

COMPARISON OF THE ACADEMIC SUCCESS RATE  
OF GED AND TRADITIONAL HIGH SCHOOL GRADUATES  
IN MARYLAND COMMUNITY COLLEGES

by

Lynda Byrd Logan

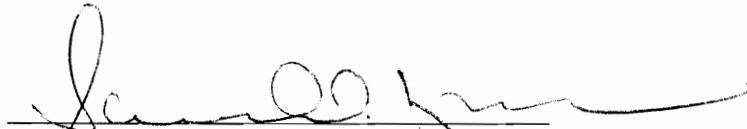
Dissertation submitted to the Faculty of the

Virginia Polytechnic Institute and State University

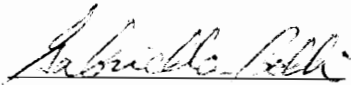
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

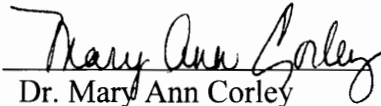
APPROVED:




Dr. Samuel D. Morgan, Chair



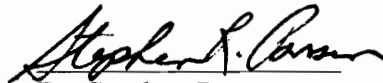
Dr. Gabriella Belli



Dr. Mary Ann Corley



Dr. Harold Stubblefield



Dr. Stephen Parson

April, 1997  
Blacksburg, Virginia

Key Words: General Educational Development Test, GED, Community Colleges,  
Academic Success

COMPARISON OF THE ACADEMIC SUCCESS RATE  
OF GED AND TRADITIONAL HIGH SCHOOL GRADUATES  
IN MARYLAND COMMUNITY COLLEGES

by

Lynda Byrd Logan

Dr. Samuel D. Morgan  
Educational Administration and Supervision

(ABSTRACT)

This study was designed to determine if there is any significant difference in the rate of academic success of traditional high school graduates and GED holders in a Maryland Community College. Similar studies have measured academic success using variables, such as persistence and graduation rates, which are better suited to studying academic success in four year colleges.

Because graduation rates in community colleges are low, it might be more accurate to assume that community college students matriculate for reasons other than transfer or the attainment of a degree. Therefore, the ratio of course attempted to courses completed and academic good standing were used to define and measure academic success.

It is logical to assume that a student intends to complete a course if he/she registers and pays for said course. It is also reasonable to define academic success in terms of a student's eligibility to enroll in subsequent classes because he/she has maintained at least a 2.0 grade point average in the courses he/she has previously taken.

The fact that a student leaves the institution and does not return does not mean that the student has been unsuccessful. To the contrary it could very well mean that his/her educational goals have been met.

When high school graduates and GED holders are compared on variables of academic success that are more in keeping with the mission of the community college, GED holders will fare as well academically as their high school graduate counterparts. The data show that this is a correct assumption. When GED and traditional high school graduates persisted to completion of course work or to graduation, each group left the institution in academic good standing and could have taken further course work or transferred to another institution if they had desired to do so. However, 47% of the entire cohort, including similar numbers from each group, did not persist to either course completion or to graduation. Having a GED or a high school diploma did not emerge as a significant factor in either the success or failure of either group.

## ACKNOWLEDGMENTS

When one has accomplished something so momentous as the attainment of a doctoral degree, there are always enumerable people who have made this possible. My profoundest appreciation goes out to all those who in some way, large or small, have helped me through this process.

I especially wish to thank the members of my committee who guided me, instructed me and held my hand. Special thanks go to Dr. Samuel D. Morgan who made me think this was possible back in 1989 when I started this program. My undying gratitude goes to Dr. Gabriella Belli who could teach statistics to a stone.

Dr. Harold Guy, Dean of Instruction, read my dissertation and gave me constructive criticism. Dr. Hershel Alexander, Institutional Research, walked me through SPSS. To these two gentlemen, I offer my sincere appreciation. Dr. Hercules Pinkney, Vice President for Continuing Education and Evening Programs, supported my efforts not only to finish this project but to be the best Dean of Learning Resources that Prince George's Community College has ever seen. To him I offer my heart felt gratitude.

To Marie Allman and Veronica Coleman, I owe a special debt of gratitude for teaching me to use WordPerfect. I am especially thankful that they didn't snicker at how little I knew or become impatient when I asked the same question for the hundredth time.

I would also like to thank my classmates, Drs. Margaret Miller, Thomas Lietzel and Arthur Wexler who finished before me and then spent a great deal of time encouraging me to continue to completion. Special thanks go to Peg Miller who drove five hours one way to Blacksburg every time I needed to talk to Sam.

A special thank you goes to Mr. Henry Johnson, GED Instructor, at the Adult Education Center, Orleans Parish School Board, New Orleans, Louisiana. It was in a discussion with Mr. Johnson that I became aware of the need to study the success rate of the GED graduate in community colleges.

Finally, I would be remiss if I did not thank my husband, Marvin Logan without whose love, patience, knowledge of mathematics and computer expertise I would not have been able to finish this dissertation.

## TABLE OF CONTENTS

ABSTRACT .....	2
ACKNOWLEDGMENTS	
.....	iv
CHAPTER I .....	1
INTRODUCTION .....	1
STATEMENT OF THE PROBLEM .....	1
.....	6
PURPOSE OF THE STUDY .....	6
SIGNIFICANCE OF THE STUDY .....	10
.....	12
DEFINITIONS .....	12
LIMITATIONS, DELIMITATIONS AND ASSUMPTIONS .....	12
.....	14
RESEARCH QUESTIONS .....	14
CHAPTER II .....	16
SURVEY OF THE LITERATURE .....	16
INTRODUCTION .....	16
RESEARCH: VALIDITY OF THE GED AS HIGH SCHOOL	
EQUIVALENCY .....	16
RELATED RESEARCH: FOUR YEAR COLLEGES .....	17
RESEARCH: COMMUNITY COLLEGES .....	24
SUMMARY .....	28
CHAPTER III .....	29
RESEARCH DESIGN AND METHOD .....	29
POPULATION AND SAMPLE .....	29
.....	31
PROCEDURES .....	31
.....	33
DESIGN .....	33

CHAPTER IV .....	37
RESULTS .....	37
DEMOGRAPHICS .....	37
Race .....	37
Age .....	38
Sex .....	38
PROFILE OF COURSE ENROLLMENT	
PLACEMENT .....	40
PATTERNS OF ENROLLMENT .....	41
ACADEMIC GOOD STANDING .....	42
GRADUATION .....	44
COURSES ATTEMPTED/COURSES COMPLETED .....	45
GRADE POINT AVERAGE (GPA) .....	46
DEMOGRAPHICS AND ACADEMIC GOOD STANDING .....	47
Race .....	47
Age .....	48
Sex .....	48
PRISON .....	49
Academic Good Standing By Race, Sex and Age .....	50
CHAPTER V .....	51
DISCUSSION OF THE FINDINGS .....	51
Summary .....	51
Conclusions .....	53
Further Study .....	59
APPENDIX A .....	61
Curriculum Preferences .....	61
REFERENCES .....	62
VITA .....	74

## **CHAPTER I**

### **INTRODUCTION**

#### **STATEMENT OF THE PROBLEM**

The General Educational Development Test (GED) is a series of examinations designed to measure intellectual skills that should be acquired through a traditional high school education. At its inception, fifty years ago, "...the idea that meaningful learning takes place outside as well as inside the classroom and that this learning could be documented and assessed were revolutionary" (Lowe, 1992, 2).

In the fifty years since its inception, over ten million adults have received high school diplomas through the GED program. Each year "approximately 700,000 examinees take the General Educational development tests at 3500 testing centers in the United States and Puerto Rico. One of eight high school diplomas issued in the United States each year is a GED and one of every twenty college students is a GED graduate" (Lowe, 1992, 1).

Until recently the GED had enjoyed a relatively quiet and uneventful growth and development. With the guidance of Cornelius Turner, the first director of the GED Testing Service, Ralph Tyler and Everett Lindquist were able to create and disseminate a set of tests that were accepted by college officials as an accurate indicator of a high school equivalency and accurate predictor of academic success in college. As a matter of

fact, until 1965, there were college level as well as high school level GED tests. These tests which began as a way to ensure that military personnel who had interrupted their education to serve their country would not be penalized for such a sacrifice, rapidly became a means for helping private citizens who for what ever reason were unable to complete a traditional high school educational program.

As it turns fifty, controversy over its effectiveness as preparation for admission to college is suddenly being questioned. College admissions officers are questioning the GED graduate's preparedness for success in higher education. Their fears are based on "notions about past academic performance and deficiencies in basic skills" (Swarm,1981, 5).

Ulin (1982) asserts that the GED Testing Service has weakened the credential. Initially, the GED was awarded based on a combination of test scores, prior learning, work experience and armed services credits. This changed in 1967 and the credential is now awarded based solely on receiving a passing grade on the test. These passing scores are set so that only the top 70% of high school seniors are likely to pass, but critics question how well our high schools are preparing students for postsecondary education. Norming the GED on the academic performance of high school seniors may not be a sound practice.

This notion is supported by national policy makers who are on the verge of redefining what it means to be a high school graduate and of rethinking how to measure

that attainment.

Many experts think the solution lies in establishing nationwide standards describing what every student should learn in core academic subjects. In fact, teams of specialists are at work designing content standards in math, science, English and social studies. Many in the standards movement also advocate a nationwide system of state-administered tests to measure performance (Clark, 1994, 185).

The critics argue further that once a test becomes the primary indicator of success, faculty begin to teach to the test rather than teaching necessary skills. Ulin (1982) says, “passing the GED may be “street smart” but it short changes students who might otherwise develop genuine language power, the kind that can help them shape and organize experience” (p. 25).

Quinn (1986) suggests that:

while the GED is designed to ascertain whether students have acquired certain discriminatory skills such as the ability to detect incorrect spelling, capitalization and punctuation, to recognize orthodox word usage and sentence structure and to identify aberrant logic and organizational errors, postsecondary educators fear that a qualifying examination that fails to require that students demonstrate their ability to write, to comprehend and to compute will not accurately predict their ability to be successful in higher education (p. 23).

Proponents of the GED argue that those competencies tested are the ones necessary for success in today’s colleges and universities and have added a writing component to the test in response to some of the criticism. They maintain that GED graduates perform as well as, and in many cases better than, high school graduates in our institutions of higher learning. This claim is substantiated by the research conducted by

Ralph Tyler (1954) which validated the GED as an admission requirement for higher education. Subsequent research has drawn similar conclusions. In a competency study conducted by the state of New York, high school graduates attending New York's universities were given the GED test. It was found that "37% of those who had passed the New York State Reading Test and had been accepted in New York's colleges failed the GED test. None of those who failed the reading test passed the GED" (Myth, 1988, 3).

Research studies in both four-year colleges (D'Amico, 1953; Swarm, 1981; Colert, 1989) and community colleges (Hannah, 1972; Grady, 1983; Scales, 1990) have supported the notion that the GED is a valid high school equivalency measure and that those who pass the GED have an excellent chance of being successful in college. The disparity in study results shows a definite need for more research in this area. The truth undoubtedly lies somewhere between the two extremes.

Compounding the issue is a body of literature criticizing the community college. These critics argue that the community college is designed "...to be the people's college, to provide educational opportunity for large numbers of Americans denied entry into the traditional colleges and universities" (Birenbaum, 1986, 10). The community college has become a filter, a cooling out place, a diverted dream, contributing to the existing patterns of social and economic inequality (Karabel, 1974; Birenbaum, 1986; Brint and Karabel, 1986; Dougherty, 1986). They see education, specifically higher education, as the means

by which the educationally under served, the economically and socially disadvantaged and the politically disenfranchised gain access to the American dream. Realization of this dream rests, minimally, in the attainment of the baccalaureate degree. Since the majority of students who begin their higher education sojourn in the community college never attain the bachelors degree critics claim that neither the institution not the student has been successful.

