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Involving Principals in School Renovations: Benefit or Burden?

BY BRIAN O. BRENT AND MARIE CIANCA

OVERVIEW

In the year 2000, public school districts in the United States spent \$21.2 billion on school construction and renovation, marking the end of a decade in which capital expenditures grew by nearly 40 percent. This spending pattern reflects a variety of influences, including aging facilities, increasing enrollments, and a strong economy.¹ In addition, several factors suggest that expenditures for school construction and renovation will continue to increase during the coming decade. For example, aging school facilities continue to be a pressing concern, with 50 percent of schools having at least one inadequate building feature, such as plumbing or electric power, and 43 percent having at least one unsatisfactory environmental condition, such as inadequate security or ventilation.²

Also spending for construction and renovation will increase because few schools are equipped to meet the educational demands of the new century. For instance, many schools lack the infrastructure necessary for connection to the Internet or the use of other promising instructional technologies.³ Similarly, most schools lack sufficiently flexible space to accommodate effective teaching strat-

1. U.S. General Accounting Office, *School Facilities: Construction Expenditures have Grown Significantly in Recent Years*, (Washington, DC: General Accounting Office, 2000), identifier no. GAO/HEHS-00-41.

2. U.S. Department of Education, *Condition of America's Public School Facilities: 1999*, (Washington, DC: National Center for Education Statistics, 2000), identifier no. NCES 2000-032.

3. U.S. Department of Education, *Teachers' Tools for the 21 Century: A Report on Teachers' Use of Technology*, (Washington, DC: National Center for Education Statistics, 2000), identifier no. NCES 2000-102; National Education Association, *Modernizing Our Schools: What Will it Cost?* (Washington, DC: National Education Association, 2000).

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egies, such as small-group instruction and private areas for student testing. Many schools also do not have the space for such useful services as pre-kindergarten or after-school-care.⁴ In addition to the need to repair and modernize existing schools, increases in enrollment will create a need for more classrooms. Elementary and secondary enrollments will swell from 53.2 million in 1999 to 54.2 million in 2009,⁵ and districts will need to find some 40,000 new classrooms to serve these additional students. Lower class-size initiatives will also contribute to the need for more classrooms. Consider California's recent effort to reduce class size to 20 students in each K-3 classroom: This reform alone will require as many as 20,000 new classrooms.⁶

In sum, there is ample evidence that school construction and renovation will be a pressing issue for some time. From our perspective, what is notable about the need to upgrade and repair school facilities is that principals are managing the environment in which these renovations take place. Further, it is reasonable to believe that principals will play some role in the school renovation process. If this is so, principals will necessarily have less time to devote to other important duties, such as being instructional leaders who promote better ways for teachers to teach and students to learn. Our point is not that districts should discourage principals from participating in the renovation process. Rather, we find it surprising that the influence of school renovations on principals' duties is relatively unstudied. Thus far, the research literature offers little insight into the nature, scope, and efficacy of principals' involvement in school renovations. Most studies are descriptive, speculative, and tend to report positive experiences only, potentially overstating the benefits of principals' participation in the renovation

4. U.S. General Accounting Office, *School Facilities: America's Schools Are not Designed or Equipped for the 21 Century*, (Washington, DC: General Accounting Office, 1995), identifier no. GAO/HEHS-95-95. See also, Paul Ambramson, *School Planning and Management Construction Report*, (Dayton: Peter Li Education Group, 1999); Joe Agron, Dana L. Sporr, and Susan M. Cox, "Seven Decades of Education Facilities Developments," *American School and University* 71 (1998): 35-46; Charles W. Brubaker, "Designing Schools for the 21st Century," *Principal* 79 (1999): 14; S. B. Wepner, W. J. Valmont, and R. Thurlow. *Linking Literacy and Technology: A Guide for K-8 Classrooms* (Newark: International Reading Association, 2000).

5. U.S. Department of Education, *Projection of Education Statistics to 2009*, (Washington, DC: National Center for Education Statistics, 1999), identifier no. NCES 1999-038.

