

# Falling off the cliff? Increasing Economic security for Low Income Adults as the safety net shrinks

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## **Abstract**

*The public assistance system is supposed to offer a bridge between poverty and self-sufficiency. Families receive benefits such as Temporary Assistance for Needy Families (TANF) or Supplemental Nutrition Assistance Program (SNAP) to soften the impact of loss of income. The programs are intended to be limited in duration and provide a very modest amount of financial support. Some families are fortunate to also receive a housing voucher or a child care subsidy to help offset basic expenses. Eligibility for benefits varies by program and is based on different criteria, most of which are linked to personal income. This study asks: what happens when benefits are cut before individuals reach economic stability? This is frequently called the “benefits cliff.” Average annual earnings of recipients are low, however, many families lose benefits while working. States have attempted to address the “benefits cliff” issue by extending benefits for each individual program. This study reviewed state strategies and found that some states were finding innovative solutions such as extending recertification for benefits eligibility or excluding additional income. A system dynamics model is used to evaluate the potential impact on earnings from employment for TANF recipients under four policy scenarios.*

**Key words:** *benefits cliff, work supports, system dynamics, welfare policy*

## **Introduction**

The public assistance system is supposed to offer a bridge between poverty and self-sufficiency. Individuals and families receive benefits such as the Temporary Assistance for Needy Families (TANF) or the Supplemental Nutrition Assistance Program (SNAP) in order to help soften the impact of loss of income. The programs are intended to be limited in duration and provide a very modest amount of financial support. Current benefit amounts under TANF are about \$465 per

month for a family of three, or about \$5,500 in benefits annually. Moreover, some families are fortunate to also receive a housing voucher or a child care subsidy to help offset basic expenses. Eligibility for benefits varies by program and is based on different criteria, most of which are linked to personal income. It is important to note that the subsidies offer modest financial support and do not approximate what the average Ohioan earns (Ohio per capita income in 2012 was nearly \$40,000).

The basic question addressed in this study is: what happens when benefits are cut before individuals reach self-sufficiency? This is frequently called the “benefits cliff” or the “cash cliff.” As an example, consider a single mother receiving TANF of \$465 per month. If she earns \$800 a month, her take home income is \$800 + \$465, or \$1265. If, however, she earns \$900 a month she is ineligible to receive TANF support any longer and the amount she has to spend every month is just \$900. The incentives here are simple to see, a rational person would not voluntarily give up \$365 a month and therefore would elect to remain on benefits rather than accept additional income. This costs the state additional money in long term subsidies for this individual because they are forgoing additional income and instead collecting TANF or SNAP benefits. It also has a pernicious effect in limiting work opportunities to low pay jobs.

In Ohio, the number of individuals receiving TANF has declined significantly in the past five years. In 2013, just over 61,000 people received TANF in comparison to 126,000 in 2009. In contrast, the number receiving SNAP increased from 1.2 million in 2009 to 1.4 million in 2013. In both cases a substantial fraction of the individuals are working while receiving benefits. The data show that over the five-year period examined, 2009-2013 over a third of the people receiving benefits are actively working in Ohio. Average annual earnings of benefit recipients are low, however, a large fraction of recipients lose their benefits while working. In 2013, for example, 35% of TANF exiters left the program after receiving an average of four months of benefits while working.

States have attempted to address the “benefits cliff” issue in different ways. Generally, most of the efforts revolve around proposing ways to extend benefits for each individual program. That means allowing people to stay on a specific program and receive benefits longer. This study conducted a review of state strategies in the spring of 2014. The review of state strategies revealed that some states were addressing benefit cliffs in innovative ways by extending recertification for benefits eligibility or excluding additional income. These specific policy actions can extend eligibility for benefits.

However, states are not necessarily using the “benefits cliff” as an opportunity to improve long-term earnings or skill attainment. Because programs such as TANF or housing subsidies are run separately and eligibility is calculated in disparate ways, states miss the opportunity to move individuals to self-sufficiency because the programs are working at cross purposes with each other. TANF is meant to be income support for the most needy, while the Workforce Investment Act (WIA) programs are meant to support retraining. The long-term goal of these programs is increased income and self-sufficiency. Hence, these programs can support each other by offering different types of assistance to individuals with unique needs.

A system dynamics model is used to evaluate the potential impact on earnings from employment for TANF Cash Assistance recipients under four scenarios. The study looks specifically at how employment will change as a result of introducing various policy alternatives.

## **Overview of Benefit Cliffs**

### ***The Poverty Context***

Poverty is a critical issue both for Ohio as a state and for urban areas such as Franklin County. According to the American Community Survey, in 2011-12 16% of Ohio's residents lived in poverty. This equates to over 1.8 million Ohioans and 349,000 Ohio families. Poverty rates have steadily risen in Ohio since 1999 when they were 10.6%. While poverty has risen, per capita income has continued to climb, reaching about \$40,000 in 2011-12 (figure 1).

Poverty and income are unevenly distributed across the state. As is well understood, Ohio's cities and Appalachian counties experience much higher rates of poverty for both individuals and families than the state as a whole. The average poverty rate by county for Appalachian districts stood at 17% in 2010-11, but varied from 10% to 32% in the far south of the state. Similarly, urban areas such as Youngstown, Canton and Cleveland all faced poverty rates above 30% while the average poverty rate for cities stood at 17% in 2011.

