



**The Problem of Human Capital:  
State Implementation of Federal School Turnaround Principles**

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## **Assessing State Supports for School Turnaround (Objectives)**

“Here’s what I say. I say I am not willing to give up on any child in America. I say I’m not willing to give up on any school in America. I do not accept failure here in America. I believe the status quo is unacceptable; it is time to change it.”—Obama, 2011

The change President Obama spoke about in his 2011 address to Miami Central High School started at the federal level with a number of policy changes, including guidance for state applications for waivers to the Elementary and Secondary Education Act (ESEA) (U.S. Department of Education, 2012). This guidance offered flexibility for some of the law’s more problematic requirements in return for implementing key principles, including requirements for turning around the lowest achieving schools. These principles range from those typical of previous state assistance, such as helping districts ensure schools use data to make instructional decisions, to those less typical of previous state assistance, such as assisting in districts’ efforts to review the quality of all staff. Will states be able to implement support for these principles and launch the change Obama and many other Americans have called for?

The primary purpose of this study was to answer this question and, more specifically, determine which of the school-turnaround principles in the federal guidance for waivers to the Elementary and Secondary Education Act (ESEA) that states were supporting quickly and which were challenging. The study informs federal agencies such as the U.S. Department’s Office of School Turnaround and Center on School Turnaround (CST), both designed to provide technical assistance to states for their efforts to turnaround low-achieving schools. Results inform the work of these organizations, as well as similar work by nonprofits, for profits, and universities that assist states and districts with school-turnaround efforts.

A secondary purpose of the study was to compare two methods of analyzing survey data. Many researchers analyze survey data using factor analysis to create dimensions that cluster like items (Hair, Black, Babin, Anderson, & Tatham, 2006). This method reduces the data to a small number of variables representing key concepts. The researcher can then analyze the data without the problem of increased likelihood of type I errors due to multiple comparisons, which occur when analyzing survey data item by item. However, sometimes survey items don’t lend themselves to this type of data reduction. When this is the case, researchers can analyze individual items, but use an adjustment to account for multiple comparisons (Benjamini & Hochberg, 1995). The current study analyzed the data using both these methods and found very similar results.

The study had two research questions related to these two purposes:

1. To what degree do state school-turnaround leaders report their state has implemented support for federal school-turnaround principles and do their reports vary based on whether the state has received an ESEA waiver?
2. To what extent does a factor-analysis method of analyzing survey data produce different results from an item-by-item approach to the analysis?

## **Little Is Known About State Supports for School Turnaround (Theoretical Framework)**

The idea that states should assist in school improvement efforts is not new. In 2002, the No Child Left Behind Act (NCLB) charged states with providing assistance to schools identified as “in need of improvement” based on failure to make progress toward targets identified by the

state (NCLB, 2002). Since then, several studies have reported on the limited capacity of states to provide technical assistance to these schools (Editorial Projects in Education, 2006; Le Floch, Boyle, & Therriault, 2008; Minnici & Hill, 2007).

ESEA flexibility waivers built on principles set out in the original version of NCLB (Table 1). Both focus broadly on assisting districts with using data, revamping the curriculum, involving the community, evaluating principals and teachers, and replacing those found ineffective. The ESEA Waiver guidance adds a push to improve school climate and leaves out the call for a change in school management.

Do states have the capacity to implement these principles in the ESEA waiver? Some research has already shown that restructuring efforts under NCLB were, at times, difficult for states to support, particularly efforts associated with replacing staff (Scott, 2008). Expanding learning time and improving school climate also seem challenging. A recent review of state waiver applications found that almost all lacked detail about supporting expanded learning time (Owen, 2012). A similar review of state policies on school climate found that only 24 states had such policies (Piscattelli & Lee, 2011). In contrast, states appear to be making progress on creating environments that support data use. A recent assessment of state practice and policy found that all states had implemented at least one action to support data use (Data Quality Campaign, 2012).

Now that ESEA waivers are in place, it is time to inventory state capacity to assist with these federal school-turnaround principles. Federal agencies such as the Office of School Turnaround and CST stand ready to support states. Many universities and nonprofits also focus on school turnaround and may be able to fill gaps in state supports to districts. But, all these organizations need to know where these gaps are. This study provides important information on state capacity to support school-turnaround principles.

