DATE: March 22, 2011

TO: BOARD OF EDUCATION

FROM: Dr. Joe A. Hairston, Superintendent

SUBJECT: REPORT ON THE BCPS GRADUATES: COLLEGE AND CAREER

ORIGINATOR: Thomas Rhoades, Executive Director, Research, Accountability, and Assessment

RESOURCE PERSONS: Tamela Hawley, Director, Research, Accountability, and Assessment
Tim Hayden, Supervisor, School Counseling Services

INFORMATION

That the Board of Education is informed of the results of two studies on student outcomes after graduation. The National Student Clearinghouse: Student Tracker study and the Jacob France Workforce Outcomes study both inform BCPS administrators about college and career outcomes for graduates and non-graduates. This report will share the process of how this information is acquired, what some of the results look like, and how the information is used to ensure positive outcomes for students.

Attachment I – PowerPoint Presentation – Where Are They Now? College and Workforce Outcomes for BCPS Students After Graduation
Attachment II – Summary of Jacob France Study
Attachment III – National Student Clearinghouse – 2010 Data Summary
Attachment IV – National Student Clearinghouse – 2010 Data Reports (CDs)
WHERE ARE THEY NOW? COLLEGE AND WORKFORCE OUTCOMES FOR BCPS STUDENTS AFTER GRADUATION

Department of Research, Accountability, and Assessment
OBJECTIVES: WE WILL SHARE...

- Results of College and Career Ready Data
- How the Data are obtained
- How the Data fit into BCPS information flow
- How the data will be used
DATA AND INFORMATION FLOW
The National Student Clearinghouse collects information student achievement in higher education on a national level.

Baltimore County Public Schools procured the Clearinghouse to track college attendance rates, first and second year college retention rates, and degree completion rates for our graduates.

Today’s report represents data collected from 2002 through 2009 graduates.
Jacob France Institute (JFI) at the University of Baltimore to investigate the transition of BCPS high school graduates and non-graduates into the workforce and post-secondary education.

Since 1989, JFI has maintained a historical archive file of Maryland Department of Labor, Licensing and Regulation (DLLR)’s quarterly Maryland Unemployment Insurance Wage Records which cover over 97% of Maryland wage and salary employment
BCPS INFORMATION FLOW

- Data comes in from external data sources
- Data are cleaned and added to data warehouse
- Data are analyzed and turned into information
- People use information to help students
Performance Goal 5: All students will graduate from high school.

Understanding the workforce and social implications, it is all the more important for all students to obtain the diploma.

Students who complete high school are not only better off socially, they contribute to the economic stability of Baltimore County, Maryland and the nation at large.
COLLEGE OUTCOMES
College attendance increased by 8% from 2003 to 2010
Percent of Students Enrolled in College the First Year After High School Who Returned for a Second Year (Freshman to Sophomore Retention)

BCPS graduates continue to have high college persistence
TOP 5 LOCAL COLLEGES

1. Community College of Baltimore County
2. Towson University
3. University of Maryland-College Park
4. University of Maryland-Baltimore County
5. Stevenson University
TOP 5 OUT OF STATE COLLEGES

1. York College of Pennsylvania
2. University of Delaware
3. West Virginia University
4. Pennsylvania State University
5. Virginia Polytechnic Institute and State University
DEGREE FIELDS WITH THE HIGHEST PERCENTAGE OF GRADUATES

- Associate of Arts in Teaching
- Master of Arts
- Bachelor of Science in Nursing
- Master of Science
- Associate of Science
- Bachelor of Science in Engineering
- Bachelor in Business Administration
- Bachelor of Fine Arts
- Undergraduate Certificate
- Associate of Applied Science
- Associate of Arts
- Bachelor of Arts
- Bachelor of Science
Looking at the 2002 cohort we compared college and workforce outcomes for graduates and non-graduates
2002 COHORT OUTCOMES; N=7,901

By 2009 Graduates...
- Work Full-time: 38.2%
- Entered College: 68.7%
- College Graduate: 33.1%

By 2009 Dropouts...
- Work Full-time: 17.7%
- Entered College: 20.1%
- College Graduate: 1.5%

8% Dropouts
92% Graduates
As time goes by, the employment gap between graduates and non-graduates increases. Over 38% of graduates are employed full-time in Maryland. 17.7% of non-graduates are employed full-time in Maryland. The recession of 2008 seems to have affected the non-graduates more than the graduates.

