

The Impact of Deregulation on Traditional Public Schools  
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## **Background**

What is the role of state legislatures in improving public education? Is it to provide funding and standards for student outcomes and then step aside? Or do schools also need to be told how to educate students? In practice, traditional public schools are required to meet student academic standards and regulatory requirements that govern educational inputs (Cohen, Spillane, & Peurach, 2017). Commonly-regulated inputs include minimum teacher qualifications, maximum class sizes, student disciplinary escalations, and requirements on instructional time (Education Commission of the States, 2005, 2017, 2018a, 2019). Without these regulations, policymakers fear that troubled districts would stop providing a minimum standard of education (Fuhrman & Elmore, 1995). It is an open question whether this fear is well-grounded. If states do not regulate hiring and operations, it's possible that some schools may adopt low-quality inputs, thereby increasing inequality; however, it is equally possible that strict regulations hinder schools from tailoring inputs to their unique circumstances and thus serving students to the best of their ability (Fuhrman & Elmore, 1995). Empirical evidence of the impact of regulatory flexibility on students has largely come from the charter literature, but charter schools serve a relatively small number of schools and operate within a different political context than traditional public schools (Education Commission of the States, 2018b; National Center for Education Statistics, 2019). By assessing the impact of widespread deregulation in Texas, I provide new empirical evidence of the impact of regulatory flexibility on a diverse and generalizable population of districts and students.

## **Policy Context**

Prior to 2015, traditional Texas public school districts were subject to regulations typical of most public schools across the U.S. Among other requirements, districts had to comply with teacher certification standards, class size limits, and restrictions on staff contracts. Beginning in 2015, however, any Texas district with acceptable academic and financial ratings (a standard met by over 97% of traditional public school districts) may declare District of Innovation status, granting schools within the district the flexibility to opt-out of any regulation which does not apply to the state's charter schools, including regulations on teacher certification, teacher tenure, class sizes, instruction time, and student attendance. Eligible school districts may declare District of Innovation status at any time and exempt as many regulations as they choose. There is no state approval process for exemptions. All a district must do in order to claim these flexibilities is hold a vote by the school board resolving to become a District of Innovation, post an Innovation Plan on its website specifying the exact regulations from which the district would like relief, and notify the state's education commissioner of its new status. Over 80% of Texas districts today have claimed Innovation status.

## **Research Question**

What is the impact of District of Innovation status on student achievement in reading and math?

## **Research Design**

To identify the impact of District of Innovation status on schools, I capitalize on variation in Innovation plan implementation. By Spring of 2016, 69 districts had declared Innovation Status, an additional 586 declared in 2017, 133 in 2018 and 23 in 2019. This variation allows me to implement a generalized difference-in-difference model on the population of Districts of Innovation.

I estimate,

$$Y_{st} = \alpha_0 + \sum_{\tau} \delta_{\tau} \mathbf{D}_{\tau,st} + \mu_t + \gamma_s + \varepsilon_{st}$$

where  $Y_{st}$  is the outcome of interest (student achievement in math, reading, and science) The school fixed effects,  $\gamma_s$ , control for all time-invariant determinants of student achievement; the year fixed effects,  $\mu_t$ , non-parametrically control for state trends in school investments or student achievement. Vector  $\mathbf{D}_{\tau,st}$  represents indicator variables for each of the years before and after an Innovation Plan is implemented and  $\tau$  is centered so that it is equal to one the year the plan is implemented. Thus, the coefficient,  $\delta_{\tau=1}$ , represents the treatment effect after one year of implementation. For traditional schools,  $\tau$  is set to zero; these schools only aid in identifying state trends.

### **Data and Measures**

Implementation dates were scraped from Innovation plans found on school district websites. I followed a process in which I (1) built a web crawler that visited every district website and downloaded potentially-relevant documents; (2) trained a convolutional neural network tuned to text classification to identify Innovation Plans and discard irrelevant documents; and (3) extracted the date of implementation using additional classifiers and regular expressions. I then linked this scraped data to an administrative dataset of school-level data from the 2011-12 to 2018-19 school years. Though it is districts who claim Innovation status, I treat schools as the unit of analysis, allowing for exploration of within-district variations in implementation and outcomes. I estimate the impact of District of Innovation status on math and reading student achievement on the State of Texas Assessments of Academic Readiness (STAAR) exams.

### **Findings**

I find that District of Innovation status causes a small, negative impact of math achievement which become increasingly negative with each additional year of implementation. The first year impact is -0.04 standard deviations, the second year impact -0.10, and the third year impact is a significant negative impact of -0.18. In contrast, I do not find evidence of a significant impact of District of Innovation status on reading achievement.

### **Conclusions**

Though there is a growing push for district autonomy from state regulations (Kim, Field, & Hassel, 2019), there is very little evidence of the impact of regulatory freedom on students. This presentation provides the first impact evaluation of the Texas Districts of Innovation statute, demonstrating, in this case, that regulatory freedom alone is not an effective means of improving student achievement.