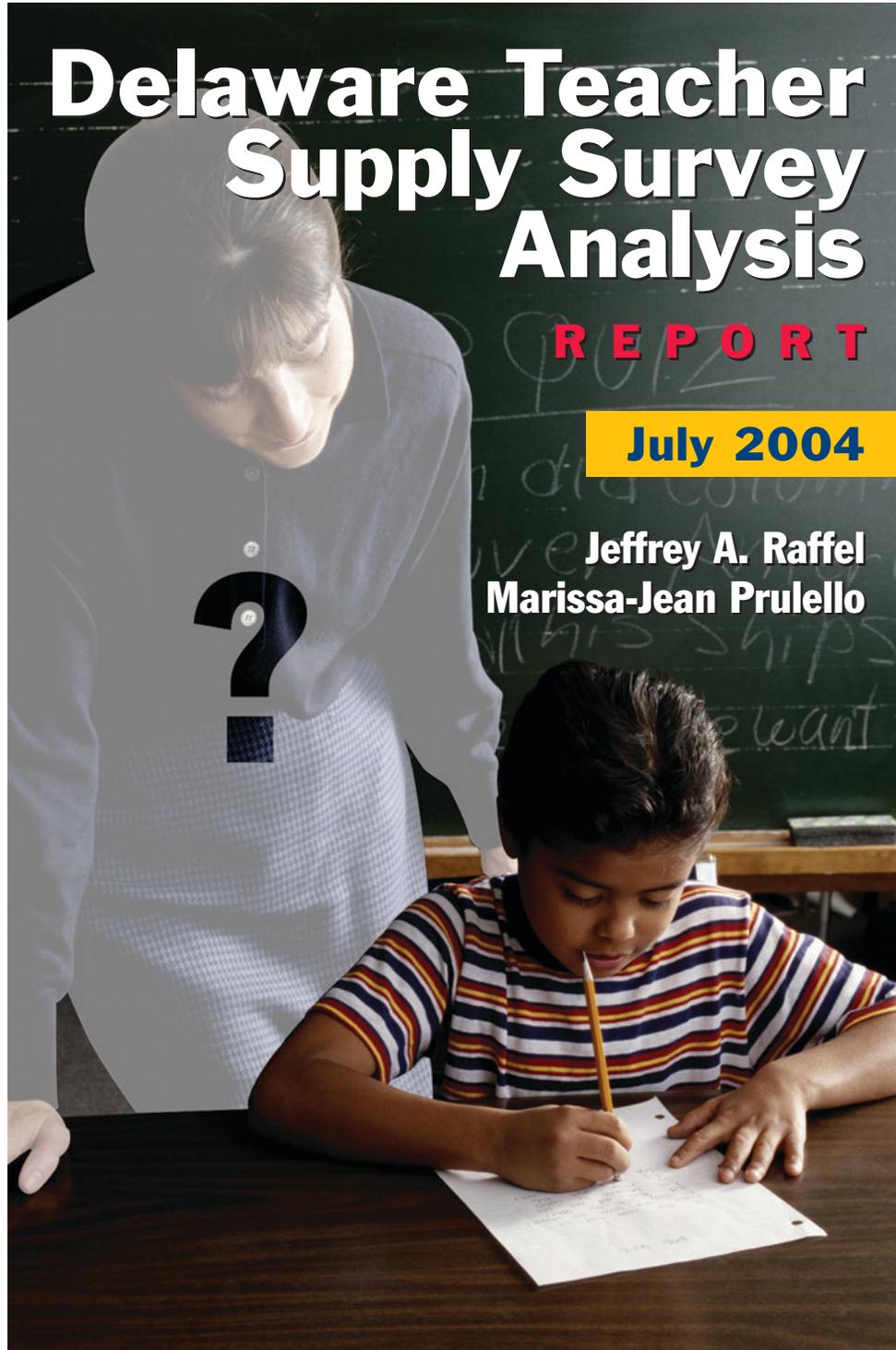


Delaware Teacher Supply Survey Analysis

R E P O R T

July 2004

**Jeffrey A. Raffel
Marissa-Jean Prulello**



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sponsored by the **Institute for Public Administration**
College of Human Services, Education & Public Policy
University of Delaware

in cooperation with the **Delaware Department of Education**

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Introduction

The 19 public school districts throughout the state of Delaware hired a total of 922 teachers for the 2003–2004 school year. The personnel directors from each district were asked to complete an online survey requesting information on the number of new hires, when personnel directors were notified of vacancies, when districts extended contracts, which teaching and non-teaching positions were difficult to fill, recruitment tools used, and implications of the No Child Left Behind legislation. All completed the survey. In addition to the 19 regular public school districts in Delaware, this year’s survey was also distributed to the 13 charter schools in the state. Nine of the 13 charter schools returned the survey. The charter school analysis is reported separate from the regular-school-district analysis below. This year’s survey, the third in an annual series of surveys, was administered through the Department of Education’s website. The project was conducted through the Institute for Public Administration (IPA) within the College of Human Services, Education and Public Policy at the University of Delaware.

The Teacher Supply Survey from 2002–2003¹ was analyzed and redesigned in conjunction with Dr. Wayne Barton, Education Associate, Assessment and Accountability Branch of the Delaware Department of Education (DOE). The survey was then posted on the web on November 15, 2003, and closed by DOE on January 31, 2004.

The personnel directors’ survey was supplemented with DOE data. These data come directly from the payroll department and contain information through November of 2003. The DOE data are analyzed in a separate section below.

¹ Jeffrey A. Raffel and Kelly L. Scollon, “Delaware Teacher Supply Survey Analysis Report.” Institute for Public Administration, University of Delaware. April 2003.

Personnel Survey Results

The analysis of the results of the web-based survey of the 19 personnel directors reports the findings about teacher hiring, critical-needs areas, non-teacher hiring, and recruitment strategies over the past three years. This first section of the report contains the results of the Teacher Supply Survey. The data are reported by the percent of districts answering a question in a particular way. For example, if 12 of the 19 district personnel directors reported a response was a “major reason” for offering temporary contracts, we indicate that the percentage of districts offering this response is noted as 63.2%. If all of the districts did not answer a question, then the percentage was based upon the number that did respond. For example, if only 14 districts fully answered a question and 10 stated they are involved with a mentoring program, the report indicates that 71.4 percent of the 14 districts answering the question participated in a mentoring program.

The survey has been reproduced in Appendix A².

Teacher Hiring

Personnel directors report a total of 922 teachers were hired by the 19 school districts for the 2003–2004 academic year. This includes approximately 150 teachers changing districts within the state as reported in the DOE Payroll Data Results section below. Of these hires, the hiring dates of 921 new teachers were reported (see Figure 1a). **Much like the previous two years, two-thirds of teachers (67.9%) were hired in August or later (see Figure 1b).** In the previous two years, 77.9 percent of new teachers were hired in August or later in 2001–2002, and 75.8% were hired in August or later in 2002–2003. This indicates that there has been a 7.9-percent improvement in the timeliness of hiring practices from last year to this year. The most frequently reported month for hiring was August (384 hires), followed by July (151 hires), and September (127 hires). The difference from last year is that

² The format of the survey in Appendix A is different than the actual online version. This format shows all possible responses made available to personnel directors.

Figure 1a. Month that Teacher Contract was Agreed Upon: Three-Year Comparison

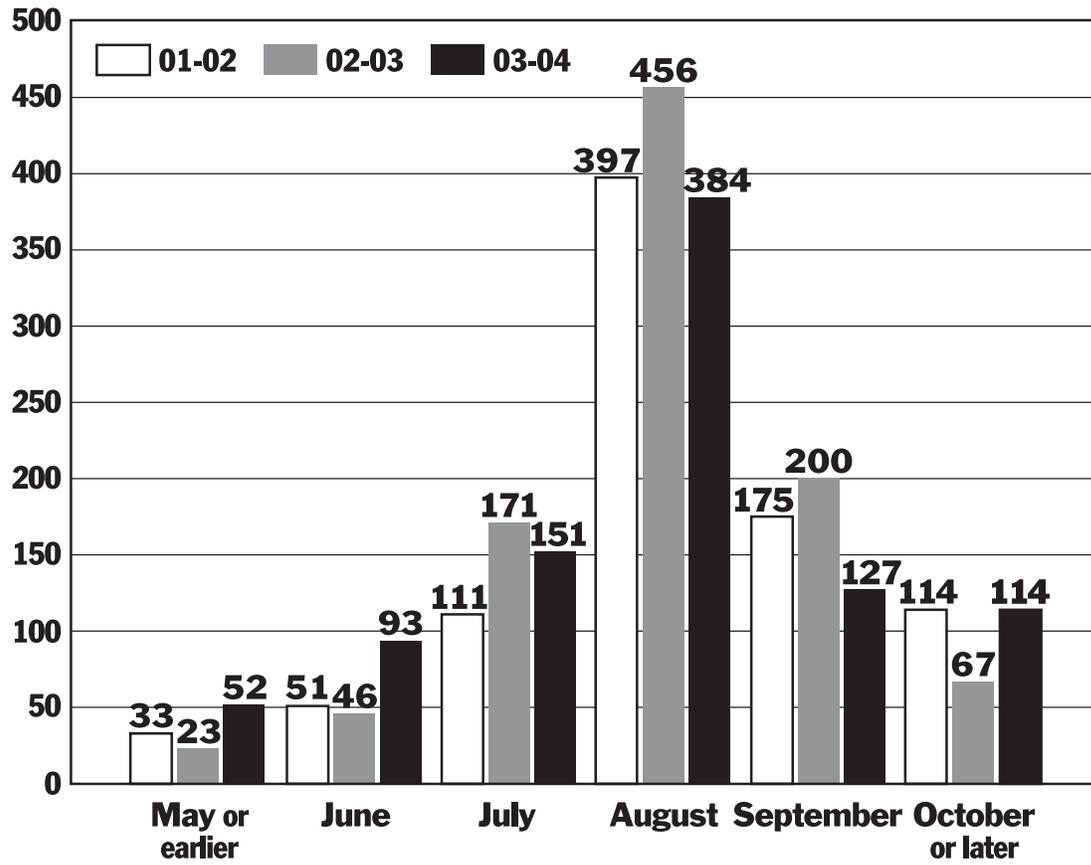
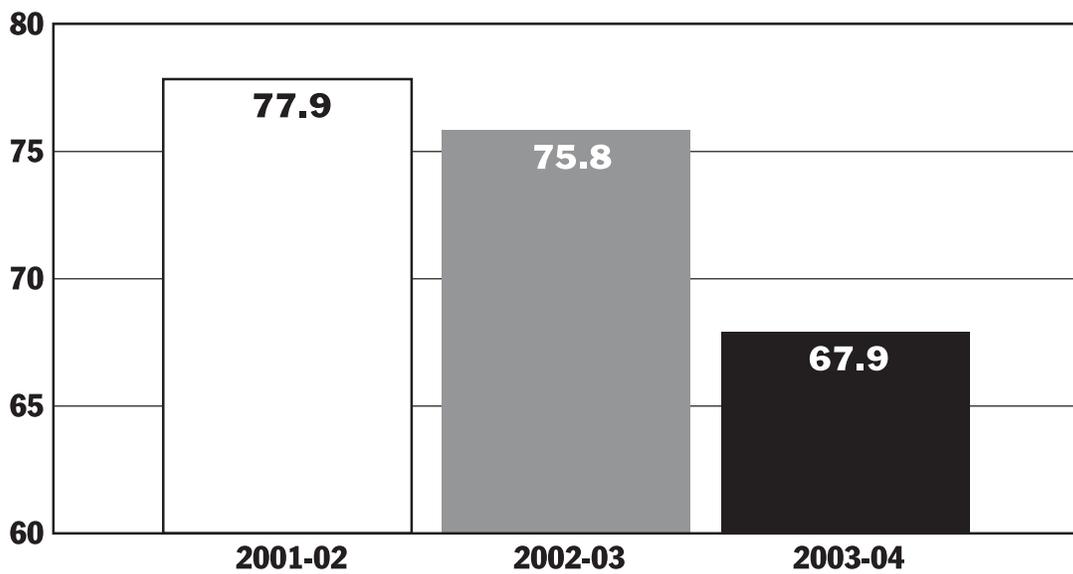


Figure 1b. Percent of Teachers Hired August or Later: Three-Year Comparison



this year more teachers were hired in July than in September; in the previous year there were more hires made in September than July. Also, compared to the past two years, there has been an increasing number of teachers being hired in May or earlier as well as June.

Between December and January, when the survey was distributed and completed, personnel directors reported a total of 27 unfilled teaching positions in the state. These positions are listed below.

- “Elementary; Music (elem)”
- “Librarian/Media Specialist”
- “Secondary Math”
- “Computer Aided Drafting”
- “Speech Pathologist/Teacher of the Deaf”
- “Special Education, English, Speech Language
- “Math, Music, PE, Science, Library”
- “Technology Education, Social Studies
- “School nurse middle school”

Of the new hires, 217 were on temporary contracts, a significant reduction of 100 from last year. As per suggestions resulting from last year’s survey, a question was added to this year’s survey asking why teachers were being hired on temporary contracts. Twelve out of 19 districts indicated the major reason for utilizing temporary contracts was temporary needs due to pregnancy, illness, sabbatical, etc. This was closely followed by 11 districts that identified teacher credentials as the major reason for extending temporary contracts. Presumably, these teachers given temporary contracts had not yet fulfilled paperwork or credential requirements for certification in Delaware.