Although poverty rates are significant, the reality is that many more families have low levels of income and struggle to earn enough to pay for housing, childcare and food. The current Federal Poverty Level (FPL) is set at \$23,850 for a family of 4 or \$11,670 for individuals. A number of programs including TANF or SNAP use the federal poverty guidelines or similar income levels as a way to determine eligibility for program assistance. As a result, a family of four cannot earn more than \$23,850 in order to qualify for a number of benefit programs.

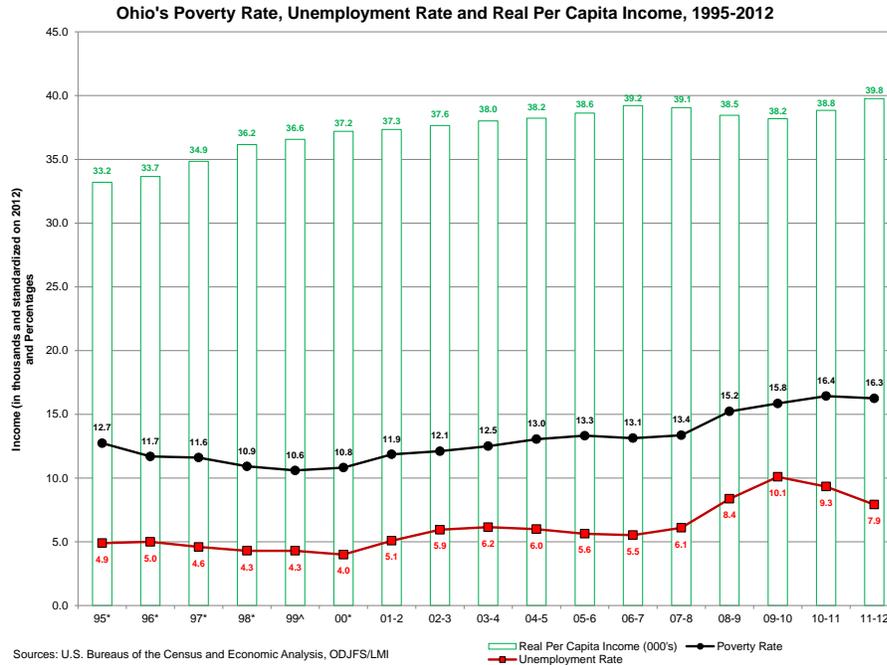


Figure 1. Ohio’s Poverty Rate, Unemployment Rate and Real Per Capital Income, 1995-2012

### Overview of Benefit Programs

The benefits cliff is experienced by families living in poverty who rely on work support benefits to bridge the gap between their earned income and the cost of meeting their basic needs. The cliff effect occurs when wages increase to the point that earnings exceed eligibility limits, therefore causing families to lose the safety net that is intended to help transition them to economic security. Parents struggle to keep their jobs when child care subsidies, housing support, food stamps, and other critical benefits are lost.

Low-wage workers who work hard and are given advancement opportunities that will result in loss of income from benefits often turn them down. The incremental increase in their income from wages does not result in a higher overall income and therefore acts as a disincentive and traps them and their families in poverty. Most work support benefits that are not discontinued abruptly instead taper off as income increases, but not gradually enough. The gap created by the total resulting loss of income leaves families worse off financially. Research has shown that while work support benefits increase employment rates and income, and in many cases employment retention, they have limited effects on job advancement (Martinson & Hamilton, 2011).

Based on 2009 Ohio data, a single-parent family with two children living in Columbus would have to earn about \$20 per hour (\$41,600 annually) just to breakeven after becoming ineligible for work support benefits. The Columbus Metropolitan Statistical Area (MSA) has a mean hourly earnings of \$22.33 for all workers regardless of occupation or job in 2013 (USDOLBLS, 2014). Mean hourly earnings are predictably lower for workers in part time jobs or for individuals with lower educational levels. In Ohio, and across the nation, there is evidence

showing that many low-income parents are not able to achieve economic stability by using work support benefit programs.

The Ohio Association of Community Action Agencies 2013 Self-Sufficiency Standard report for Ohio (Pearce, 2013) indicates that a family's basic needs expenses have increased in all counties since 2008. At the same time, wages in the ten largest occupational groups in Ohio are not keeping pace with the cost of living increases, thus, leaving families struggling more than ever to make ends meet. Clearly, work support benefits are a critical component of low-income families' income package in Ohio, with childcare being one of the greatest expenses.

The fact that the phase out rules vary for different work support benefits, and are not coordinated, often results in a cumulative effect more severe than policy makers projected. Challenges with maintaining adequate state funding for benefits programs in the wake of the Great Recession has further contributed to recipients' struggles, since eligibility does not guarantee that the subsidies families receive will meet their basic needs. In addition to phasing out too quickly, or cutting off altogether before self-sufficiency is achieved, work support programs are often difficult to navigate. Complex application processes, varied eligibility requirements for each type of benefit, and frequent adjustments based on recent (rather than sustained) income levels are commonplace. Consequently, many eligible families are not applying to receive benefits for which they are qualified.

