

# SUPPLY & DEMAND

of Educational Personnel  
For Wisconsin Public Schools

An Examination of Data Trends

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**1999**



Prepared by Wisconsin Educator Supply and Demand Project  
For Wisconsin Department of Public Instruction  
John T. Benson, Superintendent

Supply and Demand of Educational Personnel for  
Wisconsin Public Schools  
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with funding from the Wisconsin Department of Public Instruction

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# Preface

This report presents supply and demand information about educational personnel for Wisconsin Public Schools. The complete report for this and last year is available on the Wisconsin Department of Public Instruction (DPI) web page. The 1999 report contains information on the employment of part-time teachers, an analysis of applications for positions, and verification of future retirement projections (<http://www.dpi.state.wi.us/dpi/dlsis/tel/supdem99.html>). The 1998 report has complete attrition data by subject field and retirement projections for the years up to 2012 and is found on web site: (<http://www.dpi.state.wi.us/dpi/dlsis/tel/supdem98.html>). The 1997 report, which contains maps of the teaching position vacancies in twelve geographical regions, is available from the Wisconsin Department of Public Instruction. The author hopes this information is of value to those making policy decisions for the state, those administering programs at the University of Wisconsin System campuses and Wisconsin's independent colleges and universities that prepare educators, and those wishing to make more informed career choices in education. This report complies with the reporting requirements of **the Individuals with Disabilities Education Act (IDEA), an amendment to PL 94-142**, which requires accurate reporting of personnel needs in special education, complete data on the status of emergency licenses, and future projections of personnel needs for the field.

This is the 21st annual report on supply and demand of educational personnel for Wisconsin Public Schools and the last year for the retiring principal investigator. For the first eight years, the report focused only on special education. Since that time, however, the report expanded to include supply and demand information for all teaching fields and non-teaching areas of education. This report also continues the analysis presented in previous years on the number of newly licensed teachers, the sources of newly hired teachers, and projected future personnel needs in education in Wisconsin Public Schools.

Sources of data include information from Wisconsin Public School districts collected on the third Friday of September and reported to the Wisconsin Department of Public Instruction (DPI, in the School District Staff and Teacher Personnel Report (PI 1202). Also contributing are the educator preparation institutions that provided the number of newly prepared educators eligible for licensure, and select public school districts, which provided information on the applications for positions in their district. The supply and demand data analyzed in past Wisconsin studies have documented a surplus of teachers seeking positions in most subject fields and shortages in several areas.

Recent years have shown considerable variation in the number of newly hired teachers in Wisconsin Public Schools. This 1998-1999 school year continued the increase from the previous year in the number of new hires. The projection of an increasing number of retirements over the next nine years must be evaluated in light of the large reserve pool of teachers and the current high levels of persons prepared to teach so that the needs of specific fields can be addressed.

The major tables are at the end of the report, making the text for Chapters 1 through 5 uninterrupted. Each chapter begins with highlights of the most important findings, which are followed by supporting information and explanations.

The factors that contribute to the supply and demand of educational personnel are complex, and certain limitations are inherent in this research area. The report deals with educators employed only in Wisconsin Public Schools. Certainly, educational opportunities exist in non-public schools, and some graduates of educator preparation institutions in Wisconsin choose to work in other states. Within the parameters of this study accurate data about these educators are difficult to gather; therefore, it is likely that some errors exist. Despite these limitations, this report provides a reasonably accurate educator supply and demand picture that will contribute to making the best qualified educators available to all children who attend Wisconsin public schools. The study includes in Appendix B a supplement from the University of Wisconsin System Administration from the perspective of teacher preparation programs presenting other factors in evaluating the prospects for teacher education students.

# 1. Wisconsin Educator Supply Information

## *Highlights of Findings*

- \* A large supply of experienced and inexperienced teachers continues to be available during the current year for Wisconsin public schools in many subject fields.
- \* The largest numbers of new licenses in general education were granted in elementary education, social studies, English, and reading.
- \* The number of teachers prepared in special education increased by over one hundred teachers from the 752 recorded in the 1998 edition of this report.
- \* Approximately 47 percent of newly hired educators had no previous teaching experience and were trained in Wisconsin educator preparation programs.
- \* Public universities continue to prepare the large majority of educators (seventy-five percent of the total).

## *Program Completers: Dec. 1, 1997 to Aug. 31, 1998*

The 33 teacher preparation programs in Wisconsin were asked to provide data to the Wisconsin Department of Public Instruction (DPI) on the number of license programs completed by educators in the various subject fields and non-teaching areas between December 1, 1997, and August 31, 1998. *Program completers* are defined as individuals who have completed a degree or program (may be post-baccalaureate programs) at a Wisconsin college or university that leads to a license to teach in Wisconsin. All programs responded to this request. The researcher grouped the licenses within each broad subject field so licensing variations within a field would not suggest a greater number of prospective teachers available (for example, elementary education included all DPI license codes from 100 through 188; music included codes 506, 511, and 515; social studies included codes 701 through 761). This grouping procedure resulted in a more accurate count of individuals licensed to teach in the various areas of each subject field (see Appendix A for a complete list of DPI license codes).

In Wisconsin, high school teachers receive licensure to teach in their major and in certain minor and double major fields as well. Since educators may teach in their licensed minor, this encourages prospective teachers to obtain a minor along with their major. Thus, additional licenses at the secondary level increased the overall employability of high school and specialty subject field teachers by approximately 6 percent (see Table 6). The situation is different for elementary education. For example, an elementary education teacher who also has a special education license would have to complete two separate programs—one in elementary education and the other in special education. Yet a teacher with an elementary license can teach at the middle school/junior high level in most subject fields. Elementary education majors with a second subject license also had a 12 percent increase in their employability by securing a position in an alternate field (Table 6). Many special education majors have additional licenses in elementary education. Also included in Tables 1.1 and 1.2 are individuals who may already have held a license and then obtained an additional license in the time period specified.

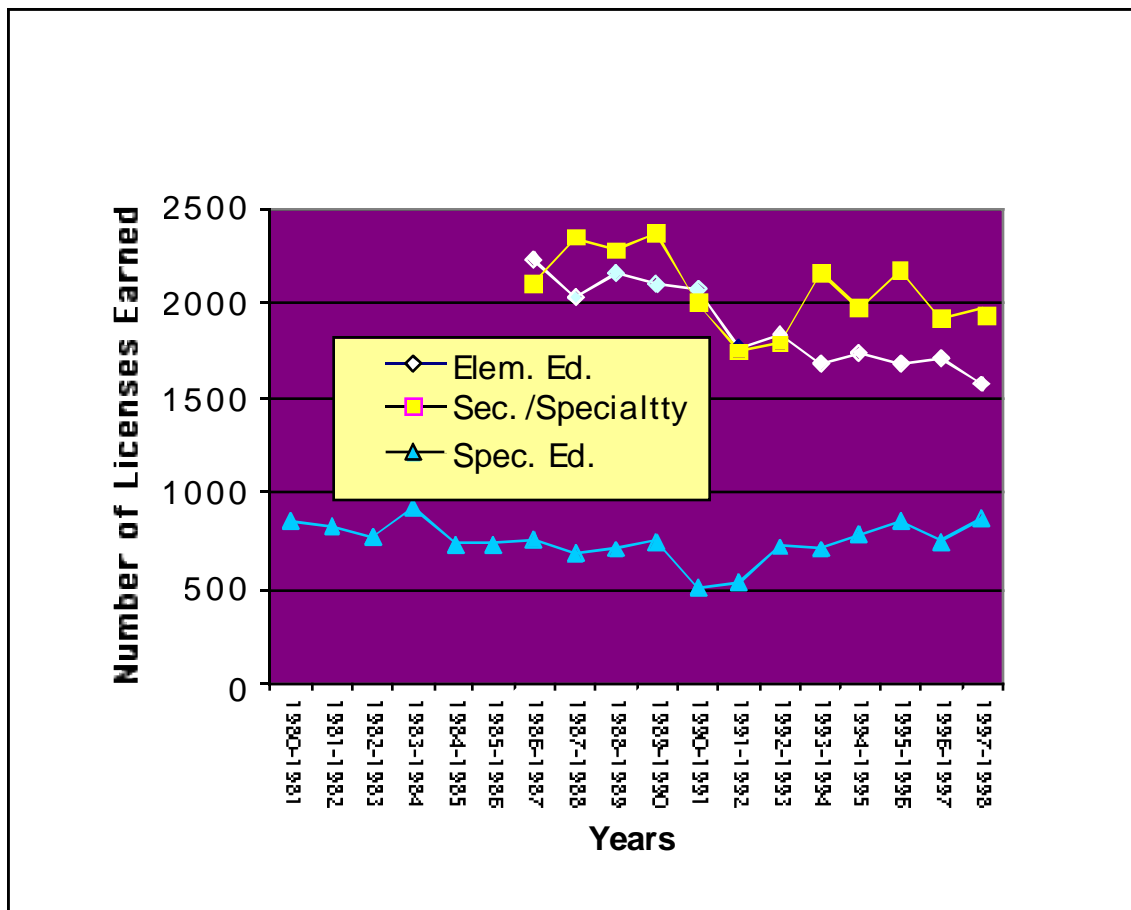
Figure 1, created from data in Table 2, details the longitudinal pattern of the number of newly prepared educators in elementary, secondary, and special education. The actual counts of the licenses earned in each training institution in 1997-1998 are presented in Tables 1.1 and 1.2.



Generally, Wisconsin educator preparation institutions reported fewer program completers in the field of elementary education since the 1990-1991 year, with the current trend averaging around 1600 teachers. There was a small increase in the secondary/specialty fields, with several fields showing modest gains. The trends in the preparation of teachers at both the elementary and secondary levels will need to be evaluated in those fields with current shortages of teachers as increasing numbers of educators reach retirement age. In Figure 1, the pattern in special education shows the trends from 1981-1998. The 1992-1998 data indicate that for the past seven years there has been a gradual increase in the preparation levels of special education teachers with the exception of the 1996-1997 year.

**Figure 1**

**Licensure Programs Completed Over Eighteen Years**



*Suppliers of Newly Hired Educators with No Experience*

The total head-count number of newly hired teachers for Wisconsin Public Schools without experience prepared in Wisconsin educator preparation programs is shown in Tables 3.1 and 3.2 for the 1998-1999 school year. The use of the headcount in this table does inflate the numbers

because each part-time individual is counted as one full position and duplicate count of individuals occurs when individuals teach in more than one subject field. The table includes individuals who may have graduated several years ago, but this is their first education position. The count of individuals is based on the position in which they are employed rather than the field in which they hold licensure. Thus, individuals who are teaching with an emergency license may be graduates of institutions that do not offer preparation in the specific field in which they are teaching. Considering that DPI issues a large number of emergency licenses in special education, this explains the discrepancy between data in Tables 3.1 and 3.2 and other tables in this study. For example, a teacher prepared in social studies may have accepted a position in special education on an emergency license. The institution that prepared the social studies teacher is credited with preparing a special education teacher even though it may not have a program in that field. These tables show the recent contribution of each teacher preparation program to the pool of newly hired teachers.

### ***Sources of New Teachers Hired by Wisconsin Public Schools***

DPI has a licensure record for each teacher who was newly hired in Wisconsin Public Schools for the 1998-1999 school year. Table 4 shows the FTE breakdown of the sources of newly hired teachers by subject field. An explanation of the categories used in Table 4 follows:

- \* Wisconsin Newly Hired Educators without Experience designates individuals who have been trained in Wisconsin colleges and universities and have no teaching experience.
- \* Wisconsin Newly Hired Educators with Experience designates individuals who were prepared in Wisconsin colleges and universities and have at least one year of teaching experience and are returning to the field.
- \* The Experienced Educators Relocating includes all individuals who were employed in the Wisconsin Public Schools in 1997-1998 and moved to a different Wisconsin Public School district for the 1998-1999 year.
- \* The two out-of-state categories follow the same patterns described above except that these teachers received their preparation in states other than Wisconsin.

The data in Table 4 was based on the information school districts collected on the third Friday in September and submitted to DPI. The data in this table when compared to similar information from previous years have shown a similar employment pattern, with very little change from the previous years.

### ***Newly Hired Educators over a Five Year Period***

The number of newly hired teachers in Wisconsin Public Schools during the past five years is shown in Table 5. Two different teachers, each employed 50 percent, were counted as one FTE. This has the net effect of reducing the count of the total number of educators employed when the FTE statistic is used. The past two years have shown a gradual increase in the total number of newly hired educators, a trend which should continue to increase for the next ten years.

### ***Active Pool of Educators Seeking Positions***

The pool of available educators encompasses all teacher candidates who are actively seeking employment in the public schools. The researcher initiated a study of the pool of teachers seeking positions in September 1996. Each Wisconsin Public School administrator and each

Cooperative Educational Service Agency (CESA) director was sent a survey requesting the number of vacancies in each subject field that had been posted in the district or CESA for the fall term. Each administrator and director was asked to rate the number of applications received in relationship to the vacancies in each subject field. A five-category scale, which ranged from 0 for a serious shortage of candidates to 5 for 50 plus applications for each position, indicating extreme oversupply, was provided on the survey. Thus, for each vacancy the researcher gathered two pieces of information--the number of applications and a rating of that number from extreme oversupply to extreme shortage. Fourteen small districts that had incomplete data or did not respond were not included, for a 97 percent return rate. These data are available in the 1997 edition of this report along with graphic maps showing the employability of candidates in the large subject fields. It is projected that this component will be again included in the 2000 edition of this report.

### ***Support Personnel***

School districts employ a variety of personnel to support the educational process. These personnel are an important element in the field of special education. Assessing the availability of support personnel prepared in certain categories (for example, physical therapy, occupational therapy, and speech therapy) is difficult because many of the individuals in these fields are contracted for their services by agencies outside the public schools. A more detailed measure of the employability of these educators is the data from the district survey sent to each special education administrator, which is reported in the 1995 edition of this report. Also the study of the active pool of educators seeking positions presented in the 1997 edition of this report provides more updated information on the availability of candidates to fill these positions.

## 2. Wisconsin Educator Demand Information

### *Highlights of Findings*

- \* The 1997-1998 school year started the gradual yearly increase in the number of educators reaching retirement age. This increase will continue through 2007-2008. The employability of all newly prepared educators should show a steady improvement with those fields showing a current shortage having an excellent outlook. There was little difference in the retirement projection in the smallest third of districts, the middle third, the largest third, and the separate data on the Milwaukee Public Schools.
- The field attrition rates for 1997-1998 showed a slight decrease from previous years, with general education at 6.3% and special education at 10.1%. When the transfers within education and the out-of-state mobility are taken into account the attrition rates are even lower for all fields.
- The demand for educators is affected by numerous factors, including many outside the parameters of this study, such as growth in pupil enrollment, economic trends, and state policy decisions.
- A high percentage of candidates in special education find positions in Wisconsin Public Schools. Also high were agriculture, business family/consumer education, English as a second language, technology education, library/media, occupational therapy, and physical therapy.
- The percentage of those prepared that find positions in Wisconsin public schools continues to be low in elementary education and many of the secondary fields in spite of the increased level of educator retirements. An additional license generally enhances an educator's employment prospects--especially in special education.
- Educators who are initially hired on a part-time basis tend to increase their percentage of employment in subsequent years.
- Educators who have licenses in two or more fields have better prospects to move from part-time positions to full-time employment.

### *Educators Newly Hired by Wisconsin Public Schools*

A profile of all the sources of newly hired educators without experience is shown in Table 4. When the out-of-state and Wisconsin prepared teachers are combined, the percentage of teachers who were hired without experience was 59 percent at the elementary level, 45 percent at the secondary level, and 46 percent in special education.

The data in Table 5 shows considerable variation in the total number of educators hired each year. Considering that the growth in the public school pupil population has been very consistent, it appears that the variations in the number of newly hired teachers are often a factor more related to the economy and state policy decisions than to any large increases in pupil population. There was a large increase in 1990-1991 due to the retirement window, followed by a decrease in 1991-1992. The decrease in 1993-1994 appears to be a result of school districts being uncertain about their state funding. The increase in 1994-1995 may be the result of districts having prior knowledge of their level of state support and the rebound from the cutbacks of the previous year. Data from 1995-1996 shows a decrease in the number of newly hired teachers and this decrease continued into the 1996-1997 school year. The 1997-1998 school year had a 329 FTE increase in the number of newly hired educators, reversing the trend from the previous two years. Again in the

1998-1999 school year there was a continued increase (280) from the previous year in the number of newly hired educators. This would be expected because of the increasing number of educators reaching retirement age.

### *Employment Projections for Educators With No Experience*

This report provides newly prepared teachers and those with no previous experience an estimate of their probability of employment in Wisconsin public schools by relating the current level of preparation in each subject field to the number of newly hired teachers in the state. The data in Table 6 presents the analysis for the 1998-1999 school year. Because this information is so important in describing the demand for educators in Wisconsin, a detailed explanation of the procedures used to generate the various columns of data follows.

First, the number of Wisconsin prepared teachers who earned their eligibility for new licenses the previous year (column 1) is divided into the number of newly hired Wisconsin-prepared teachers hired during the current year (column 2) in that licensing field. The result is the employment projection (column 3) of teachers who are securing their first positions in that licensing field. Many of the newly hired teachers were prepared several years prior to their first employment and are also included in this projection. Since some teachers in that same licensing field are also eligible for licenses in other teaching fields, the second calculation takes into account all the teachers who have secured employment in some other field in which they may have had an additional license. This number that is shown in column 4 and the resulting percentage increase in employment is indicated in column 5. The total of all those employed who earned that license, including those teaching in the field and individuals who secured a position in some alternative field, is shown in column 6. The employment projections (column 7) of teachers holding multiple licenses is obtained by dividing all the newly hired teachers who had a license in a specific field, even if they were teaching in an alternative area (column 6), by the number of teachers who were eligible for licenses in that field the previous year (column 1). The findings of this employment analysis have generally remained relatively constant during the past half-dozen years.

