Appendices

Strained Schools Face Bleak Future:
Districts Foresee Budget Cuts, Teacher Layoffs, and a Slowing of Education Reform Efforts

Appendix 1: Confidence Intervals and Statistical Significance

Many of the tables, figures, and footnotes in the report provide information about whether the difference between estimated percentages is statistically significant. Statistical significance signals whether this difference is likely to be due to chance. If it appears that the difference in estimated percentages is due to chance (i.e., the difference is not statistically significant), then we cannot say that districts are more likely to do one thing than another.

For example, we estimate that 46% of districts experienced a funding decrease of 5% or more, while 2% of districts experienced a funding increase of 5% or more for school year 2010-11. The difference between 46% and 2% is statistically significant, which indicates that the difference is larger than is likely to be explained by chance alone. Therefore, we can say that a higher percentage of districts have experienced funding decreases of 5% or more than increases of 5% or more for school year 2010-11. On the other hand, 24% of districts experienced a funding decrease of less than 5%, while 19% of districts had their funding level remain the same for school year 2010-11. This difference is not statistically significant, so we cannot say that a higher percentage of districts had a funding decrease of less than 5% than districts that had their funding level remain the same in 2010-11.

One method of determining the statistical significance of the difference between two percentages is to compare the confidence intervals of the two percentages. Confidence intervals provide information about the accuracy of the estimated percentages. If the confidence intervals for two percentages do not overlap, then the difference is statistically significant. Exhibit 1 illustrates how ranges of estimated percentages (the confidence intervals) of districts experiencing funding increases or decreases are used to determine statistical significance.
Exhibit 1: Confidence Intervals for Figure 1

Percentage of districts with funding decreases or increases for school year 2010-2011, excluding ARRA/Education Jobs funds

Figure reads: An estimated 46% of all school districts had their funding for elementary and secondary education in the 2010-11 school year decrease by 5% or more compared to the 2009-10 school year, and an estimated 24% of districts experienced a decrease of less than 5%. Funding remained about the same during this period in an estimated 19% of districts, increased by less than 5% in an estimated 9% of districts, and increased by 5% or more in an estimated 2% of districts.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 46 (40, 52); 24 (19, 29); 19 (14, 24); 9 (6, 13); 2 (1, 5). This means, for example, that we are 95% certain that the actual percentage of districts that had their funding levels decrease by 5% or more in the 2010-11 school year is between 40% and 52%.

In this case, the bars depicting the confidence interval for the estimated percentage of districts that experienced a decrease in funding of less than 5% and the confidence interval for the estimated percentages of districts that experienced level funding overlap, indicating that the difference between the two percentages is not statistically significant. Conversely, the bars depicting the confidence interval for the estimated percentage of districts that experienced a decrease in funding of 5% or more and the confidence interval for the estimated percentage of districts that experienced an increase in funding of 5% or more do not overlap, indicating that the difference between the percentages is statistically significant.

Appendix 3 provides confidence intervals for all the figures and tables that are reported in the main body of the report.
Appendix 2: Study Methods

This appendix describes the sampling procedures used to select potential districts to participate in the *Center on Education Policy’s District Survey, 2011*. Also described are the methods used to develop and administer the survey and the analytic process used to obtain population estimates from the survey responses. The survey was developed, administered, and analyzed with support from Policy Studies Associates, CEP’s contractor for this project.

SURVEY SAMPLE

We started with the publicly accessible dataset from the 2007-2008 Common Core of Data Local Education Agency Universe Survey conducted by the National Center of Education Statistics (NCES). This dataset contains information on 18,090 elementary and secondary education agencies located in the 50 states and the District of Columbia; American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands; the Department of Defense schools; and the Bureau of Indian Education.

From the dataset of 18,090 education agencies, we removed the 4,778 agencies that did not match our study population criteria. Specifically, we removed the agencies that were located outside of the 50 states and the District of Columbia; that were not operating; or that were regional education service agencies, federally and state-operated agencies, charter agencies, or designated as “other education agencies.”