The critics also argue that a community college education does not often result in upward social and economic mobility. Turner (1990) found that ten years after high school graduation, four year college entrants held jobs of higher status than two year college entrants even when controls were introduced for differences in socio-economic background and measured mental ability. Brenaman and Nelson (1981, p.8) found that “...attending a community college had a negative effect on the occupational status of young men and no significant effect on wages.” Cameron and Heckman in a study conducted at the University of Chicago substantiate the claims of Brenaman and Nelson and Turner. They found that “GED recipients, even with some community college experience, are no better off as wage earners than high school dropouts” (Cameron and Heckman, 1992, p.2).

Finally, the critics argue that “...tracking in higher education leads to disproportionately high attendance of low-status students at community colleges, which in turn, decreases the likelihood they will stay in school” (Karabel, 1972, p.536). Follow-

up studies of large cohorts of entering college students suggest that the question now is not whether attending a community college has a negative impact on persistence in higher education but rather how large is this effect? ( Astin, 1985).

What then is the truth of the matter? How well does the community college serve its students, particularly those with nontraditional backgrounds and preparation such as a GED? Research in this area has been scanty and inconclusive. Richardson and Bender (1987) pointed out that the community college has no research agenda. The above mentioned critics are “outsiders” and “even though community college administrators have been extremely critical of the studies done by these outsiders, there have not been comparable studies in most states to provide better information” (Richardson and Bender, 1987, p. 7).

### **PURPOSE OF THE STUDY**

The purpose of the study is to compare the academic success rate of GED holders and traditional high school graduates in a Maryland community college. The basic premise on which the study builds is that previous studies comparing these two groups have overlooked or misunderstood the fundamental mission of the community college.

A survey of the literature on the GED recipient in community colleges and the community college in general, indicates that the major problem with the research stems from a lack of understanding of the way the community college is used. This lack of understanding has led to the study of inappropriate variables in the conduct of research

on academic success.

While the traditional beliefs about the nature of academic success--degree attainment, persistence, transfer-- and student outcomes may still hold true for the four year college student, they are unsuitable for describing the academic success of the community college student. "The most valid conception of academic success is one that is most consistent with the student's purpose in attending the institution" (Astin, 1985, p.xii) and academic outcomes such passing courses attempted with a grade of "C" or better and leaving the institution in academic good standing.

Credentialing is not the primary reason that students enroll in community colleges. "The institution functions in a number of occasional roles in the lives of individuals who attend" (Adelman, 1992, p. v). Most of the enrollees perceive the courses as job related as a way of upgrading skills or as the completion of an aborted secondary school education (Astin, 1985; Adelman, 1992).

Confusion and naivete about the goals of the community college student have had a profound impact on the research relevant to their academic success. This is most evident in the construction of variables. The assumption that students are seeking degrees and/or certificates is an erroneous one, so defining success as the attainment of a degree results in both the student and the institution appearing to have failed in their missions. This is not, generally, the case.

The primary mission of the community college has shifted. It is no longer to

provide the first two years of a baccalaureate degree, but rather, it plays the "...role of an intermittent social institution...satisfying the students need to acquire skills for job upgrades, for personal enrichment and for the acquisition of skills not acquired in high school" (Adelman, 1992 p.15).

Academic success of community college students should be defined as academic good standing, meaning that the student could continue his/her studies if he/she chose to do so. The view of academic success should shift to keep pace with the shift in the mission of the community college which is to serve the lifelong learning needs of the students, whatever those needs might be.

Other more accurate indicators of academic success are: (1) the ratio of courses attempted to courses completed. It is fair to assume that a student would not register and pay for a course that he/she did not intend to complete. (2) Another indicator of success is the pattern of enrollment. It is certainly logical to assume that an individual would not continue to participate in an activity where his/her goals were not being met. Community college students often have a long term relationship with the college. "The average degree seeking student will obtain the degree in two to three years. Another smaller portion of the student population will take about twelve years to attain a degree, if that is their intention" (Adelman, 1992, p.2). Other students use the community college as it is needed to meet some specific goal. (3) Academic good standing has been defined by the Maryland Higher Education Commission as having at least a 2.0 grade point average.

Students who leave the community college often do so for reasons other than academic failure. If the student does in fact complete the course(s) with a grade of “C” or better, he/she has been successful. The fact that community college students “stop out” does not mean that the student’s goals have not been met. It does not mean that either the student or the institution has somehow failed.

If research studies investigating the success rate of GED and high school graduates in community colleges had tracked these students over a ten year period rather than a single semester, it would have been discovered that the community college student, generally, and the GED student, specifically, tends to re-enroll many times over the course of his/her educational career. This phenomenon is described by Adelman when he discusses the similarity between the community college and “...other normative institutions such as churches and museums...Individuals use these institutions for a time, and then move on. Some come back” (Adelman, 1992, p. vi).

As long as we continue to judge student success by low attrition, graduation and transfer rates, we will continue to see the GED recipient as unsuccessful. Conversely, when we redefine student success as academic good standing and we understand the way the community college is used, we will have a much stronger incentive to develop effective educational programs to assist students in realizing their educational objectives. A better understanding of the way the community college is used may also help to convince national policy makers and four year college admissions officers that there is

value in both the GED and the community college experience.

### **SIGNIFICANCE OF THE STUDY**

The GED is a second chance for adults to obtain their high school credential. While it was not conceived and born, as other literacy programs have been, from some great social outcry of the American people, it has had a "... major impact on the design and organization of the national system of literacy instruction for adults". (Cevero, 1983, p.16)

Community colleges have welcomed GED holders with open arms and for the most part have treated these students just as they treat the traditional high school graduate in terms of admission, placement and instruction. It is felt that the community college's emphasis on instruction makes it an ideal place for the non-traditional student to obtain preparation for advanced study and/or employment. Yet studies have shown that GED students do not, on the average, persist to the completion of their studies in the community college. This study shows that this is not true and that GED as well as high school graduates are successful or unsuccessful at about the same rate. The evidence to the contrary is based on the faulty premise that community college students, in general, and GED students, in particular, are matriculating for a degree.

The role of the community college should be to enhance what the student brings to the experience. "The institution represents an intervention in the lives of these individuals that is designed to improve and strengthen their talents" (Astin, 1985, p.15).

Academic success should be measured in terms of the student's ability to complete a course with a grade of "C" and his/her willingness to re-enroll.

Community college administrators need to rid their thinking of the notion that the community college is bound to the four year college. This will free them of the notion that the awarding of degrees and/or transfer are the only measures of success. They must recognize that their faculties, largely trained in four year institutions, must look for alternative approaches to teaching, testing and grading. These administrators must be able to convince state and national funding agencies that it is acceptable to view academic achievement from the student's perspective. "The benefit of the educational experience rests in changes in the student's intellectual capacities and skills, values, attitudes and interests that are attributable to that experience" (Astin, 1985, pp.18-19).

The research to-date, comparing GED and high school graduates in community colleges has been inconclusive and often contradictory. Since the controversy over whether the GED is a high school equivalency is gathering momentum ( Cameron and Heckman, 1992) and since the community college is typically the GED students college of choice, it would be prudent to study the GED graduate in the community college setting.

In this climate of educational reform, it would be helpful to prove the efficacy of the GED as preparation for college for two reasons: (1) it would allay the fears of educators who are faced with a growing number of GED graduates looking for admission

to their institutions, and (2) the setting of national standards for what constitutes a high school education would be greatly facilitated by a valid, nationally used assessment tool (the GED Test) that has been in place for over 50 years. Results of a study using appropriate measures of academic success, following the student's educational career over a ten year period and using an adequate sample size may paint a more accurate picture of how useful the GED is in preparing students for the community college experience.

### **DEFINITIONS**

The following terms will be used throughout the study and must be defined here for the sake of clarity:

Academic Success: means that the student has completed any course work with a grade of "C" or higher and that if he/she has left the institution, he/she left in academic good standing with a grade point average of 2.0 or higher.

Non-Non-traditional Student: means those students who are 27 years older or older, who maybe unprepared for the rigors of college level work, who are usually employed full or part time, who, generally, have family obligations such as aging parents and/or children, who are, generally, single parents, and who are first generation college students.,

### **LIMITATIONS, DELIMITATIONS AND ASSUMPTIONS**

This study is delimited first to one community college in the state of Maryland. The student body is diverse and fairly representative of other community colleges in the

state. Baltimore City Community College was chosen because its student records have been automated since the early eighties and the information necessary for this study was easily accessible. BCCC also, as part of their admissions application, gathered information on whether or not the student had a GED or traditional high school diploma.

The study is further delimited by the fact that data was collected only from the transcripts of those students who entered the college for the first time in the Fall, 1984. The students' records will be examined for data indicating how the student used the community college over a ten year period from 1984 to 1994.

Delimiting the study to only one community college places the following limitations on the study. The obvious limitation in using only one institution is the inability to generalize the results of the study. Further limitations include the fact that no attempt was made to establish equivalency in regard to the backgrounds of the individuals selected for the study. In addition, the study does not allow for the assessment of factors such as motivation, intellectual level, self-concept, peer or family emotional support, study skills or time management skills. Finally, the reliability of the data collected depends upon how well BCCC collects and stores data concerning its students.

There are several assumptions undergirding this study. First, it is assumed that BCCC students are typical of community college students in Maryland. Second, it is assumed that the diversity in backgrounds and experiences of the random selection of GED and high school graduates is characteristic of the population. Third, it is assumed

that the 1984 first time entrants are characteristic and representative of enrollees from other years.

### **RESEARCH QUESTIONS**

In an effort to illuminate the point that success needs a new definition, student records for a ten year period, were analyzed employing appropriate measures of academic success which for purposes of this study have been defined as academic good standing and the ratio of courses attempted to courses completed. There are several questions driving this investigation into how GED and high school graduates compare with respect to academic success at Baltimore City Community College. The overriding question is:

does the GED graduate exit the community college as successfully as the high school graduate?

The empirical questions that help to answer the overriding question are:

- (1) Is there a significant difference in the placement of GED and high school graduates in developmental courses?
- (2) Is there a difference between GED and high school graduates with respect to the amount of time it takes a degree seeking student to complete the degree?
- (3) Is there a difference between the GED and high school graduate upon exiting, with respect to degree attainment, ratio of courses attempted to courses completed, grade point average or graduation rate?
- (4) Is there a difference between the GED and high school graduate with respect

to academic good standing?

(5) Does age, race or sex have any impact on the academic success rate of GED and high school graduates ?

## **CHAPTER II**

### **SURVEY OF THE LITERATURE**

#### **INTRODUCTION**

Research on the GED, relevant to this study, can be divided into three categories: (1) investigations into the efficacy of the GED as preparation for college level work; (2) research on the GED as a predictor of academic success in four year colleges; and, (3) comparisons of the academic success of GED and traditional high school graduates in two year colleges. The results of this research are varied and disparate and often raise more questions than they answer.

#### **RESEARCH: VALIDITY OF THE GED AS HIGH SCHOOL EQUIVALENCY**

Investigations into the validity of the GED as preparation for postsecondary education began as early as 1951. These early studies were commissioned by the American Council on Education in an attempt to convince college educators that GED recipients were capable of successfully completing a college education.

Dressel and Schmid (1951) surveyed GED graduates and concluded that these graduates were successful in college and occupational settings requiring a high school diploma. Survey respondents indicated that they had gained access to employment and institutions of higher learning and they expressed satisfaction with their employment and educational attainments.

In 1954 Ralph W. Tyler conducted a research study for the United States Department of Defense in order to test the validity of the GED as an equivalent of the high school diploma for admission to colleges and universities. He concluded that while there were differences in achievement between GED and high school graduates, these differences were not statistically significant (Ayers, 1983, 29). Armed with the results of these studies, GED proponents were able to convince college administrators that the GED was an accurate predictor of success in higher education and many institutions across the United States began to accept the GED as equivalent to the high school diploma for purposes of meeting admissions requirements.

