

GED Candidates and Their Postsecondary Educational Outcomes: A Pilot Study

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**GED Candidates and Their Postsecondary Educational Outcomes:
A Pilot Study**

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Abstract

For most high school non-completers, the GED® credential is the bridge to postsecondary education, but little is known about how successfully they could make that transition and whether their participation shifts across time. The American Council on Education (ACE) has begun a three-year longitudinal study to understand the effect of the GED credential on postsecondary enrollment, persistence, and completion. This study is in support of GED 20/20, a new comprehensive initiative to transition adults without a high school diploma to the GED credential and career and college readiness via accelerated learning. A first step of the study involved piloting the work with a random sample of 1,000 U.S. GED candidates in September 2008. The pilot reports the latest data available from a 2003 cohort of GED candidates who tested shortly after the introduction of the new rigorous 2002 test series.

The 307 GED candidates in the pilot attended a total of 369 postsecondary institutions in 44 states. (Some students attended more than one institution.) The vast majority of students who had taken the GED Test initially attended colleges offering programs of two years or less; 78 percent attended public two-year colleges. GED candidates who enrolled in postsecondary institutions enrolled mostly within the first three years after taking the test (i.e., 2003, 2004, or 2005). The vast majority (77 percent) enrolled for a single semester only. Ten of 17 graduates were male, and graduates were either African American, Hispanic, or white. It took graduates an average of 3.8 years to complete their degree program.

Major findings of interest in this pilot study reflect a positive relationship between the GED credential and entering postsecondary education. GED credential recipients enrolled in postsecondary education at a significantly higher rate than did non-passers. Women with a GED credential enrolled at a higher rate than male GED credential recipients. Approximately half of GED credential recipients who indicated *Enter Two-Year College* and *Enter Four-Year College* as reasons for testing enrolled in postsecondary education after testing. These comparisons suggest that GED credential recipients with the intention to enroll in a two-year or four-year college when testing are more likely to actually do so, compared with GED credential recipients who do not state these goals.

Those who earned the GED credential while working part time were more likely to enroll in postsecondary education. GED credential recipients who enrolled in postsecondary education tended to have higher standard scores on the GED Test in all five content areas, and those with higher standard scores were more likely to enroll.

A discussion of findings and their implications for future longitudinal research follows.

Introduction

Recent economic changes have left adults who lack a high school diploma in an unfavorable social and economic position. At the same time, research shows that completing a high school education and pursuing a postsecondary degree are key to economic prosperity and expanded social opportunities. For most high school non-completers, the GED credential is the bridge to postsecondary education, but little is known about how successfully they could make that transition, particularly since 2002.

The American Council on Education (ACE) has begun a three-year longitudinal study to understand the effect of the GED credential on postsecondary enrollment, persistence, and completion. Through this work, which has never been done before, we will establish a baseline from which we can measure the effectiveness of GED 20/20, a new initiative to transition adults without a high school diploma to the GED credential and career and college readiness via accelerated learning. GED 20/20 has been developed in response to President Obama's call for an increase in the number of adults with college degrees by the year 2020.

The data on postsecondary experiences will be critical to informing decision making for GED 20/20 in terms of identifying which GED candidates persist (or don't persist) in postsecondary education and what factors are associated with their persistence toward postsecondary completion. The results of our research also will inform the broader postsecondary community on expected postsecondary outcomes of GED credential recipients and the support they need to continue in community colleges, technical colleges, and other postsecondary institutions.

All existing studies examining longitudinal postsecondary outcomes for GED credential recipients included individuals who tested before 2002, when a new GED Test series with additional math tasks and a new essay section was developed in response to the escalating rigor of secondary standards in U.S. schools. Postsecondary outcomes of 2002 series candidates could differ given the 2002 series' increased rigor. New longitudinal analyses involving 2002 series candidates are needed, and our research is a first attempt to provide the most current evidence of postsecondary outcomes. A first step was piloting the work with a sample of U.S. GED candidates.

