MEMORANDUM
December 19, 2008

To: Linda Darling-Hammond, Geri Palast, Jack Polidori

From: Stephen English, Advancement Project, Jeffrey M. Vincent, PhD, Center for Cities and Schools[1]

Re: Federal Investment in Public School Facilities

Knowing you are considering the need and scope for federal investment in public school facilities, we submit the following summary of important background, general analysis and recommendations on this subject.

A. The scope of our national needs

We start with the bad news: Our nation's schools are in poor condition, and massive expenditures are necessary to improve them. The scope of the need, from an engineering perspective, and the cost of the remedy can be glimpsed from a comparison of two facts:

1. During the ten-year period 1995 to 2004 state and local communities spent $504 billion to construct and repair the nation's schools.[2]

2. At the end of that period, in 2005, the American Society of Civil Engineers issued a report-card grade for the quality of our public school buildings. The grade was a D. Remarkably, this showed progress. In earlier ratings in 1998, 2001 and 2003, the grades were F, D- and D-, respectively.[3]

In the near term it is highly unlikely that state and local governments will be able to match the rate of our '95 to '04 expenditures. The recession and the credit crisis have already stalled or imperiled many planned projects. In California for instance, where voters recently authorized state and local school bond measures for billions of dollars, the authorized bonds cannot be issued because the municipal bond market is not functioning. Last month the state of California failed to sell two thirds of bonds worth $500 million.[4] Even if the bonds could be sold, state and local governments with recession-related budget deficits are averse to undertaking new debt service burdens.

The combined effects of a large budget deficit and a dysfunctional bond market caused California this week to stop payments for all pending infrastructure projects, including many where construction has started or was about to start.[5] Additionally, there is an increasing prospect that cash-strapped state and local governments will reduce or eliminate facilities maintenance expenditures.[6]

So it will be a challenge to just maintain the near-failing grade the nation's school facilities received in 2005. The larger challenge will be, not only to increase the grade, but also to substantially broaden the grading criteria into areas where we know that, as a nation, we have underperformed in the past. This larger challenge, however, is unavoidable.

- There have been enormous equity gaps in our spending on facilities. Since most school facilities are locally financed, it is not surprising that more is spent on school buildings in prosperous areas, but the level of the disparity is shocking. In the '95-'04 period, facilities expenditures in high-income areas averaged $9,361 per student. In high poverty areas it averaged $4,800.[7] Since this disparity was surely preceded in most places by even greater disparities, stretching back over many decades, the quality of the facilities in our high-poverty areas is an underreported national scandal.

- We must do more with our school facilities than simply repair and replicate them to accommodate enrollment growth. We need school buildings that incorporate green technology, and we need schools built in accordance with what we know about the positive impact, on teaching and learning, of flexible design, small schools, laboratory space, large group instruction areas, color, natural lighting, good acoustics and thermal systems.[8]

- We need to provide preschool/early childhood education facilities where they are lacking in high need areas.

B. The long and near term benefits of increased investment

Now the good news: expenditures on school facilities will yield very substantial returns, in strategic long-term benefits to our national economy, and in a near-term boost to our economic recovery.

It is beyond argument that "a nation's education system helps determine the quality of its labor force and therefore the health of its economy."[9] And substantial evidence indicates the importance of school facility condition, design and maintenance on student performance and teacher workplace satisfaction.[10] 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.[11] Similarly, there is clear evidence that extremely poor environments have a negative effect on students and teachers and improving these have significant benefits.[12] Poor building conditions greatly increase the likelihood that teachers will leave their school and that students will drop out.[13]

School facilities investment will also produce other, less direct but still substantial, long-term benefits. Schools are ideal showcases for green technologies, and the installation of these technologies will cut operating costs. Similarly, modernization and maintenance projects will produce savings by reducing utility costs and extending the useful life of building systems. Also, schools are community infrastructure, and their location, design and physical condition powerfully impact neighborhood quality.[14]

The immediate and direct economic effects of school facilities investment will be substantial. The 21st Century School Fund, using research from sources including the U.S. Department of Transportation, the U.S. Army Corps of Engineers, and the University of Cincinnati, has projected that $10 billion in federal investment would produce as many as 250,000 jobs; approximately a third of these would be in direct construction and others would be, *inter alia*, in supporting industries that manufacture roofing materials, HVAC equipment and windows.[15]