#### **RELATED RESEARCH: FOUR YEAR COLLEGES**

Most of the research which investigates the success of GED graduates in higher education has been conducted in the decade between 1980 and 1990. Prior to 1980, there were a few studies conducted primarily by doctoral students and researchers interested in the investigation of phenomena at the institutions where they were employed.

Lois D'Amico in a doctoral dissertation at Indiana University studied the success of 307 GED graduates who were enrolled at Indiana University between 1946 and 1950. The study showed that “those who persisted beyond the freshman year compared well in academic achievement with high school graduates” (D'Amico, 1953, 42).

Amiel Sharon, in a study conducted for the Educational Testing Service, compared the grades of GED graduates with those of traditional high school diploma

holders enrolled at selected two and four year colleges. He concluded "...that 55% of the GED graduates had a lower grade point average than the high school graduates but that 45% of the GED graduates had grade point averages equal to or higher than those of the high school graduates" (Sharon, 1972, 12).

Eugene Roon in a doctoral dissertation examined the available records of GED and high school graduates at Metropolitan State College in Denver Colorado. The records were examined for a seven year period and the analysis revealed that GED graduates compared unfavorably with high school graduates in the top 30% of their high school class. However, for those students whose grade point average fell below 2.0, a comparison of mean GPAs revealed no significant difference between the GED graduate and the high school diploma holder" (Roon, 1972, 56).

At Brandon University, Colert (1983) compared the achievement of 26 GED recipients and 27 high school graduates on two variables: grade point average and number of credit hours passed. He found no significant difference between the two groups on the two variables.

Pipho studied GED graduates admitted to Colorado colleges in 1958. His results show limited success on the part of GED holders. Only 19% had graduated by 1964 (Pipho, 1967, p.3)

Rogers looked at the records of over 200 GED graduates at Northern Kentucky University and identified 170 of those who had completed one semester's work (12-18

credits). He discovered that while the completion rate was high, the mean GPA was only 1.71. The mean GPA for high school graduates was 2.11. A follow-up study showed that of the 170 who completed one semester, only 50% continued for two or more semesters (Rogers, 1979, 63).

Swarm (1981) reports the findings of three studies conducted in 1973, 1977 and 1980. These studies examined GED students in post secondary institutions to determine their rate of academic success. The 1973 study identified characteristics, academic, and social problems of undergraduates at Indiana University. Of the 75 GED holders surveyed, 40% did not respond but the 60% who did respond had received bachelors degrees and were employed in areas for which they had prepared. In the 1977 study the records of GED holders in two Chicago universities were analyzed. It was found that the mean number of semester hours completed was 57 and that the mean GPA was 3.5.

Swarm's 1980 study looked at GED holders in four year institutions in Illinois, Pennsylvania, Florida, Indiana and California. It was concluded that 70% of the respondents had GPAs of "C" or better. The 12% who had dropped out of college had done so for non-academic reasons such as finances, change of residence or illness (Swarm, 1981). It would appear from these three studies that GED graduates are not educationally disadvantaged and that they compare favorably with traditional high school graduates in post secondary institutions.

The research conducted during the decade of the 1980s was primarily done in two

year institutions, but there were a few significant studies done in four year colleges and universities. At the University of Alaska (Owens, 1989), a research study was done which compared records of 506 GED holders and high school graduates to assess first semester performance. Thirty-one percent of the GED holders had enrolled within one to four years of having received their GED. Fifty percent of those students experienced some success in their first semester. Success was defined as having passed at least one course with a grade of "C" or better. A higher proportion of the students achieving success were 25 years of age or older. Forty-nine percent of the students were discouraged from re-enrollment.

The conclusion drawn by the researcher was that GED holders experienced difficulties not limited to academic unpreparedness. Other factors such as lack of family support, single parent status, financial problems, etc. contributed to their lack of success.

One of the largest and most comprehensive studies was conducted at the University of Wisconsin at Milwaukee. The study (Quinn, 1986) was initiated by Herbert Grover, Superintendent of Public Instruction. The researchers examined the academic records of all GED holders enrolled in credit programs at 13 University of Wisconsin System colleges from 1979-1984.

The variables under investigation were credit hours attempted, credit hours earned, grade point average and academic status (good standing, probation, academic dismissal). Over all, the results showed that the GED students did not fair as well as

even those high school diploma holders who had graduated in the lower 20% of their high school class.

GED holders had higher attrition rates although a majority of those who left were not in any danger of academic dismissal. Of the 1,982 students who left before graduating, 31% earned no credit and 85% had earned fewer than six credits. Twenty-three percent were required to take remedial math and 20% took remedial English.

The first semester grades showed the GED students with GPAs lower than the upper 50% of high school graduates but higher than the lower 50% of high school graduates. Seventy-four percent of the GED holders did not reach their sophomore year and 90% did not reach their junior year. After four semesters, only 31% of the GED holders were still enrolled compared to 62% of the high school graduates from the lower half of their high school class.

The GED students earned an average of 26 credits after 4 semesters as opposed to 34 credits earned by high school graduates. Their grade point averages were 1.98 for GED and 2.69 for high school graduates in the upper half of their graduating class. Those high school graduates in the lower half of their graduating class still had higher GPAs which averaged around 2.17.

By the study's end, only 4% of the 1979/80 freshman had earned a bachelor's degree, only 42 students were still enrolled (11% of the original GED class). Four students had transferred (1%) and 84% had left school. Sixty-one percent had left in the

first year.

The researchers concluded from the data that GED students were high risk in four year institutions and that persistence in completing the GED does not mean that a student possesses the skills or perseverance necessary to complete a bachelors degree. (Quinn, 1986).

The Wisconsin study raised several important issues which the study did not address. In a four year setting, such as the University of Wisconsin, the larger student body is generally characterized as young, full time, with no dependents. These students, for the most part, have familial support and some sense of what can be expected of a college student.

The GED students, on the other hand, to whom the high school graduates have been compared are, generally, older, out of school for at least five years, working, at least part time, and financially on their own (Myth #4, 1988, p. 5). Perhaps not controlling for some of these intervening variables has skewed the results. Perhaps the fact that the institutions under investigation were four year schools whose main success criteria is the attainment of a baccalaureate degree, played a significant role in the outcomes of the study.

There have been two other noteworthy studies that investigated both two and four year colleges. The first conducted in 1990 by the Iowa Board of Education, investigated Iowa's GED graduates in order to determine the short term (two years), intermediate (five

years) and long term (10 years) impact of earning a GED. “Two hundred four of the respondents (12%) were enrolled in or had graduated from college. Seventy-seven (6%) of the respondents were attending two year colleges, 109 (2%) had graduated from two year colleges, 28 (2%) were attending four year colleges and 22 (2%) had graduated from four year colleges” (Iowa, 1992, p. 8).

This study merely described whether or not the GED graduates had matriculated for a degree and whether or not they had graduated, but did not delve into such issues as grade point average, credit hours attempted and credit hours passed. The primary purpose of the study was to determine whether or not GED holders had met the goals that they identified when they took the GED. It was found, for the most part, that Iowa's GED graduates had met their employment and educational goals.

The second study was a national survey involving approximately 13,000 GED graduates. Its purpose was to describe: (1) ways that adults prepare for the GED; (2) test performance of population subgroups (age, sex, geographic region); and, (3) to discover the GED graduate's employment and educational outcomes 18 months after receiving the GED. The results showed that 45% of the graduates were in some kind of educational program, 75% planned to enroll in an educational program in the near future and that the community college was the institution of choice for the majority of those already enrolled in higher education and of those planning to enroll (Cevero and Peterson 1982; Cevero, 1983).

If as the national survey states, a good many GED graduates attend community colleges, where the only measure of success is not a degree, perhaps their rate of success would be greater than that experienced by their counterparts in four year colleges. Indeed, the research on GED graduates in community colleges would seem to indicate that these students are at least as successful as the traditional high school graduate.

### **RESEARCH: COMMUNITY COLLEGES**

In a study at Wilkes Community College in Greensboro, North Carolina, Faye Byrd compared GED and high school graduates on two variables: reading placement scores and grade point average in freshman English and Math. She found no significant difference between GED and high school diploma holders on either of the two variables (Byrd, 1973, p.32).

Another study at Surrey Community College in Dobson, North Carolina revealed no significant difference in the grade point average of GED and high school graduates (Ayers, 1980, p. 33). In a University of Texas dissertation, Sterling Moore discovered that there was no significant difference in the success rate of GED and high school graduates who persisted to graduation. His study revealed, however, that GED holders were less likely than high school graduates to persist to graduation (Moore, 1973). A study at Bristol Community College in Fall River, Massachusetts found GED graduates to be slightly less successful than high school graduates on grade point average and rate of graduation (Albert, 1975).

At Southeastern Community College in Whiteville, North Carolina, a study compared the academic success of GED and high school graduates. The results showed a slight difference in over-all post secondary performance. High school graduates had a slightly higher grade point average than GED students, but the difference was not statistically significant (Ayers, 1983). A similar study at the Community College of Alleghany County in Pittsburg, Pennsylvania drew the same conclusions. There is no significant difference in the academic success of GED and high school graduates (Clark, 1987).

The most comprehensive studies have been conducted in Washington, Florida and Illinois. The Washington study (Seppanen, 1991) was aimed at trying to assess the impact of GED programs in Washington community colleges. One hundred eighty two students who took the GED in 1989 were surveyed fifteen months after successfully completing the test. When the respondents were asked to rank their goals for taking the GED, 59% indicated that preparation for education was “very important” and 65% said that preparing for more education was “very or somewhat important”. Thirty-two percent of those surveyed were already enrolled in post secondary institutions, primarily in community colleges (Seppanen, 1991).

While this study did not investigate the academic success rate of these students, it did draw a more accurate picture of GED students than previous studies had done. The researchers concluded that most of the students who attempted higher education were

either under 25 or over 30. Most of the respondents had family responsibilities either for younger siblings or children of their own. Seventy-nine percent of the students were first generation college (Seppanen, 1991). The researchers concluded that “factors such as home life, motivation and financial problems undoubtedly played a larger role in lack of academic success than did academic unpreparedness” (Seppanen, 1991, 36).

Other studies investigated grade point average (Byrd, 1973; Albert, 1975; Ayers, 1983), reading placement scores (Byrd, 1975; Clark, 1987) and ratio of number of credit hours attempted to number of credit hours passed (Owens, 1989). The data analysis revealed that there was no significant difference in the academic success rate of GED and high school graduates in two year colleges.

Others explored the possibility that GED students would do well in vocational programs in two year colleges. These studies compared the success patterns of GED and high school graduates on three variables: grade point average, program completion and employment placement.

On the average, the GED students in vocational programs had higher grade point averages than high school diploma holders (2.80 v 2.56). Wilson and Willet point out, however, that although the mean GPA was higher for GED students, the probability of that happening by chance was .76. There was no significant difference at the .05 level” (Wilson, Davis and Davis, 1980). The data also showed that there was no significant difference on the variables of program completion and employment placement (Willet,

1982). GED graduates completed their vocational programs and found employment in the fields for which they had trained at the same rate as high school graduates.

Wilson, Davis and Davis (1980) concluded that “GED students succeed fully as well as high school graduates in post secondary vocational education programs “The initiative and effort taken to successfully complete a GED program seems to prepare them for a successful voc-ed experience” (Willet, 1982, p. 37).

The most comprehensive study of GED graduates in two year colleges was conducted by Klein and Grise (1987) in Florida. This study compared the success of GED and high school graduates in Florida's community colleges. Twenty-eight registrars were asked to provide information on admission, completion, graduation and enrollment. Data were analyzed using descriptive and nonparametric statistics. The results showed that 49% of the high school graduates completed their programs and graduated. Twenty-five percent of the GED holders completed their programs and graduated. There was no significant difference in the number of semesters needed to complete a program or graduate. The high school graduates had a slightly higher GPA (2.75 v 2.54;  $t=3.94$ ,  $p<.05$ ) (Klein and Grise, 1987).