### Graph: 2002 Graduates and Non-Graduates Percent with Maryland Workforce Affiliation from 2002 to 2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Graduates</th>
<th>Non-graduates</th>
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</thead>
<tbody>
<tr>
<td>2002</td>
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<td>2003</td>
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<td>2006</td>
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<td>2007</td>
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<td>2008</td>
<td>41.3</td>
<td>24.8</td>
</tr>
<tr>
<td>2009</td>
<td>38.2</td>
<td>17.7</td>
</tr>
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</table>
As time goes on, the gap in earnings between graduates and non-graduates is greatly increased.

In 2002, graduates and non-graduates made on average very similar annual salaries.

By 2009, the median annual income for graduates was $10,000 more than for non-graduates.

<table>
<thead>
<tr>
<th>Year</th>
<th>Graduates</th>
<th>Non-graduates</th>
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<td>$32,714</td>
<td>$25,458</td>
</tr>
<tr>
<td>2009</td>
<td>$33,224</td>
<td>$23,200</td>
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</table>
Regardless of high school completion status, graduating college provides a great advantage to students in terms of long-term earnings.

After 7 years, the median annual earnings of students with some college look very similar to those who have had no college.
From 2003 to 2009, the industries of Retail/Trade and Accommodations/Food decrease and Health/Social Assistance and construction increase.

Retail/Trade and Accommodations/Food are consistently high industries over time for non-college attendees.
From 2003 to 2009, the industries of Retail/Trade and Accommodations/Food decrease and Health/Social Assistance, Professional/Tech and Educational Services increase.

There is no Construction industry for these college graduates.
Workforce Implications
- Without at least a high school diploma, the long-term job and earnings prospects are poor
- Completion of a college degree improves not only the likelihood of obtaining a job, but the kind of work obtained is much different than those without the degree
- Having some college is very similar to not going to college at all
- It is important to complete high school and either go into a trade/career or attend and complete college

Social Implications
- Without the high school diploma, the likelihood that students will be earning below minimum wage or be on welfare is much larger than those who do complete high school
- The impact of recession is felt much harder in people who did not have a high school diploma but were almost not felt by those who had completed college
NEXT STEPS

- Share and work with C&I staff to tie into current college-ready initiatives.
- Share this information with administrators at all levels. (Drop out behavior begins in the elementary schools with poor attendance).
- Present the information to all school counselors K-12.
- Share information with CTE teachers and staff so that they can share it with students.
- Train PPWs so they can share the information with parents as they make home visits related to attendance.
- Train alternative education staff so they can share this information with students.
NEXT STEPS CONT...

- Create a student friendly PowerPoint for use with middle and high school students.
- Share information with parents at Early College Awareness evenings.
- Create a brochure to share with parents at all grade levels.
- Brochure might be named something like, “Why YOU Need to Go to College” or “Why YOU Need an Education Beyond High School.
- Place brochures in all alternatives schools (programs), counseling offices, PPW offices, and other public areas.
- Put some of the information on the Web.
2002 BCPS Graduates and Non-Graduates
Post-secondary and Workforce Outcomes

Summary of Jacob France Study

January 6, 2011

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Executive Summary

In response to a growing interest within the BCPS administration in tracking the long-term outcomes of its graduates and drop-outs, the Office of Research partnered with the Jacob France Institute (JFI) at the University of Baltimore to investigate the transition of BCPS high school graduates and non-graduates into the workforce and post-secondary education.

Since 1989, JFI has maintained a historical archive file of Maryland Department of Labor, Licensing and Regulation (DLLR)’s quarterly Maryland Unemployment Insurance (UI) Wage Records which cover over 97% of Maryland wage and salary employment.

Highlights of the summary report include:

- Of those students who should have graduated with a high school diploma in 2002, by 2009 over 38% of graduates were employed full-time in Maryland while only 17.7% of non-graduates were employed full-time in Maryland
- 4.1% of graduates work for the federal government while 5.3% work outside of Maryland in other capacities
- 2.1% of non-graduates work for the federal government while 4.5% work outside of Maryland in other capacities
- Of the 2.1% of non-graduates who work in the government—all of them are in the department of defense.
- In 2002, graduates and non-graduates made on average very similar annual salaries, but by 2009, the median annual income for graduates was $10,000 more than for non-graduates
- 20.1% of the non-graduates had entered post-secondary education between 2003 and 2009, but by 2009 only 8 of them earned a post-secondary diploma
- By 2009, those BCPS former students who had completed college earned on average 30% more than those who had some college or who never attended college.
- For those students who received a diploma in 2002, their most likely career field in 2009 is health professional, technology, or educational services. For those who did not receive diplomas (drop-outs) their most likely career field is retail or food/accommodations.
- By 2009, 4.3% of the non-graduates were on welfare, while only 0.8% of the graduates were on welfare. This means that non-graduates are 186% more likely to be on welfare than those who graduated from BCPS with a high school diploma.
Introduction