6. Daniel Gursky, "Class Size Does Matter," *The Education Digest* 64 (1998): 15-18.

process.⁷ Moreover, the limited empirical data available offers highly aggregated measures of principals' commitment to managing school facilities, including in these measures such diverse tasks as maintenance, budgeting, and course scheduling.⁸

Before policymakers agree to spend billions of dollars on school renovations, it is important to consider the effects of these activities on principals' duties. The purpose of this article is to report on a study that examines this issue. The study, which draws on principal surveys in New York State, undertakes three tasks. The first expands the administrative literature by creating a detailed profile of the nature and level of principals' commitment to renovation activities. This profile provides new insight into the costs of school renovations that is simply not possible if the analysis is restricted to project expenditures. The second task is to determine whether principals' involvement in the renovation process benefits schools. Part of our motivation here is to begin to deal with the qualitative dimension of principals' participation in renovations. Indeed, many researchers and policymakers argue that principals should spend more time on instructional duties and less time on administrative tasks, such as managing facilities.⁹ Findings from this study challenge this notion and offer new insights into how principals can benefit schools. The third and final task of this study is to determine the type of training, if any, that principals need to manage school renovations effectively. Recently, a number of scholars have questioned the efficacy of graduate administrative training.¹⁰ Underlying the concerns raised by these critics is the belief that programs designed to train administrators often lack a connection to

7. See, for example, William S. Bradley, "Working with an Architect to Design Your School," *Media & Methods* 35 (1998): 10; Karen K. Futral, "The Principal's Role in School Renovation," *Principal* (1993): 30-33; Patty Shafer, "Opening A New School: What Else Can Go Wrong?" *Principal* 79 (1999): 28-30; Ashley Halliday, "Easing the Disruption of Construction," *Thrust For Educational Leadership* 29 (1999): 12-14.

8. See, for example, U.S. Department of Education, *Schools and Staffing Survey and Private School Survey Questionnaires, 1999-2000*, (Washington, DC: National Center for Education Statistics, 2000), identifier no. NCES 2000-310; EdSource, *California's School Principals: At the Center of School Improvement Efforts* (Palo Alto: EdSource, 1998).

9. See, for example, Christopher T. Cross and Robert C. Rice, "The Role of the Principal as Instructional Leader in a Standards-Driven System," *NASSP Bulletin* 84 (2000): 61-65; J. Supovitz, "Manage Less Lead More," *Principal Leadership* 1 (2000): 14-19; Michael A. Zigarelli, "An Empirical Test of Conclusions from Effective Schools Research," *The Journal Of Educational Research* 90, 1996: 103-110.

10. See, for example, Brian O. Brent, "Should Graduate Training in Educational Administration be Required for Principal Certification? Existing Evidence Suggests that the Answer Is No," *Teaching in Educational Administration* 5 (1998): 1-8; Joseph Murphy and Patrick B. Forsyth, *Educational Administration: A Decade of Reform* (Thousand Oaks: Corwin Press, Inc., 1999.)

the realities of the workplace. Our analysis confirms this view.

What links these diverse tasks is the realization that policy discussions concerning school renovations are illuminated by more refined indicators of how these activities influence schools. Perhaps principals should be involved in the renovation process; perhaps they should not. We hope that the following analyses will inform this debate.

OUR APPROACH

RENOVATIONS DEFINED

Because schools are involved in many renovation projects, it is important to define the type of project that is the focus of this study. The term “renovation” as used here includes any building project that expands or modernizes an existing school. Specifically, it includes the construction of additions needed to relieve overcrowding or to meet government mandates; projects intended to make an existing facility ready for technology, improve energy efficiency, or address health or safety concerns; and major improvements to school grounds, such as landscaping and paving. Our definition excludes the construction of new school buildings.

From our perspective, what is notable about the type of projects examined in this study is that approximately 50 percent of all school construction expenditures are for the restoration and modernization of existing buildings. We acknowledge that districts sometimes involve principals in the construction of new school buildings.¹¹ However, school districts will spend billions of dollars on school renovations in the coming years, and this study informs these actions.

