



Research Report

TEACHER ATTRITION IN ARKANSAS:

*A Supplement to *Teacher Supply and Demand in Arkansas**

July, 2007

BUREAU OF LEGISLATIVE RESEARCH

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At the request of the Joint Interim Committee on Education, this report was produced by the Bureau of Legislative Research as a supplement to a previous report titled, *Teacher Supply and Demand in Arkansas*. Questions regarding either or both may be directed toward Richard Wilson, Brent Benda or Angie Clingmon at (501) 682-1937.

Introduction

During August, 2006, the Joint Interim Committee on Education received a research report from the policy analysis section of the Bureau of Legislative Research (BLR) titled *Teacher Supply and Demand in Arkansas*. Among the numerous topics of interest that arose from that report was the problem of teacher attrition rates and specifically, "leavers" versus "movers".

A "mover" was defined as a teacher that moved from district to district; a "leaver" was defined as a teacher that quit the teaching profession.

As a prerequisite toward compilation of the research report, many other state and national supply-and-demand analyses were reviewed. According to the Education Resources Information Center (ERIC, 1999), 20% of K - 12 teachers in the United States leave within the first three years, with 9% leaving the first year. Regarding the state of Arkansas, the report further reflected that 92% to 94% of public K - 12 teachers return from the previous year (SREB, 1995).

The reasons teachers leave the profession were discussed in the report, but limited to a few states or a national scale. Therefore, the joint committee requested that research be continued and narrowed to discover the reasons behind the attrition of K - 12 public school teachers in Arkansas. Accordingly, the BLR staff designed an uncomplicated survey questionnaire (with assistance provided by education committee members) that was distributed to the target audience. The Arkansas Teacher Retirement System* (ATRS) was utilized as the distribution center for the contact of the "leavers". ATRS discovered 2,012 teacher addresses that were associated with leavers over the preceding 12 month period. (Incidentally, $2,012 / 34,000 = 5.9\%$, which is consistent with the previous SREB research.) The replies were collected by the BLR staff between November, 2006 and May, 2007.

* The Arkansas Teacher Retirement System maintains a database of contact mailing-addresses for teachers. Administrators of the database found slightly over 2000 such contacts that had departed the system within the 12 months preceding September of 2006. The BLR provided postage-paid envelopes that contained the survey questionnaire, an addressed, postage-paid return envelope and an explanatory cover letter. While remaining anonymous to the BLR, the "leavers" were contacted via direct mailing during November, 2006 by the Arkansas Teacher Retirement System. The return responses were mailed directly to the BLR for analysis associated with this report.

Response Frequencies
Analysis and Discussion

Distribution

| | | |
|-------------------------|---|------|
| Surveys Mailed | = | 2000 |
| Surveys Returned | = | 927 |
| Surveys Returned Usable | = | 314 |

ATRS mailed 2000 surveys on November 1, 2006. The return postage was metered "November 00" which the post office suggested could be utilized any day during the month of November. The BLR received many replies in November but the post office apparently did not discard replies mailed on later dates because the last survey was received in May, 2007.

The BLR received 927 returned surveys and of that number, 314 were completed and usable for data compilation. Among the 613 returned surveys that were not usable, 565 were undeliverable and the remaining 48 for other reasons including, respondent never taught, is still teaching or is a substitute teacher.

Question 1

Gender ?

| | | |
|--------|---|-----|
| Male | = | 24% |
| Female | = | 76% |

According to the Arkansas Department of Education (ADE), the statewide ratio of female teachers is 79%; the survey results generated a similar ratio.

Question 2

Education ?

| | | |
|-----------|---|-----|
| Bachelors | = | 56% |
| Masters | = | 41% |
| Doctorate | = | 3% |

According to the ADE, the statewide ratio of teachers holding Masters degrees is 41%; the survey results generated the same ratio.

Due to the strong similarities of the gender and education ratios provided by the ADE and the results of the survey, the survey sample appears to be representative of the population of Arkansas teachers.

Question 3

How many years did you teach before you decided to leave ?

| | | |
|------------|---|-----|
| 1 or 2 | = | 56% |
| 3 or 4 | = | 26% |
| 5 or 6 | = | 5% |
| 7 to 10 | = | 3% |
| 11 or more | = | 10% |

As reflected in the research literature utilized for the original report, *Teacher Supply and Demand in Arkansas*, the great majority of teacher attrition occurs during the first three or four years of the teaching experience. The survey results reflected above confirm that behavior.