Literature Review

Approximately 30 percent of U.S. adults remain "untouched by postsecondary education," and a substantial gap occurs in federal and state efforts to recruit adults into postsecondary education (Council for Adult and Experiential Learning [CAEL], 2008, p.7). Although most effort goes toward recruiting via the traditional pipeline of graduating high school seniors, nontraditional adult learners comprise a less tapped yet growing resource (CAEL, 2008; Reder, 2007). Nearly 40 million U.S. adults aged 16 and older lack a high school diploma or GED credential (ACE, 2009). One way to close the gap is to focus resources on individuals who pursue a GED credential and then enter postsecondary education (CAEL, 2008; Duke & Ganzglass, 2007).

More than 17 million adults have passed the GED Test since 1942 (ACE, 2009). Approximately 60 percent of candidates cited educational reasons for taking the GED Test, but many do not continue their education because of adverse life circumstances or other barriers (ACE, 2009; Maralani, 2006; Reder, 1999; Tyler, 2005). GED credential recipients may tend to delay enrollment in postsecondary education or participate in a two-year program (Ou, 2008). The number of GED credential recipients currently pursuing postsecondary education is unclear (Maralani, 2006).

Depending on the sources of data reviewed and whether enrollment or completion is estimated, percentages of participation differ across studies. Estimates of postsecondary enrollment rates vary: Approximately 15 to 30 percent of GED recipients actually begin postsecondary education (CAEL, 2008; Maralani, 2006; Ou, 2008). Some states such as Kentucky and Utah report higher percentages, with up to half of GED recipients enrolling in postsecondary education (Duke & Ganzglass, 2007; Hanni, 2008; National Commission on Adult Literacy [NCAL], 2008).

However, few enrollees complete the first year of postsecondary education or a degree program (Duke & Ganzglass, 2007; Murnane, Willett, & Tyler, 2000; NCAL, 2008; Reder, 1999; Tyler, 2005). The National Household Education Survey of 2001, 2003, and 2005 indicated that approximately one-fourth of GED credential recipients attended some college or completed an undergraduate degree (National Center for Education Statistics, author calculations); Reder (2007) reported estimates of 48 percent of GED credential recipients from the 2005 follow-up attended some college or completed an undergraduate degree.

Lofstrum and Tyler (2005) wrote, “[The] effectiveness of GED [credential] acquisition as a route into postsecondary education is a woefully understudied area” (p. 2). Studies of GED credential recipients’ postsecondary experiences are challenging to conduct, with incomplete samples or low-quality data (Hanni, 2008; Song & Hsu, 2008). Individuals with GED credentials need sufficient time after testing to make the decision and prepare to enroll in postsecondary programs (Boudett, Murnane, & Willett, 2000; Reder, 2007). Longitudinal and cross-sectional studies found that GED recipients are more likely to enroll in postsecondary education than dropouts (Murnane, Willett, & Boudett, 1997). Participants in postsecondary experiences have shown modest increases in earnings (Georges, 2001; Lofstrum & Tyler, 2005; Murnane, Willett, & Boudett, 1999; Song & Hsu, 2008).

Research Questions

After reviewing the literature, we planned to answer several questions that could not only provide a first glimpse into postsecondary experiences of GED candidates and credential recipients, but also inform our future work for the longitudinal study. The full study will examine effects of the GED credential on outcomes of those who, pursuing expanded social and economic opportunities, choose to cross the bridge to postsecondary education. Our research questions for the pilot study are indicated below.

1. What percentage of GED candidates enrolls in postsecondary education? What are their demographic characteristics?
2. What are the enrollment patterns of GED candidates concerning year of entry, choice of institutional type (i.e., four year, two year, or less than two year), and full-time or part-time enrollment status? What are their persistence patterns (first- to second-year retention rate and transfer rate)? What are their completion patterns (number of graduates, time to degree, and type of degree)?
3. What percentage of GED credential recipients, compared to GED Test non-passers, enrolls in postsecondary education? What are their demographic characteristics, and how does their GED Test performance differ?
4. How do enrollment patterns of GED credential recipients differ by subgroups?