The dataset also included agencies that were component(s) of a supervisory union, sharing a superintendent and administrative services with other local school districts. In these cases, we retained the agency defined as the “supervisory union” and removed the component agencies associated with the unions. We removed the local education agencies (LEAs) that did not directly educate students through the employment of teachers and the operation of school buildings; many of these agencies represented towns that sent their students to neighboring districts or cooperative districts. Finally, we also removed agencies that solely served special segments of the population, such as vocational centers, correctional facilities, schools for the blind or deaf, and schools of performing arts. Exhibit 1 summarizes the edits that we made to the dataset to arrive at our sample frame.
Exhibit 1: Variables Used to Build Sample Frame

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Variable Description</th>
<th>Use*</th>
<th>LEAs Subtracted</th>
<th>Unduplicated Deletions**</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIPST</td>
<td>Federal Information Processing Standards (FIPS) state code</td>
<td>Eliminated LEAs from locations outside of the 50 states and the District of Columbia (X=56; n=42)</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>BOUND07</td>
<td>The boundary change indicator is a classification of changes in an education agency’s boundaries since the last report to NCES</td>
<td>Eliminated LEAs that had closed (X=2; n=149), were temporarily closed (X=6; n=35), or were scheduled to be operational in the future (X=7; n=56)</td>
<td>240</td>
<td>282</td>
</tr>
<tr>
<td>TYPE07</td>
<td>Agency type code</td>
<td>Eliminated agencies defined as regional education service agencies (X=4; n=1,203), state-operated agencies (X=5; n=275), federally operated agencies (X=6; n=36), charter agencies (X=7; n=2,126), and other education agencies (X=8; n=195)</td>
<td>3,835</td>
<td>3,925</td>
</tr>
<tr>
<td>UNION07</td>
<td>Indicator linking supervisory units and component agencies</td>
<td>Eliminated agencies that were represented in the dataset by a supervisory union. Eliminated LEAs from CA (n=12), IN (n=3), NH (n=175), NYC (n=34), VT (n=291), and VA (n=2); eliminated supervisory unions from MT (n=56)</td>
<td>573</td>
<td>4,498</td>
</tr>
<tr>
<td>SCH07</td>
<td>Number of schools associated with the agency</td>
<td>Eliminated LEAs that did not directly educate students or that served special populations of students</td>
<td>280</td>
<td>4,778</td>
</tr>
</tbody>
</table>

Exhibit reads: The FIPST variable eliminated LEAs that existed outside the 50 states and the District of Columbia; this variable netted 42 deletions, which brought the total number of unduplicated deletions to 42.

* The X stands for the variable name in each row.
** The unduplicated count is cumulative from top to bottom.

To stratify the sample frame by geographic location and area population density, we used the ULOCAL07 variable in the NCES dataset, which is an indicator of a district’s location relative to a populous area. The NCES dataset contains four main location types, as well as three subtypes with each location type. We used the four main types but not the subtypes in our stratification. In other words, we used the main location type city as a stratum, but we did not create additional strata to distinguish among the subtype locations of large, medium, or small.

Exhibit 2 presents definitions for the main location types, identifies the number of districts in each location type in the sample frame, reports the number of students who attend school in the districts in the sample frame, and identifies the number of districts in each location type that we
sampled. We used disproportional stratification in order to include sufficient numbers of each type of district in our survey.

**Exhibit 2: Definitions and Frequencies of Sample Strata**

<table>
<thead>
<tr>
<th>Location Type</th>
<th>Definition</th>
<th>Number (and percent) of districts in the sample frame</th>
<th>Number (and percent) of K-12 students in the sample frame</th>
<th>Number (and percent) of districts in the sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>City</td>
<td>Territory inside an urbanized area (a densely settled area that has a census population of at least 50,000 and inside a principal city (the largest city inside the urbanized area)</td>
<td>751 (5.6)</td>
<td>13,447,851 (28.8)</td>
<td>261 (27.3)</td>
</tr>
<tr>
<td>Suburb</td>
<td>Territory inside an urbanized area (a densely settled area that has a census population of at least 50,000 and outside a principal city (the largest city inside the urbanized area)</td>
<td>2,741 (20.6)</td>
<td>18,384,606 (39.4)</td>
<td>234 (24.6)</td>
</tr>
<tr>
<td>Town</td>
<td>Territory inside an urban cluster (a densely settled area that has a census population of 2,500 to 49,999)</td>
<td>2,502 (18.8)</td>
<td>5,904,016 (12.6)</td>
<td>226 (23.7)</td>
</tr>
<tr>
<td>Rural</td>
<td>Territory outside of urbanized areas (densely settled areas that have a census population of at least 50,000 and urban clusters (densely settled areas that have a census population of 2,500 to 49,999)</td>
<td>7,318 (55.0)</td>
<td>8,967,808 (19.2)</td>
<td>234 (24.5)</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td>13,312 (100.0)</td>
<td>46,704,281 (100.0)</td>
<td>955 (100.0)</td>
</tr>
</tbody>
</table>

Exhibit reads: Locales defined as “city” consist of 5.6 percent of the districts in the sample frame, contain 28.8 percent of the students who attend the districts in the sample frame, and represent 27.3 percent of the districts sampled for the study.