DATA AND METHODS

This study examined the effects of school renovations on principals’ duties in New York State from 1995-2000. We chose New York for analysis for three reasons. First, New York ranks first among states with nearly \$51 billion in school construction needs.¹² Second, roughly 70 percent of New York’s school construction dollars are spent renovating existing buildings.¹³ Third, a New York court ruled recently that the State must take steps to ensure that its students have access to “adequate school buildings.”¹⁴ If this ruling

11. See, for example, T.C. Chan and David Ledbetter, “How to Manage a New School Building,” *Principal* 79 (1999): 25-26.

12. National Education Association, 11.

13. Ambramson, *School Planning and Management Construction Report*.

14. See, *Campaign for Fiscal Equity v State of New York*, 86 NY2d 307 (1995).

is upheld, New York will experience unprecedented school renovations in the coming years.

Data for the study were collected from principal surveys. Because we were curious about whether district size influenced principals' involvement in the renovation process, we used a proportionate, stratified sampling procedure. First, we grouped all regular elementary, middle, and secondary schools (n=4226) according to district size, i.e., large city, small city, large central, and small central.¹⁵ We then randomly selected equal proportions of schools from each of the four groups, resulting in a sample of 505 schools. The survey elicited data on three topics: (a) level of involvement in school renovations; (b) benefits and concerns of involvement; and (c) training. Respondents from 280 schools returned the surveys, representing a response rate of 55 percent.

FINDINGS

LEVEL OF INVOLVEMENT

The general strategy for our analyses was to begin by examining the extent of principals' involvement in the renovation process and then to move toward more refined indicators of the nature of this involvement. First, we determined the percentage of principals involved in renovations during the last five years. Table 1 reports the results of this analysis and reveals that 73 percent of the respondents participated in such activities. If anything, this finding supports claims that most principals participate in the renovation process.

TABLE 1
SCOPE OF PRINCIPALS' INVOLVEMENT IN SCHOOL RENOVATIONS, 1995-2000

	All Schools (n=280)	Large City (n=60)	Small City (n=31)	Large Central (n=122)	Small Central (n=67)
Involved in Renovations	73%	73%	61%	76%	70%
Reason Involved in Renovations:					
District Policy or Practice	77	63	77	79	85
Choose to Be Involved, Not District Policy	23	37	23	21	15
Not Involved In Renovations	27	27	39	24	30
Reason Not Involved in Renovations:					
No Renovations	66	60	50	72	70
District Office Oversees Renovations	17	7	25	21	17
Construction Manager Oversees Renovations	12	13	25	7	12
Other Reason	5	20	-	-	1

15. For our purposes, large city districts have populations greater than 50,000 and small city districts have populations less than 50,000. In addition, large central school districts enroll over 2500 pupils and small central school districts enroll fewer than 2500 students.

Given our interest in renovation practices, we sought to learn why some principals were involved and others were not. Interestingly, chi-square analyses revealed that there was no statistically significant association between principals' involvement in renovations and the following variables: district size ($X^2 = 3.01$, $p > .05$), building-level ($X^2 = 3.19$, $p > .05$), building age ($X^2 = 2.81$, $p > .05$), years experience ($X^2 = 0.08$, $p > .05$), and gender ($X^2 = 0.50$, $p > .05$). Instead, two variables explained principals' participation in the renovation process: (1) district policy or practice required that they be involved; or (2) they chose to be involved. As Table 1 indicates, most respondents reported that district policy dictated that they participate in the process. This finding might reflect the move toward decentralized decision making that has characterized school governance structures recently, a move that many believe will lead to school improvement.¹⁶ Nevertheless, this finding substantiates the view that district-level officials continue to mete out a growing number of responsibilities to building principals.

Next, we probed why 23 percent of the respondents were not involved in renovations and found some surprising results. For example, most respondents reported that they simply had no renovations during the period examined. Given our earlier finding, one could reasonably argue that about 70 percent of these principals would have been involved in renovations if they had taken place. Indeed, relatively few principals reported that district oversight or the use of an external construction manager was the reason they were not involved. What these findings suggest is that the proportion of principals involved in renovations will increase as more districts repair and expand their buildings.

