



THE ROLE OF EDUCATION IN OUTCOMES FOR FORMER TCA RECIPIENTS

Rebecca McColl & Letitia Logan Passarella

The ultimate goal of Maryland's Temporary Cash Assistance (TCA) program is to help low-income families achieve self-sufficiency. An important aspect of achieving self-sufficiency is adult recipients being able to find and retain good paying jobs with which they can support their families. For many adults, educational attainment is a major component in finding such a job.

Ensuring TCA recipients have the resources they need to further their education may be key to their success in the workforce. Prior research shows that recipients exiting TCA with at least a high school diploma are more likely to have stable employment in promising industries and have higher earnings than recipients who did not complete high school (Nicoli, Passarella & Born, 2014; Nicoli, Passarella & Born, 2013). Clearly, education attainment is an important component of finding a stable, good paying job.

Finding and retaining stable employment is a critical factor in a recipients' ability to exit and remain off TCA. Recipients who achieve stable employment after exit have been shown to be substantially less likely to return to TCA within five years than those experiencing unstable employment or unemployment (Nicoli, 2015). Educational attainment is not only an essential factor in recipients' ability to find employment, but also in their ability to support their families and transition off assistance.

Currently, TCA clients in Maryland can access education and training through their local Department of Social Services (DSS), local vendors, or through the Division of Workforce Development and Adult Learning, which administers several Workforce Innovation and Opportunity Act (WIOA) programs. Through these WIOA programs, adults have access to educational resources including basic education, English language classes, and career training. Given the importance of education and skill development, the WIOA law mandates that high-needs adults, such as TCA recipients, receive priority for these services (Center for Law and Social Policy, 2016).

KEY FINDINGS

- ❖ Most adults who exited TCA had at least a high school diploma; 31% did not complete high school, 62% had a high school diploma, and 7% had education beyond high school.
- ❖ Recipients who did not complete high school were more likely to have multiple children and to have younger children.
- ❖ Those who did not complete high school received more months of TCA; they were also the most likely to return to TCA throughout the follow-up period.
- ❖ The majority of adults were employed throughout the follow-up period, and all three groups had similar rates of employment by the fifth year after exit.
- ❖ By the end of the follow-up period, only those with additional education were able to attain median annual earnings above the poverty level.
- ❖ Recipients with additional education were the most likely to be employed in industries associated with economic stability, and they earned the most in these industries.

To learn more about how educational attainment may influence the economic and programmatic outcomes of TCA recipients, it is important to examine these outcomes in relation to education level. In this brief, we examine three different groups—recipients who did not finish high school, recipients who have completed high school, and recipients with additional education after high school—that exited TCA in federal fiscal year (FFY) 2013. In particular, we focus on the characteristics of these cases, their participation in social assistance programs, and their employment and earnings outcomes over a five-year period. We also examine the extent to which recipients access education and training activities through the local DSS.

Adult recipients with different levels of education may require different services and interventions to ultimately be able to support their families and exit TCA. Examining how educational attainment may impact outcomes for TCA recipients can ensure clients are receiving the targeted support they need to move towards self-sufficiency.

Methods

This report includes adult recipients whose cases closed during FFY 2013, which ran from October 2012 to September 2013. The *follow-up period* refers to the five-year period following the recipients' exit from TCA. There are three education levels mentioned throughout this report: *less than high school* refers to recipients who have

not completed 12th grade,¹ *high school* refers to recipients who have completed 12th grade, and *more than high school* refers to recipients who have additional education or training beyond high school.

In order to accurately represent exits from TCA and employment and earnings throughout the follow-up period, several exclusions were made. First, all recipients who returned within one month were excluded from the analyses. Second, any recipients without information regarding their educational attainment were excluded. Additionally, only work-eligible cases (single-parent cases, earnings cases, short-term disabled, two-parent cases, domestic violence and legal immigrant) and child under one cases were included in the analyses. The adult recipients on these cases are required to participate in work activities and can take advantage of education-related activities as a part of this requirement.² The final analysis count is 15,038 adult recipients.

Data comes from the Client Automated Resource and Eligibility System (CARES) and the Maryland Automated Benefits System (MABS), which are the administrative data systems for TCA and Unemployment Insurance, respectively. CARES provides individual- and case-level data on demographics and program participation for families receiving TCA. The MABS system includes data from all employers covered by the state's Unemployment Insurance (UI) law and the

¹ Maryland's GED credentialing program provides an official Maryland high school diploma; the phrase *high school* is used throughout this report for those who have either completed high school or the GED program (Maryland Department of Labor, Licensing and Regulation, 2019).

² Adult recipients on child under one cases are included in this analysis because their exemption from participation in work activities is temporary, and they would be expected to participate once their exemption expires.

Unemployment Compensation for Federal Employees (UCFE) program.

There are a variety of limitations to MABS data. MABS only reports data on a quarterly basis, which means that it is not possible to calculate weekly or monthly employment and earnings. Another limitation is that MABS does not contain data on certain types of employment, such as self-employment, independent contractors (e.g., gig economy jobs), and informal employment; consequently, earnings from under-the-table jobs are not included. Finally, MABS has no information on employment outside Maryland. Because out-of-state employment is common in Maryland,³ we are likely understating employment and may be missing some earnings.

