The IMPACT 2000 Project: Final Report

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Executive Summary

In 1998, the Baltimore City Department of Social Services (BCDSS) and the Baltimore City Community College (BCCC), with approval from the Maryland Department of Human Resources (DHR), began operating a pilot program, Investing My Potential to Attain College Training (IMPACT 2000). The program was targeted at adult recipients of Temporary Cash Assistance (TCA) in Baltimore City, allowing 200 such persons to count their BCCC academic activity as the obligatory work requirement under welfare reform.

This report examines the key question of interest to policy-makers with regard to the IMPACT 2000 program: did TCA customers who took part in this program fare better in the labor market than customers who did not participate? To answer this question data were collected during the two years of program operation and for the one year period immediately following participants expected graduation date (May 2000). Topics included:

- Number of graduating students;
- Majors and type of degrees;
- Patterns of TCA receipt before and after graduation; and
- Employment patterns before and after graduation.

The sample consisted of 199 IMPACT 2000 students and a comparison sample of TCA customers who did not participate in the program. Using two administrative data systems, the Customer Information Service (CIS) and Maryland Automated Benefits System (MABS), cash assistance program participation and employment patterns of the two groups were compared; differences among BCCC graduates, dropouts, and students still in school were also examined. Key findings are as follows:

- The typical student was an African American (91.5%) female (97.5%), with a mean age of 32.

- There were no statistically significant differences between the participant and non-participant groups in demographic profile or patterns of cash assistance receipt in the time periods prior to the expected graduation date (May 2000).

- As of May 2000, just over a quarter of the students had graduated (28.6%), with about 4 out of every 10 still enrolled at BCCC (39.2%). The dropout rate was was about one in three (32.2%). The most popular degree sought was an Associate of Applied Science (40.9%). The most popular field of study was Health Services (42.7%).

- During the one year follow-up period, while the difference was not statistically significant, the percentage of IMPACT 2000 participants who received no cash assistance (52.3%) was higher than the percentage for the comparison group (46.5%)

- Among BCCC participants only, two thirds of those who graduated (66.7%), compared to 56.3% of dropouts and 38.5% of those still enrolled, received no cash assistance in the one year follow-up period. This difference was not statistically significant.

- For the year following graduation, while the difference was not statistically significant, a higher percentage of the BCCC group did not return to TCA within the year (72.4%), compared to the comparison group (66.5%). When comparing graduates (84.2%) of the project with dropouts (79.7%) and those still enrolled (57.7%), this was also true.

- We found no statistically significant differences for the average number of quarters worked, before and after the graduation date. When considering those instances where people worked in each and every of the four follow-up quarters, we found the rate for the BCCC group to be higher (37.3%) than that of the comparison group (30.2%).

- Average quarterly earnings and annual earnings of the BCCC group were statistically significantly greater than for the comparison group both before and after the expected graduation date. Average quarterly earnings during the one year follow-up period were $3,613.18 for BCCC participants and $2,521.01 for the comparison group; annual earnings for this same period were $9,739.69 and $6,701.74, respectively.

In short, we found that the BCCC group did not differ significantly from the comparison group in their TCA participation either before or after the program.

However, they did exhibit more instances of people receiving no TCA at all during the follow-up period (June 2000 - May 2001) and were less likely to return to TCA after exiting than were comparison group subjects. BCCC participants were not different from those in the comparison group in the numbers of quarters worked, but on average did earn statistically significantly more when they worked, especially during the follow-up period (e.g., post-program). This pattern also prevailed when pilot program graduates were compared to participants who had dropped out of the program and those who were still enrolled.

As noted in the background section of this report, even very rigorous studies have failed to once and for all demonstrate the superiority of the work first approach over the human capital development approach or vice-versa. Thus, it is not surprising that the results from this small, descriptive, non-experimental study of a first-time pilot program are also equivocal. On most variables examined, there were no statistically significant differences between those who took part in the pilot program and those who did not. However, program participants did earn significantly more than non-participants with similar work effort. However, this finding is tempered by the fact that participants also earned significantly more than non-participants before May 2000. Notable also is the finding that, among program participants, those who graduated did earn statistically significantly more than those who did not even though, again, work effort was similar. Moreover, graduates pre-graduation earnings had not been significantly greater than those of other BCCC participants.

It is important to remember however, that only about one in four (28.6%) had graduated the program within the two year time period. This figure may not be unusual for community colleges, but may still warrant some attention in today s time-limited

welfare environment. While participants who did not complete the program may or may not be better off economically than they would have been had they participated in a work-first activity instead, their participation in, without graduation from, the BCCC program did take months off their lifetime welfare clocks.

Introduction

This report provides outcome data on a two-year (1998 - 2000) demonstration project which allowed 200 adult learners to count academic activity at the Baltimore City Community College (BCCC) as their obligatory work activity under the Temporary Cash Assistance (TCA) program. The purpose of the pilot project, Investing My Potential to Attain College Training (IMPACT 2000), was to test whether Baltimore City TCA customers completing BCCC certificate or degree programs fared better in the labor market than those who did not participate. Criteria for participation in the pilot program were spelled out in a 1998 letter from the Department of Human Resources (DHR) to TCA customers:

- currently enrolled in a full-time BCCC certificate or Associate of Arts program; or
- dropped out [during the 1997-98 year], but planning to re-register for a certificate or Associate of Arts program; and
- can complete [your] course of studies within two years in an educational program that will directly lead to a job; and
- maintain at least a C average (Mahon, 1998).

The School of Social Work, University of Maryland-Baltimore was asked by DHR to design and carry out research, using administrative data, to document key employment and welfare participation outcomes of the pilot project. Today s document represents the final report of our work in this area. Specifically, the report presents the education, employment and welfare outcomes of students who took part in the pilot educational program and compares them to data for a comparable group of TCA customers who were not enrolled in the BCCC program.

Background

Everyone agrees that the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) ushered in fundamental changes in the nation s approach to providing cash assistance to needy dependent children and the adults who care for them. Among the many significant features of PRWORA is a clear mandate for work first or labor force attachment approaches to helping customers become independent of welfare. In general the main objective of such approaches is to get customers into the labor force as quickly as possible so they can develop skills and work habits on the job (Brown, 1997; Hamilton, Brock, Farrell, Friedlander and Harknett, 1997; Ovwigho, Fagan and Born, 2001). As Freedman, Knab, Gennetian and Navarro (2000, p. ES-7) note, the model is grounded in the belief that individuals can best build their employability, and eventually achieve self-sufficiency, through actual work .

Not everyone agrees that the work first approach is wise and efficacious. In particular, there are those who assert that, all else equal, formal education or training beyond high school is necessary in the 21st century. The Dupont Welfare Reform Coalition, for example, cites the U.S. Department of Labor in predicting that the majority of new jobs will require secondary education (Dupont Welfare Reform Coalition, 1998). It is also argued that, given skill sets and education levels which do not compare favorably to those of non-recipient adults (see, for example, Johnson and Tafoya, 1999; Pavetti, 1997), women leaving welfare are at risk to secure dead-end jobs and unlikely to experience wage growth or job advancement over time (Edin and Lein, 1997). For women attempting to transition from welfare to work, education is thus seen as necessary to facilitate lasting economic independence and increase the likelihood that,

through participation in the labor force, these women s families will be able to escape poverty.

Empirical evidence concerning the effectiveness of these two very different approaches is mixed, but both bring powerful arguments and some heartening results to bear on their respective points of view. The brief reviews which follow illustrate these points.