There were also 54 Alternative Route teachers hired for 2003–2004. The number of Alternative Route teachers increased this year by 14. Nine teachers returned to a public school district after having worked in a charter school after one year, three after two years, and one after three years.

Teacher Shortages

Hiring difficulties still exist in critical-needs teaching areas. Consistent with last year, the survey indicated high-school mathematics as being the most difficult area for teacher hiring for the 2003–2004 academic year (see Figure 2). Fourteen out of 19 districts, or 73.7 percent, indicated high-school math as the most difficult teaching position to fill. Following high-school math was technology with 11 out of 19 (57.9%) districts reported being most difficult to fill. Special education and high-school science each had 10 out of 19 (52.6%) and with middle-school math and middle-school science with 8 out of 19 (42.1%) reporting vacancy-filling difficulties. Interestingly, though, when respondents were asked to indicate which one teaching position was most difficult to fill, 8 out of 19 personnel directors indicated special education, whereas 6 out of 19 indicated high-school math.

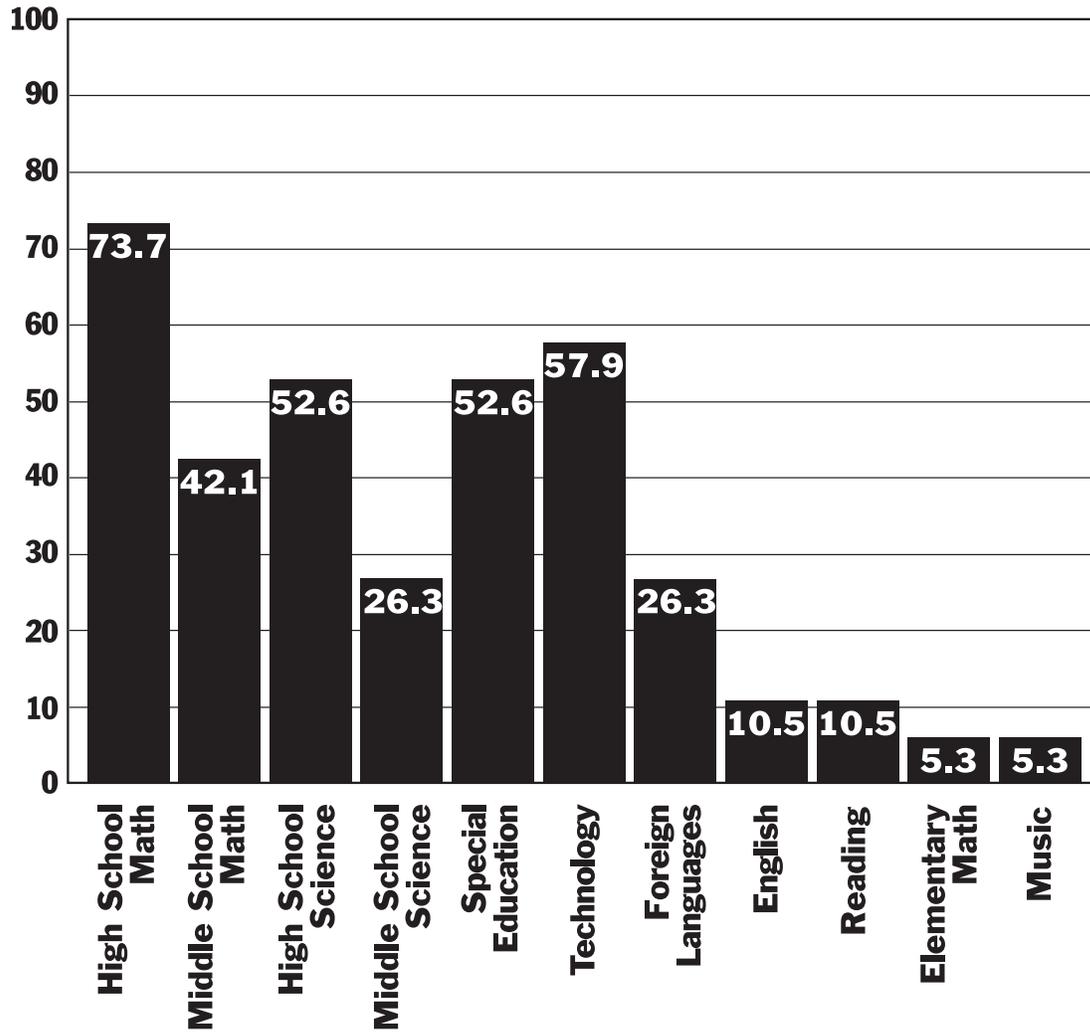
Some positions were actually reported as not difficult to fill by personnel directors. Fifteen out of 19 districts (78.9%) reported little or no difficulty in filling elementary positions, 10 out of 19 (52.6%) for physical education positions. The remaining four districts indicated that hiring for elementary positions was not applicable for the 2003–2004 year; six districts reported hiring for physical-education positions as being not applicable as well.

Overall, this year’s findings were very similar to the previous year’s; mathematics, technology, and special-education teaching positions proved again to be very difficult to fill, while elementary-education and physical-education positions were relatively easy to fill.

Predicted Changes in Teacher Hiring

Personnel directors were asked what changes in teacher hiring they anticipated for the coming year. Consistent with this year, they anticipated problems hiring math (89.5%) and science (84.2%) teachers. Also predicted by 13 out of 19 districts is that the number of qualified applicants will decrease and the critical-needs areas will be harder to fill. Within critical needs, special education, math, and technology are anticipated to be the most difficult areas. Four districts felt there

Figure 2. Percent of Districts Indicating Major Difficulty in Filling Teaching Positions by Subject



would be problems with current teachers being unqualified due to the No Child Left Behind requirements. This year a question was added to the survey to determine if districts had made plans to assist current teachers in meeting the “highly qualified” requirements of No Child Left Behind legislation. The strategies for the 17 districts that have made arrangements are summarized below:

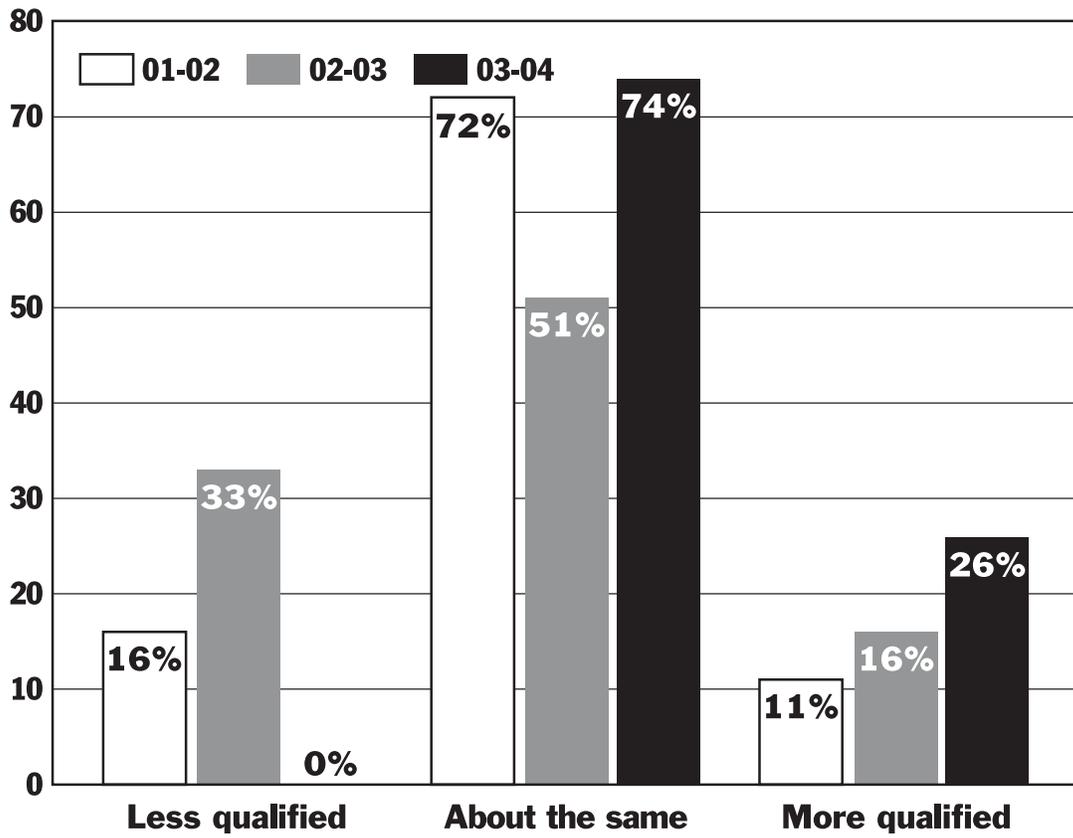
- “Support for teachers having difficulty passing the PRAXIS . . . ”
- “Course reimbursement” or “Partial tuition reimbursement”
- “Professional Development”
- “Use of Teacher-to-Teacher Specialists in Technology, Reading, Math and Science”
- “Strong mentor program”
- “We will decide on the level and type of support once the HOUSSE requirements for Delaware are approved”

None of the districts felt that there would be an absence of problems in teacher hiring next year.

Qualifications

Most districts reported that teacher qualifications of those hired in 2003–2004 were neither better nor worse than in prior years. Across the state, 73.7 percent of the personnel directors found new hires to be just as qualified as those hired in prior years. Roughly one-quarter (26.3%) of the personnel directors found new hires to be more qualified than those hired in prior years. No districts felt they had hired less-qualified teachers for 2003–2004 (see Figure 3). In last year’s survey, one-third of the districts reported that new teacher hires were more qualified, and only three out of 19 districts reported hiring less-qualified teachers. As noted by some personnel directors, having the same qualifications is not necessarily a bad thing if the qualifications are good; it simply indicates no change from the previous year.

Figure 3. Comparison of Qualification of Recent Teacher Hires to Those of Previous Two Years (Assessment by Percent of Districts)



Reasons for Teacher Shortages

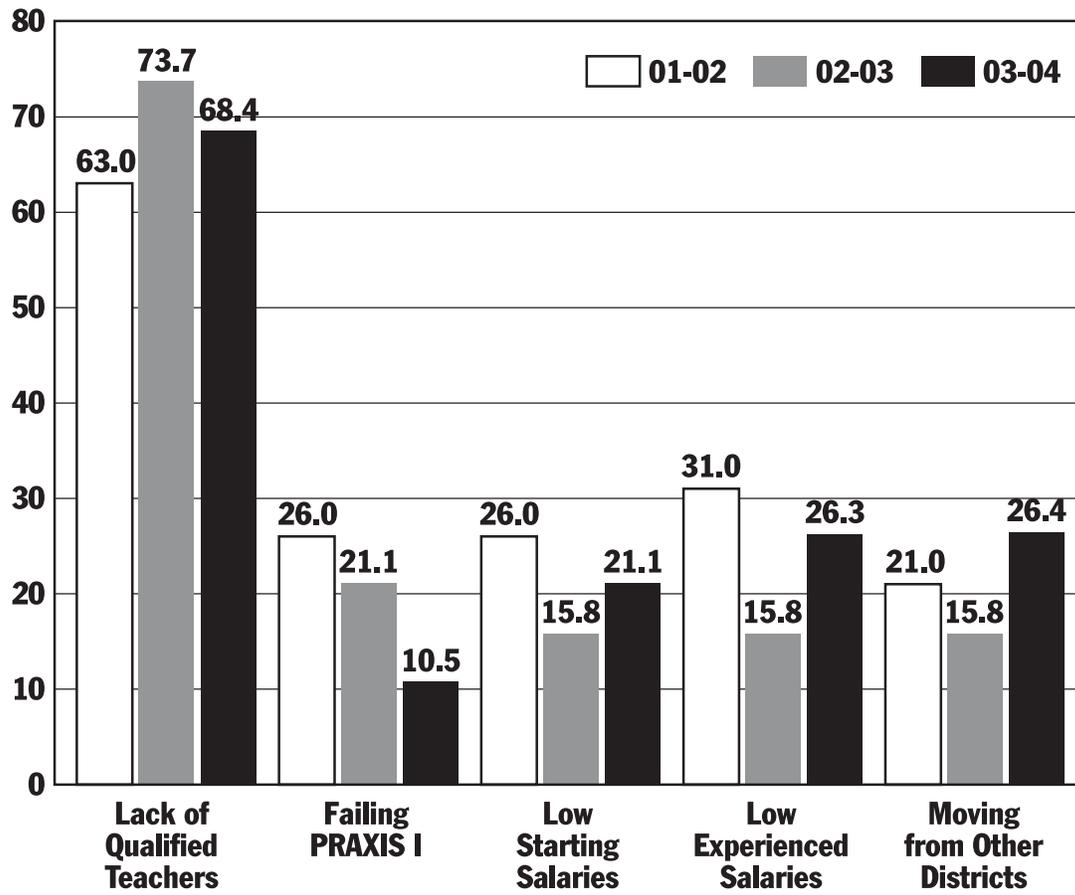
According to the personnel directors, the major reason for teacher shortages for fall 2003 was that there was a lack of qualified teacher candidates in particular areas (see Figure 4). Over two-thirds of the districts reported that there was a lack of qualified candidates; this is about the same as last year's results. Low salaries for experienced teachers was the second major problem related to teacher shortages for districts. About one-quarter (26.3%) of respondents indicated this; 52.6 percent of respondents indicated this was not a problem at all. Teacher migration outside of Delaware was not a problem for a majority of personnel directors as well (57.9%). This is also consistent with the previous year's results. Intrastate teacher migration (teachers moving from one Delaware district to another) was seen as a problem for 47.4 percent of respondents. **Overall, personnel directors in Delaware continue to view the lack of qualified teacher candidates in particular areas as, by far, the biggest cause of teacher shortages.**

Summer-School Hires

As initiated last year, the survey included a question regarding 2003 hiring of summer-school teachers, specifically third- and fifth-grade reading and eighth-grade reading and math. Ten out of 19 districts reported difficulties in hiring eighth-grade math teachers. Hiring third-, fifth-, and eighth-grade reading teachers was only a slight problem for three, three, and four districts out of the 19 respectively.

