

# U.S. POLITICAL DISCOURSE ON MATH ACHIEVEMENT GAPS IN LIGHT OF FOUCAULT'S GOVERNMENTALITY

Salvatore Enrico Indiogine, Gerald Kulm

Texas A&M University

*The objective of the study was to document and analyze the justifications given by federal institutions of the United States for governmental control of mathematics education as function of the achievement gaps (AGs) in mathematics. We wanted to shed light on the discourses made in the public arena that have legitimized this control and firmly established in the national conscience that the knowledge of mathematics is essential to the prosperity and survival of the nation. The research question can be briefly stated as “what insights and understandings of the national education policy discourse on the achievement gaps in mathematics does Foucault's (2009) governmentality offer?”*

## THEORETICAL FRAMEWORK

In the United States there are persistent and significant differences between ethnic/racial groups where students of Asian and European descent have significantly higher scores than Native American students and students of African or Hispanic descent. Side by side to these differences in race or ethnicity are the differences in wealth. The effect of disparity in income on educational outcomes is at least as incisive as the previous differences. This phenomenon has been called the “racial, ethnic, income, or national achievement gap.” The phenomenon has been subject of extensive discussions and research, especially since the publication of the report called “A Nation at Risk” in 1983 (National Commission on Excellence in Education, 1983). Research on the achievement gap is extensive, and research on the political aspects of the achievement gaps also exists (e.g. Apple, 1992; Payne & Biddle, 1999). However, there has been limited research on political discourse regarding the mathematics achievement gap (Ellis et al., 2005; Martin, 2003).

### **Foucault's governmentality**

Very little scholarly research has been published on the relationship between Foucault's governmentality and the achievement gaps (Suspitsyna, 2010). Governmentality is the process through which a form of government with specific ends (a happy and stable society), means to these ends (“apparatuses of security”), and with a particular type of knowledge (“political economy”) to achieve these ends, evolved from a medieval state of justice to a modern administrative state with complex bureaucracies (Burchell, 1991, p. 102). To analyze government is to analyze those mechanisms that try to shape, sculpt, mobilize and work through the choices, desires, aspirations, needs, wants and lifestyles of individuals and groups (Dean, 2009, p. 20). Foucault (2009, pp. 108-109) described governmentality according to three

“dimensions.” This study employed the first dimension: The “ensemble” formed by the institution's procedures, analyses and reflections, the calculations and tactics that allow the exercise of this very specific albeit complex form of power.

## **METHODS**

Our intention in the study was not to prove a phenomenon in a scientific, experimental sense. Rather it was to navigate through the documents of federal educational policy and history of education to study the motivations, whether openly stated or uncovered by analysis and to generate interpretative narratives. We attempted to understand what social, economic, military, and political conditions made those in power decide to legislate the teaching of mathematics and to increase the amount funding and regulations. The distribution of the federal budget is a ‘zero sum game.’ The decision to give money to any program or agency can only occur when the discourse that supports it becomes intelligible. When certain practices, intentions, and desires become part of the public sphere, they also become tacitly and implicitly part of the ‘normal’ functioning of society.

The data sources were documents from two branches of the federal government: Presidential speeches and Congressional hearings made up of presentations by members of Congress, witnesses, and invited experts. Parallel qualitative discourse analysis (QDA) and quantitative text mining analyses were employed. During the final stage, QDA, text mining, and literature review were integrated to construct narratives where we described, in light of governmentality, how the public discourse on the mathematics achievement gaps is structured. For a complete description of the processes of coding the discourse in the documents, carrying out data mining, and constructing the narratives, see *Indiogene* (2013).

The analysis was guided by some studies in education that were performed using the Foucauldian concepts of archaeology and genealogy; mainly Knight, Smith, and Sachs (1990) who presented their “critical appreciation of official state policies” concerning school curriculum in Australia, and Kenway (1990) who studied how certain political forces “have all but colonized popular thinking and government policy on education in Australia.” A more recent study of this type in mathematics education was performed by Popkewitz (2004). However, we also made great use of research on governmentality analysis in education such as by Doherty (2006), Suspitsyna (2010) and Goddard (2010).

