MODERN PUBLIC SCHOOL FACILITIES: INVESTING IN THE FUTURE

HEARING

BEFORE THE

COMMITTEE ON
EDUCATION AND LABOR

U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

HEARING HELD IN WASHINGTON, DC, FEBRUARY 13, 2008

Serial No. 110–78

Printed for the use of the Committee on Education and Labor

Available on the Internet:
http://www.gpoaccess.gov/congress/house/education/index.html

U.S. GOVERNMENT PRINTING OFFICE

40–607 PDF WASHINGTON : 2008

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON EDUCATION AND LABOR

GEORGE MILLER, California, *Chairman*

Dale E. Kildee, Michigan, *Vice Chairman*
Donald M. Payne, New Jersey
Robert E. Andrews, New Jersey
Robert C. "Bobby" Scott, Virginia
Lynn C. Woolsey, California
Rubén Hinojosa, Texas
Carolyn McCarthy, New York
John F. Tierney, Massachusetts
Dennis J. Kucinich, Ohio
David Wu, Oregon
Rush D. Holt, New Jersey
Susan A. Davis, California
Danny K. Davis, Illinois
Raúl M. Grijalva, Arizona
Timothy H. Bishop, New York
Linda T. Sánchez, California
John P. Sarbanes, Maryland
Joe Sestak, Pennsylvania
David Loebsack, Iowa
Mazie Hirono, Hawaii
Jason Altmire, Pennsylvania
John A. Yarmuth, Kentucky
Phil Hare, Illinois
Yvette D. Clarke, New York
Joe Courtney, Connecticut
Carol Shea-Porter, New Hampshire

Howard P. "Buck" McKeon, California, *Ranking Minority Member*
Thomas E. Petri, Wisconsin
Peter Hoekstra, Michigan
Michael N. Castle, Delaware
Mark E. Souder, Indiana
Vernon J. Ehlers, Michigan
Judy Biggert, Illinois
Todd Russell Platts, Pennsylvania
Ric Keller, Florida
Joe Wilson, South Carolina
John Kline, Minnesota
Cathy McMorris Rodgers, Washington
Kenny Marchant, Texas
Tom Price, Georgia
Luis G. Fortuño, Puerto Rico
Charles W. Boustany, Jr., Louisiana
Virginia Foxx, North Carolina
John R. "Randy" Kuhl, Jr., New York
Rob Bishop, Utah
David Davis, Tennessee
Timothy Walberg, Michigan
Dean Heller, Nevada

Mark Zuckerman, *Staff Director*
Sally Stroup, *Republican Staff Director*

C O N T E N T S

	Page
Hearing held on February 13, 2008	1
Statement of Members:	
Altmire, Hon. Jason, a Representative in Congress from the State of Pennsylvania, prepared statement of	87
Courtney, Hon. Joe, a Representative in Congress from the State of Connecticut, prepared statement of	88
Kildee, Hon. Dale E., a Representative in Congress from the State of Michigan, letter submitted	90
McKeon, Hon. Howard P. "Buck," Senior Republican Member, Committee on Education and Labor	4
Prepared statement of	6
Additional submissions:	
Cato report: "Private Education is Good for the Poor"	7
Cato analysis: "Money and School Performance"	7
Additional statements concerning the Davis-Bacon Act	7
Miller, Hon. George, Chairman, Committee on Education and Labor	1
Prepared statement of	3
Additional questions sent to witnesses	78
Woolsey, Hon. Lynn C., a Representative in Congress from the State of California:	
Prepared statement of	89
Statement of Witnesses:	
Boustany, Hon. Charles W., Jr., M.D., a Representative in Congress from the State of Louisiana	25
Prepared statement of	27
U.S. Department of Labor report concerning the Davis-Bacon Act, dated March 30, 2004	26
Caddick, Judi, on behalf of the National Education Association	46
Prepared statement of	48
Responses to follow-up questions	79
Castle, Hon. Michael N., a Representative in Congress from the State of Delaware	13
Prepared statement of	14
Chandler, Hon. Ben, a Representative in Congress from the State of Kentucky	10
Prepared statement of	12
Cullinane, Mary, director of the innovation & business development team, Microsoft Corp.	52
Prepared statement of	53
Responses to follow-up questions	82
Etheridge, Hon. Bob, a Representative in Congress from the State of North Carolina	15
Prepared statement of	17
Additional submission: "Supporters of America's Better Classroom Act of 2007"	25
Holt, Hon. Rush D., a Representative in Congress from the State of New Jersey	35
Prepared statement of	36
Hooley, Hon. Darlene, a Representative in Congress from the State of Oregon	28
Prepared statement of	30
Additional submissions:	
"Daylighting in Schools," condensed report, August 20, 1999	89

Page

Statement of Witnesses—Continued
Hooley, Hon. Darlene, a Representative in Congress from the State of Oregon—Continued
Additional submissions—Continued
"Greening America's Schools Costs and Benefits" 89
"Green Building Smart Market Report" 89
King, Hon. Steve, a Representative in Congress from the State of Iowa 31
Prepared statement of 33
Report: "The Federal Davis-Bacon Act: The Prevailing Mismeasure of Wages" 32
Loebsack, Hon. Dave, a Representative in Congress from the State of Iowa 19
Prepared statement of 23
Letter from Governor Culver 21
Letter from the U.S. Green Building Council 22
McCluskey, Neal, associate director, Center for Educational Freedom, the Cato Institute 73
Prepared statement of 75
Moore, Kathleen J., director of the school facilities planning division, California Department of Education 40
Prepared statement of 42
Vallas, Paul, superintendent, New Orleans Recovery School District 66
Prepared statement of 68
Vincent, Paula J., Ph.D., superintendent of schools, Clear Creek Amana CSD 61
Prepared statement of 63
Waters, Jim, director of policy and communications, Bluegrass Institute for Public Policy Solutions 70
Prepared statement of 72

MODERN PUBLIC SCHOOL FACILITIES: INVESTING IN THE FUTURE

Wednesday, February 13, 2008
U.S. House of Representatives
Committee on Education and Labor
Washington, DC

The committee met, pursuant to call, at 10:32 a.m., in Room 2175, Rayburn House Office Building, Hon. George Miller [chairman of the committee] presiding.

Present: Representatives Miller, Kildee, Payne, Woolsey, Wu, Holt, Davis of California, Sarbanes, Loebsack, Altmire, Yarmuth, Hare, Courtney, Shea-Porter, McKeon, Castle, Ehlers, Biggert, Platts, Keller, and Boustany.

Staff present: Tylease Alli, Hearing Clerk; Alice Cain, Senior Education Policy Advisor (K-12); Jody Calemine, Labor Policy Deputy Director; Adrienne Dunbar, Education Policy Advisor; Denise Forte, Director of Education Policy; Lloyd Horwich, Policy Advisor for Subcommittee on Early Childhood, Elementary and Secondary Education; Lamont Ivey, Staff Assistant, Education; Brian Kennedy, General Counsel; Danielle Lee, Press/Outreach Assistant; Jill Morningstar, Education Policy Advisor; Stephanie Moore, General Counsel; Alex Nock, Deputy Staff Director; Joe Novotny, Chief Clerk; Rachel Racusen, Deputy Communications Director; Dray Thorne, Senior Systems Administrator; Daniel Weiss, Special Assistant to the Chairman; Margaret Young, Staff Assistant, Education; and Mark Zuckerman, Staff Director; Stephanie Arras, Minority Legislative Assistant; James Bergeron, Minority Deputy Director of Education and Human Services Policy; Cameron Coursen, Minority Assistant Communications Director; Rob Gregg, Minority Legislative Assistant; Susan Ross, Minority Director of Education and Human Resources Policy; Linda Stevens, Minority Chief Clerk/Assistant to the General Counsel; Sally Stroup, Minority Deputy Staff Director; and Loren Sweatt, Minority Professional Staff Member.

Chairman MILLER [presiding]. Good morning, and welcome to today's hearing on Modern Public School Facilities: Investing in the Future. All of our children deserve a modern, safe, clean, and healthy place to learn, regardless of what neighborhood they live in. But today the unfortunate reality in many communities is that schools are literally crumbling.

In 1996, the U.S. Government Accountability Office said it would take $112 billion to bring schools into good overall condition. In

2000, the National Center for Education Statistics put that figure at $127 billion, concluding that 75 percent of schools were in various stages of disrepair.

In 2000, the National Education Association said the U.S. would have to spend $322 billion to bring all schools to where they are safe, well-constructed, and have up-to-date education technologies. And in 2005, the American Society of Civil Engineers gave U.S. schools a D on its national infrastructure report card.

Most recently in 2006, the group Building Educational Success Together said that previous studies grossly underestimated the need for school improvement and new construction. According to BEST, there continue to be millions of students in sub-standard and crowded conditions, particularly in schools serving low-income and minority students.

It is common sense that sub-standard conditions in our schools make it harder for teachers to teach and children to learn. And the research bears this out consistently finding relationships between facility quality and student achievement independent of other factors. It is not just learning that suffers, children's health can suffer also.

In 2004, a study commissioned by the U.S. Department of Education found that poor environments in schools primarily caused by indoor pollutants adversely influence the health, performance, and attendance of students. In 1996, the GAO report found that almost 30 percent of U.S. schools have unsatisfactory or very unsatisfactory ventilation.

The Environmental Protection Agency and the American Lung Association have reported that asthma accounts for more than 10 million missed school days per year. Since one of the key factors in student learning is the time spent in class, this is a problem both for children's health and for their academic achievement.

Finally, schools in disrepair can adversely affect entire communities. Poor school quality directly lowers residential property values and can reduce the community's ability to attract businesses. Meanwhile, investment in school facilities brings money into local communities through job creation and supply purchases. We all agree on the urgent national priority of providing every child with a worldclass education because it is the right thing to do and because our continued economic vitality depends upon it.

It is clear that we cannot satisfy the priority unless we help states and school districts improve the physical condition of school buildings and facilities. In fiscal year 2001, the Congress provided $1.2 billion in emergency school repairs. But beginning in the following year with President Bush's first budget, the federal government has provided almost no direct help to states and schools to pay for school construction and repair.

It would be wise for us to increase federal investments in school facilities regardless of the nation's economic health. But I would be remiss if I did not point out that the weakening economy adds more incentives for Washington to act. As state and local revenues shrink, states and cities will look to make up those budget shortfalls by cutting spending.

Budget cutbacks will harm essential services like education, and they will also make the economic problems worse that we are see-

ing. We must invest in making every school a place communities can be proud of and where children can be eager to learn.

And I want to thank our witnesses for joining us, including members of Congress, our colleagues who have made time to be here today. Congressman Chandler will discuss his 21st Century High-Performing Public School Facilities Act, legislation which I am proud to co-sponsor.

We will hear from Congressman Etheridge who along with Chairman Rangel has introduced America's Better Classrooms Act. And we will also hear from two outstanding members of this committee, Congressmen Holt and Loebsack and from Congresswoman Hooley, co-chair of our Green Schools Caucus.

Thank you to all of them for being here, and I look forward to hearing their ideas. And at this point, I would like to recognize Mr. McKeon, the senior Republican on our committee.

Prepared Statement of Hon. George Miller, Chairman, Committee on Education and Labor

Good morning. Welcome to today's hearing on "Modern Public School Facilities: Investing in the Future."

All of our children deserve a modern, safe, clean and healthy place to learn, regardless of what neighborhood they live in. But today, the unfortunate reality in many communities is that schools are literally crumbling.

A number of estimates over the years have revealed the magnitude of the problem.

In 1996, the U.S. Government Accountability Office said it would take $112 billion to bring schools into "good overall condition."

In 2000, the National Center for Education Statistics put that figure at $127 billion, concluding that 75 percent of schools were in various stages of disrepair.

In 2000, the National Education Association said the U.S. would have to spend $322 billion to bring all schools to the point where they are "safe, well-constructed" and have "up-to-date technologies."

In 2005, the American Society of Civil Engineers gave U.S. schools a 'D' on its national infrastructure report card.

Most recently, in 2006, Building Educational Success Together said that previous studies "grossly underestimated" the need for school improvement and new construction.

According to BEST, "There continue to be millions of students in substandard and crowded conditions," particularly in schools serving low-income and minority students.

It is common sense that substandard conditions in our schools make it harder for teachers to teach and children to learn.

It's not just learning that suffers; children's health can suffer, too.

A 2004 study commissioned by the U.S. Department of Education found that poor environments in schools, primarily caused by indoor pollutants, do "adversely influence the health, performance, and attendance of students."

The 1996 GAO report found that almost 30 percent of U.S. schools have unsatisfactory or very unsatisfactory ventilation.

The Environmental Protection Agency and the American Lung Association have reported that asthma accounts for more than 10 million missed school days per year. Since one of the key factors in student learning is time spent in class, this is a problem both for children's health and their academic achievement.

Finally, schools in disrepair can adversely affect entire communities.

Poor school quality directly lowers residential property values and can reduce a community's ability to attract businesses. Meanwhile, investment in school facilities brings money into local economies through job creation and supply purchases.

We all agree on the urgent national priority of providing every child with a world-class education—because it is the right thing to do and because our continued economic vitality depends on it.

It is clear that we cannot satisfy that priority unless we help states and school districts improve the physical condition of their school buildings and facilities.

In fiscal year 2001, Congress provided $1.2 billion for emergency school repairs.

But beginning the following year, with President Bush's first budget, the federal government has provided almost no direct aid to help states and schools pay for school construction and repair. It has remained this way during the entire Bush administration.

It would be wise for us to increase federal investments in school facilities regardless of the nation's economic health. But I would be remiss if I did not point out that the weakening economy adds more incentive for Washington to act.

As state and local tax revenues shrink, states and cities will look to make up that budget shortfall by cutting spending. Budget cutbacks will harm essential services, like education, and they will also exacerbate the economic problems we're seeing.

We can help mitigate the economic damage by investing in school construction projects that will create jobs and inject demand into the economy.

We will also hear proposals for giving the federal government a role in helping schools make much-needed repairs and renovations and build new facilities.

We must invest in making every school a place that communities can be proud of and where children will be eager to learn.

I thank all of our witnesses for joining us, including a number of colleagues who have made the time to be here today. Congressman Chandler will discuss his 21st Century High-Performing Public School Facilities Act, legislation I was proud to cosponsor.

We'll hear from Congressman Etheridge, who along with Chairman Rangel has introduced the America's Better Classrooms Act.

We'll also hear from two outstanding members of this committee, Congressmen Holt and Loebsack, and from Congresswoman Hooley, head of our Green Schools Caucus.

Thanks to all of you for being here. I look forward to hearing your ideas about how we can address this important national priority.

Thank you.

Mr. MCKEON. Thank you, Chairman Miller. We are here today to examine public school facilities as part of a broader, ongoing review of our nation's K-12 education system. I am pleased to have two distinguished panels of witnesses with us here today.

First we will hear from members on both sides of the aisle who can help articulate views on the appropriate federal role in this area. Public school facilities are an important issue in states and local communities. And I am pleased to have members here to represent the views of their constituents.

We also have a panel of experts who will offer a broad and diverse range of perspectives on what constitutes a modern public school facility, how such facilities impact student learning, and the role of the federal government in what has traditionally been a state and local right and responsibility.

Before we delve into the details of school facilities and financing, I want to take a step back and consider the historical and constitutional context. Traditionally states and local communities have retained control over education, particularly public K-12 education.

Federal intervention has been targeted narrowly to fulfill a pressing need while maintaining the autonomy and authority of communities. For instance, the No Child Left Behind Act is intended to help close the achievement gap between disadvantaged students and their peers by providing additional funding and support for schools that serve low-income and disadvantaged students.

And that goes back to when the Elementary/Secondary Educational Act was originally passed in the 1960s. The No Child Left Behind was a reauthorization of that act. But it does not replace the rights and responsibilities that lie with states and communities.

For all the attention that is paid to No Child Left Behind, it is important to keep two things in mind. First, even under NCLB the federal government is responsible only for about 9 percent of all K-12 education spending. Second, despite claims of NCLB mandates, the reality is that states and local communities continue to set curricula, academic standards, qualifications for their teachers, and proficiency targets for their students.

The federal investment in education is important. It allows us to set national priorities and ensure that as a nation we can agree that all children deserve the chance to learn and succeed.

However, although this modest targeted federal intervention is appropriate, there are very real concerns about extending the federal role. Today we are going to look at school facilities. This is a topic of great importance in the larger educational debate in terms of students' safety, economic and ecological impact on communities, and equitable educational opportunity.

Yet while school facilities are important, I question whether they are the silver bullet that some believe them to be. We know what matters is not just where students learn, but what they learn. This is not to minimize the importance of school facilities, but rather to emphasize the questions we must consider when evaluating how to spend federal dollars.

The fact is any federal intervention into school construction carries with it significant burdens. For instance, we know that the Depression-era Davis-Bacon wage mandates can drive up the cost of federal projects. Meaning that we get less bang for our buck. In a time of limited federal resources, many question why we would drain funds from other critical education priorities in order to fund an inefficient construction mandate.

Just yesterday the committee received a letter from leading business and construction groups outlining flaws within the Davis-Bacon wage mandates that would be tied to federal school construction. The National School Boards Association joined in signing that letter and voicing those concerns. As a former school board member myself, I am keenly aware of the catch-22 of federal funds tied to federal mandates. And I hope we are mindful of those concerns today.

We also know that great strides have been made in partnerships between states, localities, and the private sector to develop state-of-the-art school facilities. Rather than stifling these innovative strategies with a new federal program and the red tape that comes with it, we should be encouraging these types of partnerships.

Local schools are woven into the fabric of our communities. And it seems to me there is no more fundamental local responsibility than to ensure a safe, welcoming learning environment for our children.

Mr. Chairman, we are privileged to be hearing from so many members who care deeply about this issue. And for that reason, I will limit my remarks. Let me just take this opportunity once again to thank the members who are here or will be here with us as well as the esteemed members of our second panel.

This is an important topic, one that I look forward to approaching thoughtfully as part of our ongoing discussion about strength-

ening educational opportunities for all students. Thank you, and I yield back.

Prepared Statement of Hon. Howard P. "Buck" McKeon, Senior Republican, Committee on Education and Labor

Thank you Chairman Miller. We're here today to examine public school facilities as part of a broader, ongoing review of our nation's K-12 educational system.

I'm pleased to have two distinguished panels of witnesses with us here today. First, we'll hear from members on both sides of the aisle who can help articulate views on the appropriate federal role in this area. Public school facilities are an important issue in states and local communities, and I'm pleased to have members here to represent the views of their constituents.

We also have a panel of experts who will offer a broad and diverse range of perspectives on what constitutes a modern public school facility; how such facilities impact student learning; and the role of the federal government in what has traditionally been a state and local right and responsibility.

Before we delve into the details of school facilities and financing, I want to take a step back and consider the historical and constitutional context. Traditionally, states and local communities have retained control over education, particularly public K-12 education. Federal intervention has been targeted narrowly to fulfill a pressing need, while maintaining the autonomy and authority of communities. For instance, the No Child Left Behind Act is intended to help close the achievement gap between disadvantaged students and their peers by providing additional funding and support for schools that serve low-income and disadvantaged students. It does not replace the rights and responsibilities that lie with states and communities.

For all the attention that is paid to No Child Left Behind, it's important to keep two things in mind. First, even under NCLB, the federal government is responsible for only about nine percent of all K-12 education spending. Second, despite claims of NCLB mandates, the reality is that states and local communities continue to set curricula, academic standards, qualifications for their teachers, and proficiency targets for their students.

The federal investment in education is important. It allows us to set national priorities and ensure that as a nation, we can agree that all children deserve the chance to learn and succeed. However, although this modest, targeted federal intervention is appropriate, there are very real concerns about extending the federal role.

Today we're going to look at school facilities. This is a topic of great importance in the larger educational debate in terms of student safety, economic and ecological impact on communities, and equitable educational opportunity.

Yet while school facilities are important, I question whether they are the silver bullet that some believe them to be. We know what matters is not just where students learn, but what they learn. This is not to minimize the importance of school facilities, but rather to emphasize the questions we must consider when evaluating how to spend federal dollars.

The fact is, any federal intervention into school construction carries with it significant burdens. For instance, we know that Depression-era Davis-Bacon wage mandates can drive up the cost of federal projects, meaning that we get less bang for our buck. In a time of limited federal resources, many question why we would drain funds from other critical education priorities in order to fund an inefficient construction mandate. Just yesterday, the Committee received a letter from leading business and construction groups outlining flaws within the Davis-Bacon wage mandates that would be tied to federal school construction. The National School Boards Association joined in signing that letter and voicing those concerns. As a former school board member myself, I am keenly aware of the catch-22 of federal funds tied to federal mandates, and I hope we are mindful of those concerns today.

We also know that great strides have been made in partnerships between states, localities, and the private sector to develop state-of-the-art school facilities. Rather than stifling these innovative strategies with a new federal program and the red tape that comes with it, we should be encouraging these types of partnerships.

Local schools are woven into the fabric of our communities, and it seems to me there is no more fundamental local responsibility than to ensure a safe, welcoming learning environment for our children.

Mr. Chairman, we are privileged to be hearing from so many members who care deeply about this issue, and for that reason, I will limit my remarks. Let me just take this opportunity once again to thank the members who are here with us as well as the esteemed experts on our second panel. This is an important topic, and one that I look forward to approaching thoughtfully as part of our ongoing discus-

sion about strengthening educational opportunities for all students. Thank you, and I yield back.

[Internet address to Cato report, "Private Education is Good for the Poor," submitted by Mr. McKeon, follows:]

http://www.cato.org/pubs/wtpapers/tooley.pdf

[Internet address to Cato policy analysis, "Money and School Performance," submitted by Mr. McKeon, follows:]

http://www.cato.org/pubs/pas/pa-298.pdf

[Additional statements submitted by Mr. McKeon follow:]

February 12, 2008.

Hon. GEORGE MILLER, *Chairman;* Hon. HOWARD P. "BUCK" MCKEON, *Ranking Member, House Committee on Education and Labor, U.S. House of Representatives, Washington, DC.*

DEAR CHAIRMAN MILLER AND RANKING MEMBER MCKEON: As your committee prepares for its hearing on "Modern Public School Facilities: Investing in the Future," the undersigned organizations would like to take this opportunity to thank you for addressing this important topic. Like you, we believe the foundation for our future is education, and that foundation begins in the walls of our nation's schools. To keep that foundation strong, however, we urge you to refrain from imposing costly Davis-Bacon Act requirements on school construction projects until serious flaws with that law's wage determination process are fixed.

Federal authorities have concluded that Davis-Bacon wage rates are inaccurate. A series of audits by outside agencies, as well as the Department of Labor's (DOL) own Office of Inspector General (OIG), have revealed substantial inaccuracies in Davis-Bacon Act wage determinations and suggested that they are vulnerable to fraud. In addition, DOL's OIG released three reports highly critical of the wage determination program. In fact, one report from 2004 found one or more errors in nearly 100 percent of the wage surveys reviewed. Expanding a wage determination process that has been proven to be flawed is unfair to the American taxpayer and American businesses, as well as parents and students who see scarce resources used inefficiently.

Davis-Bacon's wage determination flaws harm the very employees the law was intended to protect. Research from the Heritage Foundation found that Tampa Bay area electricians are underpaid by 38 percent under Davis-Bacon's system when compared to the more statistically sound wage determination method used by the Bureau of Labor Statistics. Forthcoming academic research will provide further evidence from urban areas across the nation.

Davis-Bacon also has a negative impact on equal access to work opportunities. It prevents many qualified small and minority-owned businesses from even bidding on public projects, because the complexities and inefficiencies in the Act make it nearly impossible for small businesses to compete. As a result, few minority firms win Davis-Bacon contracts, and many others give up trying. That is not a lesson any of us want to teach our children.

Finally, Davis-Bacon's flaws will cost taxpayers more to provide students with less. Davis-Bacon has been shown to increase public construction costs by anywhere from 5 to 38 percent above what the project would have cost in the private sector. According to the Congressional Budget Office, the Davis-Bacon Act already costs taxpayers more than $9.5 billion over the 2002 to 2011 period relative to the 2001 appropriations and $10.5 billion relative to 2001 appropriations adjusted for inflation. Any Davis-Bacon costs from legislation your committee considers will be directly passed on to the American taxpayers in these school districts, coming at the direct expense of education dollars for children in classrooms.

We urge Congress to make sure inaccuracies and flaws in the process are corrected before Congress considers extending the Davis-Bacon Act requirements to additional areas of the law.

Sincerely,

ASSOCIATED BUILDERS AND CONTRACTORS,
INDEPENDENT ELECTRICAL CONTRACTORS,
NATIONAL FEDERATION OF INDEPENDENT BUSINESS,
NATIONAL SCHOOL BOARDS ASSOCIATION,
U.S. CHAMBER OF COMMERCE.

Statement for the Record Submitted on Behalf of Associated Builders and Contractors

On behalf of the Associated Builders and Contractors (ABC) and its more than 24,000 general contractors, subcontractors, material suppliers and related firms, we write to thank the committee for examining an issue as important as the facilities for our public education system. However, ABC is concerned about possible attachment of Davis-Bacon Act prevailing wage regulations, which are burdened by systemic and fatal flaws that should be rectified before the prevailing wage regime is considered for expansion to cover more school projects.

First, we wish to assure you that ABC members share your concern for guaranteeing the quality and affordability of creating school facilities that safely and securely educate our nation's children and prepare them for the increasingly competitive global market. Our members live and work in communities across the country, building and working on countless school projects.

ABC is therefore troubled that Davis-Bacon's anti-competitive and costly bureaucracy and statistically troubled process will be potentially injected into the already complex issue of building schools. We enumerate some of the most critical problems here.

Davis-Bacon costs taxpayers billions of dollars each year. Studies show that projects under Davis-Bacon are 20 percent higher than similar projects completed under market conditions. The Congressional Budget Office has estimated that the Davis-Bacon Act costs taxpayers more than $9.5 billion over the 2002 to 2011 period relative to the 2001 appropriations and $10.5 billion relative to 2001 appropriations adjusted for inflation.

A number of studies have examined the effects of Davis-Bacon or related requirements on projects that have traditionally been undertaken by local and state authorities, such as school construction efforts. For example, a 2005 study conducted by the Minnesota Taxpayers Association found that the state's method for calculating prevailing wage rates on public construction increased project costs by as much as 10 percent. Meanwhile, an August 2003 study from the California Institute for County Government at California State University-Sacramento found that federal commercial prevailing wage rates and state prevailing wage rates in California are, on average, 36 percent to 55 percent higher than market wages.

Similar studies have specifically examined the impact of prevailing wage laws on school construction costs. A 2007 study from the non-profit Mackinac Center for Public Policy concluded that Michigan's prevailing wage law costs state taxpayers approximately $250 million per year. In particular, the study found that because state guarantees on school district construction bonds trigger prevailing wage requirements, the prevailing wage law also applies to most public school construction. Exempting public school districts alone from the law's requirements would likely save state taxpayers around $125 million annually.

Michigan's neighboring state, Ohio, found critical monetary savings by exempting its public school projects from costly prevailing wage requirements. Ohio's Legislative Service Commission concluded in 2002 that striking down prevailing wage requirements for school construction saved a total of $487.9 million. That equated to an overall savings of nearly 11 percent—a savings that taxpayers anywhere would welcome.

Recent numbers show the federal cost to taxpayer remains high. This month, Suffolk University's Beacon Hill Institute examined the current Wage and Hour Division's Davis-Bacon prevailing wage determinations and compared them to those calculated by the Department of Labor's Bureau of Labor Statistics. It concluded that the current method used to calculate Davis-Bacon wages inflates labor costs by 22 percent. That leads to an additional charge to taxpayers of $8.6 billion per year.

In addition, Davis-Bacon's wage determination process is fatally flawed. The Beacon Hill Institute calculated its figure by comparing the wage determination method currently used by the Department of Labor's Wage and Hour Division to outcomes

from the Bureau of Labor Statistics, which (as its name implies) carries out professional, reliable, and unbiased statistical research. Current Davis-Bacon wage surveys are anything but reliable and unbiased.

A 2004 report from the Department of Labor's Office of Inspector General found that $22 million of taxpayer money spent to fix the wage-determination process "resulted in limited improvements" and that "problems in past audits continued." In fact, a sample of surveys found some problems had actually increased.

Three main fundamental flaws plague Davis-Bacon wage calculations. First, the Office of Inspector General noted, "the credibility of wage determinations remains questionable" because an audit found problems in nearly 100 percent of Wage and Hour surveys examined. That is not an area where such consistency is admired.

Moreover, the survey process is hampered by bad methodology. For example, because the survey process is voluntary, there is statistical bias toward a small group of self-interested respondents. The Office of Inspector General's report noted that the government essentially surveys its own wages, and "tries to avoid surveying Federally funded building and residential construction already subject to [Davis-Bacon], but this cannot always be done due to lack of sufficient survey data."

Finally, the Office of Inspector General's report noted that survey data is untimely. A full 84 percent of wage surveys took more than a year and a half to complete, and 21 percent take more than three years. In other cases, data wasn't updated—leaving one survey in force for seven years.

The Office of Inspector General report called for a "representative and unbiased" survey of the Davis-Bacon wage determination process. That request remains unmet.

Davis-Bacon's wage determination flaws harm taxpayers and employees. Davis-Bacon wage determination errors can come at a high cost to taxpayers, businesses, and employees. When wages are set too high, taxpayers foot the bill. But when wage determinations are too low, Davis-Bacon harms the very working Americans it was designed to help.

The Department of Labor's investigation found that the flaws from Davis-Bacon's wage determination plan included "inaccuracies in published wage determinations that ranged from overstatements for some crafts of $1.08 per hour to understatements of $1.29 per hour."

Research from the Heritage Foundation published in December 2007 shows that "Davis-Bacon wages vary from 38 percent below market wages for electricians in the Tampa Bay area to 73 percent above market wages for plumbers in San Francisco." In the cities studied by Heritage, the Foundation found that Davis-Bacon calculations varied "an average of 33 percent from market wages."

Recent research from the Beacon Hill Institute, noted above, reached similarly troubling findings. That group found that employees in Florida, North Carolina, Michigan Virginia, and Maine were underpaid using current Davis-Bacon methodology.

Congress should not expand Davis-Bacon Act into additional areas of the law until it is fixed. Evidence of systemic trouble is hard to ignore. In addition to the additional costs imposed by taxpayers and discrimination against some construction employees, governmental bodies have provided ample alarms.

The Congressional Budget Office estimated savings solely from reducing the regulatory and paperwork burden if the Davis-Bacon Act were repealed to be more than $4 billion in discretionary spending outlays over a five-year period, reports the General Accounting Office in a March 2000 report. The report also noted that repealing Davis-Bacon or raising its project-value threshold "would allow appropriators to reduce fends spent on federal construction" and "increase the opportunities for employment of less skilled workers."

The Office of Management and Budget has questioned the "outdated threshold" of applying Davis-Bacon Act to projects worth just $2,000, writing that the low level may be "contrary to Congress' original intent to have the Act govern larger purchases, but also overburdens small business." More importantly, the Office of Management and Budget noted: "Historically, wage rates have been based on data that is years old, poorly verified, or from surveys with low response rates. These and other factors have resulted in wage rates that may have underestimated or overestimated the true local wage, thereby contravening the intent of the act not to undermine local wage and benefit standards."

It is difficult to disagree with the Office of Management and Budget, which argued that Davis-Bacon's flawed wage determinations may "[contravene] the intent of the act not to undermine local wage and benefits standards."

We will leave with this thought. In 1979 the General Accounting Office said that "After nearly 50 years, the Department of Labor has not developed an effective pro-

gram to issue and maintain current and accurate wage determinations; it may be impractical to do so."

Again, thank you for the opportunity to submit these comments, and we thank you in advance for giving careful consideration to the views of ABC and its more than 24,000 members nationwide who urge your committee to consider these flaws inherent to the current Davis-Bacon system before expanding it into our nation's schools.

Chairman MILLER. First of all, I want to thank Mr. McKeon for his statement and say that under committee rule 12-A, all members may submit an opening statement in writing which will be made part of the permanent record. And I know a number of members that have spoken to me about that. And we will recess for a moment until the first of our witnesses comes back from the floor vote. My understanding was this is one vote, and then they will return and we will begin then. Thank you.

[Recess.]

Chairman MILLER. The committee will reconvene. And again, I want to welcome our colleagues. And we are going to hear from Congressman Ben Chandler, Congressman Mike Castle, Congressman Bob Etheridge, Congressman Dave Loebsack, Congressman Charles Boustany, Congresswoman Darlene Hooley, Congressman Steve King, and Congressman Rush Holt. And we are going to hear from you in that order.

Ben, we are going to begin with you. Welcome to the committee. I am going to ask you all, to the extent that you can, to stay within the 5 minutes. We have two full panels here today.