In response to a growing interest within the BCPS administration in tracking the long-term outcomes of its graduates and drop-outs, the Office of Research partnered with the Jacob France Institute (JFI) at the University of Baltimore to investigate the transition of BCPS high school graduates and non-graduates into the workforce and post-secondary education.

Since 1989, JFI has maintained a historical archive file of Maryland Department of Labor, Licensing and Regulation (DLLR)’s quarterly Maryland Unemployment Insurance Wage Records which cover over 97% of Maryland wage and salary employment. They also conduct quarterly secure data exchanges with the departments of labor in the District of Columbia, New Jersey, Ohio, Pennsylvania, Virginia and West Virginia. Quarterly secure data exchanges are also conducted with the federal Office of Personnel Management. Consequently, JFI is able to examine employment patterns in Maryland, regional states, and the federal government. JFI also maintains secure historical unit-record databases for welfare recipients and employees covered by Maryland’s unemployment compensation law, through data sharing agreements with the Maryland Department of Human Services and DLLR, respectively.

The BCPS Department of Research, Accountability and Assessment contracted with the National Student Clearinghouse to use their Student Tracker service to track former BCPS high school students for college attendance and graduation. Data from the Student Tracker were merged with the workforce data from Jacob France in order to assess how college attendance and completion would impact the workforce outcomes of both high school graduates and non-graduates.

The main hypothesis for this research was that BCPS high school graduates would have higher participation rates in the workforce and post-secondary education than non-graduates. In addition, students who graduated from high school would have higher wages and would be affiliated with higher paying industry sectors than non-graduates.
Methodology

BCPS provided Jacob France via secure server with the names and social security number (SSN) for students in grade 12, spanning cohorts from 1997-98 to 2007-08. These data were cleaned to purge any invalid SSNs and to allow for consistent definitions of drop-out and graduation. For the purposes of this research, graduates were defined as students who received a diploma or certificate. Drop-outs were defined as students who received a code of “W” (meaning withdrew) but did not transfer to another system or program. This strict definition of graduate and drop-out resulted in cohorts that were smaller in number than originally reported to the Maryland State Department of Education. **For this reason, any analysis done based upon these databases should not be compared to other BCPS data sources.**

This study looks at the cohort of 12th grade students from school year 2001-2002. This file contained 7,901 records with valid SSNs\(^1\), of which 6,504 were high school graduates and 537 were classified as drop-outs.

Student SSNs were matched with Maryland UI wage records, regional state UI wage records, Federal employment records, and Maryland welfare records. In addition, these data were matched to the National Student Clearinghouse data to track post-secondary education involvement. When analyzing the wage records, a threshold was used to approximate full-time earnings. The full-time employment threshold was working 40 hours a week at a minimum for 52 weeks a year for least the minimum wage for the year being analyzed\(^2\).

The North American Industry Classification System (NAICS) was used to classify the type of employment sectors that former students were participating in. NAICS codes classify industries by employer, not by the individual worker. For instance, a person working in data processing may be employed by a school system. Their industry affiliation would be “educational services” rather than “information”. These employment complexities must be taken into account when examining industry affiliations.

Outcomes for the 2002 Cohort

Of the 7,901 students that comprise the 2002 Cohort for this study, 6,504 (or 92%) graduated in 2002 and 537 (or 8%) had dropped out before the official 2002 graduation date. Most of this document will discuss higher education and workforce outcomes for these graduates and drop-outs for the period of 2002 through 2009. By 2009, 38.2% of the high school graduates in the 2002 cohort were working full-time while only 17.7% of the drop-outs had full-time jobs. Even more dramatic differences exist between the graduates and drop-outs for the post-secondary outcomes. By 2009, 68.7% of the high school graduates had entered college at some point during the 8 year period and 33.1% of them had a

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\(^1\) For cohort 2002, the accuracy of social security numbers yielded 84% clean records ready to use for the analysis.

college degree. However, of the high school drop-outs, only 17.7% had entered college by 2009 and only 1.5% (a total of 8 out of 537) had graduated from college.