Human Capital Development Approach

Proponents of this approach assert that up-front investment in education and training for those transitioning from welfare to work will pay off in the long-run; participants will not only be able to find jobs, but develop more marketable skills and, ultimately, lasting careers. Strawn (1998), for example, cites a 20-year, longitudinal study showing that women with associate degrees earn between 19-23% more than women with less education. The U.S. Department of Labor (1995) likewise has noted that each year of post-secondary education is worth an increase in wages of 6-12% upon graduation. Also telling are Census Bureau data (1998) showing that, in 1997, adults 18 or over with a bachelors degree earned an average of $40,478 a year while those with only a high school diploma earned $22,895.

Data describing the relationship between education and poverty are also often cited in support of this approach. Sherman (1990), to illustrate, found using Census data that 30% of single parent families headed by women with only 12 years of schooling lived in poverty and, further, that poverty rates decline noticeably when the head of the family has some schooling beyond high school. For families headed by African American women with at least one year of post-secondary education, 21% were

poor versus 51% for those headed by African American women whose formal education ended with a high school degree (American Psychological Association, 1998).

There is some empirical evidence suggesting that individuals with higher levels of education receive cash assistance for shorter periods of time and are less likely to return to welfare after an exit than those with lower levels of education. For example, Gittell, Schehl and Facri (1990) conducted a nine year follow-up study of 158 women who were receiving some form of public assistance when they enrolled in New York colleges in 1980, and who went on to obtain either a two or four year degree. The study found that the large majority (87%) left welfare after graduating, had been continually employed since graduating (89%) and that almost half were earning $20,000 or more.

Sherman (1990) reports similar results. For example, his analysis found that women with only a high school degree earned $496 per month on average. By comparison, those with post-secondary vocational degrees earned $703 per month, those with associates degrees earned $819 per month and those with baccalaureate degrees earned, on average, $886 per month. The author s conclusion was that cash assistance recipients would likely need at least some post-secondary education if they are to earn an adequate income and stay off welfare in the long term. This is in line with Pavetti s (1992) finding that only 25% of high school graduates and 15% of high school dropouts left welfare for a job lasting 18 months or longer. More recently, Karier (1998) studied 253 welfare customers who graduated from Eastern Washington University; 88% of graduates were no longer receiving welfare and the median wage of graduates was $11 per hour.

Many of the evaluations of human capital development programs are not always consistent or conclusive. In part, this is due to the diversity of programs themselves, in

particular those which focus on specific skills. Bloom (1997) and Strawn (1998), for example, both found that when the education focus was on adult basic education, as opposed to job skills, the programs took longer and cost more, but had results comparable to those of job-search programs.

Labor Force Attachment Approach

Labor force attachment or work-first programs, in contrast, are based on the philosophy that any job is a good job. According to this viewpoint, even a low-wage job can be valuable to a cash assistance customer, by bringing additional income to the family, increasing the person s feeling of self-worth, and making the person a good role model for his/her children (Freedman, Mitchell and Navarro, 1999). It is also seen as advantageous to move welfare customers immediately into the workplace environment, so that they can begin to move up the job ladder and on to better positions, both in terms of pay and job responsibilities. Some researchers and program administrators have also noted in recent years that the strong economy, a relatively ready supply of jobs, and widespread employer demand for workers has made the work first approach viable and attractive to state legislators (see, for example, Nathan and Gais 1999).

Welfare-to-work programs grounded in the labor force attachment model have received some empirical support. Greenberg, Strawn and Plimpton (1999), for example, point out that most studies have found that rapid employment programs often show impacts in the first two years, but decline thereafter. The authors suggest that while such programs do help clients find jobs, they often do not equip them with the skills needed to find better jobs or retain jobs over extended periods of time. Evaluations of the Jobs-First GAIN program in California echo this concern (Freedman et al, 1999,

2000). Both studies point to initial program successes, but conclude that the bulk of the employment gain resulted from more people combining work *and* welfare receipt.

In sum, rapid employment programs, such as those noted above, have been shown to have quick results, in that many clients immediately find work. Immediate successes, however, do not necessarily imply that long-term outcomes will also be favorable.

While the human capital development and work first models are often discussed as if they were polar opposites with no common ground, the practical reality is not always so clear-cut. Rather, many programs attempt to combine strategies of job search and education in an attempt to take advantage of the benefits of each approach while avoiding the disadvantages.

Combined Approaches

Strawn (1998) claims that the best programs are those that focus on employment, but also make substantial use of education and training as tools for helping recipients become employable. She cites the National Evaluation of Welfare to Work study from Portland, Oregon as an example. This program was very job-focused; its primary aim was to get participants into jobs and its principal activity was job-search. However, it differed from many other labor force attachment programs in two important ways. First, if necessary, participants were allowed to access short-term education, vocational training, work experience, and life skills training to improve their employability. Second, in contrast to the any job is a good job approach, participants were directed, and actively encouraged, to look for and take "good" jobs full time, paying above the minimum wage, with benefits and potential for advancement. Results were quite good; the Oregon program helped recipients to work more (43% increase in

employment), earn higher wages (13% increase), and find positions with employer-provided health insurance (19% increase).

Drawing on the work by Strawn (1998), which analyzed results from twelve different welfare-to-work models across the country, Cohen (1998) concurs that, overall, research suggests that welfare-to-work models that include education and training as part of a range of activities can produce more positive and longer lasting impacts on earnings than programs that solely provide job search assistance. However, it is difficult to conclude definitively that these outcomes are due to education and training and not to other differences between the models, locations, or participants.

As we have seen in this brief review of the literature, there are still many questions to be answered about the effectiveness of the two approaches. Likewise, there continue to be strongly held, differing opinions about labor force attachment versus human capital development as the appropriate strategy for welfare customers. Today s paper reporting results from one recent pilot program in Baltimore City will not answer these lingering questions or resolve the continuing debate. Rather, the purpose of the demonstration and paper is simply to examine this one, small, post-secondary education program to assess its outcomes in terms of participants welfare use, employment and earnings. Because this was not an experimental program with random assignment, no claim can be made that observed results were due to or caused by the program. Nonetheless, it is hoped that study results add to the ongoing policy dialogue and, perhaps, provide some programmatic guidance to DHR and BCCC officials who are now operating and evaluating a successor program.

Methodology

The research project described in this paper had several straightforward, but important purposes. These were:

1. To profile the characteristics of Baltimore City Temporary Cash Assistance (TCA) customers who took part in a pilot program of post-secondary education, IMPACT 2000;
2. To document employment, earnings and TCA usage of IMPACT 2000 participants in the period prior to students expected graduation date, and for a one year period (July 2000 - June 2001) after the expected graduation date of participants; and
3. To compare pre- and post-graduation employment, earnings and TCA use findings for IMPACT 2000 participants with findings for a comparison sample of TCA customers who did not take part in the program.

The remainder of this chapter describes the data sources and variables used in our study.

Sample

The research sample consisted of 199 persons who were reported to the researchers by BCCC as having met the criteria for inclusion in the study (i.e., a Baltimore City TCA customer who enrolled and participated in IMPACT 2000).[1] To be able to interpret more meaningfully employment and welfare use findings for this group, a random sample of TCA customers not taking part in the BCCC program were

[1]The program was authorized for up to 200 participants, but the participant list included only 199 individuals.

selected; findings for this group were compared to those for persons in the research sample/pilot program.