So thank you, and welcome. And thank you for the attention that you have given this problem and the legislation that many of you have introduced. I want to thank you in advance for that.

Ben?

STATEMENT OF HON. BEN CHANDLER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF KENTUCKY

Mr. CHANDLER. Thank you, Mr. Chairman. And I will try to go as fast as my slow Kentucky diction will allow me to go. Anyway, I also understand that we will have another motion to adjourn very shortly. So hopefully I can at least get through my testimony.

I appreciate you bringing this matter, the matter of our public education, to the forefront here in this hearing and particularly to address the condition of our public schools. This hearing is about more than just bricks and mortar. It is about providing our children with a safe and healthy learning environment and the technological resources they need to compete in the global world.

The U.S. Department of Education tells us that modern, functional school facilities are a precondition for student learning. Study after study links student performance with building conditions.

Many of our schools are in poor health stemming from old and outdated buildings. The average public school building is over 40 years old and often contains hazards such as lead-based paint, asbestos, poor lighting, and ill-functioning heating and cooling systems.

To compound these problems, one-fourth of our schools are overcrowded from trying to cram today's student population into yester-

day's classrooms. The needs of our public schools do not stop with buildings. In today's world, technology is a vital component to a quality education.

In classrooms across the world, interactive white boards make learning come alive, and computers connect what our children learn in history class to what is going on in the world today. This technology sparks their interest. It transforms math from mere numbers into exciting, future-driving fields like architecture and engineering.

These technological capabilities exist, but only for the fortunate minority. U.S. schools average one computer for every four students. While some schools are fully equipped with computer and Internet access, many fall below that average.

My own state of Kentucky has made significant improvements in this area in the past few years. We are now among those leading the nation in Internet access with 100 percent of our schools linked to high-speed broadband connection. But what good is Internet access without computers?

Even in Kentucky where the state average is fewer than four students per computer, there are still numerous schools where as many as 15 to 20 children must share one computer. Schools like this can be found in every state.

Given the condition of our children's learning environments, it is no surprise that our students are struggling to compete in this ever-globalizing world.

Our federal government has an important role to play in preventing our children from falling behind. While our public school system is administered by the states, the education of our children is a national priority. Our federal government has validated this numerous times in the past decade through the creation of programs like No Child Left Behind, Head Start, and the federal school lunch program.

While Congress has recognized that educational excellence is vital to the economy and national competitiveness, too often we fail to provide these programs with the funding necessary to make these goals a reality. I believe it is time that Congress invests in our school infrastructure.

That is why I have introduced H.R. 3021, the 21st Century High-Performing Public School Facilities Act. This bill invests in matching grants and low-interest loans to schools for construction, repair, and modernization of school buildings and educational technology.

This bill also provides funds for teachers' technology training, Americans with Disabilities Act compliance, and energy-efficient facilities, all of which are vital to our kids' educational environment. Each passing year it is more costly for states to provide schools with the money they need to make basic essential improvements. With rising gas prices and a slowing economy, states need our help. And this is why the federal government must act now.

We must provide our children with safe, modern buildings in which to learn. We must provide our children with computers. We must provide them with cutting-edge facilities and technology so they can create the machines and the ideas of tomorrow. We must equip them to build the future of our country.

Thank you very much, Mr. Chairman. And I appreciate the opportunity to testify today.

[The statement of Mr. Chandler follows:]

Prepared Statement of Hon. Ben Chandler, a Representative in Congress From the State of Kentucky

Thank you, Mr. Chairman. I would like to commend the Committee for holding this hearing to address the condition of our public schools. This hearing is about more than just bricks and mortar, it is about providing our children with a safe and healthy learning environment and the technological resources they need to compete in a global world.

The U.S. Department of Education tells us that modern, functional school facilities are a precondition for student learning. Study after study links student performance with building conditions. Many of our schools are in poor health, stemming from old and outdated buildings. The average public school building is over 40 years old and often contains hazards such as lead-based paint, asbestos, poor lighting, and ill-functioning heating and cooling systems. To compound these problems, one-fourth of our schools are overcrowded from trying to cram today's student population into yesterday's classrooms.

The needs of our public schools do not stop with buildings. In today's world, technology is a vital component to a quality education. In classrooms across the world, interactive whiteboards make learning come alive and computers connect what our children learn in history class to what is going on the world today. This technology sparks their interest; it transforms math from mere numbers into exciting, future-driving fields like architecture and engineering.

These technological capabilities exist, but only for a fortunate minority. U.S. schools average one computer for every four students. While some schools are fully equipped with computer and Internet access, many fall far below that average. My own state of Kentucky has made significant improvements in this area in the past few years. We are now among those leading the nation in Internet access with 100% of our schools linked to high-speed broadband connection. But what good is Internet access without computers? Even in Kentucky, where the state average is fewer than four students per computer, there are still numerous schools where as many as 15 to 20 children must share one computer. Schools like this can be found in every state. Given the conditions of our children's learning environments, it is no surprise that our students are struggling to compete in this ever-globalizing world.

Our federal government has an important role to play in preventing our children from falling behind. While our public school system is administered by the states, the education of our children is a national priority. Our federal government has validated this numerous times in the past decade through the creation of programs like No Child Left Behind, Head Start, and the Federal School Lunch Program. While Congress has recognized that educational excellence is vital to the economy and national competitiveness, too often we have failed to provide these programs with the funding necessary to make these goals a reality.

I believe it is time that Congress invests in our school infrastructure. That is why I have introduced H.R. 3021, the 21st Century High-Performing Public School Facilities Act. This bill invests in matching grants and low-interest loans to schools for construction, repair and modernization of school buildings and educational technology. This bill also provides funds for teacher technology training, Americans with Disabilities Act compliance, and energy-efficient facilities—all of which are vital to our kids' educational environment.

Each passing year, it is more costly for states to provide schools with the money they need to make basic, essential improvements. With rising gas prices and a slowing economy, states need our help. This is why the federal government must act now.

We must provide our children with safe, modern buildings in which to learn. We must provide our children with computers. We must provide them with cutting-edge facilities and technology so they can create the machines and ideas of tomorrow—we must equip them to build the future of our country.

Thank you, Mr. Chairman. I appreciate the opportunity to be here today as you address this important matter.

Chairman MILLER. Thank you. And thank you very much for taking your time.

And I want to say to all the panelists, I know that many of you have other committees that are meeting that you serve on. You are free to stay, or if you want to leave after your testimony, you can do that also.

But again, I want to thank you very much in advance for the attention that you have given to this question of school facilities and how we provide for them and for the legislation that you have all introduced.

Mr. Castle?

STATEMENT OF HON. MICHAEL N. CASTLE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF DELAWARE

Mr. CASTLE. Thank you, Mr. Chairman, Mr. Kildee, Mr. Keller. I am also pleased to be here.

And I suppose I approach all this with a little bit greater reservations than some of the other witnesses we are going to hear from today. I think we can all agree that one of the greatest challenges the nation faces is ensuring every child receives the academic means they need to succeed in the future, which includes in a physical environment which is conducive to doing so.

I think that today's hearing on modern public school facilities is vitally important. And I think that we do need to pay some attention to this. But I have other concerns about where we are going in education as well.

And I would suggest that before the committee enacts legislation calling for new federal spending for school construction projects it is necessary to consider a number of factors. It is important to understand the need for federal school construction funding. The federal government has had, as all of us know, almost a nonexistent role in financing school construction projects. Just in a few isolated-type incidents do we do that.

Historically, the primary responsibility for school construction has been at state and local levels, which have spent over $145 billion in just the last 7 years, according to construction industry reports. It is also important to understand the cost implications of federal funding for school construction.

Both the U.S. Department of Education and the U.S. Government Accountability Office have attempted to project the needs and costs of construction on the state and local levels. According to a recently published U.S. Department of Education's National Center for Education Statistics, known as NCES, the unmet need for school construction renovation is estimated at $112 billion.

I would surmise that the federal government gets involved in school construction projects that number of projects will increase, the costs will increase, and as a result, the need for funding will continue to grow. It is just sort of natural in terms of potential funding which could be there.

Our decisions must be based on existing commitments and greatest needs such as assisting school districts and schools in meeting federally imposed mandates, including funding for Title 1, fully funding IDEA, and meeting other requirements imposed by the EPA as well as others. And I am one Republican who has fought for this funding for a number of years now. And I believe that we still have that commitment, and we still don't fund.

In fact, Mr. Chairman, I have heard you start a lot of your opening statements with we haven't funded this sufficiently. I have heard a lot of that discussion this year. And I think there is a lot of truth to that, and it is something that we have to pay attention to. So my question is can we afford this?

If we are not adequately funding the programs which we have already assumed the responsibility for, can we assume a new responsibility of school construction funding? As we work to provide our students with the best possible education and provide them with the tools to succeed, we must scrutinize whether the federal government can commit to entering yet another funding stream.

And I must admit that sometimes you are affected by your own circumstances. But I went to Georgetown Law School over here, not the fancy one that exists now about half a mile from here, but one that was in an old red factory building. And I drove around it three times trying to figure out where the heck the school was and finally wandered into it and realized it was in this ramshackle old building and had a wonderful education because of really good professors who really understood what they were doing.

There is a little more to education than just the building. And I am in agreement that the building is important. But I think we, particularly this committee, really needs to think carefully about the choices that we are making.

Are we going to fund those things we have already agreed to fund, which we are not doing—which we, the Congress, is not doing perhaps to the extent that it should? Or are we going to enter into a whole new funding stream, which is going to be extremely expensive?

So I am not saying no to anything at this point. But I am saying we do need to be very cautious in terms of how we approach this and very considerate of other obligations that we have. And I yield back the balance of my time.

[The statement of Mr. Castle follows:]

Prepared Statement of Hon. Michael N. Castle, a Representative in Congress From the State of Delaware

Good morning. Thank you Chairman Miller, for holding today's hearing. As the Senior Republican Member of the subcommittee that oversees K-12 legislation, I welcome the opportunity to testify before you today and look forward to hearing from my colleagues as well as the other witnesses on this important issue—modern public school facilities, particularly, the adequacy of existing public school facilities and whether there is a need for a federal school construction program.

I think we can all agree that one of the greatest challenges this nation faces is ensuring every child receives the academic means they need to succeed in the future, which includes learning in a physical environment which is conducive to doing so.

Before this Committee enacts legislation calling for new federal spending for school construction projects, however, it is necessary for Congress to consider a number of factors.

First, it is important that we understand the need for federal funding for school construction projects. Over the past decade, the condition of local public school facilities has become an important component of the education debate in communities throughout the nation. How much should be spent on school construction in urban, rural and suburban areas, along with how to modernize and renovate existing public elementary and secondary schools have become significant issues for many states and local school districts.

In general, the federal government has had an extremely limited, in fact, almost non-existent role in financing school construction projects. Historically, the primary responsibility for school construction has been at the state and local levels which

have spent more than $145 billion in just the last seven years according to reports from the construction industry.

The education needs in our country are great, and many areas face major challenges with overcrowding and dilapidated space. In fact, we face similar challenges in several areas of education such as teacher shortages, teacher quality, educating those with disabilities, achievement gaps and the list goes on.

Additionally, it is important to understand the cost implications of federal funding for school construction. Both the U.S. Department of Education and the U.S. Government Accountability Office have attempted to project the needs and costs of construction on the state and local levels based on self-reporting by school superintendents and other school officials. The results have been astounding.

According to a report recently released by the U.S. Department of Education's National Center for Education Statistics (NCES) entitled Public School Principals Report on Their School Facilities: Fall 2005, the unmet need for school construction and renovation is estimated at $112 billion and three-quarters of the nation's schools report needing funds to bring their buildings into a "good overall condition." It is also estimated that States and localities need $11 billion to simply comply with Federal mandates to remove or correct hazardous substances such as asbestos, lead paint, and radon.

As we balance the current obligations of the federal government in educating our youth, our decisions must be based on existing commitments and greatest needs. While school construction is a factor, the federal government must continue to assist local schools and school districts in meeting the federally-imposed mandates, such as adequate funding for Title I, fully funding the Individuals with Disabilities Act, assisting with compliance with the Americans with Disabilities Act, and meeting various other requirements imposed by the Environmental Protection Agency.

From my perspective, these are the needs which compel us, on the federal, level, to provide funding to the programs which directly help improve student achievement and close the achievement gaps that have persisted for decades between disadvantaged students and their more affluent peers.

We face challenges at every corner as we work to provide our students with the best possible education and provide them with the necessary tools to succeed. I hope we can continue to work together to balance these needs and make decisions based on our current commitments and greatest needs.

Chairman MILLER. As always, a well-reasoned argument. That is our business, making those choices and trying to develop those partnerships.

Mr. Etheridge, welcome.

STATEMENT OF HON. BOB ETHERIDGE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NORTH CAROLINA

Mr. ETHERIDGE. Thank you, Mr. Chairman. And good morning. Chairman Miller and Ranking Member McKeon, who was here just a moment ago, and other members of the committee, I am honored to be here today. And I thank you for this hearing.

I think this is critically important to the competitiveness of our country. And I appreciate the opportunity to present my perspective on this vitally important issue.

Prior to my service in the United States House, I had the privilege of serving 8 years as the elected state superintendent of schools in North Carolina. And I have the distinction, I guess, of having some perspective that others might not have. So I have that rare firsthand knowledge of how important a quality building is to the educational goals that we hold for our schools and the challenges that these schools face in inadequate facilities.

There really is no substitute for bricks and mortar when it comes to quality schools. Now, let me just give you a perspective. Across my district, school officials are striving to provide first-class educational opportunities with infrastructure that has not kept up

with the times. And it is not really their fault, so let me give you some examples.

Simply put, our schools are bursting at the seams. Principals and teachers are waging a daily struggle to educate our children in overcrowded classrooms, converted restrooms, broom closets, and temporary trailers. For example, Harnett County, which is just a few miles from my hometown of Lillington, deals with this problem every day.

Harnett Central has earned a record of high standards and outstanding achievement despite the fact that they have overcrowding problems. Principal Ken Jernigan and his staff work miracles with these young people with a main building originally designed for 960 people. They now enroll 1,392 students and have 275 faculty and staff. They have been forced to deploy 22 trailers, which creates safety problems, security, and supervisor issues.

Approximately 33 buses unload between 7:15 and 7:45 each morning. That leaves less than 1 minute for each bus to unload and move, if you use those numbers accordingly.

These overcrowding problems are not unique to Harnett Central. According to the 2005 public school facility needs assessment by the North Carolina Department of Public Instruction, Harnett County needs $222 million over the next 5 years for school construction, modernization, and renovations.

Nearby Johnston County, my home county where I grew up, needs $221 million. Wake County, the capital county of North Carolina, needs $1.4 billion to provide quality facilities for our children. And those are just three counties in my district.

And, Mr. Chairman, one would hear those numbers and think they are standing still. These counties are passing bond issues. They are borrowing money. And they have just about reached their limits.

Across North Carolina local communities are crying out for help with school construction. During my final year as state superintendent, we passed a $1.8 billion statewide bond issue that was matched by the locals. That was the largest bond issue at that time ever passed in North Carolina for school construction.

But even after the historic investment, the more recent assessment documented that we have $9.8 billion in unmet school construction needs just in North Carolina. It is plain as day that the state lacks the capacity to deal with this issue, and we need national attention.

My state is not alone. The National Clearinghouse for Education Facilities has estimated in 1998 that the average public school building in the United States was 42 years old at that time, and obviously they have gotten older. The National Education Association 2000 report, Modernizing our Schools, estimates total school facility needs nationwide to be $300 billion. Part of the problem we have had grappling with this problem from the federal level is a lack of reliable numbers in real time.

Mr. Chairman, I recommend that the Education and Labor Committee request an updated report from the Government Accountability Office to provide a comprehensive assessment of this problem so that we will have in real time good numbers. I have been working now for nearly 10 years to pass the school construction

legislation. It is one of the first bills I introduced in my freshman term.

This Congress I have teamed up with my colleague, Chairman Charlie Rangel and Republican Congressman Jim Ramstad of the Ways and Means Committee to introduce H.R. 2470, the America's Better Classrooms Act. This creative bill enjoys the support of 217 co-sponsors in the U.S. House from both parties, including many members of this committee.

H.R. 2470 will provide a federal tax credit to the holders of local school construction bonds to leverage school construction funding for some $25 billion across America. Local communities are ready to take action to get these projects rolling as soon as they get the word.

In North Carolina, as an example, officials estimate that they can begin funding projects within 30 to 60 days. They have them on the shelf ready to go with no money.

Other legislative programs and proposals under the jurisdiction of this committee could authorize appropriations through the Department of Education for school construction and modernization. Whatever legislative vehicle is most possible, the need for action of this Congress could not be more clear, Mr. Chairman.

Some people are saying the quality of facilities doesn't matter. Tell that to the chamber of commerce when they are trying to recruit new businesses. Some people say that schools can make do with what they have got. Tell that to the students whose God-given abilities are never realized because his or her schools are overcrowded and do not have the proper equipment so that they can reach their individual needs and the teachers can reach them at their level and measure and find their weaknesses as students.

Some people say education is too expensive. Mr. Chairman, I say it is a whole lot cheaper than the price of ignorance. In the 21st century, America cannot afford to turn a blind eye of indifference to the troubles of local schools. Whether we like it or not, the global marketplace is a reality. And our national competitiveness depends on effective federal/local partnerships to make every school a worldclass learning institution.

That effort begins with school construction. I commend this committee for holding this hearing. And I hope the Congress will pass meaningful school construction legislation in 2008 that the president of the United States will sign into law.

Mr. Chairman, I brought with me a single red brick to symbolize that our communities need help from this Congress. Bricks symbolize schools, the building block of our future. Thank you, Mr. Chairman.

[The statement of Mr. Etheridge follows:]

Prepared Statement of Hon. Bob Etheridge, a Representative in Congress From the State of North Carolina

Good morning, Chairman Miller and Ranking Member McKeon, and members of this committee. Thank you for inviting me to testify at this hearing. I appreciate the opportunity to present my unique perspective on this vitally important issue.

Prior to my service in the U.S. House, I served eight years as the elected Superintendent of North Carolina's public schools. In fact, I have the distinction of being the only former state schools' chief serving in Congress, so I have rare firsthand knowledge of the importance of quality school buildings to the educational goals we

hold for our schools, and the challenges those schools face in inadequate facilities. There really is no substitute for bricks and mortar when it comes to quality schools.

But across my District, school officials are striving to provide first class educational opportunities with infrastructure that has not kept up with the times. Simply put, our schools are busting at the seams. Principals and teachers wage a daily struggle to educate our children in overcrowded classrooms, converted restrooms and broom closets and "temporary" trailers.

For example, Harnett Central High School, up the road from my home in Lillington, deals with these problems every day. Harnett Central has earned a record of high standards and outstanding academics despite severe overcrowding problems. Principal Ken Jernigan and his staff work miracles with these young people with a main building originally designed for 960 people now enrolling 1,395 students and 275 faculty and staff. They have been forced to deploy 22 trailers which create serious safety, security and supervision issues. Approximately 33 buses unload between 7:15 and 7:45 each morning. That leaves less than one minute on the average to unload.

These overcrowding problems are not unique to Harnett Central. According to the 2005-06 Public Schools Facility Needs Assessment by the North Carolina Department of Public Instruction, Harnett County needs $222 million over the next five years for school construction, renovation and modernization. Nearby Johnston County, where I grew up, needs another $221 million. And Wake County needs $1.4+ Billion to provide quality facilities for our children. And those are just three of the counties in my district.

Across North Carolina, local communities are crying out for help with school construction. During my final year as Superintendent, we passed a $1.8 billion state bond issue that was at the time the largest bond referendum in state history. But even after that historic investment, the most recent Assessment documented that we have $9.8 billion in unmet school construction needs in my state. It is plain as day that the states lack the capacity to deal with this issue. We need national leadership.

My state is not alone. The National Clearinghouse for Educational Facilities estimated in 1998 that the average public school building in the United States was 42 years old. The National Education Association's 2000 Report: Modernizing Our Schools estimated total school facility need nationwide to be $300 billion. Part of the problem we have had grappling with this problem from the federal level is a lack of reliable numbers in real time. I recommend the Education and Labor Committee request an updated report from the Government Accounting Office to provide a comprehensive assessment of this problem.

I have been working for nearly ten years to pass school construction legislation. It was one of the first bills I introduced in my freshman term. This Congress, I have teamed up with Democratic Chairman Charles Rangel and Republican Congressman Jim Ramstad of the Ways and Means Committee to introduce H.R. 2470, the America's Better Classrooms Act. This creative bill enjoys the support of 217 cosponsors in the U.S. House from both parties, including many members of this committee.

H.R. 2470 will provide a federal tax credit to the holders of local school construction bonds to leverage school construction funding of some $25 billion across the country. Local communities are ready to take action to get these projects rolling as soon as they get the word. In North Carolina, officials estimate, they can begin funding projects within 30-60 days. Other legislative proposals under the jurisdiction of this committee could authorize appropriations through the Department of Education for school construction and modernization. Whatever legislative vehicle is most possible, the need for action by this Congress could not be more clear.

Some people say the quality of the facilities doesn't matter. Tell that to the chamber of commerce when they're trying to recruit new business. Some people say that schools can make do with what they've got. Tell that to the student whose God-given abilities are never realized because his or her schools are so overcrowded he or she never got the individual attention she needed to identify her strengths and weaknesses and nurture her development. Some people say education is too expensive. I say it's a whole lot cheaper than the price of ignorance. In the 21st century, America cannot afford to turn the blind eye of indifference to the struggles of local schools. Whether we like it or not, the global marketplace is reality. Our national competitiveness depends on effective federal/local/partnerships to make every school a world class learning institution.

That effort begins with school construction. I commend this committee for holding this hearing, and I hope the Congress will pass meaningful school construction legislation in 2008 that the President will sign into law.

I have with me a single red brick that I brought with me to symbolize what our communities need from this Congress. Our communities need as many school bricks

as we can get to them. I stand ready to help this committee and this Congress achieve that task.

Chairman MILLER. Thank you very much. Thank you again for the legislation you introduced.

I am going to run through here. I will stay as long as you all are prepared to stay.

So, Dave, we are going to begin with you. To the extent you can compress your testimony that would be appreciated by the people at the end of the table. Welcome. Thank you.

STATEMENT OF HON. DAVE LOEBSACK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IOWA

Mr. LOEBSACK. All right. Good morning, Mr. Chairman, Ranking Member McKeon, who, as Mr. Etheridge said, was here earlier, and my fellow education and labor colleagues. It is truly an honor to sit on the other side of the dais today to testify on an issue of great importance to our nation's children, families, and communities. I am pleased to share this panel with so many of my colleagues today, especially given that I have only been in the Congress a little over a year.

And Mr. Etheridge, of course, is the only former state superintendent serving in Congress, so I know he understands these issues quite well, as his testimony just demonstrated. I know that our country's students deserve better. They deserve to learn in safe environments where they can grow and thrive. Unfortunately, our public school facilities are not always safe. And more often than not, they are in disrepair.

Problems vary region by region, state by state, and even district by district. In the 2nd District of Iowa, which I represent, 41 out of 65 school districts are rural. And rural education school facilities are of particular concern to me.

According to a recent report by the Rural School and Community Trust, enrollment in rural schools increased by 15 percent compared to a growth of 1 percent for all public schools nationally. Unfortunately, while enrollment has increased, high need and rural local educational agencies, or LEAs, face significant resource shortages.

The tremendous growth in school construction over the past decade is heartening. However, the per student investments made in affluent districts far surpass those made in the most disadvantaged districts.

That is why I have introduced the Public School Repair and Renovation Act of 2007, the House version of a bill introduced by Senator Harkin of the same title. I want to thank my colleagues on this committee, Congressman Hare and Congressman Sarbanes, for their support and co-sponsorship of this legislation. The legislation would take much needed steps toward ending the inequality of funding for schools.

The bill provides a total of $1.6 billion in funding to all states through a formula based on most recent Title 1 allocations. The grants are then awarded on a competitive basis to districts that are struggling the most.

States also have the discretion to require matching funds, increasing the potential for more than just the federal investment. Finally, the bill requires the GAO to report on school facility spending and provide the first estimate since 1995 for the costs needed to bring all schools up to a good overall condition.

As districts plan for the modernization of school facilities, I am hopeful that they will look closely at the health needs of students, teachers, and administrators. A large and growing body of research demonstrates that green school technology can lead to increased health, learning ability, and productivity. This includes improved test scores, attendance, teacher retention, and satisfaction.

As we begin to connect the dots between the environment, a student's learning ability, and the health of both students and faculty, we must once again direct our attention towards the schools that are least able to afford improvements. Yesterday I introduced the GREEN School Improvement Act to address these issues. I want to thank Congressman Hare, Congresswoman Hooley, and Congressman Payne for co-sponsoring this legislation.

This bill has three objectives. First, it will help leverage local funds to make greatly needed green improvements, renovations, and repairs in high-need and rural schools while ensuring support for local businesses, stimulation of local economies, and creation of local jobs. The bill also provides grants to states that have a significant number of high-need and rural LEAs to develop guidelines, standards, and best practices for future improvements.

Lastly, the bill will charge the GAO to conduct a study to examine the potential to meet school repair and renovation needs with energy efficiency, renewable energy, and environmental health improvements.

Thank you for allowing me to testify today on the importance of federal support for school modernization. I hope the committee will continue to examine this issue very closely. And I look forward to working with all of you on both my legislation and the proposals of my friends and colleagues who share the panel with me today.

The bottom line is that there is a need, and students deserve better. And we can and should do more to leverage local funds to fix America's crumbling school infrastructure.

And, Mr. Chairman, I would also like to submit for the record letters of support from Iowa Governor Chet Culver and the U.S. Green Building Council.

Chairman MILLER. Without objection, so ordered.

[The information follows:]

CHESTER J. CULVER
GOVERNOR

OFFICE OF THE GOVERNOR

PATTY JUDGE
LT. GOVERNOR

February 12, 2008

Congressman David Loebsack
1513 Longworth House Office Bldg
Washington, DC 20515

Dear Congressman Loebsack:

I am writing today in strong support of the Public School Repair and Renovation Act of 2007, which if enacted, would provide much needed school repair and renovation funds to Iowa's public schools.

Since 1998, Iowa has received a total of $116 million through the Harkin Grant program for 305 school districts across Iowa. These grants provide funds to make repairs to remedy fire code violations; they also provide funds to help school districts leverage local resources to construct new schools or modernize existing buildings. Approximately 35% of the available funds have been allocated each year to the Fire and Safety Grants, 65% have been allocated for construction.

The Iowa Department of Education administers this competitive grant process and currently requires a 75% local match for any construction grant dollars awarded. Fire safety grants do not require a local match. The program is a perfect example of how modest federal investments can significantly improve and modernize school facilities. They are also a perfect example of how modest federal investments can leverage significant state resources. Since 1998, these grants have leveraged $635 million in construction and fire safety funding. Construction grants have been used for projects such as new buildings and building additions, and renovations to existing buildings, including geothermal systems, energy-efficient windows and doors, as well as other improvements.

STATE CAPITOL DES MOINES, IOWA 50319 515.281.5211 FAX 515.281.6611 WWW.GOVERNOR.STATE.IA.US

Unfortunately, the need for school modernization in Iowa is great. According to the GAO, 79% of Iowa schools report a need to repair or upgrade their buildings and facilities. An infrastructure study conducted by Iowa State University in the mid-1990s reported $3.4 billion is needed to modernize public schools in the state.

While Iowa stands ready to do its part to repair and renovate schools at a local level, additional federal funds would be instrumental in leveraging local resources. The Public School Repair and Renovation Act provides funds to all states and targets grants specifically to the districts that need funds the most. I hope that this proposal is carefully considered by Congress, and that additional resources will be provided to States for school modernization.

Sincerely,

Chester J. Culver
Governor of Iowa

February 12, 2008.

Hon. DAVE LOEBSACK,
U.S. House of Representatives, Longworth House Office Building, Washington, DC.

DEAR CONGRESSMAN LOEBSACK: I write on behalf of the U.S. Green Building Council, a nonprofit organization composed of leaders from every sector of the building industry. USGBC's core purpose is to transform the way buildings and communities are designed, built and operated, enabling an environmentally and socially responsible, healthy and prosperous environment that improves the quality of life.

We are pleased to express our strong support for your Grants for Renewable and Energy Efficiency Needs (GREEN) for School Improvements Act. Improving our nation's school facilities is a vitally important objective, and your bill takes America one step closer to achieving this goal.

One American in five attends school every day. More than a quarter of these students and teachers attend schools that are considered substandard or dangerous to

occupant health. The funding your bill authorizes will provide critical support to aid in the rehabilitation of our nation's existing school facilities, encouraging improvements that maximize taxpayer dollars, nurture student health and performance, decrease demand on municipal infrastructure, protect our environment and put money back into the classrooms.

By their very nature, schools are an investment in the future, preparing the next generation of leaders and paving the way for tomorrow's innovations. Because schools embody our hopes and aspirations for the future, we make an important statement about our dedication to that future by building, repairing and operating schools in the most responsible and sustainable ways possible.

The U.S. Green Building Council commends your leadership and hard work on this issue and urges all members to vote in favor of the GREEN for School Improvements Act.

Sincerely,

S. RICHARD FEDRIZZI, *President, CEO and Founding Chairman, U.S. Green Building Council.*

Mr. LOEBSACK. Thank you.

[The statement of Mr. Loebsack follows:]

Prepared Statement of Hon. Dave Loebsack, a Representative in Congress From the State of Iowa

Good morning, Mr. Chairman, Ranking Member McKeon, and my fellow Education and Labor colleagues. It's an honor to sit on the other side of the dais today to testify on an issue of great importance to our nation's children, families, and communities. I'm pleased to share this panel with so many of my colleagues today. Mr. Etheridge is the only former state schools chief serving in Congress so I know he understands these issues well. I know that our country's students deserve better. They deserve to learn in safe environments where they can grow and thrive.

Unfortunately, our public school facilities are not always safe and more often than not, they are in disrepair. The US Department of Education documented in 1998 that the average age of public school buildings is 42 years. At 42, it's reasonable to expect that a school facility, subject to daily wear-and-tear, will begin to deteriorate. In older buildings, we've seen problems with lead paint, and asbestos. We've also seen somewhat newer buildings experiencing problems with mold, and poor indoor air quality.[1] These examples are just the tip of the iceberg. Problems vary region by region, state by state, and even district by district.

In Iowa, 46 percent of schools are in rural areas. These schools serve close to 170,000 students. In the 2nd District of Iowa, which I represent, 41 out of 65 school districts are rural, and rural education and school facilities are of particular concern to me. According to a recent report by The Rural School and Community Trust, between the 2002-2003 and the 2004-2005 school year, enrollment in rural schools increased by 15 percent compared to a growth of 1 percent for all public schools nationally. In 2006, there were almost 10 million students attending schools in rural areas.[2] Unfortunately, while enrollment has increased, high need and rural Local Education Agencies face significant resource shortages. These schools can least afford to make the needed repairs and renovations to ensure that students attend have an environment where they are safe, and able to excel in their studies.

Despite growing need, federal funding has been largely unavailable to leverage local spending. In Fiscal Year 2001, Senator Harkin successfully worked to secure $1.2 billion for public school repair and renovation. This funding had a dramatic effect on schools across the country. However, it happened only once, and was not enough to cover the extensive repair and renovation needs across the country.

The tremendous growth in school construction over the past decade is heartening, however not all of the investments have been equal. According to a 2006 report by the BEST coalition, the per-student investment made in the most affluent school districts to repair or construct schools, was nearly double the amount of the per-student investment, made in the most disadvantaged school districts. The BEST report also found that students in school districts with predominantly White enrollment benefitted from about $2,000 more per student, in school repair and construction spending, than their peers living in schools districts with predominantly minority enrollment.[3]

We are lucky in Iowa. Since 1998, Senator Harkin has secured $116 million for the "Harkin Grant" program which has helped over 260 school districts across Iowa. Dr. Paula Vincent, the Superintendent for the Clear Creek Amana School District in Iowa, will elaborate on the benefits of these grants later in the hearing, but I

do want to point out that these grants are a perfect example of how modest federal investments can significantly improve and modernize school facilities. They are also a perfect example of how modest federal investments can leverage significant state resources. Since 1998, these grants have leveraged $900 million in construction funding.

Unfortunately, not all states have these programs, and many schools, especially those in rural and high need areas, will suffer. That is why I have introduced the Public School Repair and Renovation Act of 2007, the House version of a bill by Senator Harkin, of the same title. I want to thank my colleagues on this committee, Congressman Hare and Congressman Sarbanes, for their support and co-sponsorship of this legislation.