An Illinois study compared the success of GED and high school graduates at Kankakee Community College. Study participants were randomly selected from 2,326 students who enrolled at Kankakee in the Fall of 1990. There were 50 GED and 50 high school graduates. The findings indicate “...a significant difference between GED and

high school graduates with GED holders having a slightly higher grade point average (2.93 v 2.76;  $t=5.66$ ,  $p<.05$ )” (McElroy, 1990, p. 46).

## **SUMMARY**

The research, thus far, has investigated traditional notions of academic success such as low attrition rates, graduation and transfer. While these variables are good measures of success in four year colleges where the attainment of a bachelors degree is the student’s primary goal, they are inappropriate measures of success for the community college student. The present study has been designed using variables more suited to the investigation of the community college’s stated mission and the community college student’s lifelong learning goals.

## **CHAPTER III**

### **RESEARCH DESIGN AND METHOD**

The purpose of this study was to investigate the academic outcomes of community college students by comparing the academic success rate of GED and traditional high school graduates who enrolled at Baltimore City Community College (BCCC) for the first time in the Fall of 1984. Data was collected from the student transcript because at BCCC this record contains the complete history of the students academic sojourn, including demographic data, previous educational attainment, course placement, grades, grade point average and program of study.

Baltimore City Community College was chosen as the study site for two reasons: first, because its student population is typical of other Maryland community colleges. According to the Maryland Higher Education Commission, the typical community college student is "...female, a single parent, working at least part time, in need of financial aid and approximately 27 years of age." (MHEC, 1995, 18a). Second, its student records are accessible, complete and have been automated since the early 1980s so that the data gathering could be done by computer.

### **POPULATION AND SAMPLE**

Initially the population had been defined as all students who had entered the

Maryland community college system for the first time in the Fall 1984. But a cursory discussion with the registrars of the 17 community colleges revealed that this was not feasible. Only Baltimore City Community College kept records of the student's previous degree attainment. It was felt by the registrars that an open admission institution did not need to be concerned with whether or not the student had a high school diploma or a GED.

Collecting data from all 17 colleges was further complicated by the fact that the majority of the institutions either had just begun to automate their records in the early 80's or had not yet automated. Searching through records kept on paper or on microfilm made investigation prohibitive. The records at Baltimore City Community College had been automated since 1981 and access to the student transcripts via computer made identifying and matching the GED and high school graduates relatively easy.

The target group has been identified as those students who entered Baltimore City Community College for the first time in the Fall of 1984. This cohort was chosen because it makes it possible to track a group of students for a ten year period which will shed light on the way the community college is used. It will become clearer whether or not Adelman(1992)is correct in his suggestion that community college students do, indeed, enroll, stop out and re-enroll using the community college as they would use other social institutions such as churches and museums.

From these 1800 students the 300 entering with a GED were matched on the age

variable with those entering for the first time with a traditional high school diploma.

Matching for age was done because the youngest GED student in this cohort was 27 years old which corresponds to the mean age of students, generally, at BCCC. While age may or may not have an impact on academic success, it is probably prudent to take age into consideration when comparing these two groups.

This particular cohort was chosen because their transcripts would reflect any and all contact with the institution from 1984 through 1994. If Adelman (1992, 2) is correct in his assumptions about the way the community college is used, then monitoring a student's progress over a ten year period should reflect that those who wanted degrees obtained them and that those who wished to use the institution for purposes other than a degree were able to do that as well.

## **PROCEDURES**

A letter was sent to Dr. James D. Tschechtlin, President of Baltimore City Community College, asking for permission to use student records for this study. Permission was granted and the registrar was contacted to begin the data collection process.

The registrar generated two lists--one list of all students who entered with a GED for the first time in the Fall of 1984 and a second list of all high school graduates who entered at the same time. These initial lists contained the students names, social security

numbers, age, race and sex. All GED students were chosen as participants and a random sample of high school graduates was chosen from the remaining pool of students who were age 27 or older. There were no students chosen from the 18-26 age group or from the students for whom English is a second language because none of the GED holders fit into either of those categories.

The list of GED students and the list of high school graduates was returned to the registrar and from these lists 622 transcripts were generated. From the transcripts, the following data were collected and analyzed.

- Demographics--age, race, sex
- Diploma Status--traditional high school diploma, GED
- Course Work--number of courses attempted, number of courses completed, college level, developmental, non- credit, combination of developmental and college level
- Academic Standing--with good standing being defined as a grade point average of 2.0 or better
- Graduation Status--received a degree or certificate, did not receive a degree or certificate
- Enrollment--continuous, student “stopped out” and re-enrolled, student dropped out and did not return
- Prison Status--student matriculated while incarcerated, student was not incarcerated
- Date of Last Enrollment
- Grade Point Average

The statistical methods employed were primarily descriptive and measures of association such as Chi-Square. Other data, such as grade point average, were via mean comparisons.

## DESIGN

Descriptive statistical techniques were used to analyze data on the academic success of the students under investigation. The independent variables were the high school diploma and the general educational development diploma (GED). The research questions from which the dependent variables stem have been analyzed using Chi-square to determine the relationships between the nominal and/or ordinal variables under investigation. Grade point average was the only variable that lends itself to analysis through measures of central tendency.

The Chi-square Test of Independence was used to discover if there was a relationship between the GED and high school graduate on each of the following variables:

- patterns of enrollment
- course placement
- academic good standing
- graduation

These analyses explain how successfully both the high school and the GED graduate matriculated and then exited the institution. The underlying assumption is that community college students enroll, “stop out” and re-enroll many times over the course of their academic careers. It is further assumed that their reason for leaving is something other than a failure to complete the courses attempted with at least a 2.0 grade point average.

So, in order to accurately describe the academic success or failure of these two

groups, it was necessary to examine where they were placed upon entering the institution, their patterns of enrollment and their academic standing after completion of course work. Just so that a truly accurate picture would be painted graduation rates were also analyzed even though it is commonly thought that community college students seldom graduate from these institutions.

By examining where they were placed upon entry, one can make some assumptions about how prepared for college level work each group is. Placement in developmental English and/or math would imply a lack of preparedness for college level work and might help to explain any lack of success.

Patterns of enrollment help to describe the students intent. Some students enrolled for consecutive semesters, completed a degree or certificate program and then left. Others enrolled, off and on, over a period of many years indicating that personal enrichment, job enhancement and/or lifelong learning was their goal. Still others enrolled, successfully completed a semester or two and then disappeared from the rolls indicating that they achieved whatever short term goal they had set. Perhaps they transferred to a four year institution. Perhaps their employer required an upgrading of skills or perhaps they were unsuccessful in accomplishing their goals.

An analysis of academic good standing must be part of the description of these student's success or failure. It is important to know whether the student left the institution because he/she had achieved his/her goals or because he/she had been

unsuccessful. Examination of academic standing helps to determine whether or not the student can claim success.

The Maryland Higher Education Commission (MHEC) has decreed that a student with a 2.0 grade point average is a student in academic good standing. So, those students who leave the community college with a 2.0 GPA or better have been academically successful by MHEC and institutional standards.

In addition to graduation rate, course placement, patterns of enrollment and academic good standing, several other variables were examined to complete the picture of the academic success rate of GED and high school graduates in Maryland community colleges. Because the community college serves in many occasional roles (Adelman, 1992) and not necessarily as the first two years of a baccalaureate degree, it was highly appropriate to focus on the ratio of courses attempted to courses completed. Even if the average student's intent was not to graduate, it is a safe assumption that he/she intended to complete a course if he/she registered and paid for a course. Having completed course work in academic good standing constitutes the best definition of academic success.

In addition to the above analyses which were the focal points of the study, some analysis was done on other data collected from the transcript. These data were not directly related to the subject of the investigation, but may paint a clearer picture of the community college student in general and the GED student in particular. Race and sex

were examined using Chi-Square, but neither was expected to have a great impact on other findings and it appears that BCCC has a prison program and there may be some relationship between being incarcerated and other variables such as graduation, academic good standing, grade point average and patterns of enrollment.

An analysis of these possible relationships was done to determine whether being in prison rather than on campus has any impact on the variables under investigation. It is hoped that the outcome of the data analysis has accomplish two things: (1) an accurate description of the academic success rate of GED and high school graduates in community colleges, and (2) an accurate description of how the community college is used.

## **CHAPTER IV**

### **RESULTS**

This chapter outlines the salient aspects of the findings resulting from the analysis of the data gathered in response to the research questions presented in the previous chapter. Overall, and as expected, there were few differences between the GED holders and the high school graduates on the educational attainment and outcome variables measured in this study. In fact most of the differences were statistically insignificant.

The variables where virtually no differences were found include enrollment and departure patterns, the number of courses attempted and completed, academic good standing or dismissal, graduation, grade point average and the time it took to obtain a degree. Furthermore, measuring traditional demographic indicators, such as age, sex and race generated no differences between high school graduates and GED holders on any of the academic outcome measures. The one variable where a statistically significant difference emerged was the placement in college level and developmental courses.

### **DEMOGRAPHICS**

#### **Race**

Because concentration was on those students who had a GED--all of whom were either African American or white--all of the students in the study are either African American or white. The cohort is typical of Maryland community college students in that

the majority of the students are female and about 27 years of age. Baltimore City Community College is situated in an urban setting and its students are also predominantly African American. (See Table 7).

### **Age**

The average age of a community college student is 27 and the 1984 cohort follows this pattern. The cohort was divided into three age groups, 26-35, 36-45 and 46 and older. The GED students had slightly fewer members in the 26-35 age group and slightly more in the 36-45 age group. Both the GED and high school graduates were similar in the forty six and over age group (See Table 7).

### **Sex**

The two groups were similarly matched in terms of sex. As is typical in a community college the cohort was predominantly female. The females outnumbered the males by 14%.

## **PROFILE OF COURSE ENROLLMENT**

Before the discussion of the variables under investigation, it is important to briefly discuss the nature of the courses in which the students enrolled. A simple frequency analysis shows that the majority of this cohort is enrolled in occupational courses and programs.

**Table 7 GED and High School Diploma by Race, Sex and Age**

DEMOGRAPHICS	DIPLOMA			
	GED		HIGH SCHOOL	
	NUMBER	PERCENT	NUMBER	PERCENT
RACE (A-A)	215	67%	238	74%
(WHITE)	105	33%	82	26%
SEX (FEMALE)	182	57%	181	57%
(MALE)	138	43%	139	43%
AGE (26-35)	106	33%	112	35%
(36-45)	122	38%	117	37%
(46+)	90	28%	90	28%
TOTAL COHORT=640	320	59%	320	50%

Their choices fell into three sub-categories within the occupational program group. A small number (4%) was enrolled in what could be categorized as personal enrichment courses. The three occupational categories are: (1) programs that could transfer to four year colleges, such as business administration and Criminal Justice; (2) terminal programs that lead directly to employment, such as physical therapy, computer technology and fashion design; and, (3) courses for upgrading job skills, such as air conditioning and heating, drafting, electronics technology and building and construction. The personal enrichment category includes courses such as sculpting, playing musical

instruments, word processing, the INTERNET and photography.

This overall description of the cohort and their course/program preferences should illuminate the discussion of the other variables. Following is an analysis of the remaining variables under investigation.

### **PLACEMENT**

As expected the analysis of the data revealed that there was no statistically significant difference between the GED and high school graduate with respect to either their rate of academic success or how they used the community college. On the course placement variable the GED and high school graduates placed in developmental courses at the same rate. However, there are some statistically significant differences between the two groups with respect to where they placed in college level courses and where they placed in a combination of college level and developmental courses. Two-thirds of the high school graduates placed solely in college level courses while only half of the GED graduates placed solely in these courses (chi-square=17,  $p < .001$ ). Fifteen percent more of the 320 GED holders placed in a combination of developmental and college level courses than did the 320 high school graduates. The 15% difference is significant at the .05 level with a chi-square value of 17 and a “p” value of .00.

