The Impact of Teacher Workforce Retirement/Attrition on Personnel Replacement Cost

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The Impact of Teacher Workforce Retirement/Attrition on Personnel Replacement Cost

and Resources

Abstract

The purpose of this paper is to examine the contribution of teacher retirement to

the cost teacher turnover in Georgia, especially given an aging teacher workforce.

Borrowing turnover cost models from other disciplines, it was estimated that it cost

Georgia between $135 and $140 million dollars per year to replace teachers that retired in

2002-2003 and 2003-2004 school years. It was found that replacing retired teachers in

Georgia accounted for 26-29% of the total turnover cost. It was also found that more than

50% of the cost in FY03 (59.2%) and FY04 (56.5%) was accounted for by teachers who

left the classroom for other reasons than retirement. Thus, it appears that more retention

efforts should be focused on teachers in this category.

Many states complain that the NCLB mandate is less than fully funded by the

Federal government that expects the states to recruit, train and retain a qualified teacher

in every classroom by FY06 (Minnesota Office of Legislative Auditor, 2004). One of the

problems faced by many states is inadequate supply of fully qualified teachers. Numerous

creative methods have been introduced to attract certified or prepare new teachers. In

Georgia, for example, programs such as GATAPP, Troops to Teachers, Reach to Teach,

and TeachGeorgia have been designed to increase teacher supply. Despite all these

efforts and programs, there never seems to be an adequate supply of teachers. The

reasons for the apparent continuing need for teachers are manifold. Some obvious ones

are: teacher attrition through promotion, retirement, disillusionment, and personal/family reasons; growth in P-12 student enrollment; unattractiveness of the teaching profession as a career to college students coupled with the ever expanding choices of alternative careers for women and minority groups; dismal high school graduation rate in Georgia, especially among minority males; and the differential need in Subject Matter and geographical location.

This paper focuses on one of the above reasons for perennial teacher demand in Georgia: teacher retirement. Some of the other reasons are less predictable. In Georgia, as in many states, many teachers are approaching the retirement age. Specifically, 38.3% of Georgia teachers in the Fall of 2004 (FY05-1) were 50 years or older (Professional Standards Commission (PSC), 2005). As many as 32.5% had 20 or more years of experience and 24.3% were 50 years or older as well as had 20 or more years of experience. Every year, Georgia has had difficulty replacing 8-10% of its teaching workforce lost through attrition. Thus, the problem looming in the horizon from the impending retirement of 20% or more of its teaching workforce within the next 5-10 years is real and not contrived.

Retirement, however, could be anticipated to some extent, given the age and experience of the workforce. By 2001, all the states under the Southern Regional Education Board (SREB) with the exception of Alabama, Mississippi and Delaware (Gaines, 2001) had begun to tap into the retirement pool to supplement their teacher supply. Some have had to change existing policies or create new ones to allow retired teachers and educators, in general, to return to the classroom or school without jeopardizing their retirement benefits (Gaines, 2002, 2004). Georgia is one of the last

SREB states to allow retirees to return to the classroom in some form without losing their retirement benefits. Each state has some conditions under which these retirees can be rehired. In most states, the retiree is required to stop-out for from 30 days to a year before returning and while employed, is not allowed to contribute to or accumulate further credits toward retirement (Teacher Retirement System of Georgia (TRSGA) 2005). Some states, e.g. South Carolina and Kentucky (Gaines, 2001, 2002), impose a salary cap for the new position. Most states allowing retirees to return to the classroom also restrict them to low-performing and hard to fill-to-fill geographical locations and subject areas(Gaines, 2004). New York (Gold, 1987) allows school systems to hire only teachers recommended by their former principals on the basis of excellent performance while in the classroom and their ability to mentor new teachers. These teachers are trained and assigned to mentor beginning teachers. Thus, retired teachers do not simply return to their old school or classroom and pick up where they stopped. Some that return to the classroom are not allowed to teach in the same school or, sometimes, the same subject. These efforts are designed to ensure that the returning teacher approaches the new assignment with fresh vigor and enthusiasm. Nevertheless, rehiring retired teachers still raises questions regarding the quality of instruction, in particular, and service, in general, level of commitment, effectiveness and reasons for retirement. If the teacher had retired because he/she felt too old, burnt-out or disillusioned, it could be argued that such a teacher would be less committed and effective the second time around. Others argue that a feeling of not having anything to lose and having taken a break would actually energize returning retirees, liberating them from fear of failure and motivating them to perform

better. These are arguments that will be evaluated as data on rehiring of retired teachers become available.

