# Teacher Mobility and Effectiveness in Restructuring and Non-Restructuring Schools in an Inner-City District

Steven M. Ross
Weiping Wang
The University of Memphis

William L. Sanders
S. Paul Wright
The University of Tennessee

Sam Stringfield
Johns Hopkins University

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## EXECUTIVE SUMMARY

Teaching effectiveness in association with educational reform is typically dealt in the literature anecdotally and qualitatively, or through quantitative studies that are limited to small numbers of teachers or lack adequate control groups. Practitioners and policy makers have much more information about teachers' reactions rather than behaviors in response to the educational reform process. In the present research, we examined two major categories of teacher behavior that could be influenced by reform: (a) teaching effectiveness, as reflected for individual teachers by their contributions to their students' academic achievement; and (b) mobility, as reflected by teachers' decisions to remain at or leave their schools once reform designs were adopted. The context for the study was Memphis City Schools, a large urban district consisting of about 115,000 students. Over 80% of the students are African American and over 70% qualify for free or reduced-price lunch. Research questions were:

1. Does teacher effectiveness differ overall for restructuring schools versus non-restructuring schools.

2. Does the level of teacher mobility differ overall for restructuring schools versus non-restructuring schools?

3. Are mobility and teacher effectiveness outcomes consistent for two cohorts of restructuring schools?

4. Are mobility and teacher effectiveness outcomes consistent for individual restructuring designs?

The Tennessee Value-Added Assessment System (TVAAS) was developed by William Sanders and associates at The University of Tennessee to provide performance scores free of the biases normally associated with standardized test outcomes data (Sanders & Horn, 1995a, 1995b). By measuring the amount that students gain in their standardized test scale scores from one year to the next, TVAAS scores reflect growth regardless of initial level of performance. The resultant estimates of student and teacher effects have been demonstrated to be statistically independent of socioeconomic confoundings and do not require direct measures of these variables. The TVAAS scores over a four-year period were used to judge teacher effectiveness.

Schools involved in the present study were 25 restructuring schools that began implementation in 1995-1996 (to be referred to as R95 schools), 12 that began implementation in 1996-1997 (R96 schools), and 61 non-restructuring schools (NR schools). All were elementary schools. Teacher effectiveness and mobility rates were examined in the years 1994-1995, 1995-1996, 1996-1997, and 1997-1998.

## Conclusions

Results of the present study supported the following conclusions:

1. Overall, teachers in their first year at a school (regardless of experience) had consistently negative effectiveness scores, while those who stayed in the same school for six or more years had consistently positive effectiveness scores. "All other" teachers fell in the middle, showing a mixture of low negative and low positive

scores. Experience in teaching at a particular school therefore was positively correlated with student achievement gains.

2. First-year teachers in R95 schools had the most negative effectiveness scores in the third year of restructuring. A possible explanation is that, as schools progress in their implementation of reform designs, new teachers, who are likely to be unfamiliar with and unskilled in the new teaching methods, may experience a more difficult adjustment than when the reforms are just starting. Typically, professional development opportunities associated with reform designs are most extensive in the first year of implementation and tend to receive decreasing emphasis over time.
3. Six-year teachers in R95 schools, but not in NR schools, tended to increase in effectiveness each year following design selection. Roots and Wings veteran teachers, in particular, showed substantial and statistically significant improvement by increasing from a negative pre-reform effectiveness mean of –0.25 to a highly positive mean of 2.28 three years later. The suggestion is that the veteran teachers benefited from the professional development and perhaps "renewal" effects associated with the restructuring. It is sometimes assumed that experienced teachers are resistant to change or are less able to improve than are novice teachers for whom traditional strategies are not as strongly ingrained. Our findings suggest the opposite pattern, i.e., that the veteran teachers can make dramatic improvements in a context of reform, while less experienced teachers have difficulty adjusting. Results from classroom observations showed that teaching strategies changed in the restructuring schools in the direction of greater student centeredness and active learning (Smith et al., 1998). The pattern for six-year teachers, however, was not replicated overall or

for any design in the R96 cohort, so its generalizabilty remains in question. Possibly, the quality and intensity of training were not equivalent for the two cohorts.

4. Teacher mobility was not strongly affected by restructuring. Although more teachers tended to leave restructuring schools than non-restructuring schools, this outcome appeared mostly attributable to the district's waiver of transfer restrictions for teachers in schools initiating reform designs the next year. Thus, mobility in restructuring schools peaked the first year of implementation (i.e., there were more First Year teachers in that year), but leveled off to NR school rates in subsequent years.
5. The design most consistently associated with higher mobility levels after being selected was Roots & Wings. Compared to other designs, Roots & Wings involves the most extensive professional development and changes in curriculum. Its primary program component, Success For All (Slavin, Madden, Dolan, & Wasik, 1996), requires teachers to use prescribed research-based strategies and a special curriculum for teaching reading. Designs imposing greater demands and changes on teachers seem likely, at least in early implementation years, to increase teacher mobility. Other designs having relatively high mobility following selection were ELOB-95, Co-NECT-95, and Audrey Cohen College-95.
6. Teacher mobility tended to be higher for less effective teachers than more effective teachers, and for first-year teachers than for six-year teachers. Neither of these effects seems surprising. Teachers who are experiencing success would probably want to continue in their present situation, as would teachers who have established "roots" at a school over time. However, our results did not indicate differential

mobility rates based on whether or not teachers were located at restructuring schools. As previously discussed (see #1 above), restructuring effects on mobility rates were rather low in general.

While further research is needed to corroborate the present findings, the suggestion is that educational reform can have a positive impact on teaching effectiveness, and does not lead to more capable teachers leaving restructuring schools for more traditional settings. However, as restructuring progresses at a school, it may become more difficult for new teachers to adapt and be successful. More attention to preparing them through both preservice and inservice professional development is encouraged.

## Introduction

Our nation's schools are entering the year 2000 with greater impetus and incentive than ever in the past for implementing "comprehensive" school reform (CSR) designs. The CSR movement calls for programs that affect all aspects of school functioning-- instruction, curriculum, governance, professional development, parental and community involvement, and support services. The overall goal is to make schools more efficient and successful in preparing students as citizens and workers in the 21st century (e.g., Herman, 1999; Schlecty, 1997).

Today, federal programs such as Title I school-wide projects and the Comprehensive School Reform Demonstration ("Obey-Porter") legislation directly promote schools' adoptions of CSR designs (Ross, Alberg, & Nunnery, 1999; Slavin, 1999). But do these designs work to improve student achievement? While there is isolated supportive (and sometimes equivocal or negative) evidence regarding effects of

individual designs (see Herman, 1999), there is no clear assurance that CSR will typically be successful compared to traditional orientations. Much seems to depend on such factors as teacher buy-in, principal leadership, design implementation quality, design fit to school needs, resource allocation, and other factors (Smith et al., 1998).

Our recent research in Memphis, however, has produced suggestive evidence that restructuring done in a systematic way on a large scale can have beneficial effects overall (Ross, Sanders, Wright, & Stringfield, 1998; Ross, Wang, Sanders, Wright, & Stringfield, 1999). Specifically, our findings indicated that 25 Memphis elementary schools which began restructuring in 1995 had two years later (in 1997) significantly higher value-added (gain) scores on the state-mandated standardized achievement test than did non-restructuring schools. The restructuring schools also demonstrated a directional advantage over the non-restructuring schools after three years (in 1998). Individual designs associated with the strongest benefits were Roots & Wings, Co-NECT, and Accelerated Schools. Directional advantages over control schools were further shown after two years by a second cohort consisting of 12 elementary schools that began restructuring in 1996.

The present study extended this prior work by examining the impacts of restructuring on *teachers*, specifically, their mobility and their effectiveness in raising student achievement. The literature on teachers and educational reform primarily emphasizes such factors as teacher buy-in, attitudes, empowerment, and professional development (see e.g., Ayers, 1993; DuFour, 1992; Holland, 1998; Koppich, 1993). For example, Covaleskie (1994) discusses how reforms that make education more individualized may be verbally embraced but are likely to be ineffective. Teachers may

commit to supporting active learning, but quickly revert to traditional "chalk and talk." For many teachers, however, the expectancy to employ new teaching methods is threatening. According to Slaton, Atwood, Shake, and Hales (1997), for those teachers who were at retirement age when the reform was mandated, 74% of those who chose to retire attributed their retirement directly to the reform. Teaching strategies found to have a low level of support by those teachers were multi-age grouping, mainstreaming, and non-graded classrooms.