Statistical analyses were performed on the respondent data. The results reveal that teachers with a graduate degree tend to stay more years in the teaching profession. In addition, a significant negative correlation exists between variables representing the number of years taught and the year that the graduate degree was received. It indicates that the further back (in years) the teacher received the graduate degree, the less likely that teacher would be to leave the teaching profession.

Further, the data were utilized to determine the relative probabilities of teachers leaving the profession based on whether they hold a bachelors degree versus a graduate degree. The result revealed that, based on the BLR survey sample, a teacher with a graduate degree is 65% more likely to stay in the teaching profession three or more years.

Question 4

What subject(s) did you teach ?

| | | |
|-----------------------------|----------|------------|
| Elementary Education | = | 30% |
| Math | = | 15% |
| Science | = | 15% |
| English | = | 13% |
| Special Education | = | 9% |
| Social Studies | = | 6% |
| P.E. / Health | = | 5% |
| Foreign Language | = | 5% |
| Speech Pathology | = | 4% |
| Art | = | 4% |
| History | = | 4% |
| Computer | = | 2% |
| Business | = | 2% |
| Music | = | 2% |
| Alternative Learning | = | 2% |
| Library | = | 1% |

The respondents were directed to "fill in the blank" and some taught more than one subject, therefore the aggregate percentage will be greater than 100%.

Question 5

What was your reason for leaving ?

| | | |
|--|----------|------------|
| Family or Child-rearing | = | 42% |
| Low Salaries and Benefits | = | 31% |
| Student Discipline Problems | = | 27% |
| Lack of Administrative Support* | = | 25% |
| Opportunities in Other Fields | = | 21% |
| Inadequate Preparation Time | = | 16% |
| Irrelevant Professional Development | = | 15% |
| Excessive Paperwork & Hours** | = | 12% |
| Lack of Colleague Competence | = | 11% |
| Lack of Teacher Mentoring | = | 9% |
| Lack of Faculty Influence | = | 8% |
| Lack of Professional Prestige | = | 7% |
| Lack of Professional Development | = | 3% |

* We asked that any affirmative reply to this question provide an additional description of the exact, intended meaning of the answer and, whether the answer was associated with the school-level administration or the central office / superintendent.

** Due to the number of respondent complaints on this issue, an additional reason-category is created and reflected here that was not included in the original survey.

The reply to Question 5 was the primary purpose of the survey. During their review of *Teacher Supply and Demand in Arkansas*, the members of the Joint Committee on Education asked the BLR to perform this function. Although the reasons for teacher attrition in a few states and on a national scale were known, the committee members wanted to focus on Arkansas teachers. All reasons mentioned regarding teacher attrition in the literature review were extracted and utilized on Question 5. The respondent was directed to "check all that apply" therefore the aggregate percentage will be greater than 100%.

Utilizing the data from this question in the survey, the BLR further produced statistical analyses that reveal interesting results. After combining the responses from those that taught math, science and computer to create a new variable, then checking it against the variable "Opportunities in Other Fields" there was a significant correlation. Therefore the data were again utilized to determine the relative probabilities. The results reflect that, based on the BLR survey sample, if you are a teacher in the math, science or computer discipline, you are twice as likely to leave the teaching profession due to opportunities in other fields. Further statistical testing revealed that a similar strong relationship also exists between "Low Salaries and Benefits" and "Opportunities in Other Fields"

Among the teacher attrition determinants reflected in the literature review was a response labeled "lack of administrative support". At the time of the review by the committee, members and staff were confused by this term and thus, the BLR was asked to get a clarification. Among the survey respondents that selected "Lack of Administrative Support" as a reason for leaving the profession, 22% stated that they were referring to the administration's central office while 65% referred to the school-level administration (office of principal or vice principal). Some respondents chose both the central office and the school-level administrators as a reason and those remaining did not differentiate or left the question unanswered. Among those respondents that directed their displeasure at the school-level administrators, 47% included comments associated with their frustrations regarding a lack of support in student discipline situations.

Interestingly, one respondent stated that the legislature had too much influence.

