

# The investigation of the impact of accountability and transparency on the delivery of educational services based on the 2009 Race to the Top education reform in the United States

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**Abstract.** In this paper, it will be discussed how the education system can change the accountability system and information transparency interference to achieve better delivery of education services. An accountability system means the existence of systems where individuals and institutions are held to account, and where they are incentivized, monitored, and supported in effective ways. Transparency interventions are the methods to disclose information to the general public. A case study of the Race to the Top (RttT) program implemented in the United States in 2009 and the value-added evaluation of teachers concluded that a competitive education grant program can stimulate reform of the national education system, both in funded and unfunded districts. The positive impact of the program on the funded states is insignificant. The reason may be that the spillover effect of the program makes the unaided states enhance their educational delivery autonomously and blurs the distinction between the funded states and them. A value-added evaluation system that overemphasizes achievement has led to "test score pollution" that undermines the ability of test scores to effectively reflect educational achievement. Excessive education system reform has also placed administrative and operational burdens and increased costs on the education sector. In addition, the lack of acceptance of the "citizen's voice" makes the program lack critical elements of public satisfaction and performance completion.

**Keyword:** Education, Accountability, Transparency, Education reform, Race to the top (RttT)

## 1. Introduction

The crisis in the quality of education in the United States in the 1980s became a focus of public attention. The use of standardized scores as a criterion for educational evaluation was widely questioned. The focus of educational research has been on how to give students equal access to education, improve their academic performance, and attribute academic success or failure. To evaluate teachers and school education more scientifically and effectively, the education evaluation mechanism has been reformed accordingly.

In this paper, it will be discussed how the education system can change the accountability system and information transparency interference to achieve better delivery of education services. An accountability system means the existence of systems where individuals and institutions are held to account, and where they are incentivized, monitored, and supported in effective ways. Transparency interventions are the methods to disclose information to the general public. Next, I will compare the impact of different accounting systems and Transparency interventions on educational services to explore whether they can influence the delivery of educational services.

To begin with, the implementation of accountability can encourage the reformation of education practice. When the government implemented a competitive education grant program, both districts that received funding and those that did not exhibit a positive response. In 2009, Race to the Top (RttT) was created under the American Recovery and Reinvestment Act of 2009, with \$4.35 billion in funding. As an outcomes-based grant, the program attempts to create change in the education system, with improved student achievement as the ultimate goal (Dragoset et al, 2016). As a competitive grant, the award is given to states that achieve high marks in education reform and strong plans to continue developing reform policies in the future.

## 2. Race to the Top (RttT) Impact on Education Services

Research on the impact of RttT illustrates that RttT programs have been successful in reforming education policy across the country, not just in participating states (Howell and Magazinnik., 2017). Similarly, according to the most recent evaluation report from the U.S. Department of Education, there is evidence that, on average, states that participated in RttT implemented more reform policies and practices than those that did not. When considering the differences between states that participate in RttT and those that do not, some states do not participate in RttT that have developed more RttT-driven policies than the average for the RttT state group (Dragoset et al., 2016).

Specifically, some states have seen important positive interventions in their education systems after receiving funding, demonstrating the effectiveness of social accountability for educational delivery. As one of 19 states participating in the program, Florida began deploying the program in August 2010 and completed it in June 2015. Florida was unsuccessful in the first round of competition, although its score was close to that of the two winners. It demonstrated its readiness and commitment to pursuing RttT goals in the second round and was awarded the grant. Throughout the three phases of the competition, Florida received the largest award from the RttT program as 700 million dollars. Florida's LEA participation in the RttT program was very high, at 90% (Dragoset et al., 2016). At the end of the project, RttT was recognized as a significant, positive intervention in Florida's education system (Evergreen Solutions [ES], 2015, p. xxviii; USDOE, 2015b). Thus, the state's strong commitment to and large scale of the Florida RttT program is expected to provide strong evidence of the impact of the RttT program on the state.

In Comparison with school districts/counties in other states, Howell and Magazinnik (2017) argue that the RttT program has successfully reformed education policy across the country, not just in the winning state. As with Florida's efforts to compete for the fund, all states that applied for the grant attempted to adopt additional policy reforms to improve their chances of winning. In addition, RttT competition stimulates a mechanism whereby states emulate each other's policies. this spillover effect of the RttT program creates a policy diffusion phenomenon across the country. Thus, policy reform can be achieved in all winning, losing, and non-applicant states.

In a more detailed study, however, the impact of the RttT program on educational transmission was found to be insignificant. First, in Florida, the average graduation rate in school districts with RttT programs gradually increased throughout the study period. Meanwhile, the control group - non-RttT school districts - had a lower average graduation rate, with a similar increasing trend from 2005 to 2012. However, this average rate spiked and surpassed the average rate for the RttT group in 2013 and then Icontinued to rise.

In general, a higher percentage of students perform well on reading and math tests in RttT districts than in non-RttT districts, but this is true in all years, not just after RttT program interventions.

Between 2010 and 2015, the average graduation rate for Florida districts steadily increased from 67.98% to 80.30%, while Texas' graduation rate remained steady at a high level of about 92%. Meanwhile, the average graduation rate for Alabama school districts rose sharply from 2011 to 2014 before leveling off at around 90 percent, significantly higher than the 2010 level (77 percent). Graduation rates were higher in both states than in FL.

Overall, these patterns in the dependent variables do not support the hypothesis that RttT is significantly better than the control group in terms of student achievement. The observed trends may even be contradictory concerning graduation rates and some math tests in Florida, and district graduation rates in Alabama.

Florida school districts participating in RttT are unlikely to have improved graduation rates and reading and math assessment results. They may even be declining or not trending.

There are several speculations as to why this phenomenon is occurring.