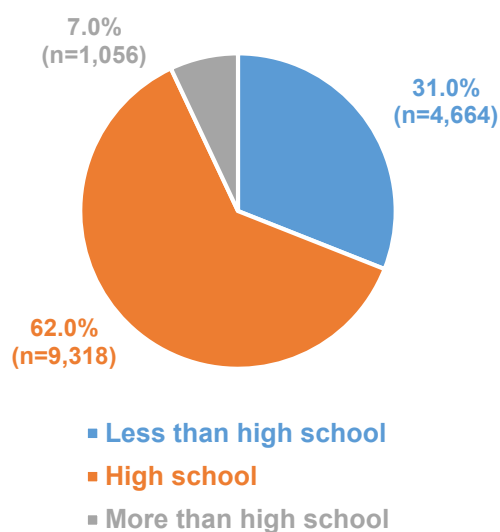
Educational Attainment

For many TCA recipients educational attainment is an important part of finding work and transitioning off assistance. While most adult recipients in Maryland have at least a high school education, few have received any additional education or training beyond high school. As seen in Figure 1, 31% of adult recipients who exited TCA in FFY 2013 did not complete high school, 62% finished high school, and just 7% had any additional education after high school.

Maryland is a diverse state, and educational attainment can vary greatly across the state's 24 jurisdictions.⁴ For example, in Baltimore City, which has the largest share of the state's TCA caseload, two in five (42.4%) adults did not graduate high school, and just over half (52.8%) completed high

school with no additional education. Conversely, in Prince George's County which has the third largest share of the state's caseload, just 16% of adult recipients did not graduate high school, and over three in four (76.5%) had a high school diploma with no additional education. Such differences in education level across the state emphasize the varying needs of TCA clients.

Figure 1. Educational Attainment



The fact that most recipients statewide have completed high school is a positive sign, as higher educational attainment is related to better economic outcomes. Nationally, adults with less than a high school education have weekly median earnings that are 32% less than adults with a high school diploma, and 117% less than those with a bachelor's degree (Bureau of Labor Statistics, 2018). This trend is true among TCA recipients in Maryland as well. Research shows that adult recipients who have at least a high school diploma have substantially better earnings and

³ One in six (16.8%) Maryland residents works out of state, which is over four times greater than the national average (3.7%) (U.S. Census Bureau, 2018).

⁴ See Appendix Table A for more information on educational attainment by jurisdiction.

employment outcomes than their counterparts who have not completed high school (Nicoli et al., 2013, 2014).

Although the majority of recipients finished high school, less than one in 10 had education or training beyond high school. This is important to note, as recipients with additional education after high school tend to have the best economic outcomes. In fact, recipients with education beyond high school are three times more likely to realize economic stability⁵ than recipients who have not completed high school (James & Nicoli, 2016). Though other factors may play a role in the economic stability achieved by these individuals, education has certainly assisted in this success.

Adult Recipient Characteristics

The demographic characteristics of adult recipients remain largely similar across education levels, as presented in Table 1. For all levels of educational attainment, the majority of adult recipients were African American women in their 20s and 30s who had never married.

Although the three groups share many characteristics, there are some key differences. Recipients with education or training beyond high school were slightly more likely to be female (93.5%) than recipients with a high school education (90.7%) or those who did not complete high school (91.8%). Additionally, recipients with education beyond high school were

Table 1. Demographic Characteristics

| | | Less than high school | High school | More than high school |
|---------------------------|--------------------------------|-----------------------|-------------|-----------------------|
| Gender | Female | 91.8% | 90.7% | 93.5% |
| | Male | 8.2% | 9.3% | 6.5% |
| Race and Ethnicity | African American [^] | 76.2% | 76.1% | 72.5% |
| | Caucasian [^] | 20.2% | 19.7% | 22.2% |
| | Hispanic | 2.4% | 2.9% | 3.3% |
| | Other [^] | 1.1% | 1.2% | 2.0% |
| Age | 20 & younger | 13.6% | 7.4% | 4.3% |
| | 21-24 | 29.5% | 24.9% | 18.8% |
| | 25-29 | 25.4% | 26.4% | 26.7% |
| | 30-34 | 15.7% | 18.4% | 20.7% |
| | 35 & older | 15.8% | 23.0% | 29.5% |
| | Average [median] | 28.0 [26.0] | 30.0 [28.2] | 31.8 [30.0] |
| Marital Status | Never married | 86.6% | 81.8% | 74.9% |
| | Married | 5.6% | 7.5% | 10.0% |
| | Divorced / Separated / Widowed | 7.8% | 10.7% | 15.1% |

Note: [^]=non-Hispanic. Valid percentages reported.

⁵ For adults who leave TCA, economic stability is defined as consistent employment for five years after exit with earnings that either grew over time, consistently exceeded the federal poverty threshold, or remained above the federal poverty threshold for

the last two of those five years (James & Nicoli, 2016).

somewhat more likely to be Caucasian (22.2% vs. 20.2%) or Hispanic (3.3% vs. 2.4%) than those who did not complete high school.

Age is another characteristic in which the three education levels differed. Recipients who did not finish high school were the youngest, on average, and were three times as likely to be age 20 or younger than recipients with education beyond high school (13.6% vs. 4.3%). These younger adults, then, still have an opportunity to obtain their high school diploma. In addition to being older, recipients with education beyond high school were the most likely to be married or divorced, separated, or widowed. This is not surprising, as older recipients have had more time to gain additional education or get married, as compared to recipients in their teens or early 20s.

Case Characteristics

As with demographic characteristics, many case characteristics are similar among the three education levels, displayed in Table 2. For all three groups, the majority of cases had one adult recipient and one or two child recipients, and most of these children were younger than age five.

Two characteristics that differed among the three groups were the number of child recipients and the age of the youngest child. The number and age of recipient children is important to note, as it can signify specific needs of the family. For example, families with young children are more likely to require childcare assistance than families with older children who are in school.