1 We derived the definitions from U.S. Census Bureau definitions: [www.census.gov](http://www.census.gov).

In addition to the four ULOCAL07 location types, we also included a stratification level for districts that belonged to the Council of Great City Schools (CGCS). We sent surveys to all CGCS districts in an effort to include the perspectives of many of the largest school districts in the country. Because of the weighting that we used when we conducted our analyses, the intentional sampling of the CGCS districts does not affect the representativeness of the findings.

**SURVEY DEVELOPMENT**

The challenge in developing the survey was to strike a reasonable balance between minimizing the response burden and collecting enough data to describe how LEAs are responding to budget
changes and federal and state reforms. The survey included 28 questions across three sections: district fiscal issues, state standards, and district uses of ARRA funds.

In the section on district fiscal issues, the survey included questions for the 2010-11 and 2011-12 school years regarding the status of funding in the district including and excluding ARRA and/or Education Jobs funds; strategies that the district adopted to account for declining budgets, if applicable; and the status of local progress on education reforms. In the section on state standards, the survey included questions on the ways in which local administrators had learned about the Common Core State Standards (CCSS); the extent to which state education agencies had provided technical support on implementing the CCSS at the local level; administrators’ perspectives on the rigor of the CCSS relative to previous standards; strategies that the district was using to implement the CCSS; and challenges that the district was facing as a part of the CCSS implementation process. In the section on district uses of ARRA funds, the survey included questions regarding the use of ARRA SIG funds, ARRA Title I funds, and ARRA IDEA funds in the district.

As part of survey development, we sent a draft of the instrument to central office administrators in LEAs in three states. We asked the administrators to review the instrument and provide feedback on the appropriateness and clarity of the wording and on the focus of the survey questions. We also asked them to estimate the amount of time required to complete the survey and to indicate who else in their districts might be involved in responding to individual items. The final version of the survey reflects the feedback that we received.

SURVEY ADMINISTRATION

In February 2011, CEP contacted the superintendents of the districts in the sample to explain the purpose of the survey and to provide background information on CEP and its previous reports and research on state- and district-level implementation of ARRA. A week later, we sent the survey to the local superintendents. One week after the print version of the survey arrived in the districts, we sent an electronic version of the survey to the superintendents via email. We sent a reminder postcard a few days after distribution of the email. Two weeks later we sent a reminder email. One week after the reminder email, we mailed another copy of the print survey to the superintendents.

Districts returned surveys between the end of February and the beginning of May 2011. We received completed responses from 457 of the 955 districts in our sample; this corresponds to a response rate of 48 percent. Given our previous work with school districts and understanding of the current climate of data requests from districts, we anticipated a 50-percent response rate at the outset of the survey. If we assume that district non-response occurred at random, then the response rate does not affect the representativeness of the survey findings.

DATA ANALYSES

To obtain the population estimates from the sample responses, we multiplied each sample response by a weighting factor specific to that particular stratum and question. The weighting factors were stratum-specific because the proportion of districts included in the sample from
each stratum was not equal (i.e., we used a disproportional stratified sample). The weighting variables were also question-specific because we dealt with missing responses by eliminating the cases from the set of responses used in the analysis. This approach to treating missing data has the advantage of simplifying the reporting of results; it has the disadvantage of increasing the estimated standard errors.

We calculated both the standard error and confidence interval for each of the estimated response frequencies presented in the report that describes the survey findings. The estimated standard error of a proportion provides information about the accuracy of the percentage estimate. The size of the standard error is influenced by the distribution of responses, the number of respondents, and the size of the population. Estimated standard errors are used to construct confidence intervals for the estimated percent. The confidence interval for a proportion indicates the degree of certainty that the true value for the population of all districts in the nation is included in a particular range. For proportions, the confidence interval is not symmetric relative to the estimated percent (except in the case where the estimated percent equals 50); this is because a proportion has a lower and upper bound (0 and 1, respectively), and the boundary affects the calculation of the interval. Additional information about the confidence intervals for specific responses is available in Appendix 3 accompanying the report.