For example, a teacher eligible for a license in both elementary education and special education (cognitive disabilities, learning disabilities, and emotional disturbance) who secured a position as a third-grade teacher is represented in the EL (K-8) row and is one of the 1575 individuals indicated in column 1. This person has an employment projection in elementary education of 23 percent as indicated in column 3. This person also is counted in the special education licensing area in column 4, which indicates that teachers holding a cognitive disabilities, learning disabilities, or emotional disturbance license secured positions in some other field. Thus, the higher employment projection of 43 percent shown in column 7 of the special education licensing field is more representative of this individual's employment outlook. Column 5 of the EL (K-8) row indicates that 12 percent of elementary education teachers had an additional license that contributed to their employment prospects. Table 6 represents one way to present the demand for educators. The actual projection of teacher needs is so complex that a single formula can lead to errors unless related variables are considered to clarify this information. Important factors to consider in the interpretation of the table include:

1. Nonpublic school and out-of-state employment opportunities are not included in these tabulations. Past data have indicated that the percentage of teachers prepared in Wisconsin who will leave to teach in other states is about the same as the percentage of those prepared in other states who come to Wisconsin Public Schools to teach (Table 4). Approximately 5 percent will find positions in nonpublic schools, mainly at the elementary level (see 1990 study).

2. Many teachers, such as those in early childhood education, early childhood special education, and speech and language pathology are employed by agencies that are not represented in public school data.
3. The area of reading is omitted because licensure in this field requires that the teachers also have a license in some other teaching field. A number of persons entering this field are experienced teachers transferring within a school district and would not be identified as new hires in this analysis. Thus, the need for teachers in this field can be more accurately projected by other analyses, such as emergency licenses (Chapter 3) and the district survey reported in the 1997 edition of this report. The same rationale was followed for other support staff, such as school counselors, library/media specialists, and administrators. Driver education was deleted because the number of newly hired teachers was too small to draw meaningful conclusions.
4. Special education has a large number of teachers employed on emergency licenses (for example, emotional disturbance and learning disabilities). A number of these teachers have experience and consequently do not show up in the category of new hires without experience due to the limitations of the database used. However, these teachers cannot be included with the new hires without experience since this year's database did not permit the separation of these teachers, with the result that the projections in Table 6 are suppressed in these two fields. The number of emergency licenses in general education is relatively small and does not represent full-time teaching to the extent that it does in special education, so a correction for this factor is not warranted for most other fields.
5. To understand the employment prospects it is necessary to take into account the reserve pool and the declining number of positions in various fields. The field of early childhood special education has been oversupplied with teachers for several years. This explains, in part, why 14 percent of the newly hired teachers were employed in other fields, largely in general elementary education programs.

The accuracy of these employability percentages is affected by the relative stability of the pupil population, consistent levels of teacher preparation, variables influencing attrition, retirement levels, and state policy decisions. Fluctuations in these factors will impact on employability. Table 6 provides a comparison of employment opportunities in the different areas of education. It is important to note that the data in this table represents newly hired, inexperienced teachers who received their preparation prior to August 31, 1998, and were employed during the 1998-1999 school year in Wisconsin Public Schools. Table 13 is a three-year average of the data in Table 6 which smoothes out the yearly fluctuations in the employability of newly hired teachers, and thus is, to an extent, a more accurate projection of the employment prospects in Wisconsin Public Schools. The data in this table demonstrates large differences in the demand for teachers in the various licensing categories. In recent years, from as few as 15 percent to as high as 100 percent of educators prepared in Wisconsin have secured positions in Wisconsin's Public Schools at some time during their life. The percentage varies considerably for different fields.

### *Attrition*

Teacher attrition is one variable that is traditionally included in predicting the demand for teachers. There are many complex factors to consider when computing attrition statistics. The following are a few of the concerns that can influence the accuracy of this procedure.

1. Attrition statistics that consider combined categories of teachers (e.g. all secondary teachers) will be lower than rates for individual categories (e.g. mathematics or science teachers alone) since transfers between fields will not be taken into account. Similarly, data on an individual school district will reflect correspondingly higher attrition rates

since any teacher leaving the district to be employed in any other state district will count in the attrition figure. Also, state attrition figures do not take into account the movement of teachers to other states and thus are inflated to a small extent.

2. The calculation of an attrition statistic involves using the head count of teachers in two successive years of personnel data. Caution must be taken not to use this same head count in the projection of personnel needs since projections are more accurate if based on a full-time equivalent (FTE) statistic. For example, not using an FTE statistic would inflate the need of teachers in early childhood programs since many are employed only half-time.

3. Major state policy decisions, such as a retirement window or a change in state school funding, can have a short-term impact on any attrition statistic.

4. A factor that can inflate the attrition statistics occurs when economic factors cause school districts to reduce their staffs. If the resulting attrition figure is then applied during this period of decreasing staffing, the result is an inflated projection, which may not accurately reflect the current employment outlook. Economic impact would also affect the pupil-teacher ratio if districts reacting to fiscal pressures release teachers.

### *Longitudinal Attrition Rates in Wisconsin Public Schools*

The data on teacher state exit attrition from 1989-1990 through 1997-1998 in general and special education are presented in Table 7.1. Various factors influencing the attrition rate are reflected in these data. In 1989-1990 there was a rise in the rate due to a retirement window. This was followed by a decrease in 1990-1991 when the number retiring was sharply reduced. Higher attrition in some years may reflect teacher layoffs due to tighter fiscal restraints. The rates for 1994-1995 showed a sharp increase that may be due to difficulties in validating certain data in the DPI 1994-1995 School Staff and Teacher Report. Data from the past few years have indicated that the state attrition rate for general education has been stabilizing around 6 percent with the special education area being 10 percent. The 1997-1998 state exit attrition rate for elementary education was 5.7 percent, secondary education was 6.7 percent, and special education was 6.9 percent. The high rate of transfer of special education teachers to general education fields is a variable in the higher special education field attrition rate. Table 7.2 also provides information on the mobility of teachers between fields within the Wisconsin Public Schools.

### *Projected Total Number of Retirements in the Wisconsin Public Schools.*

The projected educator retirements in the smallest third, middle one third, and largest third of the public school districts, with separate data on the Milwaukee Public Schools are presented. These data were obtained by merging the 1996-1997 data file with the 1997-1998 file, providing the basis on which to project the number of educators retiring in each age cohort for the next twelve years. The birth year 1925 included all the educators at this age and older (8). The analysis did not include educators whose birth year preceded 1925 since their number (4) would have little impact.

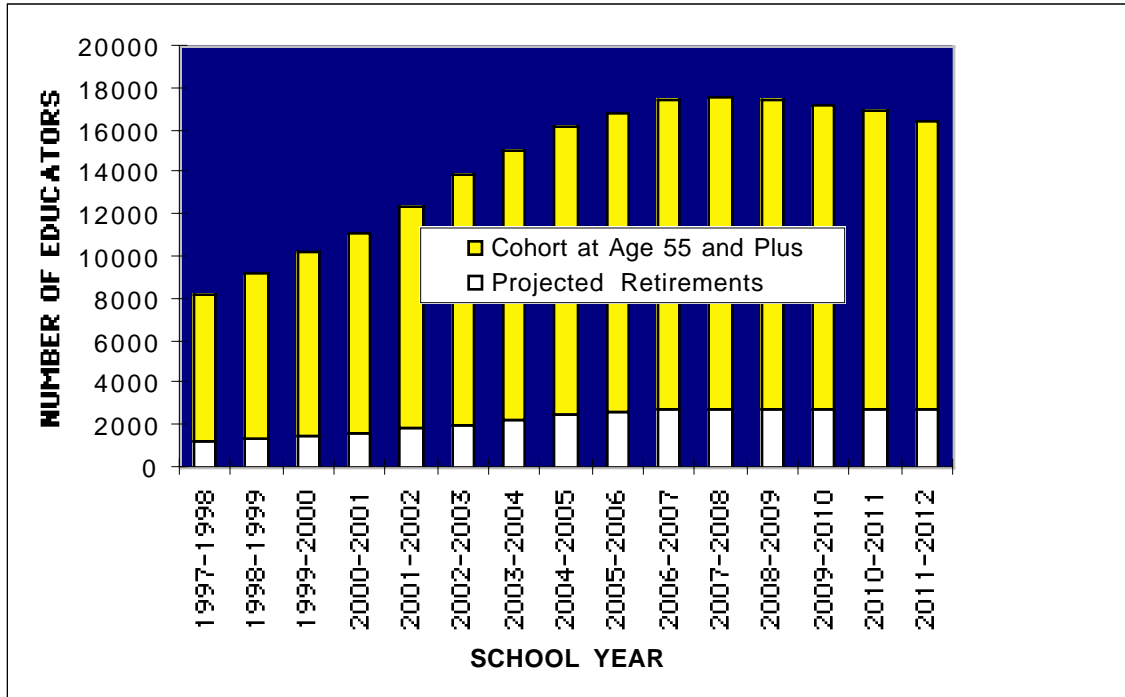
The procedure in Table 8 shows the increasing number of currently employed educators who will be reaching retirement age year by year until the school year 2011-2012. The majority of educators tend to start retiring about age 55, and the retirement of others continues through their seventies. The rationale for using the birth year 1942 as the first year in the cohort of the projection is that the number of newly hired educators drops below the number of the retirees at this age point. A complete explanation of the statistical procedures followed in the projections is described in the 1998 edition of this report (<http://www.dpi.state.wi.us/dpi/dlsis/tel/supdem.98html>).

The attrition of the educators in the small, middle and large districts is very similar. Milwaukee Public Schools has a higher attrition rate at all age levels, which reflect the fact that a greater proportion of its educators leave at earlier age levels. This explains the reason a smaller proportion of the total number of educators in the Milwaukee Public Schools will be retiring in the future years. Within the categories of the small, middle and large districts there was variability in the attrition between different districts. The reader is cautioned that the figures in Table 8 only project the older aged educators who would likely be leaving for retirement rather than the total educators who exit a district in a given year.

The data in this report confirm that there will be a gradual increase in the number of educators eligible to retire, with little difference between the small, middle, and large districts. The Milwaukee Public Schools have similar retirement levels to the rest of the state even with higher attrition in the district. Since this higher attrition occurs at all age levels this balances out any higher attrition at the retirement ages by reducing the pool of older aged teachers. This higher level of retirements in Wisconsin Public Schools will continue for a period of 12 years with declining levels starting at the end of that time. The cohort of educators in the 2009-2010 school year declines in number for the first time since the 1997-1998 year. The data indicates that this decline will be modest and will continue for several years. The birth years of 1952 through 1958 show a sharp decline in the number of total staff that accounts for the declining number of retirees starting in the school year 2009-2010. The number of educators retiring will double from 1997-1998 by the year 2004-2005 and continue increasing until the school year 2008-2009.

**Figure 2**

**Projected Total Number of Educators to Retire from the School Year 1997-1998 through 2011-2012**



The different tables have two databases (since different statistics require different analyses). The FTE statistic is more accurate in understanding the number of educators in each field, and the



head count is more appropriate to use in determining attrition statistics. The differences in the head count for the cohort of educators over 54 was only 3.0 percent larger and the 60-and-over cohort was only 3.5 percent larger. The high proportion of older educators who are employed on a full-time basis is in contrast to the many newly hired secondary teachers who receive only part-time positions.

The DPI database used in this analysis was relatively complete. All districts reported data for the 1997-1998 school year. A small error factor was that a total of 145 of the teachers that stayed, 169 that left, and 80 that were new had either two different birth years on the records or no birth year reported. These educators could not be included in the analysis.

### *Active Pool of Candidates for Positions in Selected Public School Districts*

An analysis of the applications of the candidates for positions in five select school districts was used to estimate the reserve pool of teachers. The same districts used in the 1996 edition of this report were used for comparison purposes. The number of applicants in the 1998 pool was smaller than the pool in the 1995 sample, suggesting an improving employment outlook for educators. The analysis can provide data concerning the relocation of personnel, sources of the cohort of candidates, size of the active pool of candidates, and information about variables that determine the decision to apply for a particular position. The districts selected represent a wide range of pupil populations and geographical regions of the state. The districts ranged in 1997-1998 pupil enrollment from 1261 to 19472. Since most of the population is in the southeastern area of the state the districts selected represent this factor. Kenosha is a large district representing a border city with Illinois and has a diverse and stable pupil population. Waukesha is a suburban city and also has a declining pupil population. Reedsburg is a city in the south-central part of the state with a growing population. Palmyra-Eagle is a small community in rural southeastern Wisconsin. Ladysmith-Hawkins is a small community in the northwestern area of the state and has had declining pupil enrollment. These five districts made available to the researchers the data used in the analysis.

The teaching vacancies in each selected district and the number of applications considered for these positions are shown in Table 9. The Kenosha District requires a completed application form, a credential file or three letters of reference, college transcripts, and a technology self-assessment form. The Waukesha District has set two criteria that must be met before the candidate's application can be placed in the active file. These criteria include a Wisconsin Teaching License or the verification of the application for the License and a completed District application form. An example of the gap between expressions of interest in a given position and the number of completed applications is found in the Waukesha District where there were only thirteen applications for the one English position yet there were 43 other applications in the incomplete file. For the physical education positions there were 46 applications in the complete file and an additional 35 in the incomplete file. Many applicants have licenses in more than one teaching field; this was very evident in the area of special education. The procedure followed in this analysis was to count the application only in the subject field file folder that held the application thus avoiding a duplicated count. In the field of special education as many as 35 teachers in one district were listed as candidates in more than one teaching field.

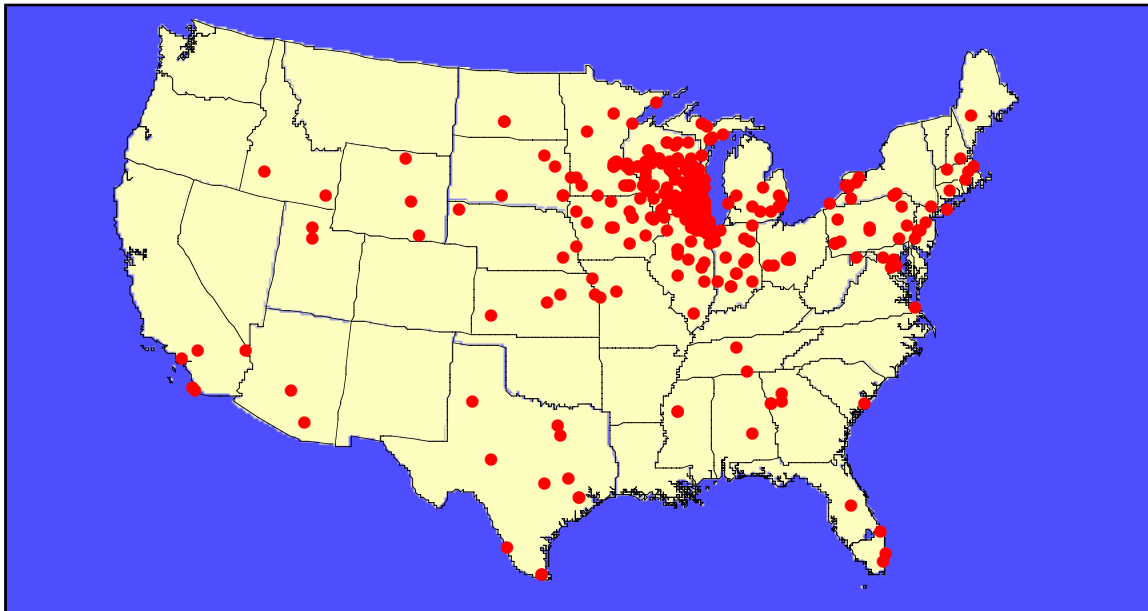
The analysis of applications provides information on the geographical mobility of educators. The Reedsburg applicants had 21.3 percent on the candidates listing a home address in states other than Wisconsin. Forty-eight were from Minnesota, followed by 20 from Illinois, with 14 from Michigan, and 10 from as far away as Texas. The large proportion from Minnesota may reflect the reciprocity tuition agreement in the state-supported institutions. A similar pattern was found in the other districts with the exception of Kenosha that had a larger proportion of candidates from Illinois due to its location on the border. Some other trends evident in the data

were that those teaching fields traditionally staffed by males had a higher proportion of out-of-state applicants. As an example over 50 percent of the Kenosha social studies, 45 percent of the technology education and 41 percent of the math applicants were from out-of-state. In all the districts the percentage of elementary education applicants, which are mainly female, from out-of-state was generally much lower than in other subject fields. The Department of Public Instruction Web-site on vacancies in the Wisconsin Public Schools was frequently listed as the source of information that the candidate followed in contacting the district for the position.

The zip codes from the current addresses of all the candidates in each of the five districts were recorded. These zip codes were plotted on maps so that the pattern of the location on the pool of candidates could be portrayed. The maps are broken down showing both the mid-western profiles as well as a national picture.

**Figure 3**

**National Map of Applications for Total Teaching Positions in the Kenosha Public Schools**

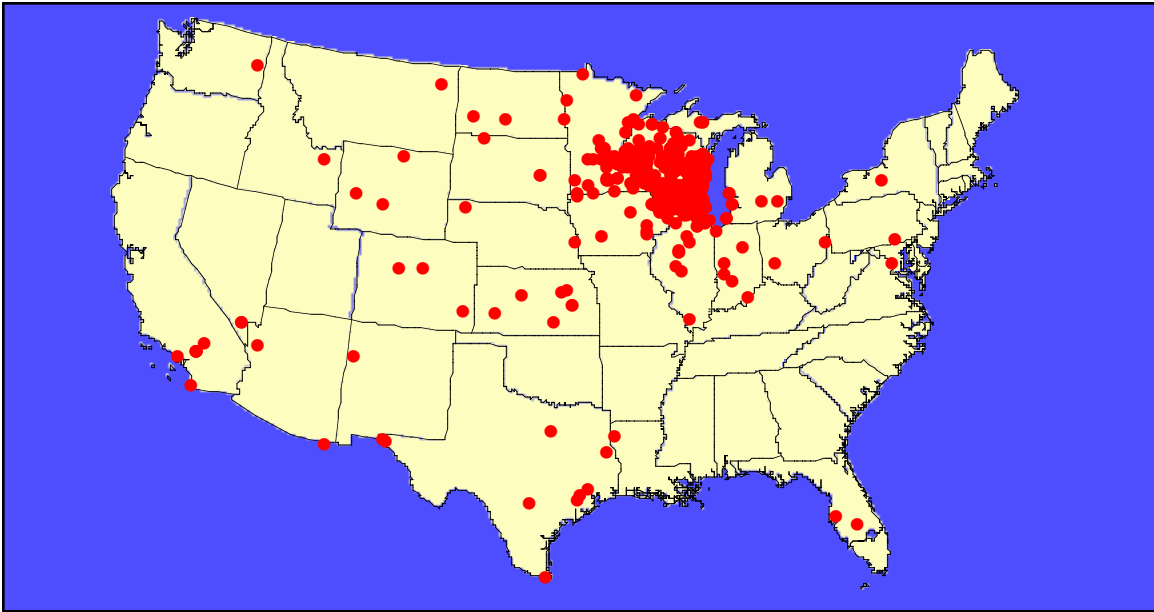


Some comments can be made about the data in Table 9. The teaching fields that another analysis in this report has identified as having a surplus of educators generally had the largest number of applicants. A unique finding was that Kenosha had vacancies in a special Asian language program with several candidates for each position.