2002 Cohort Outcomes
N=7,901

- Work Full-time: 38.2%
- Entered College: 68.7%
- College Graduate: 33.1%

By 2009 they...
- Work Full-time: 17.7%
- Entered College: 20.1%
- College Graduate: 1.5%

The following pages discuss the workforce and post-secondary outcomes for the high school graduates and drop-outs in cohort 2002 in more detail.
Results

Workforce Participation of High School Graduates and Non-graduates

Figure 1 shows the affiliation of 2002 Baltimore County Public School High School graduates and non-graduates with the Maryland workforce. The figure shows that as time goes by, the employment gap between graduates and non-graduates increases. In 2002, right after graduation, 10.2% of the high school graduates were employed full-time in Maryland as compared to 7.3% of non-graduates. By 2009, over 38% of graduates are employed full-time are compared to 17.7% of non-graduates. These figure represent a large difference in the growth in employment rate between the graduates and non-graduates over the seven year period: 38.2% growth versus 17.7% growth respectively.

The recession of 2008 seems to have affected the non-graduates more than the graduates based on a drop of 7.1 percentage points in employed non-graduates from 2008 to 2009 compared to 3.1 percentage points among high school graduates.
Figure 2 indicates the number of 2002 BCPS high school graduates employed in adjacent states and with the Federal Government. In 2008, 4.1% of graduates work for the federal government while 5.3% work outside of Maryland in other capacities. On the other hand, in 2009 2.1% of non-graduates work for the federal government while 4.5% work outside of Maryland in other capacities.

Federal employment could not be broken down by agency and year due to the small numbers of students, but of the students with federal employment, 50.6% were affiliated with the Department of Defense, 42.6% with the Office of Personnel Management, and 6.8% with the United States Postal Service. Interestingly, of the 2.1% of non-graduates who work in the federal government, all of them work in the department of defense. This suggests that, other than the military, it is difficult for non-graduates to obtain employment within the federal government without the high school diploma.

![Figure 2](image.png)

Figure 3 shows that as time goes on, the gap in earnings between graduates and non-graduates is greatly increased. In 2002, graduates and non-graduates made on average very similar annual salaries, but by 2009, the median annual income for graduates was $10,000 more than for non-graduates. Furthermore, after seven years in the workforce, the graduates had almost doubled their salaries from 2002 to 2009, whereas the drop-outs’ salaries increased by about 42% on average in the 7 years since leaving BCPS.
Post-secondary Participation between High School Graduates and Non-graduates

Based upon data from the National Student Clearinghouse, the percentage of 2002 BCPS graduates who attended college within their first year after high school was 59%. By 2009, 31% of the 2002 graduates had attained a college degree. By contrast, by 2009, only 20% of non-graduates in the 2002 cohort (89 students) attended college at any time during their years out of high school. Out of those, only 10% (or approximately 8 students) had attained a college degree. In the next sections, it will become clear what the additive benefits are of attaining a college education for former BCPS students.
The Additive Benefits of a College Education

Figure 3 looks only at students who did not graduate from high school (non-graduates) and compares median annual earnings for those who had some college versus those who never attended college during the seven years since leaving high school. The data show the clear, long-term earnings advantage those non-graduates who attend at least some college against those who did not attend any college. In 2002, both groups of non-graduates had very similar median annual earnings at just above $16,000 per annum. At time goes on and some of the non-graduates begin attending college, those non-graduates who do not attend college make more money on average than those who are participating in college. However, by 2008, those non-graduates who are able to say that they have acquired at least some college begin making more money and in 2009 their salaries continue to climb and surpass those who did not attend college.

![Figure 4: Median Annual Earnings 2002 Non-graduates with Some or No College](image-url)
Figure 5 shows the median annual earnings for all students in the 2002 cohort, regardless of their high school graduation status. This figure shows that regardless of high school completion status, graduating college provides a great advantage to students in terms of long-term earnings. In fact, after 7 years, the median annual earnings of students with some college look very similar to those who have had no college, but those students who graduated from college make a full $9,000 on average than the other groups.

