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Book Review


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In 2010 the General Education Development (GED) test accounted for 12% of high school credentials issued in the US. This credential is used for a variety of purposes: it gives access to higher education, it defines eligibility for a number of social programs, it allows inmates to request sentence reductions. The Myth of Achievement Tests casts serious doubts on the opportunity of such a widespread use of the GED. The book is not the first contribution to highlight the weaknesses and perverse incentives of the large scale use of the GED in the US. However, because of its rigor and accessibility, the volume will probably affect how the GED is perceived by policy makers and public opinion.

Heckman’s interest in the GED dates back to the early 1990s when he published a number of papers providing evidence that the GED was performing very poorly both in terms of increasing productivity and signaling individual ability. In the last two decades, growing empirical evidence has shed light on a number of other issues concerning the use of the GED and, more generally, on the use and abuse of standardized tests in the educational system in the US. The volume, edited by Heckman and two of his former doctoral students, contributes to this debate in at least four ways: it shows that the GED does not capture important character skills that are instead well rewarded in the labour market, it provides convincing evidence of a rather small positive effect of the GED in terms of labour market performance, it demonstrates that the GED does represent an incentive to drop out of high school, and finally, it suggests a number of desirable reforms of the GED and of the American education system.

The history of the GED is illustrated in the second and third chapters. In chapter two Lois Quinn – already author of “GED: The Test that Became an Institution” published in 1990 – describes the origin of the test and the cultural environment in which Everett Lindquist, Ralph Tyler and other educational reformers connected to the American Council on Education conceived the test. The author underlines how World War II was crucial for the GED’s success. Millions of veterans were returning from the battlefields without having completed a high school diploma. By 1946 all but four states were granting school certificates to veterans based on the GED. In the following years a number of states began to issue GED credentials to high school dropouts who had never served in the army. The use of the GED for nonveterans only increased. By 1959, more civilians were taking the GED than were veterans.

A precise, quantitative analysis of the evolution of the GED is presented by Eric Humphries in the third chapter. The author identifies a number of changes that closely correlate with the increase in the number of GED recipients. In the 1960s a number of institutions started to offer courses to pass the GED. These were short, intensive courses which lasted a few weeks at most.
In the same period, the GED – for which the American Council on Education had obtained copyrights – was implicitly subsidized by a number of acts targeting disadvantaged groups. These acts provided federal funds for the education of adults and were often used by schools to produce credentials through the GED. Furthermore, during the 1970s the minimum age required to take the GED was lowered, thereby making the GED a practical alternative to a regular high school diploma. Not surprisingly, the average age of test takers has been steadily declining in the last decades.

The three editors of the volume are the authors of the fourth chapter which presents the descriptive statistics of the data that are then used in the following chapters. Describing the population of GED takers is part of the authors’ identification strategy. Clarifying the characteristics of those who take the GED allows us to understand the reasons why the test produces little benefit and imposes not negligible costs on the American society. GED takers are no longer veterans who left school early and were trained while serving. Today GED takers are high school dropouts who leave school for reasons similar to other dropouts: they were expelled, dislike school, lack the ability to complete school, or had an early pregnancy. Data coming from multiple data sets show that GED recipients have similar cognitive ability to high school graduates who do not enroll in postsecondary education. However, they lack character skills such as self-esteem, locus of control, self-concept. The only exception is represented by women who earn the GED after dropping out due to an early pregnancy. These women have higher character skills than other GED recipients and are similar to high school graduates.

The chapter concludes discussing the output of two probability models that explain the likeliness of graduating from high school and that of passing the GED. The significant predictors differ: cognitive skills allow for passing the GED but are not sufficient for graduating from high school.

The same authors move the first fundamental criticism to the GED in the following chapter. They provide evidence that the test does not produce benefits, neither in the labor market, nor in terms of higher education. To the best of my knowledge their analysis is by far the most complete on the topic. It merges information contained in six national representative surveys which span different periods and cohort ages. These datasets contain different measures of ability, cognitive skills and behaviors. However, the focus of the chapter is on labour market performance. They employ both cross sectional models and longitudinal models to compare earnings, employment status and wages of three groups: high school dropouts who did not receive the GED, GED recipients, and high school graduates. The chapter summarizes the output of thousands of different model specifications that show almost no effect of the GED on labour market performances. No effect is also found across the distribution of earnings, and benefits do not appear to increase with experience – as it has been suggested by GED advocates [Tyler et al. 2003]. Consistently with what is already anticipated in Chapter 4, the authors find that GED recipients are instead very similar to other high school dropouts in terms of a number of non-labor outcomes such as health, incarceration and divorce.

Evidence confirming that GED recipients are almost indistinguishable from other high school dropouts is also provided by Janice Laurence. Laurence – a leading scholar in the field of military psychology – provides an additional reason to be skeptical about the GED. She revises evidence produced by the Department of Defense on attrition
rates of GED holders. On average about one third of entering recruits leaves service prematurely, so the Department of Defense has made an effort to understand and limit the phenomenon. The analysis of a huge dataset – the Army is by far the biggest employer in the country – shows that education attainment is a powerful predictor of attrition. However, GED holders tend to have much higher attrition rates than high school graduates and are in line with other high school dropouts.

The second fundamental criticism to the widespread use of the GED is presented by Heckman, Humphries, Lafontaine and Rodriguez in the seventh chapter, in which they show that the GED creates incentives to dropout. To this end, the authors follow three distinct identification strategies: 1) they use nationally mandated changes in GED passing requirements implemented in 1997, 2) they exploit a panel dataset of dropouts observed before and after the introduction of the GED option programs in Oregon, and 3) they estimate by difference-in-difference the effect of the extension of the GED to civilians in 1974 in California. Estimates are consistent across studies and show a statistically significant decline in high school graduation associated with the diffusion of the GED.