This legislation will take much needed steps toward ending the inequality of funding for schools. The bill provides a total of $1.6 billion in funding to all states through a formula, based on their most recent Title I allocations, which means that states receive funds based on the number of poor children they serve. The grants are then awarded on a competitive basis to districts and schools that are struggling the most, those in rural and high need areas. States also have the discretion to require matching funds from the local districts increasing the potential for more than just the federal investment.

Finally, the bill requires GAO to report on school facility spending and provide the first estimate since 1995 for the costs needed to bring all schools to a good overall condition.

As districts plan for the modernization of school facilities, I am hopeful they will look closely at the health needs of students, teachers, and administrators. According to the GAO, almost two-thirds of schools have building features, such as air conditioning, that are in need of extensive repair or replacement leading to air that is unfit to breathe in nearly 15 thousand schools.[4]

Air quality is increasingly important when we consider the growing trend in which students and faculty spend 85 to 90 percent of their time indoors. The concentration of pollutants indoors is typically higher than outdoors, in some cases by as much as 100 times.[5] The significant concentration of pollutants can agitate and increase the likelihood of health problems.

A large and growing body of research demonstrates that green school technology can lead to increased health, learning ability, and productivity. This includes improved test scores, attendance, teacher retention, and satisfaction.

Putting green technology into schools can greatly reduce harmful emissions, lower energy costs, and have an extremely positive impact on our local economies. The average energy savings of a green school over a conventional school is around 33 percent, and the water savings is around 32 percent. In total, the financial savings is estimated at $70 per square foot, with a $12 per square foot savings going directly to schools.[6]

As we begin to connect the dots between the environment, a student's learning ability, and the health and well-being of both students and faculty, we must once again direct our attention towards the schools that are least able to afford improvements to their facilities. Yesterday, I introduced the GREEN Schools Improvement Act to address these issues. Like the Public School Repair and Renovation Act, funds are distributed to all states, and grants are then targeted to high need and rural Local Education Agencies.

This bill has three objectives. It will help leverage local funds to make greatly needed green improvements, renovations, and repairs while ensuring support for local businesses, stimulation of local economies, and creation of local jobs.

The bill also provides grants to States that have a significant number of high need and rural local education agencies to develop guidelines, standards, and best practices for future energy improvements. The guidelines and standards will again, ensure support for local businesses and resources.

Lastly the bill, similar to the Public School Repair and Renovation Act, will charge the Government Accountability Office with performing a study on the current state of public school needs for repair and renovations. It will also examine the potential to meet this need with energy efficiency, renewable energy, and environmental health improvements.

Thank you for allowing me to testify today on the importance of federal support for school modernization. I hope that the Committee will continue to examine this issue very closely, and I look forward to working with you on both my legislation, and on the proposals of my friends and colleagues who share the panel with me today. The bottom line is that there is a need; students deserve better; and we can and should do more to leverage local funds to fix America's crumbling school infrastructure.

ENDNOTES

[1] Building Educational Success Together (BEST). Growth and Disparity: A decade of U.S. Public School Construction. October 2006
[2] Rural School and Community Trust Policy Program. Why Rural Matters 2007: The Realities of Rural Education Growth. October 2007
[3] Building Educational Success Together (BEST). Growth and Disparity: A Decade of U.S. Public School Construction. October 2006
[4] Gregory Kats "Greening America's Schools," October 2006. Government Accountability Office Report # HEHS-95-95.
[5] US Environmental Protection Agency, "Indoor Air Quality," January 6, 2003.
[6] Gregory Kats, "Greening America's Schools," October 2006.

Chairman MILLER. Mr. Etheridge?

Mr. ETHERIDGE. Mr. Chairman, I would like to submit for the record about 25 national associations in support of H.R. 2470.

Chairman MILLER. Without objection.

[The information follows:]

Supporters of America's Better Classroom Act of 2007

American Association of School Administrators
American Federation of Teachers
American Institute of Architects
Association of School Business Officials International
Buildings and Trades Department (BCTD), AFL-CIO
California Department of Education
Californians for School Facilities
Council of the Great City Schools
International Union of Bricklayers
International Union of Operating Engineers
Laborers' International Union
Mason Contractors Association of America
National Alliance of Black School Educators
NAACP
National Association of Elementary School Principals
National Association of Federally Impacted Schools
National Association of Secondary School Principals
National Education Association
National Parent Teacher Association
National Rural Education Association
National School Boards Association
Organizations Concerned About Rural Education
Project GRAD USA
The National Construction Alliance
United Brotherhood of Carpenters

Mr. ETHERIDGE. Thank you.

Chairman MILLER. Dr. Boustany?

Thank you very much for your testimony. I know we have a vote on, so we are racing the clock here.

Yes, Dr. Boustany?

STATEMENT OF HON. CHARLES W. BOUSTANY, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF LOUISIANA

Dr. BOUSTANY. Let me begin by thanking you, Chairman Miller, Ranking Member McKeon, and fellow members of the committee for allowing me to testify on this very important issue. We all agree that modern public school buildings are important. We also know that building a modern classroom is a very expensive endeavor.

In any discussion of school construction costs, I think we need to carefully examine one federal mandate that makes already expen-

sive projects even more expensive for a local community. That is the requirement that construction projects be done using prevailing wages under the Davis-Bacon Act. I am hopeful that the committee will focus on the critical shortcomings in the way those Davis-Bacon wages are calculated before forcing local school districts to divert scarce funds away from teachers and students.

Research makes it hard to doubt that the Davis-Bacon Act prevailing wages would inflate the cost of building our children's schools and threaten salaries for teachers, end class dollars for technology, textbooks, and supplies. For example, a number of studies have found that projects completed under Davis-Bacon are 20 percent more expensive than similar projects completed under market conditions.

The Congressional Budget Office also estimates that the Davis-Bacon Act would cost taxpayers approximately an additional $10 billion over the 2002 through 2011 period if it were applied. A 2007 study from Michigan's nonprofit Mackinac Center found that exempting public school districts from the state's government-set wage scheme would reap an expected annual savings of approximately $125 million. And a 2002 study from researchers working for the Ohio legislature determined that rescinding prevailing wage requirements for school construction saved $487.9 million in aggregate school construction during the post-examination period, an overall savings of 10.7 percent.

These are just a few examples of studies documenting the savings that can be achieved by not requiring this federal mandate. Last year I met with Bob Manuel, a local police juror from Evangeline Parish in Louisiana. And Bob has worked as an electrical contractor for 32 years and served as president of the Louisiana Police Jury Association.

He estimated that Davis-Bacon mandates added a 20 to 25 percent cost increase for sewer treatment facility projects in Evangeline Parish. Costly Washington mandates should not penalize small, disadvantaged communities that have struggled to rebuild after Hurricanes Rita and Katrina.

Finally, our committee will be negligent if we overlook the numerous problems with Davis-Bacon wage calculations in the first place. In 2004, the Department of Labor's Office of Inspector General reported that inaccurate survey data, potential bias, and untimely decisions are continuing concerns. The OIG added that these problems affect the validity and usefulness of Davis-Bacon wage surveys.

I would like to submit a copy of this report for the record I have here. And I challenge anyone on this committee to argue that Davis-Bacon wage surveys are scientific surveys that need no improvement.

[Internet address to Department of Labor report, submitted by Dr. Boustany, follows:]

http://edlabor.house.gov/testimony/2008-02-13-DoL.pdf

Dr. BOUSTANY. The Office of Management and Budget has reported that Davis-Bacon's flawed wage determinations may contravene the intent of the act not to undermine local wage and ben-

efit standards. Some, including Department of Labor's OIG, have suggested there is a better way, the statistically superior wager determination process used by the Department of Labor's Bureau of Labor Statistics.

Researchers at Suffolk University compared the current wage and hour divisions Davis-Bacon prevailing wage determinations and those from BLS and found that the current method inflates wages by 22 percent on average costing taxpayers $8.6 billion each year. But they found something else.

Many construction employees are actually underpaid using the flawed determination method instead of superior BLS figures. Employees in Florida, North Carolina, Michigan, Virginia, and Maine were some of those Americans who got cheated by the current system's shortcomings.

Continuing to use the current Davis-Bacon wage determination method would lead to a troubling situation in which we lose just by playing. Either taxpayers get overcharged by the system, or construction employees are underpaid. We wouldn't teach that kind of fuzzy math in school buildings, and we shouldn't practice it when building schools.

I urge the committee members to fix Davis-Bacon before imposing it on future school construction projects. And I thank the committee and look forward to working with the committee on this issue.

[The statement of Dr. Boustany follows:]

Prepared Statement of Hon. Charles W. Boustany, Jr., M.D., a Representative in Congress From the State of Louisiana

Chairman Miller, Ranking Member McKeon, and Members of the Committee: Thank you for allowing me to speak on this important issue. We all agree that modern public school buildings are important. We also know that building a modern classroom is an expensive endeavor.

In any discussion of school construction costs, I think we need to carefully examine one federal mandate that makes already expensive projects even more expensive for a local community: that is the requirement that construction projects be done using "prevailing wages" under the Davis-Bacon Act.

I'm hopeful that the committee will focus on the critical shortcomings in the way those Davis-Bacon wages are calculated before forcing local school districts to divert scarce funds away from teachers and students.

Research makes it hard to doubt that Davis-Bacon Act "prevailing wages" would inflate the costs of building our children's schools and threaten salaries for teachers and in-class dollars for technology, textbooks, and supplies.

For example, a number of studies have found that projects completed under Davis Bacon are 20 percent more expensive than similar projects completed under market conditions. The Congressional Budget Office (CBO) also estimates that the Davis-Bacon Act would cost taxpayers approximately an additional $10 billion over the 2002 to 2011 period if it were applied.

A 2007 study from Michigan's non-profit Mackinac Center found that exempting public school districts from the state's government-set wage scheme would reap an expected annual savings of approximately $125 million. And a 2002 study from researchers working for the Ohio Legislature determined that rescinding prevailing wage requirements for school construction saved $487.9 million in aggregate school construction during the post-examination period, an overall savings of 10.7 percent.

These are but a few examples of studies documenting the savings that can be achieved by not requiring this federal mandate.

Last year, I met with Bob Manuel, a Police Juror from Evangeline Parish, Louisiana. Bob has worked as an electrical contractor for 32 years and served as President of Louisiana's Police Jury Association. He estimated that Davis-Bacon mandates added 20 to 25 percent to the cost of a sewer treatment facility project in Evangeline Parish. Costly Washington mandates shouldn't penalize small disadvan-

taged communities that have struggled to rebuild after Hurricanes Rita and Katrina.

Finally, our committee will be negligent if we overlook the numerous problems with Davis-Bacon wage calculations in the first place.

In 2004, the Department of Labor's Office of Inspector General reported that "inaccurate survey data, potential bias, and untimely decisions are continuing concerns." The OIG added that these problems "affect the validity and usefulness of Davis-Bacon wage surveys." I'd like to submit a copy of this report for the record. I challenge anyone on this committee to argue that the Davis-Bacon wage surveys are scientific surveys that need no improvements.

The Office of Management and Budget has reported that Davis-Bacon's flawed wage determinations may "[contravene] the intent of the act not to undermine local wage and benefits standards."

Some—including Department of Labor's OIG—have suggested there is a better way: the statistically superior wage determination process used by Department of Labor's Bureau of Labor Statistics.

Researchers at Suffolk University compared the current Wage and Hour Division's Davis-Bacon prevailing wage determinations and those from BLS and found that the current method inflates wages by 22 percent on average, costing taxpayers $8.6 billion each year.

But they found something else. Many construction employees are actually underpaid using the flawed determination method instead of superior BLS figures. Employees in Florida, North Carolina, Michigan, Virginia, and Maine were some of those Americans who got cheated by the current system's shortcomings.

Continuing to use the current Davis-Bacon wage determination method would lead to a troubling situation in which we lose just by playing. Either taxpayers get overcharged by the system, or construction employees are underpaid. We wouldn't teach that kind of fuzzy math in school buildings; we shouldn't practice it when building schools.

I again urge Committee Members to fix Davis-Bacon before imposing it on future school construction projects. I thank the Committee and look forward to any questions you may have.

Chairman MILLER. Charles, thank you very much for your testimony.

Dr. BOUSTANY. Thank you.

Chairman MILLER. Ms. Hooley, Congresswoman Hooley?

Ms. HOOLEY. I will try to go fast.

Chairman MILLER. Welcome to the committee.

STATEMENT OF HON. DARLENE HOOLEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Ms. HOOLEY. Thank you, Mr. Chairman and members of the committee, for allowing me to testify today on the topic of green schools and the recent creation of the congressional green schools caucus. I am here today on behalf of two of my co-chairs, Congressman McCaul of Texas and Matheson of Utah and over 25 members of the caucus.

Our vision is for this caucus to educate its members and Congress at large on the many benefits of green schools and to work to impact the role the federal government has in green school construction and renovation. Across the country, the green schools movement is growing, and our nation's students, parents, and teachers are demanding change.

This is not surprising when one considers that 20 percent of America goes to school every day. That is 55 million students and more than 6 million faculty and staff.

Too many of our nation's schools are falling into disrepair and are potentially dangerous for both students and faculty. I remember visiting a couple schools in my district where there were holes

in the ceiling, water damage on the walls, and mold around the windows. Green schools create a healthy environment that is conducive to learning while saving energy, resources, and money.

Let me repeat this important point. When done correctly, green schools provide a healthy environment and save money.

Green schools have plenty of natural light, high-quality acoustics, and air that is safe to breathe. According to Capital E's Greening American Schools, which I would like to include in the record, green schools save money on average $100,000 a year. In school terms, that is enough to hire two new teachers, buy 200 new computers or purchase 5,000 new textbooks.

Greening all our schools would reduce CO2 emissions by 33.2 million metric tons while saving schools and universities $30 billion in energy costs over 10 years. Greening schools teaches the next generation about sustainability and climate change through their school experience.

An example of this is schools that have installed green roofs that serve as a filter for storm water runoff while providing a natural habitat for birds and butterflies and an interactive learning environment for students. They also dramatically improve the health and productivity of students and teachers by reducing the incidence of asthma, colds, and flu among children while improving students' learning and performance by a documented seven to 18 percent, according to the 1999 Heschong Mahone study.

I recently had a chance to visit Bush Elementary School in Salem, Oregon, which has incorporated many green building design features. The school is designed so its gym, cafeteria, and stage can be closed off from the rest of the school building when the space is being used for community events, conserving both electricity and heat.

The school also uses only no VOC paint and carpet to protect indoor air quality. The green building marketplace is expected to be worth $60 billion by 2010, according to the McGraw-Hill 2007 Green Building Smart Market Report on education, which I would also like to include for the record.

This study predicts that green schools will make up more than 27 percent of the commercial green building market. It is clear to me this issue is so important it deserves a dedicated group in Congress to promote and facilitate the adoption of green schools across this country. One of the challenges to green school growth is bringing other experts from many disciplines together to give us a fuller picture about its overall benefit compared to conventional construction.

With green schools popping up throughout the country we now have the opportunity to quantify the benefits of green schools as it relates to improved test scores, increased teacher retention, decreased student absenteeism, and decreased incidents of environment illness like allergies and asthma. While research has been conducted, there is a gap in federally supported research on the direct benefits for students.

That is why I along with Congressman Matheson and McCaul introduced an amendment to the Energy Independence and Security Act authorizing a study by EPA of how sustainable buildings fea-

tures affect student performance K-12. We established the green schools caucus to continue this vital work.

Through briefings and school tours we can learn firsthand what it means to go green and how these practices improve our students' health and performance while saving money for local government. I invite every member of this panel to join us on this educational venture and to work with us to find appropriate ways for the federal government to support decisions by our local school administrators, parents, teachers, and elected officials to green America's schools.

And thank you very much for allowing me to testify. And I think I have to run to vote. So thank you.

[The statement of Ms. Hooley follows:]

Prepared Statement of Hon. Darlene Hooley, a Representative in Congress From the State of Oregon

Thank you for inviting me here today to testify before the Education and Labor Committee on the topic of green schools and the recent creation of the Congressional Green Schools Caucus.

I am here today on behalf of my two co-chairs, Congressmen McCaul of Texas and Matheson of Utah and the over 20 members of the Caucus, including Congressmen Loebsack, Chandler, and Holt, to discuss several reasons we have joined together to form the Green Schools Caucus.

Our vision is for this Caucus to educate its members and the Congress at large on the many benefits of Green Schools and work to impact the role the Federal government has in green school construction and renovation.

Across the country, the green schools movement is growing and our nation's students, parents, and teachers are demanding change. This is not surprising when one considers that 20% of America goes to school every day. That is 55 million students and more than 6 million faculty and staff.

Too many of our nation's schools are falling into disrepair and are potentially dangerous for both students and faculty. I remember visiting a school in my district a few years ago where there were holes in the ceiling, water damage on the walls, and mold growing in the corners.

Green schools create a healthy environment that is conducive to learning while saving energy, resources, and money. Let me repeat this important point: when done correctly, green schools provide a healthy environment AND save money.

Green Schools have plenty of natural light, high quality acoustics, and air that is safe to breathe. According to Capital E's Greening America's Schools, which I would like to include in the record, green schools save money—on average $100,000/year.

In school terms, that's enough to hire 2 new teachers, buy 200 new computers, or purchase 5,000 new textbooks. Statistics and facts about the benefits of green schools speak for themselves.

Greening our schools will reduce US CO2 emissions by 33.2 million metric tons while saving schools and universities $30 billion in energy costs over 10 years.

Greening schools teaches the next generation about sustainability and climate change through their school experience.

An example of this are schools that have installed green roofs that serve as a filter for storm water run-off while providing a natural habitat for birds and butterflies and an interactive learning environment for students.

They also dramatically improve the health and productivity of students and teachers by reducing the incidence of asthma, colds, and flu among children while improving student learning and performance by a documented 7%—18% according to the 1999 Heschong Mahone study.

The green schools movement is taking off all across the country. LEED for Schools, a market specific Rating System for construction and major renovation of green schools, launched in April 2007. Since its inception, an average of one new school per day has registered for certification under LEED for Schools.

I recently had a chance to visit Bush Elementary School in Salem, Oregon which has incorporated many green building design features. The school was designed so that its gym, cafeteria and stage space can be closed off from the rest of the school building when the space is being used for community events, conserving both elec-

tricity and heat. The school also uses only no-VOC paint and carpet to protect indoor air quality.

The green building marketplace is expected to be worth $60 billion by 2010 according to the McGraw Hill 2007 Green Building Smart Market Report on Education, which I'd like to also include for the record. This Study also predicts that green schools will make up more than 27% of the commercial green building market.

School districts all over the country have made the commitment to green their schools, saving money while promoting student health and performance. The US Green Building Council has certified or registered 629 K-12 schools under the LEED rating system, spanning 47 States, Puerto Rico, and the District of Columbia.

It is clear to me that this issue is so important it deserves a dedicated group in Congress to promote and facilitate the adoption of green schools across the country. One of the challenges to green school growth is bringing together experts from many disciplines to give us a fuller picture about its overall benefit compared to conventional construction.

With green schools popping up throughout the country, we now have the opportunity to quantify the benefits of green schools as it relates to improved test scores, increased teacher retention, decreased absenteeism, and decreased incidence of environmental illnesses like allergies and asthma.

While research has been conducted, there is a gap in federally supported research on the direct benefits to students. That is why I, along with Congressmen Matheson and McCaul, introduced an amendment to the Energy Independence and Security Act authorizing a study by the EPA of how sustainable building features affect student performance in K-12 schools.

We established the Green Schools Caucus to continue this vital work. Through briefings and school tours, we can learn first hand what it means to go green and how these practices improve our students' health and performances while saving money for our local governments.

I invite every member of this panel to join us on this educational venture and to work with us to find appropriate ways for the Federal government to support decisions by our local school administrators, parents, teachers, and elected officials to green America's schools.

Mr. KILDEE. Thank you very much. And thank you for, by the way, your great service to this Congress. I know you are leaving here voluntarily. I hope this could be part of your legacy here, just a great memory.

Ms. HOOLEY. Thanks.

Mr. KILDEE. Thank you.

And I think what we will do until the other members get back we will finish the panel members first. They should be back momentarily. There is kind of a parliamentary struggle going on in the Congress today. We used to do it, too, but now we are in the majority. We don't like it when the minority does it.

[Recess.]

Mr. KILDEE. We will reconvene. And Mr. King from Iowa is our next witness.

And welcome to the committee.

STATEMENT OF HON. STEVE KING, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IOWA

Mr. KING. Thank you, Mr. Chairman. I appreciate the privilege to testify here today regarding the schools and the funding. And I think, as you know, that I hope to focus my testimony on Davis-Bacon wage scales and the effect of that on the overall cost of our schools.

My background is in the construction business. I have been in the industry since the early 1970s. I started a construction business in 1975. We have dealt with Davis-Bacon wage scale. I have

done so as an employee and as an employer. And I have dealt with it in a number of different environments.

So I think as a member of Congress my background on this is as strong as anybody that is here. But the background on Davis-Bacon wage scale—and to refresh the committee, that is a requirement that prevailing wage as determined by the U.S. Department of Labor be paid on any construction project that has federal dollars, $2,000 or more in it. That would include by this language of the bills that are before us any reconstruction or any new construction of schools that have federal bond dollars in them.

The history of Davis-Bacon goes back to 1931, the Depression era, when the trade unions, the labor unions in the Northeast, in particular, New York City, there was a large project that was lost by a local contractor for a bidder out of Alabama whose strategy it was to bring Black Americans from Alabama to New York. And the process was to undercut the wages of the trade unions in New York.

So the Davis-Bacon wage scale is rooted in one of the last vestiges of Jim Crow law. And that seems to get lost in the debate. But it was established to keep southern blacks out of the trade unions in the North and particularly, the Northeast.

And it is defined as prevailing wage. Now, I get those reports on prevailing wage, and I will tell you that union contractors fill out prevailing wage. Nonunion contractors do not fill out the voluntary forms to establish prevailing wage because it is a red flag for the unions to come and organize their company. So bright people that are surviving in that environment are not in the business of putting up red flags to ask the unions to come in and organize their operations.

The prevailing wage then becomes union scale. And the union scale is also when the reports come in, you have federally imposed wages defined as prevailing wage that actually are union scale wages that then are incorporated into the next study. So the study that I am about to ask if it can be introduced into the record, the Beacon Hill study on Davis-Bacon wage scale, this study reflects current situation of wages.

The current situation of wages includes the imposed federal wage scale that has already inflated the cost of labor and still concludes that there is a 9.91 percent inflated value in the cost of these construction projects for federal buildings if you incorporate Davis-Bacon wage scales in it. And my own studies and other studies draw that difference for Davis-Bacon wage scales between a inflation value of 8 percent and 35 percent of the overall cost of the project.

I reduced it down to an average of 20 percent increase. And that just simply says that if you want to impose Davis-Bacon wage scales, ask the question. Do you want to build four schools, or do you want to build five? I would rather build five schools rather than four. And this keeps us from being able to put our dollars in the best place.

The Beacon Hill study also sets labor cost appreciation by Davis-Bacon at 22 percent increase. Well, that ought to tell you it is not prevailing wage or you are not going to see any difference in a fi-

nancial study of whether there are dollars that are appreciated because of the Davis-Bacon wage scale.

It is not prevailing wage, or that number wouldn't be a 22 percent appreciation. It would be zero. It would reflect the prevailing wage. It does not.

I have worked under this for all of those years, for more than three decades. And I have filled out the spreadsheets. I pioneered the reporting of some of that because it takes a lot of tracking of the employees.

The best way I can describe how it pits worker against worker is it defines some of them as being more valuable than others. It takes your laborer who is on the shovel and makes him worth less than your man sitting on a finish machine.

And so, let us just say pick a couple of numbers from older years. Maybe you are paying your laborer $10 an hour and you are paying your equipment operator $25 an hour. Well, all of a sudden everybody is an equipment operator and nobody is a laborer.

Your finished motor grader operator then has an incentive to roll quads rather than get off with the grease gun. It prevents me as an employer from having as many employees as I would have that are on year-round work because I can't afford to pay those kind of wages year-round. I can't guarantee 40 hours a week or more because the wages are too high.

So I have to hire out of the union hall. I have to put an employee on a machine, work him hard and push him hard to get my money's worth out of that high wage I am paying and then take him off that machine, send him home when I am not using him for that specific purpose. I can't put those people on payroll 12 months out of the year and pay them health insurance, retirement benefits, and vacation pay at those kind of wages if I am going to be competitive.

So this interferes and upsets the relationship between employers and employees and it costs us schools, and it costs us efficiency in construction. And it discourages entrepreneurs to come into the construction business.

It is in every way an interference with the free market system. Labor is a commodity like corn, beans or gold or oil, and it should be established by the competition in the workplace rather than by the federal government that has almost universally gotten it wrong.

I thank you, Mr. Chairman. And I yield back.

[The statement of Mr. King follows:]

Prepared Statement of Hon. Steve King, a Representative in Congress From the State of Iowa

Mr Chairman, I come today to discuss the ramifications of being forced to pay Davis-Bacon mandated wages for construction or remodeling of publicly funded schools. Davis-Bacon is the last Jim Crow law. It was enacted in 1931 to protect the white northern workers from the lower paid carpet-bagger workers that had come up from the Southern states to look for work. Union workers were threatened by the sudden influx of cheap labor. The Davis-Bacon Act of 1931 was passed to prevent them from working.

This Act has a checkered past. Davis-Bacon was a Depression-era wage subsidy law, requiring that each public works contract over $2,000 contain a clause that established certain wages to be paid. This limit has never been adjusted, not even for inflation. Contractors and subcontractors must pay workers a wage based on the so-called "prevailing wage." But that wage is not the market wage and it artificially

inflates wages and raises the cost of public construction projects for taxpayers. Davis Bacon also takes work away from competitive workers. And, having owned and operated a small construction company for over 20 years, I have personal experience being slighted in such a way.

A study was recently done by the Beacon Hill Institute on the effects of paying Davis-Bacon inflated wages in public construction projects. It found that when the Davis-Bacon mandated wages were followed, labor costs rose by 22% above the reported median wage. I would like to enter a copy of this fantastic study into the record.

In total, this study reports that Davis-Bacon costs taxpayers over $8.6 billion annually. That is enough money to hire over 18,000 teachers.

I've used this education related example to illustrate the cost of complying with Davis-Bacon because its mandated wages would apply to some of the bills pending before this committee, namely those that deal with school renovation and new construction. In the General Education Provision Act, [20 USC 1232b] the law specifically states:

"All laborers and mechanics employed by contractors or subcontractors on all construction and minor remodeling projects assisted under any applicable program shall be paid wages at rates not less than those prevailing on similar construction and minor remodeling in the locality as determined by the Secretary of Labor."

Thus the Davis-Bacon mandate would apply to any bill that receives federal dollars for construction or renovation—even state projects only partially funded by federal dollars. Therefore Davis-Bacon is the federal government intruding in the affairs of the States as well.

Davis-Bacon provisions artificially inflate construction labor costs. The Beacon-Hill study proves that. It states that by paying Davis-Bacon artificially high wages labor costs go up 22% and overall construction costs go up 9.91%. That is why I am here today, to urge this committee to reject legislation that would force the Davis-Bacon mandate on school construction and re-modeling.

The GAO is also on record stating that economic conditions and labor provisions have changed significantly since the 1930's. It reported that the Davis-Bacon Act is, "not susceptible to practical and effective administration" by the Department of Labor. It further stated that Davis-Bacon has resulted in unnecessary construction and administration costs, inflated prices, and inaccurate wages.

Construction costs are rising, according to a recent study by Reed Business information in October 2007. The 30-city construction cost index showed roofing and siding costs are up 20.5%; pre-cast concrete costs are up 14.4%; and structural and metal framing costs are up 10.5%. Take into account price increases for energy and you can see why now we need to be smarter with our money.

Davis-Bacon is anti-competitive. Non-union construction companies, like the one I started, are seriously hurt by Davis-Bacon provisions. Small businesses simply can't compete because it is TOO INEXPENSIVE to get a government contract. We cannot afford to use 70 year old methodology anymore.

The remedy is simple: take out the provision of these bills that artificially inflates or skews construction labor costs. The money saved on labor can be used to build and remodel more and better schools.

I ask you to reflect upon what this extra funding not spent on Davis Bacon would mean to these kids, small business owners, or to the taxpayers? We should spend money so much more wisely.

The Beacon-Hill Institute study points out that the costs of the unfair Davis-Bacon mandate is almost 10% of the total construction cost of a new school. In other words, we could save a million dollars off the cost of a new ten million dollar school. With that savings we could employ over 20 new teachers to the new school. We need to get our priorities straight. The Beacon-Hill Institute study is a wake-up call for this committee and this Congress. Congress should be working to build as much square footage of good schools.

[Internet address to report, "The Federal Davis-Bacon Act: The Prevailing Mismeasure of Wages," submitted by Mr. King of Iowa, follows:]

http://www.beaconhill.org/BHIStudies/PrevWage08/DavisBaconPrevWage080207Final.pdf

---

Chairman MILLER. Thank you.

Mr. Holt?

STATEMENT OF HON. RUSH HOLT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. HOLT. Thank you, Mr. Chairman and Mr. McKeon. My colleagues, Mr. Loebsack, Ms. Hooley, and others have made, I think, the strong point that environment and green building is something that is good for the students. It really is an educational matter, not just an energy matter.

Several years ago, 26 of us introduced the School Building Enhancement Act after learning that energy costs were the second highest operating expenditure in schools after personnel costs. At the time, schools were paying about $6 billion annually. That has now risen to about $8 billion annually.

And according to the EPA, 30 percent of the energy consumed in school buildings is used unnecessarily or inefficiently. So let us just say you had an extra $2 billion in savings. That could go for teachers, textbooks, any number of educational things.

Our bill would assist schools in making improvements by providing grants to states and school systems for energy efficiency upgrades. These improvements would follow the guidelines of the Energy Smart schools program with the Department of Energy and the Energy Star school districts program of the EPA.

There are plenty of examples where this works. Summerfield Elementary School in my home state of New Jersey saved the typical 30 percent, which means $41,000 annually in their pockets for educational use.

And there are health and other direct educational benefits as well. Daylighting, for example, can dramatically decrease the use of energy in schools. And according to a study of the National Renewable Energy Laboratories, students who learn in daylit classrooms have five to 14 percent better test scores, if you like test scores, than those who learn in non-daylit schools. So there is a direct educational advantage.

So I encourage my colleagues here on the committee to join with Mr. Ehlers, Mr. Davis, Mr. Grijalva, Ms. Clarke, Mr. Hare, Mr. Payne and others in supporting this. Furthermore, having heard my colleagues talk about school construction from the point of view of realistic wages, prevailing wages, I would be remiss if I didn't say a word or two about Davis-Bacon.

And they are very—I must say with respect—their shortsighted way of trying to save money by cutting the wages of school construction workers. Yes, this goes back to the Depression era. And I am proud to say that my father was very much involved in establishing wage standards back then.

Davis-Bacon prevailing wage legislation has not only saved taxpayers money, it has produced better work. And you get more for your dollar.

You know, a dozen states at one time or another have repealed their own prevailing wage laws. And the picture is not pretty. Repeal in those states has resulted in lower wages, a race to the bottom, fewer benefits for workers, reduction or elimination of apprenticeship training.

Now, let me emphasize that. Through Davis-Bacon you get better work. Apprenticeship programs work. You don't have to do the job over again because you have skilled workers.

It declines the quality of the workforce. There were increased injuries on the job and lower productivity. In other words, less for the taxpayer dollar.

So, you know, my colleagues, Dr. Boustany, Mr. King want to save taxpayer money. So do we. And it has been demonstrated. And they will provide studies. I am happy to provide studies, too, of what has happened in states where they have cut prevailing wage. I am happy to provide studies, some of which were done in my own congressional district that show that Davis-Bacon is good.

And it is not about organizing, although, you know, union organizing is not such a bad thing, Mr. King. But that is not what it is about.

In fact, according to the Department of Labor, 72 percent of the wage determinations—in other words, how they calculate prevailing wage in the most recent determination that I could find, which was a half dozen years ago—were based on nonunion scales of labor. So, no, this is not—sure, unions like this. But it is not primarily a union effort.

The union wage prevails only if the Department of Labor determines that that is the prevailing wage in the region. Again, I will emphasize productivity is improved when Davis-Bacon is applied. And with that, I yield back my time. Thank you.

[The statement of Mr. Holt follows:]

Prepared Statement of Hon. Rush D. Holt, a Representative in Congress From the State of New Jersey

Thank you Mr. Chairman and Ranking Member McKeon, and members of the Committee, for inviting me to speak today on The School Building Enhancement Act (H.R. 3197). I am pleased that this legislation is being considered as part of our discussion on investing in our public school facilities.