The data reported in Table 1 provide a good starting point for understanding the scope of principals' involvement in school renovations. The next analysis moves us more deeply into the renovation process by examining how much time principals devoted to this task when projects were underway. As Table 2 indicates, during the regular school year respondents typically spent 5.4 hours each week, increasing to 7.6 hours during July and August. We acknowledge that the complexity and duration of renovation projects vary. All we can claim is that, on average, principals spent five to eight hours each week when involved with such efforts. However, this is not a trivial claim. If we assume a 50-hour week, our findings indicate that principals spent about 10 to 15 percent of their time on renovations, a substantial amount of time given principals' many and increasing responsibilities.

16. See, for example, *Governing America's Schools: Changing the Rules* (Denver: Report of the National Commission on Governing America's Schools, 1999), ERIC ED439513.

TABLE 2
HOURS PER WEEK DEDICATED TO SCHOOL RENOVATIONS

	All Schools (n=203)	Large City (n=44)	Small City (n=19)	Large Central (n=93)	Small Central (n=47)
Period	Mean (S.D)	Mean	Mean	Mean	Mean
September -June	5.4 (5.1)	5.7	5.0	5.9	4.2
July-August	7.6 (7.3)	7.3	9.5	7.0	8.3

To understand more fully the nature of principals' involvement in renovations, Table 3 reports how principals divided their time among various renovation-related activities. The results reveal a remarkable degree of consistency across district types. Principals devoted most of their time to needs assessment, design, consultations with architects and contractors, and troubleshooting. The finding that principals devoted nearly one-fifth of their time to troubleshooting is interesting for two reasons. While it suggests that many renovation projects encounter problems, it also offers the possibility that principals' involvement in the renovation process can mitigate these problems.

BENEFITS AND CONCERNS

Findings that principals are involved in renovations are difficult to interpret without parallel information about the effects of these activities on schools. To help educators determine whether

TABLE 3
PERCENT OF TIME DEVOTED TO REFINED RENOVATION ACTIVITIES

	All Schools (n=203)	Large City (n=44)	Small City (n=19)	Large Central (n=93)	Small Central (n=47)
Activity	Mean(S.D)	Mean	Mean	Mean	Mean
Needs Assessment	20% (18)	11%	22%	23%	20%
Funding	2 (6)	2	0.5	3.0	2
Design	15 (15)	5	21.0	18.0	18
Bidding and Contracting	1 (8)	3	0.5	0.5	2
Architect Consultations	16 (14)	14	19.0	18.0	13
Contractor Consultations	14 (17)	27	6.0	9.0	13
Purchasing	1 (4)	1	2.0	2.0	1
Delivery	0.5 (2)	1	0.5	0.5	1
Installation	2 (4)	2	1.0	2.0	1
Inspections	5 (7)	5	5.0	4.0	6
Troubleshooting	18 (13)	22	14.0	14.0	19
Project Approval	5 (10)	7	8.0	5.0	4
Other	0.5 (7)	-	0.5	1.0	-

principals should participate in the renovation process, we asked principals to provide Likert scale responses to a series of statements, each embodying a supposed benefit or concern of their involvement. Table 4 reports their responses and reveals several noteworthy findings. For example, most principals reported that their involvement helped them generate community support for renovations. Because financing school renovations is typically a local responsibility, this is a valuable insight.¹⁷ In fact, it is reasonable to argue that garnering public support is first among principals many responsibilities regarding renovations. After all, renovations can occur only after the district secures funding.

Our analysis also indicated that most principals felt that they were able to influence decisions about renovations, but they were less certain that project managers valued their input. Together these findings suggest that some project managers may have opposed principals' involvement in the process. Nevertheless, 86 percent of the respondents believed that their involvement helped ensure project quality. This finding is important because schools will invest billions of dollars on renovations in the next few years, and an increasingly vigilant public will hold educators accountable for spending those dollars wisely.