C. Recommendations

We understand that the Transition Team has gathered information from many state and local agencies for the purpose of identifying shovel-ready infrastructure projects. We assume that this survey has led to the same conclusion as our more limited effort: there is a large inventory of projects where construction could be started in 90 days, and a much larger number that could be started in a year. Here are our general recommendations concerning the scope of the overall expenditure, the projects to be funded, the manner of funding, and long-term federal involvement:

1. The investment should be large

For economic recovery purposes time is critical, but so is the amount. Without federal assistance, state and local governments are unlikely to invest even a large fraction of the $50 billion needed annually to keep pace with the $504 billion spent nationally between 1995 and 2004. And to improve our near-failing national school facilities grade, address the gross inequities of our traditional funding patterns, provide preschool facilities in high-need areas, equip schools with green technology, boost teaching and learning, build up neighborhoods and create substantial jobs, we must do more than simply replace or restart state and local investment flows. In determining an overall amount ($50 billion would not be inappropriate to substantially create jobs and address deep needs), include the following considerations:

- Over the next two years federal spending to address the inequities of traditional school facilities funding --inequities that disfavor students in low-income communities-- should be in the area of $10 billion. This is in line with conclusions reached by the 21st Century School Fund, *i.e*, over the next ten years it will cost $50 billion to bring ongoing facilities expenditures in the lower income districts to parity --not parity with the high-income districts, but parity of ongoing expenditure with districts in the middle income range.[16] This equalization would not redress, except very gradually, the cumulative impact of decades of disparate funding.
- Substantial funds are needed to provide preschool/early childhood education facilities where they are lacking in high-need areas. For California alone we've estimated this cost to be $452 million for 23,000 spaces.[17]
- Maintenance and repair projects could be started quickly in many areas, but if the overall amount of federal assistance is less than $20 billion, the effect would be negligible in relation to the need, as some districts may get only enough to re-carpet a room. Of course even small amounts of funds can be used to make schools safer and healthier, and they could have a marginal effect on utility consumption. But for substantial benefits, long and near term, as we outline above, substantial investments are needed.

2. Be flexible with respect to the kinds of projects financed.

For immediate economic stimulus and long-term benefits, facilities spending should include new-construction, modernization, repair and deferred maintenance projects.

- New construction is necessary to reduce overcrowding, provide for enrollment growth, equalize educational opportunities, and fully support teaching and learning.
- Modernization promotes efficient use of existing structures and the adoption of energy saving green technologies while reducing the negative impact of poor conditions on teaching and learning.
- Projects to address important repair and deferred maintenance needs can be started quickly, and in many areas these needs have been underfunded for years.[18]Attending to these needs now will save future costs.

3. Be flexible with respect to financing methods and allocation formulas.

In some circumstances direct project funding is appropriate, but there is a critical immediate need to restart and supplement state and local finance flows through support for municipal debt issues. Financing through existing channels would allow use of existing state and local procedures to identify need and enforce accountability.

- Direct federal funding could be based on Title I apportionments.[19]
- If the federal government were to purchase local bonds, it would enable districts to proceed immediately with planned projects and then pay off the bonds over time.[20] To encourage the issuance of state and local bonds, the federal government should waive interest costs for the next several years.[21]
- Through grants or loans, the federal government could also fund existing state and local maintenance programs which are threatened by recession-related budget cuts.
- Because preschool and other early education services are delivered both by K-12 public schools and by community based providers, and because both parts of this mixed delivery system have facilities needs, federal facilities funding should (1) when given to public schools, explicitly include support for early learning facilities, and (2) provide alternative distribution mechanisms (revolving loan funds, for example) through which community based providers can also meet their facilities needs.

4. Institute long term federal funding.

Given the scope of the need, and the strategic national importance of our education facilities, the federal government should have a continuing role here. There is precedent for large-scale federal involvement. The federal Public Works Administration paid for 70% of the new schools built during the period 1933 through 1939.[22] It's not just a question of funds, however; we need national leadership and perspective. Most notably, without sustained federal involvement, there is no hope for equalizing the severe disparities that exist nationally between facilities in less and more prosperous localities. Sustained federal involvement will also serve the continuing national interest in better education outcomes, enhancement of local communities and promotion of job growth.