<table>
<thead>
<tr>
<th>Year</th>
<th>No College</th>
<th>Some College</th>
<th>College Graduate</th>
</tr>
</thead>
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<td>2007</td>
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<td>2009</td>
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Differences in the “Quality” of Work

An analysis of employment patterns by industry sector (based upon NAIS employment affiliation codes) was performed on those students in the 2002 cohort who were employed in Maryland either full- or part-time. This analysis showed major differences in the type of work that students do based upon their educational status. Students who graduate from high school work in very different industries than those who drop-out of high school. Students who go to college and obtain a degree obtain different type of work than those who finish high school. Indeed, the analyses speak clearly to the need to obtain as
much education as possible, but at the very minimum, completing a high school diploma is critical to obtaining adequate and rewarding work.

Table 6 shows the top employment industries for students in the 2002 cohort who obtained a high school diploma. The table shows employment trends from 2003 (a year after graduation) to 2009 (seven years after graduation). When you look at the trends, immediately after high school, students are working mostly in retail/trade and the food industry. As time goes on, fewer of these high school graduates are working in the food industry and their employment seems to be balanced between health/social assistance and retail/trade. For high school graduates, the profession/science/technical industry grows over the seven years. Other industries where high school graduates are employed include construction, educational services, and administrative support.

<table>
<thead>
<tr>
<th>Year</th>
<th>Educational Services</th>
<th>Professional/Science/Tech</th>
<th>Health/Social Assistance</th>
<th>Construction</th>
<th>Administrative Support</th>
<th>Retail/Trade</th>
<th>Accomodations/Food</th>
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<td>4.1</td>
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Table 7 shows the employment NAIS affiliations for those students who did not graduate from high school. For the entire seven year period, the majority of the group remained employed primarily in two industries food and retail trade. Administrative support/waste management also remained large for this group. Two industries that grew over the seven years from 2003 to 2009 were construction and health/social assistance. It appears that high school drop-outs are working primarily in service industries.

<table>
<thead>
<tr>
<th>Year</th>
<th>Health/Social Assistance</th>
<th>Construction</th>
<th>Admin. Supp/Waste Mgmt.</th>
<th>Retail Trade</th>
<th>Accomodations/Food</th>
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</tbody>
</table>
Table 8 shows the industry affiliations for those students who never attended college, regardless of whether or not they graduated from high school. What’s interesting about this graph is that it look quite the same as the graph for the high school dropouts. The majority of the group is employed in retail trade, food, and construction. This trend remains stable throughout the seven year period. One difference that may be unique to this group is the incidence of retail trade decreasing over the years. What’s interesting about that is the fact that as this industry decreases, so does the percentage of those members of this sub-group who are actually employed. This implies that it might be difficult for students, whether or not the graduated from high school, to “break out” of the retail industry without at least a minimal college education.
Table 9 shows the top employment industries for BCPS graduates and non-graduates who attended some college, but did not graduate from college. For these students, starting out being employed in retail/trade and food industries is not uncommon. However, by 2009, about the same percentage of students are employed in retail trade as are employed in health/social assistance. In fact, over time as the sector of retail trade decreases, the health trades increases.

<table>
<thead>
<tr>
<th>Year</th>
<th>Professional/Scientific/Tech Svc.</th>
<th>Admin. Supp./Waste Mgmt.</th>
<th>Health/Social Assistance</th>
<th>Retail Trade</th>
<th>Accomodations/Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>4.3</td>
<td>7.6</td>
<td>9.1</td>
<td>32.1</td>
<td>16.3</td>
</tr>
<tr>
<td>2004</td>
<td>5</td>
<td>8.7</td>
<td>10.2</td>
<td>28.8</td>
<td>14.9</td>
</tr>
<tr>
<td>2005</td>
<td>5.0</td>
<td>7.7</td>
<td>11.2</td>
<td>24.3</td>
<td>13.7</td>
</tr>
<tr>
<td>2006</td>
<td>5.5</td>
<td>8.7</td>
<td>13.3</td>
<td>21.3</td>
<td>12.1</td>
</tr>
<tr>
<td>2007</td>
<td>6.8</td>
<td>10.9</td>
<td>15.3</td>
<td>19.3</td>
<td>10.3</td>
</tr>
<tr>
<td>2008</td>
<td>7.6</td>
<td>8.6</td>
<td>17.1</td>
<td>15.4</td>
<td>10.3</td>
</tr>
<tr>
<td>2009</td>
<td>7.3</td>
<td>8.1</td>
<td>18.6</td>
<td>16.5</td>
<td>8.9</td>
</tr>
</tbody>
</table>
Table 10 indicates the top employment industries for BCPS graduates and non-graduates who graduated from college. As most of the students, regardless of their educational outcomes, these students started out their employment histories working in retail trade and food industries. However, by 2009, after receiving a college degree, the employment industries are split between those who work in health/social assistance, professional/science/technical, and educational services. Unique to this group compared to all of the previous groups are the fact that no-one is employed in the construction industry, retail trade and accommodations/food are among the lowest fields of employment for 2009, and educational services is among the top employment fields in 2009. This implies that students who go on to complete a college education have a higher potential for obtaining employment in professional fields than those who do not. At a time in our society where the economic forecast is not the best, having a professional career becomes a symbol for having better job stability as well as higher salaries.
Social Implications of Dropping Out of High School