On average, 93.2 percent of summer-school hires were reported as certified to teach in the area for which they were hired. This is a 17.5-percent increase from the previous year, in which 75.7 percent of the summer-school hires were certified in the area for which they were hired. All third- and fifth-grade reading hires were certified, and 47 out of 50 (94%) of eighth-grade reading teachers were certified. Eighth-grade math had 72 hires for summer school, 60 (83.3%) of whom were certified to teach in that area.

Figure 4. Three-Year Comparison of Percent of Districts Indicating a Major Problem in Teacher Shortages due to...



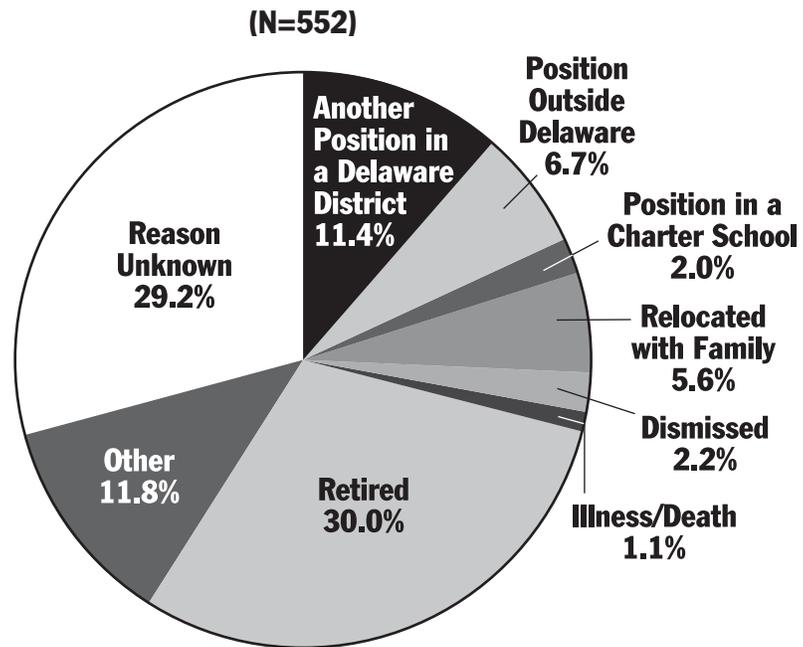
Of the teachers hired for summer school, an average of 91.9 percent across the districts were reported to be experienced. All of the teachers hired for fifth- and eighth-grade reading had experience in that area, and 49 out of 50 summer school hires for third-grade reading were experienced as well. Once again, eighth-grade math had the fewest number of experienced hires (76.4%).

Vacancies

There were a total of 885 teacher vacancies reported this year. This is a large increase from the number of vacancies reported last year (473). One reason for such a large reported gap from one year to the next is that at least one district may have included in its number of vacancies teachers on temporary contracts who had been “lost” in June due to the end of the contract and then offered another temporary or permanent contract. In order to avoid this confusion next year, the question pertaining to vacancies in the survey will have to be more specifically defined.

The reasons teachers left districts this year accounted for 552 out of the 885 (62.4%) vacancies reported as compared to last year’s 289 out of 473 (61.1%) vacated positions. Because of last year’s high “other” response, additional categories were added to this year’s list of responses, but it is clear that many teachers leave for unknown reasons. One of these new added responses was also the biggest reason for vacated teaching positions; 30 percent, or 165 vacancies, in the 2003–2004 year are attributable to retirement (see Figure 5). A close second to this was the 161 teachers (29.2%) who left for reasons unknown to personnel directors. While not as prominent a reason, 63 teachers (11.4%) left their district to take a position in another Delaware school district. Other reasons for teachers leaving that were not reported as a frequent problem were: took a position with another district outside of Delaware (N=37), took a position at a charter school (N=11),

Figure 5. Reasons for Teachers Leaving



relocated with family (N=31), were dismissed (N=12), incurred illness/death (N=6), retired due to additional requirements for “highly qualified” teachers per the No Child Left Behind Act (N=1), and other (N=65).

In order to help understand the reasons for vacancies more clearly, personnel directors were asked to indicate when they learned about the vacancies. They were asked to provide the number of vacancies learned about within a given time period, starting with “October 2002 or earlier” and continuing month by month until “September 2003 or later.” This provided information on when vacancies were reported for 885 positions for the 2003–2004 academic year. Only 18.4 percent of the teaching vacancies were reported in March 2003 or earlier. From July 2003 on more than 63 percent of positions were reported as vacant. The largest number of vacancies, 240, was reported in August of 2003, followed by September 2003 or later with 213. In the previous year only 31 positions were reported vacant in September or later. This difference from one year to the next could be due to the previously mentioned problem of one district counting expiring temporary contracts as vacancies this year.

Many districts have established incentive strategies for teachers and other professionals to encourage early notification of plans to leave. This is to help districts learn of and, hopefully, fill vacancies earlier. Currently 11 districts have an incentive for early notification compared to nine districts last year. There incentives range as follows:

- “\$50 for each year in district service if notified by March 1”
- “\$50 for each year of district service up to \$1,500”
- “\$50 per year service with the Woodbridge School District. Notification in November”
- “\$200 stipend”
- “\$200 prior to April 1st”
- “\$500 if revealed by February 15”
- “\$500 if notice by March”

- “\$100 bonus per year of service to district with four months notice of retirement”
- “\$600 bonus”

Teacher-Hiring Problems

Several hiring problems were also addressed by the survey. Reciprocity was the first problem addressed. Approximately two-thirds (68.4%) of the districts did not encounter any reciprocity problems this year, as was the case last year (63.3%). Some problems that were indicated included:

<u>Certificate</u>	<u>Problem</u>
“1-8”	“Delaware does not honor this certificate”
Counseling	“Did not recognize prior experience elem.”
All	“Non-DE programs (e.g., Salisbury U.)” “Out-of-state candidates”
“Middle School Teacher”	“K-6 not accepted from out-of-state districts”

Only 21.1 percent of school districts reported contractual barriers or hindrances that delayed them from offering a contract to teachers. This is an improvement from the 42 percent of school districts facing difficulties in the previous year. Interestingly, each of the four districts that indicated contractual barriers as a problem also indicated the voluntary transfer period, which ends in mid-August, as the specific cause of the delays. “This is due to the so-called ‘ripple effect,’ when a teacher announces that he/she is leaving. Their position is then offered to transfers in-district. If an in-district teacher fills it, then their newly open position is then offered in-district. This process repeats until the position is opened to external candidates”³.

³ Jeffrey A. Raffle and Kelly L. Scollon, “Delaware Teacher Supply Survey Analysis Report.” Institute for Public Administration, University of Delaware. April 2003, 17.

Similar to the previous year, 14 out of 19 districts stated that teacher candidates committing to work in their districts and later changing their minds during the August–September period was a significant problem in teacher hiring. Of these 33 teachers who switched to another district, 14 went to a district outside of Delaware, three decided not to teach, and one decided to teach at the college level. Districts reported that relocation issues this year—not salary concerns—was the biggest reason for decision reversals. This was followed by certification and salary problems. School assignment and location of district were also mentioned as reasons for commitment reversals (see Figure 6).

Non-Teaching Position Shortages

The non-teaching position hardest to fill by personnel directors in 2003–2004 was that of speech therapist (see Figure 7). Almost half (47.4%) of respondents this year indicated speech pathologists were most difficult to hire. The next-hardest-to-fill position (21.1%) was psychologist. Last year, while speech therapist was indicated as a position very difficult to fill, it was second to that of school psychologist. When personnel directors were asked to indicate which non-teaching position was most difficult to fill, ten districts selected speech pathologist. Librarians were moderately difficult for personnel directors to hire, and nurse and secondary and elementary school administrators were not difficult to hire. Central office administrator and guidance counselor were considered not difficult or not applicable in non-teacher hiring by 17 of the 19 districts. One school district indicated that it did not fill any non-teacher positions this year.

There are a few non-teacher hiring problems anticipated next year. The biggest suspected problem in non-teacher hiring as indicated by personnel directors is that the pool of qualified candidates will decrease. This was closely followed by an anticipated increase in teacher retirement and school psychologists being more difficult to find. One district indicated that speech pathologists would be more difficult to find, and one district stated contract services would be a challenge to find. Three districts indicated there would be no problems in non-teacher hiring next year.

Figure 6. Percent of Districts Reporting Major Reasons for Reversal of Teacher Commitment

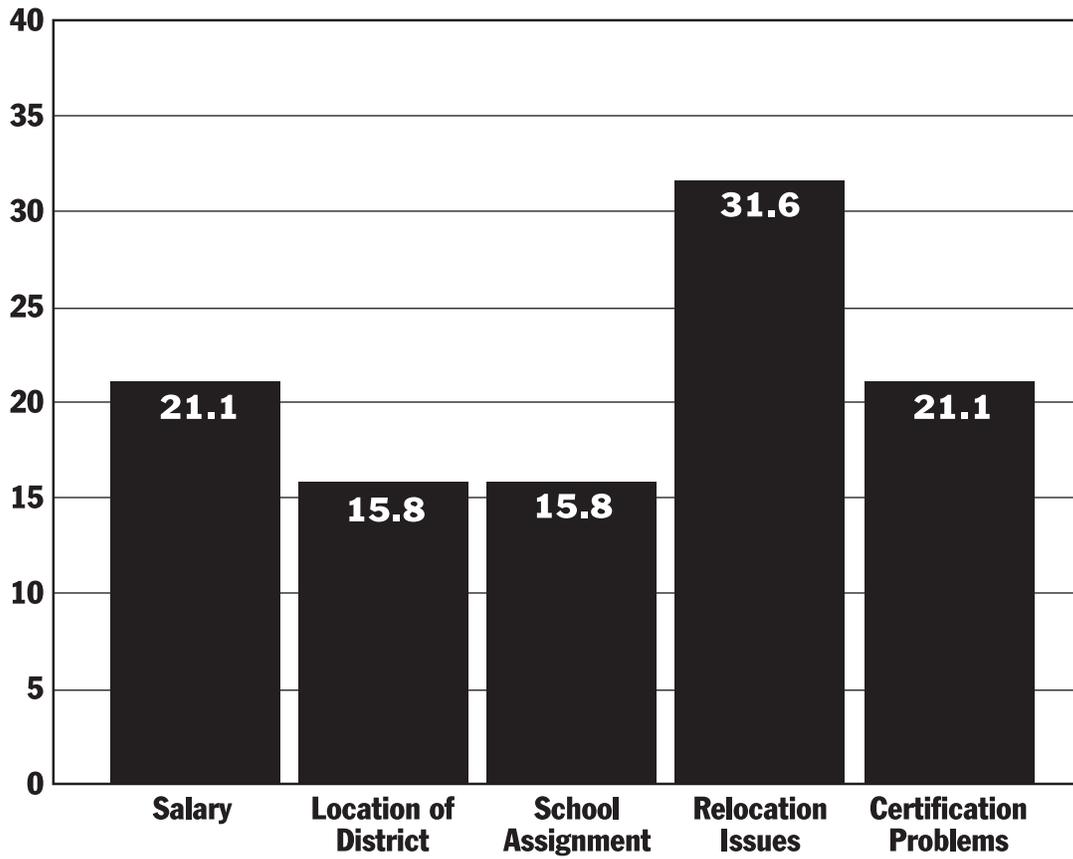
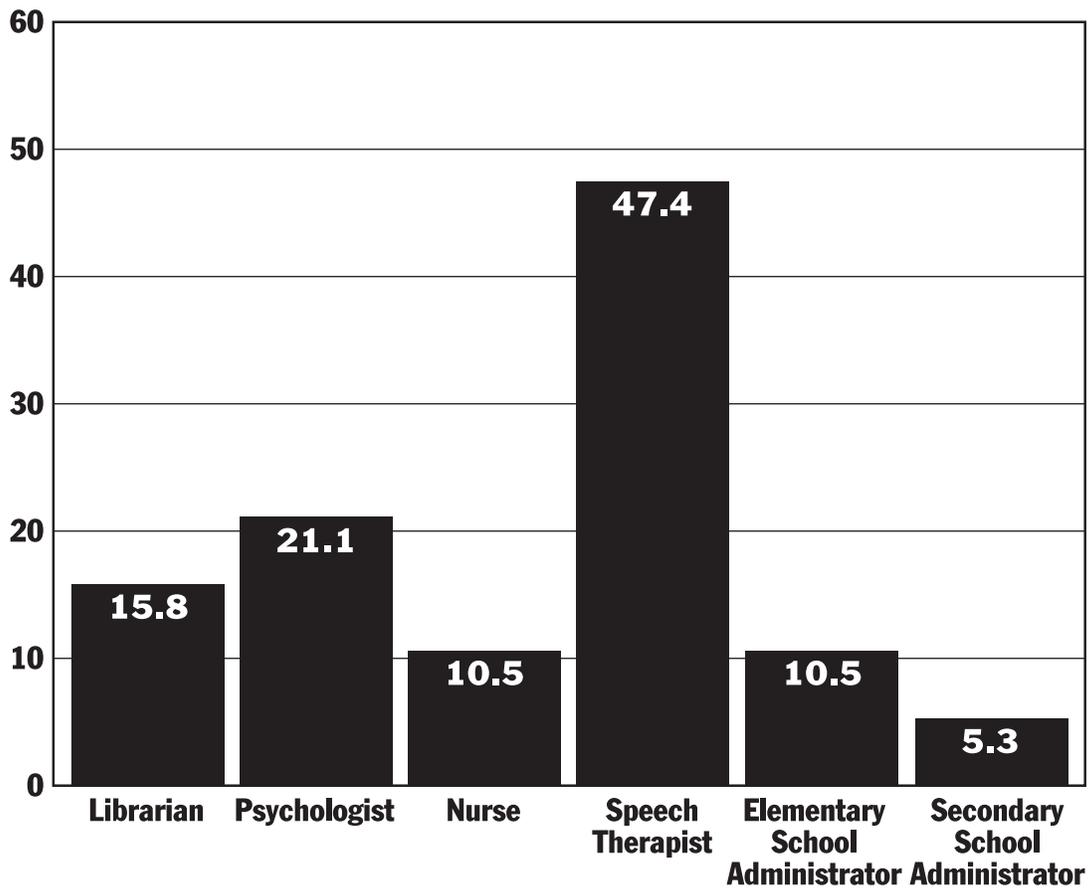