Table 4 also shows that most principals thought that their involvement in the renovation process helped minimize instructional disruptions. Relatively few principals, however, were able to make these projects a learning experience for students, a disappointing finding given that some view renovations as an opportunity to explore the construction process with children.¹⁸

In addition, nearly all principals reported that their involvement hindered their ability to be instructional leaders. We suspect that this is because principals reported spending between five to seven hours each week attending to renovations (see Table 2). Simply put, the time that principals spend on renovations cannot be spent on other duties, such as supervising teachers, evaluating programs, and designing curriculum.

Our survey also offered respondents the opportunity to list other benefits and concerns about their involvement in the renovation process. Again, we found some noteworthy results. For example, some principals reported that renovations offered them an opportunity to improve school climate by engaging teachers in the project.

17. In most states, local voters approve general obligation bonds, which districts then repay through property taxes.

18. For example, Vonda M. Albertson and Sandra M. Kate, "Modernizing an Old School," *Principal* 79 (1999): 5-6.

TABLE 4
BENEFITS AND CONCERNS OF PRINCIPALS' INVOLVEMENT IN RENOVATIONS

	SA	A	N	D	SD
My involvement in the renovation process...					
Helps me gain community support for the project	34%	44%	17%	4%	1%
Allows me to make decisions about projects	15	46	17	15	7
Is valued by project managers	8	25	25	24	18
Helps ensure project quality	37	49	10	3	1
Helps minimize instructional disruptions	54	37	5	3	1
Allows me to make the project a learning experience for students	11	25	39	19	6
Hinders my ability to be an instructional leader	31	45	11	11	2
Causes me to work holidays, evenings, and weekends	15	37	13	25	10
Overall, Benefits the school	51	45	3	1	-

SA = strongly agree, A = agree, N = neither agree nor disagree, D = disagree, and SD = strongly disagree

In addition, several principals reported that their involvement allowed them to prepare staff for the inconveniences that accompany renovations and to keep them regularly informed as the work progresses. However, principals also reported a number of additional concerns, mostly regarding their dealings with contractors and their crews. For example, many principals noted that their concern for student safety caused them to continually monitor projects, performing such tasks as closing doors, removing sharp objects, and discouraging crews from smoking, using foul language, and engaging in other inappropriate behaviors. Several principals also found themselves resolving conflicts between contractors and custodians over cleaning responsibilities.

The data presented thus far invites serious debate regarding whether principals should be involved in the renovation process. Indeed, policymakers must weigh the many benefits of principals' renovation efforts with one very important concern; the likelihood that principals' involvement in the process will hinder their ability to be instructional leaders.

Unfortunately, serious obstacles impede efforts to determine the cost-effectiveness of principals' renovation related activities. First, cost-effectiveness analysis requires that competing alternatives, those designed to produce similar outcomes, be compared with regard to their effects and costs. Principals' involvement in renovations, however, produced multiple outcomes (e.g., garnering community support and ensuring project quality), making it difficult to identify an appropriate alternative. Secondly, it is difficult to place

TABLE 5
TYPE OF RENOVATION TRAINING RECEIVED

	All Schools (n=280)	Large City (n=60)	Small City (n=31)	Large Central (n=122)	Small Central (n=67)
Type of Preparation					
Graduate Coursework	12%	14%	23%	12%	7%
Professional Workshops	11	10	10	16	3
Consultations with Facilities Experts	88	81	87	87	88
Consultations with Experienced Principals	52	71	58	50	36
On the Job Training	92	78	94	95	97

a dollar value or other metric on the benefits and costs that result from involving principals in renovations, e.g., value of instructional leadership. As a substitute for a thorough cost-effectiveness analysis, we simply asked principals whether they believed that the benefits of their involvement in renovations outweighed their related concerns. As Table 4 shows, nearly all principals agreed that their participation yielded net benefits.

TRAINING NEEDS

If principals’ involvement in renovations can benefit schools, then it is important to consider the training that they need to perform these duties effectively. This question is the focus of our final analysis. Table 5 reports the types of training that principals *actually* received regarding renovations. It is interesting to find that only 12 percent of the respondents had graduate coursework, and only 11 percent attended workshops on renovations. Instead, most principals learned how to manage renovations by consulting with facilities experts and experienced principals or learning on the job. These findings suggest that principals have few formal opportunities to learn how to manage renovations, and, undoubtedly, some will view this as evidence of a mismatch between administrative training and the types of skills that principals need to be successful.