## Data Sources

We administered an online survey to state education agencies (SEAs) in January and February 2013 as part of ongoing formative evaluation of the CST. In the section of the survey that is relevant to this study, we asked SEA representatives to rate their stage of implementation of each federal school-turnaround principle. We drew these school-turnaround principles from the language in the waiver and grouped them into three sections (principles related to leadership, teacher effectiveness, and other school-level efforts), so that the survey was easier for participants to complete. Tables 2 through 4 show the survey items by section.

We based the rating scale on the work of the National Implementation Research Network. Based on a meta-analysis of nearly 800 articles about effective implementation, the implementation stages describe the essential activities in each stage. In the *exploration stage*, participants assess options and consider readiness for implementation. In the *installation stage*, leaders plan and prepare for implementation. Next, in *initial implementation*, practitioners try out the changes and begin implementing. Finally, in *full implementation*, the changes are completely in place and implementation is routine (Fixsen, Blase, Naom, & Wallace, 2009).

Survey respondents included SEA staff members with responsibilities for school-turnaround efforts. The CST provided a list of participants. During the survey administration, we removed 10 contacts from the list because these people were no longer working in school turnaround at the SEA and added 11, making a total of 176 possible participants. Of these 176, 85 responded, yielding a response rate of 48 percent. Ultimately, the survey included at least one respondent from all 50 states, the District of Columbia, American Samoa Department of Education, the Bureau of Indian Education, and the U.S. Virgin Islands.

## Methods

Before addressing the research questions, we prepared the survey data. In 22 instances, we received more than one response per state. Typically these responses within states were similar, so we averaged them. This averaging created a data set in which we had one response from each of the 54 SEAs (50 states plus the District of Columbia, American Samoa Department of Education, the Bureau of Indian Education, and the U.S. Virgin Islands).

We addressed the research questions using multiple steps. First, we used frequencies to rank the order of the school-turnaround principles by the percentage of states that reported full implementation.

Next, we used principal component factor analysis with a promax rotation to reduce the data. This resulted in three dimensions with Eigenvalues greater than one. We checked these components for items that loaded strongly on more than one dimension and eliminated one item as a result. We also checked the internal consistency of the dimensions using Cronbach's Alpha. We eliminated one item in order to increase the Alpha. Conceptually, the removal of these two items made sense to us. We provide more detail about these items in the discussion section.

We compared waiver and nonwaiver SEAs in two ways. First, we used three independent *t*-tests in which a dimension was the outcome and the predictor was whether the SEA had received a waiver. In our second comparison, we ran independent *t*-tests for each of the 15 items individually. Then, we used the Benjamini-Hochberg corrections to account for multiple comparisons.

## Results

Frequencies for the school-turnaround items showed that in most cases, state school-turnaround leaders did not report their state had fully implemented their state assistance and monitoring in support of districts (Tables 2–4). “Using data to inform instruction for continuous improvement” was an exception: 60 percent of participants reported their state had fully implemented support for this principle. However, we did not ask about the type or quality of data used. Respondents may have lumped all data used together when they responded. We suspect that “60 percent” may over report the number of states that effectively support district and school data use.

Fewer participants reported their state had fully implemented supports for principles focusing on evaluating and replacing staff. Items rated fully implemented by less than a third of participant included:

- Reviewing the quality of principals
- Reviewing the quality of all staff
- Retaining only the staff determined to be effective
- Preventing ineffective teachers from transferring to other schools

Factor analysis resulted in three dimensions that we called staffing, climate, and instructional day. We checked these components for items that loaded strongly on more than one dimension and eliminated the item “replacing the principal ...” as a result (Table 6). This item loaded strongly on both the dimension “climate” and the dimension “staffing.” Conceptually, we believe this item may have been confusing to participants because it talked *both* about replacing the principal (i.e., staffing) and proving that the current principal was adequate (i.e., climate).

We also checked the internal consistency of the dimensions using Cronbach's Alpha (Tables 7–9). We eliminated the item “providing mechanisms for family and community involvement” in order to increase the Alpha of the dimension “instructional day.” Conceptually, we also did not believe this item belonged in this dimension.