As we on the committee know all too well, our nation's K-12 schools face a number of challenges due to both increasing student populations and increasing community expectations. However, schools are hampered from being able to achieve needed improvements because of constrained operating budgets, aging infrastructure and ever increasing energy bills.

I introduced the School Building Enhancement Act in 2005 after learning that energy bills were the second-highest operating expenditure for schools after personnel costs. At that time schools were paying $6 billion annually on energy, more than the amount spent on textbooks and computers combined. In 2007, due to the skyrocketing costs of energy, the annual spending by schools on energy had increased to $8 billion.

Fortunately, there are ways for schools to offset the soaring price of energy. According to the Environmental Protection Agency, thirty percent of energy consumed in buildings is used unnecessarily or inefficiently. By understanding where energy is used unwisely and implementing simple changes in the operations and maintenance of school buildings, a school's operating costs can be reduced by 5-25 percent. Schools that are seeking even greater long term savings can retrofit their buildings with more efficient systems and replace old appliances. The $2 billion saved could be used for purchases that directly benefit our America's students—such as hiring 30,000 new teachers or purchasing 40 million additional textbooks annually.

However, cash strapped school systems are often unable to find the necessary financial resources to invest in these energy efficient upgrades. My bill would assist schools in making these improvements by providing grants to states and local educational agencies through the Department of Education for energy efficiency upgrades. These improvements would need to follow the guidelines of the EnergySmart Schools Program of the Department of Energy or the Energy Star for K-12 School Districts program at the Environmental Protection Agency.

Schools that have already implemented energy efficiency measures have succeeded in achieving significant savings. For example, the Summerfield Elementary School in my home state of New Jersey has implemented energy efficiency measures which have reduced their consumption by 32 percent, allowing Summerfield to save $41,000 annually on energy costs. Summerfield is just one of many schools that are being built to use energy smarter and more efficiently; according to the Environmental Protection Agency there are over 800 schools that have been Energy Star certified and are saving 40 cents per square foot in operating costs annually.

Energy efficiency upgrades not only save schools money; there are potential health and learning benefits to students and teachers as well. For example, daylighting can dramatically decrease the use of energy in schools. According to a study by the National Renewable Energy Laboratory, students who learn in daylit classrooms have 5%-14% better test scores than those who learn in non-daylit schools. My colleague and friend Darlene Hooley and a cosponsor of H.R. 3197 has already testified about these benefits as the chair of the Green Schools Caucus.

Twenty-six of our colleagues, including six of our fellow committee members,—Mr. Ehlers, Mr. Davis, Mr. Grijalva, Ms. Clarke, Mr. Hare and Mr. Payne—are cosponsors of the School Building Enhancement Act. I would like to invite all the members of the Committee to become a cosponsor of this important bill.

Thank you again for inviting me to testify today and I look forward to answering any questions you might have.

Chairman MILLER. Thank you for your testimony. Thank you to all of the witnesses for their testimony.

Are there any members of the panel that have questions? I am going to ask you to keep them to a minimum because we have a great opportunity to interact with our colleagues all the time, and we have a full panel coming up.

Mr. Hare?

Mr. HARE. Thank you, Mr. Chairman. Just briefly to my friend, Mr. King from Iowa. You raised a point. I just want to disagree with you on a couple of areas. You said it is better to build five schools than four schools. I would rather see this bill build four schools with quality workers that know what they are doing that have been trained to do that type of work. I think that is terribly important, not only schools, but our roads and bridges.

And the other thing you mentioned in your testimony that there has been $8.6 billion in costs to the taxpayers so we could hire 18,000 teachers. And while I like statistics as well as the next person, I would suggest to you, with all due respect, that if we could work together to stop the $160 billion the president is asking for the war, we would have 380,000 teachers.

So I think when you are comparing these numbers, I think we want to be careful. I have found that the construction unions and the people trained in those unions to do that kind of work, go through the apprenticeships, have a very clear idea what they are doing. And if we are going to build schools for our children to be educated in, I want them safe, and I want them built by people that know what they are doing.

So with all due respect, I would just disagree. I would rather err on the side of having skilled craftspeople do what they do best. And I think it is the least we can do for our construction workers.

Mr. KING. And in response, Mr. Hare, I would say that those workers that I have worked with and those whom I have hired and those professional contractors that have belonged to organizations like ABC and some of the AGC contractors—and the list goes on—they set a very high level of professionalism. And they would not take that viewpoint as a compliment.

In fact, when I look at the work that I have been involved in throughout my entire career, I am proud of every single square foot, every cubic yard, whether it is concrete or whether it is dirt, every board, every nail. And we don't have a return on anything we do. And if so, we warranty it.

We have an apprentice program that goes constantly because we can hire someone in as a laborer and they can do a whole variety of things until you find out what their aptitude is. And they can be a year-round worker with wages and benefits and health insurance, retirement, and vacation pay. You can't do that if you have to start people out with Davis-Bacon wage scale.

And I think the point on the hiring more teachers is the weakest point that I made. I think the stronger point is do we want to build more schools and we should use our dollars as effectively as possible. And I think that behind this sets the difference in a legitimate philosophical disagreement in the approach of employers.

Do employers really see their employees as assets to their company to be nurtured and trained and built and improved on their wages and benefits or do they see them as a tool or a machine to be pushed into the work, to be utilized and victimized? And I am of the view that my employees are part of our team, part of our family. And we put on our Christmas tree a little medallion for every employee and their spouse and every child so we get a sense of the full breadth of the dependency of all the people that work for us.

And I am proud of that. There are a lot of companies that are that way. It is legitimate to have a different viewpoint. But I really regret the adversarial relationship that emerges between employers and employees because of the Davis-Bacon wage scale.

Mr. HARE. And I appreciate that. And let me say to my friend from Iowa that we just do have—I think we are going to have to agree to disagree on this. I have yet to see—particularly in my district—but any of the unionized construction trade people, any project that they have worked on, whether they have impact agreements and other things across my district.

These people know what they are doing. They do it well. And I don't think we are pushing anybody in.

As a matter of fact, I think the construction union workers in my district would tell you that they could always use more work. So I think it is important to remember that there is a purpose to all this training.

And they have worked for the business community on these impact agreements and making sure that workers' averages don't get there. We have built community centers, schools, and bridges in my district. And hopefully we can do more.

But I think every project that I have seen has been done where we have paid prevailing. Those are projects that I am very proud of and I think the workers that work on those are proud, too. So I guess we are just going to have to agree to disagree.

I thank you, Mr. Chairman.

Chairman MILLER. Thank you. Again, I am really trying to diminish our questions. Obviously, the discussion between Mr. King and Mr. Hare can go on on the floor in committee and elsewhere. But we have a time problem with some of the members of the next

panel is what my concern is. If it is urgent, dire, you want to put it on the record, put it on the record. But I am going to ask you not to take more than 1 minute.

Anyone? All right. Thank you. Thank you very much for your testimony and again, for the legislation that many of you have introduced and for your comments and suggestions on this subject.

I would like to now recognize our second panel. We will hear from Kathleen J. Moore, who is the director of the school facilities planning division for the California Department of Education; Judi Caddick, teacher, Illinois Education Association, Memorial Junior High School in Lansing, Illinois; and Mary Cullinane, who is the director of innovation and business development team for the Microsoft Corporation.

And I think, Mr. Loebsack, you wanted to introduce our witness from Iowa.

Then we will hear from Paul Vallas, who is the superintendent at the Recovery School District in New Orleans, Louisiana; Jim Waters, who is the director of policy and communications, Bluegrass Institute for Public Policy Solutions from Bowling Green, Kentucky; and Neil McCluskey, who is the associate director, Center for Educational Freedom from the CATO Institute in Washington, D.C.

Mr. Loebsack?

Mr. LOEBSACK. Thank you, Mr. Chair. It is my pleasure to introduce Dr. Paula Vincent today. Dr. Vincent is the superintendent of the Clear Creek Amana School District in Iowa. Two of the schools under her excellent guidance are in the 2nd District, which I represent. They are Clear Creek Elementary School and Clear Creek Amana High School.

Dr. Vincent is also an alumna of a very distinguished university in the 2nd District, the University of Iowa. She received her bachelors degree, bachelor of arts degree in elementary education and special education with a science concentration summa cum laude, her master of arts in secondary education with a concentration in special education with distinction and her doctorate in educational leadership with a concentration in school finance with distinction.

Dr. Vincent's academic successes are matched only by her distinguished career. In addition to serving as superintendent, she has taught in suburban Kansas City and rural Iowa. Dr. Vincent has also served as the director of special education in an Iowa area education agency and a central office administrator.

I think it is safe to say that we are very lucky to have Dr. Vincent in Iowa and in particular, in the 2nd District. I think we are extremely lucky to have her and her as a strong advocate for education in our schools.

And thank you for all you have done, Dr. Vincent, done so well. And I look forward to hearing your testimony. Thank you.

Chairman MILLER. Welcome to our entire panel.

Dr. Vincent, that will not come out of your time.

And let me explain the lighting system, as you may have observed. When you begin to testify, there will be a green light. That will be for 4 minutes. There will be an amber light telling you you have a minute to try to wrap up.

We obviously want you to complete your thoughts in coherent sentences and all the rest of that. But we do, as you can see, want to have time for questions from the panel.

I know that a couple of you have a time problem at the backend of this. So we will try to proceed in a most expeditious fashion. But I want you to make your points and get them on the record.

Ms. Moore, we are going to begin with you. Welcome.

STATEMENT OF KATHLEEN MOORE, DIRECTOR OF THE SCHOOL FACILITIES PLANNING DIVISION, CALIFORNIA DEPARTMENT OF EDUCATION

Ms. MOORE. Thank you, Chairman Miller, Congressman McKeon, and all members of the Education and Labor Committee for the opportunity to offer testimony regarding the federal investment in school facilities and to share the perspectives of one state, California.

I am Kathleen Moore, director of the school facilities planning division of the California Department of Education. And my division is responsible for reviewing and approving school sites and design plans for all California schools, as well as administering the Qualified Zone Academy Bond Program.

Prior to taking my position at the department, I was director of development and planning for the Elk Grove unified school district, one of the fastest growing school districts in the nation, where we built 27 new schools and modernized 22 schools in 15 years.

Chairman Miller and members of the committee, State Superintendent of Public Instruction, Jack O'Connell, fully supports H.R. 3021, 3902, 3197, and 2470, some of which were discussed here today.

California has a staggering $9 billion need for new construction funds as well as $3.4 billion in modernization needs. The demand for new and renovated public school facilities is unprecedented in our nation's history.

With this demand comes an opportunity to create 21st century learning environments that may look and operate very differently than our existing schools designed under the 19th century factory model. There is a growing body of research on the importance of school facilities conditions, design, and maintenance on student performance and teacher workplace satisfaction.

Professor Earthman from UCLA indicates that between—there is a difference of between 5 and 17 percentile points between achievement of students in poor buildings and those students in above-standard buildings. Not surprisingly, building age, quality, and aesthetics make a difference.

Research also indicates that student attitudes and behavior improve when the facility conditions improve. We know that for significant reform to be effective, design flexibility is necessary, particularly at the secondary level to allow for such programs as career technical education and organizational structures such as small learning communities to flourish.

Also of note is the impact of school facilities on community vitality. School quality has a direct and positive impact on residential property values, can help revitalize distressed neighborhoods, can affect the ability of an area to attract business and workers.

California serves a total of 6.3 million K-12 students and has passed some of the largest state bonds in our nation's history. And yet the unmet facility need is estimated at $6.9 billion.

In terms of modernization, assistance is needed to bring our older school facilities up to today's educational and code standards and to allow those facilities to be more energy efficient. At the direction of Governor Schwarzenegger, California is leading by example on energy efficiency and conservation, sustainability, green building and green purchasing practices. Our state is exploring the potential for grid neutrality. The success of this concept will rely on continued federal tax credits and accelerated depreciation of solar and other alternative energy equipment.

In terms of the economic benefits of school construction, we found that the expenditure of funds for school construction will generate economic impact which greatly exceeds the direct construction expenditures. In our last two statewide bond cycles, 175,000 jobs were created, and the direct impact on the economy was approximately $20 billion.

In terms of the federal role for school facilities, we ask for your assistance in ensuring all students, including those with special needs, have access to quality education supported by modern facilities that meet not only access and compliance requirements, the Americans with Disabilities Act, but are designed to support today's standards and curriculum, are constructed with quality and energy efficient materials that will stand the test of time, and are equipped with technology that will support and indeed enhance learning.

The educational landscape is changing. Schools are more and more centers of community and they are expected to be available 24/7.

I would like to highlight two very successful federal programs that have assisted LEAs in meeting their facilities' demands. The first is the Qualified Zone Academy Bond program, and the second is the federal renovation program.

California used nearly $500 million in these allocations. And the programs proved invaluable in providing resources to assist school districts in establishing and tailoring academy programs to improve student and career opportunities statewide.

QZABs require a minimal federal investment while providing large school renovation results. And I provide some examples in the testimony. We encourage Congress to renew the QZAB program.

And in conclusion, California has a $6.9 billion unmet school facilities need. Modernization of our older school facilities for educational and technological advances is particularly needed. The federal government has authorized two excellent facilities programs in the past, and the proposed legislation discussed here today will positively impact the physical and educational conditions of the nation's schools.

We sincerely appreciate the opportunity to testify, and we stand ready to assist in any manner that we may. Thank you.

[The statement of Ms. Moore follows:]

Prepared Statement of Kathleen J. Moore, Director of the School Facilities Planning Division, California Department of Education

Thank you Chairman Miller, Congressman McKeon, Congressman Kildee, Congresswomen Woolsey, Davis, Sanchez and all members of the Education and Labor Committee for the opportunity to offer testimony regarding federal investment in school facilities and to share the perspectives and needs of California. I am Kathleen Moore, Director of the School Facilities Planning Division of the California Department of Education. My division is responsible for reviewing and approving school sites and design plans for all California schools as well as administering the Qualified Zone Academy Bond Program (QZAB) authorized by the Tax Payer Relief Act of 1997, P.L. 105-34. Prior to taking my position with the Department, I was Director of Development and Planning for the Elk Grove Unified School District, one of the fastest growing school districts in the nation at the time, where I had the privilege and responsibility to plan and finance over 27 new and 22 modernized schools in 15 years. I hope to bring a statewide as well as district perspective to the hearing here today.

Chairman Miller and members of the committee, State Superintendent of Public Instruction Jack O'Connell fully supports the H.R. 3021 the 21st Century High-Performing Public School Facilities Act introduced by Representative Chandler, along with yourself, Mr. Chairman, and the subcommittee chairman Kildee, H.R. 3902 Congressman Loebsack's Public School Repair and Renovation Act, H.R. 3197 the School Building Enhancement Act authored by representative Holt, as well as H.R. 2470, the American's Better Classrooms Act (ABC) sponsored by Ways and Means Committee Chair Rangel, Congressmen Ramstad, Etheridge and 216 House colleagues. The ABC bill provides financing though federal tax credits for $25 billion in bonds to build new schools and renovate and repair existing schools. The program provides a tax credit to the purchaser of the bonds saving the local school district the cost of the long interest of the bond.

California has a staggering $9 billion need for new construction funds as well as $3.4 billion in modernization needs. We believe successful federal facilities programs such as the current QZAB program and the 2001 Federal Repair and Renovation Program serve as models for the type and quality of federal investment that is necessary to ensure that all students have safe and modern facilities that not only support but enhance student learning and achievement.

The demand for new and renovated public school facilities is unprecedented in our nation's history. Los Angeles Unified School District, the second largest school district in the nation, is undertaking one of the largest public works programs in the nation to build and modernize schools. With this demand comes an opportunity to create 21st century learning environments that may look and operate very differently than many of our existing schools designed under the 19th century factory model.

My comments focus on four specific areas: (1) the impact of facilities on student achievement and teacher retention, (2) California's school facilities needs, (3) the economic benefits of school construction, and (4) successful federal facility programs and the need for continued and expanded federal assistance.

The Impact of Facilities on Student Achievement and Teacher Retention

There is a growing body of research on the importance of school facility condition, design and maintenance on student performance and teacher workplace satisfaction. The National Clearinghouse for Educational Facilities (NCEF), created by the United States Department of Education in 1997, cites over 40 academic research papers on this subject. Professor Earthman from the University of California at Los Angeles finds that researchers have repeatedly found a difference of between 5-17 percentile points between achievement of students in poor buildings and those students in above-standard buildings, when the socioeconomic status of students is controlled.[1] Similarly, in 2005, the Design Council of London published, in response to a national effort in the UK to create world class 21st century school buildings, a review of 167 sources which showed clear evidence that extremely poor environments have a negative effect on students and teachers and improving these have significant benefits.[2] Poor building conditions greatly increase the likelihood that teachers will leave their school.[3] Numerous studies have confirmed the relationship between a school's physical conditions and improved attendance and test scores, particularly in the areas of indoor air quality, lighting, thermal comfort and acoustics.[4]

Not surprisingly, building age, quality and aesthetics also make a difference. Schneider (2002) found "there is a consensus in the research that newer and better school buildings contribute to higher student scores on standardized tests."[5] Research also indicates that student attitudes and behavior improve when the facility

conditions improve. Teachers report that adequate space and access to technology are important variables to deliver curriculum. Facility directors report that new and renovated schools can provide better opportunities for small schools, joint use and spaces for community, classrooms outfitted for better technology, and "green" design.

We know that for significant reform to be effective, design flexibility is necessary, particularly at the secondary level to allow for such programs as Career Technical Education and organizational structures such as small learning communities to flourish. A 2005 study of a large urban Texas School District concluded building design such as large group instruction areas, color schemes, outside learning areas, instructional neighborhoods, and building on a student scale had a statistically significant impact on performance.[6]

Also of note is the impact of school facilities on community vitality. School quality has a direct and positive impact on residential property values,[7] new or well-maintained school facilities can help revitalize distressed neighborhoods,[8] and school quality helps determine localities' quality of life and can affect the ability of an area to attract businesses and workers.[9]

In summary, the physical condition of school facilities impact student achievement and experience as well as teacher retention and community vitality. A quality school facility is but one component necessary for successful learning, alone it is no silver bullet, but together with rigorous standards, qualified teachers and system accountability, it can positively impact educational outcomes.

California School Facility Needs

California serves a total of 6.3 million K-12 students and has passed some of the largest state bonds in the nation's history and yet the unmet facility need is estimated at $6.9 billion. Under the current School Facility Program, K-12 school districts must demonstrate the need for new or modernized facilities. The districts have identified a need to construct new schools to house over 600,000 pupils and modernize schools for an additional 1 million pupils. The cost to address these needs is estimated to be roughly $9 billion for new construction for which we currently have about $2.7 billion available and $3.4 billion for modernization for which we currently have $2.8 billion available.

In terms of modernization, assistance is needed to bring our older school facilities up to today's educational and code standards and to allow these facilities to be more energy efficient. We do a decent job of building new schools in California; however, modernization for educational program changes and improvements is just not occurring. Our state modernization dollars simply cover access compliance, paths of travel and systems upgrades. Many districts are being asked to choose between making American with Disability Act (ADA) improvements and completing other modernization work on the campus thus resulting in facilities that continue to have aging infrastructure.

At the direction of Governor Schwarzenegger, California is leading by example on energy efficiency and conservation, sustainability, green building and green purchasing practices. Through Executive Order S-20-04, known as the "Green Building Initiative," and the accompanying Green Building Action Plan, the Governor calls for public buildings to be 20 percent more energy efficient by 2015 and encourages the private sector to do the same.

California schools are also following suit. There is currently $100 million available in High Performance Incentive Grants for California schools. The program will fund new construction, modernizations and relocatables that can be deemed environment-friendly if they are based on designs and materials that promote the efficient use of water, natural resources and energy, and also provide superior indoor air quality, acoustics, and lighting. California voters approved the incentive package under Proposition 1D in November 2006.

Our state is exploring the potential for "grid neutrality" (i.e. zero net energy) in all new schools in California, a concept that means schools will not only self-generate all the energy they need, but will also put excess energy back into the grid. The success of this concept will rely on continued federal tax credits and accelerated depreciation of solar and other alternative energy equipment.

The Economic Benefits of School Construction

Prior to the passage of our state's 2004 statewide facilities bond measure, an analysis was conducted to determine the economic benefits of such a bond measure on the California economy. The analysis found that the expenditure of funds for school construction will generate economic impact which greatly exceeds the direct construction expenditures. In the last two statewide bond cycles alone, the approximate $10 billion already expended created over 175,000 jobs and doubled the direct im-

pact on the economy to approximately $20 billion because construction activity generates additional business and employment in sectors which provide the lumber, concrete, and many other goods and services which go into the construction and modernization of schools. These benefits would extend to federal construction funds as proposed in H.R. 3021 and 3902 and serve as an economic stimulus beyond the intrinsic value of new and modernized schools for students and staff.

The Federal Role in Facilities—Past, Present and Future

We have been asked to comment on a federal facility role. I have discussed this with my colleagues and the members of the Californians for School Facilities, an organization made up of school districts, architects and construction professionals who tirelessly advocate on behalf of California's school facilities needs and thought back to my tenure in a fast growing school district. Resoundingly the needs were the same: assistance in ensuring all students, including those with special needs, have access to a quality education supported by modern facilities that meet not only access and compliance requirements (Americans with Disabilities Act) but are designed to support today's standards and curriculum, are constructed with quality and energy efficient materials that will stand the test of time, and are equipped with technology that will support and indeed enhance learning.

The education landscape is changing. Schools are more and more centers of communities that are expected to be available 24/7 for after and before school programs, parent and community education, intervention programs, field areas—all of which place stress on the infrastructure. School leaders grapple with the increasing maintenance and modernization demands and costs.

Further, California is deeply committed to closing the achievement gap and we believe that safe, up-to-date, quality facilities are part of the solution to this complicated problem.

I would like to highlight two very successful federal programs which have assisted Local Educational Agencies (LEAs) meet their facilities demands.

The first is the Qualified Zone Academy Bond (QZAB) program. The Qualified Zone Academy Bond Program has been a very popular program in California since its inception. The program permits LEAs serving large concentrations of low income families to benefit from interest-free financing to pay for building repair and renovation, invest in equipment and technology, develop challenging curricula, and train quality teachers. QZABs are bonds the federal government subsidizes by allowing bondholders to receive tax credits that are approximately equal to the interest that states and communities would pay holders of taxable bonds. As a result, issuers (LEAs) are generally responsible for repayment of just the principal.

Since the first QZABs authorization in calendar year 1998 through calendar 2007 California has utilized nearly $500 million in allocations. This program has proven invaluable in providing resources to assist school districts in establishing and tailoring academy programs to improve student career opportunities statewide. The program leverages local business involvement by requiring a local business to make a contribution worth the equivalent of 10 percent of an actual bond sale. The financial investment provided by QZABs for school facilities also supports economic growth within California by assisting with the enhancement of school construction projects and increased job development.

QZABs require a minimal federal investment while providing large school renovation results. Following are two examples of successful career academies that have benefited from the use of QZABs:

Clovis Unified School District/Fresno Unified School District

The Clovis and Fresno Unified School Districts are located in urban areas of Fresno County. In the two districts together, there are approximately 115,000 students in 146 schools. Approximately 60 percent of the students qualify for free or reduced-price lunch. The districts jointly applied for QZAB authorization in the amount of $12 million. Funds were used to rehabilitate an existing warehouse/manufacturing plant to establish eleven technological academies of the Center for Advanced Research and Technology (CART). The technological laboratory suites are available to more than 1,600 students from the two school districts and provide relevant, specialized experiences in agriculture, biomedicine, chemistry, design/engineering, environment, financing, information, logistics/spatial, manufacturing, and telecommunications.

The school's partners were Microsoft, Grundfos Pump Corporation, Johanson Transportation, and Richard Lake, CPA. These contributions from the business community, totaling $2 million, were well above the required 10 percent match.

Baldwin Park Unified School District

The Baldwin Park Unified School District is located in Los Angeles County, 20 miles from the city of Los Angeles. The region is very urban, and 80 percent of its 19,000 students qualify for free or reduced-price lunch.

The district requested $12 million under the QZAB program to establish two Computer Technology Academies at Sierra Vista and Baldwin Park High Schools. The academies focus on vocational technology, specifically through a service technician and the network technician certification programs. These two programs provide students with skills necessary to become certified as service and network technicians based on a worldwide standard of competency. Students have the opportunity to obtain industry-recognized certifications upon graduation that prepare them for ongoing technology education and careers. Teachers receive ongoing professional technology training with the most up-to-date equipment available. All high school students within the district are able to enroll in academy classes.

The bond issued by Baldwin Park Unified was used to modernize the structure and technology of the two sites in order to support the programs. The schools' primary partner was Intel. JES & Co., a non-profit education organization, also provided the academies with curriculum, materials, and teacher training.

We encourage Congress to renew the QZAB program and to expand its support for the construction of new schools to support 21st century learning through Congressman Rangel's American's Better Classroom Act.

The second successful federal program is the Federal Renovation Program. The U.S Department of Education Consolidated Appropriations Act of 2001 set aside $103.6 million for the urgent renovation and repair of existing school facilities in California. The uniqueness of this program allowed charter and non-profit private schools, in addition to public school districts and county superintendents of schools, to participate by applying for funds. The qualifying criteria were broken down into three funding categories as follows: high poverty, high poverty and rural, rural only and non-high poverty or rural.

The number of LEAs that applied for the Federal Renovation Program funding in California was 783. A total of 410 LEA's applications received funding, which represented 52 percent of the total applications received. The funds accomplished some of the following: emergency repairs and renovations, modifications to comply with ADA, asbestos abatement and system upgrades. More importantly, California was able to distribute the funding expeditiously to schools for projects that had immediate impact on the economy. LEAs complemented the flexibility of the program to meet locally determined facility needs with minimal audit and record keeping—a model we strongly suggest. Congressman Loebsack's bill H.R. 3021 reestablishes this very successful program.

Conclusion

California has a $6.9 billion unmet school facilities need. Modernization of our older schools for educational and technological advances is particularly needed. The federal government has authorized two excellent facilities programs in the past and the proposed legislation discussed here today will positively impact the physical and educational condition of the nation's schools.

I sincerely appreciate this opportunity to testify before the Education and Labor Committee. We stand ready to assist you in crafting legislative language that will provide needed federal funding to support state and local efforts and to build and modernize school facilities. Our objective is to meet 21st century education standards and design so that our students can achieve and ultimately succeed in the global economy.

ENDNOTES

[1] Glen I. Earthman, "School Facilities Conditions and Student Academic Achievement." Report prepared for Williams v. State of California, University of California, Los Angeles, 2002, pp. 8-9.

[2] Steve Higgins and others, "The Impact of School Environments: A Literature Review." Design Council, London, UK, 2005.

[3] Jack Buckley, Mark Schneider, and Yi Shang, "The Effects of School Facility Quality on Teacher Retention in Urban School Districts." National Clearinghouse for Educational Facilities, Washington DC, 2004.

[4] Mark Schneider, "Do School Facilities Affect Academic Outcomes?" National Clearinghouse for Educational Facilities, Washington, D.C., 2002.

[5] Schnieder, 2002, p. 8.

[6] Stephanie Hughes, "The Relationship Between School Design Variables and Student Achievement in a Large Urban Texas School District", Baylor University, Waco, Texas, 2005.

[7] Thomas Kane and others, "School Accountability Ratings and Housing Values", The Brookings Institute, Washington, D.C., 2003

[8] Local Government Commission. "New Schools for Older Neighborhoods: Strategies for Building our Communities' Most Important Assets." Sacramento, California, 2002.
[9] David Salveson and Henry Renski, "The Importance of Quality of Life in the Location Decisions of New Economic Firms." Reviews of Economic Development Literature and Practice, No.15. Economic Development Administration, U.S. Department of Commerce, 2002.

Chairman MILLER. Ms. Caddick?

STATEMENT OF JUDI CADDICK, ON BEHALF OF THE NATIONAL EDUCATION ASSOCIATION

Ms. CADDICK. Chairman Miller and members of the committee, thank you for the opportunity to speak with you today about the urgent need to address our nation's public school infrastructure.

I began my teaching career 19 years ago, and I have spent the last 17 years teaching math to sixth, seventh, and eighth graders at Memorial Junior High in Lansing, Illinois. For years, Lansing was a solid blue collar middle class suburb, many of whose residents worked in the area steel mills. With the decline of area manufacturing jobs, we have seen an increase in the number of students from low-income families.

Four years ago, our student enrollment was approximately 700, but rapid and significant increases have resulted in a current enrollment approaching 950. As a result, we have faced problems of overcrowding and outdated school facilities. In my experience, and the experience of my colleagues, school modernization enhances student learning in many ways.

For example, it addresses concerns for overcrowding. It allows educators to plan an environment more conducive to curriculum integration, engaged learning, and technology integration, builds the infrastructure to support and meet the demands of modern technology, addresses safety and environmental concerns brought about from aging structures which used unsafe materials, such as asbestos, improves student and staff morale by establishing learning communities instead of isolated classrooms in a long hallway, adds to property values, thereby improving the community, improves the offering of extra curricular activities for students, giving them a constructive avenue for learning through teaming and physical accomplishments, improves the environment for offering after-school learning activities to meet the needs of the community, such as tutoring services and clubs.

I have seen these principles at work in my school. The original section of our building was built in 1945, and there were three subsequent additions. The age and condition of the building presented our teachers with many challenges.

While the district was able to purchase new technology with grant money, it was difficult to use three computers, a printer, and a television hook-up for demonstration with only two outlets in each classroom. Our school board, anticipating an increase in enrollment and considering the limitations of the building, decided to build a new facility. The building is being constructed in phases with the sixth grade wing being completed in December 2006, and the seventh and eighth grades expected to be completed this year.

Our enrollment increased so rapidly that the district had to hire seven additional teachers before any of the new rooms were ready.

This meant the teachers had to travel from one room to another rather than having their own space.

Our average sixth grade class size in 2006 was 36.3. In 2007 it was 29.7, and this year we are back above 30. Had we not built the new building with the additional classrooms, our average class size would now be 39 students.

We have seen an immediate, positive impact now that our sixth graders have moved to the new building. Hallways in the old building were so narrow and crowded that it was difficult to navigate from one classroom to another, especially if you were a tiny sixth grader trying to get through the eighth graders.

There were frequent fights as students pushed and shoved or accidentally bumped into each other and tempers flared. Teachers often could not see incidents where adult intervention may have prevented bullying or harassment.

In the new building, there is ample room for students to move freely, and teachers can more easily supervise behavior. The new classrooms have great lighting, new furniture, white boards, sufficient outlets spaced so that teachers and staff are not tripping over multiple extension cords.

Our old building had carpeting in the special education classrooms, and the sewers had backed up numerous times flooding those rooms. Many of our students and staff have asthma and allergies that were exacerbated by the conditions in those classrooms. They are all breathing easier in the new building.

As we walk from the old building into the new building it is like walking from a cave into sunlight. Adults and children alike have commented on how stressful it feels in the old building and how calm and safe it feels in the new one. We are fortunate to have these new facilities available to us, but so many schools across the nation are not so lucky.

My written testimony outlines the national problem we are facing in ensuring safe, modern school facilities for every child, which my personal experiences clearly illustrate the necessity for. Simply put, America's schools are in desperate need of repair and renovation. And the research is clear. School conditions impact student learning.

Ensuring all of our nation's students access to safe, modern schools that are not overcrowded requires a significant federal investment. Federal assistance is particularly needed to ensure targeting of resources to communities with the greatest needs.

NEA strongly urges Congress to help meet these needs by creating a federal school renovation grant program targeted to communities that have struggled to fund needed repairs. We support the Public School Repair and Renovation Act introduced by Representative Loebsack and Senator Harkin and the 21st Century High-Performing Public School Facilities Act introduced by Representative Chandler. We also support legislation to provide tax credits for bonds for school modernization and new construction projects nationwide such as the America's Better Classroom Act introduced by House Ways and Means Committee Chairman Rangel, and Representatives Ramstad and Etheridge.

And we support the School Building Enhancement Act introduced by Representative Holt. This bill would authorize grants to help schools become more energy efficient.

Thank you for the opportunity to speak with you today. I would be happy to answer any questions.

[The statement of Ms. Caddick follows:]

Prepared Statement of Judi Caddick, on Behalf of the National Education Association

Chairman Miller and Members of the Committee: Thank you for the opportunity to speak with you today about the urgent need to address our nation's public school infrastructure.

I began my teaching career 19 years ago and I have spent the last 17 years teaching math to sixth, seventh, and eighth graders at Memorial Junior High in Lansing, Illinois. Lansing is located just south of Chicago on the Indiana border. For years, Lansing was a solid blue collar middle class suburb, many of whose residents worked in the area steel mills. With the decline of area manufacturing jobs, we have seen an increase in the number of students from low income families.

