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Pov423: Capstone Seminar in Poverty Studies

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April 8, 2010

The GED Program & Outcomes for Disadvantaged Students

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Abstract

The GED certification program started as an alternative education route for war veterans. It has greatly expanded to serve individuals of all ages and backgrounds who lack a high school diploma. Over one-half million test-takers attempt the exam annually, hoping to gain better employment or to seek an opportunity to go to college. However, the imperfections in the market lead to a disparity between desired outcomes of the GED program and those experienced in the market. With rising dropout rates in schools across the country and increasing popularity of the program as an alternative education route, policies must be enacted to align program goals with outcomes in order to better serve the disadvantaged population of dropouts. The policies discussed include a restructuring of the GED institutional procedures, providing a clear bridge to college enrollment, implementing referral services, and revising curriculum tailored to individual needs.

An Introduction to the Dropout Crisis

In July 2008, the Alliance for Excellent Education estimated that in 2005, only 69% of students graduated from high school in the United States. For minority populations, the outcome was even bleaker; only 51% of African Americans graduated with a high school degree, and only 55% of Hispanics.¹ High-poverty districts, not surprisingly, have much lower graduation rates than the average. In 2008, only 57.6% of students from low-income neighborhoods graduated from high school.² Schools where over 90% of the student body was a minority, only 42% of incoming freshman made it to the 12th grade.³ With a yearly earnings difference of nearly \$10,000 between dropouts and high school graduates, the annual cost to the United States is almost \$319 billion in lost wages.⁴

Federal policies like No Child Left Behind and the Elementary and Secondary Schools Act (ESEA) have attempted to combat the dropout crisis with unimpressive results. Instead of closing the achievement gap, which was a primary aim of NCLB, schools were often effectively “pushing out” low-achieving students to raise average achievement rates.⁵

With the rising numbers of students dropping out of high school, there is a demand for alternative programs to give these students a “second chance” at better employment opportunities and access to post-secondary education and training. The most prevalent alternative program is the GED certification program, which awarded 493,490 individuals with a high school equivalency diploma in 2008.⁶ The increasing popularity of this program demands that

¹ Amos, Jason. (2008). “Dropouts, Diplomas, and Dollars: US High Schools and the Nation’s Economy” *Alliance for Excellent Education*. Retrieved from <http://www.all4ed.org/files/Econ2008.pdf>

² Cataldi, E.F, Laird, J., & Kewal, Ramani, A. (2009) “High School Graduation and Completion Rates in the United States: 2007.” *National Center for Education Statistics*. Retrieved from <http://nces.ed.gov/pubs2009/2009064.pdf>

³ Orfield, G., Losen, D., Wald, J., & Swanson, C., (2004). *Losing Our Future: How Minority Youth are Being Left Behind by the Graduation Rate Crisis*, Cambridge, MA: The Civil Rights Project at Harvard University.

⁴ “Understanding High School Graduation Rates.” (2009). *Alliance for Excellent Education*. Retrieved from http://www.all4ed.org/files/National_wc.pdf

⁵ Darling, Hammond, L. (2006). “No Child Left Behind and High School Reform.” *Harvard Educational Review*, 76(4), 642-667

⁶ American Council on Education. (2009). *GED Testing Fact Sheet*. Retrieved from

policymakers have a good understanding of the development and evolutionary history of the GED program, the individual characteristics and motivations of the population seeking a certificate, and the outcomes they experience later in life to evaluate the GED program's effectiveness as an alternative pathway to educational success.⁷

Introduction to the GED Program

I. *Evolution & Design*

The GED certification program was developed in the 1942 in conjunction with the Veterans Testing Service to provide returning war veterans who had left school prior to graduation an opportunity to receive a high school diploma equivalency. Ten years later, it was introduced as an alternative certificate for nonveterans, mostly adults and immigrants, who were seeking better employment and educational opportunities. Since then, it has grown in popularity for individuals of all ages and education levels seeking an alternative route for educational attainment. In 2007, over 635,000 test-takers completed the exam, of which over 451,000 passed the exam (just under 71%).⁸ Even though the GED is targeted towards adults, most GED recipients as of 2009 were under the age of 25 years old.⁹

The GED Testing Service, under the American Council of Education, is responsible for the development and leasing of the exam, as well as establishing minimum age requirements and passing scores. In its current design, the GED is a seven and one-half hour-long battery exam that tests five subjects of knowledge: math, social studies, science, reading, and writing. In 1997, GEDTS changed the minimum passing requirements for all states, as well as the minimum age

http://www.acenet.edu/Content/NavigationMenu/ged/pubs/GED_Testing_Program_FactSheet_20092.pdf

⁷ American Council on Education. (2009). *GED Testing Fact Sheet*. Retrieved from

http://www.acenet.edu/Content/NavigationMenu/ged/pubs/GED_Testing_Program_FactSheet_20092.pdf

⁸ ed.

⁹ Cameron, S. & Heckman, J. (1993). "The Nonequivalence of High School Equivalents." *Journal of Labor Economics*, 11(1), 1-

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requirements. Currently, a test taker must be at least 16 years of age, and officially withdrawn from any public or private school. To pass the exam, a test-taker must achieve a 410 or higher on each battery and a minimum of 450 average for all five exams. In 2003, GEDTS increased the difficulty and rigor of the overall exam so that, theoretically, two of three high school graduates would not pass the exam on the first try.¹⁰

In addition to GEDT regulations, state jurisdictions are responsible for awarding the certificate, establishing testing eligibility and passing requirements beyond GEDTS minimum standards, setting any fees associated with the exam, and designating preparation requirements. The exam may be taken in pieces, either over a limited period of time or all at once, depending on a jurisdiction's regulations. Jurisdictions are also responsible for restricting the number of times a test-taker can take the battery within a certain timeframe. Additionally, some jurisdictions require an official GED practice test be taken and passed before an individual can register for the actual exam.