However, Table 5 only reports the types of training that principals received; it does not shed light on the types of training that principals need to administer renovations effectively. For example, is it better for principals to attend workshops or to consult with facilities experts? A normative question like this is difficult to answer, but we did gain some insight into the efficacy of various approaches by asking principals what types of training they be-

TABLE 6
PREFERRED TYPE OF RENOVATION TRAINING

Type of Training	SA	A	N	D	SD
I would benefit from the following type of renovation training ...					
Graduate Coursework	15%	36%	22%	19%	8%
Professional Workshops	23	52	15	8	2
Consultation with Facilities Experts	29	53	11	5	2
Consultation with Experienced	26	59	11	2	2
Principals					
Consultation via interactive Website	12	50	27	7	4
Professional Publications	6	36	40	13	5

SA = strongly agree, A = agree, N = neither agree nor disagree, D = disagree, and SD = strongly disagree

lieved would help them manage renovations effectively. Table 6 reports these results.

Interestingly, there is a similarity between the data reported in Table 5 and Table 6. Specifically, principals seemed to confirm the benefits of consulting with facilities experts and experienced principals. In addition, principals also advocated the use of interactive websites that would bring together principals and experts, suggesting that principals preferred informal learning experiences. However, Table 6 also offers the possibility that these support systems could supplement more formal training. Indeed, we were somewhat surprised to learn that 51 percent of the respondents supported graduate coursework, and 75 percent supported workshops. These findings should serve as a signal to administrative programs and professional development groups everywhere that principals would welcome additional opportunities to learn how to manage renovations.

CONCLUSION

The purpose of this article was to establish the importance of understanding how renovations affect principals' responsibilities and to report on our effort to measure these effects. Our analyses, however, represent still quite incomplete attempts to understand how renovations affect schools. For example, our study focused on principals only. Renovations can involve a number of building personnel that we did not consider here, including assistant principals, teachers, custodial workers, and clerical staff. The omission of these important groups from the analysis limits our ability to gain a comprehensive understanding of the influence of renovations on schools.

Despite this limitation, our study has much to offer educational

theory and practice. First, standard cost-analyses of renovations take account of capital expenditures only. Consider the numerous reports that we cited earlier as providing evidence of high and growing construction costs. However, this study demonstrates that policymakers should consider the cost of personnel resources as well. Indeed, if one uses a dollar metric to express principals' time commitment to renovations, it becomes clear that policy reports underestimate the cost to renovate our schools. Second, this type of study can inform current debates regarding education reform, particularly those aspects of reform that involve principals. For instance, many states have implemented new student assessments and begun the process of creating accountability systems that confer rewards and sanctions. While these reforms affect everyone associated with schools, the pressures are increasingly converging in one place—the principals' office. However, this study demonstrates that despite the many benefits, principals' involvement with renovations hinders their ability to be instructional leaders. Ultimately, school officials, not scholars, must decide whether to involve principals in renovations. They can make this decision better by considering the information reported here. Third, these results bear on important debates about the nature and quality of principal preparation. Perhaps, the real work of learning how to manage renovations does happen on the job. However, successful leadership preparation programs are those that pay attention to the array of issues that principals need to address if they are to make meaningful improvements in their schools. The incidence of school renovations will grow in the coming years, and graduate preparation programs and professional development centers would be well advised to provide thoughtful treatments of this topic.

While this study improves our understanding of the effects of renovation on principals and schools, there are numerous opportunities for researchers to extend these analyses. A logical extension of this work is to trace the effects of renovations to even deeper points within the educational system. We do not explicitly address, for example, how renovations affect teachers and students. Questions about educational productivity can only be resolved with a more thorough understanding of how renovations affect student learning. Another important extension of this work involves looking more closely at the kinds of training that principals need to manage renovations effectively. Indeed, before policymakers seriously consider requiring principals to undertake extensive training in school renovations, they should first ascertain the likely efficacy of these efforts. Fortunately, these research programs are complementary, and we hope this article stimulates further interest in this kind of work.