Four years ago, our student enrollment was approximately 700, but rapid and significant increases have resulted in a current enrollment approaching 950. As a result, we have faced problems of overcrowding and outdated school facilities.

I would like to focus my testimony today on my first-hand impressions of the impact of school conditions on teaching and learning in my community. In my experience, and the experience of my colleagues, school modernization enhances student learning in many ways. For example, it:

- Addresses concerns for overcrowding—something we have seen in Lansing as our enrollments have grown.
- Allows educators to plan an environment that is more conducive to curriculum integration, engaged learning, and technology integration.
- Builds the infrastructure to support and meet the demands of modern technology.
- Addresses safety and environmental concerns brought about from aging structures which used unsafe materials, such as asbestos.
- Improves student and staff morale by establishing learning communities instead of isolated classrooms in a long hallway.
- Enhances the inclusion of new cutting edge technology.
- Adds to property values, thereby improving the community. However, without federal and state dollars, the tax burden is placed squarely on homeowners, many of whom are senior citizens on fixed incomes.
- Enhances the school as a community center.
- Improves the offering of extra curricular activities for students, giving them a constructive avenue for learning through teaming and physical accomplishments.
- Improves the environment for offering after-school learning activities to meet the needs of the community, such as tutoring services, clubs, etc.

I have seen these principles at work in my school. The original section of our building was built in 1945 and there were three subsequent additions. The age and the condition of the building presented our teachers with many challenges. While the district was able to purchase new technology with grant money, it was difficult to use three computers, a printer, and a television hook-up for demonstration with only two outlets in each classroom.

Our school board, anticipating an increase in enrollment and considering the limitations of the building, decided to build a new facility. The building is being constructed in phases with the sixth grade wing being completed in December 2006, and seventh grade and eighth grades expected to be completed this year. The final phase is to be completed by September 2009 and will include a second gymnasium, new music room, and office space for our administrators.

Our enrollment increased so rapidly that the district had to hire seven additional teachers before any of the new rooms were ready. This meant the teachers had to travel from room to room rather than have their own space. Our average sixth grade class size in 2006 was 36.3, in 2007 it was 29.7 and this year we are back above 30. Had we not built the new building with the additional classrooms, our class size average would now be 39 students.

We have seen an immediate, positive impact now that our sixth graders have moved to the new building. Our students are amazed at their new school building. Hallways in the old building were so narrow and crowded that it was difficult to navigate from one classroom to another, especially if you were a tiny sixth grader

trying to get through the eighth graders. There were frequent fights as students pushed and shoved or accidentally bumped into each other and tempers flared. Teachers often could not see incidents where adult intervention may have prevented bullying or harassment.

In the new building, there is ample room for students to move freely and teachers can more easily supervise behavior. The new classrooms have great lighting, new furniture, white boards, and sufficient outlets placed so that teachers and staff are not tripping over multiple extension cords. It is so nice not to have to unplug the television where the PowerPoint presentation is displayed so that you can plug in a second computer for a student.

Our old building had carpeting in the special education classrooms and the sewers had backed up numerous times, flooding those rooms. Even though our custodians cleaned the carpets as best they could, on hot days in September the odor was unmistakable. Many of our students and staff have asthma and allergies that were exacerbated by the conditions in those classrooms. They are all breathing easier in the new building.

As we walk from the old building into the new building it is like walking from a cave into sunlight. Adults and children alike have commented on how stressful it feels in the old building and how calm and safe it feels in the new one.

We are fortunate to have these new facilities available to us, but so many schools across the nation are not so lucky.

A Nationwide Problem

My personal experiences clearly illustrate the necessity for meaningful federal assistance for school construction and modernization. This need reaches far beyond Illinois. It is a nationwide problem that demands nationwide attention.

America's schools are in desperate need of repair and renovation. Across the country, students learn in overcrowded classrooms with peeling paint, leaking roofs, and faulty wiring. Some schools hold classes in "temporary" trailers, converted closets, and hallways. In fact, the Modular Building Institute estimated in 2003 that more than 220,000 portable classrooms were in use by public school systems in the United States.

Too many students attend schools that lack basic electrical and telecommunications equipment necessary for connection to the Internet or the use of new education technologies. Students attending public schools in less than adequate condition face not only direct impacts on their academic achievement, but also significant dangers to their personal health and safety.

According to the National Clearinghouse for Educational Facilities, in 1998, the average public school building in the United States was 42 years old. The mean age ranged from 46 years in the Northeast and Central states to 37 years in the Southeast. About one-fourth (28 percent) of all public schools were built before 1950, and 45 percent of all public schools were built between 1950 and 1969. Seventeen percent of public schools were built between 1970 and 1984, and 10 percent were built after 1985.

Impact on Student Achievement

My personal experiences regarding the impact of school conditions on student learning are backed up by a growing body of research supporting the relationship between the condition of a school's facilities and student achievement.

- A recent study (The Walls Speak: The Interplay of Quality Facilities, School Climate, and Student Achievement, 2006) found a positive correlation between a school facility's condition, school climate, and student achievement.
- Another study (The Impact of School Environments, 2005) analyzed 25 years of research and found that the majority supported the relationship between school quality and student performance. Conversely, a study of Houston schools (The Wise Man Builds His House Upon the Rock, 2004) demonstrated how poor school conditions related to poor school performance.
- A 1996 study by the Virginia Polytechnic Institute and State University found a significant difference in academic achievement between students in substandard classrooms and demographically similar children in a first-class learning environment.
- Similarly, a 1995 study of North Dakota high schools found a positive correlation between school condition and both student achievement and student behavior. A 1995 study of overcrowded schools in New York City found students in such schools scored significantly lower on both mathematics and reading exams than did similar students in underutilized schools.

Modern Schools for the 21st Century

Educational technology is a crucial element of a quality education. Technology in the classroom both enhances the educational experience and prepares students for employment in an economy growing increasingly dependent on technology. In the classroom, students who have daily access to cutting-edge technology perform better academically. Studies have found students who use technology in the classroom show more enthusiasm, have higher attendance rates, develop better writing skills, and display a greater capacity to communicate effectively about complex problems.

Unfortunately, inadequate infrastructure limits access to classroom technology in many areas. The average school building in America was designed and built for a pre-technology era. Many schools are not ready to accommodate either basic connections to the Internet or the wider range of exciting educational technologies.

School Modernization and "Green Schools"

Modernizing our nation's schools is also critical to ensure students and educators a healthy environment. Twenty percent of the American population spends their days in school buildings, and one quarter of these students and school staff attend schools that are considered substandard or dangerous to occupant health.

Every child and school staff person has the right to a school with healthy air to breath and conditions that foster learning. "Green schools" create a safe and healthy environment that is conducive to teaching and learning while saving energy, resources and money. Specifically, such schools provide an environment that has:

- Superior indoor air quality
- Superior acoustics
- Daylight and views
- Thermal comfort (temperature and humidity)
- Mold prevention

Studies demonstrate that green schools directly benefit student health and performance. These studies show that:

- Daylight improves performance
- Good indoor air quality improves health
- Acoustics increase learning potential
- Mold prevention decreases asthma incidences (asthma is the number one cause of school absenteeism due to a chronic illness)
- Comfortable indoor temperatures increase occupant satisfaction

Green schools serve to engage and inspire students and can be used as interactive teaching tools. For example, alternative energy sources such as solar panel roofs can be studied, organic vegetables can be grown and eaten at lunch, and ecosystems can be studied in constructed wetlands. Green schools also increase staff satisfaction, and they commonly report reductions in teacher absenteeism and turnover.

If all new school construction and renovation used the "green" approach starting today, energy savings alone would total $20 billion over the next 10 years.

The Need for Federal Assistance

Ensuring all of our nation's students access to safe, modern schools that are not overcrowded requires a significant federal investment. Although school construction is, and will remain, primarily a state and local responsibility, states and school districts cannot meet the current urgent needs without federal assistance. In 1995, the General Accounting Office estimated that just repairing existing school facilities would cost $112 billion.

NEA's May 2000 report "Modernizing Our Schools: What Will It Cost?" estimated the nationwide cost of repairing, renovating, or building school facilities and installing modern educational technology at $322 billion—nearly three times previous government estimates, and roughly ten times what states currently spend.

Federal assistance is particularly needed to ensure targeting of resources to communities with the greatest needs. The distribution of recent state and local investments has been overwhelmingly slanted to the most affluent communities, which are better able to fund new investments without outside assistance. A 2006 study released by the Building Educational Success Together (BEST) coalition found that the quality of children's schools is dependent upon their racial or ethnic background and whether they live in a rich or poor neighborhood. Local spending on school facilities in affluent communities is almost twice as high as in our most disadvantaged communities, as measured on a per-pupil basis. The report also found that school districts with predominantly Caucasian enrollment benefited from about $2,000 more per student in school repair and construction spending than predominantly minority districts.

NEA strongly urges Congress to help meet these needs by creating a federal school renovation grant program targeted to communities that have struggled to

fund needed repairs. Specifically, NEA supports the Public School Repair and Renovation Act (H.R. 3902/ S.1492), introduced by Representative Loebsack and Senator Harkin. Under this legislation, states would receive funding based on their Title I allocation for grants to poor and rural school districts. States would have the discretion to require matching funds from the local district, bringing the potential funding to much more than the $1.6 billion federal investment.

The Public School Repair and Renovation Act builds on the highly successful Emergency School Repair program Congress authorized and funded in 2000. This very effective program provided grants to states and local school districts to make emergency school repairs. The program, which funded $1 billion in repairs, was an excellent example of an appropriate federal-state partnership to renovate and repair schools.

NEA also supports the 21st Century High-Performing Public School Facilities Act (H.R. 3021), introduced by Representative Chandler. This bill would require the Secretary of Education to make grants to school districts for the construction, modernization, or repair of kindergarten, elementary, or secondary schools to make them safe, healthy, high-performing, and technologically up-to-date. The bill would give priority to districts serving a high number or percentage of disadvantaged children and those whose public schools are in relatively poor condition.

In addition to grant programs, NEA strongly supports legislation to provide tax credits for bonds for school modernization and new construction projects nationwide. The America's Better Classroom Act (H.R. 2470/ S. 912), introduced by House Ways and Means Committee Chairman Rangel, and Representatives Ramstad, and Etheridge, has received broad bipartisan support in the House over the last three Congresses and currently has 217 House cosponsors. The bill would provide for the issuance of more than $25 billion in such bonds. Under the bill, the federal government would provide tax credits to bond holders in lieu of interest payments, and the state or school district would only be responsible for repaying the principal. This would save millions of dollars in interest payments for states and districts and help communities stretch limited resources to pay for additional school facility projects and essential education programs.

The America's Better Classrooms Act provides support for the building of new schools in America's urban, rural and suburban schools, and the renovation and repair of existing schools through the expansion of the Qualified Zone Academy Bond Program (QZAB). The small but well-utilized QZAB program is another example of an effective federal program providing federal support for local school facility repair and renovation programs. Since the QZAB program was authorized in 1997, school districts across the country have used the bonds to renovate and repair schools to create new and innovative school educational centers at a minimal cost to the U.S. Treasury.

We also support the School Building Enhancement Act (H.R.3197), introduced by Representative Holt. This bill would authorize grants to help schools become more energy efficient.

Finally, NEA would support a proposal to amend the federal rehabilitation tax credit program to create a level playing field for rehabilitation/modernization projects for aging public schools. Under current law, an owner who wants to rehabilitate/modernize an older building can have such projects qualify for federal tax credits equal to 20 percent of the costs. With just a small change to the existing program, this program could apply to public school renovations. Under such a proposal, local governments would then be able to enter into a sale/leaseback arrangement with private developers on public school renovation projects using these federal tax credits.

Thank you for the opportunity to provide this testimony. I urge Congress to act quickly to authorize school modernization programs that will help ensure every student in our nation the safe, modern learning environment so integral to success.

Thank you.

Chairman MILLER. Thank you very much.

I want to note that we have been joined by video conference, Superintendent Paul Vallas from the Recovery School District in New Orleans.

And, Mr. Vallas, if you can hear me, we are going to hear from Ms. Cullinane and Dr. Vincent, and then you will come right after Dr. Vincent. So that should be about 10 minutes from now.

Ms. Cullinane?

STATEMENT OF MARY CULLINANE, DIRECTOR OF THE INNNOVATION AND BUSINESS DEVELOPMENT TEAM, MICROSOFT CORPORATION

Ms. CULLINANE. Chairman Miller, Ranking Member McKeon, members of the committee, my name is Mary Cullinane, and I am the director of education innovation and business development for Microsoft. I also bring the perspective of a former teacher, director of technology, and administrator of a high school in New Jersey.

Thank you for the opportunity to testify today regarding Microsoft's partnership with the school district of Philadelphia on our work to build a school of the future. The School of the Future is a unique public/private partnership initiated in September of 2003 and based on the question"What if?" What if a committed school district and surrounding community, and a leading technology company came together to design a high school, one that was scaleable, could be replicated nationwide, built and operated on a standard budget meeting all state and district requirements?

There exists today in West Philadelphia a 163,000 square foot high school that is gold LEED certified. My written testimony details the significant innovations both in the planning behind the school as well as the structure and environment that resulted from that process.

We know that learning environments matter. Our attendance rate is far superior to the district average, our dropout rates lower and our climate safer.

Yet I should emphasize that from the beginning we never focused solely on the structure or the gadgets. With an investment like this, too often the focus can be on the allure of a new building with shiny windows and the state-of-the-art technology, believing that improved education will immediately follow. At Microsoft we fundamentally disagree with this approach.

Even in a state-of-the-art building, curriculum drives the technology, not the other way around. What we learned from building a school of the future is that there is no silver bullet to education reform. We learned that only rigorous, strategic planning, systematic and sustained community involvement, and committed partner engagement will drive change.

So how did we go about building a school of the future? First, we determined that our goal, our vision was to build a learning environment that was continuous, relevant, and adaptive. While these words may sound simplistic, they are of tremendous consequence.

Bringing together community stakeholders, including the district, higher education community, local community, and civil organizations, students, parents, and representatives from local businesses we developed the 6i process. This process: introspection, investigation, inclusion, innovation, implementation, and then again, introspection guided us through the entire development.

Learning at the School of the Future is continuous. It is independent of time and place. Learning at the School of the Future is relevant to the students through tools used, content provided, and the environment of the school itself. And then finally, the learning environment at the school is adaptive.

The School of the Future is a place that adapts to the individual needs of the learner. It is a place that is flexible and sustainable.

As a result, our schedule is unusual, our building very different, and our pedagogy unique. Equally important is that the school works as an incubator for best practices to make this project scalable.

Allow me to conclude by offering a few of the critical lessons and insights we have garnered from this process which continue today. First, we must encourage deeper, more sustained public/private partnerships. The problems faced by educators and learners alike are too big, and the challenges are too many to expect school districts themselves to build 21st century learning environments on their own.

Second, we must permit learning communities to innovate. True innovators will experience success and failure. We must inspire others to do more than they think we can do. And we must call on a variety of stakeholders to make this happen.

Third, we must ensure efforts are undertaken within a rigorous planning process with clearly identified critical success factors. We must answer essential questions before we start to build, and we must continue to reflect on these questions. Our schools should never be finished products.

Is this hard work? Absolutely. But it shouldn't take a miracle to build a great school in an urban community. Today's children deserve learning communities that are inspirational, not just functional. Both governance structures and public policy should set high standards but then also provide the resources needed to achieve them.

Members of the committee, I believe we need even more inspiration in our schools than already exists. We need to fill district offices, hallways, community centers, neighborhoods with a sense of hope. We need to communicate a message that we understand the challenges, but that we are ready to take them on.

Thank you for the opportunity to testify today. And I look forward to answering your questions.

[The statement of Ms. Cullinane follows:]

Prepared Statement of Mary Cullinane, Director of the Innovation & Business Development Team, Microsoft Corporation

Chairman Miller, Ranking Member McKeon, Members of the Committee, my name is Mary Cullinane and I am the Director of the Innovation & Business Development Team in the Education Solutions Group at Microsoft Corporation. Thank you for providing me this opportunity to testify today. Prior to coming to Microsoft, I worked at Union Catholic High School in New Jersey as a teacher, technology director, and assistant principal. From 2003 to 2006, I served as project manager for the School of the Future (SOF), which is located in the western section of Philadelphia in Fairmount Park and was a joint project of Microsoft Corporation and the School District of Philadelphia.

I. The Current Environment

Before discussing the School of the Future, I believe it would be useful to review the current structure of America's education system which in many ways still reflects the needs of the 19th century, when the vast majority of students left school after eighth grade and the 'three R's' were adequate for workers to provide for their families. As we all know, the knowledge economy has long since supplanted the industrial, and though many institutions in our society have adjusted rapidly to that change, our educational system—in particular our K-12 education system—has in some ways lagged far behind.

A few points for your consideration: today's average U.S. student has as many as four or five email accounts and the fastest growing segment of computer users in the country are children ages five through seven. For these so-called 'digital na-

tives,' knowledge is the key differentiator—the 'three R's' are no longer enough. Though vital, they are vastly insufficient to ensure success in our economy and our society. The knowledge economy requires employees who can solve problems, communicate effectively, and engage in ongoing decision making utilizing critical thinking skills and an understanding of complex systems. Those requirements, taken with an accelerating rate of change, require that we ask, and answer, new and different questions about our education system. What are the education requirements for the 21st century citizen? What has changed? What needs to change? What should stay the same? It was in pursuit of answers to these questions that Microsoft partnered with the School District of Philadelphia to create the School of the Future.

My testimony today will focus primarily on issues surrounding the process by which the school was literally built. A great deal could be said about curriculum and teaching practices, and I am happy to respond to any questions you may have on those issues, but let me summarize that aspect of the school by saying that at the School of the Future, curriculum extends beyond content to everything in the school—organization, schedules, and even the building itself. Most notably, the curriculum utilizes a project-based learning model, where learners are asked to do more than master core skills. They explore their own ideas and are encouraged to raise questions about project topics and the best ways to learn about them. In addition, each project is multi-disciplinary in order to be more relevant to the complex way learning happens in everyday life. In this model, educators play a very different role, using an individual approach with each child while providing support and guidance when it is needed.

A. Microsoft's Commitment: Partners in Learning Program

In 2003, Microsoft established a global initiative known as Partners in Learning. The goal of this $250 million investment was to work with governments and Local Education Authorities (LEA) to identify unique educational challenges that could be addressed through innovative public/private partnerships.

Partners in Learning aims to leverage the transformative power of software to create innovative educational experiences that better connect students and teachers worldwide. Despite real improvements, many students and teachers still lack basic access to technology and training. The result is a widening skills gap that contributes to disparities in quality of life, competitiveness, and economic development—an issue this Committee has worked diligently to address.

Three key programs within Partners in Learning have helped educators use technology throughout the learning process in an effort to enable students to achieve their learning goals. Partners in Learning's Innovative Schools program delivers expert guidance in comprehensive school reform and provides a roadmap for technology integration to help schools meet their education objectives. The Innovative Teachers program is designed to connect a global community of educators focused on 21st century learning and to recognize and reward their exemplary efforts to prepare students for the future. Finally, the Innovative Students program provides affordable, reliable software to qualifying governments purchasing Windows-based PCs for primary and secondary students' personal use at home. As part of the Microsoft Partners in Learning initiative, the School of the Future is an important example of our broader corporate commitment to education today. By providing tools and support we hope to enable educators and schools to deliver on the promise of technology in education.

II. The Evolution of the School of the Future: Planning and Processes

In 2003, Microsoft was approached by the School District of Philadelphia's CEO, Paul Vallas, about the district's desire to build a School of the Future. After discussions with district leaders, both parties concluded that they could each bring significant value to the project, and that the process could yield important outcomes and lessons for the district, the children of Philadelphia, and schools nationwide. As part of the district's new initiative to reform urban high schools, the goal of this project was to build and redefine the 'norm' for 9-12 urban education based on the recognition that the industrial model of education was obsolete. Fundamentally, our hope was to create a sustainable and replicable model that drove innovation and excellence in the multiple functions within a school, from business and administrative processes through the fundamentals of educational practices. We did not, however, seek to create a school that would only highlight the inadequacies of the current system. We sought to create a model process that could be replicated nationwide. With this goal in mind, the school operates and was built on a standard budget, and meets all state, district, and labor requirements.

At the core of this initiative lies the belief that by downsizing high schools to ideally no more than 800 learners, and by upgrading the level of academic support through non-traditional and innovative models, students can make greater gains both academically and socially. Microsoft requested that the school be a reflection of the population served by the School District of Philadelphia. Therefore, all learners are selected via the same lottery used for other neighborhood schools in the system. If a student's name is submitted and selected, that student is able to attend regardless of their academic or disciplinary record. Seventy-five percent of SOF students come from the West Philadelphia neighborhood and 25% from the district as a whole.

In defining the scope of the partnership the question was immediately raised, "how much money will Microsoft donate?" From the outset, the development team understood that the value of this endeavor relied on the ability of others to replicate our model both in process and in outcomes. If Microsoft and our partners simply donated millions of dollars, others around the country might view the School of the Future as something to which they could only aspire but not achieve given resource constraints they might face. We quickly concluded that the school's funding needed to flow from the system as it was in Philadelphia, and that those funds needed to be designated within the district's general school expansion capital plan.

These resource constraints made the planning process, which I will outline shortly, all the more important. They also highlighted for us the vital role programs such as the Enhancing Education through Technology (EETT or "E2T2") play in helping school districts overcome the fiscal challenges that stand in the way of creating 21st century learning environments. This critical source of federal funding for public school technology is one that Microsoft strongly supports.

Microsoft's primary commitment to the SOF was that of human capital. The district had access to Microsoft personnel, as well as research in areas such as data integration and management, collaboration and communication, streaming media, organizational efficiency, and leadership development. By sharing our best practices and providing insight and access to internal Microsoft resources we developed a framework for others to follow.

A. School of the Future Development Team

The first critical step was to identify individuals who would be part of the planning and execution process. This included representatives from the higher education community, the school district, Microsoft staff, local community and business leaders, students and educators. An international advisory board was also established to provide global relevance and input to the project.

B. The "6i" Development Process

Building the School of the Future required a process that would guide the development team and provide a rigorous framework for decision making. From this, the '6i' development process was born.

The '6i' development process is the term used to describe the methodology the SOF development team utilized throughout what were six major stages of the project. In our view, the '6i' development process is a useful organizational tool that policymakers at all levels can utilize as they seek to create learning environments appropriate to their circumstances and those of their students and educators in their constituencies.

1. The first stage of the development process was introspection. At the outset, our development team dealt with issues such as pedagogy, culture, project benchmarks, and overall success metrics. The introspection process demanded rigorous and objective self-analysis and was directed primarily toward identifying existing assets that could be leveraged by the development team as well as future resources and other requirements.

2. Next was investigation. This stage was characterized by wide ranging research and consultation. During this phase of the SOF's development, the development team researched and identified best practices across a range of issues identified during the introspection process in addition to exploring innovations within other educational models. This process was led by an advisory council of education experts—including international thought leaders—who were tasked with reviewing and validating strategies and key decisions.

3. The third stage was inclusion. This critical component of the SOF's creation saw the development team engage community leaders, key stakeholders from business, government, and other partners critical to the success of the School. As part of this stage, we drafted a community inclusion plan spearheaded by five key groups who were tasked with nurturing school development and providing organizational support.

i. School Planning Team: This team, formed as part of a preexisting district practice, served as an advocate for various constituencies within Philadelphia neighborhoods and helped present the vision and approved plans for the school to the community at large.

ii. Community Advisory Board: This board, comprising key community leaders within West Philadelphia, advised the School District of Philadelphia and Microsoft. This group augmented the School Planning Team's citywide viewpoint by offering a unique perspective that is specific to West Philadelphia.

iii. Curriculum Working Committee: Consisting of education experts from the local district and around the world, this committee worked to define and develop the school mission in support of district goals, drove curriculum development, and ensured that all aspects of the school—from professional assets to physical spaces—supported curriculum goals.

iv. District Planning Team: Made up of Cabinet-level district officials, this team set policy and actively governed the implementation of school development—including budget allocations and final design plan recommendations—while also serving as a liaison to the School Reform Commission and Pennsylvania's Department of Education.

v. School of the Future Advisory Board: Led by national education leaders and organizational experts, this board reviewed and offered commentary on strategic plans, provided feedback and insight on design and development activities, and worked with community inclusion teams.

Through ongoing dialogue with these stakeholders, the development team sought to drive awareness and understanding in an effort to build support for the project and to engage the community in a manner designed to ensure sustained involvement in the life of the School.

4. The fourth stage was innovation. By integrating new ideas into every element of the process—from building design and information technology architecture to curriculum development and personnel selection—the SOF team utilized novel approaches and gained insights critical to the fifth stage of the development process, the implementation process. One such innovation was the introduction of a 'competency wheel.' At Microsoft we use a competency wheel to support both self-guided professional development and the hiring process. Seeing a need for a similar tool in education, we facilitated the creation of an education competency wheel.

Another example of our effort to build innovation into the system was in decisions made about the school's Performing Arts Center, or Auditorium. Auditoriums, due to their size, are often the most expensive and least utilized rooms in a school. The development team sought to make the space more conducive to regular use. So, while the total capacity of the SOF Performing Arts Center is 450, there are two round classrooms that rotate on hydraulics and seat approximately 100 individuals each. These provide great flexibility to the space, allowing for multiple settings depending on the desired learning environment.

5. Fifth was implementation: Using the first four stages of the development process, the team oversaw the implementation process including actual construction of the building, the training of selected educators and other personnel, and the build-out of the school's technical architecture. With the addition of a 2nd class in September 2007, another wave of implementation was tackled as new learners and educators joined the community.

6. Last, we return once again to introspection. The development team assessed and reviewed outcomes and formally created a plan to reflect on the execution and ongoing implementation of the overall strategy. A summit was held after the first year of the school's operation to review successes and opportunities. This ongoing process is designed to ensure that the school continues to evolve to meet the changing needs of its population.

C. Critical Success Factors

As a result of the work within the '6i' process the group identified and developed what we termed 'Critical Success Factors.' Critical success factors refer to a short list of clearly defined and agreed upon criteria that would be used to drive resource allocation decisions. Over the course of a two month planning process, the development team sought to create a common language—an agreed upon set of definitions for each critical success factor in order to ensure clarity and so that rigorous and effective SWOT (Strength—Weakness—Opportunity—Threat) analysis could be undertaken during all phases of the process. The SOF development team identified five critical success factors.

1. INVOLVED AND CONNECTED LEARNING COMMUNITY

A learning community that is involved and connected acknowledges that all stakeholders—students, parents, community organizations, higher education, businesses, and others—must participate if we are to succeed. The learning community is a dynamic, vibrant society that incorporates and represents the voices of all constituents. Multiple means for communicating, sharing information, and soliciting input must be established. Digital tools and electronic and print media must support inclusion, eliminating language and socioeconomic barriers. Finally, the learning community must provide opportunities that promote learning as a lifelong process.

2. PROFICIENT AND INVITING CURRICULUM-DRIVEN SETTING

The physical setting must support and be conducive to the continuous and changing needs of the learning community. The technical infrastructure must support current and future wireless and fixed technical equipment, and should enable the sharing of all data types. All learning spaces must provide the necessary elements that allow for instruction and learning at all times, and be mobile and flexible to adapt to changes in teaching and learning activities.

3. FLEXIBLE AND SUSTAINABLE LEARNING ENVIRONMENT

A truly effective learning environment is one that is fluid and responsive to the ever-evolving needs of community members. Such an environment is adaptable, differentiated, and student-centered, allowing all students to realize their full potential. The learning environment must discourage dependency on time and place for instructional opportunities and must demonstrate instructional relevancy for students. Also, the environment created must be able to function independent of changes in faculty and administrative personnel.

4. CROSS-CURRICULUM INTEGRATION OF RESEARCH AND DEVELOPMENT

To ensure a continuously evolving integrated curriculum, the professional staff, led by the director of research and innovation, must actively incorporate the latest findings in research and development from business, technology, and institutions of higher learning. In addition, the school must act as a learning laboratory, where staff and students can design, carry-out, and evaluate appropriate projects to enhance the teaching and learning.

5. PROFESSIONAL LEADERSHIP

Professional leadership for the entire community encompasses the abilities to:
- Positively impact instruction
- Think strategically
- Motivate and engage stakeholders
- Use technology at every appropriate opportunity
- Design professional development to address identified needs
- Interact with the community
- Demonstrate fiscal responsibility
- Continuously evaluate and revise instructional programs in a collaborative manner

E. Establishing the Vision for the Learning Environment

A critical element of the planning process is being able to answer a few key questions, in particular, 'what are you trying to create and who are you creating it for?' By rigorously answering these questions, institutions gain a greater opportunity to build learning environments that truly support the needs of students in the 21st century. After going through our introspection and investigation stages, we were determined to create a learning environment that was:
- Continuous
- Relevant
- Adaptive

These are the core principles, the 'non-negotiables,' established for the project and the principles that drove all resource allocation decisions. Countless hours were dedicated to discussions surrounding this vision and during the three years leading up to the school's opening and since, this concept has proven a powerful tool in responding to suggestions that deviate from the original vision.

1. CONTINUOUS

Teaching should not be limited to the classroom alone. SOF is an environment powered by 1:1 access to the tools of the digital age to nurture anytime, anywhere learning. For example there was significant conversation during the construction process around whether to extend the wireless signal to the outdoor amphitheatre. Many thought the security issues were too great. However the decision was made that in order to maintain the 'continuous' learning environment—learners should be able to walk outside the physical building and continue their work. 2. Relevant Learners are inspired by the connections they make between curriculum and the real world, so the SOF leverages community interaction and the latest instructional tools to increase relevance. One such example occurred in 2007 when a group of learners participated in a project at the Belmont Mansion, a local historical site that was a stop on the Underground Railroad, and created the content for public tours. This experience integrated national and local history, research, writing, presentation, and technology skills. 3. Adaptive Individual students learn in individual ways. The SOF is not a one-size-fits-all offering. Instead, we use technology and adaptive instructional models to effectively meet the needs of every learner. III. Building the Learning Environment: Constructing the School The 160,000 square-foot School of the Future is designated as a 9-12 high school for 800 students. The building includes twenty general classrooms, five science rooms, art and music rooms, a fitness center, two gymnasiums, an Interactive Learning Center (media center), food court, special education spaces, and a Performing Arts Center (auditorium). The building and gathering areas are designed to promote interaction among students in on open, less rigid environment. Site orientation has proven to be a significant factor in the success of the School of the Future. Three major components were considered when deciding on location:

- Relation to urban/community features
- Integration into Fairmount Park/Centennial District Master Plan
- Sustainability

A. Sustainable Architecture

Through energy and day light modeling, the School of the Future is sited to optimize daylight, energy use, mitigate the urban heat-island effect, and to ensure optimization of HVAC systems. These features, along with the thoughtful use of water through the use of Green Roof and a rain water catchment system, help to reduce the building's impact on the environment and infrastructure of Philadelphia, and help to create a learning environment that promotes attendance and enhances student performance.

The school is LEED Gold Certified—Pennsylvania's first such high performing high school. The SOF received Gold LEED certification for the many green components incorporated into its design which over the life of the building are expected to save over $10M.[1] Notable features include:

- Green Roof over the Performing Arts Center which reduces the energy needed to cool the space
- Regulation of specific airflow and natural light in all spaces
- A water system used to gather rain water for use in restroom toilets which in conjunction with high efficiency or no-flush fixtures reduce water use by as much 80%
- Ice-cooling air conditioning system that cools air during non-peak hours and then makes it available during the school day
- Photovoltaic window panels that gather sunlight and convert it into electricity usage for the school
- Constructed wetlands designed to eliminate contaminant run-off from the school grounds

B. Information Technology Architecture

Early on we decided that the School must be focused on teaching and learning, not technology for its own sake. Although technology plays a critical role in the creation of a 21st century learning environment, the development team sought to ensure that technology deployments adhered to the vision of a continuous, relevant, and adaptive learning environment. That belief guided decisions on issues ranging from Internet access to security. The School of the Future was not conceived as a 'Microsoft-centric' institution. Rather, the IT architecture was built to create a system that was as fully integrative as possible with the District's legacy systems so

[1] See Appendix A for photographic examples of the SOF's architectural features.

as to ensure that the core mission—creating a continuous, relevant, and adaptive learning environment—could be achieved.

The School of the Future features a collection of interconnected e-systems and Web-enabled services to facilitate student records, classroom management, electronic curriculum, procurement, environmental management, parental portals, and more. All these new systems required integration with key existing legacy systems that were often archaic. The lack of an effective data warehousing repository, the use of ineffective and 'closed' database platforms, problems with database connectivity and data cleansing, and district-wide difficulties with data entry and ownership made the insertion of new technologies at times very difficult.