GED preparation programs are primarily run through community colleges or nonprofit organizations. Currently, there is no statewide GED preparation program in place in any state,¹¹ though some states have a more centralized method of providing programs. Iowa, for example, does not regulate individual programs, but does provide GED preparation at all fifteen public community colleges. Other states rely entirely on independent organizations to run literacy and GED preparation programs, and are only responsible for awarding a high school equivalency diploma to individuals that pass the exam.

¹⁰ Chaplin, D (1999). Proceedings from the Association for Public Policy Analysis and Management: "GEDs for Teenagers: Are There Unintended Consequences?" The Urban Institute. Washington, D.C. Retrieved from <http://www.urban.org/UploadedPDF/GED.pdf>

¹¹ American Council of Education. (2008). *GED 2007 Testing Program Statistical Report*. Retrieved from <http://www.acenet.edu/Content/NavigationMenu/ged/pubs/2007ASRfullreport.pdf>

In order to effectively serve the dropout population through an alternative education program like the GED, we must understand the general characteristics of the population and the motivations for dropping out.

The population of individuals without a high school diploma is very diverse.¹² There is no dropout “type” or single event that predicts a student’s eventual dropout. Some students struggle in school from early on, and others are successful very late into their education.

Demographics play a huge role in a student’s experience--poor and minority populations are more likely to dropout than affluent and white populations.¹³ Single parent homes, or homes where parents did not graduate from high school, can put students at risk for failure. Students whose families received public assistance, whose parents are unemployed, or who do not speak the native language are also disadvantaged.¹⁴

Personal and psychological characteristics can also forecast school failure. These include low self-esteem, depression or other emotional disturbances, a lack of family or peer support, and behavioral problems. Research has tried to illustrate the various pathways that eventually push an at-risk student to drop out. One model is the participation-identification model, which theorizes that the likelihood of individuals completing school is maximized if they maintain multiple and expanding forms of participation. This can come in the form of classroom

¹² DesChamps, Ann Barnes. “An Integrative Review of Research on Characteristics of Dropouts.” (PhD diss, George Washington University, June 1992).

¹³ Ludwig, Jens, Ladd, Helen F., & Duncan, Greg J. (2001). “Urban Poverty and Educational Outcomes.” *Brookings-Wharton Papers on Urban Affairs* http://www.brookings.edu/journals/brookings-wharton_papers_on_urban_affairs/v2001/2001.1ludwig01.pdf

¹⁴ Schargel, F. P., Thacker, T., and Bell, J.S. From At Risk to Academic Excellence: What Successful Leaders Do. Eye on Education: 2007.

participation, in participation of academic clubs and activities, or after school activities, including sports, and student associations. If students are not exposed to these forms of participation, their interest and connection to school diminishes, and they are more likely to withdraw.¹⁵

Poor academic performance can also predate a long-term disconnect to school by impairing an individual's self-view. According to the frustration-esteem model, individuals who experience early repeated failure in school lose feelings of efficacy over their success. Instead of creating an intrinsic sense of motivation, this reduced self-esteem causes behavioral problems, which jumpstarts a long-term pattern of disruptive classroom behavior, tense student-teacher relations, and an overall negative perception of school.¹⁶

In a survey by the Bill and Melinda Gates Foundation, "The Silent Epidemic," dropouts were interviewed to provide an in-depth and personal account of their motives for dropping out of high school. Almost 80% of dropouts indicated that their reason for dropping out was a result of conflicting responsibilities; they had become a parent, had to get a job to support themselves, or had to take care of a family member. Sixty-eight percent of dropouts reported that a lack of motivation was their primary reason for dropping out, and 47% said that classes were not interesting and relevant, so they chose to drop out. These can be understood within the context of the models proposed above, and are consistent with many characteristics of the at-risk population.

The prevailing sentiment among many of these dropouts, which is important to highlight, is that most students did not feel academically unable or cognitively disadvantaged. In fact, more than half explicitly reported that had they stayed in school, they could have passed and

¹⁵ Finn, J.D. (1989). "Withdrawing from School." *Review of Education Research*, 59(2), 117-142

¹⁶ ed.

eventually graduated. Even many of those who report a lack of motivation still believed they were cognitively able to graduate. Therefore, when we consider the disadvantages that dropouts face in the market compared to their peers who completed high school, it is clear that we must look beyond cognitive skills or capacity to succeed.

Dropouts who express a desire to obtain a GED certificate also have varying motivations. According to the GED 2007 Statistical Report, 60% of test takers report educational reasons for attempting the exam, including a desire to go to college. Employment reasons, such as wanting a better job, or seeking a promotion that requires a higher level of education, are also regularly reported. Others report desiring a sense of accomplishment, wanting to provide homework help to their children, or mandatory reasons, such as incarceration and probation requirements.

Understanding GED participants will guide informed decisions about designing preparation programs that address the specific needs of individuals. It will also facilitate the alignment of expected outcomes with those evident in the market. The value of the certificate depends on how well it mitigates the disadvantages that dropouts face, which as mentioned, may not be severe intellectual handicaps, but rather more emotional and social disadvantages. However, before more can be said on designing programs, we need to examine the outcomes that GED recipients currently experience.

Education & Market/Nonmarket Outcomes

Extensive literature points to the connection between education and enhanced market outcomes, including earnings, wealth, and employment stability. The theory of investment in human capital explains this relationship by recognizing an enhanced productivity of workers with greater human capital. Historically, jobs were mainly labor-intensive, so an investment in human capital referred to the physical attributes of a worker. Today, investment in human capital refers primarily to an investment in one's education. Education improves a worker's skill set, both of hard skills and soft skills. Employers have a greater demand for more productive workers, so highly skilled workers are rewarded for their investment in the form of higher wages and benefits.¹⁷

Historically, education has also been associated with better nonmarket outcomes for individuals, including greater physical and mental health, satisfaction and life quality, lower levels of drug and alcohol abuse, lower levels of welfare utilization, improved marital choices, lowered divorce rates, and greater social cohesion and voting behaviors.¹⁸ The logic behind these connections is obvious. Education on health concerns and the importance of healthy lifestyle choices will have a direct impact on health-related outcomes. Indeed, high school graduates incur, on average, almost \$20,000 less in annual health care costs than dropouts.¹⁹ Education also leads to better employment opportunities, which creates a higher opportunity cost for health-related problems. Higher-paying and full-time employment also opens greater access to health care insurance, potentially as an included employee benefit.

