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FACILITY HEALTH IMPACTING LEARNING ENVIRONMENT

Virtually all respondents (99%) recognized that the quality and performance of school facilities affect student achievement. The vast majority of participants (88%) indicated that facilities influence achievement to a “great” or “moderate” extent.

In your opinion, to what extent does the quality and performance of school facilities improve student achievement?

ENERGY COSTS CONTINUE TO RISE

Findings suggest that a majority of districts’ energy costs have increased substantially over the past three years.

How have your total energy costs changed in the past three years?

SURVEY CAPTURED A NATIONAL AND DIVERSE SAMPLE

Responses came from across the United States and were well suited to national averages for district type.

In which state is your district located?

Which best describes your district?

The survey consisted of 794 respondents from across the United States.

RESPONDENTS ARE HIGH-LEVEL DISTRICT DECISION-MAKERS

Respondents to the “School Energy and Environment Survey” were qualified based on their connection to K-12 education. All qualified respondents were district-based administrators or school board members. Nearly one in four (24%) qualified respondents were superintendents or assistant superintendents.

What is your connection to education?

Which title best describes your role within your organization?


It’s clear school leaders see a direct link between the quality and performance of school facilities, and student achievement. However, districts face several obstacles – including rising energy costs – when it comes to keep their buildings up to date and well maintained.
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In your opinion, to what extent does the quality and performance of school facilities improve student achievement?

- **To a great extent**: 40%
- **To a moderate extent**: 48%
- **To a limited extent**: 11%
- **To no extent**: 1%

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**ENERGY COSTS CONTINUE TO RISE**

Findings suggest that a majority of districts’ energy costs have increased substantially over the past three years.

How have your total energy costs changed in the past three years?

- **Energy costs have decreased**
  - Less than 5%
  - 10%

- **Energy costs have stayed the same**
  - Less than 5%
  - 5%
  - 52%

- **Energy costs have increased**
  - Less than 5%
  - 5%
  - 31%

- **Not sure**
  - Less than 5%
  - 17%
  - 26%
  - 25%
  - 27%

It’s clear school leaders see a direct link between the quality and performance of school facilities, and student achievement. However, districts face several obstacles – including rising energy costs – when it comes to keep their buildings up to date and well maintained.
Escalating Problems

The rise in energy costs is, ironically, hurting many school districts’ efforts to increase energy efficiency. After salaries, utility costs are typically the second largest and most variable district expense, making them a local point for administrators.

By reducing spending in these areas, many districts find themselves caught in a vicious cycle: deferred maintenance and upgrades lead to less efficient equipment, which leads to higher energy bills, which ultimately leads to more strain on budgets. Unless districts find ways to address the required energy and infrastructure improvements, they will likely continue to struggle and be forced to make additional cuts.

ENERGY COSTS IMPACTING INVESTMENTS

Almost three-quarters (72%) of respondents’ districts have had to cut spending in at least one key area. In particular, rising energy costs are negatively impacting maintenance schedules, staffing levels and capital investments.

Have rising energy costs directly forced your district to cut spending or make modifications in any of the following areas? (Please check all that apply)

- School calendar
- Transportation
- Class size
- salaries and benefits
- extracurricular activities/athletics
- School operations and maintenance
- Deferred maintenance
- Capital investments
- Staffing levels
- Maintenance
- Other

ENERGY MANAGEMENT CRUCIAL, BUT LACK OF LONG-TERM PLANNING

While 98% of survey respondents consider energy management important to their district’s long-term success, 36% reported that they do not have a strategic plan for managing energy consumption and costs, similar to findings in 2009.

How critical is energy management to your district’s long-term success? Share of respondents by response

Has your district developed or implemented a long-term strategic plan for managing energy consumption and costs? Share of respondents by response

AGING INFRASTRUCTURE PERPETUATING DEFERRED MAINTENANCE

With 73% of respondents reporting that the typical age of buildings in their districts is more than 20 years old, school leaders are facing a vicious cycle of deferred maintenance and rising energy costs that are inhibiting their ability to fulfill their educational missions.

How old is the typical school building in your district?

RECESSION: SIGNIFICANT IMPACT ON FACILITY IMPROVEMENTS

The majority of respondents (68%) reported that the economic downturn has either delayed or forced the elimination of facility improvement projects in their district.

How has the economic downturn changed any planned facility improvements?