First, policy diffusion or spillover effects from grant program implementation may have partially influenced the findings, such as from relationships or interactions among school districts within a state. Nonparticipating school districts may themselves seek to invest in improving their education systems to catch up with neighboring districts that participate in RttT. Similarly, to receive grants,

Alabama may have implemented some educational reforms and innovations compared to a non-applicant state, Texas. These activities may have helped to blur the differences between the educational outputs of participating and non-participating states at the local level.

Second, while higher test scores are thought to be associated with higher academic achievement, it is not always the correct indicator of educational improvement. By analyzing the process of administering and preparing for standardized tests in public schools, Haladyna et al. (1991) showed that these schools are under pressure to improve test scores. This pressure leads to "test score pollution" that undermines the ability of test scores to effectively reflect educational achievement (Haladyna et al., 1991).

While the number of RttT reform policies enacted is considered an indicator of the program's success, it also demonstrates the complexity of improving student achievement. For example, the number of program goals, initiatives, and mechanisms governed by reform policies implies a dramatic change in the organization of recipients. Making such a dramatic change requires a lot of work to adapt to the new environment. Organizational behavior theory refers to this adaptation as a "continuous process state" that reflects the health of the organization through four criteria: "adaptability, identity, ability to test reality, and integration" (Ott et al., 2008, p. 405). This process of change also falls under the umbrella of organizational development, which requires an organization to develop "many strategies and techniques for improving the organization" (Ott et al., 2008, p. 407). Florida school districts have had to deal with these challenges and may not always be successful in their attempts to improve educational outcomes during the transition process. As a sequence, the achievement of reform policies as a result of the RttT program did not necessarily translate into higher student achievement.

Another shortcoming of RttT programs is the lack of citizens' voices. Boadway and Shah (2009) show that public acceptance is a key factor in ensuring the efficiency of performance-oriented approaches. Community response to public services reflects funder compliance and helps funders decide on penalties, if any, for non-compliance.

We can look at the value-added evaluation component of the RttT program in focus to understand why it does not serve to enhance educational delivery.

### **3. The value-added evaluation of teachers Impact on Education Services**

Teacher value-added evaluation is designed to objectively measure the causal relationship between teacher instruction and student achievement by analyzing the change in student achievement due to teacher factors, i.e., the "net effect" of teacher value-added on student achievement (Sanders et al., 1997), and differs from traditional teacher evaluation in two main ways: first, it is more scientific and reasonable than simply using standardized test scores to evaluate teachers, and more objective and accurate than classroom observation evaluation; second, it measures the "net effect" of teachers' teaching. The second is to measure the "net effect" of teachers' teaching, i.e., to distinguish teachers' influence on students' achievement from other factors that affect students' academic performance, and to extract the "net" contribution of teachers to students' achievement through value-added model control variables, which ensures the fairness and scientificity of the evaluation (Yufang Bian., 2015). In 2011, the federal government required all states to adopt the "net" contribution of teachers to student achievement.

In 2011, the federal government required all states to adopt the reformed teacher evaluation system and encouraged all states to use value-added assessments to evaluate teacher effectiveness. Because the federal government proposed that the greater the impact of using the new teacher evaluation system, the greater the funding received, almost all states adopted this teacher evaluation system. At the same time, to extend the level of impact, states have linked evaluation results to high-stakes personnel decisions; if student achievement does not improve over time, some states record this in the teacher's professional record, while others deduct teacher performance pay or even terminate tenure or teaching contracts (Close et al., 2019).

As research has intensified and evaluations have become more widely used, value-added evaluations have come under increasing scrutiny. These challenges include scientific questioning at the academic level and validity questioning at the societal level. The scientific challenges to value-added assessment stem from its assumptions, which include that teachers are important school-level factors that influence students' academic performance and that teachers consistently maintain their traits in development. Some studies have found through analysis of large-scale standardized test results that teachers influence student performance in the range of 1% to 14%, while the other 86% to 99% is due to factors other than teachers (Berliner., 2014). Teachers are not the only influences on student learning processes and outcomes but act in concert with many other dimensions that can largely influence the true effects of teacher efficacy ratings.

Teacher efficacy cannot be maintained at the same level all the time when dealing with different groups of students, in different teaching contexts, and teaching different content at different times (Yudan Reng., 2019).

In practice, there are practical problems with non-idealized data caused by large amounts of missing data, uncontrollable variables, non-random formation of students into classes, and non-traditional and non-fixed classes, all of which can affect the accuracy of estimates of teacher effectiveness.

Even if all teachers in a given district are excellent teachers who teach competently, there will be teachers who are flagged as ineffective on value-added evaluations because they are below the district average, but this result is not accurate.

Complex mathematical and statistical models prevented teachers from understanding the specific meaning of value-added scores and from relating the evaluation results to daily teaching behaviors.

As a result, the validity of value-added assessment has been somewhat questioned. It emphasizes student achievement, puts too much pressure on teachers, and has a skewed focus that results in contaminated learning outcomes. At the same time, too many institutional changes as part of educational reform place a higher operational burden on the schools that receive funding.

#### 4. Conclusion

Overall, we can see how a competitive education grant program can stimulate reform of the national education system, both in funded and unfunded districts. However, in the case of the RttT program, the positive impact of the program on the funded states is insignificant. The reason may be that the spillover effect of the program makes the unaided states enhance their educational delivery autonomously and blurs the distinction between the funded states and them. At the same time, a value-added evaluation system that overemphasizes achievement has led to "test score pollution" that undermines the ability of test scores to effectively reflect educational achievement. Excessive education system reform has also placed administrative and operational burdens and increased costs on the education sector. In addition, the lack of acceptance of the "citizen's voice" makes the program lack critical elements of public satisfaction and performance completion.

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