¹⁷ Tyler, J.H., Murnane, R. J., & Willett, J.B. (May 2000). "Estimating the Labor Market Signaling Value of the GED." *The Quarterly Journal of Economics*. 115(2), 431-468. Retrieved from <http://www.jstor.org/stable/2586999>.

¹⁸ Riddell, C. W. Proceedings from Taking Public Universities Seriously: The Social Benefits of Education: New Evidence on an Old Question". University of Toronto, Canada. Retrieved from www.econ.ubc.ca/ine/papers/wp023.pdf

¹⁹ Wolfe, B., & Haveman, R. (1984). "Schooling and Economic Well-Being: The Role of Nonmarket Effects." *Journal of Human Resources*. 19(3): 377-407

In the same respect, greater earnings create a higher opportunity cost of children, so individuals make better marital and fertility choices. Riddell found a direct negative correlation between divorce rates in British Columbia and the education of an individual and his or her spouse.²⁰ With respect to welfare use, higher-paid individuals will inevitably need less public assistance over their lifetime, as they are more actively participatory in the social economy, and have greater supports in the likelihood of unemployment. All of these outcomes relate to an individual's mental health too. Stable employment imbues individuals with higher self-esteem, and a confident efficacy to achieve. Conversely, unemployment has been blamed for negatively effecting mental health, in both the short term and the long run.²¹

Outcomes for GED recipients

Researchers have identified differences in the returns for GED recipients in comparison to a high school graduate as well as an un-credentialed dropout. Studies have reported as much as a \$1500 increase in annual earnings for GED recipients in comparison to dropouts, which could indicate that employers place value on the certificate.²² Similarly, in 1993, Cameron and Heckman estimated an overall increase in earnings for dropouts with a GED certificate of about 11%.²³ However, more recent evidence suggests that these earnings are not equally shared; in 1998, Tyler, Murnane, and Willet's study showed a 10-19% increase in earnings for white male dropouts who received the GED, but no significant increases for nonwhite males.

Work experience has proven to be a key factor in a high school graduate's enhanced welfare in the market, and explains much of the variation in earnings and hourly wages. Students

²⁰ Riddell

²¹ Ou, Suh-Ruu. (2008) "Do GED Recipients Differ From Graduates and School Dropouts? Findings From An Inner City Cohort." *Urban Education* 43(1): 83-117

²² Tyler, J.H., Murnane, R. J., & Willett, J.B., 2000

²³ Cameron & Heckman

who stayed in school past 10th grade had, on average, greater stability in both part-time and full-time employment. They establish stronger relations with teachers, peers, and families, which enable them to find and maintain stable employment. Dropouts are disadvantaged because they are isolated from these connections.²⁴ High school graduates may also exhibit greater discipline and stability in their lives due to their high school experiences, which positively affects their labor market outcomes. These outcomes are implicitly tied to a high school diploma, even if they are not a direct result of the certificate. A GED certificate does not carry these implications, and therefore it will bring different outcomes for recipients.

Researchers have come to the following overarching assertions in regards to markets outcomes for GED recipients. First, economic benefits are not evenly distributed among gender, race, socioeconomic status, or ability.²⁵ Women with a GED stand a higher probability of entering into poverty than their peers with a high school diploma, even after controlling for ability, employment, and demographic characteristics. There is also a lower probability that they will bring themselves out of poverty.²⁶ By age 25, black GED students are predicted to, on average, earn below the poverty level in terms of wages. White and Hispanic GED recipients earn only slightly more, barely enough to tread above the poverty line.

Skill level matters too. Recent evidence shows that estimated benefits accrue only to dropouts who leave school with low skills, as examined by testing scores and years of educational attainment. Higher skilled dropouts who obtain a GED are indistinguishable in the market from dropouts with the same level of cognitive skill who do not receive a GED

²⁴ Tyler, Murnane & Willet, 1997. Tyler, Murnane, Willet, 2003

²⁵ Cameron & Heckman, 1993, Heckman & LaFontaine, 2006, Boudett, Murnane & Willet, 2000)

²⁶ Georges, Annie. (2001). "The GED Certificate and the Poverty Status of Adult Women." *Journal of Children and Poverty* 7(2): 49-61

certificate.²⁷ This evidence confirms the critical need to examine the noncognitive differences between GED recipients and high school graduates to understand where and why GED recipients fall short.

Thirdly, research has suggested that increased access of GED programs to students still enrolled in school encourages students to drop out under the premise that it will create the same returns as a high school diploma.²⁸ States like Kentucky and Missouri even offer in-school GED programs to individuals still enrolled in high school.²⁹ This illustrates imperfect information in the marketplace on the signaling value of the GED. Students are unaware of the tradeoff between graduating from high school or dropping out and getting a GED certificate. Potential GED recipients value the certificate as a signal to employers of greater cognitive and emotional ability, which will translate into better employment and educational opportunities. Yet, as shown by the differences in market outcomes, the signal does not hold up because individuals have not shared the same academic and extracurricular experiences as high school graduates.

Finally, and most importantly, test-takers report that they are working towards a GED for the opportunity to continue onto postsecondary education. GED students who have graduated from postsecondary schooling receive relatively equal returns compared to peers who are high school graduates, controlling for all social and demographic factors. Since 98% of colleges, both community and universities, accept the GED as a high school equivalent, the opportunity for a second chance at a college education is perhaps the most attractive outcome of the program.

