<b>13,934</b>	<b>6%</b>

SOURCE: Division of Professional Preparation

Fifty-six institutions reported nearly 14,000 program completers in 2002, an 11% increase over the previous year, which is about the same increase as the previous year. In 2002, most of the program categories increased moderately (5-9%) except Special Education and Administrative Programs both of which decreased 6%. The most significant change, however, was the dramatic increase in the number of alternative certification program completers which went from 66 in 2001, to nearly 1,100 in 2002.

## Demand Factors

Demand refers to the need for educational personnel to fill positions. This section presents information on the various factors of demand, including: (1) changes in student enrollments; (2) workforce growth; (3) retirement projections; and (4) attrition rates (i.e., the rate at which educators leave the profession).

Data in this section were obtained from two sources: the 2003 Public School Enrollment Projection Report, and the 2002-03 Teacher Service Record (TSR). The TSR contains employment data on all certified Illinois public school personnel and is collected each fall by the Illinois State Board of Education. The 2001-02 collection was the first time that Chicago District 299 filed electronically and in the same format as the rest of the state. While it is expected that this move will greatly improve data accuracy and lead to quicker turnaround in the near future, the first attempt was not without some problems. More specifically, thousands of positions and assignments in Chicago changed codes and may appear to be growth or attrition in the following tables. Thus, the reader must use extreme care in interpreting trends based on staffing data from the last three years.

The most current file that could be used for this study contains data from the 2002-03 school year. Where abbreviated, data from the 2001-02 are referred to as "2002" and data from the 2002-03 school year are referred to as "2003." For comparative purposes, 2003 is considered the "current year" and 2002, the previous year.

## Changes in Student Enrollments

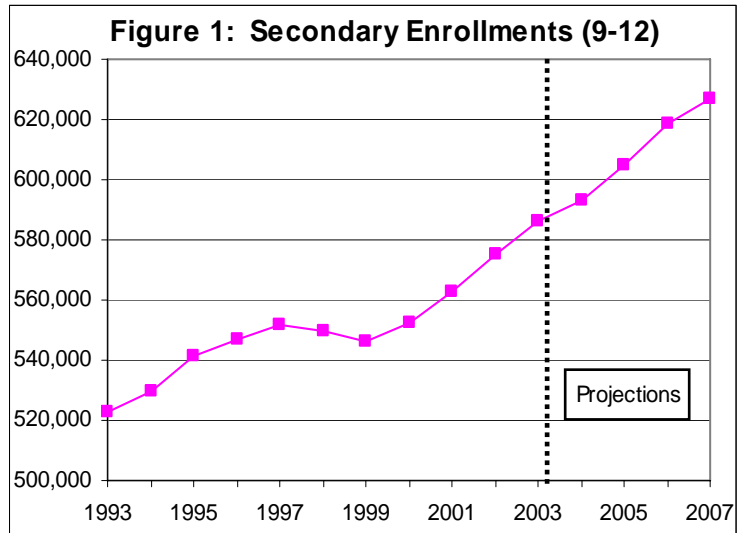
At the aggregate level, there is a direct relationship between student enrollment and demand for educators. Illinois public school enrollments have been increasing since school year 1990, and that trend is expected to continue through school year 2007 (Illinois State Board of Education, 2003). All of the growth, however, will be at the secondary level which will increase the demand for high school teachers.

Total Illinois public school enrollment for school year 2003 was 2,011,077, an increase of less than 13,000 students, or about .6% over the previous year (see **Table 6**). In contrast, total enrollments increased an average of nearly 1% or about 17,000 students per year the previous five years. However, it is expected that the growth rate will decline substantially for the next four years averaging only 0.3%, or about 6,400 students per year. Furthermore, it is predicted that K-12 enrollments will peak in 2007 and then begin to decline marginally (about 5,000 students a year) for the next four years due to decreases in K-8 enrollments. In contrast, secondary enrollments are expected to increase substantially over the same time period. It is predicted that by the year 2007, secondary enrollments will increase by over 40,000 students (7%) while elementary enrollments will decrease by over 20,000 students (-1.5%).

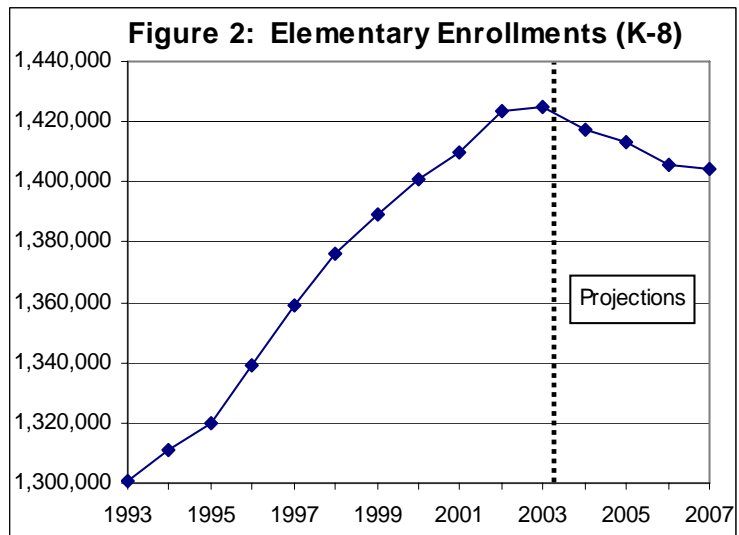
	2002	2003	Ann. Change		2007		
			n	%	Projected Enrollment	Change (02)	
					n	%	
<b>Elementary</b>	1,423,239	1,424,896	1,657	0.1%	1,404,199	<b>(20,697)</b>	<b>-1%</b>
<b>Secondary</b>	575,245	586,181	10,936	1.9%	627,221	41,040	7%
<b>TOTAL</b>	1,998,484	2,011,077	12,593	0.6%	2,024,052	20,343	1%

As can be seen in **Figures 1 and 2**, secondary enrollments are expected to increase through 2007, while elementary enrollments will peak in 2003 and then begin a steady decline for the next four years.

Secondary enrollments for 2002-03 were 586,181, an increase of nearly 11,000 students (1.9%) over last year. Over the last four years, secondary enrollments have increased an average of nearly 40,000 students (or 1.8% a year). Prior to 1999-00, however, the five-year average growth rate was only 0.4% and enrollments had actually decreased in two of those years (1997-98 and 1998-99). For the next four years, secondary enrollments are expected to continue to grow at an average of 1.7% a year and peak in school year 2007 at 627,221. This represents an increase of 7% or 41,040 students over 2003 enrollments (see **Figure 1**).



In 2003, elementary enrollments increased by less than 1,700, or .1%, capping a 15 year growth trend. They are expected to decline, on average, about 5,000 students a year for the next four years. The decrease in elementary enrollments is believed to be due to the decrease in the number of live births, which peaked in 1990 at 195,499, and declined each of the next seven years to a low in 1997 of 180,649 (an 8% decrease). See **Figure 2**.