This evidence is complemented by the state-level analysis proposed by Halpern-Manners, Warren and Grodsky. The authors investigate whether some of the success of the GED can be attributed to the growing diffusion of state-mandated high school examinations. They construct a longitudinal dataset containing information about states imposing exit exams before graduation, number of GED takers, and a number of other time-varying, state-level covariates, including variables that describe education policy. The analysis suggests that indeed higher graduation requirements incentivize students to take the GED as a way to avoid state-mandated exams. This effect is higher in poorer states and in areas with a higher prevalence of minorities.

The volume does not simply criticize the use of GED, however. The last chapters contain the *pars construens* of the book. Heckman and Kautz revise evidence about what character skills are needed in the workforce and summarize existing evidence about interventions able to foster them. They present an impressive meta-analysis of 25 evaluated interventions aimed at fostering cognitive and non-cognitive skills at different ages. These programs target different populations at different ages and are evaluated looking at heterogeneous sets of measures of success. The comparison therefore is difficult. For example, early interventions have longer follow-up, and interventions targeting adolescents look only at employment effects in the short term. This heterogeneity may introduce some biases, and therefore we should handle their conclusions with care.

According to the authors both cognitive and non-cognitive skills can be improved. Interventions in pre-school years improve character in a lasting way, producing return comparable with investment in the stock market. Moreover, some character skills can be more easily improved than cognitive skills later in life. Workplace-based interventions targeting character skills of adolescents are suggested to be the most effective type of programs in terms of improving a variety of later socioeconomic outcome. Nevertheless, the authors claim, educational policies in recent decades have increasingly focused on cognitive skills, and the use of the GED is a clear sign of such a bias.

In the concluding chapter the three editors rattle off a broad list of policy recommendations. The first one is the need to exclude GED recipients from the number of high school graduates in official statistics. Moreover, because students should not see
the GED as an equivalent to a high school diploma, any link between GED preparatory courses and high school should be eliminated and the minimum age to take the GED raised. But policy recommendations are not limited to advice on how to reform the GED. The authors’ idea is that character skills should be placed at the center of the high school curriculum. Moreover, because they are convinced that these skills are measurable, they should be integrated into the systems of schools’ and programs’ evaluation.

Overall the book is well organized and very accessible. The few equations and methodological discussions are relegated in appendices, and graphs are always intuitive. On the other hand, the reader should not expect new evidence about the GED’s effectiveness. The volume is rather a review of many existing findings collected by Heckman and coauthors in a two-decades effort to understand the effect of the GED. The majority of chapters largely overlap with papers already published. The bulk of the empirical analysis on the effect of the GED was already published in different papers [Heckman et al. 2012; Heckman and LaFontaine 2006], and the review of the literature on programs that can improve character skills is a summary of the report recently published by Heckman and colleagues for the OECD [Kautz et al. 2014].

In some part the authors appear to be too conservative in recognizing the benefit of the GED. For example, the authors find that GED recipients who enroll and graduate in post-secondary education show earnings similar to other college graduates. However, they claim that even in this case the GED has not had any positive indirect effect. Their argument is that those GED recipients enter the labor market only later, so the present value of their life earnings is lower than that of high school graduates. This argument is somehow surprising. After all, the benefits of obtaining a diploma are not limited to higher earnings.

Similarly, when disaggregating the analysis by groups, a positive effect is found for women. Female GED recipients show higher earnings due to a higher labour market participation. However, among women who do participate, GED recipients have no higher probability to be employed. This convinces the authors that this effect should not be considered causal and may be due to a selection effect: women who are willing to work decide to take the GED. This explanation is plausible, but the positive effects of the GED for women should not be underrated and it is a pity that he authors are unable to find a strategy to test for this source of endogeneity.

Reading *The Myth of Achievement Tests* one learns a number of important lessons which go far beyond the evaluation of the GED and concern the general issue of using standardized testing in education. I believe that two points in particular deserve to be carefully meditated upon.

First, the structure of the GED was conceived by the American Council on Education, a private body representing hundreds of colleges and schools. However, the American Council on Education earn about 40% of its resources by administering the GED. The test was designed in an effort to speed its scoring and to minimize its costs. Converting questions into multiple-choice items was the most immediate solution.

After WWII when the GED was extended to civilians, this altered the incentives for high school low achievers. Dropouts were no longer required to learn material covered in school to earn an equivalent diploma. It was sufficient to learn how to pass the GED. A sort of “observer effect” had taken place in the educational system in the US.
tool used to measure skills of low achieving students had modified the objectives of their learning. Lindquist, the father of the Iowa test, the first version of the GED, was aware of this possibility and considered the adoption of the standardized test as a way to reform school curricula. In 1949 he wrote:

> What were needed [...] were tests of general educational development that would force teachers to redirect their focus to skills not emphasized in their current classes [Heckman et al. 2014, 65].

This mechanism is unavoidable, as any measurement method modifies that which we attempt to measure, but – as proven by the debate about INVALSI (National Institute of the Evaluation of Education System), the standardized test administered in Italian schools – the bias introduced adopting a standardized test in education are often understated.

A second important lesson concerns the relative importance of non-cognitive skills in succeeding in life. For a reader familiar with the Heckman’s publications of the last two decades this is a well-known mantra. However, the sum of evidence provided in this volume is definitively convincing readers about the need to rethink our educational systems. The list of prescriptions that conclude the book represent a promising starting point.

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