Unfortunately, few GED recipients take advantage of this opportunity. Murnane, Willet, and Boudett in a 1993 study found that less than half of GED recipients obtain any post-

²⁷ Murnane, et al., 1997

²⁸ Heckman, J.J., LaFontaine, P.A. & Rodriquez, P. L. (May 2008). "Taking the Easy Way Out: How the GED Testing Program Induces Students to Drop Out." *National Bureau of Economic Research*. Retrieved from <http://www.nber.org/papers/w14044>.

²⁹ American Council on Education, 2007

secondary education by age 26, and even fewer (as little as 2%) graduate.³⁰ The American Council of Education reported that of the 307 GED recipients they surveyed who enrolled in college, 17 graduated. Overall the survey indicated a first semester attrition for graduates of 77%.³¹

Many researchers refer to this “funnel” effect of the GED program. A study by the Schuyler Center for Analysis and Advocacy reported that in New York in 2009, there were 2.8 million adults without a high school diploma. Of those, 57,000 took the GED exam within the last year. Thirty thousand of those individuals passed the exam, and 7,000 of the test-takers who passed entered college. At the end of the funnel remain the 2,000 of the original 2.8 million individuals without a high school diploma who, at least four years later, graduated college.³²

How GED certification affects nonmarket outcomes

Evidently, GED recipients and high school graduates do not differ intellectually, but rather suffer in the market because of more discrete, noncognitive disadvantages, some of which have already been mentioned. High school prepares students not only cognitively, but also emotionally and developmentally. The experiences students share with teachers and with peers affect their behavior, their intrinsic values and goals, and their developmental maturity. These experiences affect employment and job behavior, but also nonmarket outcomes, such as health and wellbeing.³³ GED recipients miss out on these experiences, and in the same way that they do not reap similar market outcomes, they might also not enjoy the same nonmarket returns, given

³⁰ Tyler, J.H., Murnane, R. J., Willett, J.B., & Boudett, K. P. (1997) “Does a GED Lead to More Post-Secondary Education, and Military Service for School Dropouts?” *Industrial and Labor Relations Review*, 51(1), 100-116. Retrieved from Cornell University, School of Industrial & Labor Relations <http://www.jstor.org/stable/2525037>

³¹ American Council of Education, 2008

³² Schuyler Center for Analysis and Advocacy. (November 2009). “Getting Serious about the GED: How New York Can Bridge from High School Dropout to Postsecondary Success.” Albany, NY. Retrieved www.scaany.org/documents/ged_report_jan2010.pdf

³³ Wolfe

that GED recipients spend, on average, only thirty hours preparing for the exam.³⁴ There is little time and dedication to the development of human capital in the form of support services or counseling.

The extent of research on the nonmarket benefits of the GED program is under investigated. One of the few studies that focused specifically on nonmarket outcomes for GED recipients examined the use of smoking and prevalence of obesity. Kenkel, Lillard, and Mathios found a significant decrease in smoking use and obesity rates for GED recipients as compared to dropouts, but recipients still lagged behind high school graduates.³⁵ Research shows higher substance use in dropouts as compared to youth attending dropout prevention programs.³⁶ Center for Disease Control and Prevention reported a higher pervasiveness of substance use for dropouts than for high school graduates, but also points out that post-secondary education, particularly college education, has a negative impact on the use of alcohol.³⁷

Suh-Ruu Ou conducted a more comprehensive study of nonmarket outcomes in 2008

using the Chicago Longitudinal Study of low-income, high-risk youth who were surveyed from age three to their mid-twenties. Ou's findings provide some of the first insights into the nonmarket benefits of the GED certificate to individuals. He estimated incarcerations among the three populations at 2.2%, 27.5%, and 31.2% respectively for graduates, GED recipients, and dropouts. For substance use, he found that GED recipients were 11% less likely to engage in unhealthy substance abuse behaviors than dropouts, but 13% more likely than a high school graduate. The same trend extended to the percentage of individuals with healthcare insurance.

³⁴ Heckman, LaFontaine, Rodriquez, 2008

³⁵ Kenkel, D., Lillard, D. & Mathios, A. (2006). "The Roles of High School Completion and GED Receipt in Smoking and Obesity." *Journal of Labor Economics*, 24, 635-660

³⁶ Riddell

³⁷ "Grossman M, Kaestner R. (1997). "Effects of education on health. In: *The Social Benefits of Education*." Behrman JR, Stacey N, editors. Ann Arbor: University of Michigan Press.

Dropouts had the lowest percentage (19.9%), GED recipients followed in 2nd place with 24.9%, and high school recipients had the highest (48.9%). GED recipients did not score significantly higher than dropouts on measures of optimism, but they were 8.6% less likely to show severe signs of depression.

Overall, GED recipients show slightly better outcomes in health and mitigation of risky behavior than individuals without a GED. This is true even after controlling for ability before taking the exam, and for socioeconomic and demographic characteristics. Not surprising, recipients also exhibit lower overall health and wellbeing than high school graduates, and these marginal differences are much greater than the marginal differences between recipients and dropouts.³⁸ Little else can be confirmed given the dearth of research on this topic, but policymakers must be aware of these differences when designing and evaluating effective alternative education programs. There also needs to be research that examines differences in outcomes for GED recipients and GED test-takers who don't pass, particularly in nonmarket outcomes. This would shed light on how a GED program enhances human capital in noncognitive ways. This has not yet been addressed in any research on the GED program.

Procedures and Structures of the GED Program

The GED structure involves three hierarchies of regulation: federal, regional jurisdiction, and registered testing centers. While federal regulations create universality in minimum age and passing requirements, jurisdictions are free to enact their own regulations in addition to federal policies.³⁹ This hierarchy presents researchers with the opportunity to examine the impact that different policies have on individual test-taker performance and outcomes. However, the ability

³⁸ Ou

³⁹ American Council on Education, 2008

to assess the success of different policies within jurisdictions and testing centers has been troublesome. The availability of information regarding students in individual programs and jurisdiction is relatively scarce. GEDTS has collected recent data based on jurisdiction and registered testing centers, but it is restricted to score reports and demographic characteristics of individuals. Information on students' grades in school prior to dropping out, behavioral problems or learning disabilities, and any health concerns is unavailable. Therefore, in analyzing different policies' impacts on student performance on the exam, much of the discussion is limited.