Recipients with less than a high school education tended to have the most child recipients. They were seven percentage points more likely to have three or more

Table 2. Case Characteristics

| | | Less than high school | High school | More than high school |
|---------------------------------|----------------------|-----------------------|-------------|-----------------------|
| Number of adult recipients | 1 | 95.1% | 94.8% | 93.3% |
| | 2 | 4.9% | 5.2% | 6.7% |
| Number of child recipients | 0 | 3.8% | 3.4% | 4.4% |
| | 1 | 43.5% | 48.0% | 51.3% |
| | 2 | 27.6% | 28.0% | 26.5% |
| | 3 or more | 25.1% | 20.6% | 17.7% |
| Age of youngest recipient child | Younger than 3 | 54.7% | 52.0% | 44.3% |
| | 3 - 5 | 23.7% | 22.4% | 24.3% |
| | 6 - 12 | 16.2% | 18.8% | 22.4% |
| | 13 - 18 | 5.4% | 6.7% | 9.1% |
| | Average [median] age | 4.0 [2.6] | 4.3 [2.8] | 5.0 [3.7] |

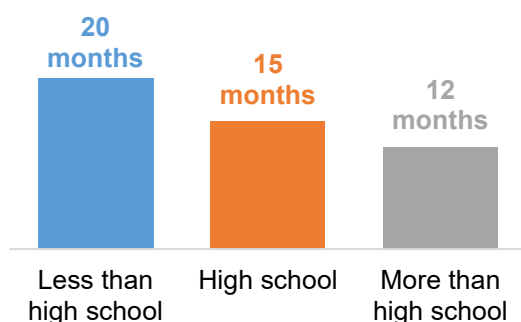
Note: Of the 515 cases with no children, 54% (278 cases) had a pregnant head of household. The remaining cases with no recipient children may include children who receive disability, subsidized adoption, or foster care payments.

children than recipients with more than a high school education (25.1% vs. 17.7%). These children also tended to be younger; 55% of recipients without a high school education had a child under the age of three, compared to 44% of recipients with additional education after high school. This indicates that recipients with less than a high school education may be the most in need of childcare assistance.

Program Participation

The length of time an individual receives TCA is an important part of their experience with the program. Figure 2 shows the average months of TCA receipt in the five years prior to exit for each education level. Recipients with less than a high school education had the most TCA receipt in the previous five years, with an average of 20 months of receipt. Recipients with a high school education had 15 months, and those with additional education after high school had 12 months of receipt, on average, in the previous five years.

Figure 2. Average Months of TCA Receipt in Previous Five Years



⁶ Recipients who are required to participate in work activities are required to complete 30 hours in a federally defined activity unless they have a child under the age of six; these recipients only need to complete 20 hours.

These findings are to be expected, as prior research has shown that as education increases, the likelihood of achieving economic stability increases (James & Nicoli, 2016). As such, recipients with higher levels of education may have a greater ability to support their families, and therefore be less reliant on financial assistance than recipients with less than a high school education.

Adult recipients' participation in work activities is also an important part of their experience with TCA. As a condition of receiving assistance, most adults on work-eligible cases are required to participate in federally defined work activities for 20 to 30 hours per week.⁶ Several of these required activities focus on the recipients' education and training, including vocational education, attendance at a secondary school or GED program, education directly related to employment, and job skills directly related to employment.⁷

Recipients with different levels of education are likely to participate in different work activities. For instance, many vocational programs require a high school diploma, so recipients with at least a high school education may be more likely to participate in a vocational education program. In contrast, job skills training can include the basic education needed to obtain employment, and thus may be more often utilized by recipients who have yet to finish high school.

⁷ See sidebar on education-related work activities for additional information.

EDUCATION-RELATED WORK ACTIVITIES

Vocational Education

(BEV)

Organized educational programs to prepare individual for employment.

Programs are provided by an educational organization such as a vocational-technical school, community college, or proprietary school. Recipients can only participate for one year to count in the federal work participation rate.

Job Skills Training Directly Related to Employment

(IST)

Training or education for job skills required by an employer to enable an individual to obtain employment or advance in the workplace. May

include literacy or language instruction when instruction is focused on skills needed for employment.

Satisfactory Attendance at a Secondary School or GED Program

(BED)

Educational instruction provided by a secondary school or an alternative educational program leading to a high school diploma or high school equivalency.

Education Directly Related to Employment

(BER)

Education related to a specific occupation, job, or job offer, including adult basic education or English as a second language (ESL) courses. This is limited to recipients who have not received a high school diploma or GED.

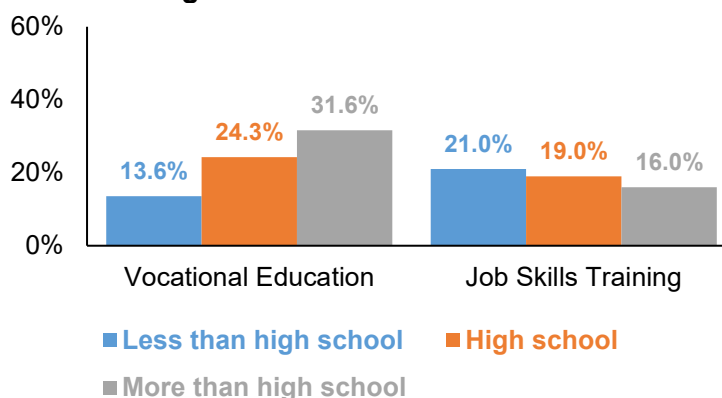
*Information retrieved from
Maryland's TCA work book.*

With this in mind, it is not surprising that those with more than a high school education were the most likely to participate in vocational education. Figure 3 displays participation in the two most common education-related work activities for all three groups in the year prior to exit: vocational education and job skills training. One in seven (13.6%) recipients with less than a high school education participated in vocational education, compared to one quarter (24.3%) of recipients with a high school diploma, and one third (31.6%) of recipients with education beyond high school.

In contrast, those with less than a high school education were slightly more likely to participate in job skills training. One in five (21.0%) recipients with less than a high school education participated in job skills training, followed by 19% of those with a high school diploma and 16% of recipients with additional education after high school.