The first two figures show the national profile of the applications for positions in the Kenosha Public Schools and the Reedsburg Public Schools. The largest concentrations of candidates come from Wisconsin and the surrounding states.

**Figure 4**

**National Map of Applications for Positions in the Reedsburg Public Schools**

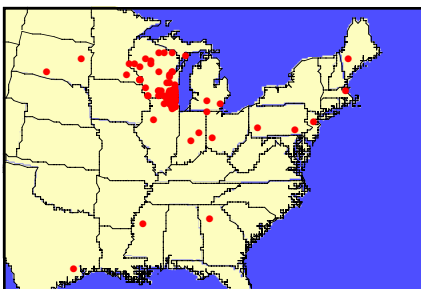


The pattern of elementary education applications is shown on maps in three districts in Figure 5. The national picture is not shown because only a small proportion of the candidates comes from out-of-state. The three districts shown are Kenosha, Waukesha, and Palmyra/Eagle. The Kenosha district had 73 percent of their applicants list addresses within 35 miles of the district, many of these being from Illinois. The Waukesha district had 66 percent of the applicants living within 35 miles of the district, only 11 percent being from out-of-state. The Palmyra/Eagle district had 50 percent of the candidates listing addresses within 35 miles of the district. Elementary education teachers showed less mobility in seeking employment.

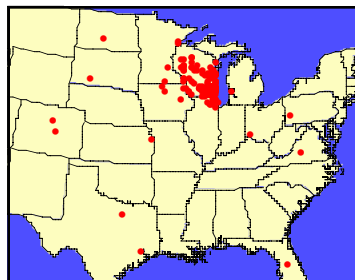
**Figure 5**

**Maps of Candidates for Elementary Education Positions in Three Select Districts**

**Kenosha**



**Waukesha**



**Palmyra/Eagle**

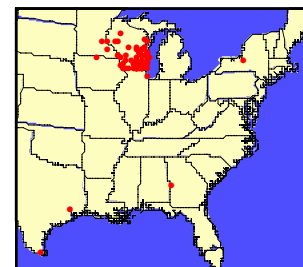
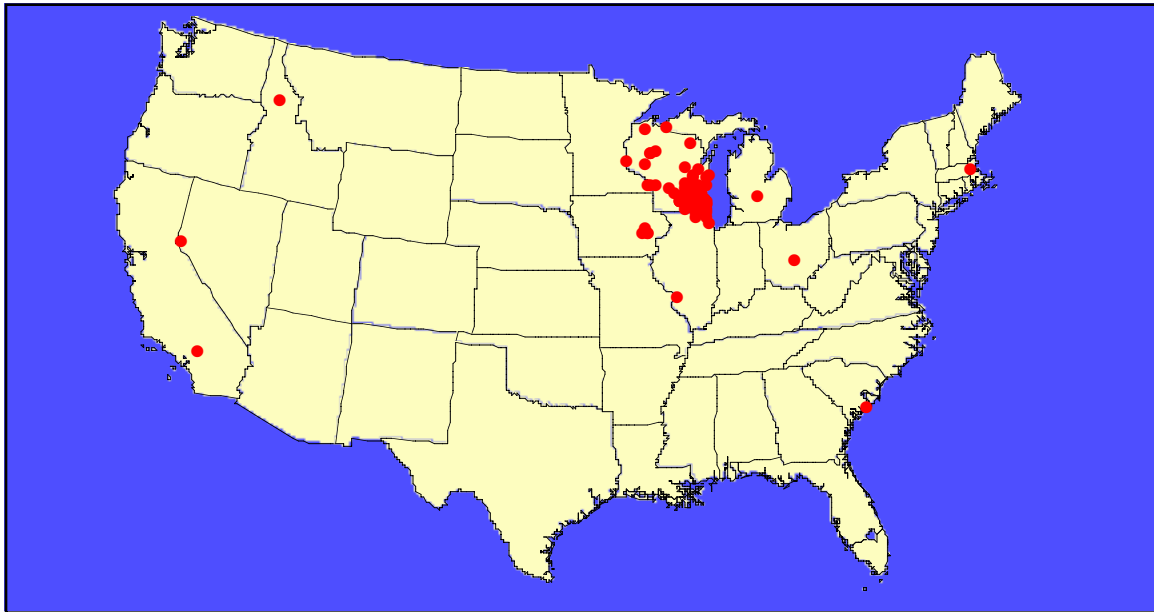


Figure 6

**Kenosha Secondary and Specialty Subject Fields Candidates**

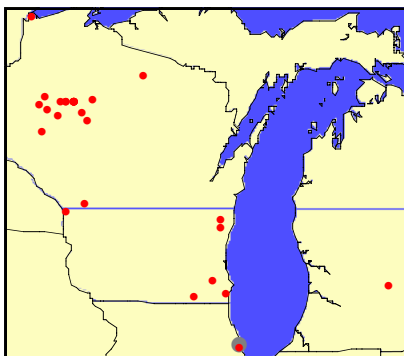


The secondary and specialty subject fields generally have a higher proportion of candidates who showed more mobility to relocate. However, these fields have less positions available compared to elementary education which has many more openings in a much larger number of districts. Figure 6 shows the secondary/specialty candidates for positions in the Kenosha District. The distribution of candidates shows that 74 percent lived within 200 miles of the district, 70 percent within 100 miles, and 51 percent within 50 miles. The field of technology education, which has a serious shortage of teachers in Wisconsin, had 10 of 22 applicants from other states for the position in the Kenosha district.

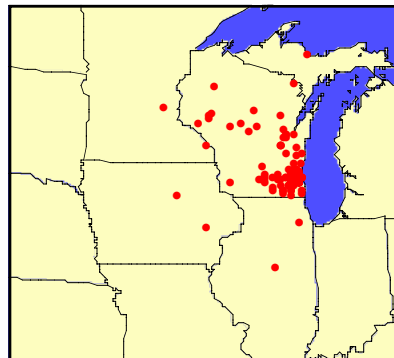
Figure 7

**The Pattern in a Rural District and a Special Education Distribution**

**Ladysmith/Hawkins**



**Waukesha Special Education**



The field of special education has a similar pattern of distribution of candidates as the field of elementary education. This is shown for the Waukesha District in Figure 7. Also shown in Figure 7 is the distribution of all the candidates for positions in the Ladysmith/Hawkins district. This district is in a very rural area of the state and the candidates are more dispersed. This district had 71 percent of the candidates living within 100 miles of the district.

#### *Phone Follow-up of Candidates for Positions*

A phone follow-up was made of a limited sample of candidates from three of the districts studied in the analysis of applications. The sample was too limited to permit broad generalizations, yet it does provide some information about areas not covered in the statistical analysis of this report. There were 32 respondents out of a sample of 93 who were located and responded to the survey. Summary findings are as follows:

- Most of the candidates lived relatively near the district they sent applications to (about 30 miles distance).
- The typical applicant sent out about 15 applications for various teaching positions.
- Most of those contacted were seeking public school employment after being employed in private schools, part-time teaching, or working as substitute teachers. The majority of the applicants in this pool were experience teachers trying to improve their position or relocate.
- The applicants found out about the position from a variety of sources (DPI site on the Internet, local newspapers, and one through their placement office). Several just sent applications to districts in the geographical area where they wanted to teach without any notice of vacancy.
- The applicants surveyed indicated various levels of knowledge about the employment prospects in their field of education.

#### *Employment Trends of Teachers Hired on a Part-Time Basis*

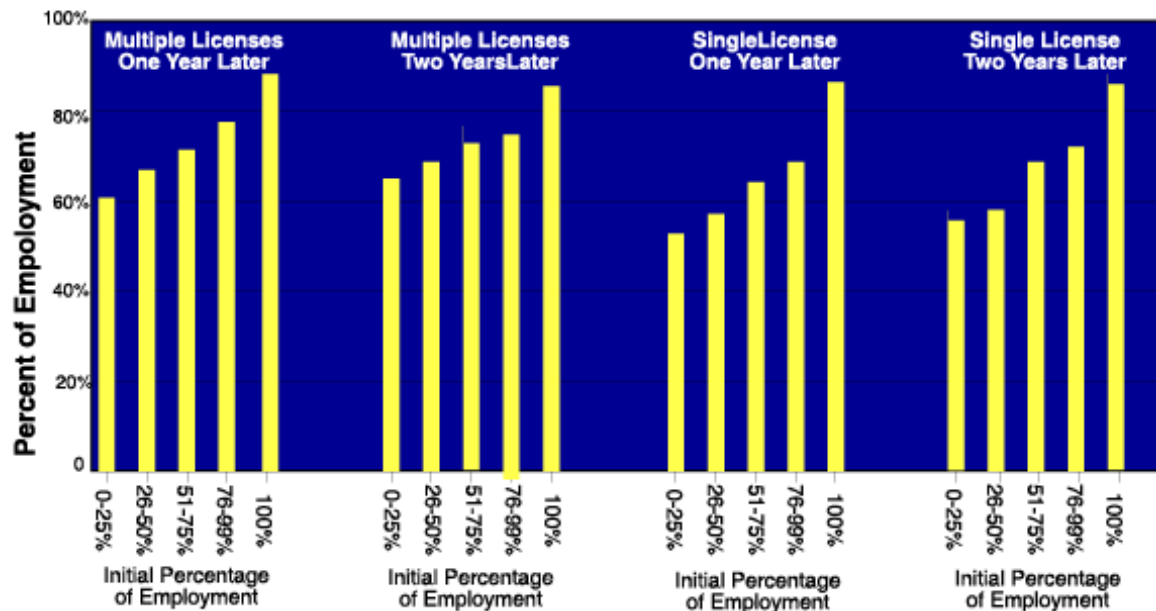
The 1998-1999 database permitted the tabulation of educational positions by full-time equivalents (FTE). This information makes it possible to investigate the number of educators who find full-time versus part-time employment. Many teachers are hired on a part-time basis since in certain subject fields a district may only need a teacher for one or two classes. Middle and high school programs are not self-contained and are composed of those who teach in discreet subject fields, and small districts may offer fewer sections of some subjects compared to large districts. This analysis attempts to answer the extent to which these teachers increase or decrease their percentage of employment in future years. Four years of personnel records were used for this analysis, providing a longitudinal picture of the changing employment status. This analysis included only teachers and did not include any administrative positions or related services areas. Tables 10.1 and 10.2 present information for teachers who most frequently earn only one license and do not have the flexibility to teach in more than one subject field. Table 11.1 and 11.2 show exit attrition for teachers in Wisconsin Public Schools and the employment status of teachers who most frequently have more than one license after one year of service and after two years of service. In each of the four tables two years of data are used to smooth out yearly variations in the numbers. The FTE counts were combined for teachers who held a position in more than one district or were teaching in more than one subject field. Thus the figures represent the total Wisconsin Public School employment of the newly hired educators over a one and two year period. The footnotes in the tables list the separate teaching fields that are included for the teachers with multiple licenses and those who in all likelihood have only one license. Explanations of the data are included under each table.

The data shows some clear trends. First, Tables 11.1 and 11.2 show that educators in part-time employment with multiple licenses tend to move to full-time positions to a greater extent than educators with single licenses do (Tables 10.1 and 10.2). Second, generally speaking there is a clear trend for educators hired on a part-time basis to improve their percentage of employment in

subsequent years. Third, state exit attrition is generally higher for all teachers who are initially hired in part-time positions.

Figure 8

Comparison of Employment Status of Teachers With Single and Multiple Licenses One and Two Years after Initial Employment



### *Projecting the Number of Newly Prepared Education Personnel Needed for the Next Five Years*

Attrition statistics have been used in the past projections of the future need for educators in Wisconsin and have resulted in inaccurate projections. This has occurred because of policy decisions relating to a retirement window and changes in fiscal policies relating to the funding of school districts. The projection used in this report will follow the new-hires model.

The new-hires model is similar to the analysis shown in Table 6 except that the numbers in the tables are averaged over a three-year period to reduce the effect of yearly fluctuations in the data (Table 11). The advantage of this approach is that many of the error factors that can influence the outcome of the traditional design occur to a lesser extent in this model. The procedure followed in this model is to merge the total state database for the given year and the previous year and identify all the newly hired inexperienced teachers for the given year. There are many advantages to this methodology that make it worthy of consideration. There is no need to find the attrition for each subject field since this is a variable of the figure that represents the number of new hires. Also, any enrollment fluctuations, economic factors, or state policy decisions are reflected in the new-hires statistic. The averaging over three years reduces the effect of any one-year surge or decline. Any identifiable and predictable changes in these variables can be incorporated in the new projection to increase the accuracy of this methodology. The projections

used in this report will not require modifications in the methodology because there is no evidence that there has been a change in the pupil-teacher ratio, state fiscal policies have stabilized, and the pupil enrollment has had a modest decrease this past year.

The number of additional personnel that will be needed for Wisconsin's Public Schools in future years largely depends on enrollment and retirement projections. Past reports have carefully analyzed several variables (birth rate statistics, private school enrollment, and changes in the state's public school enrollment) to measure their impact on future educator needs. These analyses are not included in this 1999 report since past studies have shown these variables to be relatively stable and thus have not influenced the projections. The retirement projections will gradually increase the need for additional educators for the next ten years.

The National Center for Educational Statistics (1998) provides a state assessment of the projected public school enrollment through the year 2008; during this period a slight decline in the Wisconsin K-12 public school enrollment is anticipated. Evidence of this trend has started and will reduce the demand for educators in many districts. A figure showing these data is included in the 1997 edition of this report and is not included in this edition since the projection remains the same. It should be noted that Wisconsin has had the largest decline in enrollment in the northern and western areas of the state while most southeastern districts have shown an increase in pupil enrollment.

The data that most accurately projects the number of new teachers that need to be trained each year is seen in Column 8 of Table 11. This number represents the average number of new inexperienced Wisconsin prepared teachers hired by Wisconsin Public Schools in their teaching field over the past three years. A proportion of newly prepared teachers choose not to enter teaching, leave the state for employment, are geographically restricted, or accept employment in non-public schools or as substitute teachers. To account for these factors the state colleges and universities must prepare more teachers than the minimal number shown in Column 8 of Table 11. Dividing the number of newly prepared teachers by 50 percent, which will increase the numbers to account for these factors, can make this adjustment. This percentage is based on the professional judgment of the researcher to determine a realistic projection of the number of teachers that should be prepared to meet the needs of the state. The effect of this procedure results in the preparation of two teachers for each position that has been traditionally filled by new inexperienced teachers. The reader is further cautioned that other variables such as high attrition and strong demand in specific fields need to be addressed in the projections

### 3. Emergency License Information

#### *Highlights of Findings*

- \* More emergency licenses continued to be issued in the fields of emotional disturbance and learning disabilities than any other areas.
- \* After increasing steadily since 1985-86, the number of emergency licenses issued in special education reached a high of 1167 in 1991-92. Since then it has steadily declined to this year's total of 869.
- \* The continued large number of emergency licenses in special education is, in part, related to the large number of special education teachers who transfer to general education.
- \* The larger number of emergency licenses issued in general education tend to be in the fields of reading, English as a second language, and unique specialty programs in elementary education.
- \* Most emergency licenses in secondary general education fields are issued due to part-time assignments. For example, a licensed biology teacher may be assigned to teach one section of chemistry.

#### *Background*

Table 12 presents the total number of teachers teaching with emergency licenses in Wisconsin Public schools from 1990 through 1999. The total number was derived by adding the number of one-year permits to the number of one-year special licenses. Permits are issued to individuals who possess a degree outside the field of education. An emergency-licensed teacher (ELT) receives licensure from the Wisconsin Department of Public Instruction (DPI) at the request of a school district. The district must provide evidence that a fully licensed educator was not available for the position. In most cases the department issues emergency licenses for a one-year period. During that one-year period, the ELT must complete six credits from an approved preparation program in the field of the emergency license.

In some instances, the DPI issues emergency licenses in areas when personnel are available in a field but due to the circumstances described by the district, the exception is considered justifiable. For example, at the elementary level, specialized programs such as bilingual education, foreign language immersion schools, and public Montessori schools may require elementary education emergency licenses issued beyond the specialty training that the program requires. At the secondary level most emergency licenses in general education authorize teachers to teach one or more classes outside of their licensure area and do not typically represent full-time teaching assignments.

Reading and English as a second language (ESL) are the areas in which the greatest number of emergency licenses are issued in general education. Requirements for licensed reading teachers in Title I programs exacerbate the shortages in reading. Increased student diversity requires more licensed ESL and bilingual teachers.

#### *Special Education*

In special education most emergency licenses are granted for programs for students with emotional disturbance and learning disabilities. In addition to factors affecting all license areas, certain special education fields face the impact of either program growth or higher attrition, either of which creates a greater demand for emergency licenses. A small number of emergency licenses are issued to individuals who teach in private or in residential schools serving students with disabilities.



A DPI project concluded in 1998, Special Education Licensure for Emergency Certified Teachers (SELECT), was designed to reduce the number of emergency licenses for educators working with students with learning disabilities and emotional disturbance. The impact of SELECT and similar federally funded projects is difficult to assess since many factors impact on the shortage of teachers. The decrease, developed again this year, in emergency licenses and the lower attrition rate in these fields are positive. The large proportion of special education teachers who transfer to general education remains a significant contributor to the number of emergency licenses in special education (Table 7.3).

The data in Table 12 presents the total number of special education teachers on emergency licenses in public schools over a 10-year time span. Interpreting the percentage increases and decreases in emergency licenses is complicated for several reasons, including administrative policy decisions regarding the issuance of emergency licenses, fluctuations in the numbers and sizes of special education programs, flexibility due to cross-categorical programming in special education and changes in the supply of teachers for various subject areas.

Previous editions of this report documented what was evident again in this 1999 analysis: that the majority of special education teachers with emergency licenses come from those fields of general education with the largest surplus of teachers.