Teacher turnover adds to the cost of running schools systems and may affect student performance negatively in hard-to-staff schools or school systems where it is difficult to hire or keep teachers. While teacher retirement may be inevitable, and in fact desirable, in some cases, it still contributes to composite turnover figures in the schools. Turnover cost calculations often include the value, in dollar amounts, which had been added to the leaver while employed in the form of induction, training, as well as the cost of hiring a new person to replace the leaver. It should also include the difference in value added by the teacher that left and the value added by the new teacher. Whether this difference in value is positive or negative depends on the experience, and effectiveness of the out-going and in-coming teachers. However, as Gaines (2000, 2004) aptly noted, it is difficult to compare costs among teaching personnel because apart from the salaries the state provides, school systems spend very different amounts on incentives, bonuses, and benefits to attract, hire, mentor and/or keep teachers in their system. It is even more difficult to estimate the value added by a teacher. Thus, any turnover cost figures reviewed or presented in this paper are estimates and should be interpreted with caution.

Educational researchers (Texas Center for Educational Research, 2000) have imported some business models for estimating the cost of employee turnover, i.e. losing and replacing an employee to educational environment with some success. The most basic and generalized form of the models is presented by Hauenstein (1999) of Advantage Assessment, Inc. This model utilizes the number of leavers, annual salaries of the leavers, and hiring costs made up of number of applicants interviewed for each

opening and the cost of advertising and interviewing them. The model also requires total number of employees in the organization. Other models by Sorensen (1995) and Jones (1999) include two additional variables: training costs and lost productivity costs. Training cost would include the cost of mentoring and induction, professional development, etc while lost productivity is said to include the difference in performance of a veteran teacher compared to a novice. Given the difficulty in measuring this variable, it is not usually included in some computations. People Sense adds vacancy cost variable to their model. Vacancy cost includes the cost of hiring substitute employees while the position is vacant. Some other models include separation cost for organizations that conduct exit interviews as some school systems do (Cascio, 1987). Fitz-enz, (1997) who estimates that cost of turnover is as much as twice the annual salary and benefits of the leaver, includes in his model, termination/separation costs, hiring, vacancy, learning curve and training costs in addition. Thus, in sum, researchers in this area propose that turnover costs range from 25% of leaver's annual salary through 33% by the US Department of Labor to 200% of leaver's annual salary. The Texas turnover project (2000) indicates the turnover cost varies with teacher experience and geographical location of the school system. This author contends that the subject taught by the teacher will also add more variation to the teacher turnover cost. The rationale is that positions in hard-to-fill subjects will remain vacant for longer periods, increasing vacancy costs, and candidates in such areas might be wooed with larger signing bonuses, increasing the hiring costs.

For the purposes of this paper, partly due to time constraints and unavailability of data for computing various costs in turnover cost models, the U.S. Department of Labor

turnover cost estimate of 33% of leaver's salary will be used. Also, the number of teachers who are 55 years and older and who have an experience of 25 years or more will be used to estimate the number of retirees per year.

Method

Sample

The 9434 and 9608 teachers who taught in fiscal year 2003 (FY03) and 2004 (FY04), respectively, and did not return to the classroom the following year, comprised the sample for this study. This is referred to as teacher attrition for FY03 and FY04, respectively. Data on these former teachers were obtained from the Certified Personnel Information (CPI) database. The CPI database is a repository for data on Georgia educator workforce. It contains data on the demography, assignment and distribution of educators in the Georgia public school system. This database is updated annually.

Procedure

Each year's sub-sample was divided into three groups based on reasons or possible reasons for leaving the classroom. First group is comprised of individuals who were still in Georgia public school system the following year but in non-teaching positions. The remaining leavers were divided into two groups, "Likely to have retired" and "Not likely to have retired," based on age and experience. Individuals who were 55 years or older and had 25 or more years of experience were considered to have likely left the classroom because they retired. Individuals who were younger than 55 years and had less than 25 years of experience were considered to have left teaching for other reasons than retirement. Table 1 shows the number of former teachers in each group.