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3. Are mobility and teacher effectiveness outcomes consistent for two cohorts of restructuring schools?

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## Background For This Report

The Tennessee Value-Added Assessment System (TVAAS) was developed by William Sanders and associates at The University of Tennessee to provide performance scores free of the biases normally associated with standardized test outcomes data (Sanders & Horn, 1995a, 1995b). By measuring the amount that students gain in their standardized test scale scores from one year to the next, TVAAS scores reflect growth regardless of initial level of performance. The resultant estimates of student and teacher effects have been demonstrated to be statistically independent of socioeconomic confoundings and do not require direct measures of these variables.

In 1997, using TVAAS scores, we compared the progress of the 25 elementary schools in Memphis that began restructuring in 1995 (to be referred to as R95 schools) to 34 demographically-matched control schools, and the 40 remaining ("Other") non-restructuring elementary schools (Ross et al., 1998). TCAP was a form of the CTBS-4 (CTB/McGraw-Hill, 1990).

In a subsequent study, conducted on spring 1998 test results, comparable analyses were made for the original 25 R95 schools, an additional 12 schools that began restructuring in 1996 (R96 schools), and 61 non-restructuring (NR) schools which served as controls. The state-mandated standardized test employed in 1998 was the TerraNova or CTBS-5 (CTB/MacMillan/McGraw Hill, 1997). An equating analysis conducted by William Sanders and his staff in 1999 allowed for the conversion of TCAP scores to the TerraNova scale so that longitudinal 1998 effects could be determined (personal communication, William Sanders, April, 1999). In Memphis City Schools, CTBS/4 had

been administered in Grade 2, thereby allowing for the computation of 1998 TVAAS scores in grades 3, 4, 5.

In the present study, teacher effectiveness scores were derived from the 1998 TVAAS results. The former scores reflected the degree to which students taught by individual teachers improved each year in five subjects (math, reading, language, science, and social studies. In the next section, we will examine the teacher effectiveness outcomes for restructuring schools overall and for individual designs.

## Teacher Effectiveness

The following analyses addressed the question of whether teaching in a restructuring school influenced teacher effectiveness over time. For this analysis, we used the TVAAS Teacher Effect (TTE) for each teacher each year. The TTE measures individual teachers' contributions to their students' academic achievement relative to an "average" teacher in their school district. Thus, a positive TTE represents an above-average performance, whereas a negative TTE represents a below-average performance. The TTEs are calculated from a multivariate, longitudinal, mixed-model analysis of TerraNova scores as part of TVAAS (Sanders, Saxon, & Horn, 1997).

In the present analyses, we averaged TTE scores over grades for any teachers who taught the same subject in more than one grade in the same year. Then, we averaged over the five TerraNova subjects to obtain an overall teacher effect for each teacher each year. For grades 3-6, which were used in the analyses, most teachers taught all five subjects. After averaging over four grades (3-6) and five subjects, there were 4,419 TTEs in the analyses. The overall mean TTE was essentially zero with a standard deviation of 3.2.

There were 59% of the TTEs between –2.00 and +2.00, with 21% below –2.00 and 19% above +2.00.

Teachers included in the present analyses were those ($n$ = 1,869) who taught all five subjects. If a teacher taught the same subject in more than one grade, we used the subject mean across grades in the analysis.

Design

The primary analytical design compared TTE scores for three program cohorts of teachers: R95, R96, and NR. The teacher sample sizes differed from year to year, with the median sizes being 281, 127, and 699 teachers in the three groups, respectively. An additional analysis compared NR school means to those of 11 individual restructuring design groups comprised of at least two schools each. For each restructuring cohort (R95 and R96), post-reform TTE scores were compared to pre-reform TTE scores. In the case of R95 schools, pre-reform consisted of 1994-95 and post-reform of 1996-97 and 1997-98 averaged; for R96 schools, pre-reform was 1994-95 and l995-96 averaged, and post-reform was 1997-98. In addition to program type and year, a third variable was three groupings of teachers: (a) those who were at the same school for six years (the period for which TTE scores were available), (b) those who were in their first year at a school, and (c) all others.

Combined Restructuring Groups

In the initial set of analyses, we examined TTEs for all restructuring designs combined by comparing R95, R96, and NR teachers from 1994-95 to 1997-98. Figure 1 illustrates those results graphically. As may be seen, R95 teachers ($n$ = 271) had a negative TTE mean ($M$ = -0.40) in 1994-95, the pre-reform year, but steadily improved

each year, culminating in a positive mean of +0.38. NR teachers ($n$ = 667), however, averaged close to zero ($M$ = -0.10) in the pre-reform year, and declined slightly over time, averaging in the low-negative range (from -0.11 to -0.32). R96 teachers ($n$ = 121) demonstrated a unique pattern, by performing highest ($M$'s = +0.08 and +0.23) in their pre-reform years (1994-95 and 1995-96), declining in Year 1 (1996-97) to a moderately negative level ($M$ = -0.53), and then increasing in Year 2 (1997-98) to a slightly negative level ($M$ = -0.07). Thus, across all teachers, only the R95 cohort showed consistent improvement across the restructuring years.

Effects by Teacher Type

Follow-up analyses examined TTE scores in R95, R96, and NR schools by three types of teachers: (a) those who were in their first year at the school, (b) those who were in the school for six or more years, and (c) all others. While sample sizes varied across years, the median $n$'s for the resultant 9 groups were:

| | First Year | Six Years | Others |
|---|---|---|---|
| R95 | 64 | 89 | 123 |
| R96 | 27 | 40 | 60 |
| NR | 145 | 260 | 294 |

Results are graphically displayed for the R95 cohort vs. NR schools in Tables 2 to 4, and for the R96 cohort vs. NR in Tables 5 to 7. A brief descriptive summary of the results is provided below.

For the R95 cohort, *first-year* teachers had consistently negative TTEs in both the R95 and NR schools (see Figure 2). Differences between program groups are small and

fluctuate from year to year. However, interestingly, R95 first-year teachers demonstrated an extensive decline in TTE in 1997-98, the third year of restructuring. In contrast, *six-year* R95 and NR teachers (see Figure 3) showed consistently positive TTEs in all four years. Interestingly, the R95 teachers steadily increased (from +.05 in 1994-95 to 1.51 in 1997-98) whereas NR teachers performed fairly consistently. *All other* teachers (Figure 4) demonstrated the least consistent pattern, with a mixture of positive and negative TTE means. Similar to the six-year teachers, the most noticeable program differences occurred in 1997-98, with R95 teachers scoring relatively high ($M$ = +0.71) and NR teachers close to zero ($M$ = +0.11).

Results for the R96 cohort were similar with regard to teacher type effects, but the patterns for programs were less interpretable than for the R95 program. As shown in Figure 5, first-year teachers performed negatively in both program groups in all years; program outcomes, however, were very similar. Six-year teachers (Figure 6) performed positively in all cases, but the advantage indicated for the R96 teachers over NR teachers was comparable in pre-reform and post-reform years. All other teachers (Figure 7) performed close to zero in both programs in all years.

Significance tests compared post-reform minus pre-reform differences of R95 versus NR teachers within each group (first-year, six-year, all others). Results were significant for six-year teachers ($p$ = .0003) and all other teachers ($p$ = .0410), but not for first-year teachers ($p$ = .986). In both of the former cases, R95 teachers surpassed NR teachers. None of the parallel significance tests for the R96 cohort, however, approached significance. While program therefore had some effect for the 1995 cohort, teacher type was by far the most significant variable in the overall analysis, $F(2, 1868) = 38.52$, $p <$

.0001. Group mean TTE scores, averaged over designs and years, were –0.891 for first-year teachers, +0.648 for six-year teachers, and +0.13 for all other teachers.

Supplementary analyses examined program effects on pre- to post-reform TTE change scores separately for each reform design that was represented by two or more schools. The only significant effect occurred for six-year teachers in Roots & Wings-95 schools ($p$ = .0040). In 1994-95, six-year R&W teachers ($n$ = 23) averaged –0.25 in TTE, whereas they averaged +0.84 ($n$ = 25) in 1996-97 and +2.28 ($n$ = 19) in 1997-98. No other R95 or R96 design cohort or NR cohort made a larger gain.