Methodology

A first step in the study involved piloting the work with a random sample of 1,000 U.S. GED candidates in September 2008. In the pilot sample, we examined postsecondary outcomes of U.S. GED candidates from the first cohort we planned to consider in the longitudinal study, from calendar year 2003. A cohort included all examinees who took the GED Test in a single calendar year, regardless of whether they completed the GED Test—that is, they may have started that year and completed in a later year. GED candidates included adults who passed the GED Test in the first year of a cohort in the United States (GED credential recipients, or passers) as well as adults who tested but did not pass the GED Test in that year or in later years (non-passers). In addition, we considered subpopulations reflecting key demographic groups for further analysis. Our analysis of postsecondary outcomes focused on enrollment, persistence, and degree completion. Our findings from this pilot study are presented below.

The pilot project matched a sample of the 2003 cohort from the GED Testing Service (GEDTS) with postsecondary enrollment and completion records from the National Student Clearinghouse (NSC), a nonprofit organization established in the early 1990s to serve the higher education community. NSC serves as repository for data from approximately 3,000 postsecondary institutions and currently holds records for 93 percent of the total postsecondary student enrollment in the nation.

In the pilot, we selected a random sample of 1,000 GED Test candidates from the 2003 cohort, which included 2003 GED credential recipients (approximately 64 percent of the sample) and non-passers from 2003 through 2007 (approximately 36 percent). The random selection process did not differentiate among personal characteristics nor credential status.

We matched 307 records out of the 1,000 randomly selected candidates; therefore, we inferred that at least 37 percent of GED credential recipients were enrolled in postsecondary education by fall 2008. The 37 percent rate is in line with enrollment rates estimated by other researchers, as described in our literature review. The pilot also yielded information on GED candidates' enrollment starting and ending dates, enrollment status, attendance status (i.e., full time or less), degrees, and majors. Institutional information included name, location, institution type, and public or private status.

Because research indicates that most GED candidates enter two-year (or shorter) postsecondary programs, we believe that a five-year time span was sufficient for us to examine enrollment and persistence rates in programs of up to two years. For example, a 2003 GED Test candidate whose data were analyzed in 2008 might enroll in a postsecondary program during any of the five years from 2003 through fall 2008.

To answer the first research question, we described postsecondary participation by passing status, candidate age, gender, ethnic group, primary language, last year of K–12 school attended, last grade completed, reasons for GED testing, employment status, status of taking an Official GED Practice Test, and hours of GED preparation.

To answer the second research question, we considered adults whose GED testing records matched successfully with NSC data. We summarized descriptively the locations where students enrolled in postsecondary education, the number of transfers, and the types of institutions they attended. We examined their enrollment patterns, including timing before enrolling, type of enrollment, and persistence. We also observed the number of graduates, time to degree, and degree type.

Our last two research questions focused on those who passed the GED Test—that is, those who earned a GED credential. We compared percentages of GED credential recipients with non-passers by postsecondary enrollment status. Cell sizes needed to include at least 30 candidates or credential recipients for meaningful comparisons.

We also compared standard scores on all GED Test content areas for GED credential recipients who enrolled in postsecondary education with non-enrollees to determine how GED Test performance differed. Cohen (1988) suggested that the power of a statistical test depends on the sample size. Because each group had a large number of examinees to observe, any statistics based on this large sample size would turn out to be significant. Therefore, Cohen's d —defined as the difference between two means divided by the pooled standard deviation for those means—was calculated as a measure of effect size characterizing the magnitude of the differences between groups. Unlike significance tests, Cohen's d is independent of sample size. Also, calculating and reporting measures of effect size can assist researchers in distinguishing statistical and practical significance (Kirk, 1996).

Because of the unequal variances among the content area standard scores, the Satterthwaite procedures, which rely on a calculation of degrees of freedom that differs from the calculation used when equal variances may be assumed, were reported as the approximate t statistic. Cohen (1988) defined effect sizes as “small, $d=0.2$,” “medium, $d=0.5$,” and “large, $d=0.8$,” stating that “there is a certain risk inherent in offering conventional operational definitions for those terms for use in power analysis in as diverse a field of inquiry as behavioral science” (p. 25).