Despite the fact that nearly one in three adult recipients did not have a high school diploma, activities designed to help recipients obtain their high school diplomas or improve their basic skills were rare. No adult recipients participated in a secondary school or GED program in the year prior to exit, and 1% or less of each group participated in education related to employment.⁸ The latter work activity includes adult basic education, which can assist adult recipients in achieving functional literacy and math skills.

Figure 3. Participation in Education Related Work Activities during the Previous Year



⁸ Analyses not shown.

The federal rules on these activities may also play a role in their low participation. Secondary school/GED programs and education related to employment are non-core activities. This means that adult recipients who are required to complete 30 hours in an activity can only participate in these two activities once they have already completed 20 hours in a core activity. However, job skills training is also a non-core activity, and participation in this activity ranges from 16% to 21% across the three education levels. Vocational education is the only education-related core activity, so higher participation is expected. However, participation in vocational education is limited to one year for a recipient's lifetime, and it is difficult to complete a certificated or associates program in one year.⁹

While some TCA recipients are able to successfully transition off assistance, many return to the program at some point after they exit. Cases may close for a variety of reasons including work sanctions, lack of paperwork or recertification, or an income above the limit. As a family's circumstances change, they may reapply for and return to TCA after a case closure. As shown in Table 3, recipients with less than a high school education were substantially more likely to return to TCA during the five-year follow-up period than their counterparts with a high school education or higher.

During the follow-up period, three in five (62.2%) recipients with less than a high school education returned to TCA at least once, while less than half of recipients with

a high school diploma (48.4%) and recipients with additional education after high school (40.8%) did. Across the board, all groups were most likely to return in the first year after exit, and those with less than a high school education were the most likely group to return in every year throughout the five-year follow-up period. In fact, 42% of those with less than a high school diploma returned during the first year after exit, which is higher than the percentage of adults with additional education who returned during the entire five-year follow-up period.

Those who returned to TCA received assistance for very similar amounts of time throughout the follow-up period as they did in the five years before exit, as shown previously in Figure 2. Recipients who did not complete high school had an average of 19 months of receipt, those with a high school diploma had 16 months of receipt, and recipients with additional education beyond high school received TCA for 14 months, on average.¹⁰

Since recipients with less than a high school education are the least likely to achieve economic stability after exit, it makes sense that they are also the most likely to return to assistance and to have the most TCA receipt when they do return (James & Nicoli, 2016). With this in mind, services focused on increasing educational attainment could help clients successfully exit and remain off TCA, and thus be a fruitful strategy for continuing to reduce the TCA caseload.

⁹ Beginning in July 2020, Maryland will allow TANF recipients to participate in vocational education for up to 24 months (H.B. 1066, 2019).

¹⁰ Analyses not shown.

Table 3. Returns to TCA during Follow-Up Period

| | Less than high school | High school | More than high school |
|----------------|-----------------------|-------------|-----------------------|
| Did not return | 37.8% | 51.6% | 59.2% |
| Returned | 62.2% | 48.4% | 40.8% |
| Year 1 | 42.0% | 31.2% | 26.1% |
| Year 2 | 10.8% | 8.9% | 6.8% |
| Year 3 | 4.8% | 4.0% | 4.4% |
| Year 4 | 2.9% | 2.8% | 2.7% |
| Year 5 | 1.7% | 1.5% | 0.8% |

Note: Analysis indicates when a case initially returned to welfare after exit; it does not necessarily indicate the only time a case returned to welfare. Counts represent the number of cases with the corresponding amount of follow-up data. Valid percentages are shown.

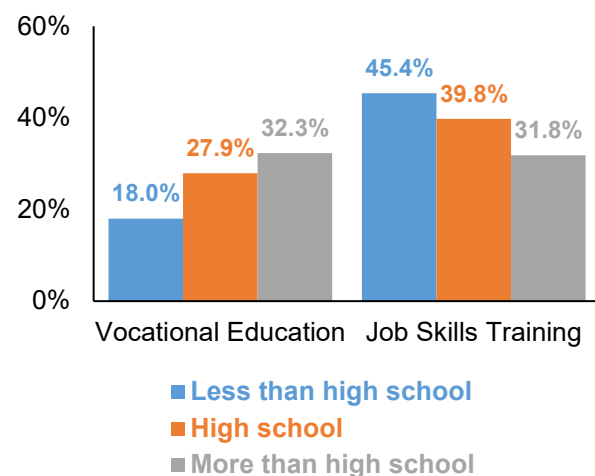
Many recipients who returned to TCA participated in education-related work activities throughout the follow-up period, as shown in Figure 4. For every group, participation in vocational education and job skills training increased from the year before exit, as shown in Figure 3. The pattern of participation remained the same, however. For instance, recipients with education after high school were the most likely to participate in vocational education (32.3%), followed by those with a high school diploma (27.9%) and recipients who did not complete high school (18.0%).

Participation in job skills training throughout the follow-up period doubled for each education level since the year prior to exit. Recipients with less than a high school education were the most likely to participate (45.4%), followed by recipients who completed high school (39.8%) and those who had education beyond high school (31.8%). The increase for those with less than a high school education is particularly promising, as this group would benefit the

most from gaining relevant skills particularly in growing occupations.

Attendance at a secondary school and participation in education directly related to employment were still quite low; 6% of those with less than a high school education participated in secondary school or a GED program, an increase from the year prior to exit. Still, less than 1% of each group participated in education related to employment as a work activity throughout the follow-up period. Participation in these two activities may be particularly important for adults without a high school diploma as it may better position them for an entry level job or allow them to pursue vocational education. Despite low participation in these two activities, overall increases in vocational education and job skills training, in particular, are positive, because participation in these work activities can prepare TCA clients for success in the workforce by increasing their educational attainment.