Conclusion

Although the survey response rate was somewhat disappointing (314 / 2000 = 15.7%), statistics suggest that the sample appears to be representative of the population of K - 12 teachers in Arkansas. Regarding the ATRS mailing done on behalf of the BLR, slightly less than half were returned and of those returned, 66% were not usable. Since the vast majority of those "returned-but-unusable" were marked "undeliverable", it is assumed that the missing 1,073 surveys were received by former teachers but discarded.

The response frequencies suggest that Arkansas teachers behave much like teachers in other state attrition studies and, while the answers received are of no great surprise, they remain useful to the committee(s) for future policy toward teacher retention. Based on the BLR statistical analyses of the data from the sample, two of the most interesting results found are the following:

First, teachers with graduate degrees tend to want to be teachers and are significantly less likely to leave. This is valuable evidence for superintendents that desire to hire employees and suffer less turnover. Or, it might also be valuable information to the design of policy toward teacher pay differentials between bachelor-level and graduate-level personnel.

Secondly, it was discovered that those teachers with certification teaching math, science or computer are twice as likely to realize opportunities for employment elsewhere. While this appears completely logical, it is confirmation to what most believe intuitively and could be information to utilize prospectively toward differential pay associated with subject-area expertise enjoying high demand.

Appendices

Appendix A - The Survey Instrument

The following three pages, attached as "Appendix A", are a copy of the original cover letter and survey questionnaire as provided by the BLR to the ATRS, which was distributed by mail on November 1, 2006 to former Arkansas K - 12 teachers.

Appendix B - Summary of Explanations regarding the response, "Lack of Administrative Support"

Appendix C - Statistical Results

You have been identified as a former public school teacher that chose to leave public school teaching in Arkansas for a reason other than retirement. The Bureau of Legislative Research, at the request of the Joint Interim Committee on Education, is conducting a survey to gain knowledge toward the specific reasons for your decision to leave teaching in Arkansas public schools.

The ultimate goal of this research is to provide insight to the Arkansas Legislature so that legislation may be composed to properly address the concern toward teacher retention, thus your reply is greatly needed.

The Arkansas Teacher Retirement System (ATRS) was utilized to locate you and is the only entity that knows your identity. The ATRS completed the addressing and mailing of these letters on our behalf. In order to retain and protect your anonymity, you may discard this cover letter.

Please take a moment to answer the attached set of questions and return the answers to us in the enclosed, postage-paid envelope.

Thank you for your time, assistance and advice.

Sincerely,

**Richard Wilson, Assistant Director
Research and Policy Analysis
Bureau of Legislative Research
Arkansas Legislative Council**

Questionnaire

Instructions:

Please check the appropriate answer for each question.

1) **Gender ?** **Male** _____
 Female _____

2) **Education ?** **Bachelors** _____ **Year Graduated** _____
 Masters _____ _____
 Doctorate _____ _____

3) **How many years did you teach public school before deciding to leave ?**
 1 or 2 _____
 3 or 4 _____
 5 or 6 _____
 7 to 10 _____
 11 or more _____

4) **What subject(s) did you teach ?**

5) What was your reason for leaving ?

[check all that apply]

low salaries and benefits _____

family or child-rearing _____

opportunities in other fields _____

student discipline problems _____

lack of professional prestige _____

lack of faculty influence _____

inadequate preparation time _____

lack of colleague competence _____

lack of teacher mentoring _____

lack of professional development _____

irrelevant professional development _____

lack of administrative support _____ [note:

if this reason is chosen, please describe below the exact cause(s)

and indicate school-level administration or the central office.]

6) Is there any other information you wish to provide ?