Next, we examined how different characteristics of GED credential recipients affect their postsecondary education enrollment: by gender, ethnic group, who took an Official GED Practice Test, reasons for testing, and employment/student status. Characteristics displaying

statistically significant differences were cross-tabulated to determine effect. For dichotomous data, odds ratios were calculated as a measure of strength of the association (Agresti, 1996; Grissom & Kim, 2005).

Results

Characteristics of Postsecondary Enrollees Who Took the GED Test

Regardless of their GED credential status, GED candidates who entered postsecondary education (postsecondary enrollees) shared some distinct demographic characteristics. **Table 1** displays characteristics of GED candidates who enrolled in postsecondary education.

Table 1. Characteristics of Postsecondary Enrollees Who Took the GED Test

<i>Characteristic</i>	<i>Number of Enrollees</i>	<i>Percentage of Enrollees (%)</i>
GED Credential Recipient	233	75.9
Gender (Male)	145	48.2
Age in 2003	Median 20 years	Range 16 to 54 years
Ethnic Group:		
Hispanic	52	16.9
African American	62	21.8
White	158	55.4
Primary Language (English)	247	95.7
Hours of GED Test Preparation	Median 23 hours	Range 0 to 3,940 hours
Took Official GED Practice Test	161	61.7
Years Since Leaving K–12 School	Median 3 years	Range 0 to 35 years
Highest Grade Completed:		
8th (or below)	19	5.2
9th	42	15.6
10th	70	25.9
11th	109	40.4
12th	30	11.1
Reasons for GED Testing:		
Enroll in Trade/Technical	61	19.9
Enter Two-Year College	90	29.3
Enter Four-Year College	85	27.7
Skill Certification	22	7.2
Get First Job	16	5.2
Employer Requirement	21	6.8
Get Better Job	92	30.0
Role Model for Family	49	16.0
Personal Satisfaction	121	39.4

Continued on next page

Table 1 continued

Employment/Student Status when Tested:		
Employed Part Time	45	14.7
Employed Full Time	78	25.4
Unemployed	84	27.4
Not in Labor Force (Homemaker)	17	5.5
Full-Time Student at GED Test	41	13.4
Part-Time Student at GED Test	27	8.8

Most postsecondary enrollees in the sample had GED credentials, and approximately half were men. Fewer than one-quarter of enrollees were Hispanic or African American, and nearly all considered English to be their primary language. On average they spent about 23 hours preparing for the GED Test, and nearly two-thirds took an Official GED Practice Test. They most frequently completed the 11th grade before leaving a K–12 school and had been out of school for approximately three years on average. Enrollees' most frequently selected reasons for testing were *Personal Satisfaction*, *Enter a Two-Year College*, or *Enter a Four-Year College*. Approximately one-quarter were employed full time when testing, and approximately the same proportion was unemployed.

Postsecondary Experiences

Where did GED candidates enroll in college or university? The 307 GED candidates attended a total of 369 postsecondary institutions in 44 states. (Some attended more than one institution.) Altogether, they usually attended just one or two colleges or universities across a five-year period. Fifty-six (56) students transferred to a second institution, five attended a third institution, and one attended four institutions. The vast majority (81 percent) of students who had taken the GED Test attended colleges offering programs of two years or less initially; 19 percent attended four-year institutions initially. Seventy-eight (78) percent attended public two-year colleges, 8 percent attended private four-year institutions, and 12 percent attended public four-year institutions initially.

What were the initial postsecondary enrollment patterns of GED candidates? Nearly one-quarter (24 percent) were enrolled full time in college or university by spring 2008. Twenty-two (22) percent were enrolled half time, and 15 percent were enrolled less than half time. Approximately 32 percent did not indicate an attendance status, and 7 percent had withdrawn from their institutions. Approximately 41 percent of students initially attending four-year institutions were enrolled full time. Approximately one-quarter each of public postsecondary enrollees were enrolled either full time or half time, but approximately half of private students were enrolled full time.