Poverty is a very low bar for measuring a family's economic self-sufficiency. Even for those with incomes above the FPL, wages are not aligned with living standards in most areas of the nation. Moreover, underlying poverty remains a major burden on families who are attempting to transition to economic security. Poverty in Ohio has fallen, but still remains at nearly 11% for families and is even higher for youth and older adults. Ohio's children are hit hard, with 24 out of 100 children living in families that fall below the poverty line (NKCDC, 2013). Federal work support benefits such as SNAP and TANF recognize this misalignment and have eligibility rates higher than the FPL.

### ***Complexity of the Benefits Cliff Issue: Demographics, Geographic Differences, and Government Complexity***

Nearly two decades ago welfare reform established work support programs for the purpose of encouraging work while also providing a safety net to close the gap between a family's basic needs budget and their income from low wage jobs. These programs essentially require work in exchange for public benefits and are designed to incentivize employment. The intended outcome is to assist the recipient in their efforts to become self-sufficient through employment. As long as the amount of benefits paid to individuals stays constant as their income from work increases, the programs have the intended effect and provide an efficient means for transferring income to those in need (Greenberg, Deitch, & Hamilton, 2009). However, the effectiveness of these programs may be lessened over time when recipients turn down opportunities for advancement to avoid the cliff effect. The underlying assumption is that it is to the public benefit to increase employment and decrease consumption of public benefits, but the cliff effect undermines full realization of this goal.

The current welfare system was implemented when the economy was strong and job opportunities were plentiful for those who acquired the necessary job skills. The jobless recovery since the Great Recession has strained this system that relies heavily on work as the pathway to economic security. The lack of available jobs, workers' low skills and lack of credentials, and other barriers to successful employment have combined to prevent many Ohioans from obtaining jobs. Short-term income support programs, such as TANF cash assistance and SNAP, are not as effective at moving people into self-sufficiency when sustainable jobs that pay a living wage are scarce. Programs such as Section 8 Housing and child care benefits are designed to provide long-term support for low-income families. The government recognizes that the largest share of a family's total budget is spent on these two expenses. In order to afford these expenses, a low wage earning parent will have to both secure employment then obtain job advances with pay increases.

Single parent families, typically headed by mothers, are heavily reliant on child care assistance. Several studies that examined the struggles facing these families found that the loss of child care benefits makes the difference between a mother keeping her job or having to quit (East & Roll, 2010; Hoffman & Dale, 2010; Purmort, 2010). Strategies used by parents to maintain child care benefits include not taking extra hours at work, declining job offers, not accepting raises when offered, not getting married, not accepting child support, and not turning in their recertification paperwork (Roll, 2010). The implication is that individuals are maximizing their benefits, and limiting the loss of work support benefits by carefully keeping track of their income level relative to eligibility limits.

### **Ohio's Benefit Programs and Cliffs**

The National Center for Children in Poverty (NCCP) has conducted a number of cliff effect studies that indicate that there is a critical need for work support benefits.<sup>1</sup> NCCP's Family Resource Simulator estimates families' basic needs budgets based on factors such as family size, location, and employer benefits. Figure 2 shows the cliff effect in Franklin County calculated with the NCCP Simulator using 2009 data. When annual income levels reach just under \$36,000 a major cliff occurs when child care subsidies are lost. Similar results were found when data from Cincinnati and Cleveland were examined.

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<sup>1</sup> National Center for Children in Poverty, Columbia University, Mailman School of Public Health, Department of Health Policy & Management, Family Resource Simulator. Found at <http://stage.nccp.org/tools/frs/>, August 28, 2014.

## Cliff Effect in Franklin County (2009 Data)

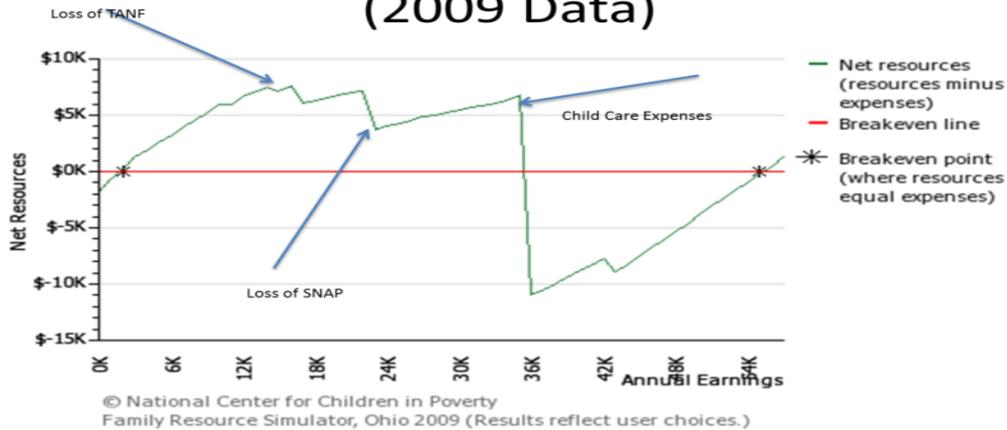


Figure 2. Cliff Effect in Franklin County (2009 Data)

### *Child Care*

In Ohio, the Department of Job and Family Services (ODJFS) administers Federal Childcare and Development Funds from TANF. These federal funds comprise about two thirds of the total budget, with State General Revenue Funds contributing the remainder as the state's Childcare Block Grant match. The upper eligibility limit is set at 200% of the FPL and the entry level of eligibility is 125%. A recent Policy Matters Ohio report (Patton, 2014) that examined the child care cliff effect in Ohio found that once lost, benefits cannot be regained unless the parent starts over again at the initial level of eligibility of 125% of the FPL. To continue working in their current job with a higher income level does not allow them to qualify for child care benefits.