After we drew our survey sample from the sample frame, we discovered that a number of districts that were listed in the Common Core of Data as being operational were, in fact, no longer operating. Because we drew the sample randomly, we could estimate the total number of districts in the Common Core of Data that were listed as open but that were closed; this estimate was 572 districts. We subtracted these districts from the denominator in our analyses. That is, we estimate the size of the sample frame to be 12,740 districts.
Appendix 3:  
Confidence Intervals for Survey Responses
Exhibit 1: Confidence intervals for Figure 1

Percentage of districts with funding decreases or increases for school year 2010-2011, excluding ARRA/Education Jobs funds

Exhibit reads: An estimated 46% of all school districts had their funding for elementary and secondary education in the 2010-11 school year decrease by 5% or more compared to the 2009-10 school year, and an estimated 24% of districts experienced a decrease of less than 5%. Funding remained about the same during this period in an estimated 19% of districts, increased by less than 5% in an estimated 9% of districts, and increased by 5% or more in an estimated 2% of districts.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 46 (40, 52); 24 (19, 29); 19 (14, 24); 9 (6, 13); 2 (1, 5). This means, for example, that we are 95% certain that the actual percentage of districts that had their funding levels decrease by 5% or more in the 2010-11 school year is between 40% and 52%.

Percentage of districts expecting funding decreases or increases for school year 2011-12, excluding ARRA/Education Jobs funds

Exhibit reads: An estimated 63% of all school districts expected their funding for elementary and secondary education in the 2011-12 school year to decrease by 5% or more compared to the 2010-11 school year, and an estimated 21% of districts expected a decrease of less than 5%. Funding is expected to remain about the same during this period in an estimated 9% of districts, to increase by less than 5% in an estimated 7% of districts, and to increase by 5% or more in an estimated less than 1% of districts.

Note: Percentages do not total 100% due to rounding.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 63 (57, 69); 21 (16, 26); 9 (6, 13); 7 (4, 11); <1 (0, 2). This means, for example, that we are 95% certain that the actual percentage of districts that expect their funding levels to decrease by 5% or more in the 2011-12 school year is between 57% and 69%.
Exhibit 2: Confidence intervals for text on Page 4

Percent of districts in each stratum with funding decreases or increases for school year 2010-2011, excluding ARRA/Education Jobs funds

Exhibit reads: An estimated 71% of all city school districts, 68% of all suburban school districts, 80% of all town school districts, and 67% of all rural school districts had their funding for elementary and secondary education in the 2010-11 school year decrease compared to the 2009-10 school year. Funding remained about the same during this period in an estimated 19% of all city school districts, 12% of all suburban school districts, 16% of all town school districts, and 22% of all rural school districts. Funding increased in an estimated 10% of all city school districts, 20% of all suburban school districts, 4% of all town school districts, and 11% of all rural school districts.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 71 (62, 78); 68 (57, 77); 80 (72, 87); 67 (58, 76); 19 (13, 27); 12 (7, 21); 16 (10, 24); 22 (15, 31); 10 (6, 17); 20 (13, 30); 4 (1, 10); 11 (6, 18). This means, for example, that we are 95% certain that the actual percentage of city school districts that had their funding levels decrease is between 62% and 78%.

Percentage of districts in each stratum expecting funding decreases or increases for school year 2011-2012, excluding ARRA/Education Jobs funds

Exhibit reads: An estimated 86% of all city school districts, 80% of all suburban school districts, 88% of all town school districts, and 84% of all rural school districts expect their funding for elementary and secondary education in the 2011-12 school year to decrease compared to the 2010-11 school year. Funding is expected to remain about the same during this period in an estimated 10% of all city school districts, 8% of all suburban school districts, 10% of all town school districts, and 9% of all rural school districts. Funding is expected to increase in an estimated 4% of all city school districts, 12% of all suburban school districts, 2% of all town school districts, and 8% of all rural school districts.

Note: Percentages do not total 100% due to rounding.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 86 (78, 91); 80 (70, 87); 88 (81, 93); 84 (75, 90); 10 (6, 17); 8 (4, 16); 10 (6, 17); 9 (5, 16); 4 (2, 10); 12 (7, 20); 2 (1, 7); 8 (4, 15). This means, for example, that we are 95% certain that the actual percentage of city school districts that expect their funding levels to decrease is between 78% and 91%.
Exhibit 3: Confidence intervals for Figure 2

Percentage of all school districts with funds available under one or more ARRA programs for school years 2009-10, 2010-11, and 2011-12

Exhibit reads: More than an estimated 99% of all school districts received funds from one or more ARRA programs in the 2009-10 school year, while an estimated 94% received such funds during the 2010-11 school year. An estimated 30% of all school districts expect to receive such funds during the 2011-12 school year.