At the state level, these enrollment patterns are likely to increase demand for teachers at the secondary level while slightly decreasing the need for elementary teachers over the next four to five years.

# Workforce Growth

## Total Educator Workforce

Since 1989, the educational workforce has increased in response to growth in student enrollments and increases in educational spending. More recently, the teacher workforce has increased, on average, by over 2,500 teachers a year (or 2.1%), while the administrator workforce has grown by 3.7% a year (or over 300 administrators), for the last five years.

However, in 2002, there was virtually no growth in the educator workforce. The total educator workforce remained under 150,000 which was virtually the same size as the previous year. That plateau seems to be an anomaly as this year, the total full-time educator workforce increased by 2.5% (or nearly 3,700), to a historical high of nearly 153,000 full-time staff (see **Table 7**).

	2003 FT	Change From 2002	
		N	%
<b>Administrators</b>	9,438	27	0.3%
<b>Teachers</b>	130,773	3,363	2.6%
<b>School Service Personnel</b>	8,041	131	1.7%
<b>Other Certified Staff</b>	4,633	128	2.8%
<b>Total Workforce</b>	152,885	3,684	2.5%

(Note: the relatively small increase in administrators this year is most likely an artifact of last year's artificial 10% increase in administrators which occurred when Chicago District #299 reclassified a large number of teachers into administrative position codes to match the Teacher Service Record definitions. The reclassification also caused a 17% decrease in Other Certified Staff in 2002).

## Administrator Workforce Growth

There was virtually no growth in the administrator workforce in 2003. The total number of full-time administrators employed in Illinois public schools for school year 2003 was 9,438, an increase of only 27 (or, .3%) from last year's total (see **Table 8**). The 1.1% increase in downstate administrators was offset by a 3.3% decline in Chicago's administrative staff. However, Chicago's huge increase last year was mostly due to a reclassification of positions rather than an increase in the actual number employed. For example, over 600 teachers were reclassified in 2002 as assistant principals, administrative assistants, and assistant directors. This year's decrease, therefore, may reflect further fall-out from last year's reshuffling rather than an actual decrease in the number of administrators.

	State		Downstate		Chicago	
	#-FT	Change	#-FT	Change	#-FT	Change
<b>1996-97</b>	7,705					
<b>1997-98</b>	7,872	2.2%	6,936		936	
<b>1998-99</b>	8,100	2.9%	7,113	2.6%	987	5.4%
<b>1999-00</b>	8,315	2.7%	7,299	2.6%	1,016	2.9%
<b>2000-01</b>	8,551	2.8%	7,492	2.6%	1,059	4.2%
<b>2001-02*</b>	9,411	10.1%	7,569	1.0%	1,842	73.9%
<b>2002-03</b>	9,438	0.3%	7,656	1.1%	1,782	-3.3%

\*NOTE: 2001-02 was the first year Chicago reported data in the TSR format and a large number of teachers were reclassified as administrators.



## Teacher Workforce Growth

In the ten years prior to 2002, the total number of full-time teachers in Illinois increased an average of 1.9% a year. In that time, the full-time teaching force grew from a low of 105,993 in 1990-91, to a high of 127,323 in 2001 and it increased every year except school year 1994, when the total employed dropped about 550 due to a decrease in Chicago of more than 1,500 teachers (see **Table 9**). In the five years prior to 2002, the increase was even more dramatic—the workforce increased by an average rate of 2.4%, or about 3,000 teachers a year. In that time, the downstate teaching force increased an average of 2.8% while Chicago’s force grew about 1% a year.

The total number of full-time teachers employed in Illinois public schools in school year 2003 was 130,773, an increase of 3,365 teachers (or 2.6%) over last year. Downstate showed a .9% increase over last year while Chicago showed an unprecedented 10.6% increase in full-time teachers. However, most of Chicago’s apparent growth is most likely due to their under-reporting the number of teachers employed in 2002. The anomalies in the Chicago data make the analysis of statewide trends tenuous, but it appears that the rate of increase has decreased significantly over the last two years. Prior to 2002, the 5-year average growth rate was 2.4% for the statewide teaching force. Over the last two years, the increase is only about 1.4% a year.

	State		Downstate		Chicago	
	Total-FT	Growth	Total-FT	Growth	Total-FT	Growth
<b>1988-89</b>	102,542		80,696		21,846	
<b>1989-90</b>	103,577	1.0%	81,240	0.7%	22,337	2.2%
<b>1990-91</b>	105,993	2.3%	83,234	2.5%	22,759	1.9%
<b>1991-92</b>	107,482	1.4%	84,837	1.9%	22,645	-0.5%
<b>1992-93</b>	108,670	1.1%	85,208	0.4%	23,462	3.6%
<b>1993-94</b>	108,118	-0.5%	86,220	1.2%	21,898	-6.7%
<b>1994-95</b>	110,104	1.8%	87,592	1.6%	22,512	2.8%
<b>1995-96</b>	112,853	2.5%	89,820	2.5%	23,033	2.3%
<b>1996-97</b>	115,644	2.5%	92,121	2.6%	23,523	2.1%
<b>1997-98</b>	118,091	2.1%	94,622	2.7%	23,469	-0.2%
<b>1998-99</b>	121,179	2.6%	97,540	3.1%	23,639	0.7%
<b>1999-00</b>	124,279	2.6%	100,711	3.3%	23,568	-0.3%
<b>2000-01</b>	127,323	2.4%	103,247	2.5%	24,076	2.2%
<b>2001-02*</b>	127,408	0.1%	105,190	1.9%	22,218	-7.7%
<b>2002-03</b>	130,773	2.6%	106,189	0.9%	24,584	10.6%

\*NOTE: 2001-02 was the first year Chicago reported data in the TSR format and it is believed the total number of teachers employed was under-reported.