Figure 4. Participation in Education Related Work Activities during Follow-Up Period
Among Recipients Who Returned

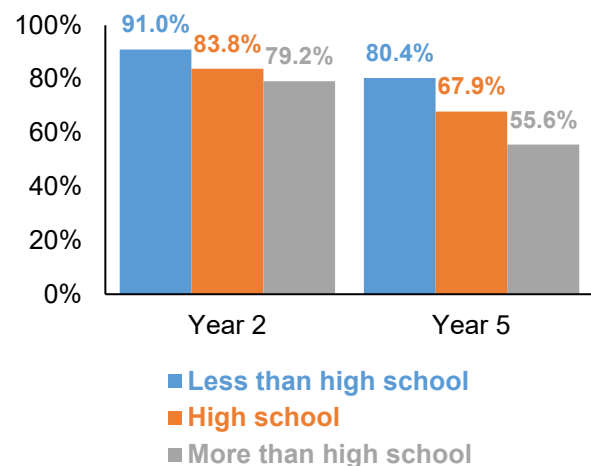


In combination with TCA, many low-income families may utilize other safety net benefits such as the Food Supplement Program (FSP), which is Maryland's Supplemental Nutrition Assistance Program (SNAP). Examining FSP receipt throughout the follow-up period is an additional way to measure whether families who exit TCA rely on assistance in the future. Figure 5 displays FSP receipt for each education level in the second and fifth years of the follow-up period.

For all education levels, the majority of TCA clients received FSP during the second year after exit. Recipients with less than a high school education had the highest percentage of receipt (91.0%), followed by those with a high school diploma (83.8%) and those who have additional education after high school (79.2%). By the fifth year after exit, FSP receipt declined for each group, potentially indicating a greater level of self-sufficiency among these families. Participation among those with less than high school declined by only 10 percentage points, so that four in five (80.4%) still received FSP in year five. Among the other two groups, participation declined by 16 and 24 percentage points, reducing participation to 68% for recipients with a high school diploma and to 56% for those with additional education. This means that participation among the least educated in year five, when

we might anticipate a greater level of independence, was at the same level experienced in year two by those with a high school diploma or more. Many adult recipients rely on additional support after exiting TCA, as they may not earn enough through their jobs to be entirely self-sufficient. This need is likely to be higher when families first exit and try to support themselves, but over time, this reliance declines. Additional support is most common among recipients who did not complete high school, however. Not only is this group the most likely to return to TCA, but their receipt of FSP throughout the follow-up period remains high with minimal decline over time. This indicates that these recipients may have a particularly difficult time attaining self-sufficiency.

Figure 5. FSP Receipt during Follow-Up Period



Employment and Earnings

Whether or not recipients return to TCA after exit largely depends on the adult recipient's ability to support their family. Recipients who are employed and have a good-paying job are more likely to be able achieve economic stability. Figure 6 examines how educational attainment may play a role in this stability by showing the percent employed for each group throughout the five-year follow-up period.

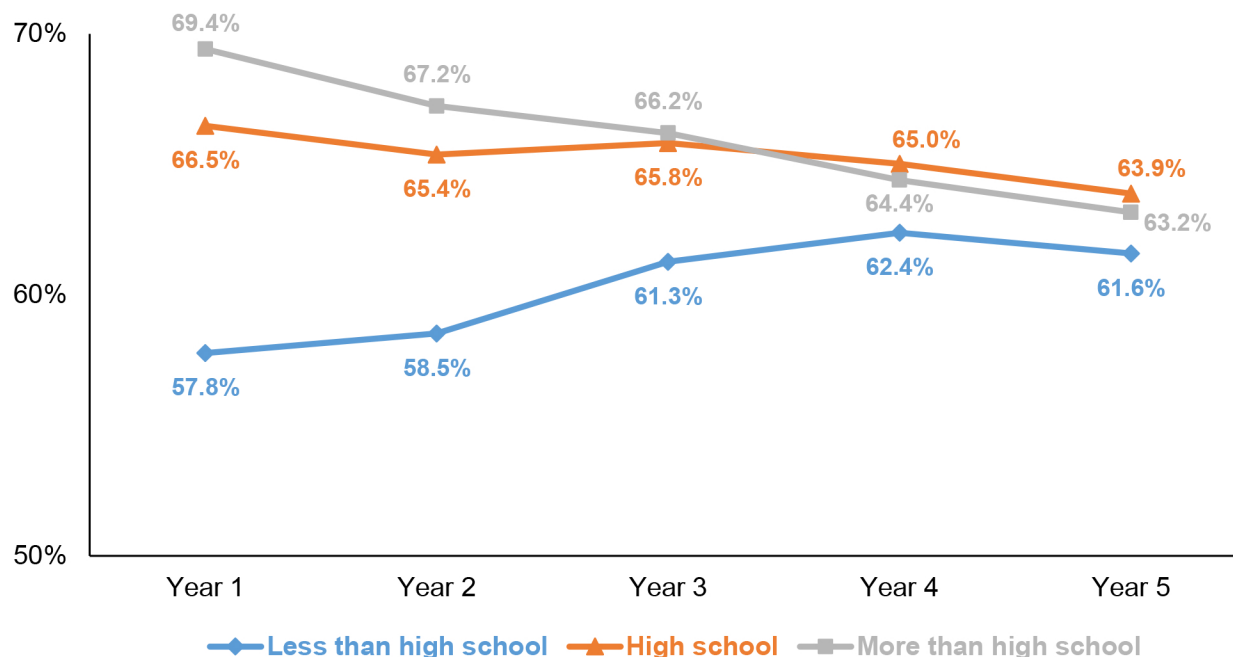
Across every education level, most adult recipients were employed throughout the follow-up period. In the first year after exit, recipients with education beyond high school (69.4%) were the most likely to be employed. They were three percentage points more likely to be employed than those with a high school education (66.5%) and 12 percentage points more likely to be employed than those with less than a high school education (57.8%).