When the technology services team at the School District of Philadelphia first set out to imagine, concept, and specify the School of the Future's IT infrastructure, they knew it would need to be 'future-proof.' Imagining new technologies and how those technologies will be used in the future is a challenge shaped more by the unknown, making a focus on flexibility essential. Engineers and educators alike recognized they were designing a school that would open in 2006—but one that would need to be ready for 2016. The team effectively needed to plan 10 years into the future of networking and computing. At the same time, the team also realized that the school could not exist in a vacuum. The technologies at work in the School of the Future would have to align with standards established for all new schools in the district if they were to realize the vision of testing and evaluating new ideas in the new school so that other districts would replicate them. Moreover, the technologies would need to successfully interface with legacy systems at the district level. The team focused on keeping maintenance, support, and daily operational costs in check wherever possible. At the same time, the team carefully inserted 'next-generation' systems and infrastructure into the existing technology environments.

The design and deployment of IT infrastructure needed to occur collaboratively alongside the design and construction of the building itself. To that end, the technology services team worked closely with the architects commissioned to build the School of the Future, exchanging ideas and understanding the implications of each group's design solutions. However, architectural sketches and drawings don't reveal the intricacies of the building until the school is actually constructed. So, although technical infrastructure and building architecture are ideally planned collaboratively and concurrently, the IT team was tasked with the significant challenge of imagining a fully finished building while still in the planning stages.

The first meeting of the technology services team was a two hour brainstorm culminating in a wish list of 100 items for the School of the Future. During the next meeting, the team anticipated cost concerns and set out to trim any nonessential items from the wish list. Over the next few months, as the realities of budget constraints became more clear, the team weighed the complexities of up-front costs and long-term operational costs—an exercise that forced them to focus on elements of the IT infrastructure that were vital to their vision. As with any other school, the technology team found themselves competing with advocates for other interests—from athletic facilities to landscape architecture to kitchen and dining areas. Given the inevitable budget constraints, the central challenge was not protecting their interests as technologists but understanding and communicating how each attribute of their technology plan aligned with the core functionalities of the school (instructional, operational, and environmental). In the beginning, there was a blurry line between what the team wanted and what the team needed. In the end, the budget helped them focus more clearly on the components of the infrastructure that are essential to the mission of the school.

IV. Lessons Learned

Lessons large and small were, and continue to be learned as the School of the Future unfolds. As I mentioned earlier, we are in a near constant process of assessment and evaluation. It is through this process that we hope to engage all stakeholders—in particular parents, educators, and policymakers—in an ongoing but actionable dialogue about how to provide the learning environment most beneficial to students. Each of the many lessons we learned were important and continue to shape the work being done at the school, but I would like to highlight several points that I think can help you as you seek to drive change and innovation in learning environments across our nation.

Our current systems do not support innovation

To create truly innovative learning environments that will support learning in the 21st century, greater support, resources, flexibility, and vision must be provided to districts.

Imagine if, in our schools, innovation was swimming downstream. Imagine how much further we could travel and how much faster we could get there. Unfortunately, in urban education, this is far from the case. In urban education, innovation is swimming upstream, encountering tides of policy and practice that slow its pace and prevent it from moving forward. And for those taking the trip: swimming upstream is tiring. In the past, the Federal Government has provided support for basic infrastructure through, for example, the 'e-rate' and the E2T2 programs and by other means. These programs have proven critical to ensuring our schools are able to at least access the power of technology. But, as I mentioned earlier, technology for its own sake misses the point. The Federal government should now seek to build on the success of basic infrastructure programs to drive support for innovative learning models so that the true power of technology can be leveraged by students and educators. We remain strong supporters of the E2T2 program, but we believe by supporting greater risk taking and innovation in school reform initiatives, the Federal Government can help school districts drive change on every level—from architecture to curriculum.

True reform takes time

Constructing new buildings, providing technology, creating new visions, and sticking to a rigorous process, are activities that alone will never ensure success or provide true transformation. For such an outcome to occur, communities and government organizations must recognize such reform will not happen overnight. The learners attending the School of the Future have had eight previous years of a different learning environment, to expect immediate change after a foundation of challenge is not realistic and we must set expectations and create systems that will support long term outcomes rather than short term gains.

Learning communities must consist of the ENTIRE community in substantive ways.

When building new learning environments we must encourage organizations to reach outside of their immediate systems and include a variety of stakeholders in the design, implementation, and day-to-day activities in order for reform and growth to be significant and sustainable.

We at Microsoft are committed to the school's success. But our hope was to create something that could truly drive change and innovation in the way we educate all of our children, not just the 800 learners fortunate enough to be selected for the School of the Future via lottery. Early on we determined that part of our success measurement would revolve around the extent we were able to ensure that the lessons we learned were available to educators worldwide. Since our goal was to create a new norm for high school education, we have sought to provide tools and resources that schools and school districts nationwide and indeed globally, can utilize so that similar initiatives can be undertaken elsewhere. This effort is well underway and is detailed on our website www.microsoft.com/education/sof, but let me highlight some of the specific resources available to educators across the country and around the globe. They include:

- So-called 'Discovery briefs' that detail the 6i strategic planning process, our approach to building design, and to curriculum formulation
- Training videos on the 6i development process and education competency wheel
- A documentary and resource kit showcasing multiple perspectives on the School of the Future
- Information about quarterly briefings at which educators can participate in interactive workshops regarding the creation of the SOF
- A worldwide initiative, the Innovative Schools Program, which uses the School of the Future approach and aims to create 12 regional examples of the best in schooling

These are but of few of the ways the lessons we continue to learn from the School are being shared and members of the Microsoft team would be pleased to provide additional information.

V. Conclusion

Building the SOF brought many challenges; some more significant than others. At critical points our ability to not only identify the person who could remove the obstacle, but also have a pre-existing relationship with them, was essential. I can't imagine what I would have done without the support and responsiveness of district leaders. It shouldn't take a miracle to build a great school in an urban community. It should not be an exhausting experience, leaving participants tired and frustrated. We need more agile learning organizations. We need to determine the correct balance between control and creativity. We need to create an environment that is inspirational, not just functional. We need governance structures and public policy that

set high standards, but also provides the resources to achieve them. Chairman Miller, Ranking Member McKeon and Members of this Committee, I believe we need even more inspiration in our schools than already exists. We need to fill district offices, hallways, community centers, and neighborhoods with a sense of hope. We need to communicate a message that we not only understand the challenges, but that we are ready to take them on.

Thank you for the opportunity to testify today. I look forward to answering your questions.

Chairman MILLER. Thank you very much.

Dr. Vincent, welcome.

STATEMENT OF PAULA VINCENT, SUPERINTENDENT OF SCHOOLS, CLEAR CREEK AMANA CSD

Ms. VINCENT. Chairman Miller, Ranking Member McKeon, and members of the committee, I am Paula Vincent, superintendent of schools in Clear Creek Amana, Iowa. Thank you for the opportunity to comment today on the experience at our school district and the experiences we have had with a small amount of federal dollars supporting our infrastructure improvements.

We are a school district of just under 1,450 students, although I would say in Iowa we are about the same size or larger than a majority of the districts in our state. Federal support for school infrastructure projects has impacted our communities in several noteworthy ways. I would like to visit with you this morning about three of those that I think are most significant.

These areas are public support for education, student achievement, and energy conservation. I will begin with the impact that federal support has had on the public in our area with regard to support for our public schools.

We were fortunate in 2006 to receive what we fondly refer to as one of the Iowa demonstration construction grants. This grant was for $.5 million. It was a program that was proposed by Senator Tom Harkin of Iowa and began in 1998.

Subsequently Congress authorized allocations annually with the final grant period ending in 2008. The purpose of this grant program was twofold. One was to help school districts with fire safety improvement and the other to help schools leverage local dollars to construct new schools or to modernize existing buildings.

The Iowa Department of Education administered this competitive grant process and required a 75 percent local match. We believe the modest $.5 million from the Harkin grant was extremely helpful to our district in passing a $25.5 million bond issue.

Not only did we pass this issue the first time out, but we had tremendous voter support, breaking our own previous voter record. In Iowa this is not a small feat as we are subject to a super-majority for any bond referendums and require 60 percent approval.

As we visited with our community following that successful bond issue, one of the key factors that came up over and over in our conversations was the impact of the federal dollars. And we believe this was a critical factor in our success.

Not only were we able to secure funds to build two new schools, but the funding has led to increased partnerships in our communities. For example, the city of North Liberty provided the land for our new elementary school, provided the streets to lead to the new

school, and it also brought all of the utilities to our school property. They also asked to partner with us in shared gym space and provided an additional $.5 million for this purpose.

Likewise, the city of Tiffin and the Iowa Department of Transportation are partnering with us to widen the U.S. highway that runs in front of our new high school. Using conservative estimates, this $.5 million from federal support leveraged an additional $28 million in our school district.

And while we know that having new buildings is an exciting thing and these schools are currently under construction in our district, what really matters is student achievement. And that is the point of my second section of comments.

A growing body of research has linked student learning and their behavior as well as staff morale to the physical building. Several studies, which I have included in my written comments, would comment that as much as a 14 percent improvement in student achievement can occur when you have adequate school facilities. I will highlight just a couple of those here today.

A study in the District of Columbia school system found when you control for other student factors such as social and economic status, students' standardized achievement scores were lower in schools with poor building conditions. For example, students that had the poorest conditions achieved 6 percent below those who were in buildings that had fair conditions, and a full 11 percent point difference between poor condition schools and those with excellent conditions.

Another study that I would highlight comes from Georgia, a more recent study. And in this study they attributed the quality of school design to a 14.2 percent percentile difference on the Iowa test of basic skills. These are certainly incredible changes in achievement and worthy of our attention.

Not only do we have studies that support the role of quality facilities on buildings and student achievement, but also on teaching. Many of you would be aware that the teacher is the most significant factor in student achievement outside of home factors.

And, in fact, in one study that I will highlight, researcher Jerry Lowe interviewed state teachers of the year to determine which aspect of the physical environment affected teaching the most. These teachers pointed to the availability and quality of classroom equipment and furnishings as well as ambient features such as climate control, acoustics as the most important environmental factors affecting their teaching.

Chairman MILLER. Dr. Vincent, I am going to ask you if you could wrap up, please.

Ms. VINCENT. Thank you. In summary, I would just like to comment that modest amounts of federal dollars can lead to tremendous impacts and partnerships with communities, can build environments that our students can achieve in, and can bring factors of energy conservation to our schools, which are direly needed.

We have experienced a significant benefit in Iowa, and we have every reason that our nation's schools can receive the same benefit from modest federal investment. Thank you for the opportunity to comment today.

[The statement of Ms. Vincent follows:]

Prepared Statement of Paula J. Vincent, Ph.D., Superintendent of Schools, Clear Creek Amana CSD

A View from a Rural Iowa School District

Honorable Chairman Miller and Committee Representatives, I am Paula Vincent, Superintendent of the Clear Creek Amana Community School District. Thank you for the opportunity to comment on the experience our school district has had as a result of receiving federal funds to support school infrastructure improvements. We are a small, mostly rural, school district of about 1450 students, located in east central Iowa. Federal supports for school infrastructure projects have impacted our communities in several noteworthy ways. Three areas have had a significant effect and are the subject of my remarks today: 1) public support for education, 2) student achievement, and 3) energy conservation.

Public Support

I will begin my comments with the impact federal support for school facilities has had on public support for education in our district. Clear Creek Amana was fortunate to receive one of The Iowa Demonstration Construction Grants for $500,000 in 2006. This grant program was proposed by Senator Tom Harkin of Iowa in 1998.

Subsequently, the grant became known as the Harkin Grants with Congress authorizing annual allocations of $10,000,000, $9,249,813, $9,000,000, $50,000,000, $6,954,499, $6,958,699, and $14,880,000, with grant periods running through September 30, 2008. The purpose of this grant program was to help school districts correct fire safety problems and to help school districts leverage local resources to construct new schools or modernize existing buildings. The Iowa Department of Education administered this competitive grant process, requiring a seventy-five percent local match for any dollars awarded.

We believe the receipt of the half million dollar Harkin grant was helpful to our district in successfully passing a twenty-five and a half million dollar general obligation bond referendum to build two new schools. In Iowa, school districts must receive a super majority (sixty percent approval) to pass any bond issues. Our community did not have a history of passing bond referendums for school improvement prior to this latest attempt and had never passed a bond referendum on the first vote. Not only did the community approve the bond referendum on the first vote, but also broke previous voter turnout records. The federal support was one of the factors members of our community listed as a reason they voted in favor of the proposed bond referendum.

The positive success of the bond referendum led to additional community support from cities within the school district boundaries. For example, the City of North Liberty provided land for the new elementary school, street and utility access to the construction site and an additional half million dollars toward the construction of the new elementary school. Likewise, the City of Tiffin and the Iowa Department of Transportation are partnering with the district to widen the highway leading to the new high school. Using conservative estimates, the half million dollars of federal support leveraged an additional twenty-eight million dollars to improve the school facilities within the Clear Creek Amana District.

Student Achievement

While it is exciting to have new schools under construction in our district, we all know that what really matters is the effect on student achievement. A growing body of research has linked student learning and behavior, as well as staff morale, to physical building conditions. In fact, several studies have attributed as much as a 5 to 14 percentage point difference in achievement on standardized tests between students in facilities with poor conditions and students in facilities with excellent conditions.

What the Research Says about School Facilities

The Iowa Association of School Boards (IASB) compiled a summary of research addressing the impact of school facilities on student learning and concluded that good facilities appear to be important to student learning. A summary of this research is provided below.

Impact on Student Learning

• A study of the District of Columbia school system found, after controlling for other variables such as a student's socioeconomic status, that students' standardized achievement scores were lower in schools with poor building conditions. Students in school buildings in poor condition had achievement that was 6 percent below schools in fair condition and 11 percent below schools in excellent condition. (Building Con-

ditions, Parental Involvement and Student Achievement in the D.C. Public School System, Maureen M. Edwards, Georgetown University, 1992)

• Another study examined the relationship between building condition and student achievement in small, rural Virginia high schools. Student scores on achievement tests, adjusted for socioeconomic status, were found to be as much as 5 percentile points lower in buildings with lower quality ratings. Achievement also appeared to be more directly related to cosmetic factors than to structural ones. Poorer achievement was associated with specific building condition factors such as substandard science facilities, air conditioning, locker conditions, classroom furniture, more graffiti, and noisy external environments. (A Study of the Relationship Between School Building Condition and Student Achievement and Behavior, Carol Cash, Virginia Polytechnic Institute and State University, 1993)

• Similarly, a study of large, urban high schools in Virginia also found a relationship between building condition and student achievement. Indeed, the researcher found that student achievement was as much as 11 percentile points lower in substandard buildings as compared to above-standard buildings. (Building Condition and Student Achievement and Behavior, Eric Hines, Virginia Polytechnic Institute and State University, 1996)

• A study of North Dakota high schools, a state selected in part because of its relatively homogeneous, rural population, also found a positive relationship between school condition (as measured by principals' survey responses) and both student achievement and student behavior. (Review of Research on the Relationship Between School Buildings, Student Achievement and Student Behavior, Glen Earthman, Council of Educational Facility Planners, International, 1995)

• A recent study of 24 elementary schools in Georgia attributed quality of school design to a 14.2 percent difference in third grade achievement scores and a 9.7 percent difference in fifth grade achievement scores on the Iowa Test of Basic Skills. (Relationship of School Design to Academic Achievement of Elementary School Children, University of Georgia, 2000)

• Heating and air conditioning systems appeared to be very important, along with special instructional facilities (such as science laboratories or equipment) and color and interior painting, in contributing to student achievement. Proper building maintenance was also found to be related to better attitudes and fewer disciplinary problems in one cited study. ("Facilities," by Carroll McGuffey, in Improving Educational Standards and Productivity, edited by Herbert Walberg, 1982)

• Research indicates that the quality of air inside public school facilities may significantly affect students' ability to concentrate. The evidence suggests that youth, especially those under age 10, are more vulnerable than adults to the types of contaminants (asbestos, radon, and formaldehyde) found in some school facilities (Environmentally Related Health Hazards in the Schools, James Andrews and Richard Neuroth, paper presented to Association of School Business Officials International, 1988).

• A research summary prepared by the University of Georgia in 1999 indicates several studies that show that adequate lighting and appropriate color choices play a significant role in the achievement of students, affecting their ability to interpret the written word and their attention span. (Summary by Elizabeth Jago and Ken Tanner, University of Georgia, April 1999, www.coe.uga.edu/sdpl/sdpl.html)

Impact on Teaching

• Researcher Jerry Lowe interviewed state teachers of the year to determine which aspects of the physical environment affected their teaching the most. These teachers pointed to the availability and quality of classroom equipment and furnishings, as well as ambient features such as climate control and acoustics as the most important environmental factors. In particular, the teachers emphasized that the ability to control classroom temperature is crucial to the effective performance of both students and teachers. (The Interface between Educational Facilities and Learning Climate, Jerry M. Lowe, Texas A&M University, 1990)

• A study of working conditions in urban schools concluded that "physical conditions have direct positive and negative effects on teacher morale, sense of personal safety, feelings of effectiveness in the classroom, and on the general learning environment." Building renovations in one district led teachers to feel "a renewed sense of hope, of commitment, a belief that the district cared about what went on that building." In dilapidated buildings in another district, the atmosphere was punctuated more by despair and frustration, with teachers reporting that leaking roofs, burned out lights, and broken toilets were the typical backdrop for teaching and learning.

• The study also found that "where the problems with working conditions are serious enough to impinge on the work of teachers, they result in higher absenteeism,

reduced levels of effort, lower effectiveness in the classroom, low morale, and reduced job satisfaction. Where working conditions are good, they result in enthusiasm, high morale, cooperation, and acceptance of responsibility." (Working in Urban Schools, Thomas Corcoran et al., Institute of Educational Leadership, 1988)

Note: Adapted from Impact of Inadequate School Facilities on Student Learning, U.S. Department of Education, 1999. Originally published in the IASB Compass, Volume VII, No. 1, Winter/Spring 2002

New Facility Impact at Clear Creek Amana

Having resources to build new buildings allowed us to take advantage of the latest information regarding excellent school design. With the assistance of our architects and engineers and the cooperation of students, staff and community members we are confident that our new schools will provide improved learning environments for CCA students and staff. A few of our design features include:

- increased student and staff access to technology;
- updated science labs and equipment;
- flexible teaching and learning spaces with planned areas for small and large group instruction;
- common areas for teacher teams to plan, and study together;
- shared school and community spaces such as preschool, library/media center, physical fitness areas, before and after school space and shared gym space;
- and added safety features such as controlled building access with limited exterior door entry points, electronic door controls and sprinkler systems.

Again, federal support through the school construction grants played a key role in making these improvements to the overall safety and quality of the learning environment in our schools possible.

Energy Conservation

Finally, I will provide information regarding the positive results our new school construction projects will have on environmental concerns. We were able to incorporate multiple energy saving features into the design of the new buildings by participating in the Commercial New Construction Program provided by the Weidt Group (Minnetonka, Minnesota) and funded by the local utility companies. As a part of this program, the district was able to consider various energy design strategies while the buildings were being planned. The different energy strategies were bundled together to create virtual buildings. Each virtual building model was run through a computer simulation that estimated the energy use of the building as a whole during a weather-normalized year and the results were compared to the same building as if it were building under the basic code standards. The data provided illustrated which strategies could offer the most savings in dollars, KWh and therms and the payback associated with each strategy.

Using this information, we were able to select energy strategies that balanced energy efficiency with short term and long term costs. Some of the strategies we selected include natural lighting in all classrooms, geo-thermal heating and cooling, motion sensors for room lights, and highly rated insulation materials for the roofs, walls and windows. The selected energy strategies in our new buildings resulted in building performance models with a predicted 65% energy improvement compared with basic code standards

The benefits of building an energy efficient building include a cash rebate from the utility companies of about $250,000 as well as lower operational costs for the lifetime of the new buildings. Many of the selected energy strategies also contribute to the quality of the learning environment (natural lighting, temperature controls in each classroom). We believe these energy-efficient strategies add significant investment value to the buildings and minimize many negative environmental impacts typically caused by new construction.

In summary, we have experienced a significant benefit from a modest federal investment in school infrastructure. We have every reason to believe our students will benefit from the improved learning environment in our new schools and we expect we will see some of this benefit in higher student achievement. Higher achievement by our nation's children ultimately translates to a brighter future for all of us when these children take their place as contributing members of the workforce and of the educated citizenry essential for a democratic society.

Chairman MILLER. Thank you very much.

Now we will hear from Superintendent Paul Vallas of the Recovery School District. Superintendent Vallas, can you hear me?

Mr. VALLAS. Good morning. Yes, I can.

Chairman MILLER. Okay. Proceed as you are most comfortable. And we can see you here.

Mr. VALLAS. Well, thank you. Well, thank you so much. Can you hear me?

Chairman MILLER. Yes, we can. Thank you.

STATEMENT OF PAUL VALLAS, SUPERINTENDENT, NEW ORLEANS RECOVERY SCHOOL DISTRICT

Mr. VALLAS. Okay. Well, first of all, let me start out by thanking Chairman Miller for his leadership on the RENEWAAL appropriation, which has been critically important to us incenting teachers to come here and to locate in New Orleans. We have been able to exceed our demand for teachers and at the same time, reduce class sizes. And again, we want to thank your leadership and the support of Congress.

Let me welcome you all from New Orleans. I am joined by Quincy Jones, a tenth grade student who is going to take up a little bit of my time to make some comments and observations.

Let me start out by saying I am speaking to you from Reed High School, which is one of 59 schools that are part of the Recovery School District of Louisiana, where I have the honor of serving as superintendent. Building schools is not easy. While superintendent in Chicago, we oversaw the building of 76 new schools and the renovations of 350 schools for 6 years.

In Philadelphia, we oversaw a school construction program of $1.7 billion, which included 14 new schools and the renowned Microsoft School of the Future. And it is nice to see Mary Cullinane, as always, in good form.

In both Chicago and Philadelphia we were able to accomplish much with limited resources, well over 80 percent of both constructions were funded locally. The state of Illinois had a growing, state-funded school construction program. The state of Pennsylvania had a much smaller program. But only a fraction of the funding for both programs came in the form of federal support.

When I arrived in New Orleans in July of last year, we had a great challenge before us. We estimated that the cost of Katrina-related damages to the school district's 106 school facilities—let me point out that 90 percent of the buildings could not be occupied or were in need of major renovation. But even with the most optimistic estimates, we felt that the district would run about $500 million short of what would be needed to completely replace the schools, build new schools, renovate existing schools.

Let me point out that while a lot of that was due to Katrina-related damages, there was also well over $1 billion in deferred maintenance costs, which obviously added to the burden of revitalizing the district. And I do want to point out that our relationship with FEMA has been excellent. And FEMA has been extraordinarily cooperative as well as innovative at helping us secure the capital reimbursements in a timely manner so that we could begin to rebuild our buildings. So I certainly want to give that note of support.

We have had to open up 59 traditional public and charter schools since 2005 using large rebuilding fund reimbursements from FEMA as well as federal Community Development Block Grant money. It

is important to note that in the RSD, half of our schools are charters. And we provide school construction support for charters and traditional public schools, irrespective.

It does not matter. We are a system of schools—rather than a school system. And we probably have a higher percentage of children in charter schools and privately managed schools than any other school district in the country. So we do not view charter schools as independent to the school system, but as part of our overall school design.

Now, let me point out that to date we have spent $132 million in FEMA funding on school construction and about $15 million from Community Development Block Grant money, in addition to $54 million in operating funds in order to get our buildings rebuilt and up and running.

Now, there are eight modular facilities fully funded by FEMA that will temporarily serve our students as we rebuild their permanent schools to replace the modular schools. Let me point out that the district has embarked upon the development of a facilities master planning program that will present its results or present its recommendations in May. And that plan is designed to identify needs of the district and to lay out ways that the long-term needs could be addressed through additional measures.

But even that plan itself will probably come about 40 to 50 percent short in terms of generating the necessary funds to replace all obsolete buildings and all damaged buildings and to obviously build schools where schools need to be built. But the plan will be finalized by May.

But in order to get things jumpstarted, we have actually begun our work with FEMA secured instruments—to what we call our quick start program starting construction of five new schools, which we will break ground on or have broken ground on in a couple months. So the master plan is being finalized. But at least a component of that master plan, the quick start plan, is well underway.

Let me point out that despite the limitations in our facilities, the use of modular classrooms, we have made a priority of investing in the individual classrooms as opposed to realizing it is going to take 4 or 5, 6 years to replace and to renovate all the buildings and to secure enough money to do that. Hopefully we will be able to do that. We did make it a priority this year to really concentrate on classroom modernization, on creating a classroom environment that was equal, if not superior, to that of even the more affluent suburbs.

As Mary Cullinane likes to talk about the high school of the future, in our conversations we have often talked about creating the classroom of the future. So I am happy to point out that this year when we opened schools, while the buildings were limited, while the facilities were limited, while we have many, many modular campuses, all of our classrooms are superior learning environments. What do I mean by that?

They were all painted and air conditioned. They all had modern furniture, modern textbooks. They all had standardized curriculum instructional models—every high school had Promethean boards installed and smart boards in every 4th through 12th grade core

classroom. Installing 180 computer labs in the middle grades—4th through 10th grades. And all of our high school students have laptop computers.

So we really worked to integrate technology to modernize our classrooms. So even though we have limited ability, we have limited facilities, when you walked into that classroom environment—we just didn't put technology into the classroom——

Chairman MILLER. Superintendent Vallas, if I could——

Mr. VALLAS [continuing]. Give teachers access to—integrate the technology into the classroom, enhance student learning, and provide students with a way to learn, a way to take in data in more visual and more audio ways. It also expanded school choice because we are dramatically increasing the number of course offerings despite our limitations and despite the small sizes of our high schools by, in effect, using——

Chairman MILLER. Superintendent Vallas, can you hear me?

Mr. VALLAS. And the technology is also helping us connect the family, because an ever-increasing number of our families now have home computers and laptop computers. And, of course, when you give all your high school——

[The statement of Mr. Vallas follows:]

Prepared Statement of Paul Vallas, Superintendent, New Orleans Recovery School District

Thank you for inviting me to speak to the committee today from Reed High School, here in New Orleans East, a neighborhood in New Orleans that received more than 10 feet of floodwaters in the wake of Hurricane Katrina.

Reed is one of the 59 schools of the Recovery School District, where I have the honor of serving as Superintendent. Thank you for meeting today to discuss the important issue of school construction and classroom modernization.

Building schools is not easy. While I was Superintendent in Chicago, we oversaw the building of 76 new school buildings and renovated 350 schools over six years. In Philadelphia, we built eight new schools, including the renowned Microsoft School of the Future.

In both Chicago and Philadelphia, we were able to accomplish much with limited resources, specifically tax and bond revenues used to fund school construction.

When I arrived in New Orleans in the summer of 2007, it became very clear to me early on that building schools here is a tremendous challenge—we have an unheard of amount of work to do and a small amount of money to do it with. And this money does not come from traditional capital fund sources, but primarily from FEMA.

Currently, we estimate the cost of Katrina-related damages to the district's 106 school facilities and their contents will exceed $700 million once FEMA completes its full and updated assessments. On top of the costs of storm damage, prior to Katrina, New Orleans public school facilities already had approximately $1 billion in deferred maintenance.

The RSD rebuilt its 59 traditional public and charter schools beginning in late 2005 using rebuilding funds from FEMA and federal Community Development Block Grant funding. It is important to note that in the RSD, we have the highest percentage of charter schools of any urban school district, and in facilities maintenance and building schools we make no distinction between charter and RSD-operated schools.

The RSD has spent more than $132 million in FEMA funding, more than $15 million in federal Community Development Block Grant (CDBG) funding, and more than $53.5 million in operating funding during this effort to rebuild the district's schools.

Among our schools, there are eight modular facilities fully funded by FEMA that will temporarily serve our students as we rebuild their permanent schools.

As we move forward, we plan to build additional schools in New Orleans. Our "Quickstart" effort is a $140 million initiative, principally funded by FEMA, with construction currently underway to bring online an additional five new schools by fall 2009.

Our facilities master plan, which will guide the rebuilding and renovation of permanent public school facilities in New Orleans, will be released in May 2008.

Our students attend class in improved school facilities, use humane restrooms, enjoy hot food, and use the most modern technology-based instructional tools available.

Despite our past victories and future plans, however, our struggles remain substantial.

While the approximately $90 million in CDBG rebuilding funds allocated by the State of Louisiana are substantial—and our cooperative work with FEMA has yielded significant dividends—we will not bring our school facilities to more superior condition with these funds alone.

In fact, even when combined, our anticipated total obligated FEMA funds and our CDBG funds will still leave our district more than $500 million short of being able to bring our facilities up to superior condition.

Despite our fiscal constraints, we are aggressively using the unique opportunity of rebuilding school facilities in the wake of Hurricane Katrina to build the best facilities this district has ever had.

And this effort includes a superior level of classroom modernization previously unheard of in New Orleans. Among such upgrades include:

• Installing a Promethean Board in every 4th-12th grade core classroom, a total of 496 boards in RSD-operated schools;

• Providing a take-home Epic laptop computer to every high school student, a total of approximately 4,500 laptops;

• Providing a take-home Dell laptop computer to every teacher and administrator, a total of approximately 2,000 laptops;

• Installing Read 180 computer labs, with eight computers each, in every 4th-10th grade English classroom, a total of 132 new computer labs;

• Installing e-Rate funded internet access in all of our schools, both wireless and LAN connections.

Next year we plan to expand the distribution of laptops to the middle grades, give all students email addresses, build a virtual school for students throughout the state out of Reed High School, and employ a technology integrationist at all schools focused solely on helping teachers integrate technology into instructional practices.

Twenty-first Century educators know that it is not about the hardware and software—or the basic training it takes to use them in the classroom—that create 21st Century learners. It is instead the innovative uses of these products by teachers that push students to build strong literacy skills and engage in higher levels of learning.

To encourage these teaching practices the RSD is taking steps to:

1) Ensure that technology is used to establish a relationship between the home and school environments;

3) Use technology to enrich parental involvement in the school community;

4) Create small teaching and learning communities at each school where the integration of technological approaches to teaching and learning are discussed and encouraged;

5) Setting up student-organized and managed Technology Resource Centers at each of our high schools.

Technology improves students' academic achievement because it enables self-directed learning and provides immediate benchmarking data. The vast majority of our students are two or more years below grade level in reading and math, and these students benefit from the district's technological interventions.

We can only continue our monumental efforts to reform education in New Orleans with further federal resources to cover significant start-up and one-time costs.

Just like RENEWAAL funding last year helped the district to attract hundreds of high-quality teachers by allowing us to pay all teachers bonuses and launch a performance-based pay initiative, we need federal funding in New Orleans to sustain our efforts to build 21st Century schools to continue sparking the rebuilding of the New Orleans region.

Thank you for the opportunity to testify to the committee today and I am happy to answer any questions.

Chairman MILLER. This is better than I thought. If Superintendent Vallas can hear me, I want to thank him for his testimony. We are running a series of votes here in the Congress, and I would like to get our next two witnesses in before members of the panel have to leave.

And we are having a little bit of trouble with the audio on this end. Ms. Cullinane is going to take care of that during the break, and we will get a Congress of the future here. But I don't want to have Superintendent Vallas wait around because of the vote.

So with that, we are going to proceed, Mr. Waters, to you.

STATEMENT OF JIM WATERS, DIRECTOR OF POLICY AND COMMUNICATIONS, BLUEGRASS INSTITUTE FOR PUBLIC POLICY SOLUTIONS

Mr. WATERS. Very good. Thank you. Good morning, ladies and gentlemen. Greetings from Kentucky where celebrations are underway commemorating the birth of the—the bicentennial of the birth of our nation's 16th president. My name is Jim Waters. I am director of Policy and Communications for the Bluegrass Institute for Public Policy Solutions.

We like to describe ourself as Kentucky's free market think tank. We offer free market ideas to Kentucky's most pressing problems in light of the ideals that we think our founders had who believed in individual liberty, economic prosperity, personal responsibility, and a respect for the lives and property of others. And with all due respect to the Congressman Chandler from Kentucky, I do not believe that the founders would have been involved in more federal involvement in our education system at the state and local level.

The prevailing wage law provides an example, I think, of a well-intentioned policy that has gone awry. Originally modeled after the federal Davis-Bacon Act, Kentucky lawmakers also wanted to ensure that contractors and workers on state projects, that they received a fair, but not a rock bottom wage. However, during the past decades, Kentucky's prevailing wage law, which is based largely on the federal policy of the same idea, has become a huge boondoggle.