## Number of New Teachers Hired

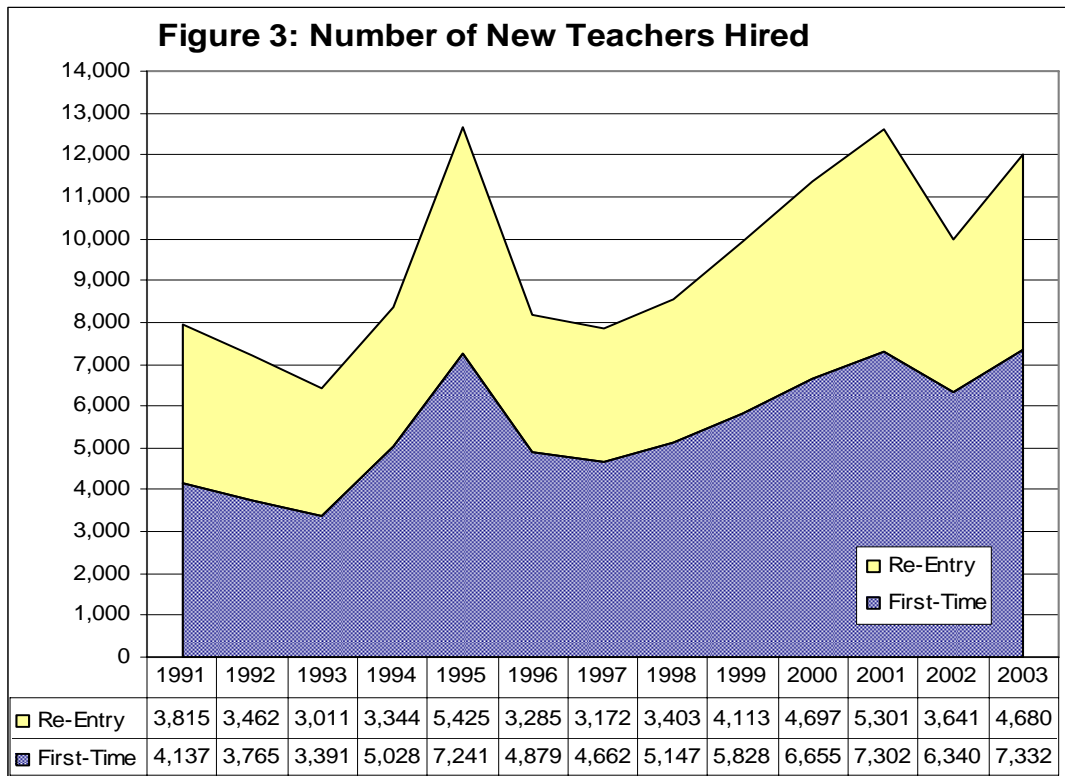
**Figure 3** shows the number of new teachers hired for each of the last ten years. The sharp peak in school year 1995 was caused by the early retirement incentive. Since that anomaly, and the subsequent decrease in the number of new teachers hired, there has been a dramatic increase in the trend through 2001. In 1997, a total of 7,834 new teachers were hired, and in 2001 that number rose to 12,603. This represents a 60% increase in the demand for new teachers since 1997.

In 2002, however, there was a sharp drop in the number of new teachers hired. Illinois public schools hired just fewer than 10,000 new teachers in 2002, a decrease of more than 2,500 teachers (or 21%) from the previous year. This year there was a sharp rebound in the number of new teachers hired. In

2003, 12,012 first-time and re-entering teachers were hired, an increase of 20% (or 2,031) over last year.

The rebound pattern was the same for both first-timers and re-entries. The number of first-timers hired increased 16% this year after decreasing 13% last year, while, the number of re-entries hired increased 29% this year after decreasing 31% last year.

Of the 12,000-plus new hires in 2003, just over 60% were first-time teachers and 39% were re-entries. Teachers re-entering the workforce filled a significant number of district vacancies over the last twelve years. Teachers with greater than one year of experience who were not employed in an Illinois public school the previous year (i.e., "re-entries"), filled 4,680 vacancies and accounted for 39% of the new teachers hired in 2003.



As **Table 10** shows, the majority of newly hired teachers were at the elementary (5,437), or high school (2,940) level. When compared to 2002, these two positions also had the largest increase in the number of new hires (36% and 24%, respectively). Special education and middle school new hires increased only 1% this year.

Position	Total FT 2003	New (Reentry+First)		% - New	
		N	%-FT03	Re-entries	First Time
Spec Ed Teacher (all)	20,676	1,922	9.3%	48%	52%
Elem Teacher	59,911	5,437	9.1%	37%	63%
Jr/Middle Teacher	18,493	1,713	9.3%	37%	63%
HS Teacher	31,693	2,940	9.3%	38%	62%
	<b>130,773</b>	<b>12,012</b>	<b>9.2%</b>	<b>39%</b>	<b>61%</b>

## Number of New Administrators Hired

In 2003, there were 752 new administrators hired in Illinois public schools. The number of new administrators hired was virtually the same as last year (i.e., 745 were hired in 2002). Nearly 70% of these new administrators were Illinois teachers the previous year (see **Table 11**). Another 215 (29%) were re-entering professionals and less than 3% were in the Illinois public school system for the first time.

When viewed by individual position, Elementary Principals and Assistants had the largest number of new hires (202), followed by Other Administrator (169). The Other Administrator category includes deans, business managers, and administrative assistants.

POSITION	2003 FT	New Administrators			Total New	
		First Time	Re-entry	Changed Position [from teaching]	N	% -FT
District Supt./Asst.	1,189	1	40	2	43	4%
Elem. Princ./Asst.	3,238	4	63	135	202	6%
Jr. High Princ./Asst.	1,033	3	16	93	112	11%
H.S. Princ./Asst.	1,372	2	27	77	106	8%
Director/Asst.	1,222	2	37	79	118	10%
Other Administrator	1,215	7	31	131	169	14%
Other Supt.	169	1	1	0	2	1%
<b>Total</b>	<b>9,438</b>	<b>20</b>	<b>215</b>	<b>517</b>	<b>752</b>	<b>8%</b>

As the baby-boom generation of education administrators begin to retire and their positions become less and less attractive, districts will find it increasingly difficult to fill vacancies. In 2000, *Education Week* warned of the “shrinking applicant pool” (Glass). In a study concerning the supply of principals, Whitaker (2001) reported that 90% of the district superintendents surveyed indicated a “moderate to extreme shortage of principal candidates, with the problem more severe at the high school level.”

In contrast, Roza (2003) found the average district receives 17 applicants for each principal vacancy and that the applicant pool has only decreased by about two applicants per position over the last seven years. Not surprising, districts with the fewest applicants were those with high poverty, higher concentrations of minority students, low per-pupil expenditures, and relatively low principal salaries. Roza concludes, and Illinois data supports her contention, that the perceived principal shortage is a distribution problem, rather than a supply problem, because far more administrators are produced every year than there are vacancies.

Relative to the supply of superintendents, Rohn (2002) asserts that “the pool of candidates for vacant superintendent positions is rapidly becoming very shallow.” Education administration has become increasingly unattractive for many reasons including the following: responsibilities of the position keep growing; too much stress; long hours of work; and salaries not commensurate with the heavy responsibilities (Olson, 2000; Rohn, 2002). This may explain why many teachers, who are credentialed to be administrators, continue to teach rather than go up the proverbial career ladder.

## Attrition Rates

The rate at which educators leave the profession is directly related to demand. To calculate attrition rates, the 2002 Teacher Service Record (TSR) file was compared to the 2003 file. Full-time educators who were in the 2002 file, but not in the 2003 file, were deemed to have “left education.” Attrition rates do not include teachers that have changed assignment or that have changed to a non-teaching position. Since the TSR only tracks educators employed in Illinois public schools, some of those that left may be employed in private schools or in education in another state; therefore, these rates represent the upper limit of attrition (i.e., they are a liberal estimate).