Most GED candidates (75 percent) enrolled in one or more postsecondary institution(s) within the first three years after taking the test (that is, 2003, 2004, or 2005, as shown in **Table 2**).

Table 2. Postsecondary Enrollment of GED Candidates, by Year

<i>Year</i>	<i>Number of GED Candidates Who Enrolled in Postsecondary Institutions</i>	<i>Percentage of Candidates Who Enrolled (%)</i>
2003	97	26.3
2004	105	28.5
2005	74	20.1
2006	31	8.4
2007	46	12.5
2008	16	4.3
Total	369	100.0

A majority (77 percent) enrolled for a single semester only. Only a small percentage (3 percent) remained in the same institution for two consecutive semesters. Students were more likely to start at an institution and return the next year, or to switch to a different institution the next year (9 percent). They were slightly more likely to skip a year in between enrolling for postsecondary courses (10 percent).

Postsecondary Completion of GED Candidates

In the sample of GED candidates who entered postsecondary education, 17 graduated from 17 different institutions. All had previously completed the GED Test, and all but two passed the GED Test. For those who passed the GED Test, the mean standard score per content area was at least 530. The median age at GED testing was 20 years, and nine reported completing the 11th grade. Ten graduates were male, and graduates were either African American, Hispanic, or white. California, Georgia, Texas, and Washington had two graduates each.

All graduates enrolled in 2003, 2004, and 2005. It took them an average of 3.8 years to complete their degree program. All but one attended continuously across years. (The exception took a break between 2004 and 2008.) Three students moved out of state while attending a postsecondary institution but re-enrolled in the new state to continue working on a degree.

Six graduates attended a four-year college: five a community college, four a technical college, and three a university. (One student switched from a university to a college before getting a bachelor's degree.) Four associate degrees, two bachelor's degrees, five certificates, one health diploma, and one technical certificate were awarded. One student received both a certificate and an associate degree from the same community college. Five individuals graduated but no degree type was indicated. No information was provided concerning these graduates' majors.

Postsecondary Enrollment for GED Credential Recipients and Non-passers

To begin to understand the relationship between GED credential recipients and postsecondary enrollment, we first needed to compare their postsecondary enrollment percentages with those of GED Test non-passers (as shown in **Table 3**). GED credential recipients enrolled in postsecondary education at a significantly higher rate (36.6 percent) than did non-passers (20.4 percent; $p < 0.001$, odds ratio=2.3).

Table 3. Postsecondary Enrollment Status for GED Credential Recipients and Non-passers

	<i>GED Credential Recipient</i>		<i>GED Test Non-passer</i>		<i>Total</i>
	<i>Number</i>	<i>Percentage of Recipients (%)</i>	<i>Number</i>	<i>Percentage of Non-passers (%)</i>	<i>Number</i>
Postsecondary Enrollee	233	36.6	74	20.4	307
Non-enrollee	404	63.4	289	79.6	693
Total	637	100.0	363	100.0	1,000

We also looked at important demographic characteristics of GED credential recipients: gender, ethnic group, who took an Official GED Practice Test, reasons for testing, and employment/student status when testing, as shown in **Table 4**. GED credential recipients in the full sample tended to be male (60.7 percent), and non-passers tended to be women (55.3 percent). As presented in Table 4, women with GED credentials (44.0 percent) enrolled at a higher rate than men (31.6 percent; $p < 0.01$, odds ratio=1.7).

Descriptive statistics are presented for individual ethnic groups in Table 4, but because of small cell sizes, statistical comparisons had to be summarized as white in contrast with non-white (that is, all other ethnic groups besides white). No significant differences for GED credential recipients occurred by ethnic group between enrollees and non-enrollees. Percentages of GED credential recipients taking an Official GED Practice Test were similar for enrollees and non-enrollees.