## **RESULTS AND DISCUSSION**

Our examination of the data focused on highlighting several trajectories in U.S. education policy. What became apparent from the analysis of the political discourse is that in parallel to the expansion of the federal share of the education budget was the centralization of the control of education. There is a clear historical trend from local to state to federal control. Its significance should not be underestimated because this trend

contravenes a political principle that is heartfelt among U.S. citizens, local control of public affairs.

Three of the components of governmentality: procedures, analyses and reflections, and calculations and tactics, can be used to model the growth in complexity of the government's approach to the AGs. This process can be represented by an outward moving spiral as shown in Figure 1.

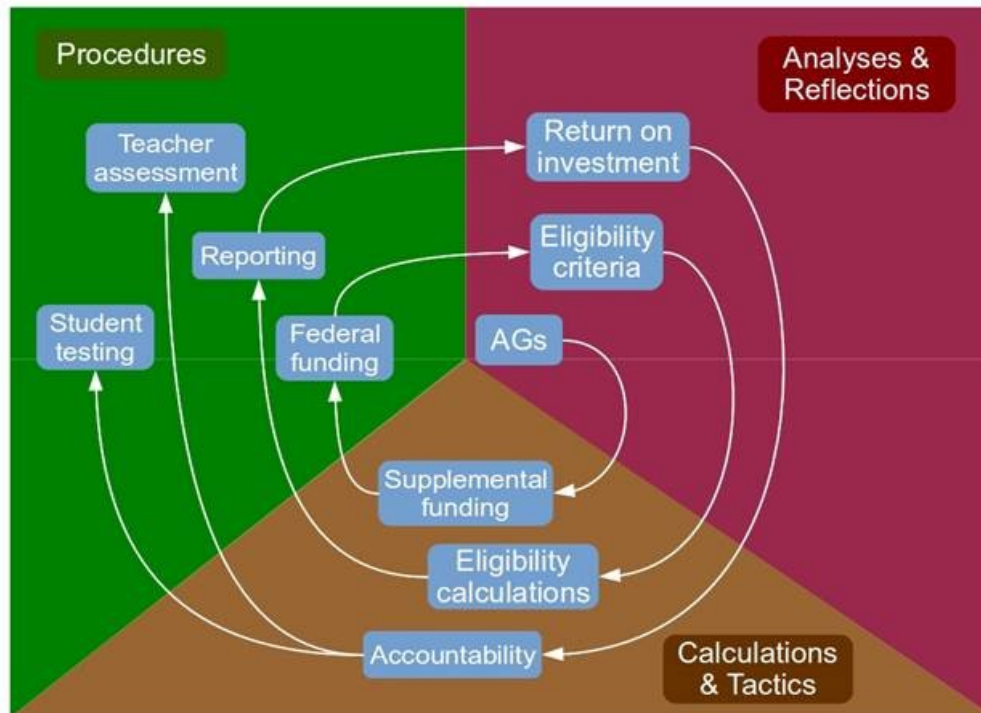


Figure 1: The Governmentality Spiral

The tactic of supplemental funding for poor schools was instituted by the “Elementary and Secondary Education Act” (ESEA) of 1965 based on the reflection of the existence and negative social and economic effects of the achievement gaps. The procedure of federal funding was instituted and the analyses for eligibility had to be established and then calculated. The process needed the establishment of reporting procedures, which created a wealth of data that allowed the analysis and reflection of the return on investment of this federal funding, which engendered, under the influence of neoliberal principles, the tactic of accountability, which demanded the establishment of elaborate procedures of student assessments. This greater level of complexity and federal control of education was legislated by the 2001 reauthorization of ESEA named the “No Child Left Behind Act” (NCLB).

The student assessments were but a starting point of an avalanche of other processes that were mandated by NCLB. The “Adequate Yearly Progress” (AYP) was calculated based on rising state goals that would bring all students to “full proficiency” in mathematics and the English language by the year 2014. The calculation of the AYP incorporates the tactic of disaggregating achievement data according to income,

language proficiency, racial, and ethnic classifications. This type of calculation is required by the analysis and reflection of the achievement gaps. If a school was deemed not to meet the requirements of AYP, it was classified as “needing improvement,” and this status would activate several procedures as can be seen in Figure 2.