We compared waiver and nonwaiver SEAs in two ways. First, we used three independent *t*-tests in which a dimension was the outcome and the predictor was whether the SEA had received a waiver. Leaders from states with waivers were significantly more likely to report that their state had implemented principles related to staffing. We found no statistically significant differences for other dimensions (Table 10).

In our second comparison, we ran independent *t*-tests for each of the 15 items individually. Then, we used the Benjamini-Hochberg corrections to account for multiple comparisons. Only three items showed statistically significant differences after the correction: reviewing the quality of staff, retaining only those determined to be effective, and preventing ineffective teachers from transferring to other schools (Table 11).

### **State Supports for Staffing Were Challenging Regardless of Analysis (Significance)**

Results from this study point to a single primary message: Assisting districts in ensuring the human capital needed to turn around schools is challenging for states. Indeed, reported assistance with these principles was significantly related to whether a state had received its ESEA waiver. At least two actions might remedy this situation: (1) organizations such as federal agencies, nonprofits, and universities might focus on helping states and districts with these staffing issues and (2) policymakers at the federal level might rethink these requirements. Other remedies will likely emerge from additional research on staffing issues and human capital in schools.

The study also has a second message aimed primarily at our researcher audience. This study found little difference in results using factor analysis methods compared to item-by-item analysis with a correction for multiple comparisons. It may be that, in the future in similar situations, doing both types of analysis adds to the researcher's confidence in results. Doing both types of analyses also allows researchers a choice of reporting formats, if the results are similar. In the current study, practitioners reviewing the results found the item-by-item analysis easier to understand and easier to communicate to their constituents. Until more research compares the methods, we recommend taking the time to include both unless there is a compelling reason to choose one over the other.

## Tables

Table 1  
NCLB and ESEA Waiver Approaches to School Turnaround Are Similar

<b>General Principals</b>	<b>Corrective Action under NCLB</b>	<b>Restructuring under NCLB</b>	<b>Turnaround principles in the ESEA Waiver Guidance</b>
<b>Replace staff</b>	Replace school staff	Replace all or most of the school staff, including the principal.	Provide strong leadership by: (1) reviewing the performance of the current principal; (2) either replacing the principal or demonstrating to the SEA that the current principal has a track record in improving achievement and (3) providing the principal with operational flexibility in the areas of scheduling, staff, curriculum, and budget.  Ensure that teachers are effective by: (1) reviewing the quality of all staff and retaining only those who are determined to be effective (2) preventing ineffective teachers from transferring to these schools.
<b>Expand learning time</b>	Extend the school year or school day	NA	Ensure the school day, week, or year to include additional time for student learning and teacher collaboration
<b>Use data</b>	Mandated for ALL schools in improvement under NCLB	Mandated for ALL schools in improvement under NCLB	Use data to inform instruction and for continuous improvement, including time for collaboration on the data use
<b>Improve school climate</b>	NA	NA	Establish a school environment that improves safety and discipline addressing non-academic factors that impact achievement, such as social, emotional, and health needs
<b>Revamp the curriculum</b>	Implement new curriculum	NA	Strengthen the school's instructional program based on student needs and ensuring that the instructional program is research-based, rigorous, and aligned with State academic content standards
<b>Involve community</b>	Mandated for ALL schools in improvement under NCLB	Mandated for ALL schools in improvement under NCLB	Provide ongoing mechanisms for family and community engagement
<b>Change the school management</b>	Decrease the authority of school-level administration  Appoint outside experts to advise the school  Restructure the internal organization of the school	Reopen the school as a public charter school; enter into a contract to have an outside entity operate the school.  Arrange for the state to take over operation of the school  Any other major restructuring of the school's governance arrangement	NA

Table 2  
Survey Instructions and School Turnaround Items in Section 1

Instructions: The federal Elementary and Secondary Education Act [ESEA] flexibility waivers have defined several "turnaround principles" related to strong leadership. Districts in states with approved waivers are required to implement these principles in low-performing schools.

Regardless of whether your state has an approved waiver, in what stage is your state in **assisting or monitoring districts' school-turnaround efforts** related to...