By the fifth year after exit, this employment gap disappeared, and all three groups had similar rates of employment. This is due to a decline in employment among the two groups with a high school diploma or more along with an increase for those with less than a high school education. At the end of the follow-up period, recipients with a high school education (63.9%) were slightly more likely to be employed than those with additional education (63.2%) and recipients with less than a high school education (61.6%).

Over the course of the five-year follow-up period, earnings increased for every education level. Figure 7 displays the median annual earnings for employed adults in each education level throughout the five-year follow-up period.

Earnings nearly doubled for each education level throughout the five years after exit. This is a positive sign, as it shows that

Figure 6. Percent Employed During Follow-Up Period



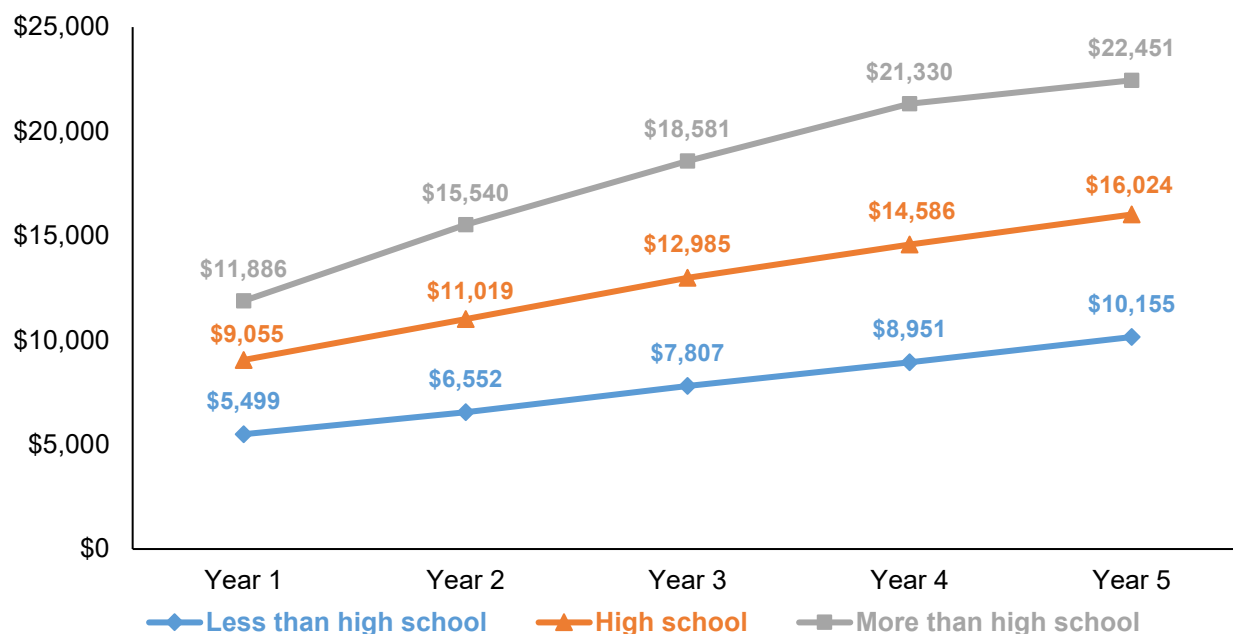
many recipients have an increased ability to support themselves over time. However, while earnings increased for each education level, the difference in earnings across education levels grew notably more pronounced over time. In the first year after exit, there was a \$6,400 difference in median earnings between employed individuals who did not complete high school and those with additional education after high school (\$5,499 vs. \$11,886). By the fifth year after exit, this difference grew to \$12,300 (\$10,155 vs. \$22,451). Despite the increase in earnings for recipients with the least education, by the fifth year their earnings were still only on par with the first year earnings of those with a high school diploma or greater.

While all earnings increased throughout the follow-up period, earnings across the board were still quite low. In 2018, the federal poverty level for a family of three was \$20,780 (U.S. Department of Health and Human Services, 2018). Five years after

exit, only recipients with additional education after high school were able to achieve an income above this, with median annual earnings of \$22,451. Recipients with a high school diploma earned well below the poverty level, with median earnings of \$16,024, and at \$10,155, recipients who did not complete high school earned the equivalent of deep poverty. Thus, while most adults were employed throughout the follow-up period, the majority did not earn enough to rise above the poverty level.

One reason for low earnings may be related to the amount of time that adults are employed during a year. Even though most adult recipients were employed throughout the follow-up period, the majority did not work all four quarters, as seen in Figure 8. In both the first and the fifth year after exit, recipients with additional education after high school were the most likely to work all four quarters, followed by recipients with a high school education and then those who had not completed high school.

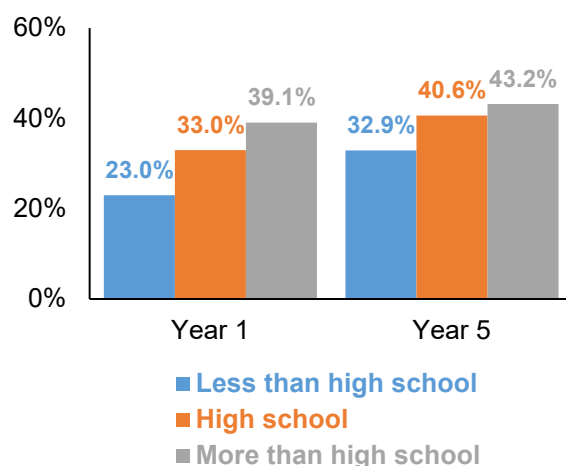
Figure 7. Median Annual Earnings During Follow-up Period



Although most adults did not work for the entire year, the percentage of those who did work all four quarters increased for each group throughout the follow-up period. Recipients who did not finish high school had the greatest increase, at 10 percentage points (23.0% vs. 32.9%). Those who finished high school had an eight percentage point increase (33.0% vs. 40.6%), and the percent of recipients with education beyond high school working all four quarters increased the least, by four percentage points (39.1% vs. 43.2%).