**Table 1 Course Placement by Diploma**

Diploma	Solely College Level		Combination College Level & Developmental		Solely Developmental	
	#	%	#	%	#	%
High School	209	(65%)	98	(31%)	13	(4%)
GED	159	(50%)	148	(46%)	13	(4%)
TOTALS	368	(56%)	246	(38%)	26	(4%)

**PATTERNS OF ENROLLMENT**

There was no statistically significant difference between the two groups with respect to their patterns of enrollment. Both the GED and the high school graduates enrolled for consecutive semesters, “stopped out” and/or dropped out at equal rates as evidenced by a chi-square value of .79 and a “p” value of .67.

**Table 2 Patterns of Enrollment by Diploma**

Diploma	Consecutive Enrollment		“Stopped Out”		Dropped Out	
	#	%	#	%	#	%
High School	125	(39%)	105	(33%)	90	(28%)
GED	136	(43%)	100	(31%)	84	(26%)
TOTAL COHORT	261	(41%)	205	(32%)	174	(27%)

Those who matriculated for a degree, completed general education requirements or certificate requirements tended to enroll for two or more consecutive semesters, regardless of whether they entered with a GED or a high school diploma. Those who “stopped out” and re-enrolled and those who dropped out and did not return did so at approximately equal rates. The forty-one percent of the total cohort enrolled for consecutive semesters was comprised of 39% of the high school graduates and 43% of the GED group. The thirty-two percent of the total cohort that stopped out and re-enrolled over the course of the ten years was comprised of the high school diploma holders and 16% of the GED group. The twenty-seven percent that dropped out and did not return were comprised of 13% of the high school graduates and 14% of the GED group.

### **ACADEMIC GOOD STANDING**

The truly critical question in determining success is whether or not students who left the institution left in academic good standing. When they left, had they chosen to return or to transfer to another institution, would they have been able to do so? On this variable there was no significant difference between the two groups with the chi-square=1.0 and p=.30.

**Table 3      Academic Good Standing by Diploma**

Diploma	Yes (AGS)		No (AGS)	
	Number	Percent	Number	Percent
High School	177	(55%)	143	(45%)
GED	164	(52%)	156	(49%)
TOTAL COHORT	329	(53%)	293	(47%)

Fifty-three percent of the total cohort left the college in academic good standing with a grade point average of 2.0 or better. It is important to note that almost half (47%) of the total cohort left the institution via academic dismissal. Table 3 shows that there was no difference between the high school graduates and the GED holders on their academic status when leaving the college. Both groups succeeded or failed at approximately equal rates.

While there was no statistically significant difference between the GED and high school graduate on academic good standing, it is significant that 60% of the students enrolled in a combination of developmental and college level courses were unable to complete those courses with a grade of “C” or better. Students who enrolled in college level courses exclusively had a much higher academic success rate, completing courses with a grade of “C” or better in 70% of the cases. Only 4% of the cohort enrolled, solely, in developmental course, but of that 4% and 50% of them exited in academic good standing. There was little or no correlation between having a high school diploma or GED and academic success (Chi-square=.30, p=.00).

**Table 3A Academic Good Standing By Course Level**

COURSES	AGS (YES)		AGS (NO)	
	NUMBER	PERCENT	NUMBER	PERCENT
	COLLEGE LEVEL	239	70%	130
DEVELOPMENTAL	5	2%	21	7%
COMBINATION	99	29%	149	50%
TOTALS	343	55%	300	45%

Another finding, while serendipitous, is important in a discussion of academic outcomes. Students enrolled in a combination of developmental and college level courses failed 15% more than those enrolled solely in college level courses.

**GRADUATION**

While graduation is not the focus of academic success in the community college, it is certainly an indicator of success so data has been gathered on this variable. As was expected graduation was not the most common means of exiting the college. Only 76 (12%) of the students received degrees or certificates. This means that the overwhelming majority of students (88%) left without a degree or certificate (See Table 4). The data support the assumption that few community college students actually matriculate for a

degree. Twelve percent of the 1984 cohort earned degrees or certificates. Of this 12% who graduated, 35 were high school graduates and 41 were GED recipients who had earned their GED while incarcerated and then begun taking college courses. There is no significant difference between the two groups on the graduation variable (chi-square = .53, “p”=.5).

**Table 4      Graduation by Diploma**

Diploma	Yes (Obtained Degree)		No (Did Not Obtain Degree)	
	Number	Percent	Number	Percent
High School	35	. . (11%)	285	(89%)
GED	41	. (13%)	279	(87%)
Cohort Total	76	(12%)	564	(88%)

**COURSES ATTEMPTED/COURSES COMPLETED**

Some other factors that help to describe the cohort more fully were also explored. In conjunction with academic good standing it proved helpful to investigate the number of courses attempted as compared to those completed with a grade of “C” or better. As it was stated earlier, it is relatively safe to assume that a student would not register and pay for a course that he/she did not intend to complete.

Students with a GED attempted, on the average, about 11 courses and successfully

completed 6 courses with a grade of “C” or better. High school graduates attempted approximately 9 courses and completed 5. Both groups completed approximately 55% of courses attempted even though GED students attempted more courses than their high school counterparts (See Table 5).

**Table 5 Mean Number of Courses Attempted and Courses Completed**

Diploma	Mean # of Courses Attempted	Mean # of Courses Completed	Ratio
High School	9	5	.555
GED	11	6	.545

With respect to the amount of time it took to obtain a degree, there was also no significant difference between the two groups. Both GED and high school graduates who earned degrees tended to enroll for two or more consecutive semesters until the degree requirements had been met. After completing the degree requirements these students exited the institution and did not return.

**GRADE POINT AVERAGE (GPA)**

The most disappointing discovery in this study is that while those students who persisted to graduation or course completion were successful, half the cohort was unsuccessful. The grade point average reveals this more clearly than any other statistic. Overall the cohort's GPA was 1.7 which is extremely low by the study standards, by the

institutions standards and by state standards. The GED student's mean GPA matched that of the total cohort at 1.7 and the high school graduates were slightly higher at 1.8. (See Table 6)

**Table 6      Mean Grade Point Average**

GED	1.7
High School Graduates	1.8
Total Cohort	1.7

**DEMOGRAPHICS AND ACADEMIC GOOD STANDING**

Finally, it does not appear that the age, sex or race variables have any significant impact on the rate of academic succes of either the GED or the high school graduates. The breakdown of the sample on race, age and sex was typical of community college student characteristics. Baltimore City Community College’s student body, as is that of most urban community colleges, predominantly female and African-American with the mean age being twenty-seven. It is not unusual that African-American females in the 26-35 age group showed the highest rate of academic success (Astin,1985; Zwerling, 1986)

**Race.**

On the major variable, academic good standing, 221 African Americans left the college with a grade point average of 2.0 or higher and are eligible to return if they should

choose to do so. One hundred twenty-two of the white students left in academic good standing. Two hundred thirty-four of the African American students and 66 of the white students were academically dismissed. A chi-square value of 14 and a “p” value of .00 shows that there is no statistically significant difference between the two groups on race and academic good standing (See Table 8).

Of the 76 students who earned degrees, 46 were African American and 26 were Caucasian. Both groups tended to enroll for consecutive semesters, “stop out” and drop out at similar rates.

### Age

On the academic good standing variable, there was no significant difference between the GED and high school graduates when taking age into consideration. In both groups those who left the college in academic good standing were, for the most part, between the ages of 26 and 45. The students in this age group represent 65% of the total cohort in academic good standing. Another 35% were between the ages of 46 and 55. Three percent were over the age of 55 (See Table 8).

### Sex

On the academic good standing variable, the two groups were also very similar in outcomes. Thirty percent of the females had grade point averages of 2.0 or higher and 23% of the males (See Table 8).

Of the seventy-two students who graduated, 46 were male and 26 were female.

This is interesting because it is the only variable on which the males outnumbered the females. It appears that the males matriculated for a degree twice as often as the females (See Table 8).

## **PRISON**

While it was not the original intent of the study to examine this variable, it became clear upon examining the student transcripts that a number of students were incarcerated. It was determined that while this variable probably had no significant effect on the outcomes of the study, it should not be overlooked.

Forty seven of the total cohort were incarcerated at the time that they matriculated at BCCC. Only one of the high school graduates was in prison. The other 46 prisoners were students who had earned their GEDs and college credits after having been imprisoned. Seventeen percent of the prisoners obtained Associate in Arts Degrees.

The data has presented a picture of the high school graduate and the GED holder at BCCC. Chapter V will detail what conclusions can be drawn from the data.

**Table 8 Academic Good Standing By Race, Sex and Age**

DEMOGRAPHICS	ACADEMIC GOOD STANDING			
	YES		NO	
	NUMBER	PERCENT	NUMBER	PERCENT
RACE (A-A)	221	(65%)	234	(78%)
(WHITE)	122	(37%)	66	(22%)
SEX (FEMALE)	199	(58%)	167	(56%)
(MALE)	144	(42%)	133	(44%)
AGE (26-35)	93	(27%)	125	(42%)
(36-45)	129	(38%)	112	(38%)
(45+)	117	(35%)	62	(21%)
TOTAL COHORT = 620	341	(53%)	299	(47%)

## CHAPTER V

### DISCUSSION OF THE FINDINGS

#### Summary

Interpretation and suggestions of possible reasons for the findings reported in the previous chapter are presented in this chapter. The data support the original assumption that GED holders fair as well as high school graduates in community colleges. The data also give some credence to the notion that community college students use the institution in occasional roles that meet their immediate needs such as upgrading of job skills, personal enrichment or simply the desire to gain knowledge on a particular subject.

The fact that both groups either succeeded or failed at equal rates is an indication that the GED, which is normed on the performance of the top 30% of high school seniors, prepares students for college work at least as well as the traditional high school diploma. It is not clear from the data why the number of high school graduates who placed, solely, in college level courses is 31% higher than the GED graduates. This higher initial placement did not result in a higher success rate for the high school graduates. There are, undoubtedly, other factors not evident in a transcript that would explain the success and/or failure of the community college student.

Students who wanted a degree tended to enroll, finish the necessary course work and leave the institution. Both the high school graduates and the GED holders who were

degree seeking students seemed to be motivated to complete their studies without interruption.

As expected a very small percentage of the students actually graduated but over half the total cohort were in academic good standing when they exited the institution. For those who persisted either to graduation or to the completion of course work, the method of preparation had little effect. The converse is also true. Those who were academically dismissed were a cross section of students who placed in college level, developmental and a combination of college level and developmental courses. They were equally distributed among the GED and the high school graduates. Those who did not persist tended to be those who were ill prepared for college level work as evidenced by placement in developmental courses and they were distributed equally among the two groups.

Those who obtained degrees did so by enrolling for two or more consecutive semesters but the bulk of the students in academic good standing did not graduate but “stopped out” and re-enrolled several times over the ten year period. It would appear that students whose goal is graduation do so without interruption. This not to say that potential graduates always matriculate for consecutive semesters, but that this appears to be the norm. Those who were academically dismissed, generally left within the first or second semester. Over the ten year period, however, some of these students who were initially academically dismissed did return and manage to be successful.

While the GED students attempted more courses than the high school graduates, both groups completed the courses attempted at approximately the same rate. The most telling statistics for both groups are: (1) that approximately half of both groups were not persistent and were academically dismissed: and, (2) the mean grade point average for both groups was below 2.0. This has grave implications for enrollment management and retention and warrants further study.

Where this study differs from similar studies is in the discovery that approximately fifty percent of the cohort did not complete the courses that they attempted. It did not seem to matter what educational background the students had--GED or traditional high school diploma--half the students failed. This is an alarming number and certainly warrants further investigation.

### **Conclusions**

“To develop a college for the diversified student body that presents itself at the open door of the community college is a formidable task. The Array of talents and goals is great. There is the average student who is not quite sure he can make it at the university; there is the bright one who can’t afford to leave home and a job to go away to college; there is the poor student who lacks even the basic learning skills but who recognized the importance of preparing for a career; and there is the student from a minority group who sees the community college as a bridge to equal opportunities. There is the housewife who seeks cultural enrichment and the technologically obsolete family man who wants job retraining. It is no wonder that community colleges have added the word “comprehensive” to their titles.” (Cross, 1969, 2)

The Baltimore City Community College student body is characteristically different than one might expect a four year college’s student body to be, but it is typical

of other community colleges. They bring a diverse background to the educational experience in terms of their intellectual preparedness and their academic expectations and goals.