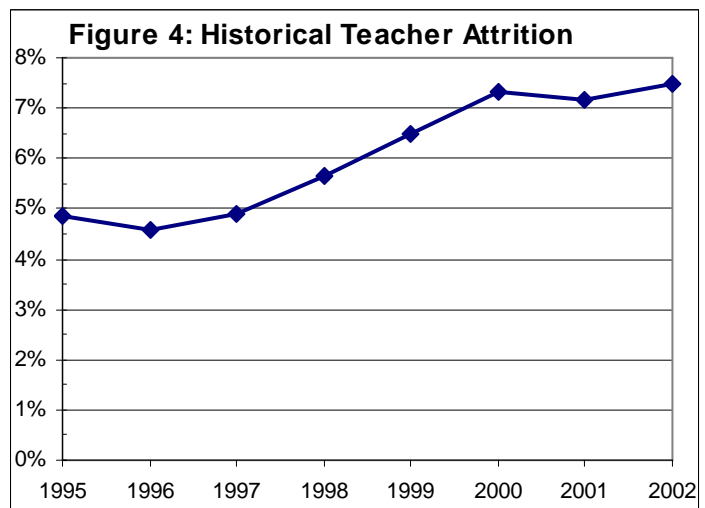
## Teachers

After increasing nearly 60% since 1996, teacher attrition rates leveled out between 2001 and 2002. This year, 7.5% (or 9,502) of the 2002 full-time teaching force left education by 2003, which is slightly higher than last year (7.3%, or 9,100).

In 1994, attrition rates were abnormally high (9.4%) because of the early retirement incentive. Since that anomaly, attrition rates have ranged from a low of 4.6% in 1996 to a high of 7.3% in 2000. The trend between 1996 and 2000 represents a 60% increase in the attrition rate. For the last three years, however, the teacher attrition rate has remained relatively stable at just over 7%, inching up slightly in 2002 to an eight-year high of 7.5%. See **Figure 4**.

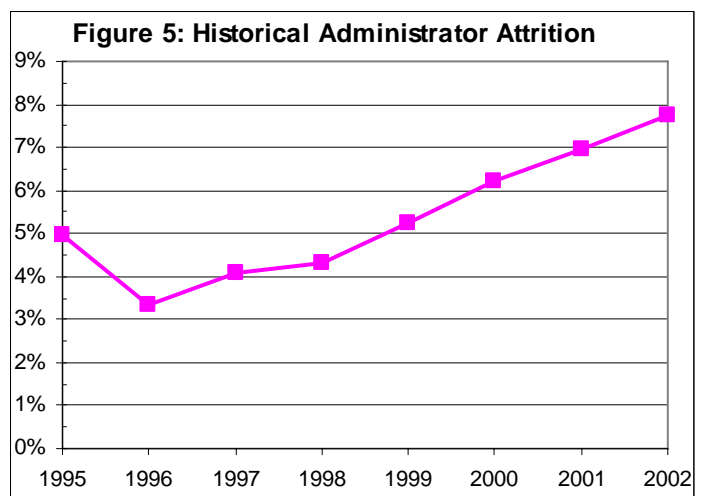
The areas with the highest rate of teachers leaving education were: Health occupations, alternative education, and resource center/library. The areas with the lowest rates were: Health, special education, physical education, and Title I reading/math. For a complete list of attrition rates by main assignment, see **Appendix A**.

In addition to the 9,500 teachers that did not return for the 2003 school year, there were over 1,000 teachers that switched to non-teaching positions. Together, the total loss of teachers amounts to 8.3% of the 2002 teaching force.



## Administrators

While teacher attrition rates remained fairly constant over the last three years, the rate at which full-time administrators left education continued to rise. For the first time since 1995, the administrator attrition rate was greater than that of teachers. Over 725 (or 7.7%) of the full-time administrators left education between 2002 and 2003, which is an increase of 22% over the previous year (see **Figure 5**). The positions that experienced the biggest losses were:



Elementary Principals (176), District Superintendents (92), and Directors (84).

Administrator attrition rates, like those for teachers, were abnormally high in 1994 due to the early retirement incentive, albeit at a much higher rate than teachers -- 13% versus 9%. Since then, the rates have ranged from a low of 3.4% in 1996 to a high of 7.7% in 2002. Since 1996, administrator attrition rates have more than doubled, which is significantly higher than the rate of change for teachers. If this trend continues, attrition will be nearly 9% in school year 2003 and 10% the following year.

## II. Over/Under Supply of Educators

This chapter presents information on the relative over- and under-supply of teachers and administrators in Illinois. The first section provides data on areas in which institutions may be producing too many or too few educators. In the second section, the unfilled position data are used to identify regional shortages, i.e., where supply has not met local demand. The third section presents district ratings of the supply of applicants for their vacancies.

### Over/Under Production of New Educators

In order to be able to say whether there is an over- or under- supply of educators, it is necessary to first determine whether or not enough educators are being produced each year. While an under-supply would definitely indicate an area of educator shortage, the converse is not necessarily true. For example, while there is an abundance of Administrative and Guidance Counselors credentials issued each year, many districts still find it difficult to fill vacancies in those positions.

**Table 12** compares the number of individuals receiving their first certificate in fiscal year 2003 with the number of first-time educators hired in the 2002-03 school year. All positions and subject areas produced more newly-certified individuals than first-time hires in 2003. When looked at as a ratio of number certified over the number hired (i.e., A/B), the areas and positions with the greatest **over-production** were the same as the previous year: Guidance counselor, social science, English language arts, and health. Due to competition from private schools and industry, it is desirable to produce at least two people for every opening to ensure an adequate supply of quality applicants for Illinois public schools. Using the ratio of 2:1 as the criterion, areas of likely **under-production** include: Special education, math, music, and physical education. Science teachers and psychologists were very close to the under-production criterion with ratios of just 2.1:1.

<b>Table 12: Over/Under Production of Educators</b>				
	<b>A</b>	<b>B</b>	<b>Over/Under Production</b>	
	# First Certs Issued FY02	# First Timers Hired 2003	<b>A - B</b>	<b>Ratio</b>
<b>Administrative*</b>	1,628	537	1,091	3.0
<b>Instructional</b>				
Art	368	144	224	2.6
Bilingual	701	161	540	4.4
Elementary	7,318	3,418	3,900	2.1
English Lang. Arts	3,094	681	2,413	4.5
Foreign Lang-Other	148	50	98	3.0
Foreign Lang-Spanish	416	153	263	2.7
Health	146	31	115	4.7
Math	808	438	370	1.8
Music	302	196	106	1.5
Physical Education	481	318	163	1.5
Science	988	464	524	2.1
Social Science	3,269	366	2,903	8.9
Special Education	1,835	997	838	1.8
<b>School Serv Personnel</b>				
Guidance Counselor	296	33	263	9.0
Nurse	56	20	36	2.8
Psychologist	136	64	72	2.1
Social Worker	371	169	202	2.2

\*Note: Both First-Time and Teachers that Changed Postions are included in the administrator count.