## 4 Employment Outlook by Individual Subject Field

### *Highlights of Findings*

- \* During the 1998-1999 school year there was a steady increase in the number of newly hired educators, a development which should improve the employment outlook for most fields.
- \* Several fields, all having a shortage of teachers, have excellent employment prospects. These include agriculture, business education, family/consumer education, technology education, and the special education areas of emotional disturbance and speech / language pathology.
- \* Other areas continue to have a large supply of teachers, especially elementary education, social studies, physical education, math, English, and the special education field of early childhood special education.

### *Background*

The data used for the employment outlooks for various teaching fields in Wisconsin Public Schools and non-teaching areas are based on all the sources presented in previous chapters. These include the data on the supply of educators (Chapter 1), the demand for educators (Chapter 2), and the number of emergency licenses issued in various areas of education (Chapter 3). The data from the survey sent to each public school district and CESA in the state reported in the 1997 edition of this study and presented as maps graphically showing demand for educators in the state was considered in the projections. Since different sources of information are used in the recommendations, it is normal to expect some variations in the data. The researcher, with review by the advisory committee, made the determination of the relevant weight of each source in formulating the final recommendations. The data from the related service survey presented in the 1995 edition of this report contributed to the recommendation of the employment outlook of this chapter. Employability for each subject field and non-teaching area was determined using the following scale:

<b>Excellent-</b>	Chances of employment are high in almost all geographical areas. Teachers, even those with limited mobility should find full-time employment.
<b>Good-</b>	Most educators are able to find a position. This is especially true for those willing to relocate.
<b>Average-</b>	Educators who are patient, willing to relocate, and actively seeking positions should, in time, secure employment.
<b>Poor-</b>	The supply of educators seeking positions exceeds the vacancies. Many educators will not be able to secure a position.
<b>Very Poor-</b>	The supply of educators considerably exceeds the vacancies. Individuals seeking positions will have little chance for employment in the Wisconsin Public Schools.

Those areas with an extreme shortage of applicants have an excellent rating, slight shortage a good rating, normal supply an average rating, slight oversupply a poor rating, and extreme oversupply a very poor rating. The employability descriptions assigned to the various fields or areas are based on multiple information sources.

An important factor in determining the recommendations for each subject field is the evaluation of the fluctuation seen in the data due to state policy decisions or the effects of the economy. This past year (1998-1999) there was a slight continued increase in the employment of teachers. It can be expected that there will be a modest increase in employability, as the aging of the teaching staff will cause a gradual increase in the retirement levels. The data presented in the 1998 report, which presents the

number of educators and the attrition by age categories, is considered in the recommendations of this chapter. These statistics are taken into account in making the employment projections in this 1999 report along including the anticipated decline in pupil enrollments. The averages of the employment projections over a three-year period are found in Table 11. This corrects to an extent the yearly fluctuations in new hires and is also considered in the projections of this chapter. The most consistent indicator of the employment outlook for each individual subject field over the past three years is shown in Column 9 of Table 11.

### ***Employment Outlook by Subject Field and Non-teaching Areas***

Employment projections by subject field and non-teaching areas are based on the different areas of investigation previously described. Past reports have been relatively stable in these projections. More teachers are available for a given year than the number prepared by Wisconsin colleges and universities in that year. Approximately half of the newly hired teachers are inexperienced teachers prepared in Wisconsin; the remaining are relocating teachers, those prepared out-of-state, and those returning after an interruption in their careers. Further, a reserve pool of candidates exists for most subject areas. The analysis of the applications from the selected school districts presented in Table 9 also contributed to the recommendations.

A district may hire a person to teach at the middle school level in the area of mathematics, science, social studies, or English who is licensed as an elementary teacher (1-8) or licensed in that secondary subject area. Therefore, data on middle school vacancies and the supply of teachers for these programs are more difficult to analyze. The reader is cautioned to note these problems in assessing the needs of educators at the middle school level. Some tables are based on the subject taught, which would include teachers with an elementary or secondary license who are teaching at the middle/junior high school level, while other tables are based on the license held by the teacher. These differences affect the counts in the various tables.

### ***Elementary Education***

A total of 1,575 education students completed licensure programs in the areas of elementary education and early childhood in Wisconsin during the 1997-1998 school year (Table 1). A total of 440 full-time equivalent positions in elementary education were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. The number of newly hired elementary teachers, including those experienced teachers returning to the field and those from other states, totaled 745 (Table 4). For the past several years, newly prepared teachers with elementary education licenses have had a very poor chance of securing an elementary education position in the Wisconsin Public Schools. The 1997 data from the district administrators responding to the employability survey had an overall rating of 1.3 in elementary education, indicating that the number of applications for each position was the highest of all subject fields. Table 6 shows that the career employment projection for the 1998-1999 school year for Wisconsin prepared inexperienced teachers with a single elementary license was 23 percent. A number of these teachers find employment in private schools and in out-of-state positions.

Teachers hired in elementary positions often have licenses in other fields, which may increase their employability if the other fields are in demand. Data in Table 6 show that 12 percent of the teachers prepared in elementary education are hired in areas where they have additional licenses. Licenses in most general education fields have only a slight effect on the employability of elementary teachers while licensees in reading, ESL, and special education tend to improve an individual's chances of finding a position.

The attrition rate for elementary education teachers is predictably greater for the younger teachers and for those nearing retirement. The field attrition rate for elementary teachers in 1997-1998 was 6.3 percent (Table 7.1). The increase in projected retirements shown will have only a modest impact on the

employability of teachers. The relatively few emergency licenses issued in elementary education (Table 12) are for specialized educational programs and do not indicate a shortage of teachers.

**OUTLOOK: Very poor** The data in this report substantiates previous studies that demonstrate there continues to be a large surplus of teachers for all elementary positions in Wisconsin Public Schools. The outlook will improve in the future if the number of newly prepared teachers is reduced due to enrollment limits in elementary education at the Wisconsin colleges and universities. Increased projected retirement levels will only slightly reduce the surplus of elementary education teachers.

## **Secondary/Special Subject Fields**

The secondary/special subject fields show a different employment picture than other fields of education. The licensing requirements often restrict the flexibility of teachers to find full-time positions since at the secondary level many smaller school districts offer only one or two sections of most subject fields. Many of the vacancies have unusual combinations of licensure requirements, which eliminated many candidates from being eligible for consideration. Since these individual fields are relatively small, compared say to elementary education, for example, teachers applying for these positions must be more willing to relocate to different geographical areas of the state. Typical of the specialty subject fields (art, music, physical education, family consumer education, technology education) is that few of the teachers have additional licenses (teaching minors), which restricts their flexibility to teach in other fields. These factors in part explain the higher attrition rates found in these areas and the larger proportion of teachers hired on a part-time basis.

### ***Agriculture***

Twenty-five individuals completed licensure in the area of agriculture in Wisconsin during the 1997-1998 school year (Table 1). A total of 13 full-time equivalent positions in agriculture were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. Generally, agriculture teachers have not held additional licenses, and many are employed outside of education. The average 1997-survey rating from district administrators was 4.5, which indicates a need for more candidates. Few new teachers had licenses to teach in other areas of education. The data in Table 5 indicate that the number of newly hired teachers in this field has been averaging about 16 per year for the past several years. The attrition rate was 6.4 percent as reported in 1998 edition of this report. Retirements will have minimal impact on the need for teachers.

**OUTLOOK: Average to Good** This is a small teaching field with a low level of teacher preparation. The rise in the number of newly hired teachers in this field suggests that the previous decline in this teaching field has stabilized. Teacher preparation and the needs of the field seem to be in balance.

### ***Family/Consumer Education***

Twenty-four individuals completed licensure in the area of family and consumer education in Wisconsin during the 1997-1998 school year (Table 1). A total of 13 full-time equivalent positions in family/consumer education were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. The number of teachers hired each year has varied over the past several years, increasing in 1998-1999. (Table 5). The current employment outlook for new, inexperienced teachers in family and consumer education was 42 percent for 1998-1999 (Table 6). Only two new hires had a teaching license in another field. The data in the 1997 survey supplied by district administrators indicated a shortage for both the middle and high school positions. The attrition rate was 6 percent as reported in the 1998 edition of this report. The data also shows a moderate need for additional teachers due to increased retirements in the near future. The current level of teacher preparation in this field has declined to the extent that it is now in balance.

**OUTLOOK: Good** The employment outlook for this field has been varied in the past several years. The "good" rating reflects an improved employment outlook for teachers in this field.

### ***Technology Education***

Fifty-five individuals completed licensure in the area of technology education in Wisconsin during the 1997-1998 school year (Table 1). A total of 22 full-time equivalent positions in technology education were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. The number of new positions for 1998-1999 was 47 down from a high of 70 in 1994-1995 (Table 5). The 1998-1999 employment rate for newly prepared teachers in Wisconsin Public Schools in this field was 42 percent (Table 6). The 1997 survey returned by school district administrators indicated that there was a severe shortage of candidates. No inexperienced teacher in this field had a license in another field of education. This teaching area has many employment opportunities outside the field of education. The attrition rate was 5.8 percent as reported in the 1998 edition of this report. An adequate supply of technology educators for Wisconsin may be affected if graduates are not willing to relocate, since as of 1997-1998 there has been only one teacher preparation program in the state. The analysis of applications from the selected districts (Table 9) showed that many of the applicants come from other states. This field currently has a shortage of educators that will cause the increase in retirements to aggravate the need for additional teachers.

**OUTLOOK: Good to Excellent** The number being prepared is not currently in balance with the educational needs of the state. Considering the employability of individuals in other fields and the anticipated increase in retirements, there is a need for an increase in the preparation of teachers in this field in light of the projected increase in educators reaching retirement age.

### ***Business/Marketing Education***

Twenty-eight people completed business licensure and 23 completed a marketing credential in Wisconsin during the 1997-1998 school year (Table 1). Wisconsin Public Schools hired 15 new, Wisconsin-prepared inexperienced teachers in full-time equivalent positions in business, and four were hired in marketing during the 1998-1999 school year (Table 6). The employment rating for 1998-1999 shown in Table 6 was 54 percent for business education educators but only 17 percent for marketing teachers. The administrators' rating from the survey showed that business candidates were in short supply across the state. The combined attrition was 6.8 percent as reported in the 1998 edition of this report. This report shows that the impact of retirement will have a moderate effect on the future need for educators in this field. Currently, newly prepared teachers with only a marketing education license have little chance of employment in Wisconsin Public Schools. Those majoring in business education enjoy better employment prospects; this is the basis for the "good" rating of this field. A few business/marketing education teachers have licenses in other fields, with several teaching computer science. Individuals prepared as teachers in business education do have excellent opportunities for employment outside of education.

**OUTLOOK: Good** This recommendation is based on the area of business education, excluding the marketing licensing area. The marketing license alone has very limited employment opportunities in the public schools. With business education graduates having a wide range of employment opportunities outside public education, most graduates would have little difficulty securing employment. The "good" rating is consistent with the rating in the 1998 edition of this report.

### ***English/Journalism/Speech/Theater***

Two hundred forty-five people completed licensure in the areas of English/journalism/speech/theater in Wisconsin during the 1997-1998 school year (Table 1). A total of 72 full-time equivalent positions in this field were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. The number of newly hired teachers in 1998-1989 was similar to the previous year (Table 5). Twenty-two percent of those newly licensed in this field secured a teaching position in English, and this increased by eleven percent for teachers who are also licensed and employed in other fields (Table 6). The 1997 survey from district administrators at the high school level indicated that there was a surplus of candidates for vacancies. The attrition rate as reported in

the 1998 edition of this report was 6.2 percent. With the current surplus of teachers the projected increase in retirements will have little impact in this field. The discrepancy in the number of teachers in Table 4 and in Table 6 occurs because in Table 6 the count is the FTE number of teachers by position. The present employment outlook for teachers in these fields is poor, and the future outlook shows little improvement as long as the number being prepared remains high. It is important to remember that positions at the middle school level include candidates with either elementary education or secondary subject area licenses.

**OUTLOOK: Poor** This rating has remained “very poor” to “poor” for the past several years.

### ***Reading***

Two hundred and nine individuals completed licensure in the area of reading in Wisconsin during the 1997-1998 school year (Table 1). Employment projections are more difficult to analyze for reading than for most other teaching fields because qualification in reading is an “add on” license. That is, an educator must be licensed in another field before licensing in reading will be granted. The 1997 survey data returned from the district administrators had an average rating of 3.9, indicating a moderate shortage. The attrition was 6.8 percent as reported in the 1998 edition of this report. The consistent yearly data on emergency licenses (148) indicate a shortage of teachers in this field (Table 12). The impact of future retirements will result in an increase in the demand for reading teachers. Many teachers are hired from personnel within the district, making it more difficult for those seeking new positions in this area to find employment.

**OUTLOOK: Average to Good** The rating has been consistently “average” to “good” over the past several years.

### ***Foreign Language***

Starting with the 1996-97 school year, the DPI required that foreign language instruction be available to all public school students in grades 7 and 8. During the past several years the number of newly-hired foreign language teachers has shown considerable variation (Table 5), with the greatest demand in 1998-1999 (over 67 percent) being for teachers of Spanish. One hundred forty-six people completed licensure in the area of foreign languages in Wisconsin during the 1997-1998 school year (Table 1). ). A total of 38 full-time equivalent positions in this field were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. An additional 8 teachers with licenses in foreign languages and other fields were employed in such positions as elementary education, English, and English as a second language (Table 6). Twenty-three percent obtained positions in their licensing area of foreign language, and this increased to 28 percent when employment in an additional licensure field was included. The attrition rate was 7.2 percent as reported in the 1998 edition of this report. Future retirements will have only a modest effect in this field. Note that the discrepancy in the number of teachers in Table 4 and in Table 6 occurs because in Table 4 the count is the number of teachers by position, which includes elementary education teachers with an elementary minor teaching foreign languages at the middle/junior high level.

**OUTLOOK: Average** The current outlook is best in Spanish. Candidates in other foreign languages than Spanish will need to be more mobile in securing a position.

### ***English as a Second Language and Bilingual Education***

Thirty-eight individuals completed licensure in the area of English as a second language (ESL) in Wisconsin during the 1997-1998 school year (Table 1). Wisconsin Public Schools hired 16 new, Wisconsin-prepared teachers (Table 4) for the 1998-1999 school year. All of the newly hired teachers without experience in ESL positions had additional licenses. An indicator of the shortage of licensed teachers is the large number (98) of emergency licenses issued in ESL (Table 12). An additional 67 were issued in bilingual education. The attrition rate for ESL teachers was 7 percent as reported in the 1998

edition of this report. Increased retirements will have only a modest impact in this field. This attrition rate is in part a reflection of the mobility of the population served. The employment outlook for teachers in this field is largely based on demographic trends, which generally indicate that increasing numbers of students will require the services of teachers prepared in this field. Following national and state trends, English as a second language continues to be in demand. The employment outlook for bilingual education is also good--especially for those prepared in Spanish.

**OUTLOOK: Good** Teachers with an add-on license in this area of preparation will find increased employability in other fields. Additional teachers need to be prepared in this field.

### ***Mathematics***

One hundred sixty-four individuals completed licensure in mathematics in Wisconsin during the 1997-1998 school year (Table 1). A total of 76 full-time equivalent positions in mathematics were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. Twenty-five percent of the newly prepared teachers with mathematics licenses found employment in their field in Wisconsin Public Schools (Table 6). This increased to 27 percent when the teachers that have licenses in additional fields secured positions. The 1997 survey from the district administrators gave mathematics a rating indicating an average number of applications for positions. The employment prospects for mathematics teachers in Wisconsin remains inconsistent with the public perception of a great need. Media stories portray the field of mathematics education as having a shortage of teachers. However, past Wisconsin data have frequently indicated that the job outlook in mathematics was poor. At the middle/junior high school level a large number of teachers with an elementary license find employment in mathematics, reducing the need for teachers prepared with a major or minor at the secondary level. The data in Table 11 show that there has been a low demand for math teachers over the past three years. The attrition rate for mathematics teachers was 6.1 percent as reported in the 1998 edition of this report. This data indicates that the increased retirements will have only a modest impact on employability in this field.

**OUTLOOK: Average /Poor** Based on the available data, the employment outlook is realistic and suggests that the current levels of preparation are more than adequate to meet the needs of this state.

### ***Music***

One hundred forty-nine people completed licensure in music in Wisconsin during the 1997-1998 school year (Table 1). A total of 44 full-time equivalent positions in music were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. Thirty-three percent of the newly prepared teachers with music licenses secured positions in the Wisconsin Public Schools (Table 6). Four of the teachers had additional licenses in a second field. The three-year average data on employability (Table 11) suggests a low average rate. The attrition rate was 6.1 percent as reported in the 1998 edition of this report. Future retirements will have only a modest effect on the need for new teachers..

**OUTLOOK: Average** The rating is similar to the 1998 rating with slightly improved employability due to increased retirements.

### ***Physical Education***

One hundred and seventy-four people completed licensure in the area of physical education in Wisconsin during the 1997-1998 school year (Table 1). A total of 63 full-time equivalent positions in physical education were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. The employment outlook for inexperienced teachers in physical education is 30 percent and the outlook for teachers having additional licenses increases to 33 percent in the Wisconsin Public Schools (Table 6). The attrition rate was 5 percent as reported in the

1998 edition of this report. Future retirements will have little impact. The reserve pool of teachers in this field includes a relatively large number of teachers. The 1997 district survey indicated excess in the number of applications for positions. Based on the response from many districts in Wisconsin, some teachers apply for each opening across this state--often 100 or more. The low attrition figure for this field also reduces employment opportunities for new teachers.

**OUTLOOK: Poor** The outlook has improved to "poor" the best since this report was initiated. This improvement is based on the reduced number of teachers being prepared, a factor which has improved the employment outlook.

### ***Health***

The area of health is closely tied to physical education because many teachers in these fields are licensed in both areas. Most of the teachers hired for these positions were given part-time teaching assignments. The health license improves, to only a small extent, the employability of teachers with licenses in other fields.

**OUTLOOK: Poor** The employment outlook in these related fields will remain at a low level as long as the number of newly prepared teachers remains high.

### ***Art***

One hundred and twenty-nine individuals completed licensure in the area of art in Wisconsin during the 1997-1998 school year (Table 1). A total of 34 full-time equivalent positions in art were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. Twenty-six percent of the newly prepared teachers secured art positions, and another two percent found positions in other fields in which they had licensure (Table 6). The 1997 rating from the district survey showed average employability of applicants for positions. The attrition rate was 5.1 percent as reported in the 1998 edition of this report. Retirement will have only a modest effect on the current employment outlook. There appears to be a large reserve pool of potential teachers in this field.