TEACHER SURVEY
Lack of Administrative Support
Summary of Explanations

| EXPLANATION | CENTRAL | SCHOOL | UNCLEAR |
|---|---------|--------|---------|
| School-level building administration didn't support teachers in front of parents and students | | 1 | |
| School-level administration was not supportive | | 1 | |
| Assistant principal didn't follow through with student discipline problems | | 1 | |
| Lack of outlet/voice for teachers and no accountability for Superintendent breaking rules | 1 | | |
| Central Office | 1 | | |
| Administrator did not support teachers as it related to parents and students | | 1 | |
| Principal | | 1 | |
| Principal (Elementary) | | 1 | |
| Principal too busy to help with student discipline problems | | 1 | |
| No help in finding permanent placement | | | 1 |
| Principal not able to address the entire school's discipline problems adequately | | 1 | |
| School-Level administration was heavy handed, inconsiderate and incompetent, no assistance as a 1st year teacher, only constant negative feedback | | 1 | |
| Lack of support from LEA Supervisor and building principal | | 1 | |
| Building administration had too much to do & couldn't support teachers | | 1 | |
| Lack of support with student discipline | | 1 | |
| School-level administration undermined my authority with parents and students, Administration expected me to falsify grades | | 1 | |
| Superintendent's daughter was the Assistant Principal , Assistant Superintendent gave no support, Principal's wife was my mentor, dealing with the entire administration was stressful | 1 | 1 | |
| Hostile Principal , ignored by Central Office , No support to get adequate teaching supplies | 1 | 1 | |
| Was not given the help that was promised | | | 1 |
| blank | | | 1 |
| 2/3 of the administration oblivious to problems in modern classroom with students and parents | | | 1 |
| School has given up on student discipline | | 1 | |
| Administrators should help their staff by being in the building and not in excessive local and state meetings | | | 1 |
| blank | | | 1 |
| Lack of support from Central Office , needed 3 extra weeks for maternity leave due to premature birth and was denied | 1 | | |
| School-level administration non-supportive, antagonistic, combative, racially biased, unprofessional, abusive to black people | | 1 | |
| Lack of support from principal in student discipline problems, and having adequate resources | | 1 | |
| Lack of support from administration in student discipline problems | | 1 | |

TEACHER SURVEY
Lack of Administrative Support
Summary of Explanations

| EXPLANATION | CENTRAL | SCHOOL | UNCLEAR |
|--|---------|--------|---------|
| Principal didn't support teachers as it related to student discipline | | 1 | |
| blank | | | 1 |
| Principal did not support teachers, favored parents | | 1 | |
| Forced to pass failing children | | | 1 |
| Lack of understanding of how difficult to complete "due process" and teach Spec. Ed | | | 1 |
| School and District Level | 1 | 1 | |
| Principal inappropriate and unprofessional and | 1 | 1 | |
| Administration didn't take an interest in schools, most interested in reports, awards, test results | | | |
| Administrators were incompetent | | | 1 |
| Principal and Superintendent | 1 | 1 | |
| Administration didn't deal with severe student discipline problems | | 1 | |
| Lack of administrative support as it relates to dealing with parents and students | | 1 | |
| Administrator | | | 1 |
| Administrator and principal failed to help with student discipline problem | | 1 | |
| Lack of support with discipline problems, allowed to be threatened by parents | | 1 | |
| Administration demanded failing students be passed, students allowed to cheat | | 1 | |
| School administration had no direction/vision, not involved in student achievement | | 1 | |
| Administrators didn't support teachers by supplying needed resources or when dealing with parents and students, teachers expected to work on campaigns for administrators | | | 1 |
| School-level administration not dealing with student discipline problems | | 1 | |
| Lack of support from school level administration | | 1 | |
| No back-up support from other teachers or principal , verbal threats from students | | 1 | |
| School-level administration enables disruptive behavior, doesn't support teachers in discipline of students according to policy | | 1 | |
| School-level administration | | 1 | |
| Central Office - professional classroom educators not included in the budgeting process, lack of class room materials | 1 | | |
| Lack of support with student discipline problems | | 1 | |
| Administration didn't support the Arts | 1 | | |
| Central Office unwilling to reprimand/replace Principal who was not supportive of staff | 1 | 1 | |
| Administration expects faculty to pass failing students | | | 1 |
| Administration and Principal uncooperative and abusive | 1 | 1 | |
| Poor leadership in the Central Office , lack of incentive and support for good teachers | 1 | | |