## Regional Shortages: Unfilled Positions

Each year the Illinois State Board of Education collects information from school districts on positions not filled as of October 1. Unfilled positions refer to positions that were budgeted by districts for the school year but were not filled because of reasons such as the lack of qualified applicants. They are the bottom line in the supply-demand equation because they show where supply has not met demand at the local level—regardless of the number of new teachers produced at the state level.

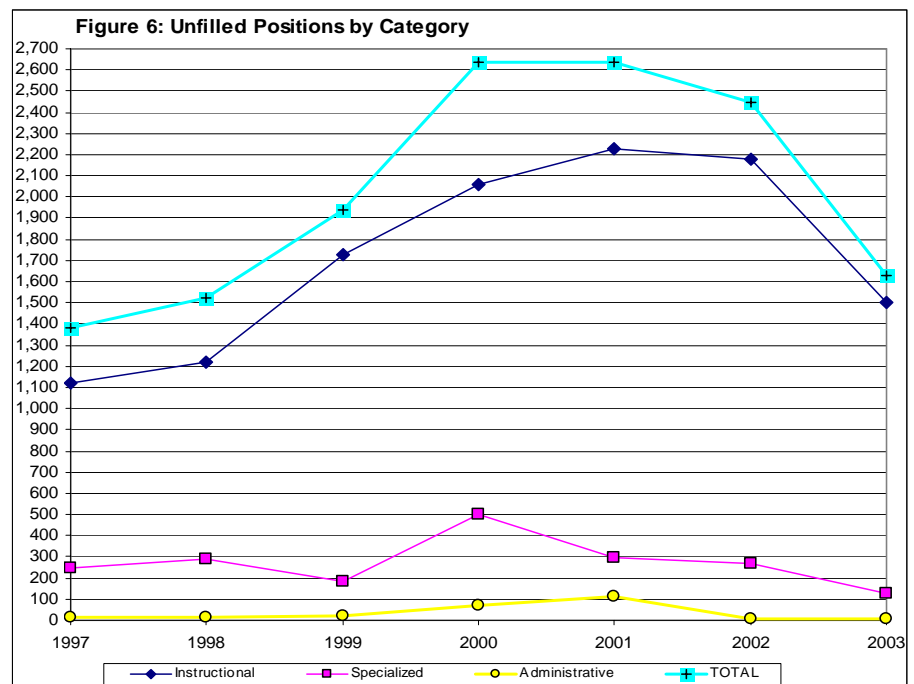
The last such survey of unfilled positions was completed as of October 1, 2002, where Illinois public schools reported a total of 1,630.6 unfilled positions, 828 less than reported in the previous year. The areas with the greatest number of unfilled positions in the 2003 school year were: self-contained elementary (480), cross categorical (191), learning disabled (136), behavior disordered (67), speech and language (65), and Library/Media (59). For the complete list see **Appendix B**.

Because they show where supply has not met demand, unfilled positions are perhaps the best indicator of regional shortages. In terms of regional distribution, over three-fourths (1,238 or 76%) of the unfilled positions were in Chicago District #299. There were 222 unfilled positions, or 14% of the total, in the suburban districts (Cook and the collar counties) and 170 (10%) unfilled positions in the rest of the state.

Prior to the 2001 school year, the big concern was the rate at which the number of unfilled positions was growing. Between 1996 and 2000, the total number of unfilled positions increased 90%, from 1,387 to 2,637 (see **Figure 6**). For the last two years, however, there has been a significant reversal in that trend. In 2002, unfilled positions decreased 8%, and in 2003 they decreased another 34%. Because the number of positions is dependent on a district's budget, the decrease in the number of unfilled positions may be a temporary phenomenon caused by the economic downturn over the last three years.

As **Figure 6** shows, the number of unfilled teaching positions doubled between 1997 and 2001. Five years ago, there were only 1,120 unfilled teacher positions. By the 2001 school year, the number had risen to 2,225. For the last two years, however, there has been a significant decline in the number of unfilled teaching positions.

Up until 2001, the trend for administrators was even more alarming. The number of unfilled administrator positions increased over 500% between 1997 and 2001, from 17 to 115. In the last two years, however, there have been fewer than ten administrative unfilled positions reported each year.



## District Ratings of Over/Under Supply

On the 2002-03 Unfilled Positions Survey, districts were asked to rate the supply of applicants for 48 positions on a five-point scale from Severe Under-Supply (-2) to Severe Over-Supply (+2). If the district was unable to accurately gauge the supply for a position (e.g., did not have any openings in the last 2-3 years or did not have it in their district), they were asked to mark Not Applicable (N/A).

**Responses:** Of nearly 40,000 ratings, the vast majority were in the not applicable category (61%). Twenty-two percent of the ratings indicated shortages (i.e., under- or severe under-supply) while only 3% indicated overages (i.e., over- or severe over-supply). Thirteen percent of the responses indicated an adequate supply.

**Subject Areas:** The data were analyzed in two ways to determine the positions with the greatest shortage of qualified applicants. The first indicator calculated was the number of districts rating the position as a “shortage” area (i.e., either severe under-supply (-2) or under-supply (-1)). The second indicator was the *Severity Index* which was derived by summing the ratings. Since under-supply ratings are negative, the lower the total, the greater the shortage.

As can be seen in **Table 13**, the same positions end up in the top twelve as last year—their order just changes slightly. The one exception was Music, which ranked ninth in the number of districts reporting shortages but 14<sup>th</sup> in the Severity Index. This year, there was a significant decrease in both the number of districts reporting shortages and the severity of the shortages reported. For all 48 positions surveyed, the average number of districts reporting shortages decreased by 67 while the Severity Index decreased, on average, by 98. For the twelve positions listed in **Table 13**, the change was more pronounced; the number of districts reporting shortages decreased 122, and the Severity Index decreased nearly 200, on average.

	Severity Index	Change from 2002	#-Districts with Shortages	Change from 2002
1 Special Ed - Speech & Lang. Impaired	-494	228	301	(139)
2 Special Ed - Behavior Disordered	-451	274	292	(177)
3 Special Ed - Learning Disabled	-408	217	297	(157)
4 Special Ed - Cross Categorical	-392	262	276	(169)
5 Mathematics	-364	60	273	(42)
6 Foreign Language - Spanish	-363	110	250	(74)
7 Special Ed - EMH	-327	198	228	(137)
8 Psychologist	-313	214	211	(130)
9 Science - Physics	-301	159	190	(105)
10 Science - Chemistry	-293	158	199	(101)
11 Guidance Counselor	-280	168	199	(114)
12 Librarian/Media Specialist	-265	196	191	(121)

In 2002 there were only three positions where districts reported more overages than shortages. In 2003 there were five: Self-contained elementary, social science, physical education, English language arts, and consultant. For a complete list of the positions and ratings see **Appendix C**.