AGENCY CHALLENGES TO INVESTMENT DECISIONS

With nearly all respondents (95%) indicating that their district received ARRA funds, only 14% of districts devoted funding to facility improvements, and only 12% used funds for school operations and maintenance.

In which of the following areas has your district invested ARRA funds?

- Educational technology
- Staffing levels
- Deferred maintenance
- Extracurricular activities/athletics
- Transportation
Escalating Problems

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Almost three-quarters (72%) of respondents’ districts have had to cut spending in at least one key area. In particular, rising energy costs are negatively impacting investments, they will likely continue to struggle and be forced to make additional cuts.

Have rising energy costs directly forced your district to cut spending or make modifications in any of the following areas? (Please check all that apply)

<table>
<thead>
<tr>
<th>Area</th>
<th>2009 data</th>
<th>2010 data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance</td>
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<td>Staffing needs</td>
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<tr>
<td>Transportation</td>
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<tr>
<td>Salaries and benefits</td>
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<td>Extracurricular activities / athletics</td>
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<td>9%</td>
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<td>Class size</td>
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<td>6%</td>
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<tr>
<td>School calendar</td>
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<td>6%</td>
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<tr>
<td>Have not yet made modifications</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Other</td>
<td>34%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Almost a 15% overall increase compared to those polled in 2009

ENERGY MANAGEMENT CRUCIAL, BUT LACK OF LONG-TERM PLANNING

While 98% of survey respondents consider energy management important to their district’s long-term success, 36% reported that they do not have a strategic plan for managing energy consumption and costs, similar to findings in 2009.

How critical is energy management to your district’s long-term success?

Share of respondents by response

- Very Important: 69%
- Somewhat Important: 30%
- Not Important: 2%

Has your district developed or implemented a long-term strategic plan for managing energy consumption and costs?

Share of respondents by response

- Yes: 64%
- No: 33%
- Not sure: 3%

AGING INFRASTRUCTURE PERPETUATING DEFERRED MAINTENANCE

With 73% of respondents reporting that the typical age of buildings in their districts is more than 20 years old, school leaders are facing a vicious cycle of deferred maintenance and rising energy costs that are inhibiting their ability to fulfill their educational missions.

How old is the typical school building in your district?

<table>
<thead>
<tr>
<th>Age</th>
<th>2009 data</th>
<th>2010 data</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 10 years old</td>
<td>60%</td>
<td>55%</td>
</tr>
<tr>
<td>10-20 years old</td>
<td>22%</td>
<td>24%</td>
</tr>
<tr>
<td>20-30 years old</td>
<td>14%</td>
<td>15%</td>
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<tr>
<td>30-40 years old</td>
<td>5%</td>
<td>6%</td>
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<tr>
<td>40-50 years old</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>50 years old</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>More than 50 years old</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Almost a 10% overall increase compared to those polled in 2009

RECESSION: SIGNIFICANT IMPACT ON FACILITY IMPROVEMENTS

The majority of respondents (68%) reported that the economic downturn has either delayed or forced the elimination of facility improvement projects in their district.

Has the economic downturn changed any planned facility improvements?

- Yes: 54%
- No: 22%
- Not sure: 24%

STIMULUS: GRANTS MOST POPULAR FORM OF SUPPORT

The vast majority of respondents reported that their district pursued at least one form of stimulus funding support. Over half of respondents (56%) indicated that their district pursued grants, which was the most commonly chosen form of stimulus funding of the options surveyed.

Did your district pursue grants, bonds, tax credits or other forms of support?

- Grants: 49%
- Bonds: 14%
- Tax credits: 9%
- Other: 36%
Renewable Confusion

Although school districts have evaluated renewable energy sources as a potential solution to key challenges, many do not have the internal resources or expertise to pinpoint the technology that can deliver the greatest return on investment. But the greatest obstacle is limited funding, which for over half of respondents has prevented energy retrofits and renewable energy projects from moving forward.

WIDE VARIATION IN CONSIDERATION OF RENEWABLES

The results suggest that nearly 60% of respondents’ districts have considered or are considering using renewable resources.

Has your district considered using a renewable resource to help meet its energy needs? Share of respondents by consideration status

- Fully implemented: 2%
- Implementation underway: 10%
- Consideration underway: 33%
- Not considered: 16%
- Considered but rejected: 13%
- Not sure: 26%

... BUT MAY NOT DELIVER BEST ROI

While solar photovoltaic is the most common option with 34% of districts nationwide considering the technology, it may not provide the greatest financial payback. The results from the Midwest region provide an interesting case in point.