**OUTLOOK: Poor to Average** This rating remained the same from the previous year. The rating has fluctuated from "poor" to "average" over the past several years.

### ***Science***

Science has drawn considerable national attention as a field with a perceived shortage of teachers. This is due, at least in part, to various publications that describe shortages of science teachers. While some studies have been done on this topic, some confusion still exists regarding the employment prospects for science teachers. Wisconsin data have consistently contradicted the perceived shortage. This year for the fifth time the rating has been "average." Future retirements will gradually increase the demand for teachers.

Science is the only secondary field, other than specialty fields, in which a teacher has previously been required to have a major to be eligible to teach in Wisconsin. This is a major reason why 89 emergency licenses were issued (Table 12). One hundred and fifty-six people completed licensure in Wisconsin during the 1997-1998 school year (Table 1). A total of 63 full-time equivalent positions in science were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. The projected employment outlook for teachers licensed only in science is 23 percent. For science teachers with additional licenses, the rate increases by 5 percent in the Wisconsin Public Schools (Table 6). The most common additional licensing area for science teachers was mathematics. The 1997 district survey indicated a shortage in several of the science fields in large part because only part-time positions were offered to the candidates and often the position required an unusual combination of licensure. The attrition rate that was reported in the 1998 edition of this report was 6.7 percent.



In high schools, teaching in some science areas (e.g., chemistry and physics) is often a part-time assignment. This makes the employment prospects appear better than they really are. The number of positions at the middle school level includes candidates with either elementary or secondary licenses.

**OUTLOOK: Average** The employment outlook for this field is “average” for teachers in Wisconsin Public Schools.

### ***Social Studies***

Three hundred people completed licensure in the area of social studies in Wisconsin during the 1997-1998 school year (Table 1). A total of 79 full-time equivalent positions in social studies were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. The employment projection for social studies positions in the Wisconsin public schools is 20 percent, one of the lowest rating of all subject fields. Teachers with licenses in addition to social studies increase their employment prospects to 32 percent (Table 6). The 1997 district survey confirmed the poor employability also with one of the lowest ratings given. The attrition rate for teachers in this field was 7 percent as reported in the 1998 edition of this report. Future retirements will not be a factor in improving employability of teachers since there is a large surplus of educators for this field.

**OUTLOOK: Very Poor** The data in this and previous reports indicate that social studies has the greatest surplus of teachers of all education fields.

### ***Library/Media***

Eighty-three people completed library/media licensure in Wisconsin during the 1997-1998 school year (Table 1). The employability rating for this field is more difficult to determine since the new hires data does not accurately reflect the trends in this field. The attrition rate reported was 7 percent as reported in the 1998 edition of this report. Retirement will significantly increase the demand for teachers in library/media, with the largest impact taking place after the year 2000. Data from the 1997 district-wide survey of the number of applications in relationship to vacancies indicated a demand for library/media specialists in many areas of the state. If anything, the number being prepared could be increased because this field does not have a large reserve pool of potential applicants in technology.

**OUTLOOK: Good** The employment outlook for library/media personnel is “good” considering the current level of preparation and the projected increase in retirements.

### **Special Education**

The field of special education has faced a critical shortage of teachers both nationally and in Wisconsin. The increase in the number of educators being prepared is positive, yet the continued large number of emergency licenses being issued suggests that this shortage will continue in select areas of special education for some time. Factors still indicate a stronger demand than most other areas of education, in part because of the higher attrition rate and in part because of the number of special education teachers who transfers to general education. New this year is the consolidation of the tables including cognitive, learning disabilities and emotional disturbance, a change, which reflects the overlap in the delivery of services to the children enrolled in these programs.

### ***Cognitive, Learning Disability, and Emotional Disturbance***

Six hundred and forty-three people completed licensure in the areas of cognitive (CD), learning disabilities (LD), and emotional disturbance (ED) in Wisconsin during the 1997-1998 school year (Table 1). A total of 163 full-time equivalent positions were filled in the three categories by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. Forty-three percent of the new, Wisconsin-prepared teachers without experience secured

positions in the field (Table 6, column 7). Many of these teachers had licenses in more than one special education field, which increased their employability (many finding positions in multicategorical programs). The large number of emergency licenses issued-- (Table 12)-- reflects the fact that many of these licenses are for multicategorical programs and do not necessarily indicate a severe shortage in the field. The 1996-1997 attrition rate for teachers in these fields reported in the 1998 edition of this report varied from 4.9 to 8.1 percent. The reserve pool of teachers seeking positions has declined. Retirement will have minimal impact on the demand for teachers in any of the special education fields. Though these areas are combined, there is a much more serious shortage of teachers for those willing to teach children identified as emotionally disturbed.

**OUTLOOK: Average for Cognitive and Learning Disabilities and Excellent for Emotional Disturbance**  
This field was impacted by the multicategorical licensing requirements. This is evident by the number of individuals licensed in this field who are on emergency licenses and employed in this program area.

### ***Hearing Impaired***

Two people completed licensure in the area of hearing impaired in Wisconsin during the 1997-1998 school year (Table 1). A total of four full-time equivalent positions in hearing impaired were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. The prospect for newly prepared teachers with a hearing impaired license being employed in their field is best projected over the past three years because of the small number of educators in this field. Table 11 shows that the Wisconsin employability of new inexperienced educators in this field over the past three years has averaged 100 percent. The attrition rate for teachers in this field was 5.8 percent as reported in the 1998 edition of this report. Teachers who are mobile will be less restricted in securing employment as only a few available positions exist in this low incidence disability area. Data suggests that the number of teachers being prepared could be increased to better meet the state's needs.

**OUTLOOK: Good to Excellent** Teachers prepared in this field who are mobile have an excellent chance of securing employment. This year's rating is consistent with the past year.

### ***Early Childhood Special Education***

Seventy-eight individuals completed licensure in the area of early childhood special education in Wisconsin during the 1997-1998 school year (Table 1). A total of 13 full-time equivalent positions in early childhood special education were filled by Wisconsin prepared inexperienced teachers in the Wisconsin Public Schools (Table 4) for the 1998-1999 school year. The employment prospects for newly prepared teachers in Wisconsin Public Schools with early childhood special education licensure in their field is 14 percent. For those with additional licenses the employment prospects are 28 percent (Table 6). The attrition rate for teachers in this field as reported in the 1998 edition of this report was 6.3 percent. It is difficult to assess the staffing needs for public school programs when data are not available to show the need for teachers employed in the birth-to-three age group. The available data do not indicate an additional need for teachers, yet, according to the data from the administrators' survey reported in 1997, a geographic imbalance exists, with shortages in some rural areas of Wisconsin. The increased emphasis on programs for preschool children identified as early childhood special education may increase the number of teachers needed. The employment outlook for teachers in this field is poor for employment in the public schools. Retirement will not be a factor in the demand for teachers in the near future.

**OUTLOOK: Poor** Even with the need for educators in certain geographical areas and non-public school programs the large number of newly prepared teachers in relationship to the needs in the public schools results in a poor outlook. Teachers who are mobile have a greater chance of employment.

### ***Speech and Language Pathology***

One hundred and forty people completed licensure in the area of speech and language pathology (S/L) in Wisconsin during the 1997-1998 school year (Table 1). The special education field attrition rate for speech therapists was 4.6 percent as reported in the 1998 edition of this report. The total number of emergency licenses issued was 42 (Table 12), indicating a shortage in some areas. Large proportions of speech and language pathologists are employed outside of education, therefore increasing the demand for pathologists to work in public schools. The best indicators of the employment outlook for this field are found in the data from the related service survey presented in the 1995 edition of this report and the survey sent to district administrators in September 1996. These two surveys showed that there is a serious shortage of personnel in this field. The reserve pool analysis in this report showed some areas with only a slight shortage. The need is greatest in the northern and western rural areas of Wisconsin.

**OUTLOOK: Good to Excellent** The geographical mobility of therapists is the main determinant in the "good to excellent" rating of this field.

### ***Visually Impaired***

There is limited data available in this field since Wisconsin does not prepare teachers in this area. This is the smallest teaching category in special education. A concern is the high attrition rate of 11.1 percent reported in the 1998 edition of this report, indicating a high turnover of teachers. Three new teachers for the visually impaired were hired in 1998-1999 (Table 4). The 1997 district administrators' survey gave the highest ratings in special education to the visually impaired category, indicating a serious shortage of personnel in this field.

**OUTLOOK: Excellent** Wisconsin will need to increase its out-of-state recruitment effort to meet the future needs of this state.

### **Related Services**

Related services are relatively difficult areas to investigate primarily because of limitations in the database. Nonetheless, these fields are an important part of the educational services provided in Wisconsin, and the following information will lend some insight into the employment prospects for these fields. The data collected in the 1995 edition of this report is presented as a supplement to the 1999 data since a separate analysis was not done for this report.

### ***School Audiologist***

This field is relatively new for this state (effective July 1, 1994), which accounts for the small number of individuals and limitations of the database. Very few districts had identified vacancies.

**OUTLOOK: Average** This rating is based on the time in months to fill the vacancies and the number of applicants for each position for this new field.

### ***Educational Interpreter***

Based on the survey results indicating time to fill the vacancies and the number of applications received, a general picture of the personnel status of this field was determined. A cause for concern is that many of the candidates did not have adequate educational training for the field.

**OUTLOOK: Average** This rating is based on the time in months to fill the vacancies and the number of applicants for each position in this new field.

### ***Physical Therapists***

The recommendation is based on the related services survey and the district survey data in the 1997 report. That survey showed that the need for physical therapists was greatest of all the related

services and overall indicated a shortage more severe than in any other field. Many districts contract people outside of education for this service. Data collected in previous years has consistently indicated a critical shortage of personnel in this field. The survey reported in the 1995 edition of this study showed that there is a severe shortage of physical therapists in all areas of the state. The attrition rate reported was low-- 4.3 percent as reported in the 1998 edition of this report. Retirements will be moderate in the near future. The comments on the 1995 survey consistently indicated that the field of physical therapy had the most critical shortage of personnel of any related service area.

**OUTLOOK: Excellent** All the data sources support the recommendation that the employment opportunities are excellent for this field in the public schools.

### ***Physical Therapist Assistant***

The availability of licensing for this field is new for the state, effective July 1, 1993, which accounts for the small numbers of individuals in the field and the limitations of the database.

**OUTLOOK Excellent** This recommendation is in part driven by the critical shortage of physical therapists, which should increase the demand for assistants.

### ***Occupational Therapists***

The recommendation presented is based on the related services survey and the 1997 district survey data. As with physical therapy, many individuals in this field secure positions outside of education. The attrition was 6 percent as reported in the 1998 edition of this report. This field has the second highest rating in the related service area, indicating a severe shortage of personnel.

**OUTLOOK: Good to Excellent** There is a shortage of occupational therapists for programs serving children with disabilities.

### ***Occupational Therapist Assistant***

The availability of licensing for this field is relatively new for the state, effective July 1, 1993, which accounts for the relatively small numbers of individuals in the field and the limited data.

**OUTLOOK: Good** There is a moderate shortage of occupational therapist assistants.

### ***School Psychologists***

Ninety-four people completed licensure in Wisconsin during the 1997-1998 school year (Table 1). The data presented here are also based on the 1995 related service survey and the 1999 application analysis. The district survey showed that there were a high average number of candidates available for positions. During the 1998-1999 school year 40 school psychologists were hired in the public schools (Table 4). The attrition reported was only 3.7 percent as reported in the 1998 edition of this report. Retirements will be moderate in future years. The current level of preparation is adequate.

**OUTLOOK: Average** The employment outlook for this field is "average," with geographical mobility a factor in employment.

### ***School Social Worker***

The recommendation presented is based on the related service survey and the 1997 district survey. Twenty people completed licensure in Wisconsin during the 1997-1998 school year (Table 1). The attrition was 4.4 percent as reported in the 1998 edition of this report. The 1997 district survey showed an "average" need for candidates in this field.

**OUTLOOK: Average** Based on the data available, an adequate supply of school social workers is available to serve the children in public schools, with mobility being a factor in employment.

### ***Registered Nurse***

The recommendation presented is based on the related service survey alone. The data suggests that an adequate supply of registered nurses is available for the public schools.

OUTLOOK: **Average**

### ***School Counselors***

One hundred forty people completed licensure in Wisconsin during the 1997-1998 school year (Table 1). The attrition was 6 percent as reported in the 1998 edition of this report. Future retirements will have only a moderate effect. The 1997 district survey points to an average rating in terms of candidates available in this field.

OUTLOOK: **Average** The number of counselors being prepared meets the needs.

## **School Administrators**

### ***District Administrators***

Fifteen people completed licensure in the area of district administrator in Wisconsin during 1997-1998 (Table 1). The data in Table 4 indicated 25 administrative positions were filled in the 1998-1999 school year. The 1997 district survey showed that there were 21 vacancies and the rating for these vacancies was in the high average range, suggesting an adequate supply of candidates. The attrition for this field was a high 12.3 percent as reported in the 1998 edition of this report. The projected future retirements will significantly increase the demand for personnel in this field.

OUTLOOK: **Good** Based on the projected high retirement levels, the number of administrators prepared will need to be increased to meet the needs of the field.

### ***Principals***

One hundred and forty-six people completed a principal program in Wisconsin during the 1997-1998 school year (Table 1). The number of people prepared far exceeds the employment opportunities. It may be that many licensed teachers who complete an administrator's license may choose not to seek a principal position. The 1997 district survey had 108 vacancies listed at the elementary level and 81 at the secondary level. The rating given both the elementary and secondary principal positions was very similar and in the low average range. The attrition was 6.7 percent as reported in the 1998 edition of this report. Retirements will increase the employability of educators in this field.

OUTLOOK: **Average to Good** The outlook for becoming a principal has been poor to average for many years. This year's improvement is based on the projected retirements. The outlook would be poorer were it not for the fact that many individuals with this licensure apparently do not seek positions.

### ***Director of Special Education***

Sixteen new licenses were reported earned in 1997-1998 (Table 1). Table 4 indicated that 10 directors of special education were hired in 1998-1999. The 1997 district survey showed that there were 29 vacancies. This same survey gave a good rating of employability based on the number of applicants for each position. The attrition was 6.3 percent as reported in the 1998 edition of this study. The retirement data shows the second highest projected loss of personnel of any educational field.

OUTLOOK: **Good to Excellent** Based on the limited data available there will be an increased shortage of licensed directors of special education.

## 5. Summary And Recommendations

The following summary and recommendations represent the researcher's judgments based on experience in working with the data. The researcher hopes these recommendations will facilitate the informed use of the findings. The projected gradual increase over the next ten years in the cohort of educators selecting retirement will increase the employability of those seeking positions in the public schools. This will be offset to some extent by the declining pupil enrollment. In this light, the data in this report afford an opportunity to study carefully the preparation of teachers in Wisconsin. The current large surplus of educators in many subject areas will continue to exist in Wisconsin unless teacher preparation programs continue their effort to control enrollment in those fields with the greatest surplus and provide incentives to attract prospective teachers, especially minorities to the fields of need.

New in this year's study is an analysis of the increased employability of teachers who are initially hired on a part-time basis. The results of this investigation showed that those hired with a part-time assignment do tend to move toward a full-time position. Also the analysis of retirement patterns by small, middle and large districts with separate data on the Milwaukee Public Schools validated the projections of future retirement projections as presented in the 1998 edition of this report.

The licensed educators prepared by the Wisconsin teacher training programs are competent professionals who deserve the opportunity to practice their careers in settings that reflect their earned competency and support their potential contribution to society. The quality of individuals entering the teaching force is, to a large extent, based on competition from other fields. Economic incentives offered by business, computer science, medicine, law, and other professions might limit the number of people with the required abilities and skills entering the field of education. The supply of educators remains, to an extent, a function of the attractiveness of the profession. The problems of the large surplus of teachers in many fields, and the state support of private schools with lower salaries and lack of training standards are strong disincentives to attract competent candidates. Also there is concern that pupils with challenging learning needs would face discrimination when they are not given the same opportunity to participate or they receive instruction from less than qualified teachers. These factors have a more negative impact on the quality of education in Wisconsin than any positive gains seen by the legislative decision to provide funding for select pupils in private schools. Thus it is imperative that all educators be provided every means of support so that the intrinsic value of teaching continues to attract quality individuals while meeting the personnel needs of those areas with a shortfall of personnel.

The perception persists, supported by the national media, that there are good employment opportunities in education. The data in this report and past studies have shown that this is not true for positions in many fields of education in Wisconsin Public Schools. The large reserve pool of teachers that exists in this state will moderate any immediate shortfall that might occur with increased retirements. It is important that the findings of this report be communicated to prospective teachers by disseminating the information about employment opportunities so as to facilitate their career decisions and allow market conditions to help alleviate shortages in certain fields. Students should be encouraged to select fields where shortages exist and be willing to teach in urban areas.

Wisconsin institutions of higher education, in collaboration with the Wisconsin Department of Public Instruction, should develop/design incentives to encourage students to choose teaching fields where shortages of teachers exist and find ways to attract minority students to the profession. It is hoped that the University of Wisconsin System and private colleges and universities will encourage its campuses to expand enrollment and add programs in the areas of shortages referred to in this report.

During the past several years, the information that has been provided in this report has helped to clarify our understanding of the educator supply and demand picture for Wisconsin Public Schools. The researcher believes these diverse inquiries will provide information useful in a variety of contexts to improve the quality of educational opportunities offered for Wisconsin children.