	Exploration (Assessing Options)	Installation (Planning & Preparing)	Initial Implementation (First Year)	Full Implementation (Second Year or Longer)
Providing the principal with operational flexibility (e.g. in the areas of scheduling, staff, curriculum, and budget)	17%	20%	22%	41%
Replacing the principal if such a change is necessary to ensure strong and effective leadership, (or demonstrating to the SEA that the current principal has a track record in improving achievement and has the ability to lead the turnaround effort)	17%	17%	28%	38%
Reviewing the performance of the current principals	7%	33%	28%	32%

Note: This table was ordered by highest frequency of responses for full implementation. Percentages may not add to 100% due to rounding.

Table 3  
Survey Instructions and School Turnaround Items in Section 2

Instructions: ESEA flexibility waivers defined several "turnaround principles" related to teacher effectiveness. Districts are required to implement these principles in low-performing schools.

In what stage is your state in **assisting or monitoring districts' school-turnaround efforts** related to...

	Exploration (Assessing Options)	Installation (Planning & Preparing)	Initial Implementation (First Year)	Full Implementation (Second Year or Longer)
Providing job-embedded, ongoing professional development informed by the teacher evaluation and support systems and tied to teacher and student needs	4%	30%	33%	33%
Reviewing the quality of all staff	11%	30%	37%	22%
Retaining only those staff members determined to be effective	19%	34%	28%	19%
Preventing ineffective teachers from transferring to other schools	36%	30%	25%	9%

Note: This table was ordered by highest frequency of responses for full implementation. Percentages may not add to 100% due to rounding.

Table 4  
 Survey Instructions and School Turnaround Items in Section 3

Instructions: ESEA flexibility waivers defined several "turnaround principles" related to teacher effectiveness. Districts are required to implement these principles in low-performing schools.

In what stage is your state in **assisting or monitoring districts' school-turnaround efforts** related to...

	<b>Exploration (Assessing Options)</b>	<b>Installation (Planning &amp; Preparing)</b>	<b>Initial Implementation (First Year)</b>	<b>Full Implementation (Second Year or Longer)</b>
Using data to inform instruction for continuous improvement	0%	11%	28%	60%
Providing time for collaboration on the use of data	6%	9%	36%	49%
Establishing a school environment that improves school safety and discipline	2%	15%	37%	46%
Strengthening the school's instructional program based on student needs	6%	11%	37%	46%
Ensuring that the instructional program is research-based, rigorous, and aligned with state academic standards	4%	17%	35%	44%
Redesigning the school day, week, or year to include additional time for student learning	9%	11%	43%	37%
Redesigning the school day, week, or year to include additional time for teacher collaboration	11%	13%	39%	37%
Providing ongoing mechanisms for family and community engagement	9%	19%	35%	37%
Addressing nonacademic factors that impact student achievement, such as students' social, emotional, and health needs	2%	26%	37%	35%

Note: This table was ordered by highest frequency of responses for full implementation. Percentages may not add to 100% due to rounding.



Table 5  
Factor Loadings for All School Turnaround Items

	Component		
	The Instructional Day	Climate	Staffing
Strengthening the school's instructional program based on student needs	.891		
Ensuring that the instructional program is research-based, rigorous, and aligned with state academic standards	.850		
Redesigning the school day, week, or year to include additional time for teacher collaboration	.790		
Redesigning the school day, week, or year to include additional time for student learning	.784		
Providing ongoing mechanisms for family and community engagement	.731		
Establishing a school environment that improves school safety and discipline		.801	
Providing the principal with operational flexibility (e.g. in the areas of scheduling, staff, curriculum, and budget)		.799	
Providing job-embedded, ongoing professional development informed by the teacher evaluation and support systems and tied to teacher and student needs		.722	
Using data to inform instruction for continuous improvement		.591	
Providing time for collaboration on the use of data		.587	
Replacing the principal if such a change is necessary to ensure strong and effective leadership, (or demonstrating to the SEA that the current principal has a track record in improving achievement and has the ability to lead the turnaround effort)		.580	.518
Addressing nonacademic factors that impact student achievement, such as students' social, emotional, and health needs		.464	
Preventing ineffective teachers from transferring to other schools			.860
Reviewing the quality of all staff			.763
Retaining only those staff members determined to be effective			.707
Reviewing the performance of the current principals			.695

Extraction Method: Principal Component Analysis  
Rotation Method: Promax with Kaiser Normalization

Note: The gray-shaded item was removed because it loaded strongly on multiple dimensions.