And I would like to suggest that before the federal government gets more involved in spending more of our hard-earned dollars on repairing school buildings and building new schools we at least need to consider more market participation in the education process, more choices for parents, for students, for local communities, for states to make their own decisions about how to address their needs for new school buildings and to repair crumbling schools.

The law prevents state government from receiving the most value for every dollar spent on public projects in Kentucky. Forcing the government to pay union-like wages drives up the cost of roads, school buildings, and infrastructure systems by a very conservative 10 to 15 percent.

In recent weeks, a bid was accepted for $61 million to build a new middle and high school in Bowling Green, Kentucky. It is the Joseph Warren—it will be the Joseph Warren Middle and High School. Research commissioned by the Bluegrass Institute has found that the negative trickle-down effect of Davis-Bacon in states like Kentucky has driven up the cost of public projects by hundreds of millions of dollars. Our own legislative research commission, which is a non-partisan research arm of our legislature, says it added $137 million to the cost of public projects, construction projects in the year of 2002.

Even our department of education officials, which aren't known for enthusiastic support of fiscally sound policies, recognize and

really despise our state's prevailing wage policy. The department claims that prevailing wage requirements add 11 percent to the cost of building schools.

That would mean that the new school in Bowling Green will cost an additional $6.7 million just because of the prevailing wage rate alone. That would be enough to build another new elementary school even at prevailing wage rates.

There is no question as we have heard today, our schools are crumbling. Many of our states' proverbial checkbooks are overdrawn. And yet plumbers and pipe fitters for this new Warren school are going to get $41.35 an hour.

I checked with an experienced contractor in the region who bid on the project but couldn't keep up with those rates. He said that workers would receive a rate of about $18 an hour on a similar job in the private sector. But the gap in wages, the $100 million estimate, doesn't even include the cost of the labor bureaucracy charged with overseeing our prevailing wage policy.

What is the cost for inspections, hearings, and paperwork? Who knows? We see how easy it is for government to spend someone else's money, the taxpayers' money, with little accountability for how that money is spent.

And in our labor cabinet's prevailing wage categories for Warren County it states that water boys get $18.07 an hour and $8.79 in benefits. So water boys—and that is how they are listed—working on the Warren schools will get paid more than the usual rate earned by experienced, professional plumbers working on homes, offices, and churches.

A favored defense of maintaining prevailing wage borne out of the desperate days of the Great Depression is that prevailing wage rates result in safer, higher quality work. But this thinking is outmoded and antiquated just like the Davis-Bacon Act itself.

According to the Kentucky Legislative Research Commission, 96 percent of Kentucky's 176 school superintendents answered no when asked if they increased cost incurred by prevailing wage resulted in discernible higher quality. Besides, how is it that contractors build quality office complexes, large custom homes, investment properties, and corporate facilities without being coerced by some kind of forced wage policy? These contractors don't even have to be told the quantity and quality of people needed to accomplish a task.

But many contractors don't even participate in public projects in Kentucky. Prevailing wage rates are so complicated, vary widely from place to place, are established according to federal rates in some areas, state rates in others, and can be at the whims of even local unions that it is too daunting for many private contractors. We believe that an increase in participation in the process would drive down the cost of public projects.

In order to free up badly needed money to build new schools and repair and update existing ones, it is time for Davis-Bacon and prevailing wage to be relegated to the history of public policies that have long outlived their usefulness either to schools or taxpayers. Thank you very much.

[The statement of Mr. Waters follows:]

Prepared Statement of Jim Waters, Director of Policy and Communications, Bluegrass Institute for Public Policy Solutions

Good morning ladies and gentlemen.

Greetings from Kentucky, where celebrations got underway earlier this week, commemorating the 200th birthday of the nation's 16th president.

My name is Jim Waters. I am director of policy and communications at the Bluegrass Institute for Public Policy Solutions, Kentucky's free-market think tank. We offer free-market ideas to Kentucky's most pressing problems in light of the ideals of our founders, who believed in: individual liberty, economic prosperity, personal responsibility and a respect for the lives and property of others.

The "prevailing wage" law provides an example of a well-intentioned policy gone awry. Originally modeled after the federal Davis-Bacon Act, Kentucky lawmakers wanted to ensure contractors working on state projects paid workers a fair, but not rock-bottom, wage.

However, during the past 20 years, Kentucky's prevailing-wage policy has become a huge boondoggle.

The law prevents state government from receiving the most value for every dollar spent on public projects. Forcing government to pay union-like wages drives up the cost of roads, school buildings and infrastructure systems by 10 to 15 percent.

In recent weeks, a bid was accepted for $61 million to the new Joseph Warren middle and high schools in Bowling Green, Kentucky.

Research commissioned by the Bluegrass Institute and conducted by experts like respected labor analyst Paul Kersey, has concluded that the negative, trickle-down effect of Davis-Bacon drives up the cost of public projects by as much as $100 million each year.

Even Kentucky Department of Education officials, which aren't exactly known for endorsing fiscally sound policies, recognize—and despise—the state's prevailing-wage policy. The department claims prevailing-wage requirements adds 11 percent to the cost of building schools—$6.7 million on the Warren County schools project alone. That would be enough to build another new elementary school, even at prevailing-wage rates!

Schools are crumbling. The state's proverbial budget checkbook is overdrawn. Yet plumbers and pipe fitters for the new Warren middle and high schools are going to get $41.35 an hour. I checked with an experienced contractor in the region, who said these workers would receive a rate of about $18 an hour on a similar job in the private sector.

But the gap in wages—the $100-million estimate—does not even include the cost of the labor bureaucracy charged with overseeing Kentucky's prevailing-wage policy. What is the cost for inspections, hearings and paperwork? Who knows? We see how easy it is for government to spend someone else's money—taxpayer—with little accountability for how that money is spent.

On Page 4 of the state Labor Cabinet's prevailing-wage categories for Warren County, it states that "water boys" get $18.07 an hour and $8.79 in benefits. So "water boys" working on the Warren schools get paid more than the usual rate earned by experienced, professional plumbers working on homes, office buildings and churches.

Just to put this in perspective, this weekend, the Holiday Inn University Plaza—the premier convention-center hotel in Bowling Green, Kentucky—will host 1,200 people who will use four of its luxury-laden ballrooms in a classroom-style setting at a cost of $1,600.

The school district could rent those rooms at that rate for 200 days, which includes instructional days plus personal preparatory days for teachers for $320,000. Even if those rooms were rented every single day of the year—365 days—at that rate, the district would still spend only $584,000. Allow another half-million for salaries, supplies, transportation and so forth, and you still are a far cry from the Taj Mahal-like prices being charged by taxpayers.

A favored defense of maintaining this labor policy, borne out of the desperate days of The Great Depression, is that simply requiring prevailing-wage rates result in safer, higher-quality work. But this thinking is outmoded and antiquated—just like the Davis-Bacon Act itself.

According to the Kentucky Legislative Research Commission, 96 percent of Kentucky's 176 school superintendents answered "no" when asked if the increased costs incurred by prevailing wage resulted in discernible higher quality.

Besides, how is it that contractors build quality office complexes, large custom homes, investment properties and corporate facilities without being coerced by some kind of forced wage policy? These contractors don't even have to be told the quantity and quality of people to hire to accomplish a task!

But many contractors don't even participate in public projects. Prevailing-wage rates are so complicated, vary widely from place to place, are established according to federal rates in some areas, state rates in other areas and can be at the whims of even local unions that it's too daunting for many private contractors.

Kentucky is not only known for Lincoln. It's also known for Corvettes. All Corvettes are now made at the GM plant in Bowling Green plant. Across the street from the plant is the National Corvette Museum, which contains many of the past relics of the great Corvette.

While the museum is a great place—car and history buffs love it—it's at the plant across the street where the new models are coming out, which build and improve on past models.

In order to free up badly needed money to build new schools and repair existing ones, its' time for Davis-Bacon to be relegated to the history of public policies that have long outlived their usefulness, either to schools or taxpayers.

Thank you very much.

Chairman MILLER. Mr. McCluskey?

STATEMENT OF NEAL MCCLUSKEY, ASSOCIATE DIRECTOR, CENTER FOR EDUCATIONAL FREEDOM, THE CATO INSTITUTE

Mr. MCCLUSKEY. Chairman Miller, Ranking Member McKeon, and members of the committee, thank you for the opportunity to testify today. My name is Neal McCluskey, and I am the associate director of the CATO Institute's Center for Educational Freedom.

CATO is a nonprofit research institute that seeks to broaden the parameters of public policy debate to allow consideration of traditional American principles of limited government, individual liberty, free markets, and peace. Along those lines, I will discuss the best federal role in school facility maintenance and construction and explain why school choice is the key to building and maintaining high-quality schools.

I must begin by noting that the Constitution gives Washington no authority in education outside of prohibiting discrimination by states and local districts. Nowhere in the enumerated powers is the word education found. And the 10th Amendment leaves all powers not delegated to the federal government to the states or people.

I should also add that the general welfare clause does not change this. It confers no authority on its own, but simply introduces the specific enumerated powers that follow it. As James Madison wrote in Federalist Number 41, "For what purpose could the enumeration of particular powers be inserted if these and all others were meant to be included in the preceding general power? Nothing is more natural nor common than first use of general phrase and then to explain and qualify it by recital of particulars."

Despite this, Washington has been heavily involved in education for decades. It has never, though, had a major role in funding most school facilities. Indeed, for compelling reasons of fairness and effectiveness, it should have no role at all.

Well, what are the fairness issues? The first is the unfairness of redistributing funds from taxpayers in districts that have maintained their schools to districts where maintenance has been allowed to slide. As U.S. Department of Education report, "Condition of America's Schools Facilities 1999" notes, district officials attributed declining conditions primary to insufficient funds resulting from ultimately very costly decisions to defer needed maintenance and repairs.

Next, whatever increase in federal aid might be proposed will likely be targeted to high-poverty districts, on the grounds that those districts are under-funded. But this is not accurate.

Department of Education data show that per people expenditures are indeed higher in the districts with the lowest quintile of poverty, the wealthiest populations, as expected. But the second highest spending is in the quintile with the highest concentration of poverty. Meanwhile the three middle quintiles are well below both. As a result, it is likely that much of the federal money that would support construction in high-poverty districts would actually come from taxpayers whose own districts are well outspent by the recipients.

How about efficiency? The major reason that buildings are poorly maintained is not insufficient funds. According to the Organization for Economic Cooperation and Development, we spend more per pupil than almost any other industrialized nation. Overall, real public school per pupil funding increased from about $4,000 in 1965 to $11,000 in 2003.

Regarding facilities construction, from 2000 to 2006, districts completed projects totaling more than $145 billion, according to School Planning and Management's 2007 construction report. That is an amount exceeding the 1996 GAO estimate that $112 billion would be needed to bring all schools to good overall condition and a 1999 Education Department estimate of $127 billion. Even accounting for inflation, $145 billion should have ended the facilities problem with $1 billion or so left over. But apparently it didn't.

Ultimately, the facilities problem is one of inefficiency. Many districts are bureaucratically hide-bound, adversely affecting maintenance and construction. The anecdotal evidence abounds, but consider just one example. And there are more in my written testimony.

The Washington, D.C. public schools have rampant maintenance failures despite per pupil expenditures exceeding $14,000. This is a problem that Chancellor Rhee has attributed largely to central office bureaucracy. Pushing more federal money at schools won't change this. It will only add more bureaucracy.

In addition to necessary maintenance and construction not getting done, much of the basis for assessing facilities comes from districts self-reporting. And it is at least possible that some districts might overestimate problems. At the very least, the assessments are subjective and likely inconsistent from school to school. There is also considerable anecdotal evidence that when new schools are built it isn't necessarily with cost control or core academic needs in mind.

There is good reason to be doubtful that any funding mechanism in our current system will result in effective construction and maintenance. But there is a solution.

Washington must stay out of school construction. But members should exhort their states and districts to let parental control of education funding to enable that by taking it to any—let the parents take it to any school they wish, public or private. School choice is the key to good school buildings.

Consider when a school gets funding regardless of building dilapidation, the incentives to conduct adequate maintenance are

limited. Certainly, the building might not be a great place to work, but a paycheck is coming nonetheless, and getting problems fixed can be very hard. When schools don't compete, they don't have to care as much about their buildings as schools that have to attract and earn customers.

Chairman MILLER. Mr. McCluskey, I am going to ask you to—because Mr. McKeon and I have got to try to make a vote here. I am going to ask you to wrap up——

Mr. MCCLUSKEY. I am almost done.

Chairman MILLER. Okay.

Mr. MCCLUSKEY. The other problem with top-down controls is that large organizations have big, slow bureaucracies with autonomy. In contrast, schools can respond quickly to their needs, not having to fight to get work approval, supplies, and maintenance personnel.

We have evidence that private schooling better provides buildings. And it——

Chairman MILLER. I am going to ask you to wrap up. I have no choice. The clock is running.

Mr. MCCLUSKEY. Okay. So what should Congress do to ensure that the nation has the best possible schools? We should be funding the states and districts and exhort them to enact school choice.

[The statement of Mr. McCluskey follows:]

Prepared Statement of Neal McCluskey, Associate Director, Center for Educational Freedom, the Cato Institute

Chairman Miller, Ranking Member McKeon, and Members of the Committee: Thank you for the opportunity to provide testimony today on investing in school facilities. My name is Neal McCluskey, and I am the Associate Director of the Cato Institute's Center for Educational Freedom. Cato is a non-profit public policy research institute that seeks to broaden the parameters of public policy debate to allow consideration of the traditional American principles of limited government, individual liberty, free markets and peace. Along those lines, today I would like to discuss the best role that the federal government can play in school facility maintenance and construction: That is, no role. I would also like to explain why widespread school choice is the key to efficiently building and maintaining high-quality school facilities.

I must begin by stating Constitutional principles: the Constitution gives the federal government no authority to make policy in education outside of prohibiting de jure discrimination by states and local districts. Nowhere in the enumerated powers listed in the Constitution will you find the terms "school" or "education," and of course the Tenth Amendment makes clear that "the powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." In addition, contrary to the perception of some jurists and legislators, the "general welfare" clause does not change this. It confers no authority on its own, but simply introduces the specific, enumerated powers that follow it. As James Madison wrote in Federalist no. 41, "For what purpose could the enumeration of particular powers be inserted, if these and all others were meant to be included in the preceding general power? Nothing is more natural nor common than first to use a general phrase, and then to explain and qualify it by a recital of particulars."

Of course, constitutional problems notwithstanding, the federal government has been heavily involved in education since passage of the Elementary and Secondary Education Act in 1965. Thankfully, though, while it has had some involvement in school construction and maintenance—especially through Impact Aid programs for districts affected by federal installations, which will not be the focus of my remarks—it has never had a major role in funding school facilities not eligible for Impact Aid. It would not be advisable for Congress to expand its current, limited role. Indeed, for compelling reasons of both fairness and, more importantly, effectiveness, it should have no role at all.

What are the fairness issues?

The first is the unfairness of redistributing funds from taxpayers in districts that have dutifully maintained their schools to districts where maintenance needs have been allowed to slide until small problems have become big ones. As the U.S. Department of Education report Condition of America's School Facilities: 1999 noted:

[D]istrict officials attributed declining conditions primarily to insufficient funds, resulting from decisions to defer maintenance and repair expenditures from year to year. However, maintenance can only be deferred for a short period of time before school facilities begin to deteriorate in noticeable ways. Without regular maintenance, equipment begins to break down, indoor air problems multiply, and buildings fall into greater disrepair. * * * The lack of regular maintenance can also result in a host of health and safety problems, including exposure to carbon monoxide and risk of physical injuries. Additionally, deferred maintenance increases the cost of maintaining school facilities; it speeds up the deterioration of buildings and the need to replace equipment. * * *

It is important to note that such a redistribution is likely to occur whether the federal government expands Qualified Zone Academy Bonds (QZABs)—in which federal taxpayers cover the interest on school construction bonds—or direct federal construction assistance.

Most likely, whatever increase in federal aid might be proposed will be targeted, at least at the outset, at districts with high concentrations of poverty, and justified on the grounds that those districts are underfunded and hence most in need of aid. This, at least rhetorically, drives most federal education policy, but is inaccurate, and any initiative that takes money from presumably better-off taxpayers and gives it to high-poverty districts on the grounds that it will equalize education spending rests on a crumbled foundation.

Using data from the 2005 and 2007 editions of the Department of Education's annual Condition of Education report, we see that, as expected, per-pupil expenditures are highest in the districts in the lowest quintile of poverty—meaning, the districts with the wealthiest population. In the 2003-04 school year (the most recent with available data), those districts spent on average $10,857 per-student, a figure which includes capital costs. The surprising statistic is that the second highest spending is in the quintile with the highest poverty level, where $10,377 was spent per-pupil. Meanwhile, the three middle quintiles are well below the districts with the highest poverty, and this has been the case since at least the 1989-90 school year, the earliest for which the Condition of Education has data. As a result of this distribution, it is highly likely that much of the federal tax money that would support construction and maintenance in high-poverty districts would come from taxpayers whose own districts get well outspent by those very districts they are being forced too subsidize.

How about efficiency?

First of all, the major reason that buildings are poorly maintained, especially in large, urban districts, is not a lack of funds. In addition to the telling statistics about which districts actually spend the most money, we know that overall, American education is not underfunded. According to the Organization for Economic Cooperation and Development's Education at a Glance: OECD Indicators 2006, we spend more per-pupil in elementary and secondary education than any member country save Luxembourg, Norway and Switzerland. Overall, according to U.S. Department of Education Statistics, real K-12 public school per-pupil funding nationwide increased from $4,077 in 1965 to $11,016 in 2003, a 170 percent increase.

And the increases are not just in the aggregate. Using data from the 2007 Education Department report An Historical Overview of Revenues and Expenditures for Public Elementary and Secondary Education, by State: Fiscal Years 1990-2002, we see that real facilities acquisition and construction expenditures per pupil rose from $481 in 1990 to $903 in 2002, an 88 percent increase. From 2000 to 2006 districts completed construction projects totaling more than $145 billion according to School Planning and Management's 2007 Construction Report, an amount exceeding both a 1996 GAO estimate that $112 billion would be needed to bring all school facilities to "good overall condition," and a 1999 National Center for Education Statistics estimate of $127 billion. Even accounting for inflation from the 1999 estimate, $145 billion should have ended the facilities problem with a billion-or-so left over. Yet, apparently, it didn't.

Ultimately, the facilities maintenance and construction problem is largely one of inefficiency, waste, and mismanagement. As researchers like John Chubb, Terry Moe, and William Ouchi have well established, many districts—especially large, urban districts—are hopelessly hidebound by bureaucracy, slow to move and incredibly inefficient when they do. The negative results have been seen most concretely

in stagnant academic achievement despite massive infusions of money, and while aggregate, systemic data about construction and maintenance success is not available, it stand to reason that district dysfunction affects maintenance and construction much like it affects academics. The anecdotal evidence abounds in cities all over the country, but consider just two examples. The Washington, DC, public schools have rampant maintenance failures and a lengthy job backlog despite per-pupil expenditures well in excess of $14,000, a problem Chancellor Rhee has attributed largely to central office bureaucracy. Or witness the Belmont Learning Complex project in Los Angeles, which from the start was plagued by community conflicts over its use and design, but really fell apart after half the school was built and it was discovered to be on an environmentally unacceptable old oil field. The school was eventually completed, but not without gigantic cost overruns.

In far too many cases, the money that should be reaching engineers, electricians and plumbers—just like the money that should be reaching students—simply doesn't get there.

In addition to the very real problem of necessary maintenance and construction not getting done, there is a good chance that at least some of the deficiencies we see reported are overstated, and some of the construction and spending that is done is unnecessary. Concerning the former, it is important to note that much of our basis for assessing national school facility need comes from principal and district self-reporting. Both Condition of America's Public School Facilities: 1999 and Public School Principals Report on Their School Facilities: Fall 2005 use self-reported data on school conditions, and it is at least possible that some people who run schools and work in them will overestimate problems. At the very least, the assessments are subjective and almost certainly inconsistent from one school to another. There is also considerable anecdotal evidence that when new schools are built, they aren't necessarily done with cost-control or core academic needs in mind. Consider the new T.C. Williams High School in Alexandria, Virginia, of Remember the Titans fame. Opened this year $25 million over budget, the new T.C. Williams boasts television studios, a black-box theater, and a planetarium—hardly basic needs.

It is important to note that states are not necessarily good stewards of construction funds any more than districts are. New Jersey recently had a major scandal concerning its School Construction Corporation, which was established to build schools in low-income, so-called Abbott districts. This entity made such moves as paying local governments more than $67 million to buy land already owned by the public; selecting sites on which to build schools containing heavy environmental contamination; and paying private contractors more than $217 million above originally contracted amounts.

There is very good reason to be highly skeptical that any funding mechanism in our current education system will result in efficient and effective school construction and maintenance. But as much as it may seem like it, I am not here to simply tell you what's wrong in school construction and maintenance, exhort you to do nothing about it, and then go on my merry way. I have a solution. Congress must cease federal intervention in school construction, refrain from getting more deeply involved, and individual Members of Congress should exhort their states and local districts—which have proper authority over education—to let all parents control education funding for their children by taking it to any school they wish, public or private. School choice—letting markets work—is the key to getting good, safe school buildings, just as it is the key to academic success.

First, consider basic, human motives. When a school gets funding—and its employees get paid—regardless of whether or not the school building is in good condition, the incentives to vigilantly conduct painstaking maintenance are small. Sure, the building might not be a great place to work, but a paycheck is coming regardless, and getting tough problems fixed and regular preventative maintenance done can often be very hard. When schools don't have to compete they don't have to care nearly as much about their buildings as schools that have to earn customers, and have to look, sound, and smell as conducive to effective learning as possible. A visit to Eastern Europe offers plentiful examples of how poorly construction and maintenance worked under non-competitive incentive structures.

As touched on earlier, the other problem with top-down control is that large organizations invariably have big bureaucracies, and big bureaucracies invariably make action inefficient and slow. In a system of choice with autonomous schools, in contrast, schools can respond very quickly to their needs, not having to perpetually fill out extensive paperwork to get work approvals, supplies, and maintenance personnel from huge, distant home offices.

The superiority of private provision of education when it comes to facilities is not just theoretical—it has been established both in the United States and abroad. Here are just three examples:

• In Arizona, the director of Cato's Center for Educational Freedom, Andrew Coulson, found that when asked the same core questions as were asked of public school officials in Condition of America's Public School Facilities: 1999, private school operators reported that their schools were in much better condition than public schools nationwide (Arizona public school data was not available). And this was not a result of having "better" students—Arizona's private schools reported better conditions of such things as foundations, ventilation, and electrical power which could not be easily affected by such student behaviors as vandalism. Perhaps most impressively, the private schools were able to do this despite spending much less per pupil than their public counterparts (taking into account all sources of revenue, not simply tuition).

• In New Orleans, by early November after Hurricane Katrina three private schools were back up and running in the city's especially hard-hit East Bank, and eight of the city's Roman Catholic schools were operating. None of the city's traditional public or charter schools, in contrast, had yet reopened. By the Spring of 2006 nearly 20,000 students were enrolled in private schools, well above the number in public schools.

• Extensive research by British professor James Tooley has documented that private schools found throughout some of the most impoverished slums in the world provide superior conditions compared to government-run schools. Tooley has found that private schools in places like Hyderabad, India, Ga, Ghana, and Lagos, Nigeria, are more likely to provide such things as drinking water, fans, electricity, toilets, and libraries than government schools. Similar findings have been reported for these and other countries by other researchers. Why? The private schools have to compete for students.

So what should Congress do to ensure that the nation has the best possible school facilities? Essentially, nothing. The best things that Congress as a whole can do is leave school facility funding and policy making to states and local districts, and the best thing that individual members of Congress can do is take up the bully pulpit and exhort your states and districts to enact widespread school choice. Then, all school managers will have the incentives to keep up with necessary maintenance, and when new buildings truly are needed, they will be built with maximum efficiency and effectiveness.

Thank you again for the opportunity to provide testimony, and I look forward to your questions.

Chairman MILLER. Thank you. Thank you. Because we have a series of votes which we were not aware of when we scheduled this hearing or started this hearing, I am not going to hold you here because I think it is going to be almost an hour before we return. I want to thank you for your testimony.

I have some questions, but I will send them to you, submit them to you in writing. And I would appreciate—I have some questions about leveraging the federal funds in California. I have some questions about the replication of the School of the Future and also some questions about leveraging in Iowa.

I want to say to the members you have 14 days to submit their testimony. And if you have questions, we will compile them and give them to the witnesses in writing. Thank you very much. I am sorry for this, but I think your time is more valuable than waiting around for another hour before we return from the four votes.

The meeting is adjourned. Thank you.

[Additional questions to witnesses submitted by Mr. Miller follow:]

[VIA FACIMILE TRANSMISSION],
February 15, 2008.

Judi Caddick,
c/o Memorial Jr. High School, Lansing, IL.

DEAR MS. CADDICK: Thank you for testifying at the February 13, 2008 hearing of the Committee on Education and Labor on "Modern Public School Facilities: Investing in the Future".

Representative Yvette Clarke (NY-11), a member of the Healthy Families and Communities Subcommittee, has asked that you respond in writing to the following question:

1. As you are aware, Congress is in the process of reauthorizing No Child Left Behind. Accountability, in the form of a school's annual yearly progress (AYP), is an important component of NCLB. In your testimony, you mentioned the correlation between newer and better schools and standardized test scores. My question is two fold: first, can you discuss, how substandard school facilities could impact a school's ability to make AYP; and second, do you believe that integrating a child's immediate environment into their core curriculum could aid in their achievement?

Representative Vernon Ehlers (MI-03), a member of the Early Childhood, Elementary and Secondary Education Subcommittee and the Higher Education, Lifelong Learning, and Competitiveness Subcommittee, has asked that you respond in writing to the following questions:

1. To what extent do public schools use public-private partnerships when funding school construction projects? To what extent would it be reasonable to expect schools to raise a certain amount of funding in order to receive a federal incentive or matching payment?

2. My congressional district may be home to the most Leadership in Energy and Environmental Design (LEED) certified schools in the nation (four schools as of January 13). To what extent has recent school construction complied with the U.S. Green Building Council's standards for LEED certification or other comparable standards? How should the federal government encourage more K-12 schools to invest in sustainable construction activities? What is the preferable approach for encouraging more schools to use energy and environmentally friendly construction methods—federal incentives (e.g., matching funds, tax-exempt bonds, or grant funds) or federal mandates? Related to this, I would also appreciate insights on how to encourage schools to engage in sustainable ("green" certified) remodeling projects.

Please send an electronic version of your written response to the questions to the Committee staff by close of business Monday, February 25, 2008—the date on which the hearing record will close. If you have any questions, please contact us.

Sincerely,

GEORGE MILLER,
Chairman.

[Response from Ms. Caddick follows:]

February 25, 2008.

Chairman GEORGE MILLER,
Committee on Education and Labor, U.S. House of Representatives, Washington, DC.

DEAR CHAIRMAN MILLER: Thank you for the opportunity to testify at your committee's February 13, 2008 hearing on "Modern Public School Facilities: Investing in the Future." While I welcome the opportunity to amplify my comments, I am a classroom teacher, not an expert in school construction. The responses to the questions below from Representatives Yvette Clark and Vern Ehlers are based on information provided by NEA subject matter experts.

Clark: As you are aware, Congress is in the process of reauthorizing No Child Left Behind. Accountability, in the form of a school's annual yearly progress (AYP), is an important component of NCLB. In your testimony, you mentioned the correlation between newer and better schools and standardized test scores. My question is twofold: first, can you discuss how substandard school facilities could impact a school's ability to make AYP * * *

"Adequate yearly progress" (AYP) is a measure of progress toward the goal of 100 percent student achievement of state academic standards in reading/language arts and math, at a minimum. Every student's performance impacts AYP. In turn, the teaching and learning environment, including the physical condition of the school building, impacts student achievement.

Poor indoor air quality (IAQ) is associated with absenteeism among teachers and students alike—it makes them sick, and sick students and teachers can't perform as well as healthy ones. Temperature, humidity and ventilation contribute to IAQ. Data gathered by the U.S. General Accountability Office, going as far back as 1996, indicates that schools serving poor and minority students suffer disproportionally from poor IAQ. The federal government is encouraging further investigation of the consequences. No Child Left Behind, for example, calls for more research on the relationship between IAQ and student achievement.

Lighting and acoustics also affect teaching and learning. Studies show that appropriate lighting improves test scores and reduces off-task behavior. Levels of class-

room noise and reverberation correlate with reading and spelling ability, behavior patterns, attention spans, and overall achievement in children.

On the one hand, the age, quality and aesthetics of school buildings have all been linked to student behavior problems, including vandalism, absenteeism, suspensions, tardiness, racial incidents, and smoking. On the other hand, capital investments in schools have been linked to higher student achievement, teacher motivation, school leadership, and the time students spend learning.

A substantial body of research documents how substandard school facilities adversely affect student performance and teacher effectiveness, thereby undermining a school's ability to make AYP. Specifically:

• Students who attend schools in better physical condition outperform students in substandard schools by several percentage points. Overcrowding makes it harder for students to learn, especially students from families of low socioeconomic status. (School Facility Conditions and Student Academic Achievement, 2002. Glen I. Earthman, Virginia Polytechnic Institute and State University. Published by UCLA's Institute for Democracy, Education, & Access. (Available at *http://repositories.cdlib.org/idea/wws/wws-rr008-1002.*)

• Space, noise, heat, cold, light, and air quality all bear on students' and teachers' performance. What is needed—clean air, good light, a comfortable and safe learning environment—can be achieved with existing technology if funding is adequate and design competent. (Do School Facilities Affect Academic Outcomes? 2002. Mark Schneider, National Clearinghouse for Educational Facilities. Available at *http://www.edfacilities.org/pubs/outcomes.pdf.*)

• On Virginia's Standards of Learning examinations at the middle school level, a higher percentage of students attained passing scores in English, mathematics, and science in standard buildings than in substandard buildings. (The Relationship between School Building Conditions and Student Achievement at the Middle School Level in the Commonwealth of Virginia, 2007. Calvin Bullock, Virginia Polytechnic Institute and State University. Available at *http://scholar.lib.vt.edu/theses/available/etd-08212007-163313.*)

• The Ysleta Independent School District, a high-performing, high-poverty school district in Texas, found that from 1994 to 2001, the percentage of students who passed the Texas Assessment of Academic Skills varied with the age, condition, and cleanliness of school buildings. (A Study of the Effect School Facility Conditions Have on Student Achievement, 2003. Susan Lair, University of Texas. Available at *http://wwwlib.umi.com/dxweb, Report No: 3116105.*)

• Green Schools: Attributes for Health and Learning, published by the National Academies Press in 2007, explores the relationship between the overall condition of school buildings and student achievement, and provides an analysis of—and recommendations for—planning and maintaining green schools. (Available at *http://books.nap.edu/catalog/11756.html.*)

Clark: * * * and second, do you believe that integrating a child's immediate environment into their core curriculum could aid in their achievement?

Integrating the immediate school environment into the core curriculum would encourage students to take a greater interest in their physical surroundings and to become responsible environmental stewards. This approach, called "service-learning" (a form of experiential education based on a cycle of planning, action and reflection) has proven effective in community settings. Students acquire knowledge and skills, apply what they have learned, and experience the consequences—literally and emotionally. Research confirms that service learning approach can be an effective strategy for enhancing student achievement.

Ehlers: To what extent do public schools use public-private partnerships when funding school construction projects?

The United States has been slow to adopt the Public-Private Partnership (PPP) model for funding school construction projects. President Bush's tax cut bill, the Economic Growth and Tax Relief Reconciliation Act of 2001, promised towns and cities that forming PPPs with real-estate developers and investors would enable them to build schools faster, better and less expensively. Few have done so, for good reason. The law sets a nationwide ceiling of $3 billion on private bonds for school construction. Moreover, U.S. Treasury regulations do not allow investors and developers involved in such projects to claim depreciation.

The PPP model has been used to finance construction of two high schools in the Houston Independent School District; charter schools in Florida and Michigan; and to finance renovation of vacant, privately owned commercial space for school use in Arizona, Florida, New Jersey, and North Carolina.

Ehlers: To what extent would it be reasonable to expect schools to raise a certain amount of funding in order to receive a federal incentive or matching payment?

In a few cases, school districts have had to raise construction funds to qualify for matching funds provided by the state—in California, for example. On the federal level, the Qualified Zone Academy Bond (QZAB) program, introduced in 1997, most closely approximates this approach. QZABs allow schools serving low-income students to reduce interest payments on tax-exempt bonds or loans used to finance capital improvements, usually about half the cost of renovating a school. The schools repays the entire amount borrowed; the lending institution receives a tax credit in lieu of interest payments.