### *TANF*

TANF is a federally funded program with eligibility requirements and benefit levels determined by each state. Ohio Works First program provides time limited cash assistance to eligible families for up to 36 months, followed by 24 months of ineligibility. Individuals must demonstrate good cause for reapplying, such as inability to find employment, domestic violence, loss of employment, divorce, or other reasons determined by a case worker. Income changes of fifty dollars per month or more must be reported so that benefit amounts can be adjusted accordingly.

A state supervised, county administered model is used which results in significant variations in local policies regarding eligibility standards, impact of increased earnings, and allowing exemptions. The diversity in program administration has resulted in a number of challenges in collecting the data necessary to accurately measure outcomes and identify best practices at the local level. TANF recipients are required to participate in work activities and sign self-sufficiency contracts. A single application form is used for determining eligibility for cash, food and medical assistance.

In 2013, there were 61,462 people that participated in TANF, a decline from 126,293 in 2009 at the outset of the recession. The demographics of the participants have also changed over time. Of the 61,000 TANF participants in 2013, 42% or 26,000 were African-American, while in 2009 the percentage was only 36%. Hispanics comprise a very small percentage of the TANF client load, never exceeding 3% of participants in any of the years (2009-2013) that this report examined. The percentage of TANF recipients that were single parents stayed at about 75% in 2009 and 2013.

### ***SNAP***

SNAP eligibility is determined on the basis of income and work requirements – up to 130% of FPL in gross income and at least 20 hours a week of work activities. The work requirement was not enforced until work requirements were reinstated for SNAP on October 1, 2014 in all but 16 counties with high unemployment (Candisky, 2014). The waiver for work requirements is no longer available; therefore, recipients from 18 to 50 years old without dependent children must comply. As a result of this change 10,000 people lost SNAP benefits in January 2014. SNAP Employment and Training Pilot Projects are currently underway as a strategy move recipients into employment, reducing the need for food benefits.

### ***Housing***

The U.S. Department of Housing and Urban Development's (HUD) Housing Choice Vouchers and Public Housing programs provide assistance to low income families and are administered by local public housing agencies (PHAs). Eligible families have access to either Public Housing communities or Housing Choice Vouchers, which allow them to find housing independently, including locations that are not in subsidized housing complexes. Eligibility is determined by the local PHA and access is very competitive. To qualify the family's income cannot exceed 50% of the area median income and the PHA is required to provide 75% of its vouchers to families whose incomes are below 30% of the area median income.<sup>2</sup> Given limited available funding, most new recipients must have income below 30% of the area median income. Families who pay more than 50% of their income for rent, are involuntarily displaced, or are homeless may receive preference in the selection process.

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<sup>2</sup> U.S. Department of Housing and Urban Development. Found at [http://portal.hud.gov/hudportal/HUD?src=/topics/housing\\_choice\\_voucher\\_program\\_section\\_8](http://portal.hud.gov/hudportal/HUD?src=/topics/housing_choice_voucher_program_section_8), September 18, 2014.

Table 1: Ohio Specific Programs

Work Support Program	Benefit	Income Eligibility
Temporary Aid to Needy Families (TANF) Cash Assistance	Ohio Works First provides cash assistance for up to 36 months. State payment standard is \$465 for a family of three. Amount varies by family size and county standards.	Maximum income for initial eligibility is \$814 for a family of three (one adult, two children). Earned income disregard of \$250 and 50% of remainder used for benefit calculation and income eligibility.
Childcare Assistance	Childcare costs are reduced to a co-payment which is dependent on income level and family size. For example, a family of three earning 150% of the FPL* would have a \$260 monthly co-payment.	Ohio sets a family's initial eligibility at 125% of the FPL to begin receiving assistance. Once receiving benefits, the eligibility for ongoing receipt is 200% of the FPL*.
Housing Assistance (Section 8 Housing Vouchers and Public Housing)	Housing costs are typically set at 30% of adjusted gross income.	Households may be eligible with incomes that are 80% of area median income. However, due to limited funding most new program participants must have income below 30% of area median income.
Supplemental Nutrition Assistance Program (SNAP, Formerly Food Stamp Program).	Maximum benefit for a family of three: \$526 per month. Maximum benefit for a family of 4: \$668 per month. Average monthly benefit per household is \$287 per month in Ohio.	Eligibility is based on gross income up to 130% FPL and net income (gross income minus allowable deductions) up to 100% FPL. Families with an elderly person or person with disability benefits only need to meet the net income requirements.
Special Supplemental Nutrition Program For Women, Infants, and Children (WIC)	Average monthly benefit of \$36.12 in Ohio for purchasing supplemental nutritious foods. Also includes breastfeeding support and health education.	Pregnant and postpartum women and children up to age 5: at or below 185% FPL.