The 1984 cohort at BCCC is representative of other community college students in that they symbolize America's attempt to extend higher education to all segments of society. They are, largely, minority students who are older--the mean age of a community college student is 27--and part time. With this diversity in student population has come a need for flexibility and diversity in programming to accommodate discontinuity in enrollment.

These students challenge the notion that schooling must occur in a fixed time frame over a prescribed number of semesters. These older students have well established lives involving home, job and family. Their course preferences support the idea that they use the community college as a vehicle for either changing their lives or as a vehicle for exploring possibilities for change. These students were, generally, not attracted to General Education programs, but preferred more practical courses that provided "hands-on" experience or that took advantage of experiences already acquired through living and working.

They enrolled for the most part in occupational courses and programs with business administration and criminal justice being the most popular among transfer programs, with nursing, dental hygiene, physical therapy and computer science being

most popular among terminal programs and with drafting, building and construction, air conditioning and heating and electronics being the most popular among the programs specifically designed for the upgrading of job skills.

The 56% of the cohort who were prepared to take college level courses enrolled primarily in Business Administration and Criminal Justice. A small percentage was disbursed in the allied health, technical and trade curricula. The majority of the 38% who tested into a combination of developmental and college level courses largely declared majors in the same areas as their college level counterparts.

Patterns of enrollment indicate that the students did not complete many of these programs, but merely took one or more courses before leaving the institution. A critical question not answered by the data is whether or not it was the student's intention to matriculate for a degree or merely to comply with the college's policy that students applying for admission must declare a major. The 13% who actually graduated obtained degrees, primarily, in Business Administration, Criminal Justice and General Studies.

It is interesting to note that 16% or 12 of the 76 graduates were African American males who were incarcerated at the time that they were awarded their degrees and that they had gotten their GED diploma and a college degree while in prison. While the data do not suggest that incarceration is the key to academic success, it is important to note certain factors of prison life that may be largely absent from the lives of the average community college student. The prisoners have ample time to study, reflect, complete

assignments and get individual assistance from counselors and teachers. Materials necessary to teaching and learning are readily available. There are fewer distractions to prevent concentration on studies and class size is small. This type of learning environment is crucial, especially for students who may be at risk. College administrators should consider the needs of students for this type of support and develop programs that will help students succeed.

It was expected that observing this cohort over a ten year period would demonstrate that these students might take up to ten years to complete a degree. This was not the case. Of the 72 who graduated, less than 2% “stopped” out and re-enrolled before attaining the degree. Thirty percent of this group did, however, take additional course work after the degree had been awarded. The few who did “stop out” and re-enroll tended to take one course at a time. The courses were, generally, job related (drafting, real estate, WordPerfect), designed to upgrade skills (math 100, English 50) or personal enrichment (drawing, piano). The 88% who did not obtain degrees did, indeed, matriculate over the ten year period, “stopping out” and re-enrolling as expected.

The troubling statistic is the grade point average. While 53% of these students left the college in academic good standing with a grade point average of 2.0 or higher, 47% had less than a 2.0. There was no significant difference in GPA for the two groups with the GED graduates having a GPA of 1.7 and the high school graduates having a GPA of 1.8. However, it is significant that almost half of the 1984 cohort must be

considered unsuccessful by the stated definition of success. What does this mean for the institution and for students who choose the community college to meet their educational needs?

Educators and researchers seem to be ignoring the fact that this diverse population with its varying languages, belief systems, life experiences, ambitions and aspirations do not always embrace the same values that American higher education has traditionally adopted. If one is going to discuss the academic success of the community college student, then one must rid oneself of the notion that community college students have the same goals and needs as the four year college student. A realistic view of the students abilities and his/her purpose in attending the institution is necessary in order to plan programs and course offerings that will foster the success of these students.

According to Cohen and Brawer (1982) the community college student of the 80s is more concerned with occupational preparation than with transfer to four year colleges. The data collected in this study supports Cohen and Brawer's assertion.

Based on the findings of this study it seems that the institution, not the student, has reduced the student's opportunity for academic and intellectual exploration. There are several administrative policies that make it difficult for the student to appear successful.

First, the student is obliged to declare a major whether or not he/she intends to major in a discipline. When the student declares Computer Science as his/her major,

takes one word processing course and then leaves the institution, neither the student nor the institution has failed but institutional data will list this student as a dropout. The student's immediate educational goal has been met and it was probably never his/her intent to obtain a degree so it would be prudent for the college to use some other measure of identifying those students who complete courses successfully but do not matriculate for a degree.

Second, school policy and Federal Law requires that students enroll full time (12 or more credit hours) in order to receive financial aid benefits and the institution does not offer 12 credits of remediation. So, a student who needs to be full time to receive aid must take as many as six credit hours of college level course work along with the developmental courses. If the student's deficiency happens to be in either writing or reading, it is unlikely that he/she will be able to pass a college level course since most college level courses require college level reading and writing skills.

This was borne out by the data. Those students who were enrolled in a combination of developmental and college level courses tended to be those students who were academically dismissed. It would behoove the college administration to create a complete developmental program that would allow students to enroll full time in remedial courses. College level course work should not be attempted until the student has acquired the requisite writing and computational skills necessary for college level work.

With respect to the high rate of failure or academic dismissal, the college

administration needs to examine its policies and practices that set the students up for failure. If a large part of the community college's mission is going to be helping students to acquire writing, reading and computation skills, then a large part of the college's resources, physical, fiscal and human should be redirected into the developmental area.

Faculty development and retraining must become a top priority, or at the very least, new faculty who can deal with cultural diversity and lack of academic preparedness must be hired. New teaching methods must be explored and technology employed where appropriate.

### **Further Study**

The high school graduates and the GED holders appear to have similar levels of basic academic skills in their preparation for a college environment. To some limited extent the high school graduates possess better academic skills--14% more of the high school graduates placed in college level courses--however, they generally did not translate that difference into a greater degree of educational attainment. Perhaps the difference was a result of the small sample size and a repetition of this study using a larger sample would shed light on this issue.

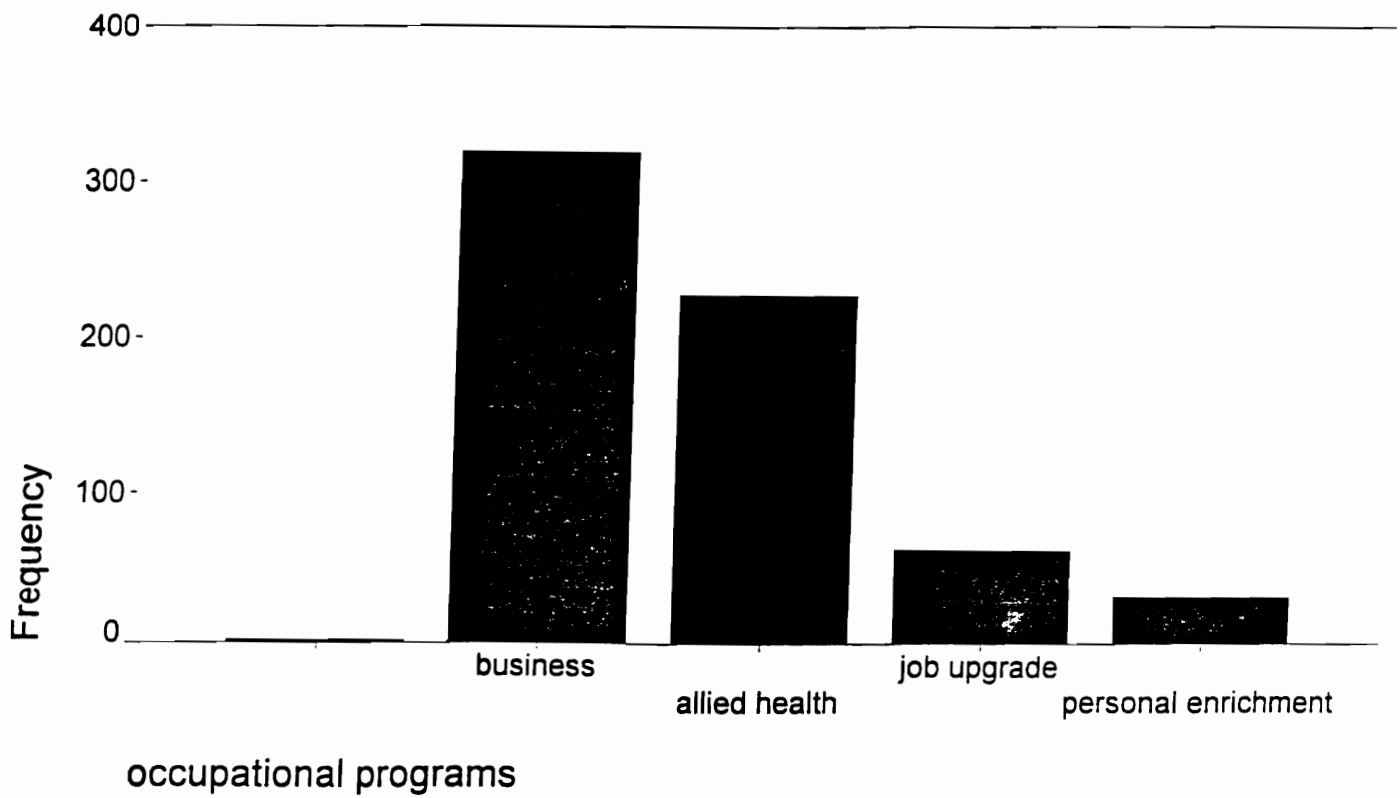
In those cases where students were unsuccessful, it was largely because they dropped out before completing the course. Perhaps intervention by counselors both before registration and during matriculation might prove helpful. Other studies have shown that students leave the community college for reasons other than academic

unpreparedness. Many have financial problems. Many find employment, Many have family problems such as aging parents or small children who require their presence. A qualitative study that would involve interviewing the students directly would prove invaluable in suggesting answers to why students leave before completing what they started.

## APPENDIX A

### Curriculum Preferences

The following chart depicts the frequency with which the cohort chose occupational programs, job skills upgrades or personal enrichment courses.



## REFERENCES

- ABE/GED in community colleges: A national study. Washington, DC: Office of Vocational and Adult Education.
- ACE adult education report: ACE to launch new high school equivalency degree program in 1992. (1990). Educational Record. 71, 52.
- Adelman, C. (1992). The Way we are: The community college as American thermometer. Washington, DC: U.S. Department of Education.
- Adult basic education and the welfare roles: An economic and social alternative. (1981). Harrisburg, PA: Pennsylvania Association for Adult and Continuing Education.
- Albert, Roy D. (1975). A study of high school equivalency certificate holders who attended Bristol Community College between 1969 and 1973. Unpublished doctoral dissertation, University of Northern Colorado.
- American Council on Education. 1986. The 1986 GED statistical report. Washington, DC: ACE.
- American Council on Education. 1987. The 1987 GED statistical report. Washington, DC: ACE.
- Astin, A. W. (1985). Achieving educational excellence. San Francisco: Jossey-Bass.
- Ayers, C. V. (1983). An Educational and employment growth study of General Educational Development (GED) graduates of Surrey Community College. Unpublished doctoral dissertation, NOVA University.
- Beckett, G. (1985). GED program on campus works. Portsmouth, Ohio: Shawnee State Community College.
- Beder, H. (1992). What has happened to Iowa's GED graduates? Des Moines, Iowa: State Department of Education.