Decentralization in the program's testing procedures creates wide variation in passing rates for the GED exam for different state jurisdictions.⁴⁰ This could result from a distortion in the relatively high number of prospective GED test-takers in a state who are not adequately prepared to take the exam beforehand. For example, New York has perpetually had the worst passing rate on the GED, with New York City pass rates as low as 50%.⁴¹ However, it is also known as the state with the greatest access to GED programs and test-taking centers. Further, GED test takers in New York are not required to take any preparation test or enroll in a preparation program before signing up to take the exam if they are older than nineteen years of age. With easy access to the exam, no required preparation, and no testing fees, there are more ill prepared individuals who take the exam, and lower the state's pass rate. For individuals who have taken the official GED practice exam in New York, the pass rate increases to almost 70%.⁴²

Amanuel Medhanie and Margaret Patterson, under the General Education Test Development Center, examined testing center and jurisdiction policies on student GED testing

⁴⁰ Anecdotally, this raises an interesting aspect to the issue of dropouts. If students within a state are dropping out, and then deciding to attempt the GED, but are not able to pass, it reflects poorly on both the GED programs and the public school system within that state.

⁴¹ "Failing Grade." *New York Times*, February 22, 2010, Editorial section

⁴² Shuyler

performance.⁴³ They also examine the differential impacts for individuals based on ethnicity groups---specifically Asians, African Americans, and Hispanics. The policies they included were: the number of staff, both full-time and part-time, how long the center had been testing, how long the center was open throughout the year, if the center required the exam to be completed in one day, and if the center required a practice exam. Jurisdiction variables were the unconditional age requirement and the number of testing centers within a jurisdiction. They controlled for gender, ethnicity, primary language, highest level of education completed, preparation time in hours, and the number of times, if any, individuals had previously taken the exam.

Interestingly, the study reported rather inconclusive results on the impacts of jurisdiction and center policies on students' scores. Only 15% of the variation in students' scores could be explained through the policy variables. Between 85% and 94% of variation was coming from individual student characteristics. They found no significant relationship between a student's reported number of hours spent preparing for the exam and his or her performance, which they had expected to be a very important factor influencing exam scores. However, it is important to keep in mind that self-reported measures, such as hours spent, can be easily misreported or biased. For example, the authors mention that students may not be preparing properly for the exam, or through a structured preparation program. Highly skilled students who prepare very little, but perform well on the exam could also obscure the results. Preparation in testing centers might be inadequate in providing the structure and content necessary for test-takers, which also alters the relationship between preparation and performance in scores.

⁴³ Medhanie, Amanuel & Patterson, M.B. (2009). "Effects of Jurisdictional Policies on Performance on GED Tests." *American Council on Education*. Retrieved from http://www.acenet.edu/Content/NavigationMenu/ged/pubs/FINAL_Test_Policies.pdf

These theories are important for GED policymakers. One crucial discovery is the impact of the practice exam; the score gap between African Americans and whites decreases at testing centers that required a practice exam.⁴⁴ The authors also found divergent results based on the component of the exam being examined. They found that the Language Arts & Writing and Science exams had the greatest variation in scores based on testing centers. It would be useful to identify specific aspects of program attributes that result in better exam scores in these areas, such as reading and writing programs, or specialized math curricula.

Programs and Procedures: An In-Depth Analysis

We know relatively little about specific programs that prepare GED students for the exam. There is even less quantitative analysis to accurately evaluate successful programs. To understand how to serve the unique demographic of dropouts seeking a GED certificate, it is important to have in-depth analyses on programs that have shown proven positive results, not just on passing, but on market and nonmarket outcomes as well. It would also be helpful to look at jurisdictions that have constructed their testing procedures to facilitate better performance on the taking and passing of the exam.

I. *CUNY: City University of New York*

The one advantage to a lack regulation in the GED program is that it leaves room for innovation. For a jurisdiction like New York City, which has one of the lowest overall pass rates of all jurisdictions, City University's program shines as a model for how a successful GED program can be designed. There are almost 1,000 students in the program, separated into small classroom settings of fifteen to twenty students. Rather than work through skill-set worksheets or

⁴⁴ This trend was not evident for Hispanics.

take practice GED tests, the students are engaged in thematic instruction. Teachers integrate culturally relevant topics, including current events, into all areas of learning, so that students are not only enhancing their reading and writing skills, but also preparing them to become more culturally intelligent. Students take field trips to museums, the ballet, and visit local college campuses. Unique to this program, students in the program are expected to complete about two and one-half hours of homework outside of classroom time, and attendance is mandatory and tracked.⁴⁵

The CUNY network of community colleges has collaborated to examine whether these changes enhance student performance, not only on the exam, but also throughout college or in the job setting. There is evidence that their program graduates earn more college credits compared to other GED students, but they have seen slightly lower rates of graduation, so further research is definitely necessary.

CUNY also assessed the college readiness of GED recipients who enrolled in a CUNY community college. Between 2001 and 2007, 14,523 GED recipients enrolled at CUNY, 93% of whom were enrolled in associates' program (2% in certificate, and 5% in bachelor's degree programs). On the basic skills assessment given to all CUNY-enrolled freshman, 66% of GED recipients failed the math proficiency exam, and 21.1% and 61.9% failed the reading and writing proficiency tests, respectively. By comparison, only 32.4% of NYC public school graduates failed the math exam, and 17.7% and 35.8% failed reading and writing.