While recipients with less than a high school education had the lowest levels of employment, it is important to note the growth occurring throughout the years after their exits from TCA. They were the only group whose employment rate increased over the five years, and they had the highest increase in the percent of adults working all four quarters. Despite this, recipients with less than a high school education still have substantially lower rates of employment and lower median earnings than the other education levels.

Figure 8. Percent Working all Four Quarters during Follow-Up Period



The industries in which recipients work can have a major impact on their earnings and economic outcomes. Individuals who worked in industries such as health care, education, or government after exiting TCA have been shown to be more likely to experience economic stability than recipients who worked in lower-paying industries including administrative and support services, general retail, and food and beverage retail (James & Nicoli, 2016). Table 4 presents the top industries and median earnings for the last quarter recipients were employed during the follow-up period.

For all three education levels, the highest-paying industry was hospitals. In hospitals, quarterly earnings ranged from \$5,769 among those with less than a high school education to \$7,880 among those with more than high school. Even with the \$2,000 difference in earnings between these two groups, this industry was the highest paying for the least educated by far. In fact, the industry with the second highest earnings for those with less than high school, which was outpatient health care, was still \$2,000 less at just under \$3,800. Unfortunately, hospitals was only the ninth most common industry for those with less than high school, employing less than 3% of this group's employed adults. On the other hand, 7% of employed adults with more than a high school diploma worked in hospitals, making it the fifth most common industry for this group.

Nonetheless, these three groups do share some of the same industries in their top five. These include administrative and support services, nursing homes, and outpatient health care. Two of these three industries,

nursing homes and outpatient health care, are associated with higher than average economic stability (James & Nicoli, 2016). Despite having these industries in common, employment and earnings in these three industries varied substantially by education level.

Administrative and support services, which includes temporary employment agencies, was the most common industry for each of the three groups, but recipients who did not complete high school were the most likely to work in this industry. One in five (21.2%) employed adults with less than a high school diploma worked in this industry compared to 17% among those with a high school diploma and 14% among those with additional education. Even though administrative and support services is associated with lower than average economic stability, the least educated fared

the worst with quarterly earnings nearly \$1,300 less than those with additional education (\$1,256 vs. \$2,527).

Outpatient health care is associated with greater levels of economic stability, so it is not surprising, then, that those with more than a high school diploma were the most likely to work in this industry. One in 10 (10.7%) employed adults with additional education worked in outpatient health care, compared to 8% for those with a high school diploma and 5% for those with less than a high school diploma. Again, quarterly earnings were lower for the least educated; they earned \$3,788 compared to \$5,515 among those with additional education. Nursing homes, an industry also positively associated with economic stability, employed similar percentages of each group—between 7% and 8%. Similar to the other industries, those without a high school

Table 4. Industries and Median Earnings for Last Quarter Employed in Follow-Up Period

| Industry | Less than high school (n=3,859) | | High school (n=7,845) | | More than high school (n=901) | |
|-------------------------------------|------------------------------------|----------|--------------------------|----------|----------------------------------|----------|
| | % | Earnings | % | Earnings | % | Earnings |
| Administrative and support services | 21.2% | \$1,256 | 17.4% | \$2,099 | 14.1% | \$2,527 |
| Restaurants | 16.4% | \$1,533 | 11.5% | \$1,799 | 6.9% | \$2,157 |
| Outpatient health care | 4.6% | \$3,788 | 8.2% | \$4,950 | 10.7% | \$5,515 |
| Nursing homes | 7.0% | \$3,340 | 6.9% | \$4,960 | 8.3% | \$5,293 |
| General retail | 7.0% | \$1,347 | 5.3% | \$1,611 | 3.9% | \$1,283 |
| Hospitals | 2.7% | \$5,769 | 4.9% | \$6,692 | 7.1% | \$7,880 |
| Social assistance | 3.5% | \$2,998 | 4.6% | \$4,204 | 4.8% | \$3,835 |
| Educational services | 1.9% | \$2,827 | 3.7% | \$3,609 | 8.3% | \$6,583 |
| Food and beverage stores | 4.5% | \$1,434 | 3.1% | \$1,693 | 2.2% | \$1,931 |
| Accommodation | 3.2% | \$2,000 | 2.2% | \$2,544 | 1.0% | \$2,090 |
| Other | 27.9% | \$2,333 | 32.1% | \$3,840 | 32.7% | \$5,071 |
| Total | 100.0% | \$1,974 | 100.0% | \$3,233 | 100.0% | \$4,624 |

Note: Represents the employer with whom the individual earned the highest wages in the last quarter the individual was employed during the follow-up period. The analysis excludes individuals who were employed but the NAICS code was missing (n=131).

diploma earned substantially less (\$3,340 vs. \$5,293). In fact, recipients with additional education were the only group that had earnings above the poverty limit. If employed in all four quarters, the median quarterly earnings for this group in four industries—outpatient health care, nursing homes, educational services, and hospitals—were above the annual poverty level for a family of three (U.S. Department of Health and Human Services, 2018).

Although most recipients were employed throughout the follow-up period, the industry in which they worked and their earnings varied by education level. Recipients with higher levels of education earned more and were more likely to work in higher-paying industries than those with less than a high school diploma. Even when employed in the same industry, recipients with additional education beyond high school were able to earn substantially more than those without a high school diploma. Clearly, educational attainment is an important component of not just finding a job, but finding a good paying, stable job with which a recipient can support their family and maintain self-sufficiency.

Conclusions

For many adult recipients, the ultimate goal of TCA is to attain self-sufficiency through finding stable, good-paying employment. Education can be an important component of attaining such a job, as adults with a high school diploma or higher have substantially better economic outcomes than recipients who have not completed high school (James & Nicoli, 2016; Bureau of Labor Statistics, 2018). To further review the impact of educational attainment, we examined three groups of recipients who exited in FFY 2013: recipients who did not complete high school, recipients with a high

school diploma, and those who have additional education beyond high school.