The comparison sample was selected from the universe of customers receiving TCA in Baltimore City in September 1998. Efforts were made to ensure that comparison group members resembled BCCC participants as closely as possible on key dimensions. For example, to be admitted to the pilot education program, members of the BCCC group had to have either a high school diploma or a GED; we took pains to insure that comparison group members were of the same educational level. The other criteria used to select the comparison group were sex, and geographical location within Baltimore City. For location, matching was by zip code. Using zip code, each case was assigned to a region (Downtown, North, East, South and West), based on information obtained from the Baltimore City Planning Office website. From the universe comparable in these demographic characteristics, a random sample of 200 comparison group subjects was then drawn.

Data Sources

Findings presented in this report are based on administrative records maintained by BCCC, (DHR), and the Maryland Department of Labor, Licensing and Regulation (DLLR).

DHR administrative data retrieved and analyzed by the authors was obtained from various computerized management information systems maintained by that agency. Specifically, demographic and program participation data were extracted from the Automated Information Management System/Automated Master File (AIMS/AMF) and the Client Automated Resources and Eligibility System (CARES). Employment and earnings data were obtained from the Maryland Automated Benefits System (MABS).

Specifically, information was obtained on whether or not employment in a Maryland job covered by the Unemployment Insurance (UI) program was observed in various time periods of interest, along with the total amount of quarterly earnings derived from those jobs.[2] The following paragraphs describe these data more fully.

AIMS/AMF

AIMS/AMF was the statewide data system for programs under the purview of the Maryland Department of Human Resources from 1987 through 1993. Beginning in late 1993, the state began converting to a new system, CARES. The final jurisdiction (Baltimore City) converted to CARES in March 1998; since that point, no new data have been added to AIMS, although the system is still accessible for program management purposes. For each person who applied for cash assistance (AFDC or TCA), Food Stamps, Medical Assistance, or Social Services, AIMS contains a participation history. In addition to providing basic demographic data (name, date of birth, gender, ethnicity, etc), the system includes the type of program, application and disposition (denial or closure) date for each service episode, and a field indicating the relationship of the individual to the head of the assistance unit.

CARES

As of March 1, 1998, CARES became the statewide automated data system for public welfare programs under the purview of the Maryland Department of Human Resources. Similar to AIMS/AMF, CARES provides individual and case level program participation data for cash assistance, Food Stamps and Medical Assistance. In addition, CARES provides more extensive data on clients' circumstances.

[2]These data were provided by the Jacob France Center, University of Baltimore, which maintains an archive of these data for DLLR.

MABS

In order to investigate the employment patterns of our customer sample, quarterly employment and earnings data were obtained from the Maryland Automated Benefits System (MABS). MABS includes data from all employers (approximately 93% of Maryland jobs) covered by the state s Unemployment Insurance (UI) law. Independent contractors, sales people on commission only, some farm workers, federal government employees (civilian and military), some student interns, most religious organization employees, and self-employed persons who do not employ any paid individuals are not covered. Off the books or under the table employment is not included either, nor are jobs located in other states. This latter omission, in particular, can be problematic since Maryland is a small state which borders four states (Delaware, Pennsylvania, Virginia, West Virginia) and the District of Columbia, and cross-border employment by Maryland residents is quite common.

Variables

For study cases, data are reported on individuals welfare participation and employment histories as well as their welfare use and employment patterns over the one year period following the expected month of graduation (May 2000). For pilot program participants, certain educational data are also presented. This section describes our variable definitions in more detail.

Education Variables

For IMPACT 2000 participants, BCCC provided data which describe graduation rates, grade point averages (GPAs), credits earned, types of degrees or certificates

sought, and majors or fields of study. These data allow us to put our welfare and employment findings into proper context.

Participation Variables

Measures of both historical use of AFDC/TCA as well as receipt of TCA during the 12 month follow-up period were constructed. Participation is defined in terms of monthly benefit receipt; historical participation is defined as receipt of AFDC/TCA as an adult in Maryland during the 60 months prior to the study month (May 2000). We also examine participation in the 12 month period prior to May 2000. The follow-up measure, total months of TCA receipt between June 2000 and May 2001, reflects a cumulative, but not necessarily consecutive count of months. Finally, we examine the extent to which study members exited TCA during the year-long follow-up period.

Employment Variables

The employment data described in this report capture historical and follow-up employment and earnings information for our sample cases. However, in reviewing study findings it is important to bear in mind that UI earnings are reported on an aggregate quarterly basis. For any given quarter it is impossible to determine how many months within the quarter, weeks within the month, or hours within the week that the individual was employed. Thus, it is not possible to compute hourly wage or weekly/bi-weekly/monthly salary from these data. Also, when an increase or decrease in earnings is noted, we cannot be certain if this reflects a wage or salary change, or simply a change in the level of employment (i.e. months, weeks, or hours worked) within the quarter.

For purposes of this report, we specifically explored employment during the eight quarters preceding May 2000, the quarter of graduation itself, and the four quarter follow-up period.

Data Analysis

Descriptive statistics were used to analyze these data. Specifically, frequency tables were created to summarize customer information, and measures of central tendency were used to describe customer characteristics. T-tests were used to test for participation and employment differences between the BCCC group and the comparison group. Among the BCCC subgroups, t-tests were only carried out between graduates and dropouts, as those students still enrolled could be seen to not have experienced the projects effect.

Findings

This chapter presents findings from our descriptive study of the characteristics and outcomes of TCA customers who, through a pilot program, were able to have their participation in post-secondary educational activities at the Baltimore City Community College count as a work activity under the state's reformed welfare program. The chapter begins by describing the general profile of the customer-students and comparison group members and provides information about the educational activities of students. This is followed by presentation of findings concerning welfare use, employment and earnings before, during and after May 2000.

Demographics

Table 1, on the next page, presents the demographic characteristics of the two groups. The first data column in the table shows that the typical pilot program participant was an African-American (91.5%), never-married (76.4%), female (97.5%) in her twenties (51.2%) with one child (49.1%) who was between five and nine years of age (35.3%). The second data column profiles comparison group members on these same variables. As expected, there were no statistically significant differences between the two groups on any of the variables examined.

Table 1. Demographics of the BCCC and Comparison Groups

Characteristics	BCCC Group (n=199)	Comparison Group (n=200)
Age as of 5/00		
18-20	1.5% (3)	1.0% (2)
21-25	25.1% (50)	21.5% (43)
26-30	26.1% (52)	22.0% (44)
31-35	15.6% (31)	24.5% (49)
36 and older	31.7% (63)	31.0% (62)
Mean	31.7	32.1
Median	30.2	31.2
Std. Dev.	8.2	7.4
Range	19.6-55.2	20.0-52.3
Race		
African American	91.5% (182)	88.5% (177)
Caucasian	4.5% (9)	7.5% (15)
Other	4.0% (8)	4.0% (8)
Marital Status		
Divorced	3.5% (7)	1.5% (3)
Married	3.0% (6)	3.0% (6)
Never Married	76.4% (152)	81.0% (162)
Separated	12.6% (25)	9.0% (18)
Unknown	4.5% (9)	5.5% (11)
Sex		
Female	97.5% (194)	98.0% (196)
Male	2.5% (5)	2.0% (4)
Number of Children		
0	1.8% (3)	2.0% (4)
1	49.1% (83)	41.5% (83)
2	31.4% (53)	33.0% (66)
3	10.7% (18)	14.0% (28)
4	5.3% (9)	6.0% (12)
5	1.8% (3)	3.5% (7)
Mean	1.7	1.9
Median	1.0	2.0
Std Deviation	1.0	1.1
Range	0-5	0-5
Age of Youngest Child		
<12 months	4.7% (8)	6.7% (13)
1 year	4.7% (8)	11.8% (23)
2 years	15.9% (27)	12.8% (25)
3 years	6.5% (11)	9.2% (18)
4 years	12.9% (22)	9.2% (18)
5-9 years	35.3% (60)	30.3% (59)
10-15 years	18.2% (31)	15.9% (31)
16-18 years	1.8% (3)	4.1% (8)
Mean	6.5	6.3
Median	5.6	5.1
Std Deviation	4.0	4.7
Range	0.2-16.8	0.1-17.6

However, because customers were not randomly assigned to the two groups, the possibility of selection bias (i.e., persons self-selected in to the BCCC program) can not be completely discounted. This caveat notwithstanding, the fewer differences that initially exist between the two groups, the more confident one can be that any observed differences in outcomes may be associated with the IMPACT 2000 program and not with pre-existing differences in participants characteristics.