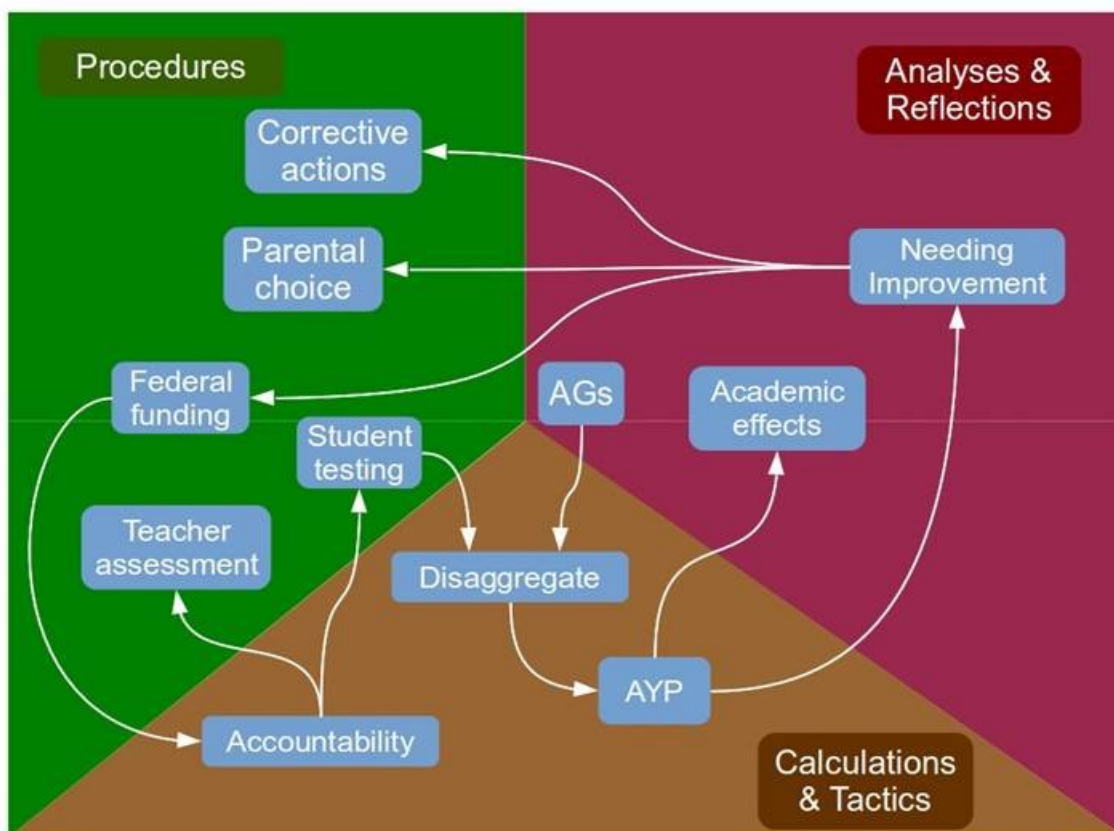


Figure 2: Accountability and its Effects

Schools and local education agencies reacted by requesting modifications to NCLB. The generic term for this request was “flexibility,” which was a term often present in the speeches by President Bush. Among these modifications was the request to adopt “growth models,” a more complex form of AYP calculation.

Looking more carefully at the analyses and reflections, we noticed that the awareness of the AGs and the acknowledgement of their importance occurred gradually over time. The shift in understanding of social justice started with ‘equal access,’ then widened its reach to ‘equal resources,’ and reached the concept of ‘equal academic outcomes’ today. Hence, the unequal academic achievements as calculated by disaggregating academic proficiency by income level, English proficiency and ethnic/racial classifications, were problematized. Another shift in analysis and reflection has been from an understanding that the AGs were caused by the social environment where the schools operated, to the understanding that the problems were ‘internal’ to the schools themselves, such as the low expectations of the teachers with respect to certain groups of students or an insufficiently rigorous curriculum.