Figure 7. Percent of Districts Indicating Major Difficulty in Filling Non-Teaching Positions



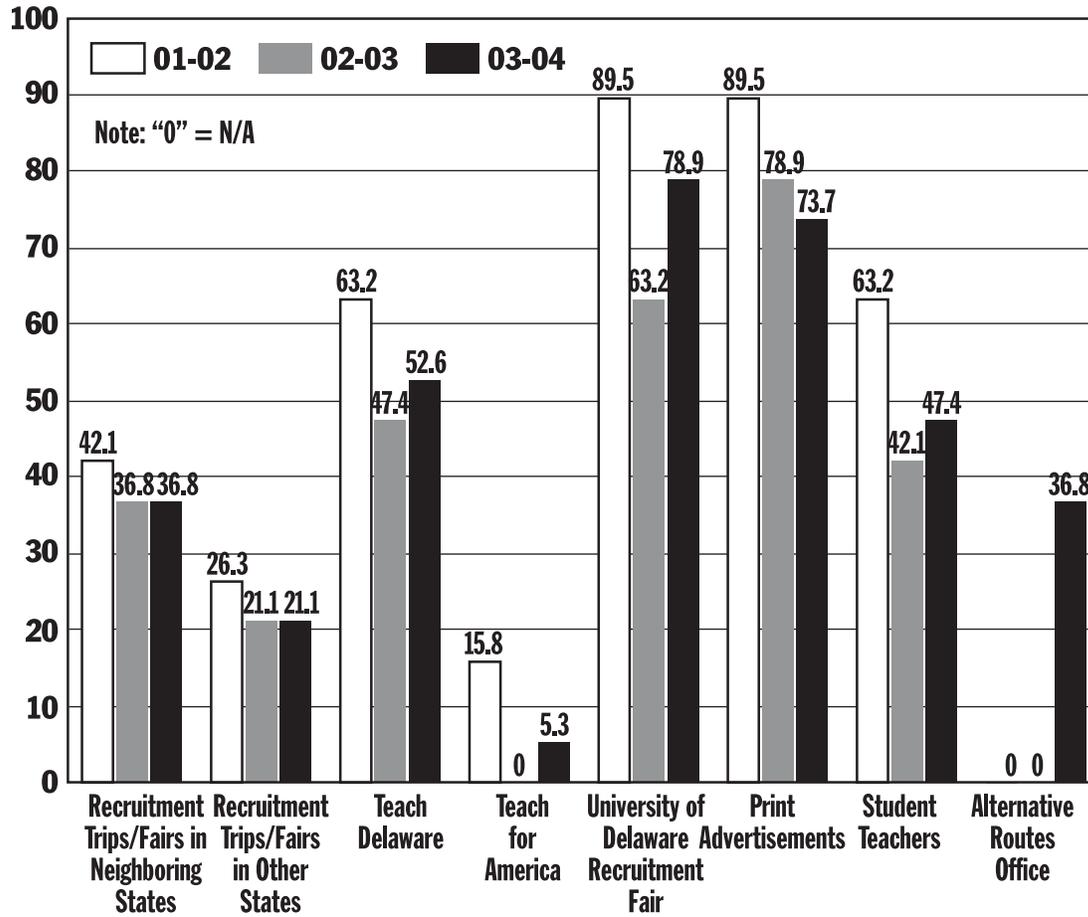
Recruitment Tools

In order to find good teachers, it is necessary for personnel directors to use effective recruitment tools. Personnel directors were asked what tools they used and the utility of each tool (see Figure 8). More than three-quarters of (78.9%) districts found the University of Delaware recruitment fair (Project Search) to be of great use; 73.7 percent found print advertisements and 52.6 percent found the Teach Delaware website to be of great use.

Almost 90 percent of the districts cited no benefit from the Teach for America Program. Recruitment trips beyond neighboring states (Maryland, Pennsylvania and New Jersey) were of no great use to 68.4 percent of the districts. Some other moderately utilized recruitment tools were the Delaware Alternative Routes office, hiring of student teachers within the district, and recruitment trips to neighboring states. Eight districts hired a total of 38 of their student teachers, and 13 districts hired a total of 68 teachers from recruitment trips to neighboring states. As noted in the comment section on this portion of the survey, six districts indicated using the Internet and school or district websites for recruitment. This alternative response should be added to next year's survey.

In comparison, last year's most frequent response was the use of print advertisements (80%) followed by the University of Delaware recruitment fair and the Delaware State University recruitment fair (66.7%). This year Delaware State University did not hold a recruitment fair. Also less than half of the districts used the Teach Delaware website, district student teachers, and recruitment trips to neighboring states. In the previous year as well as this year, recruitment trips to states beyond neighboring states were minimally utilized. It is not known whether this is due to a perceived lack of utility of such trips, the substitution of the web for personal recruitment, and/or a lack of time or resources among personnel directors. It does appear that the use of print advertisements has decreased over the past three years.

Figure 8. Percent of Districts Reporting Great Use of Out-of-State Recruitment Tools: Three-Year Comparison



Communication

In order to gauge the involvement of the districts' superintendents, school boards and principals, this year personnel directors were asked questions about their level of communication with each. Almost half (42.1%) of personnel directors reported in person to district superintendents on teacher vacancies, qualifications, and/or recruitment more than monthly. While seven districts indicated they never communicated through a written report with the district superintendent, six districts did so several times throughout the year, and five districts did so about monthly. One district did not communicate with the superintendent. Information reported to the district superintendent included:

- “Postings–ability to fill–qualifications”
- “Information on the number of job openings, applicants screened, and interviewed”
- “Minority hiring practices; temporary contract positions and quality of candidates in temporary contracts; general discussions concerning open positions”
- “Vacancies, qualifications of applicants, possible candidates, needed coursework, PRAXIS I scores, new regulations from DOE, etc.”
- “Difficulty in finding positions that were critical, Speech Pathology”
- “# of total hires, minority/majority breakdown, etc.”
- “Progress toward finding a certified math teacher”
- “Monthly status report of vacancies, hires, etc., frustration with ridiculous new laws that are taking away local control and decision-making”
- “Vacancies, resignations, applications, changes in certification, NCLB updates”

Personnel directors also reported to their school board. While eight out of 19 districts had the personnel director report in person to the school board approximately monthly, six of the districts submitted a monthly written report. One district did not communicate at all with the school board. The type of information reported to the school board was the same information reported to the

superintendent. One district noted that while the personnel director himself did not report directly to the school board, he did report to the superintendent's office, which, in turn, reported to the board.

A question was also added to this year's survey to find out the level of involvement principals had in the hiring process of teachers within the district. **We found a good deal of principal participation in teacher hiring.** About three-quarters of the districts reported that principals were involved in the interviewing process for their school. Four districts required principal approval of all hires at their particular school. Only one district reported no involvement from the school principal; all hiring was done completely by the district office.

Resources for Personnel Recruitment

The amount of time spent on personnel varied across the districts. Over half of the personnel directors (57.9%) reported spending between 90–100 percent of their time on personnel. In other districts the personnel director has additional duties. Most districts (52.6%) have more than one support-staff member and seven districts (36.8%) have one support-staff member. One district indicated that there was less than one full-time support-staff member available, and one district indicated there was no support staff.

Because recruitment is a substantial part of the personnel director position, a specific recruitment budget may be allocated to help with organization and support. About two-thirds (68.4%) of the districts denoted having a budget set aside specifically for the purpose of recruitment efforts. Among these 13 districts there appeared to be a great variety in the amount specified:

- Two districts between \$1,000 - \$2,500
- Three districts between \$3,500 - \$5,000
- Two districts between \$7,000 - \$7,500
- One district at \$10,000
- One district at \$20,000

- One district at \$50,000

Six districts indicated having no specific recruitment budget.

Another aspect of the position of personnel director might involve participation in the teacher-mentoring program. The personnel director is the director of the teacher-mentoring program in about half (52.6%) of the districts. There are four districts where the director is a support staff with in the program, and four districts indicated no involvement in the program on behalf of the personnel director. Some other roles include advisory, enrolling new hires, and providing the district's teacher-mentoring coordinator with information on each of the new hires. **Thus, the personnel director survey indicates great variation reported in the communication between the director and the superintendent as well as the school board and tremendous variation in the resources identified for recruitment across Delaware's 19 school districts.**

Relating School District Actions to Success in Teacher Recruiting

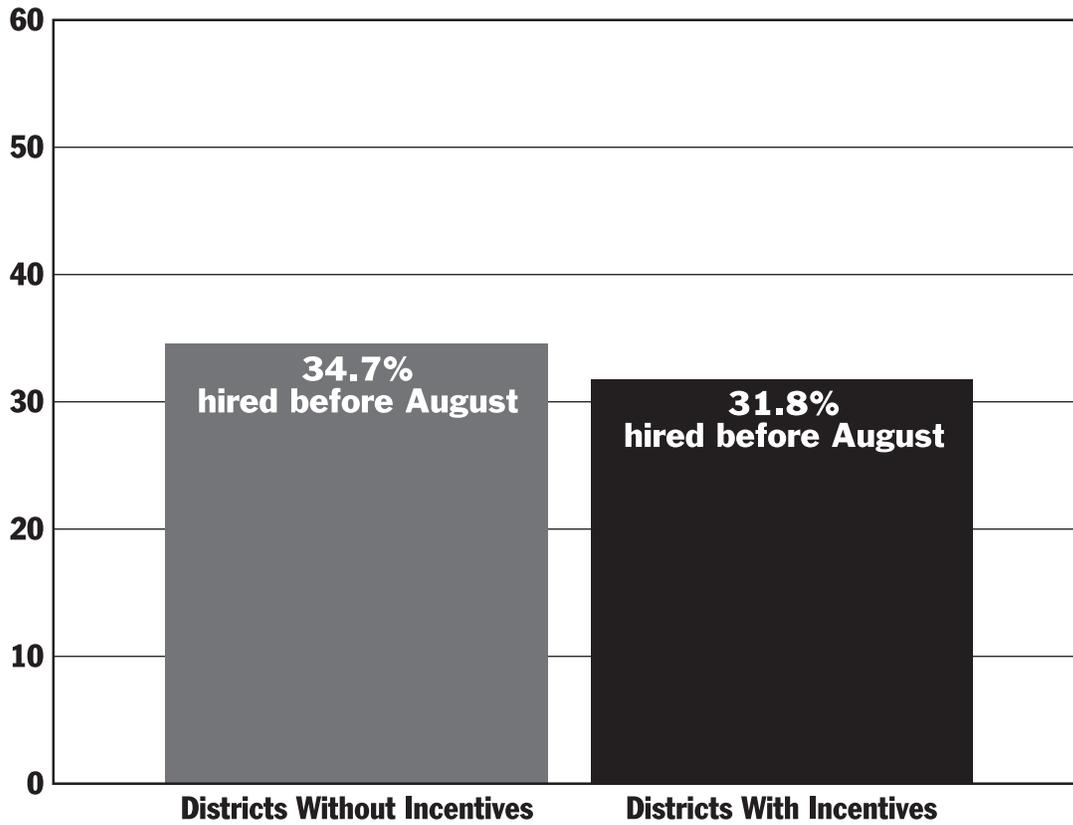
In order to better understand the survey results presented above, measures of success in recruiting were related to district recruiting activity. Using statistical software, certain responses were cross tabulated with other factors to better understand the meaning of the personnel directors' responses and draw suggestive inferences about the recruitment process. The most significant findings are included in the analysis below.