Educational Attainment

With the cooperation of BCCC, we were able to obtain data on program participants educational experiences. Specifically, we were interested not only in graduation and drop-out rates, but also students grade point averages (GPA), degrees obtained, their majors or programs of study, and any information on students who were unable to complete the program in the specified length of time (i.e., two years).

We first examined initial educational plans of the students. The types of degrees sought are shown in the following table.

Table 2. Types of Degrees Sought

Degree	Frequency
Associate of Arts (A.A.)	14.1% (28)
Associate of Applied Science (A.A.S.)	40.9% (81)
Associate of Science (A.S.)	4.0% (8)
Certificate	21.7% (43)
Pre-College	19.2% (38)

As Table 2 shows, the most common intent of program participants was to obtain an A.A.S; four of every 10 enrollees (n=81/199) were reportedly pursuing a program of study which would lead to this outcome. Next most common was pursuit of a

Certificate, the plan of about one in five participants (21.7%, n=43/199). Nearly as many (19.2%, n=38/199) were enrolled in a pre-college program, 14.1% (n=28/199) were pursuing an A.A. degree and four percent (n=8/199) were enrolled in A.S. programs.

There was also a good deal of diversity with regard to the majors or specific programs of study pursued by pilot program participants, as shown in Table 3, following.

Table 3. Areas of Study

Areas of Study	Frequency
Health Services	42.7% (85)
Clerical	21.1% (42)
Technology	12.1% (24)
General Studies	9.0% (18)
Education	7.0% (14)
Legal Services	4.5% (9)
Other	3.5% (7)

The predominant area of study pursued by program participants was health services; this area accounted for a bit more than two-fifths of all enrollees (42.7%, n=85/199). Clerical studies, pursued by about one student in five (21.1%, n=42/199) was next most common, followed by technology (12.1%, n=24/199). These three areas together accounted for just about three fourths (75.9%, n=151/199) of all students.

Educational Outcomes

Using data provided by the community college, we were also able to look at certain educational outcomes. Regardless of whether or not they had graduated, as of

May 2000, the average GPA for IMPACT 2000 participants was 2.70, with a median GPA of 2.68 and a range of 1.14 to 3.63. It should be noted that this average (2.70) is well above the stated requirement for participation in the pilot program (2.0).

In terms of credit hours accumulated, also as of May 2000 and without regard to graduation status, the average for all program participants was 60 with a median also of 60. The range of total credits earned was from one to 135, according to the data supplied by BCCC.

Finally, we looked at program completion rates. As of May 2000, the expected graduation date, the community college records indicated that a bit more than one-fourth (28.6%, n=57/199) had graduated and about one in three (32.2%, n=64/199) had dropped out. The largest group - about four of every 10 (39.2%, n=78/199) consisted of students who did not graduate in May 2000, but were still in school.[3] Among those who graduated, the mean GPA was 2.87, slightly higher than the mean (2.70) for all participants. The following table shows what degrees were awarded to the graduates.

Table 4. Degrees Attained

Degree	Frequency
Associate of Arts	15.8% (9)
Associate of Applied Science	38.6% (22)
Associate of Science	7.0% (4)
Certificate	38.6% (22)

[3]May 2000 was the expected graduation date because a stated condition of the pilot program was that students be able to complete their course of study within two years.

Table 4 shows there were equal numbers of graduating students (n=22) in two programs: Certificates and A.A.S., that nine students obtained an A.A. degree and four received an A.S.

The specific majors for the graduating group are shown in Table 5, following.

Table 5. Areas of Study for Graduates

Areas of Study	Frequency
Health Services	38.6% (22)
Clerical	26.3% (15)
Technology	14.0% (8)
General Studies	14.0% (8)
Education	3.5% (2)
Legal Services	3.5% (2)

As shown in Table 5, graduating students were most often those who had studied in the fields of health services (38.6%, n=22) and clerical studies (26.3%, n=15). Eight graduating students had majored in technology (14.0%) and another eight had majored in general studies (14.0%).

These education data are provided merely to profile the educational plans, activities and achievements of the IMPACT 2000 group, up to and through May 2000, the date by which it had been anticipated that all students would have been able to complete their programs of study. In the specific context of the pilot program approved for persons receiving TCA and the more general context of assisting people to make lasting transitions from welfare to work, however, these educational data need to be considered in concert with outcome data on employment and TCA participation. That is, it must be remembered that the purpose of the pilot program was not to grant

degrees per se, but to better prepare individuals for the workplace and aid them in their achievement of self-sufficiency. In the next sections of this chapter, we examine outcomes related to participants use of cash assistance, their UI-covered employment and the earnings obtained from those jobs.

TCA Participation Patterns

The first set of comparisons between the BCCC group and the comparison group centered around historical and present patterns of cash assistance use. The following table shows historical participation patterns.

Table 6. Historical Adult Cash Assistance Receipt

Months of TCA Receipt	**BCCC Group (n=199)**	**Comparison Group (n=200)**
Five years previously		
12 months or less	8.5% (17)	3.0% (6)
13-24 months	13.1% (26)	15.5% (31)
25-36 months	20.1% (40)	17.5% (35)
37-48 months	20.1% (40)	29.0% (58)
49-60 months	38.2% (76)	35.0% (70)
Mean	38.6	40.6
Median	40.0	43.0
Standard Deviation	17.7	14.6
12 months previously		
0 months	34.7% (69)	32.0% (64)
1-3 months	8.0% (16)	11.0% (22)
4-6 months	8.0% (16)	11.0% (22)
7-9 months	16.1% (32)	15.5% (31)
10-12 months	33.1% (66)	30.5% (61)
Mean	5.8	5.5
Median	6.0	6.0
Standard Deviation	5.1	4.9

Note: Differences were not statistically significant.

The top half of Table 6 shows that, during the 60 months or five years prior to the expected graduation date (May 2000), pilot program participants, on average, received cash assistance in 38.6 of 60 months, this is about 64% of the time or, roughly, three out of the five years. Among members of the comparison group, the pattern was similar; cash assistance, on average, was received in 41 of the 60 months leading up to May 2000, or about 66% of the time. The difference between the two groups in their historical participation in cash assistance was not statistically significant. The bottom half of the table focuses on the 12 months immediately prior to May 2000 and

again shows no statistically significant difference between the two groups. Members of the pilot group received welfare, on average, in 5.8 of the 12 months, compared to 5.5 months for members of the comparison group. These historical (e.g., before expected graduation date) findings are important because they show that, on these variables as on the demographic variables, the two groups were similar.

We then examined historical participation in cash assistance only for the three sub-groups (graduates, dropouts, still enrolled) within the BCCC sample. These data appear in Table 7, following.