The report also details progress throughout college. For the first year, GED recipients have the lowest average credits earned, lowest passing rate for freshman composition scores, and lowest percent of individuals who pass freshmen math. In a measure of skill proficiency at the end of freshmen year, GED recipients again rank the lowest. This is persistent in both the

⁴⁵ "CUNY Adult Literacy-ESOL, BE, GED." www.literacy.cuny.edu/

bachelor and associate degree levels.⁴⁶ The graduation rate for GED recipients in associate degrees is 12%; for bachelor degree students, it's 7.8%.⁴⁷

The assessment is done on all students enrolled at CUNY with a GED credential, so it cannot be considered an accurate reflection of GED recipients who completed the CUNY GED program. CUNY did not report what percentage of GED recipients enrolled at CUNY come from their preparation programs, possibly because they had no data to distinguish recipients, but we can speculate that it is a significant portion, given that the CUNY GED program is designed as a college-preparatory track to CUNY community colleges.⁴⁸ If this is true, these figures are representative of outcomes for GED recipients from relatively high-quality preparation programs. Even if it is not a completely accurate extrapolation, it highlights the importance of services beyond test preparation that are necessary GED recipients to succeed in college. It also stresses the need to look at factors beyond human capital investment in cognitive skill. It would be helpful to examine civic involvement, incarceration, and family life before and after the GED program, to see if the GED program and college enrollment process brings positive results in other ways besides economic productivity.

II. NYU Bridges Program

Another program run in New York City is the GED Bridges Program. Bridges provides a career pathway for individuals and post-secondary transition services for those interested in going to college. The program uses curricula relevant to the students, and provides case management services, including the assessment of learning disabilities, health-services, and referral services. The program, which is only two years since its inception, has identified goals it

⁴⁶ "College Readiness in New York City's GED Recipients." Report of CUNY Office of Institutional Research and Assessment. Retrieved from http://owl.cuny.edu:7778/portal/page/portal/oira/OIRA_HOME/GEDProfiles_v4.pdf

⁴⁷ Interesting, the mean GPA of GED recipients versus NYC Public School graduates is higher for the first four semesters, in both the associate and bachelor degree level.

⁴⁸ "College Readiness"

hopes to achieve. These include a stable program retention rate of 70%, a pass rate on the exam that exceeds 70%, and an increase in recipients' college enrollment rate from 35%, which is the current rate of GED college enrollment rates in New York, to 60%. Though they have not been able to assess college persistence, they have already met two of their six states goals in only two years, and are committed to carefully evaluating, reforming, and meeting their goals.⁴⁹

The addition of support services to individuals in the programs, transitional services during the college enrollment process, and the continued support of the program to students in college is the greatest distinction between this and the CUNY preparation program. It addresses the unique needs of the population they wish to serve, and goes way beyond simply preparing students to pass the exam. Further evaluation on how its participants fare in college will be critically important in analyzing the impacts of implementing support services. As suggested before, the analysis would be strengthened if researchers also evaluated civic involvement, social cohesion, or vocational training outcomes in addition to college success to determine the program's impact on student's nonmarket outcomes.

Iowa Jurisdiction GED Testing Procedures

Iowa has championed itself on having the highest GED pass rate in the nation, with 96.5% of the Iowa-resident test-takers passing the GED on their first attempt at the exam.⁵⁰ *New York Times* pointed to Iowa's statewide GED program procedures as a major reason for its passing rate success. Individuals must take a diagnostic test before registering for the exam, and for those that fail, they are funneled into literacy courses offered by all community college in Iowa at no

⁴⁹ GED Bridges Program, LaGuardia University. <http://ace.laguardia.edu/gedbridge/>

⁵⁰ "How to Flunk Test-Giving" *New York Times*, October 13, 2009, Editorial section.

cost.⁵¹ Iowa provides free preparation programs at all fifteen state community colleges to any resident of Iowa who is at least eighteen years of age and has been withdrawn from high school for at least six months. Individuals who choose not to participate in a preparation program must pass the official GED practice exam before registering for the official exam. Test-takers have up to two years to complete the entire battery, but if they fail any exam, they must wait at least six months before registering again, and must show “evidence of remediation,” in the form of program participation or practice exam scores.⁵²

There is little research on program details at each of the fifteen community colleges to examine specific program attributes. At the state-level, Iowa’s success in achieving consistently high pass rates indicates that procedural structures can facilitate GED recipients’ success on the exam. The pass rate success may also be implicitly tied to the extremely high graduation rates in Iowa. In 2009, Iowa’s graduation rate was 88.7%, and it has been moderately increasing its percentage over the last few years. In 2006, there were 5,079 students who dropped out of Iowa public schools. In 2009, there were only 4,399. If we compare this to the number of Iowa residents who took the GED, which in 2008 was 3,870 students, it appears that Iowa’s public school system and alternative GED procedures successfully reach a majority of Iowa’s student population.⁵³

III. *Implications*

⁵¹ Ed.

⁵² American Council on Education, 2008

⁵³ It is important to recognize that the number of GED test-takers reported by Iowa Department of Education includes adults ages 17 and older, so it may be over representing the number of recent youth dropouts obtaining GED certification. “Annual Condition of Education 2009” Iowa Department of Education. Retrieved from <http://www.iowa.gov/educate/>

A limitation to current studies on individual programs is the lack of information on long-term outcomes, particularly nonmarket, social outcomes. There must be more research done to better evaluate the non-cognitive and social differences among high school graduates and dropouts who want to take the GED. GED programs should be designed in a way that combats all the disadvantages that dropouts face, especially those that originally led to failure in the traditional education route.

States that don't offer quality preparation programs, or only offer testing services, fail to create better outcomes for recipients in the market and in life. Continuing to offer the certificate as a high school diploma equivalency, without enhancing the recipients' capabilities will only serve to lower the signaling value of the GED by ignoring the fostering of human capital, and equipping ill prepared individuals with a meaningless certificate. Even GED programs that only prepare students to pass the exam are failing to address the essential differences between a dropout and a high school graduate. This results in many of the disappointing outcomes that recipients, hoping for enhanced welfare, experience in the market, and indirectly affects their overall wellbeing.