Although there were many similarities in the demographic and case characteristics among all levels of education, there were some key differences that may impact the type of assistance recipients require. Adult recipients who did not complete high school were more likely to have three or more children they are supporting. These children also tended to be younger, and recipients without a high school diploma were the most likely to have a child under the age of three. With this in mind, this group may be particularly in need of childcare assistance in order to participate in educational activities.

While some recipients are able to transition off assistance, many ultimately return to TCA or receive other safety net benefits after exit, regardless of their education level. However, recipients who did not complete high school were the most likely to return to TCA and to participate in the Food Supplement Program (FSP) during the five years after exit. In fact, returns during the first year after exit were higher for the least educated than they were during the entire five-year follow-up period for those with additional education. Clearly, recipients with less than a high school education have the most difficulty maintaining self-sufficiency after exit from TCA.

A major factor in a recipient's ability to remain off assistance is whether they are able to support their families. Recipients who did not complete high school were the most likely to work in typically low-paying industries that are associated with lower than average economic stability, compared to those with additional education after high school, who were notably more likely to

work in industries associated with economic stability. Even when working in the same industry, those who did not graduate high school earned substantially less than recipients with a high school diploma or additional education. In fact, recipients with additional education beyond high school were the only group that was able to attain earnings above the poverty level (U.S. Department of Health and Human Services, 2018).

Throughout this report, we see that as education increases, recipients work in higher-paying industries, earn more, and are less likely to return to TCA. As such, focusing on increasing educational attainment among TCA recipients may increase the likelihood of adult recipients being able to support their families and successfully exit TCA.

One way to increase educational attainment is through participation in education-related work activities. The most common of these activities, both before and after exiting assistance, were vocational education and job skills training. Starting in July 2020, Maryland will allow TCA recipients to participate in vocational education for up to

24 months, an increase from the 12 months previously allowed (H.B. 1066, 2019). This is a positive change, as it will give recipients the time needed to complete vocational programs, which may require more than one year of course work. In addition, expanding participation in secondary school and adult basic education may be an appropriate measure for increasing educational attainment, especially for those who do not yet have a high school diploma. Obtaining a diploma may open doors to better paying jobs or other educational opportunities.

A two-generation approach, which centers the needs of parents and children together, may be particularly useful. A parent's level of educational attainment is a major predictor of their child's educational and economic outcomes (Lombardi, Mosle, Patel, Schumacher, & Stedron, 2014). A focus on educational attainment for both adults and children could help prepare all recipients in the family for self-sufficiency. Additionally, as clients with higher levels of education are less likely to return to TCA, this could be an impactful strategy for continuing to decrease the TCA caseload.

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Appendix

Appendix Table A. Educational Attainment by Jurisdiction

| | Less than high school | | High school | | More than high school | |
|------------------------|-----------------------|---------|-------------|---------|-----------------------|---------|
| | % | n | % | n | % | n |
| Allegany County | 30.6% | (71) | 56.9% | (132) | 12.5% | (29) |
| Anne Arundel County | 23.5% | (227) | 67.1% | (649) | 9.4% | (91) |
| Baltimore City | 42.4% | (2,490) | 52.8% | (3,101) | 4.9% | (287) |
| Baltimore County | 21.1% | (405) | 70.1% | (1,348) | 8.8% | (169) |
| Calvert County | 28.4% | (27) | 69.5% | (66) | 2.1% | (2) |
| Caroline County | 23.3% | (21) | 72.2% | (65) | 4.4% | (4) |
| Carroll County | 32.4% | (33) | 60.8% | (62) | 6.9% | (7) |
| Cecil County | 44.8% | (143) | 50.8% | (162) | 4.4% | (14) |
| Charles County | 27.0% | (73) | 64.1% | (173) | 8.9% | (24) |
| Dorchester County | 34.9% | (73) | 58.4% | (122) | 6.7% | (14) |
| Frederick County | 28.0% | (87) | 57.6% | (179) | 14.5% | (45) |
| Garrett County | 28.2% | (11) | 71.8% | (28) | 0.0% | (0) |
| Harford County | 31.1% | (97) | 57.4% | (179) | 11.5% | (36) |
| Howard County | 17.6% | (57) | 70.0% | (226) | 12.4% | (40) |
| Kent County | 27.9% | (17) | 70.5% | (43) | 1.6% | (1) |
| Montgomery County | 21.2% | (171) | 70.8% | (572) | 8.0% | (65) |
| Prince George's County | 15.8% | (280) | 76.5% | (1,354) | 7.6% | (135) |
| Queen Anne's County | 12.5% | (9) | 63.9% | (46) | 23.6% | (17) |
| St. Mary's County | 32.8% | (90) | 61.3% | (168) | 5.8% | (16) |
| Somerset County | 27.4% | (26) | 62.1% | (59) | 10.5% | (10) |
| Talbot County | 20.0% | (4) | 80.0% | (16) | 0.0% | (0) |
| Washington County | 24.3% | (97) | 65.9% | (263) | 9.8% | (39) |
| Wicomico County | 33.6% | (141) | 64.0% | (269) | 2.4% | (10) |
| Worcester County | 27.1% | (13) | 70.8% | (34) | 2.1% | (1) |
| Maryland | 31.0% | (4,664) | 62.0% | (9,318) | 7.0% | (1,056) |

Note: Jurisdictional count may not sum due to missing jurisdiction information (n=3).



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For additional information, please contact Letitia Logan Passarella at the School of Social Work (410.706.2479; llogan@ssw.umaryland.edu).

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525 W. Redwood Street
Baltimore, MD 21201
410-706-2479
<https://familywelfare.umaryland.edu>