What types of renewable energy technologies has your district considered or implemented? Share of respondents by technology considered

- At least one renewable: 32%
- Solar photovoltaic: 34%
- Geothermal heating and cooling: 24%
- Solar thermal (e.g. solar hot water systems): 33%
- Wind power generation: 31%
- Biomass thermal: 2%
- Biomass power generation: 2%
- None: 33%

FUNDING GAPS CONSTRAIN RETROPTS AND RENEWABLE PROJECTS

Over half of respondents (56%) reported that limited funding is the biggest obstacle to launching energy retrofit or renewable energy projects. Other open-ended answers given suggest a perception of high associated costs and a low ROI on such projects.

If you have not gone forward with energy retrofits or renewable energy projects, what has been the biggest hurdle? (Choose one)

- Not enough money to pay for it or 8%
- Not a priority for the district: 16%
- Lack of understanding/ expertise and resources: 13%
- Other reason: 13%

Sample of respondent comments:
- “Projects were not cost-effective”
- “The payback period was too long”
- “Low return on investment”
- “Projects were not cost-effective”

*Solar photovoltaic, geothermal heating and cooling.

*Note: The analysis and forward-looking statements regarding the Honeywell Renewable Energy Scorecard are offered exclusively by Honeywell, and should not be construed as supported by nor attributed to Education Week Research.

Limited Commitment to Carbon Footprint Reduction

Only about one-third of respondents (32%) reported that their district has made commitments or set goals to reduce their carbon footprint.

Has your district made commitments or set goals to reduce its ‘carbon footprint’ (emissions)?

*Has your district completed a greenhouse gas inventory to catalog its current emissions and create a benchmark?

Sustainability Gap

While there is growing interest for schools to incorporate sustainable practices into their building operations and curriculum, the survey showed a clear gap between environmental commitments and activity. More than 30 percent of districts have set carbon-reduction goals, for example, but only 6 percent have completed a greenhouse gas inventory to catalog emissions and create a baseline to measure the impact of related programs.

Limited GHG Benchmarks

A mere 6% of respondents reported that their district had completed a greenhouse gas (GHG) inventory to catalog its current emissions in order to create a benchmark. The majority of respondents (57%) reported that their districts had not conducted such an inventory.

Has your district completed a greenhouse gas inventory to catalog its current emissions and create a benchmark?

*Has your district made commitments or set goals to reduce its ‘carbon footprint’ (emissions)?

Regional Survey Results - Midwest

- Renewable energy sources: 32%
- Geothermal heating and cooling: 27%
- Solar thermal: 27%
- Solar PV: 17%
- Biomass thermal: 13%
- Wind power generation: 13%
- None: 19%
- Geothermal heating and cooling: 27%
- Solar thermal: 13%

District Type “No” “Not Sure” “Yes”

Suburban 66% 30% 4%
Urban 41% 51% 8%
Rural 35% 30% 35%

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The results suggest that nearly 60% of respondents’ districts have considered or are considering using renewable resources.

Has your district considered using a renewable resource to help meet its energy needs? Share of respondents by consideration status

- Not considered 16%
- Not sure 26%
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- Implementation underway 16%
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If you have not gone forward with energy retrofits or renewable energy projects, what has been the biggest hurdle? (Choose one) Share of respondents by hurdle

- Not enough money to pursue 80%
- Not a priority for the district 12%
- Lack of understanding/expertise and resources 7%
- Other reason 3%

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Has your district made commitments or set goals to reduce its "carbon footprint" (emissions)? Share of respondents by commitment status

- Yes 32%
- Not sure 34%
- No 34%

FEW RESPONDENTS REPORT GHG BENCHMARKS

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Has your district completed a greenhouse gas inventory to catalog its current emissions and create a benchmark? Share of respondents by inventory status

- Yes 6%
- Not sure 23%
- No 57%

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OTHER SUSTAINABILITY SERVICES FROM HONEYWELL CAN HELP YOU:

- Fund improvements within existing budgets
- Improve comfort while reducing energy use
- Dramatically reduce energy costs
- Reduce greenhouse gas emissions and environmental impact
- Meet environmental regulations

Find Out More
To learn more about Honeywell Building Solutions, contact your local Honeywell representative, visit www.honeywell.com/buildingsolutions or call 1-800-345-6770, ext. 612.

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Research Findings

School Energy and Environment Survey

Honeywell

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