Table 7. Historical Adult Cash Assistance Receipt by Subgroups

Months of TCA Receipt	Graduates (n=57)	Still Enrolled (n=78)	Dropouts (n=64)
Five years previously			
12 months or less	7.0% (4)	9.0% (7)	9.4% (6)
13-24 months	14.0% (8)	9.0% (7)	17.2% (11)
25-36 months	22.8% (13)	17.9% (14)	20.3% (13)
37-48 months	21.1% (12)	20.5% (16)	18.8% (12)
49-60 months	35.1% (20)	43.6% (34)	34.4% (22)
Mean	38.3	40.5	36.6
Median	38.0	42.5	40.1
Standard Deviation	16.4	18.1	18.3
12 months previously			
0 months	38.6% (22)	32.1% (25)	34.4% (22)
1-3 months	8.9% (5)	2.6% (2)	14.1% (9)
4-6 months	8.9% (5)	5.1% (4)	11.0% (7)
7-9 months	12.4% (7)	12.8% (10)	23.4% (15)
10-12 months	31.6% (18)	47.4% (37)	17.2% (11)
Mean	5.4	7.0	4.7
Median	5.0	9.0	5.0
Standard Deviation	5.2	5.3	4.5

Note: T-tests were performed on graduates and drop-outs only. Differences were not statistically significant.

Table 7 shows that students who dropped out of the program, on average, received assistance in 37 of the 60 prior months. Among program graduates, the

average was receipt of TCA in 38 of the 60 months while for those who were still enrolled in the program, the figure was 41 months of welfare use in the previous 60 months. The pattern was similar for receipt of TCA in the 12 month period immediately prior to the expected graduation date. On average, aid was received in five months by both program graduates and program dropouts, and in seven of 12 months among those who were still enrolled as of May 2000.

Turning now to outcomes, receipt of cash assistance during the 12 months immediately following the anticipated graduation date was examined. Table 8, following, presents these data for the BCCC and comparison groups.

Table 8. Follow-up Cash Assistance Receipt

Months of TCA Receipt	**BCCC Group (n=199)**	**Comparison Group (n=200)**
0 months	52.3% (104)	46.5% (93)
1-3 months	8.0% (16)	10.5% (21)
4-6 months	5.0% (10)	8.5% (17)
7-9 months	7.0% (14)	11.0% (22)
10-12 months	27.6% (55)	23.5% (47)
Mean	4.1	4.2
Median	0	6.0
Standard Deviation	5.1	4.9

Note: Differences were not statistically significant.

Table 8 shows there was virtually no difference between the BCCC group and the comparison group in the average number of months of cash assistance receipt during the 12 month follow-up period. For the student group the average number of months of welfare receipt was 4.1, while for the comparison group the average was 4.2 months. While this difference is not statistically significant, it is worth noting that the

percentage of the BCCC group (52.3%) who received no TCA during the follow-up period was greater than the percentage of comparison group subjects who received no TCA during the same period of time (46.5%).

Post-program use of cash assistance was also examined separately for the three types of BCCC participants: those who had graduated by May 2000; those who had dropped out of the program; and those who were still enrolled. This information is presented in the next table.

Table 9. Follow-up Cash Assistance Receipt by Subgroups

Months of TCA Receipt	Graduates (n=57)	Still Enrolled (n=78)	Dropouts (n=64)
0 months	66.7% (38)	38.5% (30)	56.3% (36)
1-3 months	10.6% (6)	3.9% (3)	11.0% (7)
4-6 months	1.8% (1)	2.6% (2)	11.0% (7)
7-9 months	5.3% (3)	7.7% (6)	7.8% (5)
10-12 months	15.9% (9)	47.4% (37)	14.1% (9)
Mean	2.5	6.2	3.0
Median	0	8.5	0
Standard Deviation	4.4	5.4	4.3

Note: Differences were not statistically significant.

Findings shown in Table 9 are consistent with those reported previously for the 12 and 60 month periods before May 2000 (the last expected graduation date). That is, Table 9 shows that subjects still enrolled in the pilot program in May 2000 averaged more months of welfare use (6.2) in the 12 months immediately after May 2000 than did program graduates (2.5) or dropouts (3.0). Also consistent with findings about historical welfare use, while differences in mean receipt are not statistically significant, program graduates again have the highest percentage of subjects who received no TCA in the follow-up period (66.7%). Among program dropouts the comparable figure was 56.3%, while among those still enrolled, the percentage was 38.5%.

Although our follow-up period was relatively short (12 months), we also took a look at data describing exits and returns to welfare during the one year period immediately following the expected graduation date (May 2000)[4]. This information appears in Table 10.

Table 10. Recidivism Status

	BCCC Group (n=199)	Comparison Group (n=200)
Never exited between 5/00-4/01	25.6% (51)	27.5% (55)
Exited after 5/00 and returned before 4/01	2.0% (4)	6.0% (12)
Exited after 5/00 and did not return before 4/01	72.4% (144)	66.5% (133)

Note: Differences were not statistically significant.

There were no statistically significant differences between the two groups in terms of welfare exits and recidivism during the 12 month follow-up period. About one in every four subjects in both groups received TCA during each of the 12 months; the percentages were 25.6% for the BCCC group and 27.5% for the comparison group. Table 10 does show, however, that BCCC students who exited TCA were three times less likely to return than were members of the comparison group. Among BCCC exiters, only two percent had returned to welfare by the end of the follow-up year; the comparable figure for comparison group leavers was six percent. Expressing this more positively, the last data line in Table 10 shows that about seven of every 10 BCCC participants who exited welfare (72.5%) during the follow-up year were still off

[4] In this report an exit is defined as a continuous 60 absence of TCA receipt.

assistance at the end of the follow-up period and about two of every three comparison group exiters had not returned to welfare by the end of the follow-up year (66.5%).

Welfare exit and recidivism data were also examined separately for the three groups of BCCC subjects: program graduates; those still enrolled; and those who had dropped out of the program. Table 11, following, presents this information.

Table 11. Recidivism Status by Subgroups

	Graduates (n=57)	Still Enrolled (n=78)	Dropouts (n=64)
Never exited between 5/00-4/01	14.0% (8)	39.7% (31)	18.8% (12)
Exited after 5/00 and returned before 4/01	1.8% (1)	2.6% (2)	1.6% (1)
Exited after 5/00 and did not return before 4/01	84.2% (48)	57.7% (45)	79.7% (51)

Note: Differences were not statistically significant.

Table 11 shows that, in the one year period immediately following the last expected graduation date (May 2000), program graduates and program dropouts had similar welfare exit and return patterns. The majority of subjects in both groups exited the program and had not returned by year's end (84.2% of graduates, 79.7% of dropouts). Only 14.0% of graduates and 18.8% of dropouts, received welfare in each of the 12 follow-up months. Persons who, as of May 2000, were still enrolled in the BCCC program, in contrast, had dissimilar patterns. About four of every 10 still-enrolled persons (39.7%) received welfare in all 12 months; not quite three of five (57.7%) left welfare during the year and did not return.

Employment Patterns

In addition to reducing reliance on cash assistance, another highly desirable outcome of the pilot program and of human capital development programs more generally, would be increases in employment and earnings among participants. Thus, employment and earnings data for the one year follow-up period were gathered as part of this study. As with TCA participation, historical (prior to May 2000) data were also examined. We begin by describing the extent to which sample members were employed in a UI-covered job in Maryland during various time periods leading up to and following the expected graduation date. This information appears in Table 12.