TEACHER SURVEY
Lack of Administrative Support
Summary of Explanations

| EXPLANATION | CENTRAL | SCHOOL | UNCLEAR |
|---|-----------|-----------|-----------|
| Legislature has too much influence, not much teacher education, too interested in districts, not enough work to better educate children | | | 1 |
| School-level administration was overbearing, not interested in "authentic learning", just test scores | | 1 | |
| Lack of support with student behavior management | | 1 | |
| Principal not supportive in discipline | | 1 | |
| School-level administration critical of student participation but offered no help | | 1 | |
| blank | | | 1 |
| Higher level Administration showed a bias toward certain students | | | 1 |
| Lack of support from school-level administration , children were secondary to forms | | 1 | |
| Superintendent hypocrisy, cutting teachers benefits to support developers | 1 | | |
| No support to decrease number of students in classroom | | | 1 |
| School-level administration (Elementary), Principal encouraged student misconduct by not supporting teacher | | 1 | |
| Lack of principal support in private and in front of students | | 1 | |
| High School Administration didn't support teachers, lack of student discipline | | 1 | |
| Lack of disciplinary procedures as it relates to unprofessional actions of teachers, and lack of discipline of students | | 1 | |
| blank | | | 1 |
| Lack of support from administration with student discipline problems | | 1 | |
| Lack of support from school and administrative powers | 1 | 1 | |
| School level and Central Office administration didn't support teachers, undermined teacher authority with children and parents | 1 | 1 | |
| Vice-Principal created a hostile work environment, Principal was unsupportive and lazy | | 1 | |
| Administration and superintendent problems | 1 | | |
| Administration value sports over students learning, bias toward students, parents allowed to intimidate teachers to get students better grades | | | 1 |
| | 17 | 51 | 19 |
| 24.8% (78 of 314) checked "Lack of Administrative Support" | | | |
| 21.8%-Central Office | | | |
| 65.4%-School Level | | | |
| 24.4%-Unclear | | | |

Correlations

Appendix C

Table 1. Correlations between Graduate Degree and Years Taught

| | | Grad Degree | Years taught |
|--------------|---------------------|-------------|--------------|
| Grad degree | Pearson Correlation | 1 | .239(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 307 | 306 |
| Years taught | Pearson Correlation | .239(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 306 | 313 |

** Correlation is significant at the 0.01 level (2-tailed).

Table 2. Correlations between Year Received Graduate Degree and Years Taught

| | | Year received | Years taught |
|---------------|---------------------|---------------|--------------|
| Year received | Pearson Correlation | 1 | -.456(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 307 | 103 |
| Years taught | Pearson Correlation | -.456(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 103 | 105 |

** Correlation is significant at the 0.01 level (2-tailed).

Table 3. Correlations between Specialty and Opportunity

| | | specialty | opportunity |
|---------|---------------------|-----------|-------------|
| Special | Pearson Correlation | 1 | .130(*) |
| | Sig. (2-tailed) | | .022 |
| | N | 314 | 314 |
| Opport | Pearson Correlation | .130(*) | 1 |
| | Sig. (2-tailed) | .022 | |
| | N | 314 | 314 |

* Correlation is significant at the 0.05 level (2-tailed).

Table 4. Correlations between Low-salary and Opportunity

| | | Low salary | opportunity |
|--------|---------------------|------------|-------------|
| Salary | Pearson Correlation | 1 | .201(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 314 | 314 |
| Opport | Pearson Correlation | .201(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 314 | 314 |

** Correlation is significant at the 0.01 level (2-tailed).

Logistic Regressions**Appendix C****Table 5 Years Taught as a function of Graduate Degree**

| | B | S.E. | Wald | df | Sig. | Exp(B) |
|--------------------|-------|------|-------|----|------|--------|
| Step 1 Grad degree | .498 | .230 | 4.697 | 1 | .030 | 1.646 |
| Constant | -.410 | .153 | 7.180 | 1 | .007 | .664 |

Note: Years taught: 0 = 1 or 2 years versus > 3 years. Graduate degree: 0 = no, 1 = yes.

Table 6 Perceived Opportunity as a function of Specialty (math, science, computer versus other)

| | B | S.E. | Wald | df | Sig. | Exp(B) |
|------------------|--------|------|--------|----|------|--------|
| Step 1 Specialty | .670 | .294 | 5.174 | 1 | .023 | 1.953 |
| Constant | -1.528 | .172 | 78.680 | 1 | .000 | .217 |

Note: Opportunity for Employment: 0 = no versus 1 = yes. Specialty: 0 = other versus math, science & computer.

Table 7 Perceived Opportunity as a function of Low Salary

| | B | S.E. | Wald | df | Sig. | Exp(B) |
|-------------------|--------|------|--------|----|------|--------|
| Step 1 Low salary | .995 | .286 | 12.125 | 1 | .000 | 2.706 |
| Constant | -1.689 | .187 | 81.824 | 1 | .000 | .185 |

Note: Opportunity for Employment: 0 = no versus 1 = yes. Low salary: 0 = no versus 1 = yes.