Source: Adapted from The Self-sufficiency Standard for Ohio 2013 (Pearce, 2013)

\*The 2013 Federal Poverty Guidelines (FPG) for a family of three is \$19,530 (annual income). See: <http://aspe.hhs.gov/poverty/13poverty.cfm>

\*\*Eligibility and benefits for work supports change routinely – typically yearly. The information reported represents eligibility and benefit guidelines for 2012/2013 and assumes the 2013 Federal Poverty Guidelines when applicable.

### ***Employment While in a Benefits Program***

The critical issue that this study considers is what can be done, from a policy perspective, to improve the employment transitions of individuals in workforce programs such as TANF? It matters, therefore, where the individuals start. What fraction of participants are employed while in the program? How much are they making on average? The data supplied by ODJFS indicates that 23% of Ohio Works First participants were employed while they were collecting TANF. This fraction increased substantially by 2013 when 36% of TANF participants were employed. While data access issues make it difficult to know how much the employed individuals in TANF earned, the first quarter they exited TANF they made an average of \$2,114 per quarter in 2009 and \$2,384 per quarter in 2013. Given this information it is evident that their earnings were about \$1,000 lower than the ceiling for the income eligibility under TANF, which can be roughly calculated to be about \$3,256 a quarter or \$814 a month.

SNAP participants include a much wider range of Ohioans. Therefore, the employment participation rates for SNAP were quite different. Moreover, employment participation is treated differently in SNAP programs. Of the 1.2 million participants in 2009, 10% were employed after exiting SNAP. This percentage increased to 13% of participants in 2013. Average quarterly earnings for the first quarter after they exited was \$3,092 in 2009 and \$3,752 in 2013.

### ***Employment and Earnings After Exiting Benefit Programs***

The key empirical issue for workforce policy concerns the effectiveness of programs such as TANF at helping soften the blow of underemployment or barriers to employment from disability or mental illness. TANF has a focus on helping individuals transition to more stable employment.

The early data received from ODJFS for this study provides a glimpse at the earnings of TANF participants in the year following their exit from the program. On an annual basis, TANF participants earned less than \$10,000 on average each year between 2009 and 2013. This average has relatively little variation over time, although the data from 2013 show a drop in average earnings for participants in the year following exit from the program. However, the 2013 data are not complete because many people who left TANF in 2013 could not be followed for the four quarters after their exit from the program.

The earnings of SNAP participants vary a great deal in the year following their exit from the program. In 2009, SNAP participants that exited earned an average of \$14,700 after exiting the program. The average income rose to \$15,600 in 2010 and then dropped to about \$13,000 in 2011 and 2012 for cohorts that exited in those years. It should be stressed that these data are average earnings and not the more appropriate median earnings measure. Averages will be lower. As better data becomes available these numbers will be revised.

When thinking about the possibility of a benefits cliff, these employment and earnings data help set the scene for more in-depth statistical work. The data validates the view that workforce programs targeting TANF recipients need to take into account the difficult employment situation

many individuals are in after they exit the program. It also raises the importance of training and job placement services for TANF and SNAP recipients.

## State of the States

### *Benefit Cliffs Across the Country*

The way in which work support programs are administered varies from state to state. This study is informed by interviews conducted with state officials from four states regarding their work support related policies and practices. The states included in this phase of the study include Vermont, New Jersey, Colorado and Ohio. In addition to the in-depth consideration of cliff related policy responses in these states, this study conducted a survey of recent and emerging legislation designed to address the cliff effect in other states throughout the country. The results obtained from the state interviews and legislative survey informed the policy options explored and the system dynamics model developed for this study.

### *Review of Interview Findings*

Agencies were selected from each state on the basis of their authority in administering the primary benefit programs of interest in this study, including TANF and childcare. Whether or not these agencies also administer the SNAP program varied and none of the agencies were responsible for Section 8 Housing programs. Of the four states included in the interviews, only Vermont has a state administered TANF program. Ohio, Colorado and New Jersey have state supervised, county administered programs. Table 3 specifies who was interviewed and their roles within each agency. Top administrators recommended these representatives based on their knowledge and understanding of the current and emerging work support benefits program policies.

Table 2. Interview Participants, Roles and Agency Affiliations

State	Agency	Interviewee/Title
Colorado	Colorado Department of Human Services	<i>Lovetta Love</i> , Director, Employment and Benefits Division
New Jersey	New Jersey Department of Human Services	<i>Lowell Ayre</i> , Deputy Commissioner, Division of Family Development
Ohio	Ohio Department of Job and Family Services	<i>Kara Bertke-Wente</i> , Deputy Director, Office of Family Assistance <i>Jamie Carmichael</i> , Policy Analyst, Office of the Director
Vermont	Vermont Agency of Human Services	<i>Miranda Gray</i> , Benefits Program Assistant Administrator, Economic Services Division <i>Heidi Moreau</i> , Interim Reach Up Director, Office of Economic Opportunity, Department for Children and Families

The interviews were conducted by telephone during the spring of 2014. All sessions were recorded and transcribed by the interviewer. The following key questions were asked of all participants, as well as clarifying and follow up questions:

1. To what extent is the benefits cliff a major policy issue?
2. What program supports are critical to self-sufficiency?
3. What state efforts are addressing the benefits cliff?

