Study Title	Results	Independent Variable	Independent Variable Data Source	Dependent Variable	Sample
Blincoe, J. M. (2008). The age and condition of Texas high schools as related to student academic achievement. (Ed.D., University of Texas at Austin).	4-9% difference between students in schools in worst/best condition ; 5-9% difference between students in oldest/newest schools; 4% difference in graduation rates between students in schools in worst/best condition and between students in oldest/newest schools	School condition rating, School age	Administrative data	Test scores (science/math/english)	Texas high schools (n=416)
Boese, S., & Shaw, J. (2005). *New York state school facilities and student health, achievement and attendance: A data analysis report.* Healthy Schools Network.	higher suspension rates (2-9%), lower attendance rates in middle and high school (2-3%), lower test scores (~5%)	Number of unsatisfactory building systems (0 vs. 1+)	Administrative data	Test scores, attendance & suspension rates	Schools in New York's Duschess & Columbia counties (n=23)
Branham, D. (2004). The wise man builds his house upon the rock: The effects of inadequate school building infrastructure on student attendance. *Social Science Quarterly.*	The quality of school infrastructure has a significant effect on school attendance and drop-out rates. Students are less likely to attend schools in need of structural repair, schools that use temporary structures, and schools that have understaffed janitorial services.	School condition (in need of repair), % temporary space, custodians/sq ft, & sq ft/student	Administrative data	Student attendance and drop-out rates	Schools in Houston, TX (n=226)
Buckley, J., Schneider, M., & Shang, Y. (2004). *Los Angeles unified school district school facilities and academic performance.* Washington, DC: National Clearinghouse for Educational Facilities.	Changing from worst to best OCR leads on average to a 36 point increase in a school's API.	Facility overall compliance rating	Administrative data	Test scores (CA API)	Schools in the LA Unified School District (n=509)
Buckley, J., Schneider, M., & Shang, Y. (2005). Fix it & they might stay: School facility quality and teacher retention in Washington, D.C. *Teachers College Press, 107* , 1107-1123.	Approximately 5% more likely to stay in a building in "A" condition vs. "F" condition	Facility condition grade	Teacher surveys	Teacher retention in coming year	K-12 Teachers in the DC Public Schools (n=835)
Bullock, C. C. (2007). The relationship between school building conditions and student achievement at the middle school level in the commonwealth of Virginia. (Ed.D, Virginia Polytechnic Institute and State University).	Percentage of students passing SOLs was 2.2-3.9% higher in English, mathematics and science in standard buildings than it was in substandard buildings	School condition rating	Commonwealth Assessment of Physical Environment assessment completed by school principals	Test scores (percent passing middle school SOL exam)	Virginia middle schools (n=111)
Cellini, S. R., Ferreira, F. V., & Rothstein, J. (2008). *The value of school facilities: Evidence from a dynamic regression discontinuity design* (#14516 ed.). Washington, DC: National Bureau of Economic Research.	Varying results - inconclusive or small positive results in early years, trending up to a peak of 1/6th of a school-level standard deviation six years after bond passage. (however point estimates fall back to zero after).	Passage of a capital bond by the school district	Administrative data	Test scores (various CA tests at a range of grade levels)	California school districts (variable sample by type of analysis, maximum n=948)
Chaney & Lewis (2007) *Public school principals report on their school facilities* . Washington, DC: National Center for Education Statistics, Institute of Education Sciences.	Approximately one-third of schools indicated that there was at least one factor that interfered with their ability to deliver instruction to at least a moderate extent (32 percent with regard to permanent buildings, and 35 percent with regard to portable buildings). Across the 9 factors, 6-16% of schools reported that each factor interfered with instruction.	Facility condition rating & condition of individual systems	Principal assessments	Impact of facilities on instruction	National sample of public school principals (n=1085)
Crampton, F. E. (2009). Spending on school infrastructure: Does money matter? *Journal of Educational Administration, 47* (3), 305-322.	Results would predict an increase in NAEP scores of .236 points per additional dollar/pupil invested in infrastructure (based on a .236 structural coefficient across three years of NAEP scores).	Total annual state K-12 capital outlay	Administrative data	Test scores (NAEP state averages)	US states (n=50)
Duran-Narucki, V. (2008). School building condition, school attendance, and academic achievement in New York City public schools: A mediation model. *Journal of Environmental Psychology, 28* , 278-286.	In schools with poor facilities, students attended less days on average and therefore had lower grades in ELA and Math standardized tests. Attendance was found to be a full mediator for grades in ELA and a partial mediator for grades in Math.	School building condition index	Administrative data	Test scores and attendance	Elementary schools in New York City (n=95)
Earthman, G. I., & Lemasters, L. K. (2009). Teacher attitudes about classroom conditions. *Journal of Educational Administration, 47* (3), 323-335.	Teachers in schools in satisfactory conditions are significantly more likely to express positive attitudes about their classrooms than teachers in unsatisfactory buildings (across a wide range of indicators, but limited sample prevents causal inferences).	Classroom condition ratings	Teacher surveys	Teacher attitudes	Virginia teachers (n=165)