The results of an analysis of the Maryland welfare records revealed that a larger percentage of non-graduates than graduates ended up on welfare between 2003 and 2009. That is not surprising. What is startling is the increase in welfare recipients over time among the non-graduates compared to the graduates. In 2003, two-thirds of one percent of the graduates was on welfare compared to 1.6% among the non-graduates. By 2009, the differences stand out immensely. Only 0.8% of the graduates were on welfare compared to 4.3% of the non-graduates. For the non-graduates, the percent increase from 2003 to 2009 was 169%, meaning that the percentage of non-graduates who were on welfare more than doubled within seven years. This is extraordinary and speaks to the importance of educational completion for the larger, societal implications. Clearly, attaining a high school education has a direct impact upon poverty for students.

Table 11
Percent of BCPS Graduates and Non-Graduates On the Welfare Rolls 2003 to 2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Graduates</th>
<th>Non-graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>0.5%</td>
<td>1.6%</td>
</tr>
<tr>
<td>2004</td>
<td>1.0%</td>
<td>1.8%</td>
</tr>
<tr>
<td>2005</td>
<td>1.2%</td>
<td>2.0%</td>
</tr>
<tr>
<td>2006</td>
<td>1.5%</td>
<td>2.3%</td>
</tr>
<tr>
<td>2007</td>
<td>2.0%</td>
<td>2.8%</td>
</tr>
<tr>
<td>2008</td>
<td>2.5%</td>
<td>3.4%</td>
</tr>
<tr>
<td>2009</td>
<td>3.0%</td>
<td>4.3%</td>
</tr>
</tbody>
</table>
Conclusions and Implications

Workforce Implications

This study has highlighted the importance of educational completion through pointing out the stark differences in employment and salary outcomes between those students who dropped out of high school as well as those students who went forward with education beyond high school. According to the data, without at least a high school diploma, the long-term job and earnings prospects for students are poor.

This research clearly indicates that the more education students obtain, the more likely they are to obtain full-time employment and earn the higher annual salaries. Completion of a high school diploma increases a student’s long-term earnings potential and completion of a college degree improves the likelihood of obtaining and sustaining employment over the long-term as well as improves prospects for the kind of work that students are able to sustain.

Social Implications

Without the high school diploma, the likelihood that students will be earning below minimum wage or be on welfare is much larger than for those who do complete high school. In addition, it appears that these students continue to make low wages over time. While a very small percentage (less than five percent) of former Baltimore County students are on the welfare rolls, the data present a story that is very sad for those who do not obtain the high school diploma. Compared to high school graduates, drop-outs are four times more likely to be on welfare seven years after leaving high school. In addition, after seven years out, the percentage of drop-outs found on the welfare rolls more than doubles, while that of high school graduates remains at almost zero. Students clearly obtained employment immediately following their departure from high school. However, the longer they stayed out, and the older they became, they feel behind their peers and their employment outcomes fell well below where they could have been had they obtained the high school diploma.

The impact of recession is felt much harder in people who did not have a high school diploma but were almost not felt by those who had completed college. The data show that from 2008 to 2009, when the recession was at its peak, the drop-outs were more likely to lose employment than were those who graduated from high school. During this period, not only did employment decline for drop-outs, so did their annual earning. At this same time, the annual earnings of high-school graduates increased! The social implications here are clear. When students persist in their educational goals, among the benefits are career and financial sustainability.