Restructuring the GED Program

The GED program must be restructured to effectively address a dropout's unique needs. Program designers should understand the characteristics and motivations of the people they wish to target. As mentioned before, dropouts returning to take the GED are a unique group. Many are between the ages of 19 and 25, returning after a period of almost five years of being out of school. Some have been in the job market, others have been unemployed, or have been taking

care of children or family members; some others are returning from incarceration.⁵⁴ Beyond cognitive skill development and preparation to help pass the exam, programs must provide services that will facilitate transitions into jobs and more importantly, post-secondary education opportunities, as well as offer support services during and after the transition. Programs should emphasize soft-skill and life-skill training to ease the transition, and provide social services that are relevant for the demographic being served.

I. Institutionalize test preparation

Even though many cognitively prepared students only spend, on average, thirty hours of test preparation to pass, there are a number of ill-prepared students who take the GED exam and fail.⁵⁵ Pass rates for the GED program in many states are under 60%, with some regions, like New York City, as low as 50%.⁵⁶ Researchers have attributed Iowa's high pass rate to the diagnostic evaluations it gives and the mandatory requirement to take a practice exam before registering for the official exam.⁵⁷ Given the early success of the NYU Bridges Program, it is obvious that structured preparation is a necessary prerequisite to increase pass rates. Additionally, the evidence that passing rates increase with regulations on taking the official GED practice test further illustrates the importance of preparation to pass the exam.⁵⁸

There is the concern that too many restrictions will create a barrier to entry that curtails potential test-takers from attempting the exam. However, this barrier might be necessary to preserve the signaling value of the GED, and to ensure that test-takers are prepared mentally and developmentally for what they face beyond the exam. The lack of proper preparation could be a

⁵⁴ DesChamps

⁵⁵ Heckman, 2003

⁵⁶ "Failing Grade." *New York Times*, February 22, 2010, Editorial section.

⁵⁷ Arenson, 2005

⁵⁸ Medhanie & Patterson, 2009

reason that GED recipients do not fare as well in college, and are not performing better in the labor market. Therefore, in order for the GED to serve its purpose of enhancing human capital, states should require that preparation be a prerequisite for taking the exam, and in the absence of programs, provide state funds to implement preparation programs.

II. Require direct pathways to college

The importance of encouraging post-secondary education for GED recipients is stressed in almost every evaluation of GED outcomes. In today's postmodern economy, a college education is becoming the norm, rather than the exception, for entry into the workforce. While only a decade or two ago, a high school diploma was adequate to compete in the job market, it is becoming more and more important to obtain post-secondary education. The opportunity for a college education is perhaps the GED's greatest strength because GED recipients who have a college diploma are indistinguishable in the market from high school graduates.⁵⁹

Iowa's program structure is a model for other GED programs, as are the few program services in New York City run through community colleges.⁶⁰ Structuring the program as a direct channel to college, and placing the program in a college preparatory setting, exposes students to the college environment, and erects supports that facilitate the applying to and enrolling in college institutions. A closer connection to the college may also help retention rates; it has definitely helped lower first-year attrition in the NYU Bridges Program.

The GED can also steer individuals to vocational training or military enrollment. David Boesel advocates for more enrollment of GED recipients into one-year vocational programs because they appear to perform as well in them as high school graduates, and upon graduation,

⁵⁹ Heckman, 2003

⁶⁰ Arenson, Karen W. "Making G.E.D Programs More Than Test Prep." *New York Times*, June 16, 2004

share equal opportunities in the labor market. GED recipients may respond better to the highly concentrated and focused nature of vocational programs, and be more likely to complete the one-year training. The GED program can also facilitate recruitment into the military, although GED recipients have shown greater attrition rates in comparison to high school graduates, which is currently discouraging recruiters from enrolling GED holders.

When programs are run through adult literacy programs or at various local sites, students may not receive the necessary information on the value of the GED and the ways in which it will help them achieve their goals. At Project Pride, a GED preparation program in Lexington, VA, the program is run out of an old warehouse adjacent to the city's power plant facilities. The isolated students receive little to no information about college options, and there are no services offered to help apply to or enroll in college. In fact, few of the students even mention college or vocational training as an interest of theirs. Most of the students are taking the GED as a requirement from the school district, because they are under the legal age to drop out, or are taking it for opportunities in the job market.

Emphasizing the GED program as an alternative pathway to either college or other postsecondary opportunities will serve to correct the imperfect information about the program's benefits to individuals who are not seeking additional schooling. As Boesel asserts, "the credential should be regarded as a starting point, not as an end in itself."⁶¹

III. Increase access to and availability of federal aid to GED students

There is an inadequate supply of research on the reasons that GED students do not fare as well as high school graduates in college. The first-year attrition rate for GED students in

⁶¹ Boesel, 1998

college is estimated as high as 77%. With only 25% of students making it to the second year of post-secondary school, there is a clear need for reform.⁶² Social support services are lacking for GED recipients, who are older, are lower in socioeconomic status than their peers, and have been out of the school system for an average of five years. Their home lives are more likely to lack solid support systems, and they may be juggling a family of their own, all which increase the stress and difficulty in balancing school and life. GED recipients are also more likely than high school graduates to be balancing a part-time job.⁶³ With all these added struggles, the support services available to GED recipients are lower than their peers. They have less access to financial aid packages, including federal and student loans and often do not qualify for work-study programs.⁶⁴ In order to facilitate the transition for GED recipients, financial aid must become more available to them. There also must be better communication to advertise the different methods of financing that are available, for many GED recipients report not knowing or understanding the complex financial aid procedures.⁶⁵

IV. Required referral services

In addition to college preparatory services in the program, and financial assistance programs throughout college, GED programs need to implement an efficient system of referral services. GED recipients are more vulnerable as a student population than traditional students. It is less likely they will succeed in school or work not because cognitive skill, but because of soft-skill disadvantages. Whether it is the role of the GED program to provide all the services necessary to help students overcome these disadvantages is not clear. Restrictions in funding and

⁶² Shuyler

⁶³ DesChamps

⁶⁴ Shuyler

⁶⁵ Bridgeland, J., Dillui, Jr., J., & Burke Morison, K. (2006). "The Silent Epidemic: Perspectives of High School Dropouts." *Civic Enterprises & Peter D. Hart Research Associates for the Bill & Melinda Gates Foundation*.

capacity may very well make this impossible. However, programs must have in place supports that can guide students to local services, including social services, health care referrals, child care services, and counseling for mental health or substance abuse. It is impossible to expect recipients to succeed in school or work without better access to such services.