### III. Projections of Likely High Demand

This section presents data on the future need for educators in Illinois elementary and secondary schools. Eleven years of data from the Teacher Service Record (TSR) was used to project educator demand over the next four years (2004-2007). Since the TSR files include a very large number of educator categories, some assignments were collapsed into a single category (e.g., algebra, geometry, etc., were collapsed into mathematics) to facilitate analysis and presentation. The projected demand indicates the total number of new educators to be hired for the next four years. Historically, about 50% of the special education and 40% of the regular education teachers are “re-entries,” therefore, not all of the projected demand will need to be filled by first-time teachers.

Two variables were used to project the future need for educators—(1) workforce growth trends, or the change in the number of educators employed between 1993 and 2003, and (2) attrition rates (i.e., the rate at which educators left Illinois public schools). A linear trend based on workforce growth and attrition rates for the last ten years, was used to project demand for instructional staff. Because of anomalies in the 2002 position data, average workforce growth and attrition since 1996 was used to project demand for administrative and other staff. Attrition rates for years prior to 1996 were not considered because of the effects of the Early Retirement Incentive program which caused abnormally high rates in 1993 and 1994 and subsequently lower rates in 1995. Other factors, such as K-12 enrollments and state laws governing the public school system, were subsequently used to modify the projections where appropriate. **Appendix D** shows the projected number needed and the relative need for the various categories of educators.

The findings are presented in terms of: (1) the greatest number of educators needed by educator category, and (2) the relative need for each category defined as the total number needed over the next four years divided by the number employed in 2003 (i.e., percent of the 2003 Workforce).

**Greatest number needed:** Through 2007, it is estimated that Illinois will need over 9,300 special education and nearly 40,000 regular teachers in addition to 7,600 non-instructional personnel. Naturally, categories that have inherently large numbers (e.g., self-contained elementary teachers) are more likely to appear on this list because they comprise such a large percentage of the workforce. The categories with the greatest number of educators needed through 2007 are:

Rank	Administrative & Non-Instructional Staff	Number Needed
1	Social Worker	1,235
2	Guidance Counselor	745
3	Coordinator	708
4	Asst. Elementary Principal	595
5	Elementary Principal	539

Rank	Instructional Staff/Teachers	Number Needed
1	Self-Contained Elementary	11,595
2	Mathematics	3,150
3	Special Ed - Cross Categorical	3,132
4	English/Lang Arts - English	2,483
5	Social Science	2,269
6	Special Ed - Learning Disabled	2,136
7	English/Lang Arts - Reading/Remedial	1,910
8	English/Lang Arts - Language Arts	1,764
9	Special Ed - Other	1,761
10	Physical Education	1,724

**Greatest relative need:** As mentioned earlier, relative need speaks to capacity, or how much of the current workforce is going to be added in the next four years. Thus, these categories have either large growth rates, large attrition rates, or both. The categories with the greatest relative need through 2007 are:

<b>Rank</b>	<b>Administrative &amp; Non-Instructional Staff</b>	<b>% of 2003 Workforce</b>
1	Supervisor	102%
2	Asst. Elem. Principal	64%
3	Social Worker	45%
4	Asst. District Supt.	41%
5	Asst. Jr. High Principal	38%

<b>Rank</b>	<b>Instructional Staff/Teachers</b>	<b>% of 2003 Workforce</b>
1	English/Lang Arts - Reading/Remedial	97%
2	English as a Second Language	92%
3	Special Ed - Cross Categorical	90%
4	Voc/Tech - Other	73%
5	Foreign Language (Other)	70%
6	Gifted Education	66%
7	Foreign Language (Spanish)	62%
8	Special Ed - Other	58%
9	Bilingual Education	57%
10	English/Lang Arts - Language Arts	51%

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# Definition of Terms

## SUPPLY

- Endorsements:** A credential on a certificate indicating the educator has met the minimum requirements for that assignment. These counts may be duplicates as one person can hold an unlimited number of certificates or endorsements.
- New Supply:** The number of newly certified individuals in a fiscal year (July 1 to June 30).
- Pipeline:** A source of future educator supply consisting of students enrolled in professional preparation programs in Illinois and current program completers who have not yet received certification.
- Program Completer:** In Illinois, a person who has met all the requirements of a state-approved teacher preparation program. Program requirements vary widely between certificates and between endorsement areas.

## DEMAND

- Attrition:** An educator who was employed in an Illinois public school in the previous year but not in the current year.
- Demand:** The total number of funded positions (i.e., total employed + unfilled positions).

$$\text{Change in Demand} = \{\text{Workforce Growth} + \text{Attrition} + \text{Unfilled Positions}\}$$

- Educator:** For the purposes of this study, educators are personnel employed in Illinois public schools in one of the following four categories: administrators, teachers, school service personnel, or other certified staff.
- Eligible to Retire:** An educator who is at least 55 years old and has 20 years of experience or more.
- Full-Time:** An indicator of educator status defined by two TSR fields: Months Employed and Percent-Time Employed. The definition for full-time status is: {Months Employed > 8 and Percent Time Employed > 99%}.
- First Time:** A newly hired educator with one year of experience or less. This status is calculated from the TSR data field "total years of experience." The definition is: {experience is less than or equal to one year}.
- Re-entry:** A newly hired educator who has more than one year of teaching experience but was not employed in an Illinois public school the prior year.
- Retention:** An educator who was employed in both the previous and current year. In order to reduce confusion, both part-time and full-time personnel are included in the calculation (e.g., a part-timer could be retained the next year as a full-timer).
- Unfilled Positions:** Number of budgeted positions (in full-time equivalent) reported unfilled as of December 1 by each Illinois public school district on the Unfilled Positions Survey.