Note: The 95% confidence intervals for the estimates in the figure are as follows: >99 (99, 100); 94 (91, 97); 30 (25, 35). This means, for example, that we are 95% certain that the actual percentage of districts that received funds from one or more ARRA programs in the 2009-10 school year is between 99% and 100%.
Exhibit 4: Confidence intervals for text on Page 5

Percentage of districts expecting ARRA funds to be available in 2011-12 by program

Exhibit reads: An estimated 10% of all school districts expect to have State Fiscal Stabilization Funds (Phases 1 and 2) available to them in 2011-12. Similar or smaller percentages of all school districts expect to have funds available from other ARRA programs in 2011-12.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 10 (7, 14); 9 (6, 13); 10 (7, 14); 8 (6, 11); 10 (7, 14); 2 (1, 4); 2 (1, 3); 6 (4, 9). This means, for example, that we are 95% certain that the actual percentage of districts that expect to have State Fiscal Stabilization Funds available to them in 2011-12 is between 7% and 14%.

Percentage of districts in each stratum that expect to have ARRA funds remaining for school year 2011-12

Exhibit reads: An estimated 48% of all city school districts, 31% of all suburban school districts, 30% of all town school districts, and 27% of all rural school districts expect to have ARRA funds available during the 2011-12 school year.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 48 (40, 57); 31 (22, 42); 30 (22, 39); 27 (19, 36). This means, for example, that we are 95% certain that the actual percentage of all city school districts that expect to have ARRA funds available during the 2011-12 school year is between 40% and 57%.
Exhibit 5: Confidence intervals for Figure 3

Extent to which districts with 2010-11 funding decrease used ARRA/Education Jobs funds to compensate for decreases in funding

Exhibit reads: An estimated 8% of school districts with 2010-11 funding decreases used ARRA and/or Education Jobs funds to compensate for all or nearly all of the decrease in district funding, while an estimated 31% used these funds to compensate for half or more of the decrease, and an estimated 46% used these funds to compensate for less than half of the decrease. An estimated 15% of school districts with 2010-11 funding decreases did not use ARRA and/or Education Jobs funds to compensate for the decrease.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 8 (5, 13); 31 (25, 38); 46 (39, 54); 15 (10, 21). This means, for example, that we are 95% certain that the actual percentage of districts with 2010-11 funding decreases that used ARRA and/or Education Jobs funds to compensate for all or nearly all of the decrease in district funding is between 5% and 13%.

Extent to which districts that expect a 2011-12 funding decrease plan to use ARRA/Education Jobs funds to compensate for decreases in funding

Exhibit reads: An estimated 2% of school districts that expect a 2011-12 funding decrease plan to use ARRA and/or Education Jobs funds to compensate for all or nearly all of the decrease in district funding, while an estimated 9% plan to use these funds to compensate for half or more than half of the decrease and an estimated 33% plan to use these funds to compensate for less than half of the decrease. An estimated 56% of school districts expecting a 2011-12 funding decrease do not plan to use ARRA and/or Education Jobs funds to compensate for the decrease.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 2 (1, 5); 9 (6, 14); 33 (27, 40); 56 (49, 62). This means, for example, that we are 95% certain that the actual percentage of districts that expect a 2011-12 funding decrease that plan to use ARRA and/or Education Jobs funds to compensate for all or nearly all of the decrease in district funding is between 1% and 5%.
Exhibit 6: Confidence intervals for Table 1

Percentage of districts with 2010-11 funding decreases that cut teaching, administrative, and support staff in school year 2010-11

Exhibit reads: An estimated 85% of school districts with 2010-11 funding decreases reduced any type of staff to compensate for the portion of the funding decrease in elementary and secondary education in 2010-11 that was not covered by ARRA and/or Education Jobs funds, while an estimated 76% cut any teaching staff and an estimated 66% cut any administrative support staff.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 85 (78, 90); 76 (69, 82); 66 (58, 73). This means, for example, that we are 95% certain that the actual percentage of districts with 2010-11 funding decreases that reduced any type of staff is between 78% and 90%.