## Teacher Mobility

Analyses were made by implementation year of the proportion of teachers in R95 schools ($n$ = 25), R96 schools ($n$ = 12), and NR schools ($n$ = 61) who were in their first and last year at the particular school. Such results reflect teacher mobility as a possible function of design influences. First Year teachers were those who were working in the particular school for the first time, and thus were not necessarily beginning their teaching careers. Because First Year and Last Year results are highly correlated, we have chosen to report only the First Year outcomes here. Note that the reason for the high correlation between the two mobility measures is that the proportion of teachers leaving a school in a given year directly influences the number of replacement (First Year) teachers likely to be hired for the following year. Important to the interpretation of results is knowing that Memphis City Schools intentionally facilitated transfer requests by teachers in the first year of their present schools' design implementation. Consequently, R95 schools might be expected to have peaked in mobility in 1995-1996, and R96 schools in 1996-1997.

Overall Results

Figure 8 depicts results for the three groups of schools. Note from the figure that NR school proportions for First Year teachers remain fairly stable, ranging from .17 in 1994-95 to .22 in both 1996-97 and 1997-98. Because the designs were not selected by R95 schools until spring of 1995, the proportion of First Year teachers in the 1994-1995 school year would have been completely unaffected by the restructuring initiative. Following design selection, some teachers might have *anticipated* negative experiences and chosen not to return for 1995-96, thus inflating the proportion of First Year teachers that year. Those who joined or remained on the faculty would then have experienced the first year of design implementation. Their decision whether to continue at their schools in 1996-97 and in 1997-98 would then have impacted First Year placements in those years. By the same reasoning, First Year teacher mobility in R96 schools would have been completely unaffected by school restructuring in 1994-95 and 1995-96, susceptible in 1996-97 to prior year design anticipation effects, and susceptible in 1997-98 to design implementation effects.

As shown in Figure 8, in the baseline year (1994-95), R95 schools averaged about 22% new teachers. With the design selected and about to be implemented in the fall-1995, the percentage of new teachers at these schools increased to 28% compared to only 18% at the NR schools. Again, this result seems largely attributable to the district's policy of facilitating transfers prior to the initial design implementation. In subsequent years (1996-97 and 1997-98), the percentage of First Year teachers leveled off to 20% and 25%, respectively. Statistical comparisons of the proportions showed significantly

higher First Year levels for R95 schools relative to NR schools in 1994-95 ($p$ = .0392) and in 1995-96 ($p$ = .0001).

Results for R96 teachers show a similar type of pattern. Prior to design selection (1994-95 and 1995-96), the percentages of First Year teachers at those schools averaged 21% and 18%, respectively. With design implementations starting in fall-1996, the number of First Year teachers increased to 28%. The next year, the percentage declined slightly to 24%. Comparisons of R96 and NR school mobility rates were not significant in any of the school years analyzed.

Design Results

To determine whether particular designs had relatively greater effects on teacher mobility, we analyzed the First Year teacher results for each design that was represented by two or more schools. Figures 9 to 18 summarize the results for R95 and R96 design cohorts. The highlighted years on the graphs are those in which teacher mobility could have been affected by the restructuring *implementation* for the particular cohort.

R95 designs. Designs represented by two or more schools were Roots & Wings ($n$= 8), Co-NECT ($n$ = 4), Accelerated Schools ($n$ = 3), Audrey Cohen College ($n$ = 3), ATLAS ($n$ = 2), and ELOB ($n$ = 2). As shown in Figures 9-14, the individual design patterns generally mirrored the overall tendency for mobility to peak in the first implementation year (1995-96). Again, readers should note that: (a) First Year teachers were replacing teachers who had not yet experienced implementation at their schools; but (b) might have been exercising the opportunity provided by the school district to transfer schools prior to the initial design implementation. Designs having the highest First Year levels were Roots & Wings-95 (32%) and ELOB-95 (39%). Statistical comparisons of

First Year levels between R95 design schools and NR schools were significant ($p < .05$) in 1995-1996 for Roots & Wings-95 ($p = .003$), Co-NECT-95 ($p = .025$), and Audrey Cohen College-95 ($p = .047$). The only other significant comparison was ELOB-95 in 1997-1998 ($p = .029$). In all cases, mobility was higher at the design schools.

R96 designs. R96 designs represented by two or more schools were Roots & Wings ($n = 4$), Accelerated Schools ($n = 3$), ELOB ($n = 2$), and Paideia ($n = 2$). Again, the typical pattern (see Figures 15-18) was for mobility to peak in the first year of design implementation (i.e., 1997-98). Comparisons with NR schools showed significantly higher mobility for Roots & Wings-96 in 1994-95 (40.5%, $p = .0005$) and in 1996-1997 (48.6%, $p = .0002$); and significantly lower mobility for ELOB-96 in 1994-95 (3.4%, $p = .033$) and in 1995-1996 (3.4%, $p = .0272$).

## Summary

Under normal (non-restructuring) conditions, schools in Memphis replaced about 20% of their staff. However, when teachers at new restructuring schools were given the opportunity to transfer without penalty, the number of First Year replacements for both the R95 and R96 cohorts increased to about 28%. In subsequent years, the mobility rate at restructuring schools decreased to levels approximating that of the NR schools. Overall, the restructuring initiative appeared to have had a small effect on teacher mobility, which was largely driven by a relaxation in district policies for transferring in the implementation year. The design most consistently associated with higher mobility levels after being selected was Roots & Wings. In the first year of implementation, the mobility rate at the four Root & Wings-96 schools was close to half (49%) of the

teachers. Other designs having relatively high mobility following selection were ELOB-95, Co-NECT-95, and Audrey Cohen College-95.

## Which Teachers Leave?

Another research question of interest concerns whether more effective teachers are more or less likely to leave a school than are less effective teachers. And, if such effects occur, do they vary for R schools and NR schools? To address these questions, our analyses examined the proportion of teachers who were in their last year in a school across a three-year period (1994-95, 1995-96, and 1996-97) based on: (a) whether the teacher was in a R school or NR school, (b) whether or not the teacher was in his/her first year in the school; and (c) whether the teacher had a relatively high TTE score (>+2,) a relatively low TTE score ( < -2) or near-average TTE score (>=-2 and <= +2). Approximately 60% of the overall sample fell in the latter category.

The analyses failed to show strong or significant effects for any of the above variables. In general, more effective teachers were less likely to leave their schools. For example, in 1994-95, 37% of first-year NR teachers in the low-TTE group left, whereas only 16% of those in the high-TTE group left. Another general pattern was for first-year teachers to be more likely to leave a school than were veteran teachers. The data, however, did not indicate differential mobility rates based on whether or not teachers were at restructuring or non-restructuring schools.

## Conclusions

Results of the present study supported the following conclusions:

1. Overall, first-year teachers had consistently negative effectiveness scores, while six-year teachers had consistently positive effectiveness scores. "All other" teachers fell in the middle, showing a mixture of low negative and low positive scores. Experience in teaching at the same school therefore was positively correlated with student achievement gains.
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3. Six-year teachers in R95 schools, but not in NR schools, tended to increase in effectiveness each year following design selection. Roots and Wings veteran teachers, in particular, showed marked and statistically significant improvement by increasing from a negative pre-reform effectiveness mean of –0.25 to a highly positive mean of 2.28 three years later. The suggestion is that the veteran teachers benefited from the professional development and perhaps "renewal" effects associated with the restructuring. It is sometimes assumed that experienced teachers are resistant to change or less able to improve than are novice teachers for whom traditional strategies are not as strongly ingrained (e.g., Slaton et al., 1997). Our findings

suggest the opposite pattern, i.e., that the veteran teachers can make dramatic improvements in a context of reform, while less experienced teachers have difficulty adjusting. Results from classroom observations showed that teaching strategies changed in the restructuring schools in the direction of greater student centeredness and active learning (Smith et al., 1998). The pattern for six-year teachers, however, was not replicated overall or for any design in the R96 cohort, so its generalizabilty remains in question. Possibly, the quality and intensity of training were not equivalent for the two cohorts.