Early-Notification Incentives & Hiring and Vacancies

As noted above, according to the survey results, Delaware hired 922 teachers for the 2003–2004 academic year. Is there evidence that early notification plans help to solve the late-hiring problem? Districts with early-notification plans and district hiring dates were compared by contrasting the percent of teachers hired before August in districts with incentives and the percentage of teachers hired before August in districts without incentives. One district just implemented an incentive plan in the 2003–2004 school year and, therefore, for the purposes of this comparison, is included as a district without incentives. The nine districts without incentives hired 34.7 percent of new teachers early, i.e., before August. The ten districts that did offer early-retirement incentives hired 31.8 percent of their teachers before August (see Figure 9). **Clearly, the implementation of retirement incentives is not related to early-hiring practices.** While incentive programs may encourage earlier notification and hiring, this finding may also be the result of those districts experiencing hiring difficulties being more likely to offer incentives to address these problems.

A similar comparison of districts with early-notification incentives and when their personnel offices were notified of vacancies was completed. In looking at the reported vacancies, October through June (the academic calendar year) is considered early and July through the following September is considered late. Examining the nine districts that offer no early-notification incentive, 37.6 percent of

Figure 9. Relation of Retirement Notification Incentives



the vacancies were reported early, that is by June. The ten districts that do offer incentive plans were notified of 35.3 percent of their vacancies by June. **This year early-notification incentives were not related to early reporting of vacancies in districts.**

Late Hiring and Quality of New Hires

Are late hires likely to be less qualified to teach than early hires? That is, does late hiring correlate with teacher quality? Overall, five districts reported that the new teachers hired for the 2003–2004 academic year were more qualified than those of the previous year. The remaining 14 districts reported that the new teachers hired were of the same quality as those hired in the previous year. When we compared the districts that hired over two-thirds of their teachers late (August or later) were compared to those that hired earlier, there was no relationship with the perceived level of teacher quality.

Proactive Districts

This year the relationship between districts proactive in recruiting and the responses to several questions regarding satisfaction with teacher hires, hiring dates, and vacancies was examined. Were proactive districts less likely to report difficulties in hiring? The factors included in this analysis are whether or not the district offers early-notification incentives, the frequency of reports to the superintendent, the use of the top three reported recruitment tools, and if the district has a recruitment budget and, if so, its size. Various indices (see Appendix B) were created to represent these factors and then correlated with a number of variables in the survey. The results are summarized below.

Satisfaction with Quality of New Hires The level of satisfaction a district has with its new teacher hires was tested against the previously mentioned criteria of proactive teacher recruitment. Correlations for each variable were run using the statistical software SPSS. The results indicated that

there was no significant relationship between the satisfaction level of a district with its newly hired teachers and active recruitment measures.

Early and Late Hiring An examination of whether more-proactive districts hire earlier or later than less-proactive districts was conducted. Late hiring is considered to be August or later; early hiring is prior to August. Again, running these correlations indicated no significant relationship between active recruitment practices and early hiring. The only factor that demonstrated a very close relationship to early hiring was districts reporting to the superintendent regularly, meaning several times throughout the year, once per month, or more than monthly. **The districts that reported a frequent level of communication with the superintendent tended to hire earlier than those that did not.**

When relating late-hiring practices against proactive recruitment techniques, the only variable that showed significance was the size of a district's recruitment budget. **The larger the budget for recruitment, the higher the tendency was to hire in August or later.** For example, the two districts with the largest recruitment budgets (\$20,000 and \$50,000, respectively) each hired all of its new teachers in August or later. This could be the result of districts that struggle in hiring allocating more funds to recruitment or a "spurious" variable such as district size. Size, however, was found to not be related to late hiring.

Difficulty in Hiring In order to understand some of the characteristics of the districts that reported the most difficulties in hiring, the relationship between reported difficulties in hiring and the factors that qualify a district as proactive (as mentioned above) was examined. The only variable that had a significant correlation with difficulties in hiring was if the district offered early-notification retirement incentives. The average number of major problems reported in districts with no early-notification incentives was then compared to the average number of major problems reported in districts with early-notification plans. The mean of districts without an incentive plan is 5.75 compared to the mean of 2.45 for districts with incentive plans. **Therefore, districts that offered early-notification**

incentives are less likely to report major difficulties in hiring. This is true even though it was not found that early notification led to earlier hiring.

Current Teaching Positions Still Open There were 27 teaching positions still open in the state of Delaware by the time the survey had been completed. An attempt was made to determine if one could predict if the district was more or less likely to still have teaching positions open by how proactive it was in its hiring practices. **Districts that tended to utilize the top three reported recruitment tools are more likely to have current teaching vacancies.** One reason for this could be that the districts that are having trouble with hiring could be the ones that need to use recruitment tools the most. A similar statement can be made about the relationship between districts that regularly report to their superintendent and also have more vacant teaching positions.

County Variations

This portion of the report indicates findings about the three counties in Delaware. Information provided includes district size and teacher-hiring and vacancies practices.

District Size

New Castle County has five regular districts, Kent County has five regular districts, and Sussex County includes six regular districts. All of the school districts that make up the top one-third in terms of enrollment are located in New Castle County, including the largest district in the state, Christina, with a total of 19,410 students, followed by the Red Clay Consolidated School District, which enrolls a total of 15,554 students. The middle third by enrollment comprises four districts from Kent County, two districts from Sussex County, and one vo-tech school from New Castle County. The smallest third of the school districts are located primarily in Sussex County. Delmar School District enrolls 1,066 students, and Woodbridge enrolls 1,916. There are two districts in Kent County that are also part of the smallest third. Thus, as we report results by county we are simultaneously reporting results by the size of the districts as measured by enrollment.

Teacher Hiring and Vacancies

We can compare the 2003–2004 hiring practices of the three counties by analyzing late hiring (August or later) to early hiring (prior to August). New Castle County school districts hired a total of 492 teachers, almost three-quarters (73.2%) in August or later. Kent County hired a total of 218 teachers. Nearly two-thirds of these hires (65.7%) were hired late. In Sussex County 57.5 percent of the 212 teachers hired were hired in August or later. **Thus, the larger the district and the more northern the district, the more likely the teachers were hired late.**

We explored whether New Castle County school districts were less proactive in recruitment than districts in the southern part of the state, and, thus, hired later. A quick survey conducted in spring 2004

by the Department of Education indicated that the New Castle County districts were much more likely to have picked up health insurance for the first 90 days and offered earlier contracts to teachers for 2004-2005 than the districts in Kent and Sussex Counties. However, our measures of recruitment proactivity indicate that New Castle County districts were just as proactive as school districts in Kent County and Sussex County. Thus, the relation of district size, location, proactivity, and late hiring needs to be further explored.

The months in which teachers announced they are leaving can also be broken down by county. Late vacancy notification is considered July and later and early notification is considered from October through June, the end of the school year. New Castle County and Kent County had similar percentages of teachers giving late notification, 69.5 percent and 67.8 percent, respectively. Sussex County only had 44.9 percent of their vacancies occur in July or later.

Charter School Analysis

There are a total of 13 charter schools in the state of Delaware. This year, each was asked to complete the supply survey online. The survey was completed and submitted for nine out of the thirteen charter schools. Of the four charters that failed to complete the survey, three are located in Wilmington. The following is the analysis of the data provided by the nine charter schools responding.

Teacher Hiring

Nine charter schools hired a total of 90 teachers for the 2003–2004 academic year. Charter schools reported the hiring dates for 100 new teachers. This is ten more teachers than were reported as hired. Two charter schools had discrepancies in the number of new teachers they reported as hired and the number of contracts extended in particular months. Possible explanations for these discrepancies include the school extending a contract in a certain month that was then declined and then re-offered to another candidate. Another possibility is that some charters may be counting renewed temporary hires when indicating the month a contract was extended, whereas when totaling the total number of new teachers, they are not counted. Regardless of the reasons for the discrepancies, next year's survey will have to define new teachers and month-of-contract questions more completely. We used the reported total of 100 when reporting the findings on the month of hire for new teachers.

Similar to regular public school districts, charter schools did the majority of their teacher hiring in the month of August (59%). However, 12 teachers were hired by charter schools in September or later, about half of the percentage of that of regular districts. Charter schools conducted most of their hiring (86%) in the summer months of June (12), July (15), and August (12). People responsible for personnel at the charter schools reported that there were only two teaching positions left unfilled as of the completion date of this survey. These include:

- Occupational Therapist
- Special Education

Of the new hires, 15 were on temporary contracts and eight were Alternative Route teachers for the 2003–2004 school year. It is important to note that 12 of the 15 teachers hired on temporary contracts were from the recently opened Delaware Military Academy, which is a one-year-contract charter school. Other major reasons for charter schools extending temporary contracts include uncertainty of the September 30th count (55.6%), teacher credential issues (66.7%), and temporary needs due to pregnancy, illness, sabbatical, etc. (66.7%). (Note: personnel directors were allowed to select multiple reasons for temporary contracts.)

Teacher Shortages

For charter schools hiring difficulties exist primarily in the critical needs areas. Special education proved to be the most difficult teaching position to fill for six out of nine charter schools. For high-school math the hiring process was not applicable for five of the nine charter schools, but two schools reported major difficulties in filling the position, and two schools indicated moderate difficulty in filling the position. This was followed by middle-school science with two schools reporting major difficulty in filling the position. There were no schools that found it difficult to hire English teachers and three schools that reported moderate difficulty in hiring foreign-language teachers. When the charter schools were asked to indicate which area gave them the most difficulty in teacher hiring, four indicated special education, two reported high-school math, and two reported technology. One school reported “other” but failed to specify the position. These are the same teaching positions that regular public schools indicated as most difficult to fill.

Predicted Changes in Teacher Hiring

Those responsible for personnel were asked what changes in teacher hiring they expected for next year. Increased difficulty in finding both science and math teachers are anticipated by 55.6 percent of charter schools. Regular public school districts also anticipated difficulty in finding math teachers in

the upcoming year. The decreasing number of qualified candidates, critical-needs areas, and current teachers being classified “as not qualified” (per No Child Left Behind) were cited by two charters each as presenting challenges in teacher hiring next year. The No Child Left Behind legislation has encouraged four of the nine charter schools to make plans to assist veteran teachers in meeting the requirements for “highly qualified” teachers. These plans are listed below:

- “Partial tuition reimbursement”
- “We offer continued in-service and training to all teachers to insure the we will have all highly qualified teachers in time”
- “Outside agency help”
- “Curriculum Coordinator is working with staff on professional development”

Unlike the regular school districts, four charter schools felt there would be no problems in teacher hiring next year.

Qualifications

The charter schools were asked to compare the qualifications for teachers hired in 2003–2004 with those of prior years. Because two of the charter schools are currently in their first year, they will not be included in this part of the analysis. Among the seven charter schools providing data for this comparison, 71.4 percent reported their hires had about the same qualifications as teachers in prior years, and 28.6 percent reported that their hires were more qualified than in prior years. There were no schools that felt that teachers hired in 2003–2004 were less qualified. These findings were consistent with that of regular public school districts.

Reasons for Teacher Shortages

Similar to regular public school districts this year, charter schools found the lack of qualified teacher candidates in particular areas to be a major problem resulting in teacher shortages. Almost half

(44.4%) of the charter schools reported that there was a lack of qualified teacher candidates, but one-third (33.3%) felt that a lack of qualified candidates was not a problem. Teacher shortages in charter schools were also due to low starting salaries (22.2%) and low salaries for experienced teachers. Over half (55.6%) of charters indicated though that these reasons were not a problem. This shows that there area variety of opinions among charters on the reasons for teacher shortages.

Summer-School Hires

The charter schools were asked about the hiring of summer-school teachers for 2003. Three schools reported difficulty in the hiring of eighth grade reading and math teachers. Hiring eighth-grade math teachers also posed trouble for 10 out of 19 public school districts. Within charter schools, one teacher was hired for eighth-grade math and there were no teachers hired to teach eighth-grade reading. Third-grade and fifth-grade reading gave two schools trouble in hiring for summer school. There was one teacher hired for third-grade reading and two teachers hired for fifth-grade reading. Similar to regular public school districts this year, all charter school teachers hired at each grade level were certified to teach and had experience teaching in their respective areas.