- Behal, E. L. (1983). After the GED tests: post-secondary education enrollment patterns and perceptions of GED examinees. Washington, DC: ACE, GED Testing Service.
- Beltzer, S. (1985). Persistence of GED and traditional students at a public community college. Washington, DC: GED Testing Service.
- Berstein, A. (1986). The Devaluation of transfer: current explanations and possible causes. In, L. S. Zwerling, The Community college and its critics (pp 31-40). San Francisco: Jossey-Bass,
- Bierman, C. A. and Platt, N. D. (1992). A Community college support seminar for GED freshman. *Journal of College Science Teaching*. 22, 89-91.
- Bigby, W. E. (1989). The Relationship between the General Educational Development Test and success in a community college in Washington State. Unpublished doctoral dissertation, University of Washington.
- Birenbaum, W. M. (1986). From mass to class in higher education". In, L. S Zwerling. The Community College and Its Critics (pp 3-12) San Francisco: Jossey-Bass.
- Brasel, M. D. (1983). Writing skills and the GED. *Teaching English in the two-year college*. 10, 63-65.
- Brint, S. and Karabel, J. (1989). The Diverted dream: community colleges and the promise of educational opportunity in America, 1900-1985. New York: Oxford University Press.
- Byrd, F, Hayes, E., Hendrix, J., Simpson, D and Cluster, B. (1973). A Comparison of the educational success of GED recipients and traditional high school graduates in selected areas of Wilkes Community College. Unpublished doctoral dissertation, NOVA University.
- Cameron, S. V. and Heckman, J. J. (1992). The Non-equivalence of high school equivalents. Unpublished manuscript, University of Chicago.
- Carbol, B. C. (1987). Alberta GED candidates: program perceptions, benefits and test performance. Unpublished doctoral dissertation, University of Alberta, Alberta Canada.

Carson, B. W. (1986). Acceptance of General Educational Development (GED) in hiring policies of Denver area employers (GED Research Brief, #11) Washington, DC: American Council on Education.

Celebrities launch national GED hotline to increase test accessibility. (1991). Educational Record. 72, 66.

Celis, W. (1994, January 5). High school equivalency test poses a new question: will taking it matter? *New York Times*, Education. D, 23, 1.

Cervero, R. M. and Peterson, N. L. (1982). After the GED tests: employment and training activities of GED examinees. Research Studies #4. Washington, DC: GED Testing Service.

Cervero, R. M. (1983). A National survey of GED test candidates: preparation, performance and 18-month outcomes. *Adult Literacy and Basic Education*. 7(1), 13-29.

Clark, A. (1982). The Self-concepts and occupational aspirations of ABE and GED students. *Adult Literacy and Basic Education*. 6(3), 189-194.

Clark, R. S. (1987). Academic achievement of GED graduates of the Community College of Alleghany County (ERIC document #ED284050).

Clowes, D and Levin, B. H. (1989). Community college mission: an ideology out of balance. *VCCA Journal*.4,10.

Colert, S. (1989). A Study of the academic achievement attrition and group reactions of high school equivalency students attending Brandon University. Unpublished doctoral dissertation, NOVA University.

Colert, S. (1983). High school equivalency and high school diploma students at Brandon University: a comparison of academic success (GED Research Brief #5) Washington, DC: GED Testing Service.

Collaborative partnerships in Maryland to reduce adult illiteracy. 1987. (ERIC document #ED290958).

- Collison, M. N. K. (1990). 25% decline in number of GED diplomas stirs fears over future adult enrollment. *The Chronicle of Higher Education*. 36(46), A25.
- Cope, R. G. and Hannah, W. (1936). Revolving college doors: the causes and consequences of dropping out, stopping out and transferring. New York: Wiley.
- Corley, M. A. (1992). The GED teacher as facilitator of learning: A contradiction of terms? *Adult Learning*. 6, 17-18.
- Cross, K. P. (1969). The Quiet Revolution, In, The Research Reporter, Vol. IV, Number 3. Berkeley: The Center for Research and Development in Higher Education, University of California.
- D'Amico, L. A. (1953). The Comparative achievement of veterans admitted to Indiana University on the basis of General Educational Development Tests and a selected group of other Indiana University students. Unpublished doctoral dissertation, University of Indiana.
- Dauzat, S.V. and Dauzat, T. A. (1987). A New GED: gearing up for change. *Lifelong Learning*. 10, 27-30.
- Doran, L. D. (1987). Access for adults: the Tennessee State University and Community College System's initiatives for serving the academically under prepared adults. Paper presented at the annual meeting of the American Association for Adult and Continuing Education. Washington, DC.
- Dougherty, K. (1986). The Effects of community colleges: Aid or hindrance to socioeconomic attainment? *Sociology of Education*, 60, 86-103.
- Dressel, P. J. and Schmid, J. (1951). An Evaluation of the Tests of General Educational Development. Washington, DC: American Council on Education.
- The GED: a growing alternative route to higher education. (1989). *Change*. 21, 35-39.
- The GED and alternative degree programs: how to get a second chance. (1992). *Adult Learning*. 3(8), 29.
- GED credibility and acceptability. (1990). ERIC document #ED289061.
- GED graduates show high literacy skills. (1994). *Supervision*. 52(12), 12.

GED study, we're making tomorrow: adult basic education. (1982). Palos Hills, Illinois: moraine Valley Community College, Office of Institutional Research. Unpublished manuscript.

GED test questions slated to get harder. (1956). *AF Times*. 16, 3.

Grady, D. K. (1983). The Academic performance of General Educational Development entrants compared with high school diploma entrants to Broward Community College, 1980-1983. Unpublished doctoral dissertation, Florida Atlantic University.

Grubb, W. N. (1988). Vocationalizing higher education: the causes of enrollment and completion in two-year colleges, 1970-1980. *Economics of Education Review*. 7, 301-319.

Handbook for General Educational Development (GED) Examiners. (1984). Sacramento, California: State Department of Education.

Hannah, W. C. (1972). Achievement and dropout rates of GED students and high school graduates from Alabama junior colleges. Unpublished doctoral dissertation, Mississippi State University.

Harris, I. et al. (1983). Success with high school dropouts. *Educational Leadership*. 40(6), 35-36.

Hartwig, J. (1985). Bright horizons: Iowa GED writing skills pilot project. Final Report. Des Moines: Iowa State Department of Public Instruction.

Hartwig, J. (1982). The GED experience: reaching out to people. Final report of Iowa's experimental GED test structure. Des Moines, Iowa: State Department of Public Instruction.

Hayes, E. (1991). Follow-up study of 1989 GED recipients in Wisconsin: final report. Madison, Wisconsin: Department of Continuing and Vocational Education.

High school equivalency test, focus of rising skepticism. (1992, October). *New York Times*. B, 14.

Hull, W. L. And Sechler, J. A. (1987). Adult literacy: skills for the American workforce. (Research and Development Series #265B). Columbus, Ohio: State University, Center for Research in Vocational Education.

Iowa's norming study of the Tests of General Educational Development. Final Report. (1989). Des Moines, Iowa: State Department of Education.

Karabel, J. (1986). "Community colleges and social stratification in the 1980s". In, L. S. Zwerling, The Community college and its critics.(pp 13-30). San Francisco: Jossey-Bass.

Kiester, E. Jr. (1978). Ralph Tyler: the educator's educator. *Change*. 28, 35.

Klein, J. D. and Grise, P. J. (1988). Examining the success of GED diploma holders in Florida's community colleges. *Community/Junior College Quarterly of Research and Practice*. 12(4), 305-309.

Klein, J. D. And Grise, P. J. (1987). GED and traditional high school diploma holders attending Florida's community colleges: a comparison of academic success. (GED Research Brief #12). Washington, DC: American Council on Education, GED Testing Service.

Ladner, R. A. (1986). Educational and occupational activities of GED and conventional high school graduates in Florida.(GED Research Brief #8). Washington, DC: American Council on Education.

Larson, G. A. et al. (1981). Toward a rationale and technical specifications for an adult high school equivalency exam. (Research Monograph #5). New Brunswick, NJ: Center for Adult Development.

Lowe, J. (1992). Half a century of service: GED celebrates fiftieth anniversary year. *GED Items*. 9, 1-12.

Lyle, B. (1988). The GED certification as an alternative credential in the U. S. Army enlistment process. *Adult Literacy and Basic Education*. 12(3), 142-150.

Malizio, A. G. and Whitney, D. R. (1985). Educational credentials in employment: a nationwide survey. Research Studies. Washington, DC: GED Testing Service.

Malizio, A. G. and Whitney, D. R. (1982). Examinee and high school senior performance on the GED tests: a detailed analysis. (GED Research Brief #3). Washington, DC: GED Testing Service.

Malizio, A. G. and Whitney, D. R. (1981). Who takes the GED tests? a national survey of Spring 1980 examinees. (Research Studies #1). Washington, DC: GED Testing Service.

Mathews, J. (1992, January 12). Study: GEDs fall short of diploma for jobs; certificate holders wages found substantially lower than those of high school graduates. *Washington Post*. A, 10.

McElroy, C. (1990). GED certification and college success. (ERIC document #339273).

Mickler, M. L. (1985). Interviews with Ralph W. Tyler. *Educational Forum*. 50(1), 23-46.

Mize, J. P. (1983). An Evaluation of the General Educational Development Program at Seminole Community College. (ERIC document #ED241075).

Moore, L. (1982). A Follow-up study of adults who were administered the general educational development test in Kentucky during 1976. (ERIC document #222583).

Moore, L. H. (1980). A Report on the findings of an adult client impact study: a five year follow-up. (ERIC document #208250).

Moore, R. T. and Davies, J. A. (1984). Predicting GED scores on the basis of expectancy, valance intelligence and pretest skill levels with the disadvantaged. *Educational and Psychological Measurements*. 54(2), 483-490.

Moore, S. (1973). Some comparisons between GED test entrants and high school graduates in junior colleges. Unpublished doctoral dissertation, University of Texas.

Moss, L. L. and Ferguson, W. F. (1987). GED scores of former drop outs compared by life cycle phases. *College Student Journal*. 21, 110-117.

Myth #4: GED is for dummies. (1988). Washington, DC: Institute for Educational

Leadership.

Nowakowski, J. R. (1983, May). On educational evaluation: a conversation with Ralph Tyler. *Educational Leadership*. 24-29.

Nearly one million GIs now studying under WWII bill. (1952). *All Hands*. 27, 50.

Owens, D. K. S. (1989). First semester college performance of GED graduates at the University of Alaska, Anchorage. (ERIC document #345014).

Passmore, D. L. (1987). Employment of young GED recipients. (GED Research Brief #14). Washington, DC: GED Testing Service

Pawasarat, J. and Quinn, L. M. (1986). The GED as a measure of readiness for employment. Milwaukee: University of Wisconsin, Employment and Training Institute.

Pawasarat, J. and Quin, L. M. (1986). Research on the GED credential and its use in Wisconsin. Milwaukee: University of Wisconsin, Employment and Training Institute.

Peterson, I. (1992, October 25). Less than full equivalency. *New York Times*. IV, 16, 5.

Pipho, C. (1967). The General Educational Development (GED) high school equivalency certificate program in Colorado. Unpublished doctoral dissertation, Colorado State College.

Pincus, F. L. (1986). "Occupational education: more false promises". In, L. S. Zwerling, The Community college and its critics,(pp 41-52). San Francisco: Jossey-Bass.

Quigley, B. A. (1987). The Canadianization of the GED: the history and development of the General Educational Development Testing Program in Canada. (Occasional Paper #1). Washington, DC: GED Testing Service.

Quigley, B. A. (1991). Exception and reward: the history and social policy development of the GED in the U. S. And Canada. *Adult Basic Education*. 1(1), 27-43.

Quinn, L. M. (1986). Are GED certificate holders ready for postsecondary education? *Metropolitan Education*. 2, 72-82.