Table 6  
Instructional Day Means and Cronbach's Alphas If Item Deleted

	Mean	Alpha (or Alpha if Item Deleted)
<b>Dimension: Instructional Day</b>	3.08	.932
Strengthening the school's instructional program based on student needs	3.20	.903
Ensuring that the instructional program is research-based, rigorous, and aligned with state academic standards	3.19	.913
Redesigning the school day, week, or year to include additional time for student learning	3.06	.906
Redesigning the school day, week, or year to include additional time for teacher collaboration	2.99	.922
Providing ongoing mechanisms for family and community engagement	2.94	.938

Note: Gray-shaded item was removed to increase the alpha and due to lack of conceptual fit.

Table 7  
Climate Means and Cronbach's Alphas If Item Deleted

	Mean	Alpha (or Alpha if Item Deleted)
<b>Dimension: Climate</b>	3.16	.895
Using data to inform instruction for continuous improvement	3.45	.873
Establishing a school environment that improves school safety and discipline	3.29	.860
Providing time for collaboration on the use of data	3.28	.860
Addressing nonacademic factors that impact student achievement, such as students' social, emotional, and health needs	3.05	.890
Providing job-embedded, ongoing professional development informed by the teacher evaluation and support systems and tied to teacher and student needs	2.98	.881
Providing the principal with operational flexibility (e.g. in the areas of scheduling, staff, curriculum, and budget)	2.92	.893

Table 8  
Staffing Means and Cronbach's Alphas If Item Deleted

	Mean	Alpha (or Alpha if Item Deleted)
<b>Dimension: Staffing</b>	2.47	.874
Reviewing the performance of the current principals	2.74	.862
Reviewing the quality of all staff	2.67	.814
Retaining only those staff members determined to be effective	2.47	.818
Preventing ineffective teachers from transferring to other schools	2.01	.860

Table 9  
T-tests for Dimensions

	Waiver	N	Mean	t	p	Mean Difference
Staffing	No Waiver by Jan. 11, 2013	19	1.91	-3.994	.000	-0.83
	Waiver by Jan. 11, 2013	35	2.74			
Climate	No Waiver by Jan. 11, 2013	19	2.86	-1.666	.107	-0.38
	Waiver by Jan. 11, 2013	35	3.24			
Instructional Day	No Waiver by Jan. 11, 2013	19	2.77	-1.949	.063	-0.52
	Waiver by Jan. 11, 2013	35	3.29			

Note: Gray-shaded dimension was statistically significant.

Table 10  
Actual and Adjusted P-Values for Individual Items

	Mean Difference	actual p-value	adjusted critical value of p
Preventing ineffective teachers from transferring to other schools	1.11	0.000	0.003
Retaining only those staff members who are determined to be effective and have the ability to be successful in the turnaround effort	0.96	0.002	0.006
Reviewing the quality of all staff	0.79	0.002	0.009
Reviewing the performance of the current principals	0.66	0.019	0.013
Redesigning the school day, week, or year to include additional time for teacher collaboration	0.76	0.024	0.016
Redesigning the school day, week, or year to include additional time for student learning	0.66	0.037	0.019
Providing the principal with operational flexibility (e.g., in the areas of scheduling, staff, curriculum, and budget)	0.67	0.064	0.022
Providing job-embedded, ongoing professional development, informed by the teacher evaluation and support systems and tied to teacher and student needs	0.45	0.100	0.025
Replacing the principal, if such a change is necessary, to ensure strong and effective leadership (or demonstrating to the SEA that the current principal has a track record in improving achievement and has the ability to lead the turnaround effort)	0.65	0.113	0.028
Providing time for collaboration on the use of data	0.56	0.180	0.031
Addressing nonacademic factors that impact student achievement, such as students' social, emotional, and health needs	0.32	0.232	0.034
Ensuring that the instructional program is research-based, rigorous, and aligned with state academic standards	0.33	0.235	0.038
Strengthening the school's instructional program based on student needs	0.35	0.239	0.041
Using data to inform instruction for continuous improvement	0.41	0.284	0.044
Providing ongoing mechanisms for family and community engagement	0.32	0.289	0.047
Establishing a school environment that improves school safety and discipline	0.05	0.828	0.050

\* Note: Gray shaded items remained statistically significant after the Benjamini-Hochberg correction.

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