To qualify for the QZAB program, a school must be located in a federal Empowerment Zone or Enterprise Community, or at least 35 percent of the students must be eligible for free- or reduced-price lunches. Participating schools partner with private businesses that contribute cash, goods or services worth at least 10 percent of the borrowed amount.

Ehlers: My congressional district may be home to the most Leadership in Energy and Environmental Design (LEED) certified schools in the nation (four schools as of January 13). To what extent has recent school construction complied with the U.S. Green Building Council's standards for LEED certification or other comparable standards?

The U.S. Green Building Council reports that since April 2007, when it launched LEED for schools, on average one school per day has registered for certification. More than 75 schools have been certified to date and 600 are in the pipeline.

Ehlers: How should the federal government encourage more K-12 schools to invest in sustainable construction activities?

To encourage more K-12 schools to invest in sustainable construction activities, Congress should fund the green schools research authorized by the Energy Independence and Security Act of 2007. No existing federal study focuses on the correlation between the indoor environmental quality of green schools and students' health and performance. Funding such a study would fill this research gap and provide crucial information for local decision-makers.

Ehlers: What is the preferable approach for encouraging more schools to use energy and environmentally friendly construction methods—federal incentives (e.g., matching funds, tax-exempt bonds, or grant funds) or federal mandates?

The federal government should provide grants and other financial incentives to encourage school districts, especially those in less affluent areas, to use energy and environmentally friendly construction methods.

Ehlers: Related to this, I would also appreciate insights on how to encourage schools to engage in sustainable ("green" certified) remodeling projects.

Going "green" does not necessitate building a new school or even major renovations. Schools can go green gradually, starting with cleaning and purchasing policies, and installing high-performance lighting. Green performance contracting may be a good approach when capital and operating budgets are limited. The U.S. Green Building Council plans to release a guidance document specifically for schools later this year. In the meantime, schools can consult the Council's LEED for existing buildings.

In closing, I thank you again for the opportunity to address these issues critical to the future of our children and our nation as a whole. I urge Congress to act quickly to authorize school modernization programs to help ensure that all our children have the safe, modern learning environments so integral to success.

Sincerely,

JUDI CADDICK.

[VIA FACIMILE TRANSMISSION],
February 15, 2008.

Mary Cullinane,
Director, Innovation and Business Development Team, Microsoft Corporation, New York, NY.

DEAR MS. CULLINANE: Thank you for testifying at the February 13, 2008 hearing of the Committee on Education and Labor on "Modern Public School Facilities: Investing in the Future".

Representative Yvette Clarke (NY-11), a member of the Healthy Families and Communities Subcommittee, has asked that you respond in writing to the following question:

1. In your testimony you discussed the "knowledge economy" and the importance of preparing students for careers in the 21st Century. How does project based learning and experiential learning prepare our students to be competitive in the global market? What is your position on standardized testing and its ability to prepare our

students for careers that require critical thinking skills, effective communication, and problem solving?

Representative Vernon Ehlers (MI-03), a member of the Early Childhood, Elementary and Secondary Education Subcommittee and the Higher Education, Lifelong Learning, and Competitiveness Subcommittee, has asked that you respond in writing to the following questions:

1. To what extent do public schools use public-private partnerships when funding school construction projects? To what extent would it be reasonable to expect schools to raise a certain amount of funding in order to receive a federal incentive or matching payment?

2. My congressional district may be home to the most Leadership in Energy and Environmental Design (LEED) certified schools in the nation (four schools as of January 13). To what extent has recent school construction complied with the U.S. Green Building Council's standards for LEED certification or other comparable standards? How should the federal government encourage more K-12 schools to invest in sustainable construction activities? What is the preferable approach for encouraging more schools to use energy and environmentally friendly construction methods—federal incentives (e.g., matching funds, tax-exempt bonds, or grant funds) or federal mandates? Related to this, I would also appreciate insights on how to encourage schools to engage in sustainable ("green" certified) remodeling projects.

Please send an electronic version of your written response to the questions to the Committee staff by close of business Monday, February 25, 2008—the date on which the hearing record will close. If you have any questions, please contact us.

Sincerely,

GEORGE MILLER,
Chairman.

Mary Cullinane Responses to Follow-Up Questions

Representative Yvette Clarke (NY-11), a member of the Healthy Families and Communities Subcommittee, has asked that you respond in writing to the following question:

1. In your testimony you discussed the "knowledge economy" and the importance of preparing students for careers in the 21st Century. How does project based learning and experiential learning prepare our students to be competitive in the global market?

Project based learning prepares students for the global marketplace in several key ways. First, it much more closely mirrors the work they will do upon graduation in the workplace. Second, it encourages them to consider their community, their world and question what they see, read, and hear. Third, it teaches them to work collaboratively and in doing so highlights the importance of communication, delegation, and even accountability for their share of projects undertaken.

All these critical elements of the learning process more closely reflect life and work in a post-industrial, information based, knowledge intensive economy. At the School of the Future, project-based learners are asked to do more than master core skills. They are encouraged to raise generative questions—questions that create more questions—about project topics and the best ways to learn about them. In addition, each project is multi-disciplinary and thus more relevant to the complex way learning happens in the world in which they live. In this model, educators play a very different role, using an individual approach with each child to draw learning out of them, while providing support and guidance when it is needed.

During any given day, learners at the School of the Future will find out more than just the answer to a multiplication problem or grammar question. Through project based learning, they'll discover something about who they are, establishing a frame of reference that makes each piece of curriculum relevant to their world. Rather than moving through a day of regimented, discrete classes, each student is involved for several months in projects that combine different educational disciplines. For example, a project entitled Money and Rights lets students discover how money came into existence (history), helps them understand budgets (mathematics), and gives them a chance to develop theories on the role of money in their own community (social studies). Collaboration and presentation are key-parts of every project, helping learners gain competencies in teamwork, problem solving, and communication, including writing and public speaking. In each project, generative questions from students begin the specific discussion. "How did that happen?" leads to research. "Why didn't they do it this way?" generates an experiment. Even "Why do we need to learn this?" helps establish relevance for a topic. And the form of the project always follows function—instead of marching through a learning sequence,

it evolves organically, with input from students. What they discover on Monday will influence their tasks on Tuesday and beyond, and in many cases the scope of the project (and its

findings) can exceed the original expectations of school educators. As the projects evolve, educators are continually observing and assessing project teams to ensure that required content is being covered, and learners are acquiring and developing fundamental skills. If there is a need for reinforcement of certain material, or students need extra help with skills, educators can approach them on an individual level to give them the help and resources they need. Because a School of the Future learner's day is not as structured as a typical student's, this often can be accomplished through supplementary instruction or practice, without significantly interrupting the flow of the project.

Project-based learning helps students understand topics, rather than just memorizing facts. These children can extend their learning to new subjects in school, and eventually to their futures outside the classroom. That is why the majority of students' projects involve real-world connections outside the school property, both physical and virtual. Students may visit the adjacent Philadelphia Zoo, to make a real connection to the biology they study; or go to a museum, to see what was left behind by the cultures they're exploring; or meet with local leaders and community members to gain perspective on the environment in which they live; or use the advanced technology at the School to conduct research. Each new project involves a reorganization of students, and results in groups of children from different communities, middle schools, and backgrounds. Additionally, students are not "sorted" by proficiency, as in many high schools; rather they are challenged to work with new faces and personalities in order to succeed in teams and as individual learners.

What is your position on standardized testing and its ability to prepare our students for careers that require critical thinking skills, effective communication, and problem solving?

Although Microsoft has never taken a position on specific standardized tests or their implementation, we believe they are one component that can be utilized to gauge student achievement. Fundamentally, "testing"—meaning a substantive assessment of educational progress—is more important than ever if we are to ensure that students graduate with "21st Century skills" in such critical areas as communication, critical thinking, and problem-solving. Without effective measurement, no educational endeavor is likely to be as effective as it might be since this is a critical element in identifying ways in which to drive improvement and enhance achievement. We are in a state of nearly constant evaluation at the school and we believe this should serve as a model for policymakers to consider. Our experience also indicates that funding for new data systems and support for initiatives such as the Data Quality Campaign and the State Education Data Center are important.

The assessment system at the School of the Future ensures its students meet the same state educational standards (the annual Pennsylvania System of School Assessment (PSSA)) as their peers in Philadelphia. But helping students to succeed in a traditional, content based assessment does not have to mean approaching it in a traditional way. Each curriculum plan for the School of the Future begins with a state standard, which are matched with student competencies, as

determined by school leadership. In turn, these competencies map to "lenses"—the foundation of the project-based model at the school—which go beyond subject matter to look at ways of thinking about learning. At the student level, the curriculum focus is on understanding: the level of understanding which children begin; the milestones of understanding they reach during learning; and the culmination of their understanding at project end. Assessment of student competency and understanding does not take the shape of A's, B's or C's. Rather, at the close of each project, each student receives a 17-page assessment portfolio, which documents and measures their work and competencies against a rubric. It is the responsibility of each student to deliver this portfolio to their parents for acknowledgement and signature. Student responsibility takes other forms as well. In addition to having to take and pass the 11th grade PSSA, every student at the School of the Future must apply to a university or college to qualify for graduation.

Representative Vernon Ehlers (MI-03), a member of the Early Childhood, Elementary and Secondary Education Subcommittee and the Higher Education, Lifelong Learning, and Competitiveness Subcommittee, has asked that you respond in writing to the following questions:

1. To what extent do public schools use public-private partnerships when funding school construction projects? To what extent would it be reasonable to expect schools to raise a certain amount of funding in order to receive a federal incentive or matching payment?

There is tremendous opportunity for schools to leverage the power of public-private partnerships and much more needs to be done to ensure this occurs. Our experience indicates that there is a richness that can result from the right fit, the right kind of partnership—and one not based strictly on financial support but that utilizes the breadth of competencies particularly private entities can bring to bear. We brought a deep knowledge of the power of software to create a rich learning environment as well as management and other competencies to the process. A combination of entities may offer unique partnering opportunities and resources.

Although many schools may well be in a position to raise a certain amount of funding, so many more simply will not—a fact that could in some instances exacerbate difficulties already seen in the system. We would urge that you consider how to develop a policy framework that provides greater incentives for deeper, more sustained private sector involvement—beyond monetary—and providing schools and LEA's with guidance as to how to engage more effectively with the private sector. This could take the form of different kinds of management and leadership training for school and district leaders; exchange program incentives, and other types of engagement model support.

2. My congressional district may be home to the most Leadership in Energy and Environmental Design (LEED) certified schools in the nation (four schools as of January 13). To what extent has recent school construction complied with the U.S. Green

Building Council's standards for LEED certification or other comparable standards? How should the federal government encourage more K-12 schools to invest in sustainable construction activities? What is the preferable approach for encouraging more schools to use energy and environmentally friendly construction methods—federal incentives (e.g., matching funds, tax-exempt bonds, or grant funds) or federal mandates? Related to this, I would also appreciate insights on how to encourage schools to engage in sustainable ("green" certified) remodeling projects.

The issue of federal encouragement for sustainable construction requires significant and swift investigation as evidence regarding the impact of sustainable building practices on academic achievement emerges. In our view, a key lesson learned was the critical role architectural, aesthetics, and environmental issues played in the development of School of the Future's critical success factors.

The average School of the Future classroom is 800 square feet and features controlled daylight, consisting of sufficient natural light from windows and supplemental artificial lighting to reduce computer glare. Windows at the School of the Future are equipped with screens that can be easily raised and lowered to prevent sun glare and diffuse the controlled daylight. These investments in optimal lighting are well spent. Research indicates that student performance on math and language tests can increase more than 25% simply through the implementation of natural lighting (see The New York Times, Beyond the Bulbs: In Praise of Natural Light).

In existing facilities, modular furniture can transform traditional classrooms into flexible environments capable of responding to changing needs. Wireless technologies are often simple to add as "last mile" solutions on top of existing hardwire infrastructure. For example, the School District of Philadelphia, concurrent with developing the School of the Future, is completing over 50 renovations of individual classrooms throughout the district using wireless technologies. Even lighting, perhaps the hardest design feature to retrofit into an existing footprint, can be optimized through updated LED fixtures and window screens that gently diffuse daylight and reduce glare. The "Green Roof" over the Performing Arts Center; the gathering system for rain water for internal use; and the photovoltaic window panels that gather sunlight and convert it into electricity usage for the school, are the kinds of innovations that when integrated into the planning process, can help LEA's meet both budget requirements and sustainability objectives.

Regardless of the specific policies Congress chooses to enact, we would urge you to strongly consider the impact of environmental factors on student achievement and develop a policy framework that provides greater incentives for significant private sector involvement in the architecture of 21st century learning environments. Buildings, like curricula, must reflect the needs of 21st century learning environments of which sustainability is a critical element.

[VIA FACIMILE TRANSMISSION],
February 15, 2008.

Mr. Neal McCluskey,
Associate Director of the Center for Educational Freedom, CATO Institute, Washington, DC.

DEAR MR. MCCLUSKEY: Thank you for testifying at the February 13, 2008 hearing of the Committee on Education and Labor on "Modern Public School Facilities: Investing in the Future".

Representative Vernon Ehlers (MI-03), a member of the Early Childhood, Elementary and Secondary Education Subcommittee and the Higher Education, Lifelong Learning, and Competitiveness Subcommittee, has asked that you respond in writing to the following questions:

1. To what extent do public schools use public-private partnerships when funding school construction projects? To what extent would it be reasonable to expect schools to raise a certain amount of funding in order to receive a federal incentive or matching payment?

2. My congressional district may be home to the most Leadership in Energy and Environmental Design (LEED) certified schools in the nation (four schools as of January 13). To what extent has recent school construction complied with the U.S. Green Building Council's standards for LEED certification or other comparable standards? How should the federal government encourage more K-12 schools to invest in sustainable construction activities? What is the preferable approach for encouraging more schools to use energy and environmentally friendly construction methods—federal incentives (e.g., matching funds, tax-exempt bonds, or grant funds) or federal mandates? Related to this, I would also appreciate insights on how to encourage schools to engage in sustainable ("green" certified) remodeling projects.

Please send an electronic version of your written response to the questions to the Committee staff by close of business Monday, February 25, 2008—the date on which the hearing record will close. If you have any questions, please contact us.

Sincerely,

GEORGE MILLER,
Chairman.

[VIA FACIMILE TRANSMISSION],
February 15, 2008.

Kathleen J. Moore, *Director,*
School Facilities Planning Division, California Department of Education, Sacramento, CA.

DEAR MS. MOORE: Thank you for testifying at the February 13, 2008 hearing of the Committee on Education and Labor on "Modern Public School Facilities: Investing in the Future".

Representative Yvette Clarke (NY-11), a member of the Healthy Families and Communities Subcommittee, has asked that you respond in writing to the following questions:

1. In your testimony you discuss how extremely poor environments have a negative effect on students and teachers. Has your department done studies on the effects of green building and its impact on student performance? And if so, what were the results?

2. As you are aware, Congress is in the process of reauthorizing No Child Left Behind. Accountability, in the form of a school's annual yearly progress (AYP), is an important component of NCLB. In your testimony, you mentioned the correlation between newer and better schools and standardized test scores. My question is two fold: first, can you discuss, how substandard school facilities could impact a school's ability to make AYP; and second, do you believe that integrating a child's immediate environment into their core curriculum could aid in their achievement?

Representative Vernon Ehlers (MI-03), a member of the Early Childhood, Elementary and Secondary Education Subcommittee and the Higher Education, Lifelong Learning, and Competitiveness Subcommittee, has asked that you respond in writing to the following questions:

1. To what extent do public schools use public-private partnerships when funding school construction projects? To what extent would it be reasonable to expect schools to raise a certain amount of funding in order to receive a federal incentive or matching payment?

2. My congressional district may be home to the most Leadership in Energy and Environmental Design (LEED) certified schools in the nation (four schools as of Jan-

uary 13). To what extent has recent school construction complied with the U.S. Green Building Council's standards for LEED certification or other comparable standards? How should the federal government encourage more K-12 schools to invest in sustainable construction activities? What is the preferable approach for encouraging more schools to use energy and environmentally friendly construction methods—federal incentives (e.g., matching funds, tax-exempt bonds, or grant funds) or federal mandates? Related to this, I would also appreciate insights on how to encourage schools to engage in sustainable ("green" certified) remodeling projects.

Please send an electronic version of your written response to the questions to the Committee staff by close of business Monday, February 25, 2008—the date on which the hearing record will close. If you have any questions, please contact us.

Sincerely,

GEORGE MILLER,
Chairman.

[VIA FACIMILE TRANSMISSION],
February 15, 2008.

Mr. Paul Vallas, *Superintendent,*
Recovery School District, New Orleans, LA.

DEAR MR. VALLAS: Thank you for testifying at the February 13, 2008 hearing of the Committee on Education and Labor on "Modern Public School Facilities: Investing in the Future".

Representative Vernon Ehlers (MI-03), a member of the Early Childhood, Elementary and Secondary Education Subcommittee and the Higher Education, Lifelong Learning, and Competitiveness Subcommittee, has asked that you respond in writing to the following questions:

1. To what extent do public schools use public-private partnerships when funding school construction projects? To what extent would it be reasonable to expect schools to raise a certain amount of funding in order to receive a federal incentive or matching payment?

2. My congressional district may be home to the most Leadership in Energy and Environmental Design (LEED) certified schools in the nation (four schools as of January 13). To what extent has recent school construction complied with the U.S. Green Building Council's standards for LEED certification or other comparable standards? How should the federal government encourage more K-12 schools to invest in sustainable construction activities? What is the preferable approach for encouraging more schools to use energy and environmentally friendly construction methods—federal incentives (e.g., matching funds, tax-exempt bonds, or grant funds) or federal mandates? Related to this, I would also appreciate insights on how to encourage schools to engage in sustainable ("green" certified) remodeling projects.

Please send an electronic version of your written response to the questions to the Committee staff by close of business Monday, February 25, 2008—the date on which the hearing record will close. If you have any questions, please contact us.

Sincerely,

GEORGE MILLER,
Chairman.

[VIA FACIMILE TRANSMISSION],
February 15, 2008.

Dr. Paula Vincent,
Clear Creek Amana School District, Oxford, IA.

DEAR DR. VINCENT: Thank you for testifying at the February 13, 2008 hearing of the Committee on Education and Labor on "Modern Public School Facilities: Investing in the Future".

Representative Vernon Ehlers (MI-03), a member of the Early Childhood, Elementary and Secondary Education Subcommittee and the Higher Education, Lifelong Learning, and Competitiveness Subcommittee, has asked that you respond in writing to the following questions:

1. To what extent do public schools use public-private partnerships when funding school construction projects? To what extent would it be reasonable to expect schools to raise a certain amount of funding in order to receive a federal incentive or matching payment?

2. My congressional district may be home to the most Leadership in Energy and Environmental Design (LEED) certified schools in the nation (four schools as of Jan-

uary 13). To what extent has recent school construction complied with the U.S. Green Building Council's standards for LEED certification or other comparable standards? How should the federal government encourage more K-12 schools to invest in sustainable construction activities? What is the preferable approach for encouraging more schools to use energy and environmentally friendly construction methods—federal incentives (e.g., matching funds, tax-exempt bonds, or grant funds) or federal mandates? Related to this, I would also appreciate insights on how to encourage schools to engage in sustainable ("green" certified) remodeling projects.

Please send an electronic version of your written response to the questions to the Committee staff by close of business Monday, February 25, 2008—the date on which the hearing record will close. If you have any questions, please contact us.

Sincerely,

GEORGE MILLER,
Chairman.

[VIA FACIMILE TRANSMISSION],
February 15, 2008.

Mr. Jim Waters, *Director of Policy and Communications, Bluegrass Institute, Bowling Green, KY.*

DEAR MR. WATERS: Thank you for testifying at the February 13, 2008 hearing of the Committee on Education and Labor on "Modern Public School Facilities: Investing in the Future".

Representative Vernon Ehlers (MI-03), a member of the Early Childhood, Elementary and Secondary Education Subcommittee and the Higher Education, Lifelong Learning, and Competitiveness Subcommittee, has asked that you respond in writing to the following questions:

1. To what extent do public schools use public-private partnerships when funding school construction projects? To what extent would it be reasonable to expect schools to raise a certain amount of funding in order to receive a federal incentive or matching payment?

2. My congressional district may be home to the most Leadership in Energy and Environmental Design (LEED) certified schools in the nation (four schools as of January 13). To what extent has recent school construction complied with the U.S. Green Building Council's standards for LEED certification or other comparable standards? How should the federal government encourage more K-12 schools to invest in sustainable construction activities? What is the preferable approach for encouraging more schools to use energy and environmentally friendly construction methods—federal incentives (e.g., matching funds, tax-exempt bonds, or grant funds) or federal mandates? Related to this, I would also appreciate insights on how to encourage schools to engage in sustainable ("green" certified) remodeling projects.

Please send an electronic version of your written response to the questions to the Committee staff by close of business Monday, February 25, 2008—the date on which the hearing record will close. If you have any questions, please contact us.

Sincerely,

GEORGE MILLER,
Chairman.

[The statement of Mr. Altmire follows:]

Prepared Statement of Hon. Jason Altmire, a Representative in Congress From the State of Pennsylvania

Thank you, Chairman Miller, for holding this hearing on public school construction needs. I also want to thank my colleagues on both sides of the aisle that will testify today. I appreciate your time and your insights on this important topic.

Modernizing our nation's schools is a critical component of improving the education system in this country. A 2005 survey found that 52 percent of schools had no science laboratories, 30 percent had no art rooms, 19 percent had no music rooms, and 17 percent had no gymnasium. Even more troubling, anecdotal evidence suggests that many schools have basic infrastructure needs that have not been addressed leading to environments that are not conducive to learning and, at times, unhealthy. As one might expect, schools with disproportionately high percentages of low-income students face the greatest infrastructure challenges.

Due to our public schools' construction needs, I have cosponsored the America's Better Classroom Act of 2007 (HR 2470). This legislation will provide $22 billion in

interest free bonds for public schools to rehabilitate and modernize their facilities. I know that several other members, who we will hear from today, have introduced additional legislation that will help address the construction needs of our public schools. I look forward to hearing from these members and to working with them on this issue.

Thank you again, Mr. Chairman, for holding this hearing. I yield back the balance of my time.

[The statement of Mr. Courtney follows:]

Prepared Statement of Hon. Joe Courtney, a Representative in Congress From the State of Connecticut

Chairman Miller and Ranking Member McKeon, I want to thank you very much for convening this very important hearing today. I look forward to hearing from my colleagues and the rest of the distinguished panel.

As I travel around the district visiting elementary, middle and high schools, I hear first-hand the problems faced by administrators dealing with aging infrastructure and high energy costs. In order to raise awareness and promote the benefits of green school construction, I have joined the newly established Green Schools Caucus. Aging schools have a detrimental effect on the lives of students, teachers, administrators and support staff.

In June 2006, the Institute for Sustainable Energy (ISE) at Eastern Connecticut State University prepared an Energy Efficiency Study of Connecticut Schools. One of the most striking findings was that total energy costs for Connecticut schools for the 2005-2006 year rose to over $160 million, a 35 percent increase over the previous year. Unfortunately, as these costs escalate, school districts must look at ways to reduce spending in education, extracurricular activities, maintenance and hiring.

Over 90 percent of Connecticut's 1026 public schools were built before 1978 and 68 percent of them were built between 1950 and 1978. These schools were built in an era of rapid growth and low energy prices and with building codes that gave little or know thought to smart, healthy, energy-efficient design. Therefore, most of Connecticut schools are energy inefficient although many have participated in programs to upgrade their lighting systems.

The Department of Energy has found that schools built before 1978 are designed and constructed in such a way to make them inherently energy inefficient and wasteful. Insulation levels are minimal; single level buildings often do not contain vapor barriers, thus leading to mold; and something as simple as making optimal use of outdoor lighting was rarely incorporated.

Conversely, many of the schools built before 1950 seem to be performing better than their later-built counterparts. Often, these structures were multi-story and constructed of heavier mass that allow them to distribute heat better and weather extreme winter conditions. In addition, some of these older buildings have actually been renovated in the last 10 years, taking advantage of energy efficient heating and lighting structures.

The ISE found that if Connecticut brought all of its schools up to the national average—50 on the Energy Star scale, energy use could be reduced by nearly 30 percent and annual savings in 2005 dollars would approach $34 million.

The problem facing school districts in eastern Connecticut is the cost associated with these upgrades. While there are some incentives for new construction, there are few incentives for retrofitting and other upgrades to existing structures.

The federal government must do more to assist local school districts in this country if we are serious about reducing our fossil fuel consumption and improving the education of students today and in the future.

I am a cosponsor of the America's Better Classroom Act (H.R. 2470) which amends the Internal Revenue Code to allow a tax credit for investment in qualified public school modernization bonds for the construction, rehabilitation or repair of a public school facility.

I am also cosponsoring the School Building Enhancement Act (H.R. 3197) that will help bring resources to those school districts that want to either embark on new construction or retrofit existing buildings.

I look forward to hearing the testimony today.

[The statement of Ms. Woolsey follows:]

Prepared Statement of Hon. Lynn C. Woolsey, a Representative in Congress From the State of California

No child should have to go to a school that is falling down around him or her. No child should have to wear a winter coat in the classroom while trying to learn because the heat isn't working. Schools shouldn't have to close on a hot day because there is no working air conditioning. Our children deserve the best opportunities in life and that starts with a quality education in a building where they can focus on learning, not their healthy or safety. To provide a positive learning environment, students must have great teachers and sound facilities. This Committee is finding ways to work with states and school districts to ensure that schools are renovated or built in a way that promotes learning for our students.

Several of the witnesses discussed green building and how this is becoming the wave of the future. Well, the future is already here in my district. Not only are our schools being planned and constructed to be more environmentally friendly, they are saving money on energy costs. As more and more states face budget shortfalls and school districts try to deal with budget cuts, green energy and green building will make a difference for school districts. By doing the right thing, we are actually benefiting our children, schools, and districts.

As the Chairwoman of the Workforce Protections Subcommittee, I would like to address some of the witnesses' criticisms of the Davis-Bacon Act. Davis-Bacon is as relevant today as it was when it was passed 75 years ago. The payment of prevailing wages—-as required under the Act—-ensures stabilized wages that are not artificially depressed by competition for federal construction contracts. When prevailing wages are in place, all contractors are forced to compete on an equal basis and cannot undercut other bids that are based on finding the cheapest workforce, a workforce that is easily exploited, and not a workforce that can do the best job. These prevailing wages benefits the community and the families and students that come from that community.

In addition, studies have proven a direct correlation between wage levels and productivity, and projects with high skilled labor often mean that they cost less and not more. If construction is shoddy, costly repairs and delays run up the costs of a project—-so the premise that Davis-Bacon costs the Federal Government more is faulty. Add to that safety, community development and other economic forces, and Davis-Bacon is actually a cost-saver and not a cost spender. Besides which, not paying prevailing wages will result in the decline of apprenticeship training programs. My own belief is that we need more skilled workers in this country, not less.

I also need to emphasize that prevailing wages are not union wages. They are based on the usual wages and benefits paid for construction work in the local community. Twelve (12) states have repealed their own prevailing wage laws assuming that this would have benefits to taxpayers. Instead, these repeals have led to dismal consequences. For example, a study in Iowa found that contractors, by paying less than prevailing wages, did not pass savings onto the taxpayers, but enriched themselves instead.

Our children deserve the best possible school buildings and we shouldn't undercut wages or construction costs at the risk of a building that isn't the safest and best learning environment for our children.

[Additional submissions from Ms. Hooley follow:]

["Daylighting in Schools," may be accessed at the following Internet address:]

http://edlabor.house.gov/testimony/2008-02-13-Daylighting.pdf

---

["Greening America's Schools Costs and Benefits," by Gregory Kats, may be accessed at the following Internet address by searching for the title:]

http://www.buildgreenschools.org

["Green Building Smart Market Report," McGraw-Hill, 2007, may be purchased at the following Internet address:]

http://greensource.construction.com/resources/smartMarket.asp

---

[Letter submitted by Mr. Kildee follows:]

NATIONAL PARENT TEACHER ASSOCIATION,
COUNCIL OF THE GREAT CITY SCHOOLS,
NATIONAL EDUCATION ASSOCIATION,
AMERICAN FEDERATION OF TEACHERS,
AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS,
NATIONAL SCHOOL BOARDS ASSOCIATION,
NATIONAL ASSOCIATION OF ELEMENTARY SCHOOL PRINCIPALS,
NATIONAL ASSOCIATION OF SECONDARY SCHOOL PRINCIPALS,
NAACP,
NATIONAL ASSOCIATION OF FEDERALLY IMPACTED SCHOOLS,
AMERICAN INSTITUTE OF ARCHITECTS,
ORGANIZATIONS CONCERNED ABOUT RURAL EDUCATION,
NATIONAL RURAL EDUCATION ASSOCIATION,
CALIFORNIANS FOR SCHOOL FACILITIES,
February 11, 2008.

Hon. GEORGE MILLER, *Chairman,*
Education and Labor Committee, U.S. House of Representatives, Washington, DC.

DEAR CHAIRMAN MILLER: Rebuild America's Schools appreciates the Education and Labor Committee hearing on Modern Public School Facilities: Investing in the Future. Rebuild America's Schools believes there is an imperative need for Congress and the federal government to support the efforts of state and local communities to provide the modern schools our nation's students need to achieve and succeed in the 21st century.

Well-documented estimates such as the Government Accounting Office 1995 Report and the National Education Association 2000 Report place the need for building new schools to educate record student enrollments and renovating and repairing existing school buildings as high as $300 billion. While some of these construction needs have been met, local school districts in every state are delaying priority school construction projects as they struggle to secure local and state financing. Federal support with the financing of local school facility projects is effective. Both the highly successful Emergency School Repair program and the Qualified Zone Academy Bond program demonstrate that Congress can provide financial support to local school districts without interfering with the state and local decision making processes.

New, modernized and technologically equipped schools provide the learning environments students and teachers need to be more effective. Simply put, better school facilities advance student achievement and increase the likelihood of students succeeding academically and in life.

School Facility Legislation Pending in the House of Representatives

Rebuild America's Schools supports a number of bills before the House: Ways and Means Committee Chairman Rangel's bipartisan America's Better Classrooms Act, HR 2470 with the support of Congressmen Ramstad, Etheridge, Kildee, yourself and over two hundred of your other colleagues provides federal support through federal tax credits for $25 billion in state and local school construction bonds. The bonds provide a federal tax credit in lieu of interest, saving local school districts almost 50% of the total cost of the bonds.

The America's Better Classrooms Act (HR 2470/S 912) will help underwrite over $25 billion in school construction bonds at a cost to the U.S. Treasury of $1.67 billion over five years; $6.7 billion over ten years for the entire $25 billion program. Components of the ABC bill would cost even less. Currently 217 members in the House support and cosponsor this legislation.

Congressman Loebsack and Senator Tom Harkin's legislation, HR 3902/ S. 1942, the Public School Repair and Renovation Act provides $1.6 billion in grants to communities that continue to struggle to fund needed school facility repairs. This legislation builds on the Emergency School Repair Program which was funded at $1.2 billion when Congress first authorized it in 2000. Under the Emergency School Repair Program, states and school districts successfully used $1.2 billion to repair and renovate public schools in 2001 and 2002.

Congressman Ben Chandler's bill H.R. 3021, the 21st Century High-Performing Public School Facilities Act, authorizes $32 billion in grants and loans over a 5-year

period for school repair and modernization. Additionally, the bill authorizes $1 billion for school technology infrastructure.

These bills provide three approaches to federal support for the efforts state and local communities are undertaking to provide the educational settings students need to learn and to compete successfully in this century's global economies. A federal commitment to support school facilities recognizes the national imperative that the academic success of our students represents the economic and political future of our country.

When local communities build, renovate and repair schools to provide safer, more modern school facilities they are also responding to the call from Congress and the Administration to raise student achievement. An added dimension of federal support for school facilities is that the federal financial assistance contributes to local economies and generates local jobs. Congressional authorization of programs for school facilities will generate economic activity in every state. School construction projects will generate thousands of jobs in the construction industry, and among the many suppliers, ranging from architects and engineers to roofing contractors and other workers, who design and build our nation's schools.

Thank you Mr. Chairman and Members of the Education and Labor Committee for considering school facility needs as a critical investment in America's educational, political and economic future. Better schools improve the opportunity for students to succeed and will advance student achievement in urban, rural and suburban communities in every state in our nation.

We respectfully request that this letter be included as part of the hearing record.

Sincerely,

ROBERT P. CANAVAN,
Chair.

[Whereupon, at 12:24 p.m., the committee was adjourned]

○