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**Figure 1. Teacher Effectiveness for 1995 and 1996 Restructuring School: All Teachers**

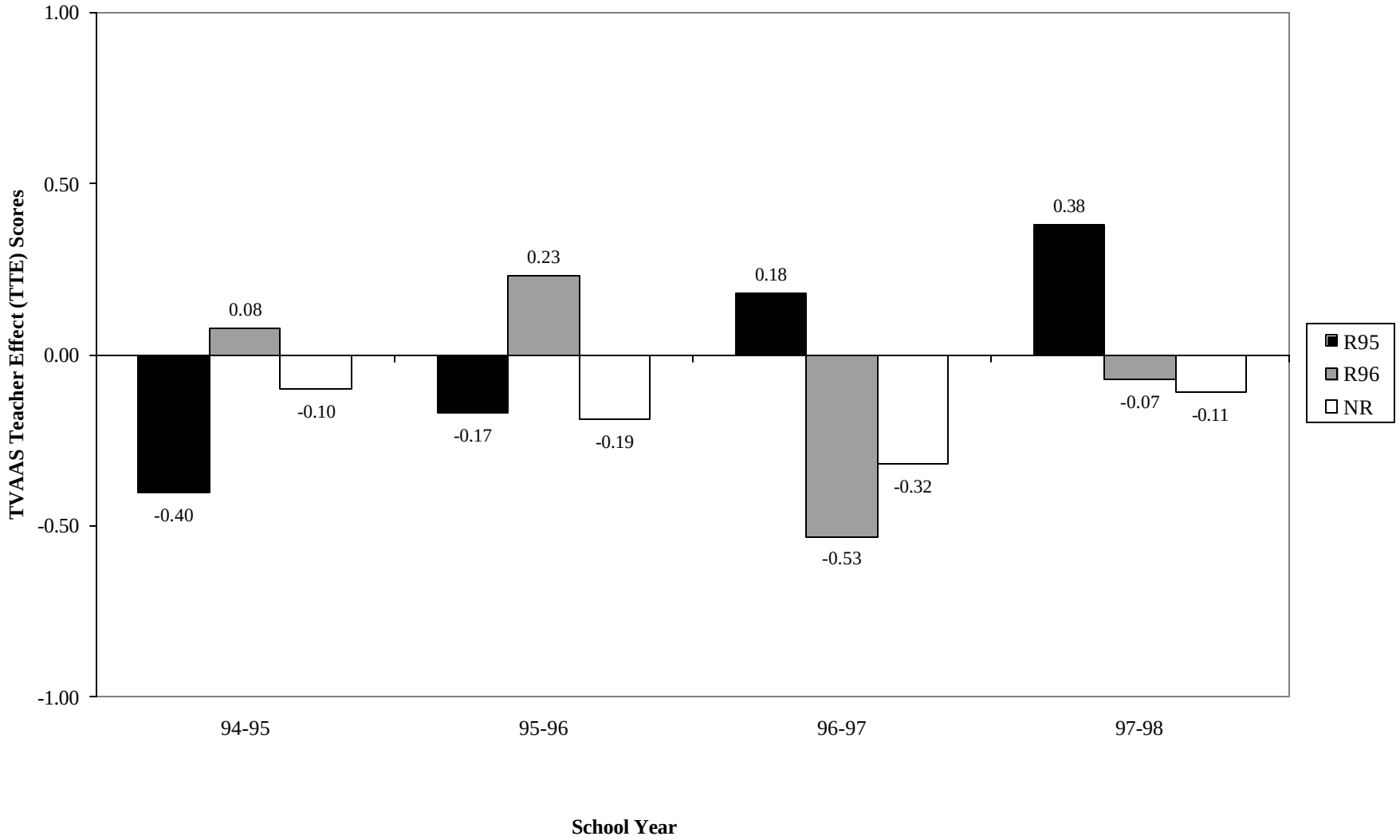


**Figure 2. Teacher Effectiveness for 1995 Restructuring Schools: First-Year Teachers**

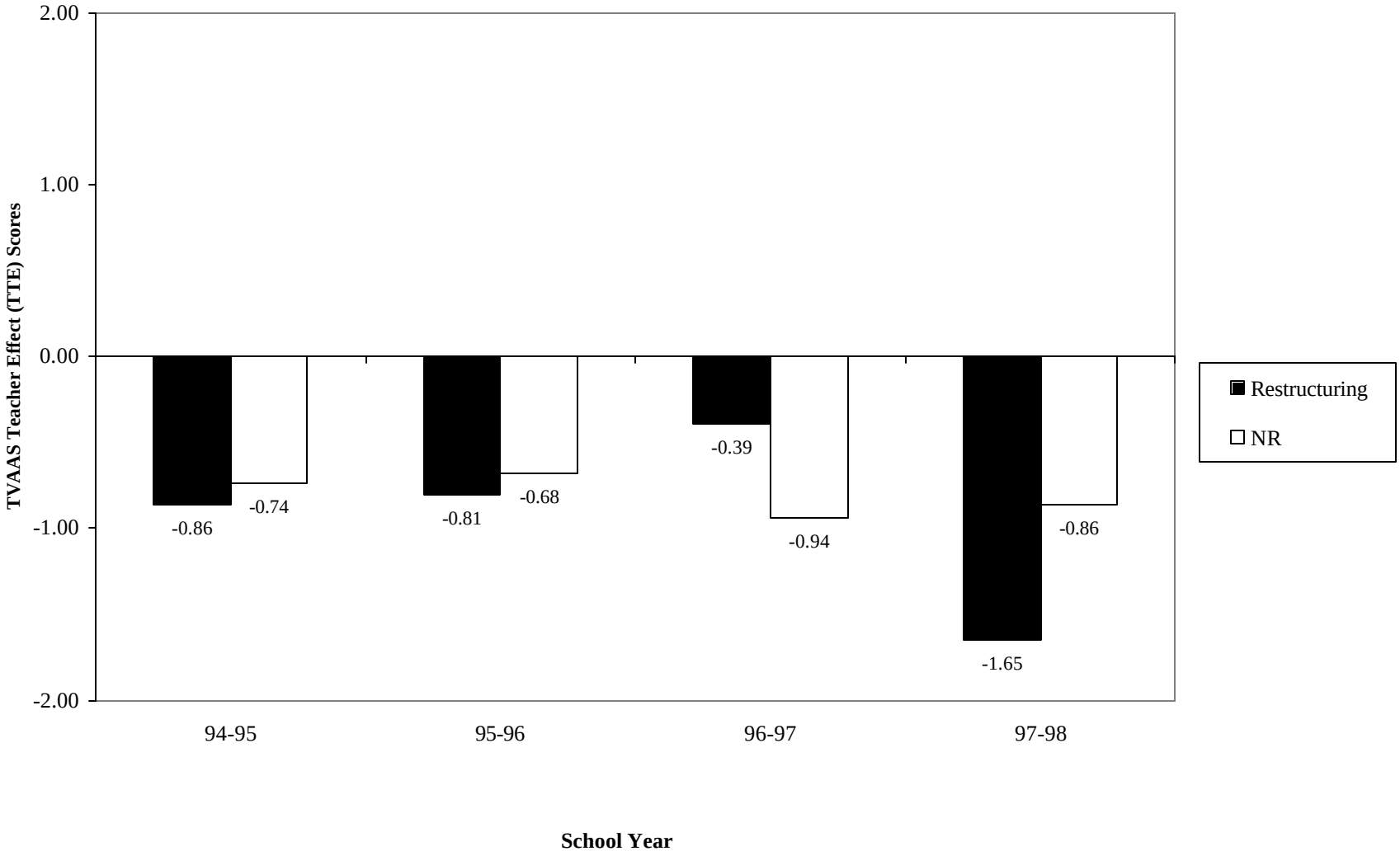


**Figure 3. Teacher Effectiveness for 1995 Restructuring Schools: Six-Year Teachers**

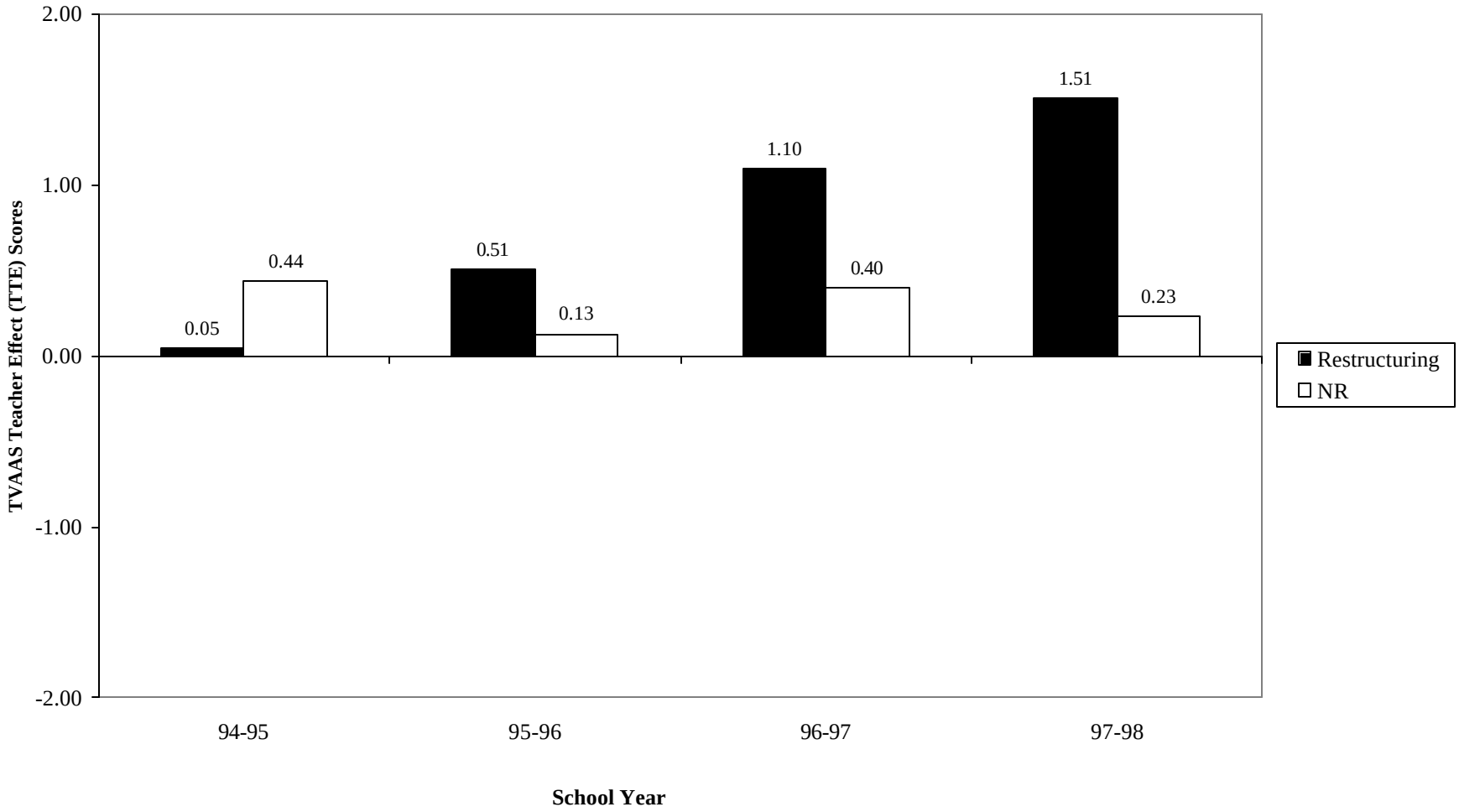


**Figure 4. Teacher Effectiveness for 1995 Restructuring