# Appendices

## Appendix A: Teacher Attrition by Main Assignment

Main Assignment	Total 2002	Left		Changed Position-		Total Loss	
		Education		Not Teaching			
Alternative Education	244	29	12%	4	2%	33	14%
Art	2,680	189	7%	9	0%	198	7%
At-Risk / Pre-K	1,282	88	7%	4	0%	92	7%
Bilingual Education	1,609	167	10%	15	1%	182	11%
Class Size Reduction	713	49	7%		0%	49	7%
Computer Programming/Lit.	1,137	83	7%	14	1%	97	9%
Consumer Education	146	15	10%	1	1%	16	11%
Driver Education	586	51	9%	9	2%	60	10%
English as a Second Language	709	61	9%	2	0%	63	9%
English Language Arts	11,261	954	8%	87	1%	1,041	9%
Foreign Lang. - Other	836	84	10%	5	1%	89	11%
Foreign Lang. - Spanish	1,955	170	9%	10	1%	180	9%
Gifted Education	733	55	8%	14	2%	69	9%
Health Education	596	27	5%	7	1%	34	6%
Learning Resource Center/Library	444	34	8%	21	5%	55	12%
Math	6,984	546	8%	49	1%	595	9%
Music	3,971	316	8%	17	0%	333	8%
Other Subject/Program	3,006	656	22%	140	5%	796	26%
Physical Education	6,805	403	6%	70	1%	473	7%
Science	6,423	486	8%	56	1%	542	8%
Self-Contained Elementary	40,980	2,719	7%	173	0%	2,892	7%
Social Science	5,783	461	8%	85	1%	546	9%
Special Education	21,706	1,315	6%	184	1%	1,499	7%
Title I Math/Reading	2,038	127	6%	24	1%	151	7%
<b>Vocational/Technical</b>							
Agriculture	330	28	8%	3	1%	31	9%
Business, Mkt., Mgt.	1,327	117	9%	17	1%	134	10%
Family/Consumer Sciences	1,180	85	7%	5	0%	90	8%
Health Occupations	73	14	19%	2	3%	16	22%
Industrial	1,523	134	9%	5	0%	139	9%
Voc/Tech Misc.	348	39	11%	8	2%	47	14%
<b>Total</b>	<b>127,408</b>	<b>9,502</b>	<b>7.5%</b>	<b>1,040</b>	<b>0.8%</b>	<b>10,542</b>	<b>8.3%</b>

## Appendix B: Number of Unfilled Positions in 2002-03

Position	Downstate	Chicago	State Total
<b>Administrative</b>			
Principal - Assistant High School	1.0		1.0
Principal - Elementary	1.0		1.0
Principal - High School	1.0		1.0
Other Administrator (not listed)	1.3		1.3
<b>Total Administrative</b>	<b>4.3</b>	<b>0.0</b>	<b>4.3</b>
<b>Instructional</b>			
Alternative Education	1.0		1.0
Art	3.5	24.0	27.5
Bilingual Education	12.0	30.0	42.0
Computer Literacy/Technology	2.5	19.0	21.5
Elementary - Music (K-8)	6.0	25.0	31.0
Elementary - Physical Education (K-8)	3.0	25.0	28.0
Standard Elementary Instructor		480.0	480.0
English - English	1.0	18.0	19.0
English - Language Arts	1.0	3.0	4.0
English - Reading		58.0	58.0
English as a Second Language	7.0	1.0	8.0
Foreign Language - Other	2.0	5.0	7.0
Foreign Language - Spanish	12.5	23.0	35.5
Gifted Education	1.5		1.5
Health Education	2.2		2.2
Learning/Resource Center	1.0		1.0
Math - Algebra	1.6		1.6
Math - Basic/General	6.8	12.0	18.8
Math - Geometry	0.6		0.6
Math - Other	2.0	22.0	24.0
Music - Instrumental	3.0	1.0	4.0
Music - Vocal	1.9	4.0	5.9
Physical Education (9-12)	2.0	19.0	21.0
Science - Biology	3.0	11.0	14.0
Science - Chemistry	1.8		1.8
Science - General	3.8	10.0	13.8
Science - Other		2.0	2.0
Science - Physics	1.0		1.0
Social Science - History		13.0	13.0
Social Science - Other		7.0	7.0
Title I - Remedial Math	0.5		0.5
Title I - Remedial Reading	4.0		4.0
Voc Tech - Business, Marketing, Mgt.	2.0		2.0
Voc Tech - Family & Consumer Science	0.5		0.5
Voc Tech - Health Occupations	0.0	3.0	3.0
Voc Tech - Industrial Occupations	5.0	3.0	8.0
Other Subject/Program Not Listed	5.6		5.6
<b>Special Education</b>			
Behavior Disordered	43.0	24.0	67.0
Bilingual	0.0		0.0
Blind/Visually Impaired	2.0	1.0	3.0
Cross Categorical	33.0	158.0	191.0
Deaf/Hard of Hearing	1.0	8.0	9.0
Early Childhood	5.0		5.0
EMH	8.0		8.0
Learning Disabled	33.5	104.0	137.5
Multiply Handicapped	5.0		5.0
Other/General	5.5	19.0	24.5
Physically Handicapped	2.5	12.0	14.5
Severe/Profound	7.0	41.0	48.0
Speech & Language Impaired	64.9		64.9
TMH	3.5		3.5
<b>Total Instructional</b>	<b>315.2</b>	<b>1,185.0</b>	<b>1,500.2</b>
<b>Other Certified Staff</b>			
Coordinator	4.0		4.0
Librarian/Media Specialist	6.0	53.0	59.0
Occupational Therapist	1.8		1.8
Physical Therapist	1.3		1.3
Other Certificated Staff (not listed)	6.3		6.3
<b>Total Other Certified</b>	<b>19.4</b>	<b>53.0</b>	<b>72.4</b>
<b>School Service Personnel</b>			
Guidance Counselor	9.0		9.0
Nurse	4.0		4.0
Psychologist	11.2		11.2
Social Worker	7.5		7.5
Other Professional Staff (not listed)	22.0		22.0
<b>Total Professional</b>	<b>53.7</b>	<b>0.0</b>	<b>53.7</b>
<b>Total</b>	<b>392.6</b>	<b>1,238.0</b>	<b>1,630.6</b>