Table 12. Number of Quarters Worked

UI Covered Employment	BCCC Group (n=185)	Comparison Group (n=189)
Of 8 quarters before graduation quarter, how many did client work?		
0	24.9% (46)	16.4% (31)
1	10.8% (20)	8.5% (16)
2	7.6% (14)	11.1% (21)
3	7.0% (13)	10.6% (20)
4	9.7% (18)	9.0% (17)
5	10.3% (19)	11.6% (22)
6	7.6% (14)	10.1% (19)
7	7.6% (14)	12.7% (24)
8	14.6% (27)	10.1% (19)
Mean	3.5	3.9
Median	3.0	4.0
Standard Deviation	2.9	2.7
Of 4 quarters before graduation quarter, how many did client work?		
0	33.0%(61)	23.3% (44)
1	10.8% (20)	13.2% (25)
2	13.0% (24)	16.9% (32)
3	10.8% (20)	15.3% (29)
4	32.4% (60)	31.2% (59)
Mean	2.0	2.1
Median	2.0	2.0
Standard Deviation	1.7	1.6
Did client work during graduation quarter?		
Yes	53.5% (99)	55.0% (104)
No	46.5% (86)	45.0% (85)
Of 4 quarters after graduation quarter, how many did client work?		
0	24.3% (45)	27.5% (52)
1	9.7% (18)	14.3% (27)
2	11.4% (21)	8.5% (16)
3	17.3% (32)	19.6% (37)
4	37.3% (69)	30.2% (57)
Mean	2.3	2.1
Median	3.0	2.0
Standard Deviation	1.6	1.6

Note: Differences were not statistically significant.

There were no statistically significant differences between pilot program participants and persons in the comparison group in the number of quarters worked before or after the graduation date quarter, or in the percentage who worked during the graduation quarter itself. The top third of the table shows that, during the two years or eight calendar quarters prior to the quarter of graduation (April-June 2000), BCCC participants, on average, worked in about four or half of the quarters (3.5); for comparison group members the average was very similar (3.9 quarters). Perhaps related to their participation in the BCCC educational program, the table also shows that about one in four customers in the pilot program (24.9%) did not work in a UI-covered job in Maryland any of the eight quarters. Among comparison group members the percent not working in any quarter was noticeably lower (16.4%). Notwithstanding this finding, the table also shows that UI-covered employment was not uncommon among persons taking part in the pilot program and that, in fact, employment was at least as common among program participants as among members of the comparison group.

The same pattern prevailed when we looked just at the one year or four quarters immediately prior to the graduation quarter. Pilot program participants were more likely (33.0%) to not have worked than were comparison group memberss (23.3%), although the mean quarters worked for both groups was just about two and the difference between the groups was not statistically significant. Notably, about one in three persons in both groups worked in a UI-covered job in Maryland in all four quarters.

Finally, the last portions of Table 12 present information about employment during the graduation quarter (April 2000 to June 2000) and during the four quarters or

one year follow-up period (July 2000 - June 2001) thereafter. The table shows, first, that, during the graduation quarter, one of every two persons in both the pilot and comparison groups was working in a Maryland job covered by the UI program. The percentage of employed individuals was 53.5% for BCCC participants and 55.0% for persons in the comparison group.

The table also shows that, during the one year follow-up period, there was no statistically significant difference between the BCCC group and the comparison group on the average number of quarters employed. BCCC subjects averaged 2.3 quarters of employment (out of four) while for comparison subjects the average was 2.1 quarters. The proportion of BCCC participants who worked in all four follow-up quarters (37.3%), however, was higher than the proportion among comparison group subjects (30.2%).

The same employment issues were examined only for persons who had taken part in the BCCC pilot program. Table 13, following, presents this information separately for program graduates, those who were still enrolled as of May 2000 and those who had dropped out of the program.

Table 13. Number of Quarters Worked by Subgroups

UI Covered Employment	Graduates (n=56)	Still Enrolled (n=69)	Dropouts (n=60)
Of 8 quarters before graduation quarter, how many did client work?			
0	21.4% (12)	34.8% (24)	16.7% (10)
1	1.8% (1)	14.5% (10)	15.0% (9)
2	7.1% (4)	11.6% (8)	3.3% (2)
3	8.9% (5)	4.3% (3)	8.3% (5)
4	12.5% (7)	7.2% (5)	10.0% (6)
5	17.9% (10)	7.2% (5)	6.7% (4)
6	8.9% (5)	2.9% (2)	11.7% (7)
7	7.1% (4)	4.3% 3)	11.7% (7)
8	14.3% (8)	13.0% (9)	16.7% (10)
Mean	4.0	2.7	4.1
Median	4.0	2.0	4.0
Standard Deviation	2.8	2.9	2.9
Of 4 quarters before graduation quarter, how many did client work?			
0	26.8% (15)	44.9% (31)	25.0% (15)
1	8.9% (5)	13.0% (9)	10.0% (6)
2	12.5% (7)	11.6% (8)	15.0% (9)
3	17.9% (10)	5.8% (4)	10.0% (6)
4	33.9% (19)	24.6% (17)	40.0% (24)
Mean	2.2	1.5	2.3
Median	3.0	1.0	2.5
Standard Deviation	1.6	1.7	1.7
Did client work during graduation quarter?			
Yes	69.6% (39)	40.6% (28)	53.3% (32)
No	30.4% (17)	59.4% (41)	46.7% (28)
Of 4 quarters after graduation quarter, how many did client work?			
0	16.1% (9)	36.2% (25)	18.3% (11)
1	5.4% (3)	14.5% (10)	8.3% (5)
2	5.4% (3)	15.9% (11)	11.7% (7)
3	19.6% (11)	8.7% (6)	25.0% (15)
4	53.6% (30)	24.6% (17)	36.7% (22)
Mean	2.9	1.7	2.5
Median	4.0	1.0	3.0
Standard Deviation	1.5	1.6	1.5

Note: Differences were not statistically significant.

When only BCCC participants employment data are examined, results are as one might expect. Persons still enrolled in the program tend to have the lowest rates of UI-covered employment. For the eight quarters or two years prior to May 2000, Table 13 shows that one in three (34.8%) still-enrolled persons worked in none of the eight quarters, compared to one in five (21.4%) program graduates and 16.7% of program dropouts. On average, both the graduate and dropout groups worked in four of the eight quarters; in contrast, the still-enrolled group averaged work in 2.7 (of eight) quarters.

For the four quarters immediately prior to May 2000, the pattern was similar, but the proportions showing no UI-covered employment during that year were : 44.9% for enrollees; 26.8% for graduates; and 25.0% for those who had dropped out. The average number of quarters worked out of the four was 2.2 for program graduates, 2.3 for program dropouts and 1.5 for persons who were still enrolled in the program.

During the graduation quarter itself (April - June 2000), Table 13 shows that about seven of every 10 graduates (69.6%, n=39) worked in a UI-covered job in Maryland, compared to about half (53.3%, n=32) of those who had dropped out of the program and about four in 10 (40.6%, n=28) of those who, as of May 2000, were still enrolled in the program.

Of greatest potential interest, of course, are data describing work effort or patterns during the one year follow-up period; these data appear in the last row in Table 13. On average, program graduates worked in 2.9 of the four quarters; among program dropouts the comparable figure was 2.5 quarters and, among those still enrolled in May 2000, the figure was 1.7 quarters. The difference in average number of quarters worked was not statistically significant. It was also true, however, that far more

program graduates (56.3%) than program dropouts (36.7%) or enrollees (24.6%) worked in all four quarters of the follow-up year. The proportion not working in any of the four quarters was highest among enrollees (36.2%), but comparable between graduates (16.1%) and those who had dropped out of the program (18.3%).