Each of the state agency officials interviewed were aware of the existence of the benefits cliff effect and, to varying degrees, felt that there is more work to do to alleviate the problem for the working poor families they serve. Strategies that have been used to address the issue are wide ranging and involve many different benefit programs including, TANF, child care, SNAP, housing, immigrant services, health care, and others. Alignment of the eligibility requirements for all programs, as well as improved efficiencies from reengineering of systems to electronic systems were consistently referenced as approaches used to reduce the cliff effect. These improvements resulted in increased access to services and reduced the complexities involved with application and eligibility determination processes.

Income disregards, bundled supports and services, higher eligibility cut off levels, higher child care subsidies, relaxed asset tests, and extended certification periods are other policy adjustments being used to minimize the benefits cliff effect. The current data collection and reporting systems do not have the capacity to accurately measure county level program effectiveness in moving recipients into self-sufficiency and off of benefits. A complete summary of the interview results is available upon request. This data informed the benefits cliff policy model development.

## **OHIO BENEFIT CLIFF MODELING**

The overall goal of workforce programs such as SNAP and TANF are to provide support as individuals make transitions to work. The theory behind the programs is that as work increases and therefore income goes up, that individuals require less active support from state or federal programs. The reality, however, is that because of policy changes in the 1990s, the type of people served by the workforce programs often have limited work histories and barriers to making employment transitions. Therefore, it is difficult to know what level of income should be expected when people transition to employment.

In this study the type of people who were in TANF and SNAP programs were considered using data supplied by ODJFS. Based on this analysis, critical questions regarding program participants' expected income and likely employment transitions were answered, which were then used to model their movement into employment.

### ***Policy Options***

Table 3 summarizes the policy options considered in this study. The options of increasing income eligibility limits, extending the recertification period, and increasing the earned income disregard result in the same overall outcome effect of receiving benefits for a longer period of time. Extending add on benefits to those who are currently employed with work supports

ensures that resources such as notification of job opportunities, access to skills training and other available supports will be routinely communicated. These efforts are not required by the current policies and are expected to improve the effectiveness of career advancement outcomes.

Table 3. Policy Options

Policy Option	Description	Desired Outcome
Increase income eligibility limits	Increase the amount of allowable income earned before losing TANF cash assistance benefit	Encourage recipients to work more hours without concern for losing benefits as a result of increased income. Increased income tax revenues.
Extend recertification period	Extend the length of time between recertifications, (a review of income eligibility)	Reduction in churn (i.e., disruptions in recipient’s income and housing due to frequent changes in jobs, unpredictable income from child support, temporary work, etc.). Beneficial to child development with fewer disruptions to child care and school arrangements. Reduced administrative costs associated with more frequent recertification efforts.
Extend add on benefits	Provide additional support services, such as Ohio Means Jobs and Individual Training Accounts, to support career advancement through promotions and higher paying jobs	Increased rate of employed people, both those receiving benefits and those who are working poor, achieving self-sufficiency as a result of access to career advancement resources .
Earned income disregard	Earned income disregard allowed in determining net income for computation of amount of benefit awarded. (Increases allow asset limits to encourage savings and other resources that support economic stability)	Increased rate of families moving to self-sufficiency as a result of rewarding hard work. Families able to get ahead as a result of increasing assets, rather than falling farther behind.

**Modeling**

*Modeling the Benefits Cliff Effect*

A system dynamics model was developed to simulate the dynamics of interaction among the various stages individuals go through as they work toward economic security given various work support policy scenarios. Developing an understanding of the ability of work support benefits to improve recipients' transitions to self-sufficiency over time is challenging. This is due to the complex and dynamic behavior of employment and benefits transitions over time. Therefore,

understanding the implications of various policy options is difficult. The benefits cliff effect is one of the complexities considered in this systems approach.

As discussed earlier in this report, the benefits cliff depends on an assumption that income standards such as self-sufficiency or federal poverty levels are higher than the cut off for income thresholds that determine eligibility for work support benefits. The underlying theory that the model is based on is that working more should pay more, allowing low income individuals to eventually achieve economic security. Economic security is defined as wages that meet or exceed the Basic Needs Budget calculated using the NCCP Family Resource Simulator.

The system dynamics analytical approach allows for the development of a computer model that may be used to explore and modify work support benefit policies to better understand their effects on the desired outcomes. To take advantage of system dynamics, AnyLogic, a comprehensive computer simulation tool, was used to develop an interactive computer model.

The model accomplishes the following:

1. Simulates and explores various policy scenarios within the context of the TANF Cash Assistance (CA) Program, and
2. Explores the eventual economic outcomes of workforce transitions for employed single mothers.

TANF and UI data obtained from ODJFS, including wage and employment data for those leaving TANF, were used to develop the current version of the model. Other work support program data may be applied to the model to simulate the effects of alternative policies on recipients. Estimates used for calculating recidivism rates, unemployment rates, reemployment rates and career advancement resource effectiveness may be adjusted to consider their effects on the system.