Vacancies

There were a total of 44 vacancies reported by the nine charter schools this year. The reasons for 35 of these vacancies were reported. Over half (54.3%) of teachers in charter schools left in order to take up another teaching position in Delaware. (Next year we should ask if the teachers left for traditional public schools, charters, or nonpublic schools). There were only two teachers that were reported to have taken positions outside of the state of Delaware. **Teacher dismissals accounted for 20 percent of charter school vacancies; this figure is significant, because in regular public schools dismissal only accounted for 2.2 percent of vacancies.** The people responsible for personnel indicated

that they did not know the reasons for 14.3 percent of charter school vacancies, one teacher decided to retire, and one teacher left for “other” reasons.

The survey also gathered information on when the 44 vacancies for the 2003–2004 school year occurred. Charter schools were asked to indicate how many vacancies were reported in each month starting with “October 2002 or earlier” and continuing month by month until “September 2003 or later.” The largest number of vacancies (18) was reported in June of 2003, followed by August 2003 (13). These two months alone count for 71 percent of the total number of vacancies in charter schools. July 2003 and September 2003 or later each had three vacancies reported during those months, and October 2002 or earlier and March 2003 each had two vacancies reported during those months.

There were no charter schools that reported offering any incentives for early-notification plans to retire.

Teacher-Hiring Problems

There were few hiring problems that occurred for charter schools in the 2003–2004 school year. Only one charter school faced contractual barriers which, in turn, delayed offering a contract, but it failed to elaborate on the problem. Two schools reported reciprocity problems when hiring from out of state, which are:

<u>Certificate</u>	<u>Problem</u>
“5 th grade”	“K-8 cert. not K-4”
“Special Ed”	“Expiring license, getting transcripts & forms

Another hiring problem is that some teacher candidates committed to working at two of the charter schools and then later changed their minds during the period of August to September. These two schools lost a total of 14 teachers to another school in Delaware and two teachers to schools outside of Delaware. Interestingly, 12 of the 14 teachers came from the same charter school. The two major

reasons for teacher candidates reversing their decision to work at a charter school were salary (22.2%) and relocation issues (11.1%). Most (77.8%) of the charter schools did not face problems in hiring. Regular public school districts did not report salary as a major reason for teacher candidates reversing their decision but did cite relocation issues as the biggest factor in commitment reversals.

Non-Teaching Position Shortages

The people in charge of personnel at charter schools indicated that there were rarely any non-teaching positions that were difficult to fill. Speech pathologist was reported by two charter schools as being the most difficult position to fill followed by an occupational therapist, psychologist, and central office administration each reported by one charter school as being very difficult to fill. When charter schools were asked to indicate which one position gave them the most trouble in hiring, 33.3 percent reported psychologist followed by 22.2 percent for speech therapists. Again these findings are similar to those of regular public school districts. The majority of charter schools do not anticipate hiring problems next year for non-teaching positions. The decreasing pool of qualified candidates was indicated by three charter schools as an anticipated difficulty in hiring for next year.

Recruitment Tools

Personnel administrators at the charter schools in Delaware use various recruitment tools to find qualified teachers. Both print advertisements and the University of Delaware's recruitment fair were reported as effectively used (44.4%) by charter schools. Recruiting the schools' student teachers was also reported to be of great use by 22.2 percent of charter schools. This is consistent with what was reported by regular public school districts. Delaware's Alternative Routes office was reported to be of great use to one school. Three-quarters of charter schools reported that the Teach Delaware website was of "some use" as a recruiting tool.

Some traditional recruitment methods were not utilized by charter schools for teacher recruitment. Recruitment trips to Delaware’s neighboring states—Maryland, Pennsylvania, and New Jersey—were only conducted by one out of nine charter schools. There were no charter schools that performed recruitment trips to any other state, nor were there any schools that utilized the Teach for America program.

Communication

Personnel administrators were asked about the level of communication that exists between the charter schools and their school boards concerning teacher recruitment, vacancies, and qualifications. There were two schools that reported in person to the school’s board several times throughout the year and two schools that reported in person about monthly. Almost one-quarter (22.2%) of the schools reported in writing to their schools’ boards. Information that was reported to the school’s board included:

- “Number and perceived quality of applicants, areas of certification, difficulty filling Math spot with a Math person”
- “Qualified Teachers and possible opening for the following year”
- “Qualifications and number of teachers hired and still needed”
- “Recruitment fairs attended; interviews conducted; recommendations for hire”

There was no in-person reporting to the school’s board for five out of nine charter schools, and seven out of nine charter schools did not report in writing to the school’s board. These responses may be due to confusion with the question in the survey. The question is asked directly after communication with the superintendent, which is not applicable to charter schools. There needs to be more clarity surrounding this question next year for charter school respondents.

Personnel

The amount of time personnel directors spent on actual personnel work varied across the charter schools, but only at one school did an administrator spend more than one-third of his/her time on personnel matters (80%). The other charter school respondents reported spending between five and 30 percent of their time on personnel-related activity. The level of support for personnel included one additional staff member for seven out of nine charter schools. One school reported having less than one support staff member and one school reported having no support staff for personnel.

Charter schools were then asked if they had a specific budget set aside for recruitment purposes only. Two-thirds (66.7%) of the schools reported having no specific recruitment budget. For the three schools that do have funds set aside for recruiting, the amount varied between \$1,000 and \$3,000.

There are five charter schools in which the person in charge of personnel is also the director of the teacher-mentoring program. Another human-resource director reported having involvement with the teacher-mentoring program as support staff, and three human-resource directors had no involvement with a teacher-mentoring program.

Summary

There are many similarities in the hiring problems and concerns among regular public school districts and charter schools in the state of Delaware. Teacher-hiring dates, qualifications, and recruitment tools are very similar in regular public school districts and charter schools. Difficulty in hiring math teachers, special-education teachers, technology teachers and speech pathologists are issues for both types of school systems.

The only major difference between regular public school districts and charter schools is the reason for teacher vacancies. The biggest reason for vacancies in regular public school districts was retirement (30%), whereas in charter schools teachers primarily left in order to take another teaching position within the state of Delaware. According to our respondents, dismissals accounted for 20

percent of teacher vacancies in charter schools but only 2.2 percent in regular public school districts.

Overall, charter schools and regular public school districts in Delaware apparently face the same issues in teacher hiring.

To add a further perspective on teacher recruitment, hiring and retention in Delaware, the analysis of payroll data and teacher movement in the state is presented below.

DOE Payroll Data Results

To supplement the survey of personnel directors, data on teacher characteristics and mobility from payroll records were provided by the Delaware Department of Education (DOE) for the 16 regular public school districts and three vo-tech districts. Data were also provided for the 13 charter schools.

This section of the report analyzes data about teachers in Delaware who leave the teaching profession all together, i.e. “exiters,” and teachers who remain as teachers in Delaware but change school districts, i.e. “movers.” The net losses and gains of each school district were examined to determine how exiters and movers are affecting districts throughout the state.

There are differences between some of the data from DOE and the survey results. For example, the DOE data indicate that there were 841 new teachers hired in the 2003–2004 school year, whereas the results of the survey indicate 922 new hires. These discrepancies could be due to a variety of reasons. For example, teachers on temporary contracts could have been hired as permanent staff or teachers working in a district could have left for a period of time and then returned to the same district. These cases could have been counted by district personnel directors as new teachers and by DOE as returning teachers. In order to improve the accuracy of the report, we will continue to further refine and define the categories and questions in future surveys. For example, when we ask how many new teachers were hired by the district on the survey we will more specifically define “new teacher,” so that there is no confusion about how to count teachers moving from temporary contracts to regular contracts.

Exiters: Departing Teachers

According to DOE payroll records, there were 657 teachers who left teaching in Delaware between May 2003 and November 2003. This is about 8.5 percent of the teacher workforce in the state. On average, these individuals leave the teaching profession at 43 years of age with the maximum number leaving at age 55 (N=29) and at age 28 (N=28), respectively. As seen in the graph, there appear

to be peaks in the exodus from the profession by teachers in their late twenties and thirties and then again in their late fifties and sixties (see Figure 10). The former can probably be explained by career and location changes and the latter presumably by retirement. This is the so-called “U-curve” of teacher retention found in other states.

Of departing teachers, 37 percent, hold a bachelor’s degree, followed by 16.4 percent who hold a master’s degree + 45 additional credits, and 15.7 percent have a master’s degree. In looking at the education level of all full-time teachers, 26 percent hold a bachelor’s degree and 17 percent have a master’s degree. Thus, a greater percentage of teachers with bachelor’s degrees leave the teaching profession than those who have master’s degrees. As expected, the vast majority of exiting teachers are female (73%), as a majority of teachers in the state of Delaware are female (75.5%).

The most intriguing characteristic of departing teachers is that an overwhelming number leave with less than one year of experience. Among the 657 teachers who left, 122 teachers exited teaching between the 2002–2003 and 2003–2004 school year in Delaware with less than one year’s years experience. Fifty-nine teachers left after only one year of experience, and 39 teachers left after only two years of experience (see Figure 11a). **Thus, a third of the teachers who left their teaching positions in Delaware did so within their first two years of teaching (see Figure 11b).** These statistics indicate that teachers in Delaware tend to leave the profession very quickly after starting; thus future research needs to be conducted to determine who is leaving and why.

Figure 10. Age of Teachers Leaving Delaware Teaching Positions

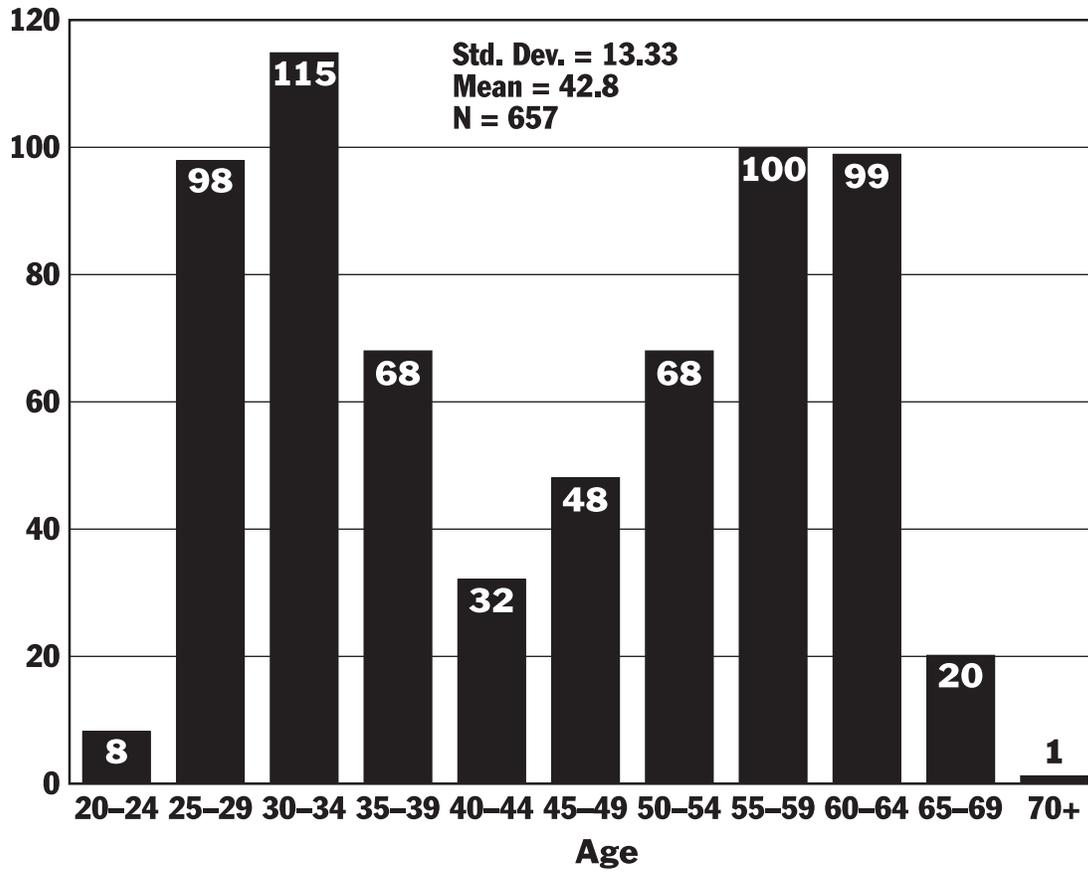


Figure 11a. Number of Teachers Leaving Delaware Teaching Positions Correlated with Their Years of Experience