Schools: All Other Teachers**

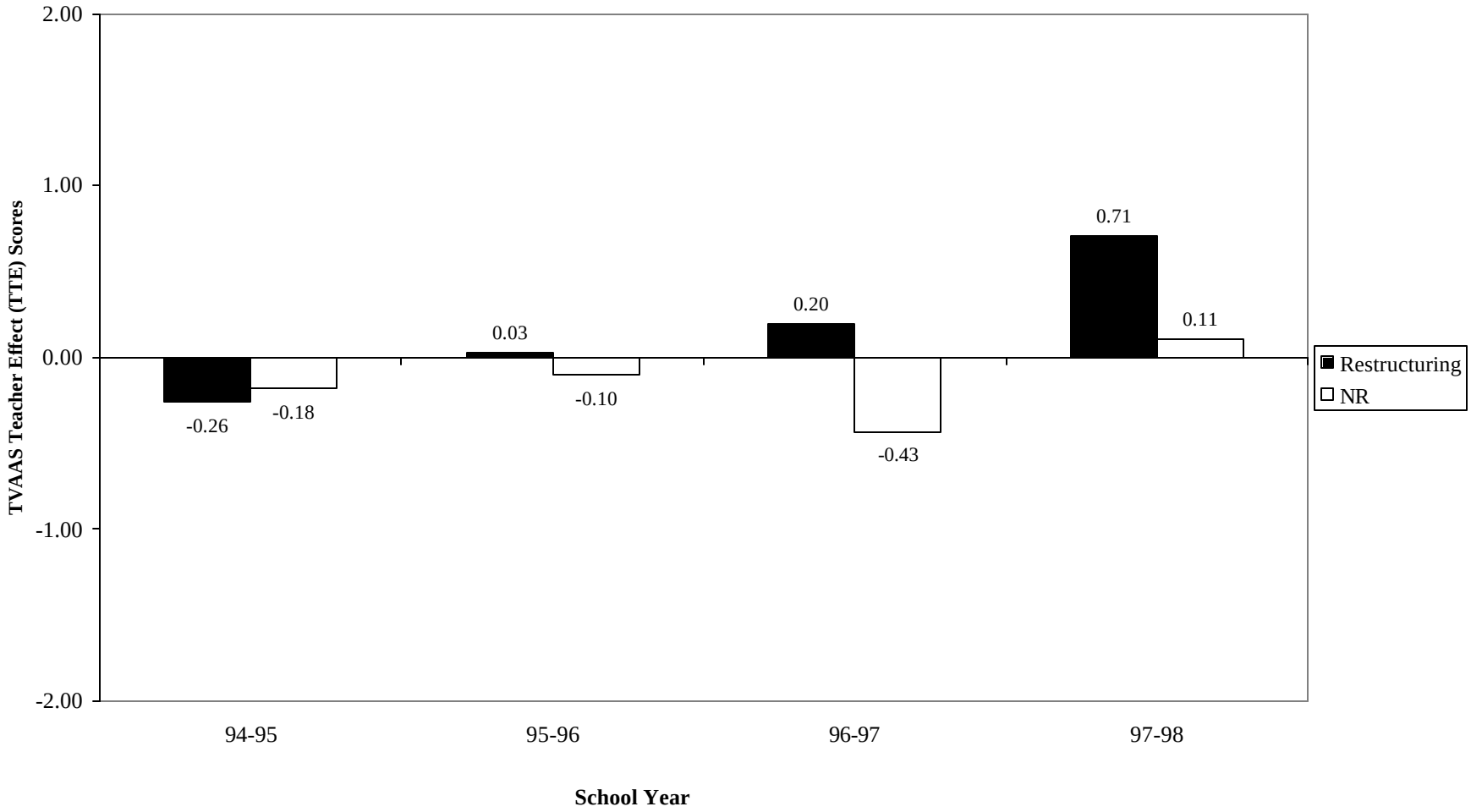


**Figure 5. Teacher Effectiveness for 1996 Restructuring Schools: First-Year Teachers**

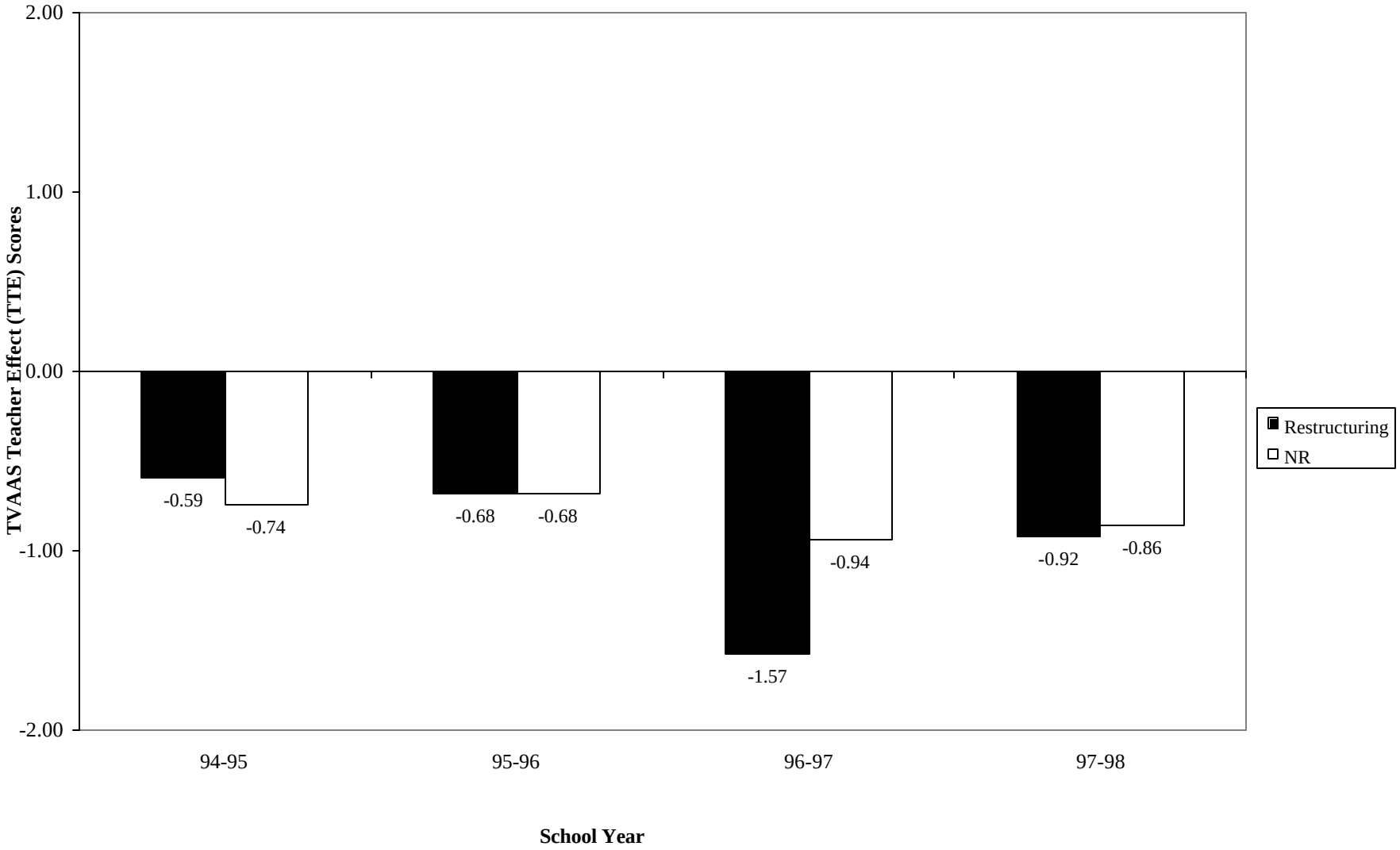
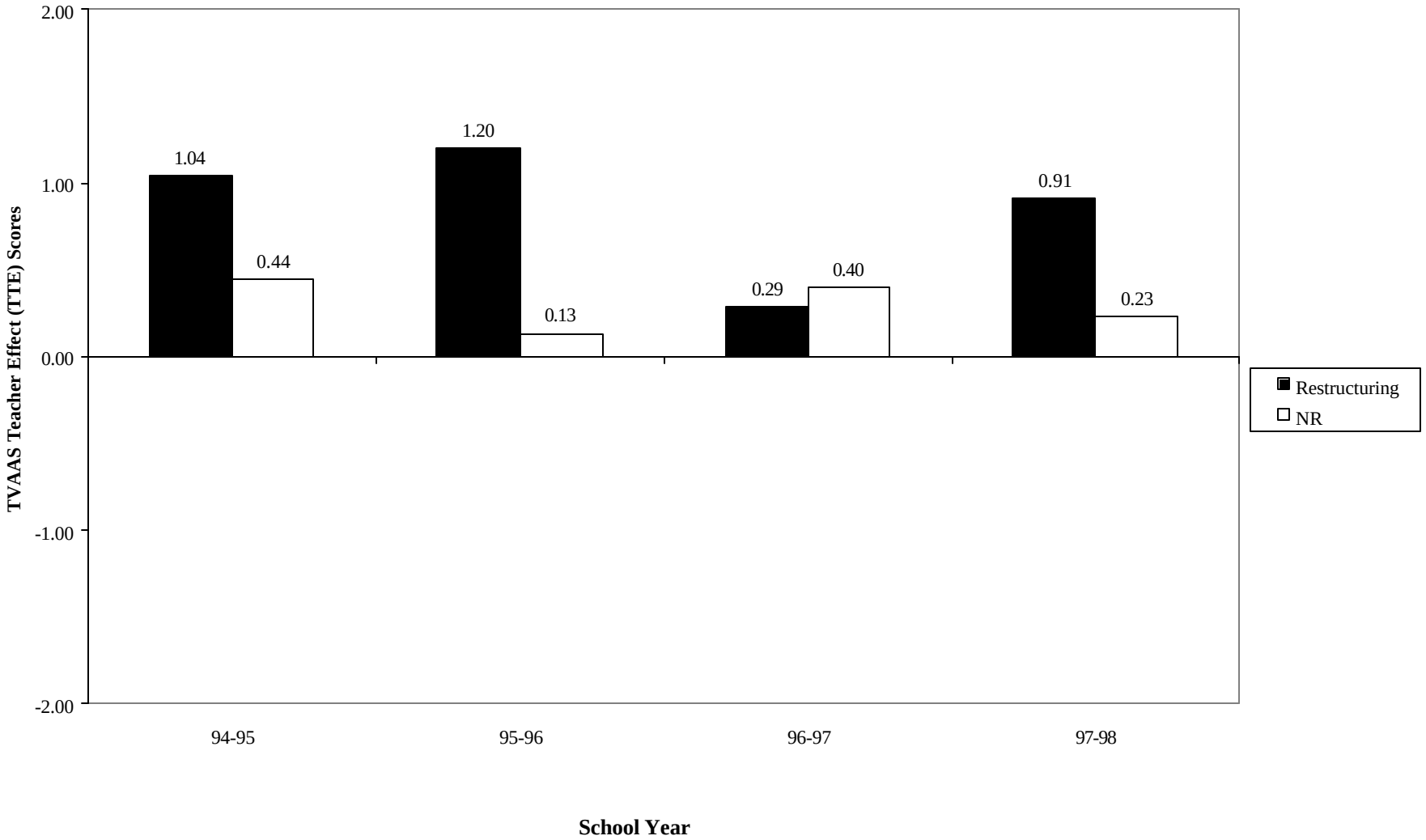