Using Standard Industrial Classification (SIC) codes, we also were able to determine the top five industries in which study subjects worked during the first full calendar quarter following the expected graduation date (i.e., July - September 2000). For all jobs held by BCCC and comparison group members for which the SIC classification could be determined, Table 14, following, shows the top five industry types at the most general (SIC-1) level.[5]

Table 14. Top 5 SIC1 Classified Industries

Industry Type SIC1	BCCC group	Comparison group
Organizational Services	41.9% (52)	25.9% (30)
Personal Services	21.0% (26)	21.6% (25)
Wholesale/Retail Trade	13.7% (17)	21.6% (25)
Public Administration/Non-classifiable	10.5% (13)	6.0% (7)
Transportation/Communication/ Utilities/Sanitation	4.8% (6)	13.8% (16)

The top five industries in which sample members worked in the first post-program quarter were the same for the BCCC and comparison groups. Organizational services was the most common employment type for both groups; about four of every 10 (41.9%) jobs that could be classified for the BCCC group were of this type, as were about one in four (25.9%) classifiable jobs held by comparison group members. For

[5]To take maximum advantage of the available data, individuals were allowed to contribute more than one job; thus, findings are based on the number of jobs held by recipients, not on the number of recipients who had jobs.

BCCC participants, jobs in the personal services field were next most common, accounting for about one of every five classifiable jobs (21.6%, n=26), followed by wholesale/retail trade positions at 13.7% (n=17). Personal service jobs were also common among comparison group subjects who worked during the first follow-up quarter; this field tied with wholesale/retail trade positions, each accounting for about one in five jobs (21.6%, n=25).

These findings are very similar to those we have observed in our large, longitudinal study, *Life After Welfare*, which among other things tracks the types of UI-covered Maryland jobs held by women at the time of or shortly after their exits from cash assistance. As noted in our most recent report (Born, Ovwigho, Leavitt & Cordero, 2001), these three industries (wholesale/retail trade, personal services, organizational services) have been the top three industries in which former TCA recipients find jobs since the outset of the TCA leavers research in 1996.

We also classified sample members jobs using the most specific level of SIC coding (level 4); for the BCCC and comparison groups, this information appears in the next table.

Table 15. Top 5 SIC4 Classified Industries

Industry Type SIC4	BCCC	Comparison
Help/Employment Agencies	22.9% (19)	17.1% (13)
Hospitals	16.9% (14)	Not in top 5
Colleges	9.6% (8)	Not in top 5
General Eating and Drinking Places	6.0% (5)	Not in top 5
Nursing Homes and Hospices	4.8% (4)	10.5% (8)
Sanitary Services, Commercial	Not in top 5	15.8% (12)
Grocery Stores/Supermarkets	Not in top 5	6.6% (5)
Drug Stores	Not in top 5	5.3% (4)
Security System Services	Not in top 5	5.3% (4)

Table 15 is interesting for both the similarities and differences it reveals in the more specific descriptions of post-program jobs obtained by individuals who took part in the BCCC program (regardless of whether they graduated or not) and those who did not. Most often in both groups, among classifiable jobs, positions were with temporary help or employment agencies. The two groups were similar, also, in that jobs in nursing homes or hospices appeared on both top five lists. Beyond that, however, the table shows quite a difference in the types of positions held. Given small sample sizes, large amounts of missing data on job classifications and the nature of the data that was available, we will not speculate about why these patterns exist or to assign more positive value to one top five list over another. The pattern illustrated, however, is intriguing and suggests that, in evaluating the successor program to IMPACT 2000, it would probably be fruitful to examine industry type, particularly in conjunction with earnings data, over an extended follow-up period.

The same analysis of initial follow-up period jobs was done looking only at the three types of BCCC participants: graduates, dropouts and those still enrolled as of May 2000. Table 16 presents this information at the SIC-1 or general level, while Table 17 describes all positions that could be classified using the more specific SIC-4 coding.

Table 16. Top 5 SIC1 Classified Industries by Subgroups

Industry Type SIC1	Graduates	Still Enrolled	Dropouts
Services - Organizational	57.1% (24)	29.3% (12)	39.0% (16)
Services - Personal	11.9% (5)	36.6% (15)	14.6% (6)
Public Administration/Non Classifiable	11.9% (5)	14.6% (6)	4.9% (2)
Wholesale/Retail Trade	7.1% (3)	12.2% (5)	22.0% (9)
Finance/Insurance/Real Estate	4.8% (2)	2.4% (1)	4.9% (2)
Transportation/Communication/Utilities/ Sanitation	4.8% (2)	2.4% (1)	7.3% (3)
Agriculture/Forestry/Fishing	Not in top 5	2.4% (1)	Not in top 5
Mining/Construction	Not in top 5	Not in top 5	4.9% (2)

Table 16 shows areas of both similarity and difference across the three BCCC groups in terms of the industries in which employment was observed during the first full follow-up quarter. Jobs in the organizational services field were most common in all three groups, accounting for 57% of jobs among graduates, 39% among program dropouts and 29% among those who were still enrolled as of May 2000. Positions in the personal services and wholesale/retail trades were also common in all three groups though, as shown, their rank in the top five was not necessarily the same.

At the more specific, SIC-4 level, similarities and differences across the three groups were also evident, as illustrated in Table 17, following.

Table 17. Top 5 SIC4 Classified Industries by Subgroups

Industry Type SIC4	Graduates	Still Enrolled	Dropouts
Hospitals	32.1% (9)	11.1% (3)	Not in top 5
Help/Employment Agencies	14.3% (4)	40.7% (11)	14.8% (4)
Colleges	14.3% (4)	Not in top 5	14.8% (4)
Nursing Homes and Hospices	7.1% (2)	Not in top 5	7.4% (2)
Sanitary Services, Commercial	7.1% (2)	Not in top 5	Not in top 5
City Government	Not in top 5	11.1% (3)	Not in top 5
General Eating and Drinking Places	Not in top 5	11.1% (3)	7.4% (2)
Elementary/Secondary Schools	Not in top 5	7.4% (2)	Not in top 5
Department Stores	Not in top 5	Not in top 5	7.4% (2)
Grocery Stores/ Supermarkets	Not in top 5	Not in top 5	7.4% (2)
Commercial Banks	Not in top 5	Not in top 5	7.4% (2)

In the first full post-program quarter, the specific types of jobs held by graduates, dropouts and still-enrolled students were quite varied, both within and across groups. Graduates most often were employed in hospital positions (likely related to the finding that, among all graduates (n=57), the largest number (n=22) had majored in health). Those still enrolled, perhaps not surprisingly, most often worked in temporary/employment agency positions; as shown in the table, no one field stood out for those who had dropped out of the BCCC program.

To round out our analysis of employment patterns, we examined quarterly earnings from Maryland UI-covered jobs. In addition to increasing the marketability and employment of individuals who are attempting to transition from welfare to work, participation in educational programs is assumed to increase their earning power. Through this small, non-experimental pilot program and evaluation, it is not possible to test this hypothesis. Nonetheless, descriptive data on sample members earnings from UI-covered jobs in Maryland during periods before and after the expected graduation can be informative. We begin with Table 18 which compares BCCC participants and

comparison group members average and total earnings for several different time periods.

The first two data rows in the table show average quarterly total earnings for the two year period (April 1998 - March 2000) prior to the graduation date (May 2000). On both measures, BCCC enrollees fared significantly better than did members of the comparison group. Average quarterly earnings were $2,143 for BCCC participants and $1,590 for comparison group members; average total earnings during this two year period were $9,965 (BCCC) and $6,996 (comparison).

