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Estimating the Labor Market Signaling Value of the GED

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Executive Summary

While many previous studies have examined the economic impact of the GED on labor market outcomes, the results from these studies are all based on regression analyses that employ questionable comparison groups. As a result, all previous studies of the economic impact of the GED likely suffer from “selectivity bias.” Most of these past studies have found small or no effects of the GED on the labor market outcomes of dropouts. Using new and powerful data and a methodology that relies on interstate variation in GED passing standards to address selectivity bias issues, we find that the GED has a large impact on the earnings of young white dropouts who chose to obtain the credential and whose scores place them on the margin of passing. Our estimates are robust across several different “natural experiments” we can employ, as well as to a series of specification checks. While we find no statistically discernible effect of the GED on the earnings of young minority dropouts, this does not rule out a positive impact of the GED on higher scoring minority dropouts nor a positive impact on the earnings of minorities via a human capital route.

Data and Methodology

The baseline data for this study consists of basic demographic information and GED test scores for a large sample of individuals from across the U.S. who last attempted the GED exams in 1990. All sample members were between the ages of 16 and 21 when they attempted the exams in 1990. With the assistance of programmers at the Social Security Administration, these data were merged with Social Security earnings data, yielding a data set containing basic demographic information, GED test scores, and annual earnings.

The primary concern with earlier studies of the GED is that GED candidates are a self-selected subset of all high-school dropouts. To the extent that the decision to obtain a GED is based on unobservable traits (such as high levels of motivation) that are correlated with labor market outcomes, estimates of the impact of the GED on outcomes using conventional regression methods will be biased. Since all individuals in our data chose to attempt the GED exams, the nature of our data account for any treatment and comparison group differences (both observable and unobservable) that originate in the decision to acquire a GED. We then use the fact that different states have different passing standards for awarding a GED to construct treatment and comparison groups composed of individuals who have the *same GED test scores*, but who differ in GED status depending on state of residence. Since individuals in the treatment and comparison groups differ only in GED status and state of residence, a contrast of their earnings should reflect only these differences. We eliminate the state effect on earnings with a second difference using individuals who have the same test scores *and* who all have a GED. Economists call this estimator a “difference-in-differences” estimator. Since we measure earnings five years after the GED attempt, the result of this methodology is an estimate of the impact of the GED on the earnings of 21-26 year-old secondary education dropouts that is plausibly free of selectivity bias.

Results

Because there are several different state passing standards, we are able to estimate the impact of the GED on earnings using several different natural or quasi-experiments. That is, we can construct difference-in-differences estimators using several different combinations of states and groups of states. In some natural experiments, individuals from a state will be in the treatment group, while in others, individuals from the same state will be in the comparison group. Regardless of the “experiment” employed, our estimates of the impact of the GED credential are all remarkably close.

It is important to understand that since our treatment and comparison groups have the same GED test scores, and since other work we have

conducted shows that GED recipients with scores just above the passing threshold obtain virtually no post-secondary education, our estimates are of the labor market signaling value of the credential. In other words, we show that for relatively low skilled high-school dropouts, the value of the GED credential is that it allows employers to distinguish more promising job applicants from less promising applicants. The labor market signaling value of the GED increases the earnings of young white dropouts who are on the margin of passing by about 15-19 percent. While the impact is large in percentage terms, it translates into about a \$1,500 per year increase in annual earnings—a modest change because the earnings of school dropouts are so low. Thus, acquisition of the GED credential, by itself, is not a road that leads out of poverty.

We find no evidence that the GED serves as an effective labor market signal for young nonwhite dropouts with GED scores just on the margin of passing. The difference between the GED results for white dropouts and those for nonwhite dropouts is a puzzle that we hope to solve in the future using earnings data from particular states. It could be that (a) the GED has a large signaling effect for higher-scoring nonwhite dropouts, (b) the human capital effect associated with the GED is substantial for young nonwhite dropouts, or (c) both (a) and (b) are true.

Conclusion

The GED credential serves as a useful labor market signal for low-skilled, young, white GED holders. Thus, at least for these individuals, governmental support of programs that assist dropouts to gain the skills necessary to pass the GED has a positive payoff. Unfortunately, our research design does not allow us to examine the effects of the GED on the outcomes of more highly skilled dropouts, those substantially above the GED passing cutoff. It is important to keep in mind that there may well be human capital effects associated with programs preparing school dropouts for GED acquisition. Our research design does not allow us to estimate these effects.