### *Model Development*

This application of AnyLogic software to the work support benefits system involved a process of identifying the major categories, or stocks, of the system, as well as the interdependencies existing among them. The entity modeled is employed persons receiving work support benefits with the goal of becoming economically secure. The following stocks were identified as critical to the dynamic behavior of the work support benefits system:

1. **Employed with Work Supports.** The Employed with Work Supports stock represents persons who are employed with income from wages less than the upper eligibility limits for the work support benefits program. The number of recidivists returning to this stock is tracked, as well as those recipients who become unemployed and return to the workforce in low wage jobs.
2. **Working Poor (without Work Supports).** The Working Poor stock represents persons who are employed with income from wages exceeding the upper eligibility limits for the work support benefits program. These people no longer receive benefits and do not earn enough income to cover their families' Basic Needs Budget, as calculated using the NCCP Family Resource Simulator. In addition to tracking the number of recidivists returning to work supports as a result of reduced income from wages and those becoming

unemployed, those workers who’s wages increase above their Basic Needs Budget are accounted for.

3. **Employed and Economically Secure.** The Employed and Economically Secure stock represents persons who are employed and achieve income levels that meet or exceed their families’ Basic Needs Budget expenses. Once individuals become economically secure, the model assumes they are able to sustain this status.
4. **Unemployed.** The model has an Unemployed stock representing those in the Employed with Work Support and Working Poor stocks who become unemployed. Based on ODJFS data used to calibrate the model those who are receiving work support benefits are less likely to become unemployed than those who are working poor. Therefore, different parameters are used to calculate their associated flow rates. The simulation assumes that once unemployed, individuals are able to re-enter the system in the Employed with Work Supports stock.

AnyLogic software was used to construct a computer model that simulates the workforce transition patterns of work support benefits program participants using these identified stocks. A common archetype of systems including recidivism, the “swamping insight” model, was selected (Ghaffarzadegan, Lyneis, & Richardson, 2011). This approach allows the model to account for the percentage of working poor non-recipients who experience income or job losses resulting in becoming eligible for work supports again, as well as those who successfully transition from working poor status to become economically self-sufficient.

In addition to a comprehensive review of the literature, extensive discussions were held in meetings with United Way representatives and the agency’s Workforce Development Working Group, as well as ODJFS and FCDJFS leaders. Additionally, interviews were conducted with state officials overseeing work support programs across the country to gain other policy perspective. Input from these experts informed the benefits cliff effect model development. Model documentation is informed by accepted reporting guidelines for system dynamics models used in social sciences research (Rahmandad & Sterman, 2012).

#### *Entities and Variables*

The model has one entity: employed persons receiving work supports with the goal of becoming economically secure. These workers are assumed to be single females with two children. The Ohio Department of Job and Family Services data indicates that 48,000 or 78% of all participants were single parents.

Time in this simulation is indicated as months, and the average number of months individuals received TANF was 4-6 months depending on the year and participant characteristics. The simulation continues for a total of sixty months or five years. Table 4 provides further details regarding the model’s variables.

Table 4. Cliff effect model variables and limitations

<b>Constructed Variable</b>	<b>Description</b>	<b>Limitations/Assumptions</b>
JobAdvance	EmployedPoor*ResourceEffectiveness (ResourceEffectiveness set to 0 or 1%)	Sensitivity analysis not completed

<b>Parameters</b>		Time step changes are not accounted for in this model
FamiliesOnTANF	Based on female heads of household; average from 2009-2013 data	Use of estimated probabilities to determine flow rates (based on literature review findings)
AvgWSDuration	Average from 2009-2013 data (initial value approximately 5 months)	Does not examine how various work support benefits programs interact to support families in achieving economic security
TimeEmplPoor	Average from 2009-2013 data (initial value approximately 6 months)	
ProbUnempl1	Average from 2009-2013 data (initial value 43%)	
ProbUnempl2	Average from 2009-2013 data (initial value 50%)	
ProbEmplSecure	Assumed value 0.1%	
ProbRetWS	Assumed value 20%	
ProbRetEmplWS	Assumed value 20% (adjustable)	

### *Model Design*

The model has three main stocks which include employed individuals receiving a work support (EmployedWS), at risk post work support employed individuals whose income is below their family's Basic Needs Budget (EmployedPoor), and workers who are considered economically secure with income from wages at or above their family's Basic Needs Budget (EmployedSecure). Once individuals become employed and secure it is assumed that they will be retained in that state. A stock also exists for those becoming unemployed with the assumption that once they are unemployed they may re-enter the system as employed with work supports. The model assumes a finite EmployedWS population bounded by the total population of families headed by single mothers receiving TANF.

The flow of one stock to the other reflects the earnings increase rate. As income exceeds eligibility limits individuals become at risk post work support employed or unemployed. Flow out of the at risk post work support employed stock reflects the rate of becoming economically secure, which is the desired outcome, or the rate at which individuals become unemployed. The rate of becoming economically secure is determined based upon individuals who are employed and receiving work supports, or employed and not receiving benefits, and whether their income level equals or exceeds their family's Basic Needs Budget. Probability values are based on averages obtained from ODJFS aggregated TANF Cash Assistance program data.

