

## Chapter 24

# Growth Models in the Age of School Reform and Accountability: Policy, Practice, and Implications

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### ABSTRACT

*The reauthorization of the Elementary and Secondary School Act (ESEA) in 2002, also called “No Child Left Behind,” mandated use of accountability systems to evaluate school and district performance. The accountability systems were initially required to use cross-sectional student level assessment results in the evaluation models when assigning performance labels to school systems. Growth models were approved for use in the evaluation models in 2006, but their implementation required development of policy, identification of appropriate methods, and guidelines for assigning labels of performance to schools. The purpose of this chapter is to review the development of educational policy, implementation, and challenges in the use of growth models in accountability systems.*

### PROLOGUE

We have all attended school and have theories regarding the effectiveness, direction, and suggestions to make the K-12 system more successful. As I attended school in the K-12 system my concerns

were limited to my own experiences and the more immediate tasks of completing an assignment or studying for an exam. In recent conversations with my 14-year old daughter, I found her immediate concerns were similar to mine, with the next assignment or exam consuming her thoughts. She

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has limited appreciation for the long-term impact the K-12 system may have on her life as she transitions to college or the workforce. For most students in the K-12 system high school graduation is a singular goal that represents a finality of their education, even if they intend to further their education by attending college.

During my time at Carroll High School, a private Catholic institution, there were two building complexes, “A” and “B” buildings. I had courses in both buildings, but the first few courses every morning were in “A” building. I had several friends who attended courses in the “B” building each morning. I use these building designations to represent there were different educational paths associated with those first few classes each morning. Everyone was aware of this distinction, but it was not evaluated as a good or bad thing, just there were different educational paths for each student.

I attended Eastern Washington University (EWU) and elected to pursue an undergraduate degree in Physics. During my first quarter at EWU in the fall of 1982, I had Calculus at 8:00 a.m. which I learned was the equivalent of the “A” building designation in high school. As I progressed through my undergraduate degree at EWU, it became increasingly evident there were educational “paths” in college, too, and these educational “paths” had both social and economic implications for a student’s future. Further, through discussions with many of my friends and classmates at Eastern, I became much more aware of the implications of a quality K-12 education on success in higher education.

I attended graduate school at Arizona State University (ASU) and ultimately enrolled in a doctoral program in Educational Psychology in the College of Education where I specialized in Measurement, Statistics, and Methodological Studies. As a graduate student at ASU I continued to identify the distinction of an “A” versus “B” building approach in academic preparation even in graduate education.

The economic and social value of a postsecondary degree (undergraduate and graduate) differs by the college (e.g., engineering, education, etc.) that awards your degree. This is parallel to attending your first few classes each morning in “A” or “B” building at Carroll High School. My background in physics and mathematics were unique in a college of education; and my academic expectations were more consistent with the “A” building and the rigor/expectations associated with my undergraduate degree from EWU. In contrast, many of my graduate student peers at ASU had expectations for academic rigor more consistent with the “B” building. It is not my intent to be critical of the “B” building, as the “B” building is a necessary element within any educational system. My disconnect was the number of my graduate student peers pursuing advanced degrees in education at ASU just to increase their Step Raises within the K-12 system<sup>1</sup>. Many of these graduate students routinely complained about an unfairness of teacher accountability programs, testing and assessment models, and the academic expectations associated with completing advanced degrees in education (e.g., research papers, tests, and courses requiring knowledge of mathematics). As I listened to their complaints of the methodology requirements to complete advanced degrees, I was dismayed by their concurrent outrage over statistical methods used to evaluate effective instruction, teacher effectiveness and student performance. More specifically, these educators disavowed the need to learn basic research methodology, statistics, and test development while concomitantly dismissing the effective use of these fields in assessment of teacher effectiveness and student achievement. In fact, one day a colleague stated, “I don’t need to know about z-scores! I need to know when to hold a child.”

My area of emphasis in graduate school was in repeated measures designs and growth modeling. I also completed core requirements in psychometrics and test development. As I listened to my colleagues dismiss these fields and their

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