- Quinn, L. M. et al. (1986). Literature survey of the use of the GED to measure readiness for postsecondary education. Milwaukee: University of Wisconsin, Employment and Training Institute.
- Quinn, L. M. (1986). Performance of GED holders enrolled at the University of Wisconsin's 13 campuses: 1979-1985. Milwaukee: University of Wisconsin, Employment and Training Institute.
- Reed, Naomi, V. (1984). Two years after the GED tests: employment, education and training activities of GED examinees. Paper presented at the National Adult Education Conference, Louisville, KY, November 6-10.
- Results of the 1989-1990 NETWORK survey of two-year college involvement in employment, training and literacy. (1990). Cleveland, OH: America's Two-Year College Employment, Training and Literacy Consortium.
- Richardson, Richard C. and Bender, Louis W. (1987). Fostering minority access and achievement in higher education: The role of the urban community college and universities, San Francisco: Jossey-Bass.
- Rogers, W. and Zanzalari, J. H. (1979). A Twenty-five year follow-up study of Middlesex County vocational and technical high school graduates of the class of June, 1953. New Brunswick, NJ: New Jersey State Department of Education.
- Roon, E. R. (1972). The Relationship between achievement levels and mode of admission of students at Metropolitan State College, Denver, Colorado. Unpublished doctoral dissertation, University of Northern Colorado.
- Rose, A. D. (1990). Preparing for veterans: higher education and the efforts to accredit the learning of World War II servicemen and women. *Adult Education Quarterly*. 42(1), 30-45.
- Rothman, R. (1990). GED officials urge policy changes to stem decline in number taking test. *Education Week*. 10(8), 4.
- Rothman, R. (1992). GED turning 50, eyes debate over student standards. *Education Week*. 11, 1-4.
- Rothman, R. (1992). Program to offer courses exams for high schools. *Education Week*. 11, 1, 15.

- Ryan, K., Johnston, J. and Newman, K. (1977, March). Ralph Tyler: education's Mr. Fix-it. *Phi Delta Kappan*. 540-543.
- Sabino, M. J. and Seaman, D. F. (1988). Follow-up of GED completers: an analysis of eight studies in the U. S. and Canada. *Lifelong Learning*. 11, 4-6.
- Scales, N. J. (1990). A Comparison of the academic achievement of high school graduate diploma students and GED-credentialed students in select junior college institutions in Alabama. Unpublished doctoral dissertation, University of Alabama.
- Schillo, P. A. (1990). A Comparison of the academic success of GED certificate students and high school graduates at Lorain County Community College. (ERIC document #ED324076).
- Seppanen, L. (1991). Adult basic education in Washington community colleges: A follow-up study. Olympia, Washington: State Board for Community Colleges.
- Sharon, A. T. (1972). The Non-high-school-graduate adult in college and his success as predicted by the Tests of General Educational Development. Princeton, NJ: Educational Testing Service.
- Smith, F. B. (1984). High school equivalency preparation for recent dropouts. *New Directions for Continuing Education*. 21, 41-54.
- Smith, G. S. And Goetz, E. T. (1988). Using the GED for college placement. *College and University*. 58, 360-367.
- Sound educational credit for military experience: a recommended program. (1943). Washington, DC: American Council on Education.
- Stanage, S. M. (1986). Unrestraining liberty: adult education and the empowerment of persons. *Adult Education Quarterly*. 36, 123-129.
- Stoker, H. W. (1986). Comparative performance of Florida seniors on the GED test battery. (GED Research Brief #10). Washington, DC: GED Testing Service.
- Stoker, H. W. (1986). Performance characteristics of Florida's early exit equivalency candidates. (GED Research Brief #9). Washington, DC: American Council on Education.

- Swarm, C. C. (1981). Three studies of General Educational Development (GED) students, 1971-1981. (ERIC document #ED211696).
- Swartz, R. and Whitney, D. R. (1987). New GED writing skills test: some clarifications and suggestions. *Lifelong Learning*. 11, 4-5.
- Tests of General Educational Development: bibliography. (1987). Washington, DC: American Council on Education.
- Thiele, J. E. and Sloan, C. A. (1984). Impact of the successful completion of the GED on candidates and their employers. (ERIC document #244051).
- Toby, J. and Armor, D. J. (1992). Carrots or sticks for high school dropouts? *The Public Interest*. 106, 76.
- Turner, A. P. (1990). A Mandate for the 90's : research on success of General Educational Development (GED) recipients in higher education. Unpublished manuscript, North Shore Community College.
- Tyler, R. W. (1991). Reflections on my experiences in observations of education. In Reflections; Personal essays by 33 distinguished educators (pp 356-367). Bloomington, IN: Phi Delta Kappan Educational Foundation.
- Ulin, R. O. (1982). Equivalent to what? GED high school equivalency tests. *English Journal*. 71(1), 21-25.
- Vanthournowt, S. (1989). The Math challenge: preparing for the GED test. *Adult Literacy and Basic Education*. 13(3), 127-135.
- Wallace, M. B. et al. (1987). Adult education in Texas: a survey of GED candidates and Hispanic adult education students. (Report # 87-415). Washington, DC: American Council on Education.
- Walsh, M. (1990). Number taking and earning GEDs found to drop sharply in last year. *Education Week*. 9(35),7.
- What has happened to Iowa's GED graduates?: a two, five and ten-year follow-up study. (1992). Des Moines, Iowa: State of Iowa, Department of Education, Division of Community Colleges.

What should the GED test measure? Some proposed changes. (1984). Washington, DC: American Council on Education.

Whitney, D. R. et al. (1985). The 1988 Tests of General Educational Development: A preview. Washington, DC: American Council on Education.

Whitney, D. R. et al. (1985). The Reliability and validity of the GED tests. (GED Research Brief #6). Washington, DC: GED Testing Service.

Whitney, D. R. (1983, December 2). Summary of phase one of the GED Testing Service five-year review process. Revised version of a paper presented at the National Adult Education Conference, Philadelphia, PA.

Whitney, D. R. (1991). Toward a comprehensive GED assessment system. *Adult Learning.* 2, 12-16.

Willett, L. H. (1982). Longitudinal comparison of GED and high school graduates. *Adult Literacy and basic\_education.* 6(4), 218-225.

Wilson, R., Davis, P. and Davis, J. (1980). A Comparison of postsecondary vocational success of high school diploma and high school equivalency (GED) certificate students. *Adult Literacy and Basic Education.* 4, 3-8.

Wolf, J. C. (1983). Tests of General Educational Development as a predictor of 2-year college academic performance. *Measurement and Evaluation in Guidance.* 14(1), 4-12.

Young people now leaving school. (1932). *School and Society.* 36, 88-89.

Zwerling, L. S. (1986). "Lifelong learning: a new form of tracking". In, L. S. Zwerling, The Community college and its critics (pp. 53-60). San Francisco: Jossey-Bass.

## VITA

**LYNDA BYRD LOGAN**  
**10005 LAWRENCE POND COURT**  
**LAUREL, MARYLAND 20708**  
**(301) 604-8408 (home)**  
**(301) 322-0466 (work)**

### QUALIFICATIONS

Proven ability to successfully plan, implement and evaluate library and learning resources programs involving all segments of the college community.

Strong background in coordinating and supervising support personnel to enhance library and learning resource services.

### EXPERIENCE

Learning Resources Division  
Prince George's Community College  
Largo, MD - January, 1996 - Present

#### DEAN OF LEARNING RESOURCES

Responsible for the overall planning, implementation and evaluation of library, learning resources and Cable Television programs. Directly supervise a staff of sixty including six professional librarians, a public access cable TV manager and coordinator of audio-visual services. Participate in college governance through service on the Vice President for Continuing Education's staff council, Chairing the Task Force on Registration. Participate in community activities through chairing the Committee to Preserve Prince George's County's African American Heritage.

Educational Support Services  
Montgomery College - Rockville Campus  
Rockville, Maryland - August, 1990 - January, 1996

#### CAMPUS DIRECTOR OF THE LIBRARY/LEARNING RESOURCE CENTER

Responsible for the overall planning, implementation and evaluation of library

and learning resources programs for the Rockville Campus. Directly supervise a staff of twenty-three including six professional librarians, a graphic artist, a media resource supervisor, an interlibrary loan technician, three media equipment techs, an electronic repair tech and eight library assistants. Participate in campus governance through service on the Provost's Council and the Campus Administrative Advisory Committee. Participate in college-wide governance through service on the Educational Support Services Management Team.

Learning Resource Center  
Northern Virginia Community College  
Annandale, Virginia - January, 1989 - August, 1990

### **DIRECTOR OF LEARNING RESOURCES**

Responsible for the overall planning, implementation and evaluation of library, audio-visual and learning laboratory services for the Annandale Campus. Directly supervise the Coordinator of Library Services and the Coordinator of Audiovisual and Instructional Services. Indirectly supervise six professional librarians, six librarian's assistants, three clerical workers, three laboratory technicians, one testing laboratory assistant, one mathematics laboratory assistant, one computer laboratory assistant and one multi-media laboratory assistant. Participate in both campus and college governance through service on the Campus Council, the College Senate and the Provost's Staff. Chair the Provost's Task Force to Develop an Administrative Assessment Policy and Procedure.

Libraries/Learning Resource Center  
Community College of Baltimore  
Baltimore, Maryland - 1976 - December, 1988

### **DIRECTOR OF LIBRARIES/LRC - 1987 - 1988**

Responsible for the overall planning, implementation and evaluation of library and media services, programs and budget for two campus libraries. Supervise four professional librarians, and Assistant Director for Media Services, three paraprofessionals, two technicians and three clerical workers. Participate in college-wide activities by serving on the President's Task Force to Develop the Harbor Campus, the Commencement Committee, the President's Task Force on Retention and the Administrative Computer Users Committee.

### **ASSOCIATE PROFESSOR/COORDINATOR - 1980 - 1986**

Responsible for the day-to-day operation of the Harbor Campus Learning Resource Center. Supervise two full-time professional librarians, two technicians, one clerical worker and numerous student assistants. Responsible for the preparation of the budget and collection development. Participate in college-wide activities as Chair of the Faculty Development and Evaluation Committee, President of the Faculty Union, AFT, Local 1980 and Secretary of the President's Task Force on Policies and Procedures. Teach English 102 - Introduction to the Term Paper and Library Research. Edit the Maryland Library Association Newsletter.

### **ASSISTANT PROFESSOR/SERIALS LIBRARIAN - 1976 - 1980**

Responsible for the Serials Department on both campuses, including reference work dealing with serials, preparation of the budget and collection development. Developed, scheduled and taught bibliographic instruction courses. Supervised one full-time professional librarian, two technicians, one clerical worker and numerous student assistants. Planned and implemented library staff development workshops and seminars. Planned and implemented library research classes for faculty. Edited the Bard Library Bulletin.

Parlett Longworth Moore Library  
Coppin State College  
Baltimore, Maryland - 1973 - 1976

### **REFERENCE/CATALOGUING LIBRARIAN**

Responsible for cataloguing with copy and the maintenance of the Government Documents Collection. Responsible for covering the reference desk during peak hours. Developed and taught bibliographic instruction classes. Responsible for working with faculty liaison from various departments to develop the collection both in serials and in non-print media. Supervise one full-time librarian and three technicians.

## **EDUCATION**

1997	Doctoral Candidate	Ed.D. Higher Education Administration - Virginia Polytechnic Institute and State University, Blacksburg, Virginia
1979		MS Instructional Technology Towson State University Towson, Maryland
1973		MLS University of Maryland College Park, Maryland
1970		BS Sociology Towson State University Towson, Maryland

## **COMMUNITY SERVICE**

Secretary  
Board of Trustees  
Maryland Children's and Family Services

Member  
Executive Board  
Mid-Atlantic Region  
Family Services America

Secretary  
Maryland Community College Library Consortium

Editor, Maryland Library Association Newsletter  
The Crab

Editor, Stevenswood Improvement Association Newsletter

Member

Mayor's Joint/Labor Management Committee on Health and Safety

Member

Maryland Community College Library Consortium

A handwritten signature in black ink that reads "Lynda Byrd Logan". The signature is written in a cursive style with a large initial 'L' and 'B'.