The BCPS Blueprint for Progress indicates in Goal 5 that all students will graduate from high school. For those students for whom this did not come true, after five, six, and seven years out of high school they begin to realize the problems associated with dropping out. These results of this analysis of workforce outcomes for BCPS graduates and non-graduates make it clear why this goal is so important. For long-term financial stability as well as social and economic well-being, it is important for students to maintain and attain their educational goals.
Results of Student Tracker Study from the National Student Clearinghouse

2010 Data Summary

February 4, 2011

Department of Research, Accountability, and Assessment
Dr. Thomas Rhoades
Executive Director

Office of Research
Dr. Tamela H. Hawley, Director
Dr. Renard A. Adams, Coordinator
Dr. Gary L. Brager, Supervisor
Samantha Murray, Specialist
Everett Elliott, Resource Teacher
Executive Summary

The National Student Clearinghouse is a nonprofit organization that collects and verifies student academic achievement in higher education on a national level. The Clearinghouse provides school districts, universities, and agencies information about students’ educational outcomes.

The Clearinghouse has developed a partnership with Baltimore County Public Schools (BCPS) to track the post secondary achievement of our students. These outcomes include college attendance rates, first and second year college retention rates, and degree completion rates.

Highlights of the summary report include:

- The percentage of students who enrolled in college immediately after graduating from high school increased from 54% in 2003 to 62% in 2010.
- The percentage of students who enrolled in college within one year of graduating from Baltimore County Public Schools increased from 62% in 2005 to 67% in 2009\(^1\).
- Of the students who enrolled in college within the first year after graduating high school in 2008, 87% returned for a second year of college.
- The top five colleges of initial enrollment are: Community College of Baltimore County; Towson University; University of Maryland-College Park; University of Maryland-Baltimore County; and Stevenson University.
- The college attendance rate increased for African American students by 8.6 percentage points from 49.0% in 2004 to 57.6% in 2008. For Hispanic students the college attendance rate increased by 10.8 percentage points from 41.3% in 2004 to 52.1% in 2008.
- Of students who have been out of high school since 2003, 33.5% have earned a college degree.
- The degree type earned most by BCPS graduates is the Bachelor of Science.

\(^1\) Cohort 2009 had not been out of high school a full year at the time of this report and therefore should not be compared.
The National Student Clearinghouse is a nonprofit organization that collects and verifies student academic achievement in higher education on a national level. The Clearinghouse provides school districts, universities, and agencies information about students’ educational outcomes.

The Clearinghouse has developed a partnership with Baltimore County Public Schools (BCPS) to track the post secondary achievement of our students. These outcomes include college attendance rates, first and second year college retention rates, and degree completion rates.

The following report represents data collected from BCPS graduates starting with the year 2003 and ending with the year 2010.

**District Level Results**

The percentage of students from BCPS enrolling in college immediately following high school graduation has increased over the span of eight years from 54% for the graduating class of 2003 to 62% for those who graduated in 2010. In 2010, 54% of those who enrolled immediately following graduation entered a 4-year college or university. In addition, 23% of those who enrolled immediately following graduation went to school at an out-of-state institution.
As the year after high school progresses, more BCPS graduates enroll in college. The percentage of students who enroll in college during the first year after high school increased from 62% in 2005 to 67% in 2009.

Moreover, BPCS graduates who enroll in college within the first year after high school demonstrate high levels of retention entering their sophomore year. For the class of 2004, 85% of BCPS graduates who enrolled in college within the first year after high school returned for a second year. For the class of 2008, the second year retention rate increased to 87%, as it has been since 2008.

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Cohort 2010 had not been out of high school a full year at the time of this report and therefore should not be compared.
BCPS graduates enroll in a variety of schools, both in- and out-of-state. The top five colleges that BCPS graduates enroll in initially are:

1. Community College of Baltimore County
2. Towson University
3. University of Maryland-College Park
4. University of Maryland-Baltimore County
5. Stevenson University

The top five out-of-state colleges in which graduates enroll initially are:

1. York College of Pennsylvania
2. University of Delaware
3. West Virginia University
4. Pennsylvania State University
5. Virginia Polytechnic Institute and State University

**Attendance Rates by Demographic Characteristics**

The college attendance rates have increased over the years for certain demographic groups. The percentage of female graduates that attended college within one year after graduating from high school
has increased from 60.9% in 2003 to 67.85% in 2010. Similarly, the attendance rates for males increased from 48.98% in 2003 to 63.00% in 2010.