V. *Improve testing procedures to facilitate coordination and efficiency*

There is debate whether the decentralized method of testing procedures for the GED program sets itself up for failure. CEO of Community Service Society, David Jones, calls the procedural structure “a pipeline to failure” and critiques the program’s circuitous, inefficient, and dysfunctional methods.⁶⁶ Indeed, such frustrations are evident at Project Pride, where individuals are waitlisted for the state’s limited testing centers and some, too impatient to wait, end up dropping out of the program. Others take the test months after they finish the preparation program, when they might be out of practice with the material. Iowa has taken positive steps to provide an efficient statewide system of preparation and exam taking for the GED, but it is still lacking in areas of information sharing and evaluation reporting.

This lack of coordination of information is another limitation in testing procedures. There is no anchoring agency that collects data or examines the outcomes of programs to determine problems or resource limitations. Teacher quality in the program and the curriculum used is rarely, if ever, evaluated, so unqualified teachers plague the program and use outdated curriculum. Finally, because there is no information coming from programs to a central body,

⁶⁶ Munford, Tracy. (November 9, 2009). “GED System Often Fails Students, for a Second Time CSS Report Says New York Ranks 48th Nationwide in GED Pass Rate.” Press Release, Community Service Society. Retrieved from <http://www.cssny.org/userimages/downloads/Press%20Release%20-%20Basic%20Skills%20GED%2011.09.09.pdf>

there is no resource allocation. Programs are subject to private funding and state block grants, which are distributed arbitrarily through a state, regardless of a program's need or capacities.⁶⁷

States must create a functional organization dedicated to measuring and evaluating GED programs within a state, determining the most successful programs, and then communicating the results of their analysis to other programs so that successful practices are shared and implemented across the state. Further, state funding must be distributed according to the greatest need, whether that is areas with high demand for GED services or low-quality programs that need funding to restructure.

VI. Improve quality of program curricula to meet the needs of GED students

One of the prevailing themes in the literature advocates for implementing age appropriate and culturally relevant content. Students returning to get their GED are older than the typical high school student, and have had many experiences that make them unique to traditional graduates. The majority has struggled to succeed in a traditional school setting. It is therefore essential that the curriculum and teaching methods be tailored to meet these differences. The CUNY program has had success creating thematic curriculum centered on a culturally relevant topic that has included civil rights, poverty, and immigration issues to which students can relate. There can be different themes depending on the geographic area as well.⁶⁸ At Project Pride, students spent time reading *The Outsiders*, and were able to connect to the struggles of middle school and the transition to high school, as well as to themes of peer pressure and home struggles. This was one of the few instances that thematic instruction was attempted at Project Pride, and students responded very positively, in both motivation and work ethic. Keeping the students interested in the material facilitated broader aspects of learning, including analytic

⁶⁷ ed.

⁶⁸ "CUNY"

thinking and creative writing, which theoretically translates into better reading and comprehension scores on the exam.

Besides tailored curriculum, teachers must be creative in connecting to students through nontraditional teaching methods. Lecture-style teaching will not reach students with severe learning disabilities or behavioral problems, which are overrepresented in GED populations.⁶⁹ One-on-one tutoring and small group work might be more effective. Teachers will be better able to identify specific problem areas if they have individual sessions with students.⁷⁰

Going Forward with GED Reform

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Currently, the program fails to meet many of its intended goals. The first step to restructuring the GED program is to conduct better research on the causes and characteristics of dropouts to better understand the targeted population. There must also be more research evaluating specific GED programs and attributes, and the outcomes of those GED recipients in the enrollment in postsecondary education or training, employment opportunities, earnings, and

⁶⁹ Swanson, Christopher B. "Who Graduates? Who Doesn't? A Statistical Portrait of Public High School Graduation, Class of 2001." Education Policy Center, The Urban Institute

⁷⁰ There continues to be debate about the most effective policies for reforming the GED program to better serve its intended population without incentivizing high school students to leave school in favor of the GED certificate. One popular recommendation is the introduction of GED fees. There is evidence that when states enact fees for the GED, the continuation rates for schools in that state increase, leading some to believe that such a barrier to the exam may lower the incentive for current students to drop out by creating a higher opportunity cost.⁷⁰ Policies that raise the barrier to entry to the exam, including higher age requirements or parental permission requirements, may be effective in keeping marginal students in school who might otherwise drop out, but some may also prevent students who are already out of school the second-chance opportunity to get a GED and pursue further school or training opportunities. The GED fee in particular, because it does not have any relationship with an individual's enrollment status in school, may deny low-income dropouts an opportunity to enhance their human capital. There are better policies that may be implemented to disincentivize current high school students from dropping out to take the GED without denying eligible individuals. For example, it may be more effective to publicize the differential outcomes between dropouts and GED recipients so students can make informed decisions. Dropout prevention programs in high schools may also help retain students at-risk of dropping out.

nonmarket areas such as health and mental health, substance abuse, crime rates, marital and fertility choices, parental behaviors and outcomes, and social participation. Better research will add to the scarcity of current evidence on the successful practices of preparation and support programs for dropouts.

The crisis in schools that results in almost one-third of students dropping out without a degree is an issue that must be tackled from many sides. There is no argument that schools need to address the dropout crisis, but in the meantime, there must be quality supports in place to act as a safety net for students that do not make it in traditional school setting. The GED certificate is *not* a replacement for a high school education, nor does it intend to be. It is also not a satisfactory educational tool on its own. It remains a steppingstone for disadvantaged individuals to further their education and invest in their own success. With the proper supports and quality resources, the GED program can lower the percentage of Americans without a diploma, can help pull individuals out of poverty, help raise college graduation rates for certificate holders, and enhance the productivity of the American economy.

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