Percentage of all districts that cut teaching, administrative, and support staff in school year 2010-11

Exhibit reads: An estimated 53% of all school districts reduced any type of staff to compensate for the portion of the funding decrease in elementary and secondary education in 2010-11 that was not covered by ARRA and/or Education Jobs funds, while an estimated 48% cut teaching staff and an estimated 41% cut any administrative support staff.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 53 (47, 59); 48 (42, 54); 41 (36, 48). This means, for example, that we are 95% certain that the actual percentage of all districts that reduced any type of staff is between 47% and 59%.
An estimated 68% of school districts with 2010-11 funding decreases reduced teaching staff in other subject areas to compensate for the portion of the funding decrease in elementary and secondary education in 2010-11 that was not covered by ARRA and/or Education Jobs funds, while an estimated 54% cut teaching staff in core academic subjects, an estimated 49% cut school and/or district support staff, etc.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 68 (60, 75); 54 (46, 61); 49 (42, 57); 38 (31, 45); 33 (27, 40); 28 (22, 35); 23 (18, 30); 15 (10, 20). This means, for example, that we are 95% certain that the actual percentage of districts with 2010-11 funding decreases that reduced teaching staff in other subject areas is between 60% and 75%.
Exhibit 8: Confidence intervals for Table 3

Percentage of districts that anticipate 2011-12 funding decreases that plan to cut teaching, administrative, and support staff in school year 2011-12 or are undecided

Exhibit reads: An estimated 31% of school districts that anticipate 2011-12 funding decreases had not made a decision about strategies to compensate for the anticipated decrease. An estimated 61% of school districts that anticipate 2011-12 funding decreases will cut any staff to compensate for the portion of the expected funding decrease in elementary and secondary education in 2011-12 that will not be covered by ARRA and/or Education Jobs funds, while an estimated 57% will cut teaching staff and an estimated 50% will cut any administrative support staff.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 31 (26, 38); 61 (54, 67); 57 (50, 63); 50 (44, 57). This means, for example, that we are 95% certain that the actual percentage of districts that anticipate a 2011-12 funding decrease that will reduce any type of staff is between 54% and 67%.

Percentage of all districts that plan to cut teaching, administrative, and support staff in school year 2011-12 or are undecided

Exhibit reads: An estimated 26% of all school districts had not made a decision about strategies to compensate for the anticipated decrease. An estimated 50% of all school districts will reduce any type of staff to compensate for the portion of the expected funding decrease in elementary and secondary education in 2011-12 that will not be covered by ARRA and/or Education Jobs funds, while an estimated 46% will cut any teaching staff, and an estimated 41% will cut any administrative support staff.
Note: The 95% confidence intervals for the estimates in the figure are as follows: 26 (21, 31); 50 (44, 56); 46 (41, 52); 41 (35, 47). This means, for example, that we are 95% certain that the actual percentage of all districts that will cut any staff is between 44% and 56%.

Exhibit 9: Confidence intervals for Table 4

Percentage of districts that anticipate 2011-12 funding decreases that plan to reduce staff and related areas

Exhibit reads: An estimated 31% of school districts that anticipate 2011-12 funding decreases had not made a decision about strategies to compensate for the anticipated decrease. An estimated 55% of school districts that anticipate 2011-12 funding decreases will reduce teaching staff in other subject areas to compensate for the portion of the anticipated funding decrease in elementary and secondary education in 2011-12 that will not be covered by ARRA and/or Education Jobs funds, while an estimated 40% will cut teaching staff in core academic subjects, an estimated 39% will cut school and/or district support staff, etc.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 31 (26, 38); 55 (48, 61); 40 (34, 46); 39 (33, 45); 29 (24, 35); 27 (22, 33); 28 (23, 35); 29 (24, 36); 16 (12, 21). This means, for example, that we are 95% certain that the actual percentage of districts that anticipate 2011-12 funding decreases that will reduce teaching staff in other subject areas is between 48% and 61%.
Exhibit 10: Confidence intervals for text on Page 9

Percentage of districts in each stratum that cut teaching, administrative, and support staff in school year 2010-11

Exhibit reads: An estimated 56% of all city school districts, 57% of all suburban school districts, 58% of all town school districts, and 50% of all rural school districts cut any type of staff to compensate for the portion of the funding decrease in elementary and secondary education in 2010-11 that was not covered by ARRA and/or Education Jobs funds.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 56 (46, 64); 57 (46, 67); 58 (48, 67); 50 (40, 60). This means, for example, that we are 95% certain that the actual percentage of all city school districts that cut any type of staff is between 46% and 64%.