## 6. Supporting Data

Table 1.1

### Number of Program Completers, Wisconsin State Universities, 1997-1998 \*

PROGRAM	UW-Eau Claire	UW-Green Bay	UW-La Crosse	UW-Madison	UW-Milwaukee	UW-Oshkosh	UW-Parkside	UW-Platteville	UW-River Falls	UW-Stevens Pt.	UW-Strout	UW-Superior	UW-Whitewater	TOTAL SYSTEM	TOTAL PRIVATE	GRAND TOTAL
<b>Elementary</b>																
80-188 Elementary	90	66	136	108	110	109	27	55	83	108	72	46	129	1139	436	1575
<b>Secondary/Speciality</b>																
200 Agriculture	0	0	0	2	0	0	0	5	18	0	0	0	0	25	0	25
210-215 Family/Cons. Ed.	0	0	0	4	0	0	0	0	0	4	16	0	0	24	0	24
220-235, 293-299 Tech. Ed.	0	0	0	0	0	0	0	1	0	0	54	0	0	55	0	55
250-251 Business Ed.	1	0	0	0	0	0	0	0	0	0	0	2	16	19	9	28
285 Marketing	0	0	0	0	0	0	0	0	0	0	14	0	9	23	0	23
300,310,320,325 English	27	9	16	10	8	14	4	5	5	22	0	3	27	150	95	245
315-317 Reading	7	0	7	14	2	35	0	4	7	1	0	6	32	115	94	209
350-390 Foreign Language	12	12	10	12	20	11	1	0	1	14	0	0	18	111	35	146
395 English as a 2nd Lang.	0	3	0	0	6	0	0	0	0	14	0	0	0	23	5	28
400-430 Math	15	6	7	8	5	9	1	3	9	14	0	3	24	104	60	164
500-515 Music	20	3	5	21	4	5	1	8	3	13	0	6	21	110	39	149
530-536 Physical Educ.	8	0	51	11	2	15	0	10	15	23	0	3	29	167	7	174
550 Art	4	3	4	25	25	11	4	3	5	6	8	3	6	107	22	129
600-637 Science	9	5	15	9	12	7	0	6	6	21	0	3	27	120	36	156
700-761 Social Studies	9	10	24	12	7	18	3	10	19	18	0	8	52	190	110	300
900-905 Instr. Lib. Media	14	0	5	9	27	5	0	0	0	0	0	4	19	83	0	83
Total Secondary/Speciality	126	51	144	137	118	130	14	55	88	150	92	41	280	1426	512	1938
<b>Special Education **</b>																
800 Cog., Learn., Emot. Dis.	106	0	7	46	69	138	0	0	0	19	22	20	124	551	92	643
805 Hearing Impaired	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	2
808 Early Child. Spec Ed.	20	0	0	9	4	9	0	0	0	2	0	0	14	58	20	78
820 Speech/Language Path.	7	0	0	27	16	12	0	0	23	23	0	0	20	128	12	140
Total Special Education	133	0	7	82	91	159	0	0	23	44	22	20	158	739	124	863
<b>Related Services</b>																
963-967 School Counselor	0	0	0	6	22	23	0	17	14	0	31	16	4	133	7	140
50 School Social Worker	0	0	0	14	6	0	0	0	0	0	0	0	0	20	0	20
62 School Psychologist	11	0	0	8	15	0	0	12	0	18	5	19	88	6	94	
Total Related Services	11	0	0	28	43	23	0	17	26	0	49	21	23	241	13	254
<b>Administration</b>																
03 District Administrator	0	0	0	6	2	0	0	0	0	0	0	5	0	13	2	15
51 Principal	0	0	0	23	19	0	0	0	0	0	0	32	0	74	72	146
80 Dir. of Sp. Ed./Pup. Ser.	0	0	0	7	4	0	0	0	0	0	0	5	0	16	0	16
Total Administration	0	0	0	36	25	0	0	0	0	0	0	42	0	103	74	177
<b>Total Program</b>	<b>360</b>	<b>117</b>	<b>287</b>	<b>391</b>	<b>387</b>	<b>421</b>	<b>41</b>	<b>127</b>	<b>220</b>	<b>302</b>	<b>235</b>	<b>170</b>	<b>590</b>	<b>3648</b>	<b>1159</b>	<b>4807</b>

\* The numbers in Tables 1.1 and 1.2 include some individuals who may already hold a license (see text).

\*\* New this year is the licensing code 800 which combines the previous categories of cognitive, learning disabilities, and emotional disturbance.

Source: Teacher Licensing Team, Department of Public Instruction, as reported by the Wisconsin public teacher preparation programs, 1999.

**Table 1.2**

**Program Completers, Wisconsin Independent Colleges and Universities, 1997-1998 \***

<b>PROGRAM **</b>	Alverno	Beloit	Cardinal Stritch	Carroll College	Carthage	Concordia	Edgewood	Lakeland	Lawrence	Maranatha Baptist	Marian	Marquette	Mt. Mary	Mt. Senario	Northland	Ripon	Silver Lake	St. Norbert	Viterbo	Wisconsin Lutheran	TOTAL PRIVATE	TOTAL UW SYSTEM	GRAND TOTAL	
<b>Elementary</b>																								
80-188 Elem.	63	1	48	48	43	4	23	6	0	3	29	59	0	13	8	0	15	42	17	14	436	1139	1575	
<b>Secondary/Speciality</b>																								
200 Agriculture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25
Fam/Cons. Ed.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	24
Technology Educ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	55
250-251 Bus. Ed.	0	0	0	0	0	2	1	2	0	0	2	0	2	0	0	0	0	0	0	0	0	9	19	28
285 Marketing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	23
Eng./Jour./Speech	11	6	8	10	7	3	8	4	6	0	0	8	4	2	3	4	1	9	1	0	95	150	245	
315-317 Reading	0	0	26	1	11	2	0	0	0	0	0	1	0	0	0	0	2	0	51	0	94	115	209	
Foreign Language	0	5	1	2	1	2	5	5	5	0	1	4	1	0	0	0	0	0	0	3	35	111	146	
Eng. as 2nd Lang.	0	5	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	23	28	
400-430 Math	5	0	12	3	7	10	4	2	1	0	1	5	2	0	0	2	0	6	0	0	60	104	164	
500-515 Music	1	0	0	4	3	0	0	1	12	0	2	0	2	0	0	0	3	8	3	0	39	110	149	
530-536 Phy. Ed.	1	0	0	1	3	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	7	167	174	
550 Art	5	1	2	2	0	0	0	0	2	0	2	0	1	2	0	0	1	2	1	1	22	107	129	
600-637 Science	4	1	1	4	1	5	2	2	5	0	1	1	0	0	3	4	0	2	0	0	36	120	156	
Social Science	5	3	6	4	4	14	6	12	11	0	1	14	7	1	5	3	4	10	0	0	110	190	300	
Instr. Lib. Med.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	83	
<b>Tot. Sec/Speciality</b>	<b>32</b>	<b>21</b>	<b>56</b>	<b>31</b>	<b>37</b>	<b>39</b>	<b>26</b>	<b>28</b>	<b>42</b>	<b>0</b>	<b>10</b>	<b>33</b>	<b>19</b>	<b>5</b>	<b>11</b>	<b>14</b>	<b>11</b>	<b>37</b>	<b>56</b>	<b>4</b>	<b>512</b>	<b>1426</b>	<b>1938</b>	
<b>Special Education ***</b>																								
800 CD, LD, & ED.	0	0	43	0	6	2	19	0	0	0	0	0	0	0	1	0	18	0	3	0	92	551	643	
805 Hearing Imp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
808 Earl. Ch. Sp. Ed.	0	0	6	0	0	0	8	0	0	0	0	0	0	0	0	3	0	3	0	0	20	58	78	
Sp./Lang. Path.	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	12	128	140	
<b>Total Special Educ.</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>0</b>	<b>6</b>	<b>2</b>	<b>27</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>124</b>	<b>739</b>	<b>863</b>	
<b>Related Services</b>																								
School Counselor	0	0	0	0	0	4	0	0	0	0	0	3	0	0	0	0	0	0	0	0	7	133	140	
Sch. Soc. Worker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	20	
62 School Psy.	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6	88	94	
<b>Total Related Ser.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>241</b>	<b>254</b>	
<b>Administration</b>																								
03 District Adm.	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	13	15	
51 Principal	0	0	11	0	0	8	5	0	0	0	46	2	0	0	0	0	0	0	0	0	72	74	146	
Dir.Sp.Ed./Pup.Ser.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16	
<b>Total Adm.</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>46</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>74</b>	<b>103</b>	<b>177</b>	
<b>Total Program</b>	<b>95</b>	<b>22</b>	<b>164</b>	<b>79</b>	<b>86</b>	<b>57</b>	<b>81</b>	<b>34</b>	<b>42</b>	<b>3</b>	<b>85</b>	<b>117</b>	<b>19</b>	<b>18</b>	<b>20</b>	<b>14</b>	<b>47</b>	<b>79</b>	<b>79</b>	<b>18</b>	<b>1159</b>	<b>3648</b>	<b>4807</b>	

\* The numbers in Tables 1.1 and 1.2 include some individuals who may already hold a license (see text).  
 \*\* Some licensing codes were deleted due to space limitations. Please refer to Table 1.1 for a more complete listing.  
 \*\*\* New this year is the licensing code 800 which combines the previous categories of cognitive disabilities, learning disabilities and emotional disturbance.

Source: Teacher Licensing Team, Department of Public Instruction, as reported by Wisconsin private teacher preparation programs, 1999.



**Table 2**

**Number of Program Completers by Level/Speciality, 1980-1998**

	<b>Elementary</b>	<b>Sec/Speciality</b>	<b>Special Educ.</b>
1980-1981	Data Not Collected		861
1981-1982			826
1982-1983			780
1983-1984			919
1984-1985			738
1985-1986			733
1986-1987			2234
1987-1988	2034	2308	678
1988-1989	2166	2250	707
1989-1990	2101	2333	742
1990-1991	2076	1966	505
1991-1992	1760	1709	530
1992-1993	1829	1754	718
1993-1994	1688	2121	709
1994-1995	1738	1939	793
1995-1996	1680	2134	857
1996-1997	1709	1891	752
1997-1998	1575	1938	863

Source: Bureau for Teacher Education, Licensing, and Placement, Department of Public Instruction as Reported by Wisconsin Teacher Preparation Programs, 1980-1998.

**Table 3.1**

**The Head Count Number of Educators without Experience Prepared in Wisconsin State Universities and Newly Hired by Wisconsin Public Schools in 1998-1999 \***

PROGRAM	Institution													TOTAL UW SYSTEMS	TOTAL PRIVATE	GRAND TOTAL	
	UW-Eau Claire	UW-Green Bay	UW-La Crosse	UW-Madison	UW-Milwaukee	UW-Oshkosh	UW-Parkside	UW-Platteville	UW-River Falls	UW-Stevens Point	UW-Stout	UW-Superior	UW-Whitewater				
<b>Elementary</b>																	
80-188 Elementary	19	17	36	35	59	34	9	22	8	36	14	11	37	337	114	451	
<b>Secondary/Middle</b>																	
200 Agriculture	0	0	0	2	0	0	0	2	11	0	0	0	0	15	0	15	
210-215 Family/Cons. Ed.	1	0	0	1	0	0	0	0	0	2	6	0	0	10	2	12	
220-235,293-299Tech.Ed.	0	1	0	0	0	1	0	2	0	1	18	0	1	24	1	25	
250-251 Business Ed.	1	0	0	1	1	1	0	3	0	1	6	0	11	25	4	29	
300,310,320,325 English	11	3	7	3	4	3	3	1	2	7	1	1	9	55	33	88	
315-317 Reading	1	1	0	0	4	0	0	0	1	5	0	0	2	14	5	19	
350-390 Foreign Language	5	4	1	13	5	6	1	0	2	3	0	0	3	43	10	53	
395 English as a 2nd Lang.	1	5	1	2	1	2	0	1	0	4	0	0	0	17	3	20	
400-430 Math	6	5	5	8	3	12	1	5	4	8	0	3	7	67	28	95	
500-515 Music	9	3	3	6	6	4	2	3	1	2	0	0	8	47	21	68	
530-536 Physical Educ.	7	0	17	10	2	6	0	6	5	14	0	3	14	84	5	89	
550 Art	3	2	3	2	12	5	2	1	0	2	0	1	6	39	7	46	
600-637 Science	10	3	6	11	5	4	1	5	3	8	0	0	9	65	23	88	
700-761 Social Studies	12	3	12	8	10	8	0	4	3	3	0	4	10	77	26	103	
900-905 Instr. Lib. Media	2	0	2	0	1	0	0	0	0	1	0	0	1	7	3	10	
<b>Total Secondary/Middle</b>	69	30	57	67	54	52	10	33	32	61	31	12	81	589	171	760	
<b>Special Education</b>																	
805 Hearing Impaired	0	0	0	0	3	1	0	0	0	0	0	0	0	4	1	5	
800 Cog., Learn., Emot. Dis.	17	1	8	7	15	34	1	1	1	17	9	1	33	145	27	172	
808 Early Child. Spec. Ed.	5	0	0	2	2	2	0	0	0	0	0	0	2	13	2	15	
820 Speech/Language Path.	1	0	0	8	8	4	0	0	3	8	0	0	5	37	3	40	
<b>Total Special Education</b>	23	1	8	17	28	41	1	1	4	25	9	1	40	199	33	232	
<b>Related Services</b>																	
963-967 School Counselor	1	0	0	2	2	5	0	3	0	0	5	0	1	19	1	20	
50 School Social Worker	0	0	0	1	9	0	0	0	0	0	0	0	1	11	0	11	
62 School Psychologist	4	0	4	1	6	0	0	0	0	0	1	0	2	18	1	19	
<b>Total Related Services</b>	5	0	4	4	17	5	0	3	0	0	6	0	4	48	2	50	
<b>Total Program</b>	116	48	105	123	158	132	20	59	44	122	60	24	162	1173	320	1493	

\* Total includes part-time positions and duplicate count of individuals who are teaching in two different subject fields.

Source: Wisconsin Educator Supply and Demand Project, 1999. Data from the School Staff and Teacher Personnel Report.

Table 3.2

The Head Count Number of Educators without Experience Prepared in Wisconsin Independent Schools and Universities and Newly Hired by Wisconsin Public Schools in 1998-1999 \*

PROGRAM **	Institution																				TOTAL UW SYSTEMS	GRAND TOTAL
	Alverno	Beloit	Cardinal Stritch	Carroll College	Carthage	Concordia	Edgewood	Lakeland	Lawrence	Marian College	Marquette Univ.	Mt. Mary	Mt. Senario	Northland	Ripon	Silver Lake	St. Norbert	Viterbo	Wis. Lutheran	TOTAL PRIVATE		
<b>Elementary</b>																						
Elementary	18	0	18	14	4	2	8	9	0	7	7	8	2	0	0	6	8	1	2	114	337	451
<b>Sec./Middle</b>																						
200 Agriculture	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15
Fam./Cons. Ed.	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	10	12
Technology. Educ.	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	24	25
Business Ed.	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	4	25	29
Eng./Jour/Sp.	2	0	2	1	2	0	2	1	2	2	6	1	0	2	2	0	8	0	0	33	55	88
315-317 Read.	0	1	1	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	5	14	19
Foreign Lang.	1	0	0	0	2	0	0	0	3	0	1	0	0	0	0	0	2	1	0	10	43	53
Eng. 2nd Lang.	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3	17	20
400-430 Math	1	0	5	2	2	1	3	0	0	3	2	0	2	0	3	0	3	1	0	28	67	95
500-515 Music	1	0	0	3	1	0	0	2	6	0	0	1	1	1	0	0	4	1	0	21	47	68
Physical Educ.	0	0	0	2	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5	84	89
550 Art	1	1	0	0	0	0	0	0	0	1	0	0	2	0	0	0	1	1	0	7	39	46
600-637 Sci.	3	1	2	2	0	1	5	1	2	0	2	0	2	0	0	0	2	0	0	23	65	88
Social Studies	0	0	2	3	0	0	4	4	2	1	6	0	0	0	1	0	3	0	0	26	77	103
Inst Lib Media	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	7	10
Tot. Sec./Mid.	9	3	12	17	10	3	15	11	16	7	19	4	7	3	8	0	23	4	0	171	589	760
<b>Special Education</b>																						
805Hearing Imp.	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	4	5
800 Cog., Learn.,																						
Emot. Dis.	3	0	4	1	4	1	0	1	0	0	1	1	0	0	4	6	0	1	27	145	172	
808 Early Ch.Sp.Ed.	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	13	15
Sp./Lang Path.	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	37	40
Tot. Spec. Educ.	3	0	4	1	4	1	0	1	0	1	4	1	2	0	0	4	6	0	1	33	199	232
<b>Related Services</b>																						
School Counselor	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	19	20
50 Soc. Worker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11
62 School Psy.	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	18	19
Tot. Rel. Ser.	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	48	50
Total Program	30	3	34	32	18	6	23	21	16	15	32	13	11	3	8	10	37	5	3	320	1173	1493

\* Total includes part-time positions and duplicate count of individuals who are teaching in two different subject fields.

\*\* Some licensing codes were deleted because of space limitations. See Table 3.1 for a more complete list.