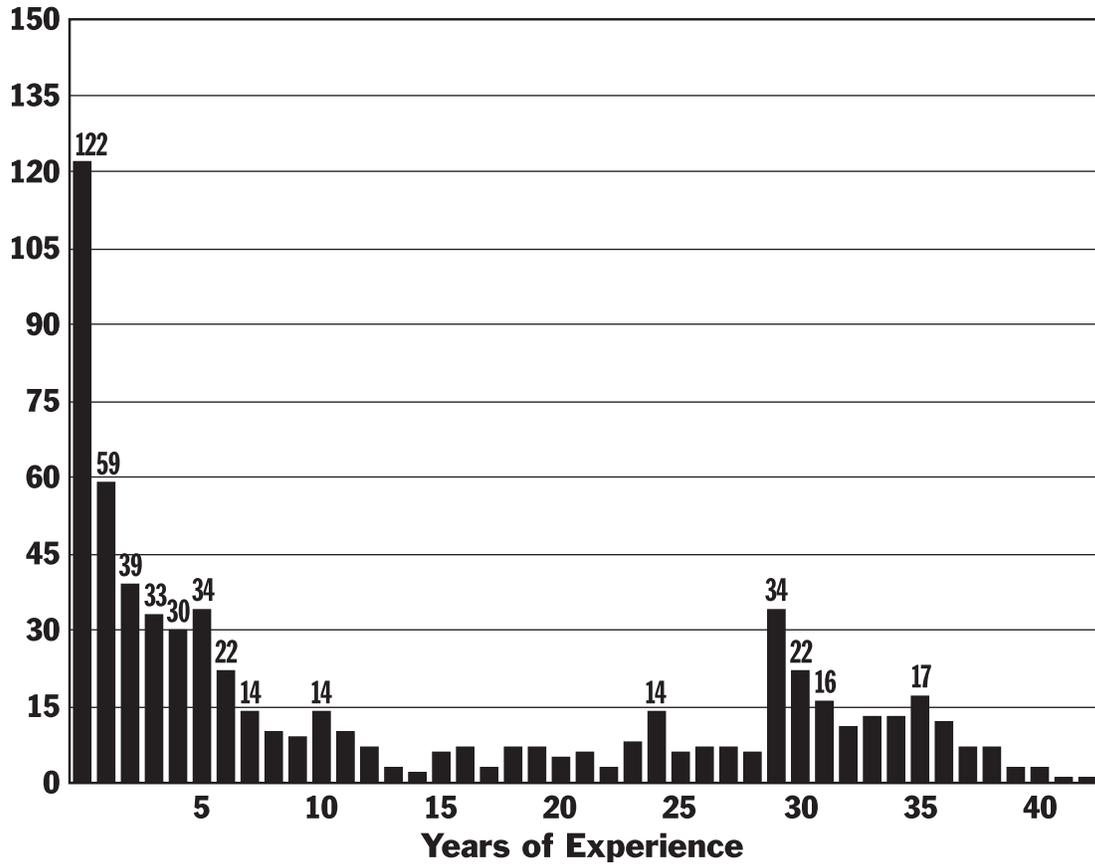
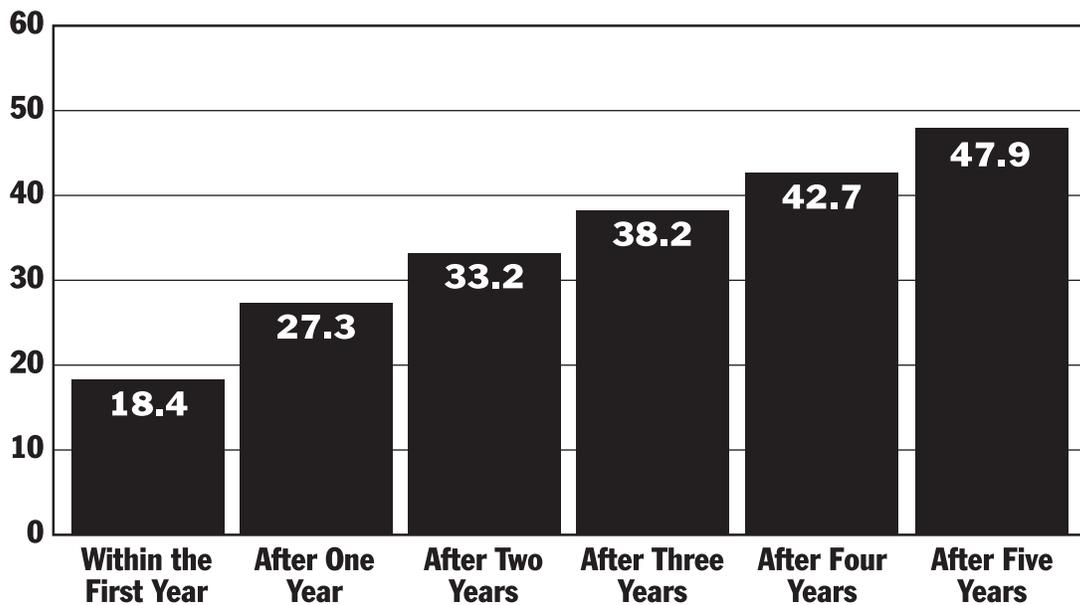


Figure 11b. Cumulative Percent of Teachers Departing Within the First Few Years of Service



Movers: Intrastate Migration

The analysis now turns from examining teachers who left Delaware teaching positions to those who changed positions within the state. If one looks at intrastate teacher migration among the counties, the largest county, New Castle County, had a net gain of six teachers, while Kent and Sussex Counties each lost three teachers. The largest migrations, considered to be movements of more than three teachers, were between two pairs of the three largest New Castle County districts (seven and four teachers) and in Sussex County the from the second wealthiest to the wealthiest district (four teachers). Overall, regular schools districts lost four teachers, and vo-tech districts lost one teacher in intrastate teacher migration. These five teachers transferred to charter schools within the state.

There is a significant correlation between the wealth of a regular school district and the net gain/loss of teachers in a district. For example, the third-poorest district, according to the District Wealth Index provided by the Delaware Department of Education, has an index of 0.43 (the larger the index, the wealthier the district) and is located in Kent County. This district also experienced the largest net loss of teachers (-10). The state's three poorest districts, with wealth indices of .39, .43 and .43, respectively, all experienced losses, although two districts only lost one teacher each, the third lost ten teachers.

The wealthier districts, defined as those with an index level greater than 1.0, all experienced a net gain, with the exception of the largest school district. This district experienced a net loss of nine teachers. Alarmingly, the only loss larger than this was in the previously mentioned, third-poorest district. The wealthiest district in the state had a very large gain of 16 and the largest net gain of 13 teachers. Overall, wealthy districts gained nine teachers, and poorer districts in the state lost a total of 14 teachers.

Many teachers from regular and vo-tech schools transferred to charter schools throughout the state. In fact, charter schools received 31 teachers this year from regular and vo-tech schools. The largest gains came from the two largest districts in the state. The largest district lost six teachers to

charters; the second-largest district lost five teachers to charters. The charter schools that experienced the largest net gains were schools which both opened in September of this current academic year, one of which gained five while not losing any teachers and the other had a net gain of four.

The average age of teachers changing districts is 37 with an average of seven years' experience. According to the Delaware Educational Personnel Report provided by the Delaware Department of Education, the typical classroom teacher in Delaware public schools is 41 years old with 13 years of experience. Out of 175 teachers who changed districts this year, 140 of them (80 %) are Caucasian, and 28 (16 %) are African American. Again, according to the previously mentioned Personnel Report, the teaching force in Delaware is 87 percent Caucasian, and 11 percent African American. Thus, African-American teachers are more likely to change districts. Of these migrating teachers, 56 (32 %) have bachelor's degrees and 36 (21%) have master's degrees. Of all teachers statewide, 26 percent hold a bachelor's degree, and 17 percent hold a master's degree. Thus, more migrating than remaining teachers hold a bachelor's degree. Out of the 175 teachers changing districts, 130 (74%) were female and 45 (26%) percent were male. This is congruent with the percentage of female (75%) versus male (25%) teachers employed by the state.

Exiters Plus Movers: Net Changes per District

Among all regular, including vo-tech, school districts statewide, the fourth smallest district in terms of enrollment had the highest percentage of exiting teachers. This district experienced a 14.5-percent loss in their teacher workforce. This was followed by a 10.5-percent (128 teachers) loss in the state's largest school district. While not an overwhelming figure, even the wealthiest district in Delaware experienced a loss of 3.8 percent. Only one school retained all of its teachers from last year to 2003–2004.

Charter schools experienced both positive and negative changes in their teaching workforce. One City of Wilmington charter school experienced a 40 percent loss in its workforce. This is the

largest staff loss of any charter in the state of Delaware. The second largest loss was in a charter school in Kent County, 23.7 percent. The largest gain was experienced by a new charter (41.7%).

Hires/Losses of Underrepresented Groups

The participation of underrepresented groups in the classroom is an important aspect of Delaware teaching that was analyzed with the data from the Delaware Department of Education payroll records as well. Based on these data, Delaware public schools (including charters) experienced an overall loss of seven African-American and four male teachers. Overall, regular school districts lost 26 African-American and 29 male teachers. The largest losses were experienced by the largest district, had a net loss of 25 African-American and eight male teachers. One growing district had the largest net gain of African-American teachers (5).

When looking at net hires/losses in regular districts by county, New Castle County lost 21 African-American and 22 male teachers. Interestingly, all districts and charter schools in New Castle County experienced gains in African-American hires with the exception of the two largest districts. Kent County lost five African-American and three male teachers. Sussex County gained two African-American teachers and the number of male teachers remained the same.

Data concerning teachers hired by charter schools show an increase in members of underrepresented groups. Nineteen African Americans and 25 males were hired as teachers in Delaware charter schools. The largest increases were at a Kent County charter school, with a net gain of nine African Americans, and a new charter that hired seven men. A charter school in Kent County had a net gain of six male teachers. The only net losses among charters were a net loss of one African American in one school, and a net loss of one male in another.

Based on this, charter schools appear to be successful in hiring teachers of underrepresented groups, both African Americans and males. The losses in members of underrepresented groups are being found in the regular school districts throughout the state of Delaware (see Figure 12).

Figure 12

	<u>Net per District - African Am</u>	<u>Net per District - Men</u>	<u>Net per District Total</u>
Regular	-26	-29	-55
Charters	19	25	44
Total	-7	-4	-11

Overall, the state of Delaware is losing teachers of underrepresented groups. The total decrease statewide is 11. While charter schools are successful in these hires, this is overwhelmed by the fact that regular public school districts that are losing teachers of underrepresented groups.

Critical Needs & Teacher Movement

We analyzed the positions of the exiters and movers in order to see if critical-needs teachers were more likely to leave teaching or change districts. According to the previously mentioned Delaware Educational Personnel Report, the critical-needs fields of secondary math and science comprise 5.7 percent and 5.2 percent of the teacher workforce, respectively. Of the exiters—teachers leaving the teaching profession in the state of Delaware—6.1 percent were math teachers and 7.7 percent were science teachers. When analyzing movers—teachers migrating from one district to another within Delaware—8.6 percent were math teachers and 8.0 percent were science teachers. **Therefore, teachers in the critical-needs areas of secondary math and science are somewhat more likely to leave their teaching positions in the state and change school districts within Delaware than are the rest of the teaching force.**

Conclusions and Implications

From the personnel-director survey, there is little evidence that the hiring situation in Delaware is improving. Although it declined very slightly, late hiring still prevails; the quality of teachers is viewed as no better but no worse; critical needs in math, science, and technology are still apparent. The only positive news is a significant decrease in temporary contracts. While we are only just beginning to understand how school district activities relate to successful teacher recruitment, this analysis began to examine the effectiveness of proactive school districts. The picture is a complex one. Districts that reported to their superintendent at a frequent level tended to hire earlier than those that did not. Early-retirement notification incentives led to fewer major difficulties in hiring. Also, the larger the specific recruitment budget, the more likely a district was to hire late, in August or later, and districts that utilized the top three recruitment tools tended to have current teaching vacancies. One reason for these outcomes could be that districts that are facing challenges in hiring could be the ones that are putting into action proactive recruitment measures.

The analysis of charter schools indicates they face many of the same problems and issues as traditional school districts, including teacher hiring dates, qualifications, and recruitment tools used. Examining the DOE-payroll data makes clear that problems in maintaining Delaware's teaching force lies in large part, in the loss of teachers during their first few years of teaching. Delaware lost 220 teachers with two or fewer years of experience this year, about 30 percent of the total new hires (beyond intrastate transfers) this year. With the implementation of regulations tied to the No Child Left Behind legislation around the corner, Delaware still has a good deal of work to do to retain the quality teachers it has already attracted and recruit high-quality teachers to fill open positions.

Appendix A
Survey Instrument

Delaware Teacher Supply Survey Fall 2003

1. How many new teachers did your district hire for the 2003–2004 school year? _____

2. How many of the contracts were agreed to in:

_____ May _____ June _____ July _____ August _____ September _____ October
 _____ Other (Please Specify: _____)

3. Of all your hires, how many teachers did you hire on temporary contracts? _____

4. What were the reasons for hiring teachers on temporary contracts?
 (Check as many as apply).

		Major Reason	Moderate Reason	Not Reason
a) Uncertainty of September 30 count	3	2	1	
b) Teacher credential issues	3	2	1	
c) Temporary needs due to pregnancy, illness, sabbaticals, etc	3	2	1	
d) Other (Please specify: _____)	3	2	1	

5. How many Alternative Routes teachers did you hire? _____

6. For the new teacher hires from outside DE, did you run into any reciprocity problems?

_____ Yes

_____ No (skip to Question 7)

If yes, for what certificates and what was the problem?

Certificates

Problems

_____	_____
_____	_____

7. Were there contractual barriers or hindrances, such as transfer clauses, that delayed your offering a contract?

_____ Yes

_____ No

If yes, what? _____

8. Were the teachers you hired for 2003–2004:

_____ More qualified than prior years

_____ About the same as prior years

_____ Less qualified than prior years

Please explain:

9. How difficult was it to fill teaching positions in each of the following areas and how many positions did you fill in each area?