Table 4. Enrollment Status of GED Credential Recipients

<i>GED Credential Recipient Characteristic</i>	<i>Postsecondary Enrollees</i>		<i>Non-enrollees</i>		<i>Total</i>
	<i>Number</i>	<i>Percentage of GED Credential Recipients with Characteristic (%)</i>	<i>Number</i>	<i>Percentage of GED Credential Recipients with Characteristic (%)</i>	<i>Number</i>
Male	121	31.6**	262	68.4	383
Female	109	44.0**	139	56.0	248
Hispanic	27	41.5	38	58.5	65
American Indian /Alaskan Native	5	41.7	7	58.3	12
Asian/Pacific Islander	2	25.0	6	75.0	8
African American	38	31.9	81	68.1	119
Asian/Pacific Islander	2	33.3	4	66.7	6
White	145	37.4	243	62.6	388
Non-white	74	35.2	136	64.8	210
Took Official GED Practice Test	132	34.5	251	65.5	383
Reasons for Testing:					
Enroll in Trade/Technical	43	36.1	76	63.9	119
Enter Two-Year College	69	47.9**	75	52.1	144
Enter Four-Year College	72	55.4***	58	44.6	130
Get a Better Job	75	33.2	151	66.8	226
Role Model for Family	37	33.3	74	66.7	111
Personal Satisfaction	105	33.0	213	67.0	318
Employment/ Student Status When Tested:					
Employed Part-Time	37	47.4*	41	52.6	78
Employed Full-Time	64	40.5	94	59.5	158
Full-Time Student at GED Test	38	42.7	51	57.3	89

Note: The likelihood of GED credential recipients who were enrollees versus non-enrollees in postsecondary education having each characteristic differs significantly to the following levels: * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$.

A frequent question regarding GED credential recipients who state educational reasons for testing asks whether they follow up and actually pursue their educational goals after earning the credential. Forty-eight (48) percent of GED credential recipients who indicated *Enter Two-Year College* (odds ratio=1.9, $p<0.01$) and 55 percent of those who indicated *Enter Four-Year College* (odds ratio=2.7, $p<0.001$) as reasons for testing enrolled in postsecondary education after testing; these rates are much higher than the 33 to 36 percent enrollment rates of those who indicated employment reasons or interest in trade/technical programs as reasons for testing. These comparisons suggest that GED credential recipients with the intention to enroll in a two-year college or a four-year college when testing are more likely to actually do so, compared with GED credential recipients who do not state these goals.

GED credential recipients who enrolled spent an average of 101.6 hours preparing for the GED Test, in contrast to non-enrollees, who spent an average 114.5 hours preparing. GED credential recipients who passed the GED Test while working part time were 1.7 times more likely than those not working part time to enroll in postsecondary education ($p<0.05$). GED credential recipients and non-passers alike (37.4 percent and 31.5 percent, respectively) who expressed *Get a Better Job* as a reason for GED testing were unlikely to enroll in postsecondary education.

GED credential recipients did not differ significantly in enrollment status by ethnic group, highest grade completed, military status, primary language, who took an Official GED Practice Test (OPT), most reasons for testing, and employment status besides part-time work.

A final question considers how GED Test performance differed for GED credential recipients who enrolled in postsecondary education from non-enrollees with GED credentials. That is, are standard scores on the five content areas of the GED Test the same for GED credential recipients who enroll in postsecondary education as for non-enrollees? **Table 5** presents standard scores by content area for GED Credential recipients who enrolled in postsecondary education and for non-enrollees. GED Test standard scores for GED credential recipients who later enrolled in postsecondary education were higher than for non-enrollees in every content area.

Cohen's d —defined as the difference between two means divided by the pooled standard deviation for those means—was calculated as a measure of effect size characterizing the magnitude of the differences between groups. Cohen (1988) defined effect sizes as “small, $d=0.2$,” “medium, $d=0.5$,” and “large, $d=0.8$ ”. Based on Cohen's criteria, effect sizes (d) for all t -tests involving standard scores ranged from 0.27 to 0.35 and could be considered small to medium. We concluded that differences in GED Test standard scores were statistically and practically significant between enrollees with GED credentials and non-enrollees.