Source: Wisconsin Educator Supply and Demand Project, 1999. Data from the School Staff and Teacher Personnel Report

**Table 4**

**Sources of Newly Hired Teachers by FTE in Wisconsin Public Schools 1998-1999**

	Wis. Newly Hired Educ. Without Experience		Wisconsin Experienced Educators Returning		Experienced Educators Relocating		Out-of-State Educators Without Experience		Out-of State Educators With Experience		Total
	FTE	%	FTE	%	FTE	%	FTE	%	FTE	%	FTE
<b>050 Elem. Ed. K-8</b>	<b>440</b>	<b>59%</b>	<b>85</b>	<b>11%</b>	<b>92</b>	<b>12%</b>	<b>87</b>	<b>12%</b>	<b>41</b>	<b>6%</b>	<b>745</b>
<b>Sec/Spec. Areas *</b>											
200 Agriculture	13	81%	0	0%	3	19%	0	0%	0	0%	16
210-215 Family/Con Ed	11	28%	7	18%	18	45%	2	5%	2	5%	40
220-325,291-99 Tec Ed	22	47%	6	13%	13	28%	4	9%	2	4%	47
250-251 Bus. Ed/Mark. Eng/Jour/Speech/Drama	19	34%	11	20%	16	29%	7	13%	3	5%	56
315-317 Reading	72	46%	16	10%	37	24%	17	11%	14	9%	156
350-390 Foreign Lang	14	25%	12	22%	21	38%	5	9%	3	5%	55
305 Eng. as a Sec. Lang.	38	48%	14	18%	17	21%	7	9%	4	5%	80
400-430 Math	16	52%	6	19%	4	3%	1	3%	4	13%	31
500-515 Music	76	44%	21	12%	47	27%	18	10%	11	6%	173
530-536, 910 P.E./Hea.	44	33%	18	13%	50	37%	12	9%	10	7%	134
550 Art	63	55%	16	14%	25	22%	8	7%	2	2%	114
600-637 Science	34	54%	5	8%	18	29%	4	6%	2	3%	63
700-761 Social Science	63	41%	22	14%	43	28%	15	10%	12	8%	155
<b>Sec./Spec. Total</b>	<b>564</b>	<b>45%</b>	<b>165</b>	<b>13%</b>	<b>340</b>	<b>27%</b>	<b>113</b>	<b>9%</b>	<b>77</b>	<b>6%</b>	<b>1259</b>
<b>Special Education</b>											
805 Hearing Disability Cog., Learn., Emot. Dis.	4	31%	1	8%	2	15%	4	31%	2	15%	13
808 Early Child. Sp.Ed.	163	46%	43	12%	92	26%	32	9%	25	7%	355
825 Visual Disabilities	13	50%	5	19%	3	12%	2	8%	3	12%	26
84 Speech/Lang. Path.	0	0%	0	0%	3	100%	0	0%	0	0%	3
<b>Special Educ. Total</b>	<b>214</b>	<b>46%</b>	<b>58</b>	<b>12%</b>	<b>120</b>	<b>26%</b>	<b>40</b>	<b>9%</b>	<b>33</b>	<b>7%</b>	<b>465</b>
<b>Related Services</b>											
54 School Counselor	19	31%	10	16%	21	34%	6	10%	6	10%	62
55 Psychologist	22	2%	2	11%	11	28%	2	5%	3	8%	40
59 Phy. Therapist **	3	50%	3	50%	0	0%	0	0%	0	0%	6
63 Occ. Therapist **	5	33%	5	33%	0	0%	3	20%	2	13%	15
<b>Related Ser. Total</b>	<b>49</b>	<b>40%</b>	<b>20</b>	<b>16%</b>	<b>32</b>	<b>26%</b>	<b>11</b>	<b>9%</b>	<b>11</b>	<b>9%</b>	<b>123</b>
<b>Adm. Areas</b>											
05,06 Administrator	0	0%	0	0%	18	72%	0	0%	7	28%	25
51 Principal	20	17%	6	5%	75	63%	5	4%	14	12%	120
80 Dir. of Special Ed.	1	10%	0	0%	8	80%	1	10%	0	0%	10
<b>Adm. Total</b>	<b>21</b>	<b>14%</b>	<b>6</b>	<b>4%</b>	<b>101</b>	<b>65%</b>	<b>6</b>	<b>4%</b>	<b>21</b>	<b>14%</b>	<b>155</b>
<b>GRAND TOTAL</b>	<b>1288</b>	<b>47%</b>	<b>334</b>	<b>12%</b>	<b>685</b>	<b>25%</b>	<b>257</b>	<b>9%</b>	<b>183</b>	<b>7%</b>	<b>2747</b>

\* Some licensing codes were deleted because of space limitations. See Table 3.1 for comparison.

\*\* OT and PT numbers do not account for the individuals hired through contracted services.

Source: Wisconsin Educator Supply/Demand Project, 1999. Data from the Staff and Teacher Personnel Report

**Table 5**

**Number of Newly Hired Educators by FTE from 1994-1995 through 1998-1999**

	94-95	95-96	Change	96-97	Change	97-98	Change	98-99	Change
<b>Elementary Education</b>									
050 Elem. Ed. K-8)	<b>961</b>	<b>589</b>	<b>-372</b>	<b>503</b>	<b>-86</b>	<b>597</b>	<b>94</b>	<b>745</b>	<b>148</b>
<b>Sec/Spec. Areas</b>									
200 Agriculture	20	23	3	16	-7	13	-3	16	3
210-215 Family/Con Ed	50	23	-27	37	14	27	-10	40	13
220-325,291-99 Tech Ed	70	44	-26	50	6	55	5	47	-8
250-251 Business Ed	54	35	-19	39	4	49	10	56	7
Eng/Jour/Speech/Drama	217	140	-77	129	-11	164	35	156	-8
315-317 Reading	95	75	-20	51	-24	51	0	55	4
350-390 Foreign Lang	150	64	-86	87	23	88	1	80	-8
305 Eng. as a Sec. Lang.	40	22	-40	20	-2	23	3	31	8
400-430 Math	228	115	-113	124	9	162	38	173	11
500-515 Music	174	93	-81	99	6	112	13	134	22
530-536, 910 P.E./Hea.	134	82	-52	85	3	105	20	114	9
550 Art	86	51	-35	53	2	62	9	63	1
600-637 Science	227	139	-88	138	-1	144	6	155	11
700-761 Social Science	158	89	-69	85	-4	126	41	139	13
<b>Sec./Spec. Total</b>	<b>1703</b>	<b>995</b>	<b>-708</b>	<b>1013</b>	<b>18</b>	<b>1181</b>	<b>168</b>	<b>1256</b>	<b>75</b>
<b>Special Education</b>									
805 Hearing Disability	13	14	1	11	-3	16	5	13	-3
Cog., Learn., Emot. Dis.	508	465	-43	305	-160	355	50	355	0
808 Early Child. Sp. Ed.	66	38	-28	29	-9	36	7	26	-10
825 Visual Disabilities	7	7	0	5	-2	4	-1	3	-1
84 Speech/Lang. Path.	101	43	-58	68	25	55	-13	68	13
<b>Special Educ. Total</b>	<b>695</b>	<b>567</b>	<b>-128</b>	<b>418</b>	<b>-149</b>	<b>466</b>	<b>48</b>	<b>465</b>	<b>-1</b>
<b>Related Services</b>									
55 Psychologist	54	28	-26	29	1	45	16	40	-5
59 Phy. Therapist *	10	7	3	6	-1	7	1	6	-1
63 Occ. Therapist *	13	12	-1	11	-1	13	2	15	2
<b>Related Ser. Total</b>	<b>77</b>	<b>47</b>	<b>-30</b>	<b>46</b>	<b>-1</b>	<b>65</b>	<b>19</b>	<b>123</b>	<b>58</b>
<b>GRAND TOTAL</b>	<b>3436</b>	<b>2198</b>	<b>-1238</b>	<b>1980</b>	<b>-218</b>	<b>2309</b>	<b>329</b>	<b>2589</b>	<b>280</b>

\* Contracted therapists are employees who may not be identified in the state database.

Source: Wisconsin Educator Supply and Demand Project, 1999. Data from the Staff and Teacher Personnel Report.

**Table 6**

**Employment Rates for Wisconsin Prepared Teachers First Hired by Wisconsin Public Schools by FTE**

	Programs Completed by teachers		Employed in License Field 1998-99*		Employed in Other License Field		Total Employed Including Multiple Fields 1998-99	
	1997-98	Number	Percent	Number	Percent	Number	Percent	
	1	2	3	4	5	6	7	
<b>ELEMENTARY EDUCATION</b>								
100-188 EL (K-8)	1,575	370	23%	187	12%	557	35%	
<b>SECONDARY EDUCATION</b>								
200 Agriculture	25	13	52%	3	12%	16	64%	
210-215 Family/Con. Ed.	24	10	42%	2	8%	12	50%	
220-235,293-299 Tec. Ed.	55	23	42%	0	0%	23	42%	
250-251,Business	28	15	54%	0	0%	15	54%	
285 Marketing Education	23	4	17%	0	0%	4	17%	
300, 310, 320, 325 Eng/Journ/Speech/Drama	245	54	22%	27	11%	81	33%	
350-390 Foreign Language	146	33	23%	8	5%	41	28%	
400-430 Math	164	41	25%	4	2%	45	27%	
500-515 Music	149	42	28%	4	3%	46	31%	
530-536 Phy. Ed.	174	52	30%	6	3%	58	33%	
550 Art	129	33	26%	3	2%	36	28%	
600-637 Science	156	36	23%	8	5%	44	28%	
700-761 Social Studies	300	60	20%	36	12%	96	32%	
<b>SECONDARY TOTAL</b>	<b>1,618</b>	<b>416</b>	<b>26%</b>	<b>101</b>	<b>6%</b>	<b>517</b>	<b>32%</b>	
<b>SPECIAL EDUCATION **</b>								
805 Hearing Dis. ***	2	4	200%	0	0%	4	200%	
808 Early Childhood Sp. Ed.	78	11	14%	11	14%	22	28%	
800 Cog. Learn. Emot. Dis.****	637	152	24%	120	19%	272	43%	
<b>SPECIAL ED. TOTAL</b>	<b>717</b>	<b>167</b>	<b>23%</b>	<b>131</b>	<b>18%</b>	<b>298</b>	<b>42%</b>	
<b>GRAND TOTAL</b>	<b>3,910</b>	<b>953</b>	<b>24%</b>	<b>419</b>	<b>11%</b>	<b>1,372</b>	<b>35%</b>	

\* The number of individuals employed in each licensing field will differ from other tables since in this analysis the counts are by licenses earned rather than by subject position code.

\*\* The numbers of licensed teachers in learning disabilities and emotional disturbance do not reflect the large number of new emergency licenses in these fields, which depresses these counts.

\*\*\* The 200% is explained on the basis that some of the positions were filled with individuals on an emergency license who were initially prepared in an alternative field.

\*\*\*\* New this year is the licensing code 800 which combines the previous categories of cognitive disabilities, learning disabilities, and emotional disturbance.

Source: Wisconsin Educator Supply and Demand Project, 1999. Data from various DPI sources.

**Table 7.1**

**Field Attrition Rates of Wisconsin Teachers for 1989-1998 \***

	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98
General Ed.	8.0%	4.8%	5.9%	7.8%	6.4%	11.5%	6.5%	7.5%	6.3%
Special Ed.	8.7%	6.8%	8.3%	14%	10.9%	14.6%	8.4%	11.8%	10.1%

\* \*

**Table 7.2**

**State Exit Attrition Rates and Field Transfers of Wisconsin Teachers for 1997-1998**

Field ***	State Exit Attrition	Transfers to Special Educ.	Trans. Within General Educ.
Elementary	5.7 %	39	334
Secondary	6.7 %	43	309
Total General	6.3 %	82	643

**Table 7.3**

**Special Education Attrition for 1997-1998**

Special Educ.	Attrition	Trans. to Gen.	Trans. w/in Sp. Ed.
Early Childhood Sp, Ed.	7.0%	33	7
Cog. , Learn., Emot. Dis.	6.9%	194	6
Total Special in CD, EC:EEN, LD, & ED	6.9%	227	13

\* Prior to 1991-92, the ELT's in special education were not included.

\*\* During the 1993-1994 year the data base was not verified; this would inflate the attrition figure for the 1994-1995 year.

\*\*\* The variations in the attrition rates are consistent considering the fields included in each analysis. Those limited to a specific field will always be higher than those that combine areas. The state exit rate represents teachers who are not employed in the Wisconsin Public Schools, which results in a lower rate.

Source: Wisconsin Teacher Supply and Demand, 1999

**TABLE 8**

**Retirements of the Wisconsin Public School Educators over the Age of 56 and Projections in the Smallest, Middle and Largest Third of Public School Districts with Separate Data on the Milwaukee Public Schools**

Year	Small Districts			Middle Districts			Large Districts			Milwaukee Public			Total
	Ret.	Staff	Att.	Ret.	Staff	Att.	Ret.	Staff	Att.	Ret.	Staff	Att.	Ret.
1997-1998	115	674	.17	209	1147	.18	719	4226	.17	163	714	.23	1206
1998-1999	122	718	.17	236	1276	.18	834	4899	.17	174	760	.24	1366
1999-2000	128	768	.17	258	1392	.19	935	5478	.17	183	804	.23	1504
2000-2001	135	805	.17	278	1487	.19	1046	5981	.17	197	864	.23	1656
2001-2002	144	874	.16	299	1633	.18	1157	6722	.17	219	962	.23	1819
2002-2003	155	950	.16	324	1822	.18	1274	7569	.17	250	1090	.23	2003
2003-2004	166	1045	.16	360	2005	.18	1418	8204	.17	264	1161	.23	2208
2004-2005	181	1142	.16	394	2143	.18	1550	8679	.18	275	1217	.23	2400
2005-2006	194	1194	.16	423	2245	.19	1640	9078	.18	276	1231	.22	2533
2006-2007	204	1232	.17	442	2332	.19	1710	9394	.18	279	1244	.22	2635
2007-2008	212	1245	.17	452	2325	.19	1764	9469	.19	279	1242	.22	2707
2008-2009	217	1248	.17	460	2293	.20	1797	9358	.19	281	1237	.23	2755
2009-2010	219	1237	.18	459	2254	.20	1787	9126	.20	281	1234	.23	2746
2010-2011	219	1232	.18	455	2242	.20	1761	8999	.20	276	1208	.23	2711
2011-2112	217	1217	.18	452	2188	.21	1730	8712	.20	272	1185	.23	2671
Totals	2628			5501			21122			3669			32920

Source: Wisconsin Educator Supply and Demand Project, 1999. Data from the School and Staff and Teacher Personnel Reports for the 1996-1997 and 1997-1998 school years.



**Table 9**

**Vacancies and Completed Application Totals from Five Select Public School Districts**

Subject	Kenosha		Waukesha		Reedsburg		Palymra		Ladysmith	
	Vac.	Applic.	Vac.	Applic.	Vac.	Applic.	Vac.	Applic.	Vac.	Applic.
<b>Elem.</b>	60	269	17	334	5	354	3	166		
<b>Secondary/Speciality</b>										
Agriculture					1	4				
Art	4.2	19	2	10	1	30	0	2		
Bus. Ed.	6.5	23	1	8						
English	9.1	195	1	13	2	42				
ESL/Bil.	6	16	0	7						
Fam. Con Ed.	0	12	0	7	1	1				
For. Lang.	6.84	55			0	1	1	9		
Lib/Media	2	18								
Math	12.5	70	1	12	2	51			1	6
Music	7.6	65	7		1	25	0	1	2	19
Phy. Ed.	5	46	3	20	1	13	0	3		
Reading	5.16	5	1	22					1	6
Science	13.1	53	1	8	1	23	0	2		
Soc. Studies	6.5	103	4	49	1	127	1.5	41		
Tech. Ed.	3	21	3	2	1	13	0	7		
<b>Special Education</b>										
Cog. Dis.	3	32	2	23	1	3				
Early Ch. Sp. Ed.	3	10		5	1	5				
Emot. Dis.	11	18	15		0	9	1	15		
Hear. Imp.	1	4	2	4						
Learn. Dis.	12	143	6	62	1	6				
Sp./lang.	4	8	5	42						
Vision		3								
<b>Related Services</b>										
Counselor	5	20	2	6	1	0				
Sch. Psy.	1	10								
Soc. Work.	1	11					1	11		
<b>Administration</b>										
Principal	1	5			0	9				
<b>Totals</b>	189.5	1234	73	634	21	716	7.5	257	4	31

Note: Totals were not appropriate because the sampled districts had different policies that effected the number of applications considered for the vacancies.

Source: Wisconsin Educator Supply and Demand Project, 1999.

**Table 10.1**

**State Exit Attrition of Teachers in Fields in which Single Licenses are Most Commonly Held at Various FTE Equivalentents in the Wisconsin Public Schools in 1995-1996 and 1996-1997 after One Year's Service, with the FTE Equivalentents of their Positions when Rehired. \***

**1997-1998 Employment Number and Equivalent Percentage**

		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
		<b>0</b>	<b>0-25%</b>	<b>26-50%</b>	<b>51-75%</b>	<b>76-99%</b>	<b>100%</b>	<b>TOTAL</b>
<b>AA</b>	<b>0-25%</b>	10 10%	9 9%	5 5%	14 13%	11 10%	56 53%	105 11%
<b>BB</b>	<b>26-50%</b>	31 12%	3 1%	43 16%	19 7%	17 6%	149 57%	262 28%
<b>CC</b>	<b>51-75%</b>	15 11%	0 0%	3 2%	25 18%	7 5%	87 64%	137 15%
<b>DD</b>	<b>76-99%</b>	2 3%	0 0%	0 0%	2 3%	14 24%	41 69%	59 6%
<b>EE</b>	<b>100%</b>	35 9%	1 0%	4 1%	3 1%	4 1%	327 87%	374 40%
<b>FF</b>	<b>TOTAL</b>	93 10%	13 1%	55 6%	63 7%	53 6%	660 70%	937

Explanation of this table. The numbers on the left side of the table (column AA through FF) show the status by FTE/percentages for the new hires from 1995-1996 and 1996-1997 one year after being hired. Column A shows both the number and the percentage of teachers hired who were no longer teaching in the Wisconsin Public Schools in the following academic year (state exit attrition). Column G shows the total number of new hires from 1995-1996 and 1996-1997. at the various FTE percentages. Thus, a total of 105 educators (row AA, column G) were hired for positions of 25 percent FTE or less. Of these 105, a total of 10 (10%), (row AA, column A), were not employed in the Wisconsin Public Schools the following year. Nine, (column B), (9%) remained at 25 percent or less in the following year. This same format continues in the rest of row AA. Row BB shows that a total of 262 (column G) were hired for positions of from 26 to 50 percent. In column A, row BB, 31, (12%) of those who were were employed from 26 to 50 percent were not employed in the following school year. Column B in this same row shows that 3, (1%) of the educators had reduced employment of from 0 to 25 percent while 43, (16%) were employed at the same level (row AA). Column F shows the proportion who one year after being hired are now employed at 100 percent. The same pattern continues throughout the table.

\* The table includes teaching positions codes including: agr., art, bus. ed., fam./con. ed., music, and phy. ed. The data were from the 1995-1996, 1996-1997, and 1997-1998 new hires file. The FTE counts were combined for teachers who held the same position in more than one district or were employed in more than one teaching field.

\* Source: Wisconsin Educator Supply and Demand Project, 1999. Data from School and Staff and Teacher Personnel Reports.