Percentage of districts in each stratum that experienced a decrease in 2010-11 funding that cut teaching, administrative, and support staff in school year 2010-11

Exhibit reads: An estimated 92% of city school districts, 92% of suburban school districts, 85% of town school districts, and 81% of rural school districts with 2010-11 funding decreases cut any type of staff to compensate for the portion of the funding decrease in elementary and secondary education in 2010-11 that was not covered by ARRA and/or Education Jobs funds.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 92 (83, 97); 92 (80, 97); 85 (75, 92); 81 (69, 89). This means, for example, that we are 95% certain that the actual percentage of city school districts with 2010-11 funding decreases that cut any type of staff is between 83% and 97%.
Exhibit 10: Confidence intervals for text on Page 9 (cont’d)

Percentage of districts in each stratum that plan to cut teaching, administrative, and support staff in school year 2011-12

Exhibit reads: An estimated 51% of all city school districts, 59% of all suburban school districts, 51% of all town school districts, and 45% of all rural school districts plan to cut any type of staff to compensate for the portion of the anticipated funding decrease in elementary and secondary education in 2011-12 that will not be covered by ARRA and/or Education Jobs funds.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 51 (43, 60); 59 (48, 69); 51 (42, 60); 45 (36, 55). This means, for example, that we are 95% certain that the actual percentage of all city school districts that plan to cut any type of staff is between 43% and 60%.

Percentage of districts in each stratum that anticipate a decrease in 2011-12 funding that plan to cut teaching, administrative, and support staff in school year 2011-12

Exhibit reads: An estimated 62% of city school districts, 77% of suburban school districts, 58% of town school districts, and 55% of rural school districts that anticipate 2011-12 funding decreases plan to cut any type of staff to compensate for the portion of the anticipated funding decrease in elementary and secondary education in 2011-12 that will not be covered by ARRA and/or Education Jobs funds.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 62 (52, 71); 77 (65, 86); 58 (48, 68); 55 (45, 66). This means, for example, that we are 95% certain that the actual percentage of city school districts that anticipate 2011-12 funding decreases that plan to cut any type of staff is between 52% and 71%.
Exhibit 11: Confidence intervals for Table 5

Percentage of districts with 2010-2011 funding decreases that made reductions in non-staffing areas

Exhibit reads: An estimated 79% of school districts with 2010-11 funding decreases reduced their purchases of instructional materials or technology and equipment to compensate for the portion of the funding decrease in elementary and secondary education in 2010-11 that was not covered by ARRA and/or Education Jobs funds, while an estimated 56% reduced professional development, an estimated 50% reduced facilities maintenance, etc.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 79 (72, 84); 56 (49, 64); 50 (42, 57); 39 (32, 46); 38 (31, 46); 6 (3, 10). This means, for example, that we are 95% certain that the actual percentage of districts with 2010-11 funding decreases that reduced their purchases of instructional materials or technology and equipment is between 72% and 84%.
Exhibit 12: Confidence intervals for Table 6

Percentage of districts that anticipate 2011-12 funding decreases that plan reductions in non-staffing areas

Exhibit reads: An estimated 31% of school districts that anticipate 2011-12 funding decreases had not made a decision about strategies to compensate for the anticipated decrease. An estimated 64% of school districts that anticipate 2011-12 funding decreases will reduce their purchases of instructional materials or technology and equipment to compensate for the portion of the anticipated funding decrease in elementary and secondary education in 2011-12 that will not be covered by ARRA and/or Education Jobs funds, while an estimated 49% will reduce professional development, an estimated 47% will reduce facilities maintenance, etc.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 31 (26, 38); 64 (58, 70); 49 (43, 56); 47 (40, 53); 43 (36, 49); 39 (33, 45); 11 (8, 16). This means, for example, that we are 95% certain that the actual percentage of districts that anticipate 2011-12 funding decreases that will reduce their purchases of instructional materials or technology and equipment is between 58% and 70%.
Exhibit 13: Confidence intervals for Figure 4

Effect of funding decreases on reform plans in school districts with 2010-11 funding decrease for school year 2010-11

Exhibit reads: An estimated 19% of school districts with 2010-11 funding decreases had no major district reform initiatives planned for school year 2010-11. An estimated 16% of these districts indicated that the decrease in funds has had little or no impact on the progress of reforms planned, while 49% indicated that the decrease has slowed progress on reforms planned and 17% indicated that the decrease has led the district to postpone or stop some or all of the reform initiatives.