## Appendix C: Positions with the Most Severe Shortages

Position	Severity Index	# Dists with Shortage	Adequate Supply	# Districts with Overage	District Ratings					
					Severe Under-Supply	Under-Supply	Adequate	Over-Supply	Severe Over-Supply	NA
1 Special Ed - Speech/Lang. Impaired	-494	301	36	9	205	96	36	6	3	288
2 Special Ed - Behavior Disordered	-451	292	46	6	168	124	46	3	3	288
3 Special Ed - Learning Disabled	-408	297	93	13	128	169	93	9	4	231
4 Special Ed - Cross Categorical	-392	276	72	9	129	147	72	5	4	275
5 Mathematics	-364	273	120	17	115	158	120	10	7	223
6 Foreign Language - Spanish	-363	250	57	9	127	123	57	4	5	315
7 Special Ed - EMH	-327	228	51	6	107	121	51	4	2	344
8 Psychologist	-313	211	58	9	113	98	58	7	2	354
9 Science - Physics	-301	190	33	8	123	67	33	4	4	400
10 Science - Chemistry	-293	199	44	9	106	93	44	6	3	380
11 Guidance Counselor	-280	199	67	8	92	107	67	5	3	359
12 Librarian/Media Specialist	-265	191	67	8	84	107	67	6	2	365
13 Special Ed - Other/General	-249	176	68	4	78	98	68	3	1	384
14 Music	-241	206	147	19	55	151	147	18	1	260
15 Bilingual Education	-240	157	31	3	86	71	31	3	0	441
16 Voc Tech - Industrial Occupations	-234	149	26	8	95	54	26	6	2	448
17 Science - General	-230	185	122	13	59	126	122	12	1	311
18 Foreign Language - Other	-223	163	45	5	67	96	45	3	2	415
19 Special Ed - Bilingual	-221	139	18	3	87	52	18	1	2	472
20 Science - Biology	-215	175	75	13	55	120	75	11	2	369
21 Computer Literacy/Technology	-214	181	91	18	53	128	91	16	2	341
22 Nurse	-207	160	92	11	59	101	92	10	1	366
23 Social Worker	-196	172	100	25	57	115	100	17	8	338
24 Superintendent - District	-182	140	102	7	50	90	102	6	1	383
25 Special Ed - Deaf/Hard of Hearing	-175	112	24	5	69	43	24	4	1	490
26 Special Ed - Blind/Visually Impaired	-156	98	23	2	61	37	23	1	1	505
27 Gifted Education	-150	132	121	13	33	99	121	11	2	365
28 Science - Other	-143	109	73	6	41	68	73	5	1	441
29 Principal - Jr. High	-140	122	101	9	29	93	101	7	2	398
30 Principal - High School	-136	118	72	13	33	85	72	11	2	426
31 Voc Tech - Family & Consumer	-134	103	62	5	37	66	62	4	1	460
32 Art	-131	123	116	14	22	101	116	14	0	377
33 Principal - Elementary	-115	116	154	16	17	99	154	14	2	347
34 Voc Tech - Business, Marketing, Mgt.	-115	97	74	10	28	69	74	10	0	450
35 Voc Tech - Agriculture	-110	86	39	8	34	52	39	6	2	499
36 English - Reading	-101	126	183	41	26	100	183	31	10	282
37 Voc Tech - Misc.	-93	64	31	1	30	34	31	1	0	535
38 Business Manager	-82	69	45	2	15	54	45	2	0	517
39 Voc Tech - Health Occupations	-69	58	44	4	15	43	44	4	0	526
40 Superintendent - Other	-46	37	32	1	10	27	32	1	0	555
41 Director	-43	37	64	3	10	27	64	2	1	531
42 Health Education	-40	64	144	39	21	43	144	33	6	386
43 Coordinator	-25	26	49	6	6	20	49	5	1	550
44 Consultant	9	6	43	13	2	4	43	9	4	567
45 English - Language Arts	29	72	228	88	6	66	228	69	19	245
46 Physical Education	100	60	170	118	9	51	170	67	51	285
47 Social Science	154	31	154	141	5	26	154	92	49	304
48 Elementary - Self Contained	309	22	176	227	7	15	176	116	111	205

Severity Index= Sum of the District Ratings for Each Position



## Appendix D: Projected Need for Educators [2004-2007]

Position	Projected Need Through 2007				4 Year Total	%-of FT03
	2004	2005	2006	2007		
<b>Administrative</b>						
District Supt.	62	62	62	62	249	29%
Asst. District Supt.	32	36	34	35	137	41%
Elem. Principal	134	134	135	136	539	23%
Asst. Elem. Principal	129	141	155	170	595	64%
Jr. High Principal	37	38	38	39	152	26%
Asst. Jr. High Principal	40	42	44	46	171	38%
High School Principal	47	47	47	47	187	27%
Asst. H. S. Principal	43	44	45	45	177	26%
Other Admin.	252	264	279	293	1,088	42%
<b>Other Certified Staff</b>						
Library/Media Specialist	63	67	62	61	252	18%
Coordinator	195	215	148	149	708	37%
Supervisor	69	78	89	101	338	102%
Other Certified Staff	38	53	53	60	204	20%
<b>School Service Personnel</b>						
Guidance Counselor	179	202	182	183	745	26%
Psychologist	121	148	130	134	533	36%
Social Worker	287	302	316	331	1,235	45%
Nurse	70	78	72	72	292	32%
<b>Non-Instructional Staff</b>	<b>1,796</b>	<b>1,951</b>	<b>1,889</b>	<b>1,964</b>	<b>7,600</b>	<b>34%</b>
<b>Instructional</b>						
Art	294	276	285	295	1,151	42%
At-Risk / Pre-K	(14)	(34)	(50)	(60)	(158)	-14%
Bilingual Education	250	219	229	240	939	57%
Computer Tech/Programming	146	127	129	130	532	46%
Driver Education	26	25	24	23	97	17%
English as a Second Language	152	163	185	210	710	92%
Gifted Education	97	109	123	141	470	66%
Health Education	47	46	47	48	189	31%
Resource Center/Library	13	7	3	(1)	21	5%
Mathematics	757	753	796	844	3,150	44%
Music Instrumental/Vocal	415	382	391	401	1,589	40%
Physical Education	468	419	419	419	1,724	25%
Self-Contained Elementary	3,489	3,354	2,382	2,370	11,595	25%
Social Science	555	552	571	592	2,269	38%
Title 1 Remedial Math/Reading	104	96	93	90	383	19%
English/Lang Arts - English	581	596	633	673	2,483	46%
English/Lang Arts - Language Arts	411	428	450	473	1,764	51%
English/Lang Arts - Other	61	63	66	69	259	39%
English/Lang Arts - Reading/Remedial	404	413	495	599	1,910	97%
Foreign Language (Other)	132	142	161	184	620	70%
Foreign Language (Spanish)	313	296	316	337	1,261	62%
Science - Biology	168	161	169	177	675	43%
Science - Chemistry	94	98	104	111	408	46%
Science - Earth Science	21	21	21	20	82	28%
Science - General Science	310	309	322	337	1,277	44%
Science - Other	17	15	15	15	62	22%
Science - Physical Science	8	4	0	(3)	9	3%
Science - Physics	46	48	52	56	203	47%
Special Ed - Behavior Disordered	186	156	168	147	657	31%
Special Ed - Cross Categorical	776	697	782	877	3,132	90%
Special Ed - Deaf/Hard of Hearing	49	46	48	49	192	34%
Special Ed - EMH/TMH	81	63	62	62	269	16%
Special Ed - Learning Disabled	583	514	518	522	2,136	30%
Special Ed - Other	432	413	442	473	1,761	58%
Special Ed - Physically Handicapped	12	6	5	5	28	14%
Special Ed - Speech & Lang Impaired	343	252	259	267	1,121	48%
Special Ed - Visually Impaired	23	19	20	21	83	36%
Voc/Tech - Agriculture	32	34	35	36	137	42%
Voc/Tech - Busn/Marketing/Mgt.	56	52	49	47	204	16%
Voc/Tech - Family/Consumer Science	90	93	97	101	380	32%
Voc/Tech - Health Occupations	4	7	11	14	36	46%
Voc/Tech - Industrial Occupations	107	104	109	114	434	29%
Voc/Tech - Other	50	57	65	74	247	73%
Other Assignment	499	563	635	718	2,415	101%
<b>Instructional Staff</b>	<b>12,689</b>	<b>12,163</b>	<b>11,737</b>	<b>12,316</b>	<b>48,905</b>	<b>37%</b>