**Table 10.2**

**State Exit Attrition of Teachers in Fields in which Single Licenses are Most Commonly Held at Various FTE Equivalentents in the Wisconsin Public Schools in 1995-1996 and 1996-1997 after Two Year's Service, with the FTE Equivalentents of their Positions when Rehired. \***

**1997-1998 Employment Number and Equivalent Percentage**

		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
		<b>0</b>	<b>0-25%</b>	<b>26-50%</b>	<b>51-75%</b>	<b>76-99%</b>	<b>100%</b>	<b>TOTAL</b>
<b>AA</b>	<b>0-25%</b>	16 17%	4 4%	7 7%	10 11%	5 5%	53 56%	95 11%
<b>BB</b>	<b>26-50%</b>	48 19%	3 1%	25 10%	19 8%	10 4%	148 58%	253 29%
<b>CC</b>	<b>51-75%</b>	14 11%	1 1%	3 2%	15 11%	10 8%	90 68%	133 15%
<b>DD</b>	<b>76-99%</b>	5 9%	0 0%	0 0%	2 4%	8 15%	39 72%	54 6%
<b>EE</b>	<b>100%</b>	46 14%	0 0%	2 1%	0 0%	3 1%	289 85%	340 39%
<b>FF</b>	<b>TOTAL</b>	129 15%	8 1%	37 4%	46 5%	36 4%	619 71%	875

Explanation of this table. The numbers on the left side of the table (column AA through FF) show the status by FTE/percentages for the new hires from 1995-1996 and 1996-1997 two years after being hired. Column A shows both the number and the percentage of teachers hired who were no longer teaching in the Wisconsin Public Schools two years later (state exit attrition). Column G shows the total number of new hires from 1995-1996 and 1996-1997. at the various FTE percentages. Thus, a total of 95 educators (row AA, column G) were hired for positions of 25 percent FTE or less. Of these 95, a total of 16 (17%), (row AA, column A), were not employed in the Wisconsin Public Schools the following two years. Nine, (column B), (4%) remained at 25 percent or less after two years. This same format continues in the rest of row AA. Row BB shows that a total of 253 (column G) were hired for positions of from 26 to 50 percent. In column A, row BB, 48, (19%) of those who were employed from 26 to 50 percent were not employed after two school years. Column B in this same row shows that 3, (2%) of the educators had reduced employment of from 0 to 25 percent while 25, (10%) were employed at the same level (row AA). Column F shows the proportion who two years after being hired are now employed at 100 percent. The same pattern continues throughout the table.

\* The table includes teaching positions codes including: agr., art, bus. ed., fam./con. ed., music, and phy. ed. The data were from the 1995-1996, 1996-1997, and 1997-1998 new hires file. The FTE counts were combined for teachers who held the same position in more than one district or were employed in more than one teaching field.

\* Source: Wisconsin Educator Supply and Demand Project, 1999. Data from School and Staff and Teacher Personnel Reports.

**Table 10.3**

**State Exit Attrition of Teachers in Fields in which Multiple Licenses are Most Common at Various FTE Equivalentents in the Wisconsin Public Schools in 1995-1996 and 1996-1997 after One Year's Service, with the FTE Equivalentents of their Positions when Rehired. \***

		1997-1998 Employment Number and Equivalent Percentage						
		A	B	C	D	E	F	G
		0	0-25%	26-50%	51-75%	76-99%	100%	TOTAL
<b>AA</b>	<b>0-25%</b>	48 17%	17 6%	14 5%	12 4%	22 8%	174 61%	287 13%
<b>BB</b>	<b>26-50%</b>	86 12%	1 0%	124 17%	18 2%	16 2%	500 67%	745 22%
<b>CC</b>	<b>51-75%</b>	28 10%	1 0%	6 2%	30 11%	12 4%	190 71%	267 7%
<b>DD</b>	<b>76-99%</b>	15 10%	1 1%	4 3%	1 1%	13 8%	122 78%	156 5%
<b>EE</b>	<b>100%</b>	236 9%	3 0%	24 1%	10 0%	10 0%	2286 89%	2569 53%
<b>FF</b>	<b>TOTAL</b>	413 10%	23 1%	172 4%	71 2%	73 2%	3272 81%	4024

Explanation of this table. The numbers on the left side of the table (column AA through FF) show the status by FTE/percentages for the new hires from 1995-1996 and 1996-1997 one year after being hired. Column A shows both the number and the percentage of teachers hired who were no longer teaching in the Wisconsin Public Schools in the following academic year (state exit attrition). Column G shows the total number of new hires in 1995-1996 and 1996-1997 at the various FTE percentages. Thus, a total of 287 educators (row AA, column G) were hired in for positions of 25 percent FTE or less. Of these 287, a total of 48 (17%), (row AA, column A), were not employed in the Wisconsin Public Schools the following year. One, (column B), (0%) remained at 25 percent or less in the following year. This same format continues in the rest of row AA. Row BB shows that a total of 745 (column G) were hired for positions of from 26 to 50 percent. In column A, row BB, 86, (12%) of those who were were employed from 26 to 50 percent were not employed in the following school year. Column B in this same row shows that one, (0%) of the educators had reduced employment of from 0 to 25 percent while 124, (17%) were employed at the same level (row AA). Column F shows the proportion who one year after being hired are now employed at 100 percent. The same pattern continues throughout the table.

\* The table includes teaching positions codes including: cog. dis., earl. ch. sp. ed., emot. dis., Eng. 2nd, Eng., for lang., hear. imp., learn. dis., math, science, soc. stu., and vis. hcp. The data elem ed., were from the 1995-1996, 1996-1997, and 1997-1998 new hires file. The FTE counts were combined for those who held the same position in more than one district or were employed in more than one field.

\* Source: Wisconsin Educator Supply and Demand Project, 1999. Data from School and Staff and Teacher Personnel Reports.

**Table 10.4**

**State Exit Attrition of Teachers in Fields in which Multiple Licenses are Most Common at Various FTE Equivalent in the Wisconsin Public Schools in 1995-1996 and 1996-1997 after Two Year's Service, with the FTE Equivalent of their Positions when Rehired. \***

		1997-1998 Employment Number and Equivalent Percentage						
		A	B	C	D	E	F	G
		0	0-25%	26-50%	51-75%	76-99%	100%	TOTAL
AA	0-25%	39	2	8	6	8	114	177
		22%	1%	5%	3%	5%	64%	5%
BB	26-50%	113	5	65	13	7	477	680
		17%	1%	10%	2%	1%	70%	0%
CC	51-75%	39	0	4	16	7	164	230
		17%	0%	2%	7%	3%	71%	6%
DD	76-99%	28	0	1	0	8	106	143
		20%	0%	1%	0%	6%	74%	4%
EE	100%	287	2	22	11	6	1989	2317
		12%	0%	1%	0%	0%	86%	65%
FF	TOTAL	506	9	100	46	36	2850	3547
		14%	0%	3%	1%	1%	80%	

Explanation of this table. The numbers on the left side of the table (column AA through FF) show the status by FTE/percentages for the new hires from 1995-1996 and 1996-1997 two year's after being hired. Column A shows both the number and the percentage of teachers hired who were no longer teaching in the Wisconsin Public Schools after two academic years (state exit attrition). Column G shows the total number of new hires in 1995-1996 and 1996-1997 at the various FTE percentages. Thus, a total of 177 educators (row AA, column G) were hired in for positions of 25 percent FTE or less. Of these 177, a total of 39 (22%), (row AA, column A), were not employed in the Wisconsin Public Schools after two academic years. Two, (column B), (1%) remained at 25 percent or less after two school years. This same format continues in the rest of row AA. Row BB shows that a total of 680 (column G) were hired for positions of from 26 to 50 percent. In column A, row BB, 113, (17%) of those who were were employed from 26 to 50 percent were not employed after two school years. Column B in this same row shows that five, (1%) of the educators had reduced employment of from 0 to 25 percent while 65, (10%) were employed at the same level (row AA). Column F shows the proportion who two years after being hired are now employed at 100 percent. The same pattern continues throughout the table.

\* The table includes teaching positions codes including: cog. dis., earl. child. sp. ed., emot. dis., Eng. elem ed., 2nd, Eng., for lang., hear. imp., learn. dis., math, science, soc. stu., and vis. hcp. The data were from the 1995-1996, 1996-1997, and 1997-1998 new hires file. The FTE counts were combined for those who held the same position in more than one district or were employed in more than one field.

\* Source: Wisconsin Educator Supply and Demand Project, 1999. Data from School and Staff and Teacher Personnel Reports.

**Table 11**

**Employment Rates for Wisconsin Prepared Teachers First Hired by Wisconsin Public Schools for 1995-1996 through 1998-1999**

	Programs Completed by Teachers				Employed in Licensed Field				Total Employed in Licensed Field Plus Multiple Fields					
	Year 95-6	Year 96-7	Year 97-8	Mean	Year 96-7	Year 97-8	Year 98-9	Mean	%	Year 96-7	Year 97-8	Year 98-9	Mean	%
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>ELEM EDUC. *</b>														
Elem (K-8)	1680	1709	1575	1655	400	444	370	405	24%	386	504	557	482	29%
<b>SEC EDUC</b>														
Agriculture	29	19	25	24	9	10	13	11	44%	10	11	16	12	51%
Family/Con. Ed.	16	18	24	19	12	11	10	11	57%	12	12	12	12	62%
Tech. Ed.	24	36	55	38	17	20	23	20	52%	18	21	23	21	54%
Business	31	30	28	30	21	13	15	16	55%	19	13	15	16	53%
Marketing Educ	31	20	23	25	2	3	4	3	12%	3	3	4	3	14%
Eng/Jo/Sp/Dr	281	242	245	256	59	63	54	59	23%	77	75	81	78	30%
Foreign Lang	153	161	146	153	33	36	33	34	22%	41	41	41	41	27%
Math	175	172	164	170	34	48	41	41	24%	44	55	45	48	28%
Music	131	133	149	138	37	36	42	38	28%	37	38	46	40	29%
Phy. Ed.	233	150	174	186	46	60	52	53	28%	52	62	58	57	31%
Art	119	121	129	123	30	38	33	34	27%	31	40	36	36	29%
Science	181	181	156	173	46	50	36	44	25%	53	57	44	51	30%
Social Studies	360	332	300	331	48	57	60	55	17%	76	85	96	86	26%
<b>SEC. TOTAL</b>	1764	1615	1618	1666	394	445	416	418	25%	473	513	517	501	30%
<b>SPEC. EDUC.</b>														
Hearing Dis	6	2	2	3	4	3	4	4	110%	4	3	4	4	110%
Cog. Le. Em. Dis.	652	557	643	617	150	170	152	157	25%	218	229	272	240	39%
Early. Ch. Sp. Ed.	107	85	78	90	18	18	11	16	17%	33	31	22	29	32%
<b>SP. ED. TOT.</b>	765	644	723	711	172	191	167	177	25%	255	263	298	272	38%
<b>TOTAL</b>	4209	3968	3916	4031	966	1080	797	682	17%	1114	1114	1372	1200	30%

\* The licensing codes for individual subject fields are available in Appendix A.

Source: Wisconsin Educator Supply and Demand Project, 1998. Data from various DPI source

**Table 12**

**Number of Emergency Licenses Issued in Wisconsin for 1990-1999**

	90-1	91-2	92-3	93-4	94-5	95-6	96-7	97-8	98-9
<b>Elementary</b>									
080-088 Elem.(Nur.)-(K-8)	100	102	104	95	109	123	110	110	126
<b>Total Elementary</b>	100	102	104	95	109	123	110	110	126
<b>Secondary Education</b>									
200 Agriculture	1	2	2	3	2	3	4	4	4
210 Fam./Con. Ed.	16	5	17	23	12	3	6	9	9
220 Tech Educ.	9	10	11	11	23	27	42	55	45
250 Business Ed.	2	4	9	4	5	4	5	12	30
285 Marketing Educ.	3	1	2	4	1	2	2	3	4
300 Eng., Jour., Sp. & Theater	24	24	16	22	25	30	37	44	51
316 Reading	154	163	173	162	154	136	125	159	148
350-390 Foreign Lang.	51	47	64	61	52	44	58	78	76
395 Eng. as Sec. Lang	88	78	79	59	64	63	60	72	98
23, 28,33,36,44,49									
Bilingual Education	55	87	91	No Data	86	85	83	91	67
400-405 Math/ Comp. Sci.	30	32	29	26	29	37	36	44	43
450-455 Driv./Saf. Ed.	20	19	21	22	12	31	36	41	35
500-515 Music(K-12)	30	29	23	21	30	16	30	34	52
530-536 Phy. Educ.	8	8	5	10	9	9	10	11	11
910 Health	29	23	23	15	23	18	19	21	16
550 Art (K-12)	11	11	14	7	7	11	11	12	14
600-637 Science	48	49	65	69	71	63	78	83	89
700-761 Social Stud.	56	48	57	41	38	31	38	42	29
901-903 Inst. Lib. Med.	30	37	32	26	24	28	39	52	54
<b>Total Secondary/Middle</b>	665	677	733	606	667	641	719	867	875
<b>Special Education</b>									
805 Hearing	1	2	4	3	4	6	3	2	9
810 Cog. Dis.	78	76	84	89	98	110	104	123	143
808 Early Child. Sp. Ed. *	75	91	102	80	62	63	58	43	47
811 Learn. Disability	354	338	354	252	224	245	225	243	250
820 Speech/Language	41	39	30	27	37	53	56	58	42
825 Visual Disability	5	2	4	2	1	5	8	5	5
830 Emot. Disturbed	595	619	561	521	511	551	486	404	373
<b>Total Special Education</b>	1149	1167	1139	974	937	1033	940	878	869
<b>Related Services</b>									
963-967 School Couns.	50	42	40	35	41	52	50	54	51
50 Social Worker	18	7	8	No Data	11	12	5	9	10
62 School Psychologist	0	0	2	No Data	12	10	7	2	3
<b>Total Related Services</b>	68	49	50	35	64	74	62	65	64
<b>Grand Total</b>	1962	1995	2026	1710	1777	1871	1831	1920	1934

Source: Teacher Licensing Team, Wisconsin Department of Public Instruction, 1999.

## Appendix A

### License Codes: Wisconsin Department of Public Instruction

#### Position Codes

03	Superintendent
08	School Business Manager
10	Director of Instruction
51	Principal
50	School Social Worker
61	Provisional School Psychologist
62	School Psychologist
65	Local Vocational Education Coord.
75	School Nurse
80	Director of Special Education and Pupil Services
91	Instructional Library Media Supervisor

#### Elementary License Grade Level Codes

083	Pre-K - Grade 3
086	Pre-K - Grade 6
088	Pre-K - Grade 8
116	Grade 1-6
118	Grade 1-8

#### Special Codes

200	Agriculture
210	Family and Consumer Education
220	Technology Education
250	Business Education
265	Typewriting
285	Marketing Education
300	English
310	Journalism
316	Reading Teacher
317	Reading Specialist
320	Speech (Academic)
325	Theater
350	Latin
355	French
360	Italian
365	Spanish
370	German
375	Japanese
385	Russian
390	Other Foreign Languages
395	English as a Second Language
400	Mathematics
405	Computer Science
450	Driver Education

455	Safety Education
506	Instrumental Music
511	Choral Music
515	General Music
530	Physical Education
536	Dance
540	Coaching
550	Art
601	Broadfield Science
605	Biology/Life Science
610	Chemistry
615	Environmental Studies
621	Science (6-9)
625	Physics
635	Earth/Space Science
637	Physical Science
701	Broadfield Social Studies
702	Anthropology
710	Economics
715	Geography
725	History
730	Philosophy
735	Political Science
740	Psychology
745	Sociology
760	Other Social Studies
761	Afro-American Studies
805	Hearing Impaired
806	Mild Moderate Cognitive
807	Severely Handicapped
808	Early Childhood Special Educ.
811	Learning Disabilities
820	Speech/Language Pathology
822	Audiology
830	Emotional Disturbance
859	Adaptive Education
860	Adaptive Physical Education
901	Initial Instructional Library-Media Specialist
902	Instructional Library Media Specialist
903	Instructional Technology
910	Health
966	School Counselor
967	School Counselor-Bilingual



## Appendix B

### University of Wisconsin System Survey Summary

On the supply side, the *Supply and Demand of Educational Personnel for Wisconsin Public Schools* is designed to collect data on individuals who have completed a degree or program at the baccalaureate or post-baccalaureate level, including individuals already employed who are achieving additional certification. On the demand side, the DPI study includes data on the need for educators in Wisconsin public schools. Although the study was never intended to provide information of the placement of education graduates, it has nevertheless stimulated public discussion about the employment prospects for teacher education graduates.

In order to ascertain the employment prospects for teacher education graduates, the DPI supply and demand data are useful. However, additional information is necessary to have a more complete picture of the total employment prospects for those graduating with an initial baccalaureate degree in education. These additional data include teacher education employment in Wisconsin public and private schools, public and private schools outside of Wisconsin, social service agencies, and non-educational entities, as well as enrollment in post-graduate education programs.

To meet this need for system-wide data on the range of employment prospects for teacher education graduates, representatives from University of Wisconsin System teacher education programs and placement offices decided to survey their education graduates. UW System Administration contracted with the Wisconsin Survey Research Laboratory to work with the UW institutions to develop and conduct a survey. The survey was mailed to all students who received their initial BA/BS degree from a University of Wisconsin institution and who were eligible to receive a license to teach in Wisconsin during the December 1997, May 1998, and August 1998 terms.

The survey was designed to provide information about the placement of UW teacher education graduates. The survey asked graduates about the following:

- Their employment status (employed or not)
- The nature of employment (teaching or other)
- The subject areas and grade levels in which they teach
- How satisfied they are with teaching as a career
- For those employed in non-teaching positions, how related their educational training was to their employment

A mail survey was sent to 2,113 graduates in the spring of 1999. After three mailings, a total of 1,382 graduates completed questionnaires, for a 65% response rate. With this response rate, we are confident in generalizing to the entire population of teacher education graduates.

The major findings of this survey provide us with significant information about our education graduates.

- Employment prospects for UW teacher education graduates are excellent: 96% of the graduates were employed: 86% were employed full time and 10% part-time.
- A significant majority of teacher education graduates are teaching: 87% of the respondents were employed as teachers. Of those employed as teachers, 83% were full-time, 5% were part-time, and 11% were employed as substitutes. Data in this year's *Supply and Demand Report* indicate that part-time teaching is a viable path to full-time teaching.
- UW graduates are primarily teaching in Wisconsin: 78% of the respondents employed as teachers were teaching in Wisconsin, in public or private schools or in day care centers.

\* Numbers may not add up to 100% due to rounding.

- Graduates from UW teacher preparation programs are satisfied with teaching as a career: 94% of the respondents employed as teachers indicated that they were very satisfied (63%) or somewhat satisfied (31%) with teaching as a career.
- UW graduates are licensed to teach at several grade levels (grade ranges), thus enhancing their employment prospects: 77% of those who responded are licensed to teach at multiple grade levels.
- For the small percentage of respondents (9%) who were currently employed in non-teaching positions, 44% were in managerial or professional occupations. A majority (54%) of those same respondents indicated that their current positions were very or somewhat related to their field of study.
- Only 2% of all respondents (23 individuals) reported being employed in an area unrelated to education because they could not find a full-time teaching position.

In summary, the information obtained from this survey is encouraging. The data clearly show that UW teacher education graduates are finding employment as teachers in Wisconsin, and that they are satisfied with their career choice.

Source: Wisconsin Survey Research Laboratory, 1999.