**Figure 6. Teacher Effectiveness for 1996 Restructuring Schools: Six-Year Teachers**



## Figure 7. Teacher Effectiveness for 1996 Restructuring Schools: All Other Teachers

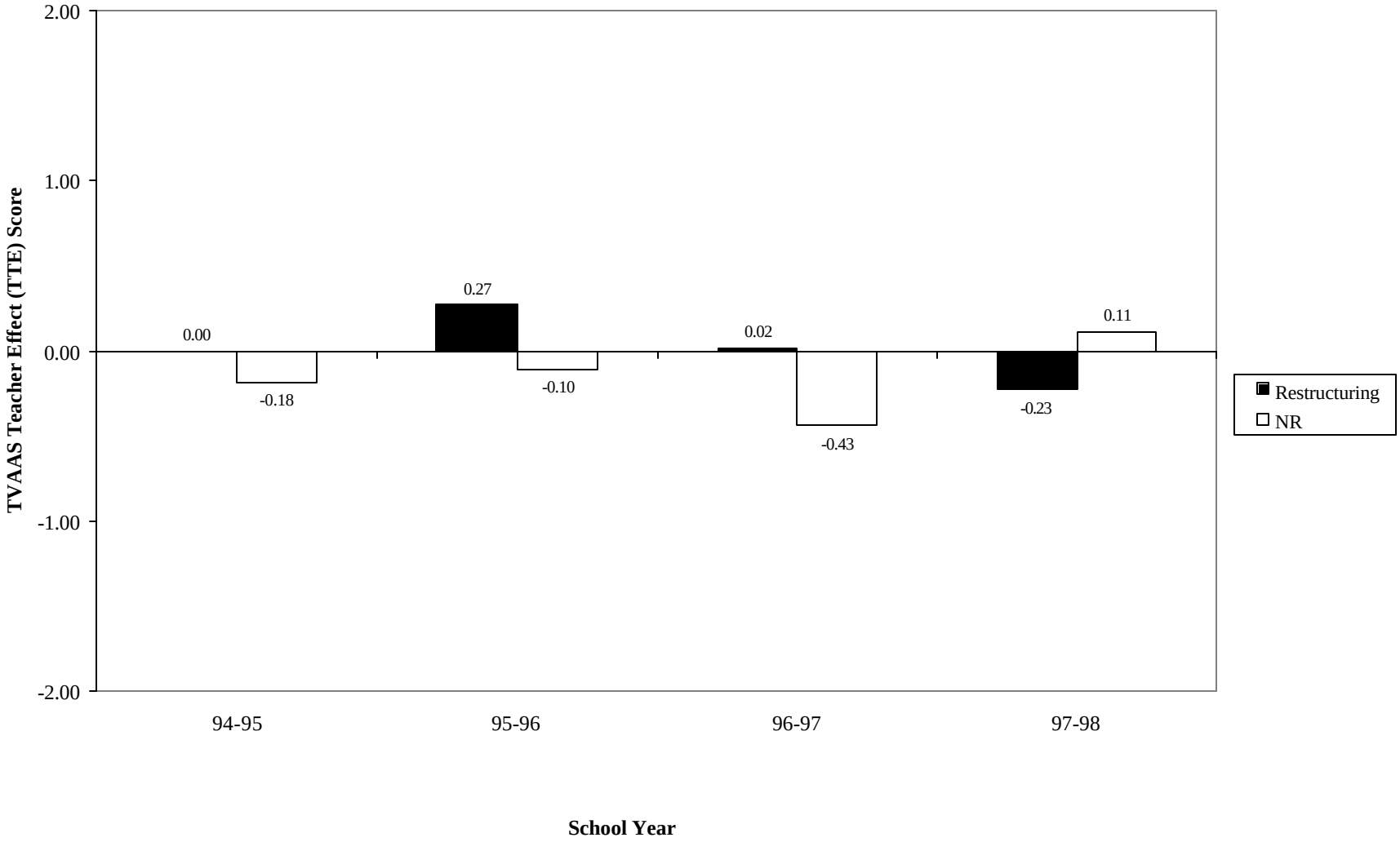


**Figure 8. Proportion of First-Year Teachers at R95, R96, and Non-Restructuring (NR) Schools**

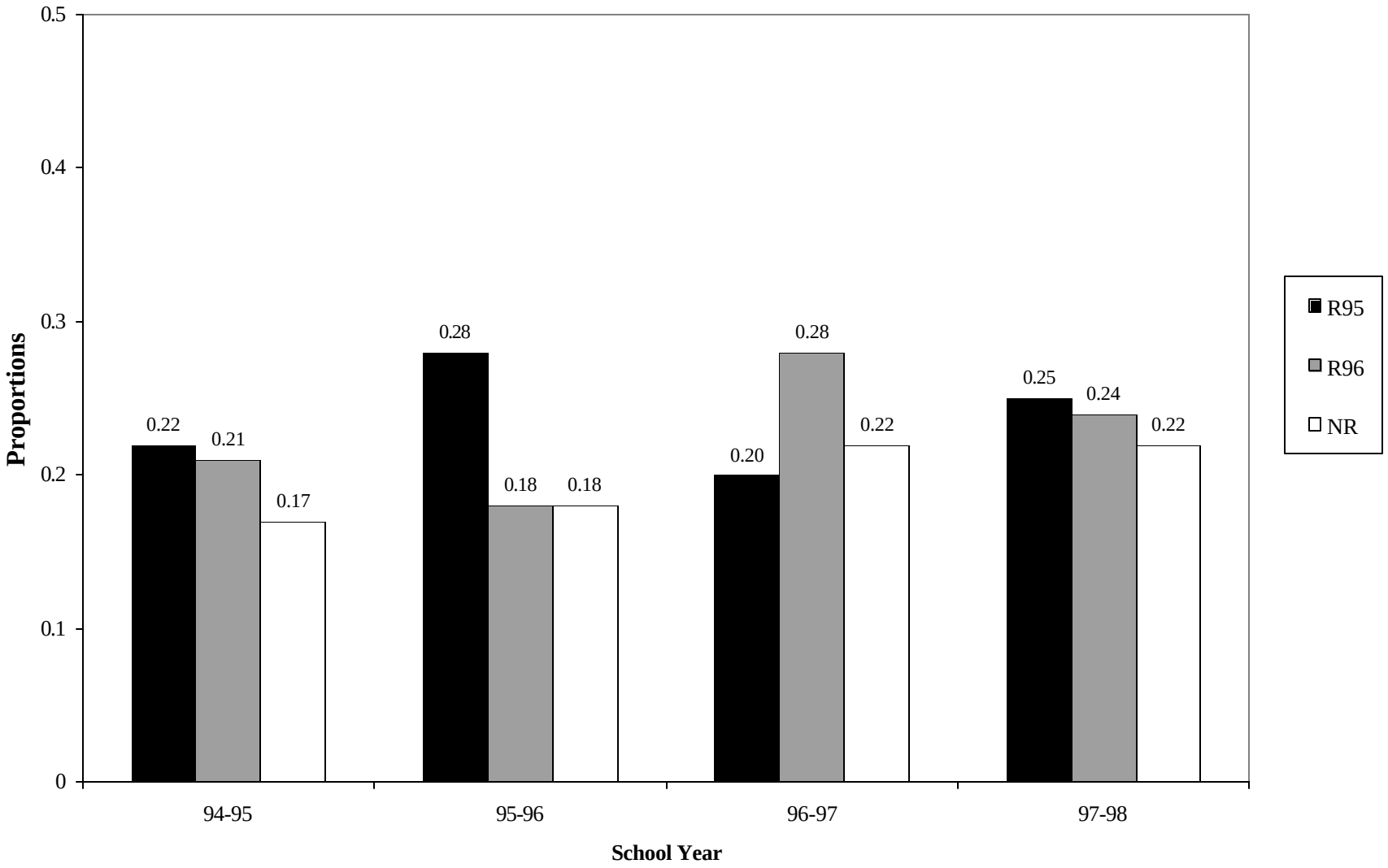


**Figure 9. Proportion of First-Year Teachers at R95 Roots & Wings Schools (n = 8)**

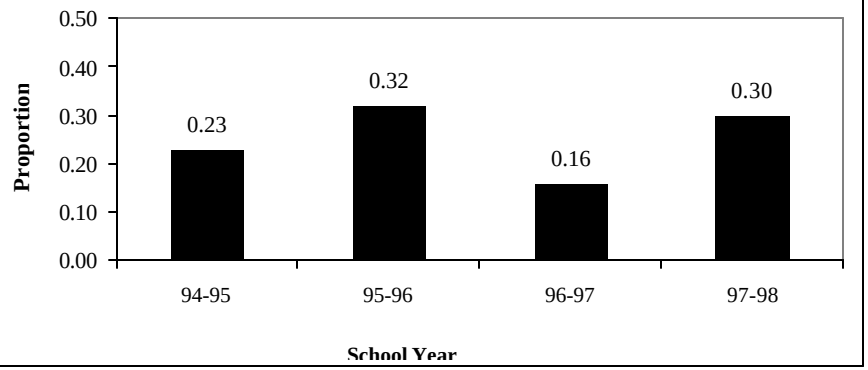



**Figure 10. Proportion of First-Year Teachers at R95 Co-NECT Schools (n = 4)**

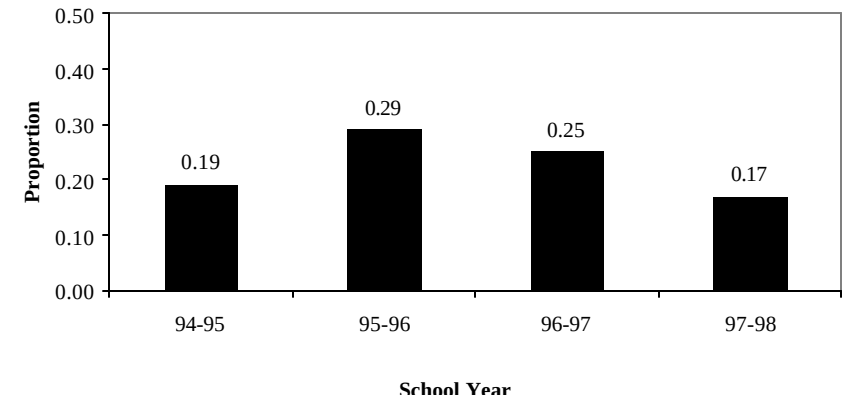



**Figure 11. Proportion of First-Year Teachers at R95 Accelerated Schools (n = 3)**

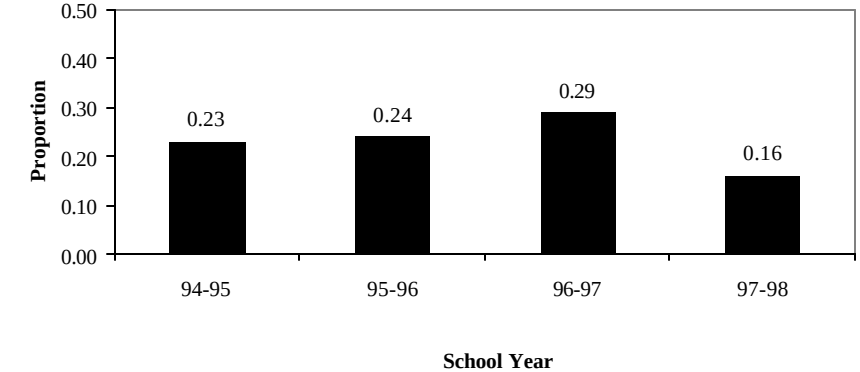



**Figure 12. Proportion of First-Year Teachers at R95 Audrey Cohen College Schools (n = 3)**

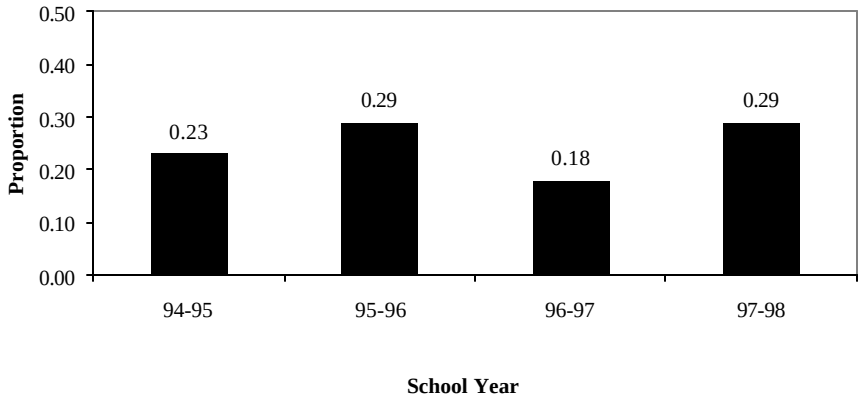