In addition, GED credential holders with higher standard scores were more likely to enroll in postsecondary education. We found that approximately 31 percent in each group of those with GED credentials and who later enrolled had average standard scores from 450 to 500, or from 501 to 550 across content areas. Approximately 39 percent of GED credentials holders who scored 551 to 600 enrolled, and nearly 48 percent who scored 601 to 650 enrolled. Because

of small numbers beyond standard scores of 650, percentages are less meaningful, but the pattern of increasing percentages of enrollment with higher standard scores continued.

Table 5. GED Test Standard Scores for GED Credential Recipients

	<i>Content Area</i>				
	<i>Language Arts, Writing</i>	<i>Social Studies</i>	<i>Science</i>	<i>Language Arts, Reading</i>	<i>Mathematics</i>
<i>Postsecondary Enrollees</i>					
Mean	526	550	574	585	511
Standard Deviation	80	77	88	105	82
Median	520	540	560	560	490
<i>Non-enrollees</i>					
Mean	501	528	549	558	490
Standard Deviation	64	67	68	92	57
Median	485	520	540	540	480
t-tests Statistic	-4.2	-3.7	-3.8	-3.3	-3.4
Effect Size (<i>d</i>)	0.35	0.30	0.32	0.27	0.30

Discussion

Summary of Results

Major findings of interest in this pilot study include:

- GED credential recipients enrolled in postsecondary education at a significantly higher rate than did non-passers.
- Women with a GED credential enrolled at a higher rate than male GED credential recipients.
- GED credential recipients with the intention to enroll in a two-year college or a four-year college when testing were more likely to actually do so, compared with GED credential recipients who did not state these goals.
- GED credential recipients who enrolled in postsecondary education spent nearly twice as much time on average preparing for the GED Test as non-passers.
- Those who earned the GED credential while working part-time were more likely to enroll in postsecondary education.
- GED credential recipients who enrolled in postsecondary education tended to have higher standard scores on the GED Test in all five content areas, and those with higher standard scores were more likely to enroll.

The 307 GED candidates in the pilot attended a total of 369 postsecondary institutions in 44 states. Altogether, they usually attended just one or two colleges or universities in the span of five years. The vast majority of students (81 percent) who had taken the GED Test attended

colleges that offer programs of two years or less initially; 19 percent attended four-year institutions initially. Seventy-eight (78) percent attended public two-year colleges.

Nearly one-quarter were enrolled full time in college or university (24 percent) by 2008. Twenty-two (22) percent were enrolled half time, and 15 percent were enrolled less than half time. Most GED candidates who enrolled in postsecondary institutions enrolled within the first three years after taking the test (i.e., 2003, 2004, or 2005). The vast majority (77 percent) enrolled in a single semester only. Ten of 17 graduates were male, and graduates were either African American, Hispanic, or white. It took graduates an average of 3.8 years to complete their degree program.

Discussion of GED Candidate Findings

Time was an important element in the pilot project. Although GED candidates overall tended to enter postsecondary education within three years of taking the GED Test, those who attended for more than a single semester attended for two consecutive years or even skipped a year while attending college. In the full study, we would recommend clarifying how long, in general, a GED credential recipient takes from testing in the last content area until date of first enrollment in postsecondary education. Candidates who did graduate took nearly four years to do so, even for programs that were ordinarily two years or less in duration. These preliminary findings indicate that allowing enough time to pass before expecting postsecondary outcomes remains critical (Boudett, Murnane, & Willett, 2000; Reder, 2007).

Even though many GED candidates attended a semester, frequently at a public community college or technical college, and nearly half attended full time or half time, more than three-quarters (77 percent) left after the first semester. The first semester is critical for a GED candidate's postsecondary education experience. This finding affirms previous research that few complete the first year of postsecondary education or a degree program (Duke & Ganzglass, 2007; Murnane, Willett, & Tyler, 2000; NCAL, 2008; Reder, 1999; Tyler, 2005). Given that most candidates enter two-year institutions or spend less than two years at an institution, we can infer from pilot results that examining open admissions policies and their effects, particularly in community colleges and technical colleges, would be of value in the full study.