	Very Difficult	Moderately Difficult	Not Difficult	Not Applicable
a. Art	3	2	1	8
b. English	3	2	1	8
c. Elementary	3	2	1	8
d. Foreign Languages	3	2	1	8
e. Elementary Math	3	2	1	8
f. Middle School Math	3	2	1	8
g. High School Math	3	2	1	8
h. Music	3	2	1	8
i. Physical Education	3	2	1	8
j. Reading	3	2	1	8
k. Elementary School Science	3	2	1	8
l. Middle School Science	3	2	1	8
m. High School Science	3	2	1	8
n. Social Science	3	2	1	8
o. Special Education	3	2	1	8
p. Technology	3	2	1	8
a. Other (Please Specify: _____)				

10. Please return to question #9 and circle the letter next to the most difficult area for teacher hiring in your district for Fall 2003.

11. To what extent was each of the following a problem related to teacher shortages in your district for Fall 2003 hiring?

	Major Problem	Moderate Problem	Not a Problem	Comments
a. Lack of qualified teacher candidates in particular areas	3	2	1	_____
b. Teachers moving from your district to another DE district	3	2	1	_____
c. Teachers moving from your district to a district outside DE	3	2	1	_____
d. Low starting salaries for teachers in your district	3	2	1	_____
e. Low salaries for experienced teachers in your district	3	2	1	_____
f. Good teaching candidates failing PRAXIS I	3	2	1	_____
g. Other: Please specify:				_____

12. How many teachers returned to your district from a Charter school after:

- _____ 1 year
- _____ 2 years
- _____ 3 years

13. The following matrix refers to the hiring of Summer School 2003 hires:

	Did you have trouble hiring (yes/no)	Number Hired in each area	Number Certified to teach	Number experienced in area teaching
3 rd Grade Reading				
5 th Grade Reading				
8 th Grade Reading				
8 th Grade Math				

14. How many teacher vacancies did you learn about in:

<input type="checkbox"/> October 2002 or earlier	<input type="checkbox"/> November 2002	<input type="checkbox"/> December 2002
<input type="checkbox"/> January 2003	<input type="checkbox"/> February 2003	<input type="checkbox"/> March 2003
<input type="checkbox"/> April 2003	<input type="checkbox"/> May 2003	<input type="checkbox"/> June 2003
<input type="checkbox"/> July 2003	<input type="checkbox"/> August 2003	<input type="checkbox"/> September 2003 or later
<input type="checkbox"/> Total		

15. How many teachers left your district for the following?

- Took a position in another DE school district
- Took a position with another district outside of DE
- Took a position at a Charter School
- Relocated with family
- Were dismissed
- Illness/death
- Retired due to additional requirements for "highly qualified" teachers per No Child Left Behind
- Retired
- Other
- Do not know

16. Did some teacher candidates commit to work in your district and later change their minds during the period of August-September?

- Yes
- No (Skip to Question 18)

17. If yes, approximately how many did the following:

	Number
Went to another district in DE	_____
Went to a district outside of DE	_____
Decided not to teach	_____
Other (Please Specify: _____)	
_____)	

18. To what extent was each of the following a reason for teacher candidates to reverse their commitments to your districts?

	Major Problem	Moderate Problem	Not a Problem
a. Salary	3	2	1
b. Location of district	3	2	1
c. School assignment	3	2	1
d. Relocation issues	3	2	1
e. Certification problems	3	2	1
f. Other (Please specify: _____)			

19. Does your district offer any incentives for early notification of plans to retire?

_____ Yes

_____ No

If yes, what incentives? _____

20. Are any teaching positions open in your district at this time?

_____ Yes (Please specify how many: _____)

_____ No

21. What programs, if any, has your district had to limit or discontinue because of teacher shortages? (Check as many as apply)

- None
- Technology education
- Foreign languages
- High School Math
- ESL
- Other (Please specify: _____)

22. Does your district have plans to assist veteran teachers in meeting the No Child Left Behind requirements for 'highly qualified' teachers?

- No
- Yes, Please Specify _____

23. What changes in difficulty in teacher hiring do you anticipate in the next year? (Check as many as apply.)

- None
- Number of qualified applicants will decrease
 - Math teachers will be harder to find
 - Science teachers will be harder to find
 - Critical Needs areas will be harder to fill (Please specify what areas: _____)
- Current teachers not qualified as per No Child Left Behind (Estimate Number)
- Other (Please specify: _____)

24. To what extent did your district experience difficulties in filling each of the following non-teaching positions for the 2003–2004 school year?

	Very Difficult	Moderately Difficult	Not Difficult	Not Applicable
a. Librarian	3	2	1	8
b. Psychologist	3	2	1	8
c. Guidance Counselor	3	2	1	8
d. Nurse	3	2	1	8
e. Speech Therapist	3	2	1	8
f. Elementary School Administrator	3	2	1	8
g. Secondary School Administrator	3	2	1	8
h. Central Office Administrator	3	2	1	8
i. Other (Please specify: _____)	3	2	1	8

25. Please return to question #23 and circle the letter next to the most difficult area for non-teacher hiring in your district for Fall 2003.

26. What changes in difficulty in non-teacher hiring do you anticipate in the next year?

- _____ None
- _____ Pool of qualified candidates decreasing
- _____ School psychologists more difficult to find
- _____ Increase in retirements
- _____ Other _____

27. To what extent did your district use each of the following recruitment tools in teacher recruitment for Fall 2003?

	Great Use	Some Use	No Use
a. Recruitment trips/fairs in neighboring states (NJ, MD, PA) _____ Number of trips (Please estimate)	3	2	1
b. Recruitment trips/fairs in other states _____ Number of trips (Please estimate)	3	2	1
c. Teach Delaware web site	3	2	1
d. Teach America program _____ Number of applications (Please estimate)	3	2	1
e. Delaware State University Recruitment Fair _____ Number of applications (Please estimate)	3	2	1
f. University of Delaware Recruitment Fair _____ Number of applications (Please estimate)	3	2	1
g. Print Advertisements _____ Number of publications (Please estimate)	3	2	1
h. Recruiting your district's student teachers _____ Number of applications (Please estimate)	3	2	1
i. Delaware Alternative Routes Office _____ Number of applications (Please estimate)	3	2	1
j. Other (Please specify: _____)	3	2	1

28. Please indicate how frequently you did each of the following in 2002–2003:

	None	Once	Several times	About monthly	More than monthly
a. Reported <u>in person</u> to district superintendent on teacher vacancies, qualifications or recruitment	0	1	2	3	4
b. Reported <u>in writing</u> to district superintendent on teacher vacancies, qualifications or recruitment	0	1	2	3	4
c. Reported <u>in person</u> to School Board on teacher vacancies, qualifications or recruitment	0	1	2	3	4
d. Reported <u>in writing</u> to School Board on teacher vacancies, qualifications or recruitment	0	1	2	3	4

29. What type of information did you report to the district Superintendent?

30. What type of information did you report to the School Board?

31. In general, what role do principals play in the hiring process of teachers in your district?

___ None, All hired by district office

___ Some, e.g. Principals consulted where there was a question on issue

___ Much, e.g. Principals involved in interviewing for their school

___ Great, e.g. Principals must approve all hires for their school

Please answer the following questions about your position:

32. About what percentage of your time is spent on teacher recruitment? _____%

33. What is the level of support that you have for teacher recruitment?

_____ None

_____ Less than one support staff

_____ One

_____ More than one

34. Do you have a specific recruitment budget?

_____ Yes

_____ No

If yes, what is the amount specified? _____

35. Are you involved in the teacher mentoring program?

_____ No

_____ Yes, as support staff

_____ Yes, as director

_____ Other (Please Specify):

36. Background information

a. Years in current position in current school district. _____

b. Years in current school district. _____

c. Years in public education. _____

Thank you for your participation!

Appendix B
Supply Survey Tables

Table 1: Month that Contract was Agreed Upon

May	52
June	93
July	151
August	384
September	127
October	55
Other	59

Table 2: Qualifications of Recent Teacher Hires (Percent of Districts)

More Qualified Than in Prior Years	26.3%
About the Same as Prior Years	73.7%
Less Qualified Than in Prior Years	0

Table 3: Level of Difficulty Filling Teacher Positions by Area (Percent of Districts)

	Very Difficult	Moderately Difficult	Not Difficult
Art	0	10.5%	42.1%
English	10.5%	31.6%	42.1%
Elementary	0	0	78.9%
Foreign Language	26.3%	31.6%	15.8%
Elementary Math	5.3%	5.3%	21.1%
Middle School Math	42.1%	15.8%	15.8%
High School Math	73.7%	5.3%	15.8%
Music	5.3%	31.6%	26.3%
Physical Education	0	15.8%	52.6%
Reading	10.5%	21.1%	26.3%
Elementary School Science	0	15.8%	10.5%
Middle School Science	42.1%	26.3%	5.3%
High School Science	52.6%	10.5%	26.3%
Social Science	5.3%	10.5%	36.8%
Special Education	52.6%	21.1%	21.1%
Technology	57.9%	10.5%	5.3%

*Percentages on this table may not add up to 100% because of not applicable or non-response

Table 4: Extent of Problem Related to Teacher Shortages in Your District for Fall 2002 Hiring?

	Major Problem	Moderate Problem	Not a Problem
Lack of qualified teacher candidates in particular areas	68.4%	15.8%	15.8%
Moving from your district to another DE district	21.1%	47.4%	31.6%
Moving from your district to outside DE	5.3%	36.8%	57.9%
Low starting salary	21.1%	36.8%	42.1%
Low experienced salaries	26.3%	21.1%	52.6%
Good candidates failing PRAXIS I	10.5%	42.1%	47.4%

*Percentages on this table may not add up to 100% because of not applicable or non-response

Table 5: Number of Vacancies Learned About in:

October 2002 or earlier	55
November 2002	8
December 2002	7
January 2003	32
February 2003	13
March 2003	48
April 2003	57
May 2003	35
June 2003	64
July 2003	113
August 2003	240
September 2003 or later	213

Table 6: Reasons for Teachers Leaving Your District

Took a position in another DE district	63
Took a position with another district outside DE	37
Took a position at a charter school	11
Relocated with family	31
Dismissed	12
Illness/death	6
Retired due to NCLB	1
Retired	165
Other	65
Do not Know	161

Table 7: Reasons for Reversal of Teacher Commitments Reported by Districts
(Percent of Districts)

	Major Problem	Moderate Problem	Not a Problem
Salary	21.1%	15.8%	63.2%
Location of district	15.8%	15.8%	68.4%
School assignment	15.8%	42.1%	42.1%
Relocation issues	31.6%	0	68.4%
Certification problems	21.1%	26.3%	52.6%

Table 8: Level of Difficulty Filling Non-Teaching Positions by Area (Percent of Districts)

	Very Difficult	Moderately Difficult	Not Difficult
Librarian	15.8%	21.1%	15.8%
Psychologist	21.1%	21.1%	10.5%
Guidance Counselor	0	10.5%	42.1%
Nurse	10.5%	26.3%	31.6%
Speech Therapist	47.4%	5.3%	10.5%
Elementary School Administrator	10.5%	26.3%	26.3%
Secondary School Administrator	5.3%	10.5%	47.4%
Central Office Administrator	0	10.5%	52.6%

*Percentages on this table may not add up to 100% because of not applicable or non-response

Table 9: Percent of Districts Indicating Use of Recruitment Tools

	Great Use	Some Use	No Use
Recruitment trips in neighboring states	36.8%	42.1%	21.1%
Recruitment trips in other states	21.1%	10.5%	68.4%
Teach DE website	52.6%	21.1%	26.3%
Teach for America	5.3%	5.3%	89.5%
UD recruitment fair	78.9%	15.8%	5.3%
Print advertisements	73.7%	15.8%	10.5%
Student teachers	47.4%	26.3%	26.3%
DE Alternatives routes	36.8%	42.1%	21.1%

Appendix C
Indices Defined

Indices for Proactive Recruitment

Frequency of reports to superintendent:

This index reports the level of communication of the personnel director with the superintendent. Proactive districts are those in which there is communication several times throughout the year, once per month, or several times per month, either verbally or in writing. The range of this index is from 0–2. A district assigned a 2 reported either several times throughout the year, once per month, or several times per month verbally **and** in writing. A district assigned a 1 did either verbal or written reporting at the above frequency. A district assigned a 0 neither reported in person or in writing at the referenced frequency.

Recruitment tools:

This index reports the “great use” of the top three reported recruitment tools by personnel directors. These tools are the University of Delaware recruitment fair, Teach Delaware website, and recruitment trips in neighboring states. The range for this index is from 0-3.

Recruitment Budget:

This measure is a simple yes/no response. (Does the district have an explicit recruitment budget?)

Early Notification Incentives:

This measure is a simple yes/no response. (Does the district has an early retirement notification plan?)

Late/Early Hiring:

Late hiring is considered to be August or later, and early hiring is prior to August. This index is the proportion of late or early hires over total hires per district.

Difficulty in Hiring:

This index reports the major difficulties in teacher hiring across the eight types of teaching positions. All responses were counted as a 1 for major difficulty and a 0 for all other responses. The range for this index is 0–8.

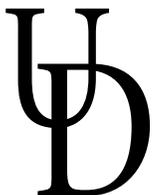


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