Note: Percentages do not total 100% due to rounding.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 19 (13, 26); 16 (11, 22); 49 (41, 57); 17 (12, 23). This means, for example, that we are 95% certain that the actual percentage of districts with 2010-11 funding decreases that had no major district reform initiatives planned for school year 2010-11 is between 13% and 26%.

Effect of funding decreases on reform plans in school districts that anticipate 2011-12 funding decreases for school year 2011-2012

Exhibit reads: An estimated 27% of school districts that anticipate 2011-12 funding decreases have reached no decisions about how the decrease in funds for elementary and secondary education will affect reform initiatives planned for the 2011-12 school year, and 13% of these districts have no major district reform initiatives planned. An estimated 6% of districts that anticipate 2011-12 funding decreases expect that the decrease in funds will have little or no impact on reforms planned for the 2011-12 school year, while 36% expect that the anticipated decrease will slow progress on reforms planned, and 18% expect that the anticipated decrease will lead the district to postpone or stop some or all of the reform initiatives.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 27 (22, 33); 13 (9, 19); 6 (4,10); 36 (30, 42); 18 (14, 23). This means, for example, that we are 95% certain that the actual percentage of districts that anticipate 2011-12 funding
decreases that have reached no decisions about how the decrease in funding will affect reform initiatives in 2011-12 is between 22% and 33%.

**Exhibit 14: Confidence intervals for Table 7**

**District uses of ARRA Title I supplemental funds**

Exhibit reads: An estimated 82% of school districts that have received Title I funds used these funds to purchase materials and supplies or instructional hardware and software, while 70% of these districts used these funds to provide professional development for Title I instructional staff, 69% used these funds to save or create Title I teaching jobs, etc.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 82 (77, 87); 70 (64, 76); 69 (63, 75); 31 (25, 37); 24 (19, 30); 16 (12, 21); 14 (10, 18); 13 (10, 18); 10 (6, 14); 4 (2, 8). This means, for example, that we are 95% certain that the actual percentage of districts that have received Title I funds that used these funds to purchase materials and supplies is between 77% and 87%.
**Exhibit 15: Confidence intervals for Table 8**

**District uses of ARRA IDEA supplemental funds**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
<th>Weighted Estimates</th>
<th>95% Confidence Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save or create any jobs</td>
<td>83%</td>
<td>X</td>
<td>(78, 88)</td>
</tr>
<tr>
<td>Provide professional development</td>
<td>66%</td>
<td>X</td>
<td>(60, 72)</td>
</tr>
<tr>
<td>Purchase assistive technology</td>
<td>55%</td>
<td>X</td>
<td>(49, 61)</td>
</tr>
<tr>
<td>Purchase vehicles &amp; other equipment for transporting special ed. students</td>
<td>18%</td>
<td>X</td>
<td>(14, 23)</td>
</tr>
<tr>
<td>Expand availability/range of inclusive placement options for preschoolers with disabilities</td>
<td>14%</td>
<td>X</td>
<td>(10, 18)</td>
</tr>
<tr>
<td>Increase the number of special education students served</td>
<td>14%</td>
<td>X</td>
<td>(10, 18)</td>
</tr>
</tbody>
</table>

Exhibit reads: An estimated 83% of school districts that received IDEA funds used these funds to save or create jobs, while 66% of these districts used these funds to provide professional development, 55% used these funds to purchase assistive technology, etc.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 83 (78, 88); 66 (60, 72); 55 (49, 61); 18 (14, 23); 14 (10, 18). This means, for example, that we are 95% certain that the actual percentage of districts that received IDEA funds that used these funds to save or create jobs is between 78% and 88%.
Exhibit 16: Confidence intervals for Figure 5

Percentage of districts indicating whether they are better off for having received ARRA/Education Jobs funds

Exhibit reads: An estimated 89% of all school districts believe that they are better off because of receiving ARRA and/or Education Jobs funds than they would have been if they had not received them, while an estimated 4% believe that they are not better off and 7% do not know.

Note: The 95% confidence intervals for the estimates in the figure are as follows: 89 (85, 93); 4 (2, 7); 7 (4, 10). This means, for example, that we are 95% certain that the actual percentage of districts that believe they are better off because of receiving ARRA and/or Education Jobs funds is between 85% and 93%.