The aspirations of GED candidates to pursue further education, although strong enough for many to get started in college, largely go unfulfilled. Those GED candidates who acted on their intentions did so within a short time period after taking the GED Test. GED candidates with the intention to enroll in a two-year college or a four-year college when testing tended to actually do so. However, it is also important to point out that a high proportion of GED candidates who stated further educational goals did not pursue them.

The very small number of college graduates reported reflects in part the unfulfilled aspirations of GED candidates. However, a limitation of the pilot is also that the National Student Clearinghouse first began receiving graduation data for the postsecondary database in 2008, and not all of the institutions may have fully reported graduates during the time period of the study. As the full study begins, we expect further graduation data to come available, and we

plan to follow up on pilot candidates to see if their graduation statuses come available. We also plan to look at available majors and degree programs in more detail.

Discussion of GED Credential Recipient Findings

Initially encouraging findings were that GED credential recipients enrolled in postsecondary education at a significantly higher rate than did non-passers, and that their standard scores were higher in all content areas. The former finding confirms previous research that GED recipients are more likely to enroll in postsecondary education than dropouts (Murnane, Willett, & Boudett, 1997). These findings point to a positive relationship between holding a GED credential and entering postsecondary education.

It also is encouraging that those with GED credentials entered postsecondary education at similar rates, regardless of ethnic background and numerous other demographic characteristics. Even though 36.6 percent of GED credential recipients in the pilot sample chose to pursue further education, the fact that the 63.4 percent who did not choose it and the loss of most enrollees after a single semester reminds us that much work remains to be done to fill the postsecondary pipeline (CAEL, 2008; Reder, 2007).

Enrollment of female GED credential recipients in postsecondary education is in line with general postsecondary enrollment trends. These findings may reflect greater caution on the part of male GED candidates, who were more likely to enroll after passing the GED Test. These gender contrasts warrant further analysis in the full study.

Employment-related findings also are worth noting. GED credential recipients who worked part time while testing were more likely to pursue their postsecondary goals than those who worked full time. Perhaps GED credential recipients with part-time positions recognized the need to enhance their skills for the long term. Yet GED credential recipients who reported testing for a better job tended to not see postsecondary education as a means to advancing their careers. For many, the prospect of a better job may involve a promotion at work or to the next level of the same type of work at a different company. Getting a better job may be seen as a short-term goal rather than a long-term investment in improving skills. Further research into the relationship of job aspirations, career improvements, and postsecondary education would be valuable.

Even though GED credential recipients who enrolled spent more time preparing for the GED Test, it is unclear whether those with GED credentials were fully prepared for postsecondary education and what assistance was available to them as they made the transition to college. From these results, we infer that more research on the educational background of single-semester GED credential holders, in contrast with those who continue, would be useful, as would a better understanding of the transition efforts provided by postsecondary institutions, especially those with programs of two years or less.

Conclusion

A final word of caution about the pilot sample is in order. The 1,000 people in the sample were selected at random, and, therefore, there is no known reason to believe that the postsecondary

enrollment patterns of those GED candidates in the sample would vary considerably from the population of GED candidates in 2003. However, because the population of GED candidates has never been fully examined, it remains possible that population results could be remarkably different from sample results.

The pilot has given us additional questions to consider and much food for thought. One advantage of the planned population research is that we expect to have sufficient responses to demographic items for further analysis of subpopulations. With a larger number of enrollees, we can determine event occurrence of enrollment and identify postsecondary institutions that serve GED credential recipients and the characteristics of those institutions. With a larger number of graduates, we can model event occurrence of graduation. We also plan to consider a qualitative follow-up study of GED credential recipients who enrolled for only one semester to identify barriers and potential reasons they did not persist. Our report on the first cohort year from the population data is planned for early 2010 and will provide even further insights into the postsecondary experiences of GED credential recipients.

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