Just as the federal government contributes, on average, 10% of local school district operating budgets, the federal government should provide a comparable amount of facilities support. Using the $504 billion from the 1995-2004 period as a basis for establishing local and state effort, plus the $85 billion that the states and local school districts paid in borrowing costs over the period, one can calculate that a 10% federal contribution would be about $5.9 billion per year.[23]

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[1] The Advancement Project (www.advanceproj.org) is a civil rights advocacy, policy and research organization, with offices in California and Washington, D.C. The Center for Cities & Schools (http://citiesandschools.berkeley.edu) at the University of California-Berkeley is an action-oriented think tank and interdisciplinary initiative bridging the fields of education, community development, and metropolitan planning. Vincent co-authored *Growth and Disparity: 10 Years of U.S. Public School Construction*.

[2] Filardo, Mary et al. 2006 *Growth and Disparity: 10 years of U.S. Public School Construction 1995-2004.* Washington, D.C.: 21st Century School Fund, Building Educational Success Together. ("Filardo, *Growth and Disparity")*

[3] Filardo, Mary. 2008. *Good Buildings, Better Schools*, Economic Policy Institute Briefing Paper #216, p. 3 ("Filardo, *Good Buildings*")

[4] Rau J. and Halper E., *State May Stop Public Works Projects Cold*, Los Angeles Times, December 17, 2008, p.1

[5] Bizjak, T, *State Officials Halt Funds for Public Works Projects*, Sacramento Bee, December 18, 2008, p.1A

[6] Last week for example, the Republican members of the California Legislature proposed as part of their plan for closing the state's large budget deficit, the elimination of the $280 million which the state provides annually to school districts for deferred maintenance expenses.

[7] Filardo, *Growth and Disparity*.

[8] Filardo, *Good Buildings*, p.5; Moore, Kathleen, *Modern Public School Facilities*, Testimony to Committee on Education and Labor, U.S. House of Representatives, February 13, 2008, pp. 4-5 ("Moore, *Modern Public School Facilities*").

[9] Weiss, Jonathan. 2004 *Public Schools and Economic Development: What the Research Shows.* Cincinnati, Ohio: Knowledge Works Foundation.

[10] Moore, *Modern Public School Facilities* (collecting sources) pp. 3-4

[11] Id.

[12] Filardo, *Good Buildings (collecting sources)* p.5
[13] Moore, *Modern Public School Facilities* (collecting sources) pp. 3-4; Schneider, Mark. 2002. "*Do School Facilities Affect Academic Outcomes?"* National Clearinghouse for Educational Facilities, Washington, D.C.
[14] Vincent, Jeffrey M. 2006. "Public Schools as Public Infrastructure: Roles for Planning Researchers." Journal of Planning Education and Research 25(4): 433-437.
[15] Filardo, Mary. *Federal Economic Stimulus for School Construction*, Memorandum to R. Eisenbrey, Economic Policy Institute, Washington D.C., November 12, 2008 ("Filardo, *Federal Economic Stimulus")*
[16] Filardo, *Good Buildings*, p.6.
[17] Munger, Molly, et. al. 2007.*California's Preschool Space Challenge,* Advancement Project, Los Angeles. This estimate is for areas served by schools whose scores are in the lowest 20% of the state.
[18] In 2007, for example, due to lack of funds the state of Washington was unable to address a number of health and safety requests that included, among other things, risks due to mold under carpets in classrooms, leaking oil tanks threatening the school water supply, no air circulation in classrooms, and inoperable fire alarm systems. Filardo, *Federal Economic Stimulus*, p.2
[19] Id. p.3 Filardo discusses prior legislation using this approach, mechanics, proposed adjustments, and sample outcomes. She also discusses a supplementary alternative: allocations to the 100 largest school districts.
[20] The purchase of state bonds would also be appropriate in some instances, as in California, where school construction is financed through a combination of state and local school bonds. Also, since the federal government can borrow more cheaply than states and local entities, purchase of municipal debt could be profitable for the federal government.
[21] The federal Qualified Zone Academy Bond (QZAB) program authorized by the Tax Payer Relief Act of 1997, P.L. 105-34, already does this to a limited extent through federal tax credits that are approximately equal to the interest the issuers would otherwise pay to the buyers of qualifying bonds. Under this program issuers are generally responsible only for the repayment of principal.
[22] Filardo, Good Buildings, p 7.
[23] Id., p.8.