The same pattern was observed for the one year period immediately prior to May 2000. Average quarterly and total earnings were significantly greater for the BCCC group than for the comparison group. Average quarterly earnings were $2,951 and $2,101 for the BCCC and comparison groups, respectively. Average annual earnings for the BCCC group were $3,434; for the comparison group the figure was $2,695.

These trends continued in the post-program follow-up year: again, BCCC participants had significantly higher average quarterly and annual earnings from employment in UI-covered Maryland jobs. Average quarterly earnings for this group were $3,529 compared to $2,516 for the comparison group. Average total earnings (for the year) were $12,307 and $8,438 for the two groups, respectively.

These earnings findings are tantalizing and, at least on their face, seem to suggest that persons who participated in the first BCCC pilot program did fare better in the follow-up year after the program was to end than persons who did not take part. However, it is not possible to say that this resulted from their participation in the pilot program. In part this is because of the non-experimental nature of the program and study, but also because the historical earnings data show that BCCC participants also

earned more **before** the program. Due to the nature of the present study, it was not possible to match BCCC participants and comparison subjects on prior earnings, but future efforts to look at outcomes of successor BCCC programs would probably be well-advised to do so, if at all possible.

Table 18. Quarterly Earnings

UI Covered Employment	BCCC	Comparison group
Average quarterly earnings April 1998-March 2000 ***	n=170	n=179
Mean	$2,142.67	$1,589.55
Median	$1,926.50	$1,465.52
Standard Deviation	1,444.45	1,124.11
Total Earnings April 1999-March 2000 **	n=185	n=145
Mean	$9,965.23	$6,995.78
Median	$7,645.20	$4,675.93
Standard Deviation	8,713.74	6,613.97
Average quarterly earnings April 1999-March 2000 ***	n=124	n=145
Mean	$2,950.71	$2,100.51
Median	$2,398.12	$1,779.54
Standard Deviation	2,169.69	1,598.24
Total Earnings in April-June 2000 **	n=99	n=104
Mean	$3,434.43	$2,694.97
Median	$3,265.00	$2,566.00
Standard Deviation	2,365.79	1,940.21
Total Earnings July 2000-June 2001 ***	n=140	n=137
Mean	$12,307.11	$8,438.35
Median	$9,918.37	$6,222.20
Standard Deviation	10,255.96	7,461.90
Average quarterly earnings July 2000-June 2001 ***	n=140	n=137
Mean	$3,529.01	$2,516.05
Median	$3,195.09	$2,380.18
Standard Deviation	2,441.16	1,807.97

Note: *p<0.05, **p<0.01, ***p<0.001

Although our findings are suggestive rather than definitive, we thought it also important to look at historical and post-program earnings data separately for the three

BCCC cohorts (graduates, dropouts, still-enrolled students). These data are presented in Table 19, following.

Table 19. Quarterly Earnings by Subgroups

UI Covered Employment	Graduates	Still Enrolled	Dropouts
Average quarterly earnings April 1998-March 2000	n=52	n=62	n=56
Mean	$2,423.08	$1,888.94	$2,163.22
Median	$2,038.37	$1,948.89	$1,776.80
Standard Deviation	1,627.22	1,313.08	1,377.01
Total Earnings April 1999-March 2000	n=41	n=38	n=45
Mean	$12,028.33	$7,285.99	$10,348.84
Median	$10,282.40	$6,344.84	$7,676.12
Standard Deviation	9,914.60	6,436.36	8,816.86
Average quarterly earnings April 1999-March 2000	n=41	n=38	n=45
Mean	$3,640.40	$2,167.57	$2,983.63
Median	$3,427.47	$2,077.31	$2,776.29
Standard Deviation	2,624.87	1,450.57	2,037.82
Total Earnings in April-June 2000	n=39	n=28	n=32
Mean	$3,865.97	$2,934.11	$3,346.28
Median	$3,482.00	$2,940.50	$3,545.50
Standard Deviation	2,817.16	1,735.83	1,914.94
Total Earnings July 2000-June 2001 **	n=47	n=44	n=49
Mean	$17,218.09	$7,966.34	$11,494.40
Median	$14,534.87	$4,973.71	$10,351.11
Standard Deviation	1,2137.25	7,962.34	8,066.36
Average quarterly earnings July 2000-June 2001 **	n=47	n=44	n=49
Mean	$4,735.30	$2,459.79	$3,332.26
Median	$4,729.61	$2,061.63	$3,450.37
Standard Deviation	2,878.21	1,877.81	1,909.70

Note: *p<0.05, **p<0.01, ***p<0.001 t-tests are between graduates and dropouts

Most generally, Table 19 shows that there were no statistically significant differences among the two groups in average quarterly or total earnings in the two year and one year periods immediately prior to the expected graduation date. As shown, program graduates did have the highest mean quarterly and annual earnings in both years, but none of these differences were statistically significant.

In contrast, the last two rows of the table show the groups did differ significantly on both measures of follow-up earnings. Specifically, graduates had significantly higher average quarterly earnings ($4,735) than did program dropouts ($3,332). Likewise, average earnings for the entire one year follow-up period were also statistically significantly higher for graduates ($17,218) than for those who had dropped out ($11,494).

Although no cause-and-effect statements can be made, the follow-up period earnings data do seem to suggest that, at least insofar as earnings are concerned, the first year BCCC pilot program has been beneficial for the 47 persons who did graduate and who worked in a UI-covered job in Maryland in at least one of the four follow-up quarters.[6] While again not definitive, to illustrate, readers are reminded that Table 13 shows a much greater proportion of graduates (53.6%) worked in all four follow-up quarters than did either program dropouts (36.7%) or persons still enrolled (24.6%).

[6]A total of 57 persons (of 199) had graduated as of May 2000. 10 of the 57 showed no employment in a UI-covered job in Maryland in the year after graduation, leaving 47 whose wages are reflected in Table 19 and this discussion.

Conclusions

This paper presents results from a descriptive analysis of employment, earnings and welfare use data for Baltimore City TCA customers in a pilot program which permitted them to have their studies at the Baltimore City Community College count as their required work activity under the state s reformed welfare program rules. What conclusions can be drawn from this study? The overarching conclusion is that results are not definitive. On many important dimensions, pilot group participants are not significantly different from comparison group members. Program participants did have significantly greater earnings from their own employment during the follow-up period, but this finding is tempered by the fact that they had significantly higher earnings in the earlier time periods studied as well.

Though no cause-and-effect relationship can be determined, it was intriguing to find that persons completing the BCCC program - while not having significantly higher average earnings before graduation - did have significantly higher average quarterly and annual earnings after graduation, compared to dropouts and those still enrolled. This finding suggests that, at least for certain individuals, successful pursuit of education beyond high school - particularly education that is directly and specifically career or field focused (e.g., in this study health or clerical) may, indeed, have a fairly immediate economic payoff. However, the earnings data also suggest that it is graduation, not just enrollment or the acquisition of some college credits, that may make the difference.

On a less sanguine note, the findings from this descriptive study also seem to suggest that higher education is probably not appropriate or achievable as a welfare-to-work strategy in all cases. It will be recalled that a total 199 persons were enrolled in

this first-ever program. However, two full years later only 57 of these persons - about one in four (28.6%) had graduated. About two in four (n=78, 39.2%) were still in school and about one in three had dropped out (n=64, 32.2%).

These statistics may not compare unfavorably with those for community colleges in general, but may be a matter of some concern to welfare advocates and administrators in today's time-limited welfare environment. That is, persons who, for whatever reason, did not complete the BCCC program may or may not be better off economically than they would have been had they participated in a "work first" activity initially rather than in the pilot program. All else equal though, their participation in, without graduation from, the pilot program did take months off their lifetime welfare clocks.

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