Dramatic increases in the percentage of BCPS graduates who attended college within the first year were documented for students of different ethnic backgrounds from 2003 to 2010. For African American graduates, the percentage who attended college within the first year increased from 44.6% in 2003 to 57.7% in 2010. Similar increases were documented for American Indian students (48.15% to 68.00%), White students (58.69% to 66.42%), and Hispanic students (39.81% to 45.53%).
College Completion Outcomes

In the 8 years since the 2003 cohort has graduated from high school, 33.5% of those who enrolled in college have completed and attained some sort of college degree or certificate. The table below shows the most popular degree earned by Baltimore County Public Schools graduates in cohorts 2003 through 2010. Of those graduates who had obtained a degree by 2010, the degree type earned most often was the Bachelor of Science at 37.9%. A substantial number (24.8%) of degree holders earned a Bachelor of Arts degree. This is followed by the Associate of Arts (14.3%) and Associate of Applied Science (4.7%). Smaller percentages of students earned Bachelor’s degrees in Business Administration (2.9%) and Engineering (2.5%). Others received Nursing degrees (0.8%) and Teaching credentials (0.6%). Not shown in the table below are a small percentage of students who received MBA, MD, Ph.D., MFA, MSW, and JD, among other, degrees.
Degree Fields with the Highest Percentage of Graduates*
By High School Graduation Year

<table>
<thead>
<tr>
<th>Degree Type</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Science</td>
<td>37.77%</td>
<td>42.01%</td>
<td>39.07%</td>
<td>37.01%</td>
<td>6.29%</td>
<td>1.41%</td>
<td>50.00%</td>
<td>100.00%</td>
<td>37.94%</td>
</tr>
<tr>
<td>Bachelor of Arts</td>
<td>22.73%</td>
<td>26.15%</td>
<td>26.10%</td>
<td>28.56%</td>
<td>3.59%</td>
<td>1.41%</td>
<td>50.00%</td>
<td>0</td>
<td>24.76%</td>
</tr>
<tr>
<td>Associate of Arts</td>
<td>11.87%</td>
<td>11.15%</td>
<td>13.49%</td>
<td>14.11%</td>
<td>60.54%</td>
<td>77.46%</td>
<td>0</td>
<td>0</td>
<td>14.31%</td>
</tr>
<tr>
<td>Associate of Applied Science</td>
<td>5.20%</td>
<td>3.99%</td>
<td>4.39%</td>
<td>4.05%</td>
<td>13.45%</td>
<td>7.04%</td>
<td>0</td>
<td>0</td>
<td>4.72%</td>
</tr>
<tr>
<td>Undergraduate Certificate</td>
<td>3.34%</td>
<td>2.73%</td>
<td>3.20%</td>
<td>3.84%</td>
<td>6.28%</td>
<td>4.23%</td>
<td>0</td>
<td>0</td>
<td>3.32%</td>
</tr>
<tr>
<td>Bachelor of Fine Arts</td>
<td>3.04%</td>
<td>2.96%</td>
<td>2.84%</td>
<td>3.21%</td>
<td>0.45%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2.90%</td>
</tr>
<tr>
<td>Bachelor in Business Administration</td>
<td>2.45%</td>
<td>1.88%</td>
<td>3.36%</td>
<td>3.00%</td>
<td>0.45%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2.53%</td>
</tr>
<tr>
<td>Bachelor of Science in Engineering</td>
<td>1.44%</td>
<td>1.43%</td>
<td>1.55%</td>
<td>1.75%</td>
<td>0.45%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.48%</td>
</tr>
<tr>
<td>Associate of Science</td>
<td>1.56%</td>
<td>1.03%</td>
<td>1.34%</td>
<td>1.54%</td>
<td>3.59%</td>
<td>2.82%</td>
<td>0</td>
<td>0</td>
<td>1.43%</td>
</tr>
<tr>
<td>Master of Science</td>
<td>2.37%</td>
<td>1.16%</td>
<td>0.41%</td>
<td>0.14%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1.11%</td>
</tr>
<tr>
<td>Bachelor of Science in Nursing</td>
<td>1.01%</td>
<td>1.03%</td>
<td>1.03%</td>
<td>0.35%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.87%</td>
</tr>
<tr>
<td>Master of Arts</td>
<td>1.39%</td>
<td>0.94%</td>
<td>0.26%</td>
<td>0.07%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.73%</td>
</tr>
<tr>
<td>Associate of Arts in Teaching</td>
<td>0.25%</td>
<td>0.36%</td>
<td>0.52%</td>
<td>0.98%</td>
<td>4.04%</td>
<td>5.63%</td>
<td>0</td>
<td>0</td>
<td>0.62%</td>
</tr>
</tbody>
</table>

*Percentages won’t add to 100 since those degree fields with total percentages lower than .6 are not shown