**Figure 13. Porportion of First-Year Teachers at R95 ATLAS Schools (n = 2)**

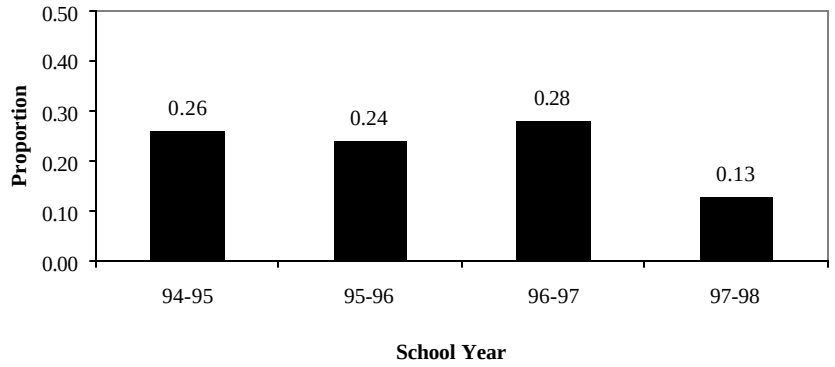



**Figure 14. Porportion of First-Year Teachers at R95 Expeditionary Learning Outward Bound Schools (n =2)**

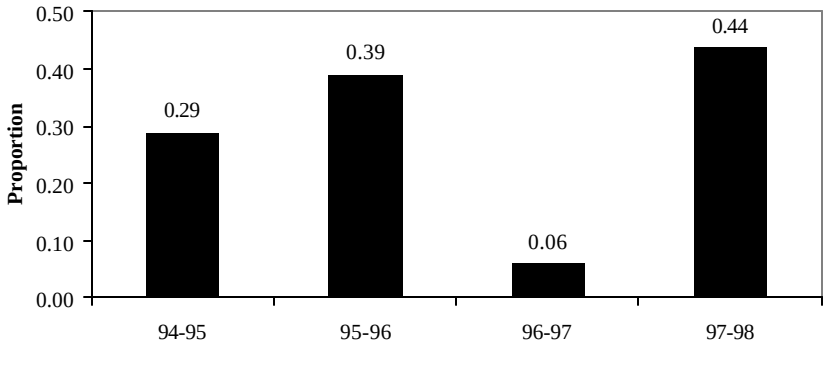



**Figure 15. Proportion of First-Year Teachers at R96 Roots and Wings Schools (n = 4)**

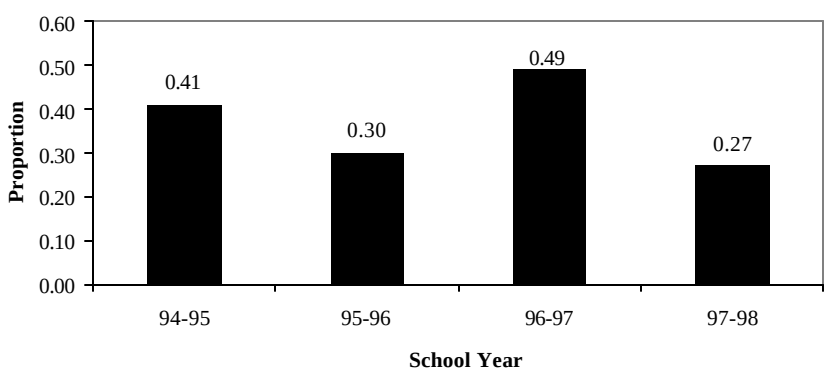



**Figure 16. Proportion of First-Year Teachers at R96 Accelerated Schools (n = 3)**

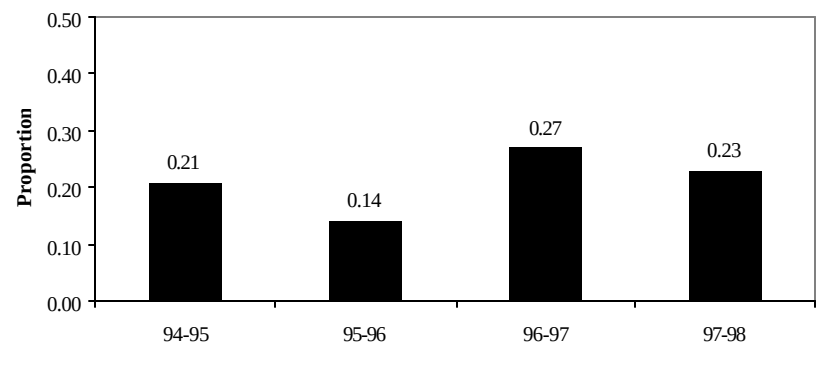


**Figure 17. Proportion of First-Year Teachers at R96 Expeditionary Learning Outward Bound Schools (n = 2)**

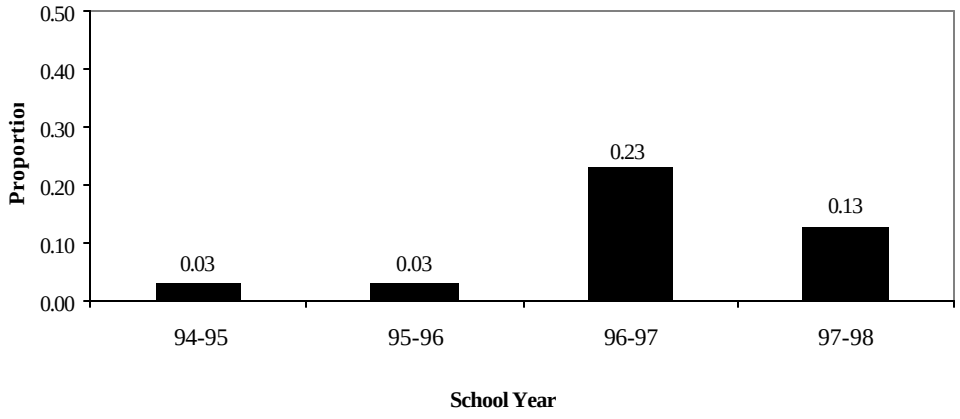



**Figure 18. Proportion of First-Year Teachers at R96 Paideia Schools (n = 2)**