Table 1

Distribution of the Sample by Reasons for Leaving and Fiscal Year in Which

They Left

Reasons for Leaving the Classroom	FY03	Percent of FY03	FY04	Percent of FY04
Reassignment to Non-Teaching Jobs	1164	12.3	1264	13.2
Retired	2077	22.0	2319	24.1
Left for Reasons Other than Retirement	6193	65.6	6025	62.7
Total Attrition	9434	100	9608	100

Turnover cost was determined first for employment in certificate-requiring positions

(certified positions) and then for total employment. Total employment includes

assignments in non-certificate-requiring positions (classified positions). Applying the

U.S. Department of Labor turnover cost estimation method, turnover cost per individual

is calculated by multiplying the person's salary in certified position and total salary by

0.33 as shown in the Appendix.

Result and Discussion

Table 2. shows mean turnover costs and other descriptive statistics on each sub-

sample. As would be expected, the turnover cost based on total employment salary is

slightly higher than salary from certified positions alone. Given that new teachers hired

to replace those that left tend to be less experienced teachers and less likely to be holding

both certified and classified positions, only turnover cost for certified positions will be

used for the rest of the discussion.

 Not surprisingly, for both FY03 and FY04, the group that left the classroom on

account of retirement had the highest mean turnover cost, $17,172 in FY03 and $17,026

in FY04 compared to those who were reassigned (FY03: $16,811; FY04:$16,779) and those who left for other reasons (FY03: $13,465; FY04:$13,617), respectively. Though retirees comprised 22 to 24% of attrition each year, it contributed 26-28% of the turnover cost each year. The cost in terms of student achievement would actually be even higher if it can be assumed that the experienced and retirees would be more effective teachers than new and less experienced teachers who are most likely to replace the leavers.

Overall, teacher turnover cost Georgia more than $135 million per year, as shown in Table 2, to replace 9434 and 8608 teachers who left the classroom for various reasons after FY03 and FY04, respectively.

Table 2

Turnover Cost Estimates Using Certified Employment Salary and Total Employment Salary for FY03 and FY04						
		2002-2003 (FY03)			2003-2004 (FY04)	
Reason for Leaving	**Statistics**	**Based on Cert Salary**	**Based on Total Salary**		**Based on Cert Salary**	**Based on Total Salary**
Reassigned	Mean	16811.0582	16824.42389		16779.06	16800.15
	N	1164	1164		1264	1264
	Std. Deviation	3272.29455	3267		3334.5	3337.93
	Median	16827.195	16834.77		16700.97	16706.48
	Minimum	6227.9943	6227.99		1995.84	1995.84
	Maximum	32077.8843	32077.88		30470.22	30470.22
	Range	25849.89	25849.89		28474.38	28474.38
	Sum	19568071.8	19583629.41		21208725.7	21235392.13
Possibly Retired	Mean	17171.55	17177.2		17025.75	17034.73
	N	2077	2077		2319	2319
	Std. Deviation	3514.69	3517		3778.33	3781.39
	Median	17474.49	17474.49		17356.35	17356.35
	Minimum	1593.44	1593.44		2625.15	3212.33
	Maximum	27470.36	27470.36		29377.14	29377.14
	Range	25876.92	25876.92		26751.99	26164.81
	Sum	35665303.9	35677053.65		39482715.9	39503544.94
Other Reasons	Mean	12920.22	12922.48		13063.93	13078.02
	N	6193	6193		6025	6025
	Std. Deviation	2697.86	2698.07		2943.78	2951.5
	Median	12390.84	12390.84		12664.74	12687.84
	Minimum	1565.49	1565.49		1310.76	1310.76
	Maximum	29899.78	29899.78		34752.96	36790.71
	Range	28334.29	28334.29		33442.2	35479.95
	Sum	80014927.1	80028928.14		78710154.4	78795042.01
Total Attrition	N	9434	9434		9608	9608
	Sum	135248303	135289611.2		139401596	139533979.1
Retirement as % of Total Turnover Cost		**26.37**	**26.37**		**28.32**	**28.31**

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