Hughes, S. M. (2006). The relationship between school design variables and student achievement in a large urban Texas school district. (Ed.D., Baylor University).	Many positive correlations between building design variables and student achievement were reported	Eleven design variables	Researcher-completed assessment using the Design Assessment Scale for Elementary Schools	Test scores (reading, math & writing)	Schools in a large urban Texas school district (n=20)
Kumar, O'Malley & Johnston (2008) Association between physical environment of secondary schools and student problem behavior - A national study, 2000-2003." *Environment and Behavior* , 40(4): 455-486.	Results based on multilevel logistic and linear regressions indicate that students are sensitive to schools' ambience and that the association of various aspects of the school's physical environment with students' problem behaviors is positive for all students and greater for 10th-grade students than for 8th- and 12th-grade students.	School environment/ ambience	Student & principal surveys	Truancy, cigarette, alcohol, and marijuana use	National sample of 8th, 10th & 12th grade students plus school principals (n=70,884 students plus one principal/school in 655 schools)
Lewis, M. (2000). *Where children learn: Facility condition and student test performance in Milwaukee public schools* . Scottsdale, AZ: Council of Educational Facility Planners.	Significant relationships for facility measures explained 10-15% of the differences in student test scores across schools after controlling for student demographics.	Facility condition rating & facility educational adequacy score	Administrative data	Test scores (WSAS reading & math)	K-12 schools in Milwaukee Public Schools (n=139)
Picus, L. O., Marion, S. F., Calvo, N., & Glenn, W. J. (2005). Understanding the relationship between student achievement and the quality of educational facilities: Evidence from Wyoming. *Peabody Journal of Education, 8* 0(3), 71-95.	No discernable relationship between test scores and building condition scores	Building quality score	Administrative data	Test scores (reading, math & writing)	Wyoming public schools (n=296)
Plank, S., Bradshaw, C., & Young, H. (2009). An application of "broken-windows" and related theories to the study of disorder, fear, and collective efficacy in schools. *American Journal of Education, 11* 5(2), 227-247.	Path analyses reveal a direct association between physical disorder and social disorder even when prior levels of collective efficacy are controlled. Further, there is evidence that the effects of physical disorder may be operating through increased fear and decreased collective efficacy to affect perceptions of threat/violence.	Physical disorder measures	Student surveys	Measures of social disorder and collective efficacy	Schools serving 6-8 graders in a large mid-Atlantic urban school district (n=33)
Schneider, M. (2003) *Linking School Facility Conditions to Teacher Satisfaction and Success. Washington, DC: National Clearinghouse for Educational Facilities.*	Poor facilities affect the health and productivity (attendance) of teachers and make retention of teachers difficult (especially for schools with a condition grade of "C" or less). On the academic side, a shift from the best facilities to the worst decreases student test performance by ~3% (in DC this is for both math and reading, in Chicago for % of students performing at/above grade level).	School facility design & condition grades	Teacher surveys	Test scores and teacher health, attendance, and retention	Teachers in Chicago, IL & Washington, DC (n=688 & 1273 respectively)
Sheets, M. E. (2009). The relationship between the condition of school facilities and certain educational outcomes, particularly in rural public high schools in Texas. (Ed.D., Texas Tech University).	The condition of school facilities has a measurable effect over and above socioeconomic conditions on student achievement and teacher experience/turnover. Most significantly, for every 10% reduction in the percent of portable facility sf/student, test scores increased by 11 points and for every 10% increase in deferred maintenance, average test scores decreased by 0.61 points.	Six measures of facility condition	Administrative data	Test scores, attendance & teacher experience/turnover	Rural Texas high schools (n=72)
Stevenson, K. R. (2001). *The relationship of school facilities conditions to selected student academic outcomes: A study of South Carolina public school* s. SC Education Oversight Committee.	There is a significant relationship between building condition and test scores. Additionally, at least 75% of principals indicated that the adequacy of the school facility impacted teacher attitudes, teacher recruitment and retention, student behavior, and parent and community attitudes and support.	Facility condition score & condition of individual systems	Principal assessments	Test score; Range of student, teacher, parent and community variables	South Carolina school principals (n=626)
Tanner, K. (2009) Effects of school design on student outcomes. Journal of Educational Administration. 47(3), 376-394.	Significant effects were found between high scores on all three design elements and test score results	Three school design elements (movement and circulation, day lighting, and views)	Researcher observation	Test scores (various CA tests at a range of grade levels)	Rural and suburban Georgia schools (n=71)