We have also traced the analysis and reflection of the need for student assessment at a national level as connected to the tactic of accountability, which was presented initially as a tool that schools should use to improve their teaching and thus help students. Once the practice had become established and began to influence the teaching practice and the AYP rankings were made public and “corrective actions” became more widespread, it became a subject of controversy.

We then looked at the analysis and reflection of the imposition by law of “research-based education practices.” An impression was given that the teaching practices at schools were driven by tradition at best and fads at worst. The policy discourse reflected a low opinion of the professional standing of the teachers. Mention was made of the widespread use of non-certified and out-of-field teaching, especially in ‘difficult’ schools. In reality, it appeared that the reforms themselves were not based on education research but were rather ideologically driven.

The AGs could have never reached the importance that they have based only on anecdotal evidence. Policy makers needed the solid evidence provided by the statistical calculations of the student achievement data. However, these calculations became a battlefield once NCLB made them a central feature of education law. We looked at the controversies on who should be included or not in these calculations, e.g. students with special needs and English Language Learner students. Sometimes the issues were about ‘arcane’ statistical concepts such as the N-size and the how to calculate the confidence intervals. ELL students, also called Limited English Proficiency (LEP) students, pose particular statistical, and thus policy, difficulties. Unlike racial/ethnic groups, it is not intended to be a permanent situation. Schools are expected to move students out of this group into English language proficiency. At the same time new LEP students are added to this group. In this situation this subgroup would never attain proficiency. Hence several states have modified their proficiency calculations. This dynamic is but one of the many issues that make accountability for LEP students problematic. For details see Abedi (2004).

Another historical trend in education policy towards policy centralization that we have observed is the expanding federal role in the curriculum. Traditionally it was the schools and school districts what determined the content of the curricula. However, as we have noted previously, these local standards have come under attack by those who, based on an analysis and reflection, considered them not sufficiently rigorous for some students and thus contributing to the AGs. Initially the tactic of state curricula common to all students was advocated, and once this tactic was established the next step of federalization of education consisted in the “voluntary” creation of a national common curriculum.

During the period of time that we examined, one important target of analysis and reflection has become increasingly incisive and now has become the most controversial aspect of school reform. This is the issue of teacher assessment and associated punitive actions culminating in their dismissal. We looked at the connection between achievement calculations that would track individual students through time

and thus allow matching their progress to individual teachers and the heated debates about the use of these data. The usual rhetorical pattern was to introduce any type of assessment or measurement, for students, teachers, or schools as a diagnostic tool. Then, once established as a 'normal' procedure it would be used as any other business tool to 'separate the wheat from the chaff.'

We explored the Foucauldian notion of population as the target of all previous procedures, analyses and reflections, and calculations and tactics. The cornerstone of a neoliberal form of government and social intervention is the use of market forces. NCLB modified the Elementary and Secondary Education Act of 1965 by introducing mechanisms in the federal funding of schools that would open them to some form of free market through the implementation of the procedures of parental choice and the reporting of school evaluations. However, we have seen that these implementations were quite timid and thus had negligible effect, and have been superseded by the recent rise and popularity of the charter schools.

## **CONCLUSION**

According to Foucault the major form of knowledge of governmentality is "political economy." Governments had to place the national economy at the center of its activities because of the competition between nations. Basically the 'economy' is the 'policy.' We have seen how it has become a form of knowledge that the public school system is a component of the economic machinery of the nation by preparing and training the next workforce. The closing of the AGs, both national and international, are placed in the context of the U.S. economy and its international standing.

In conclusion, whether the procedures, analyses and reflections, and calculations and tactics have had a beneficial impact on the AGs is not an issue in this analysis. However, as Lee and Reeves (2012, p. 209) concluded, the narrowing of the AG was more closely associated with "long-term statewide instructional capacity and teacher resources rather than short-term NCLB implementation fidelity, rigor of standards, and state agency's capacity for data tracking and intervention." Thus, in education, measuring does not necessarily solve a problem. It may do so in business where people can be hired and fired, lines of business can be initiated or terminated, but public education as an inclusive and empowering institution does not and should not operate in this fashion.

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