Balancing feedback loops include the return of employed poor to employed with work supports, as well as those who are employed with work supports and employed poor who become unemployed. The dynamics of these flows dampen the rate at which people are able to move into the state of being employed with economic security.

A reinforcing feedback loop is created by the dynamic variable job advancement (JobAdvance),  $(\text{EmployedPoor} * \text{ResourceEffectiveness})$ . This increases the rate of *BecomingEmployedSecure1* and *BecomingEmployedSecure2*. As individuals are more effectively linked to career advancement resources, it is assumed that their chances of earning wages high enough to meet their family's Basic Needs Budget increase. When no career advancement resources are available, the reinforcing feedback loop does not counter the balancing dynamics created by the feedback loops described above. *ResourceEffectiveness* is a parameter which, in reality, would be dynamic depending upon the specific programs and services delivered. This parameter may be further defined to reflect the effectiveness of available career advancement resources. Figure 3 provides a graphical representation of the Benefits Cliff Effect model.

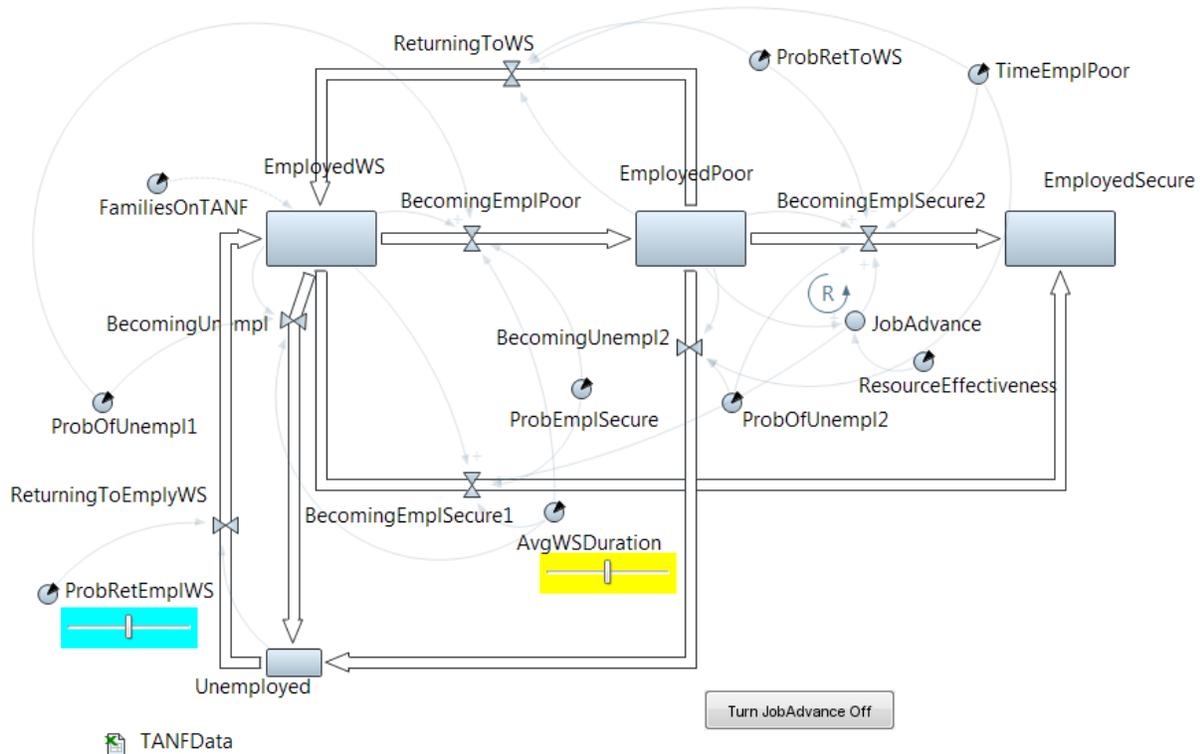


Figure 3. Graphical representation of the Benefits Cliff Effect model.

### Alternative Policy Scenarios

The model was applied to various policy options summarized in Table 3 using TANF Cash Assistance Program data obtained from ODJFS. Single mothers with two children were selected to represent the sample of workers included in this analysis. Time in this simulation is indicated as months, and the average number of months individuals received TANF was five months. The simulation continued for a total of sixty months, or five years.

### Extension of Work Support Benefits Duration

This scenario simulates the effects of extending the length of time a person remains in the employed and eligible for work support benefits on the total number of recipients achieving economic security. Several policy alternatives are represented by this approach including increased income eligibility limits, higher income disregards, and longer recertification periods. The work supports benefits duration for individuals receiving TANF CA was increased to approximately twelve months for this evaluation.

Increasing Career Advancement Resource Effectiveness

The model includes a dynamic variable representing the effects of additional support services provided to increase opportunities for advancement into jobs that pay higher wages. As individuals are more effectively linked to career advancement resources, it is assumed that their chances of earning wages is high enough to meet their family’s Basic Needs Budget increase. The effectiveness of career advancement resources in improving workers’ income was increased by a conservative increment of 1% to evaluate this policy alternative. Estimations of the effectiveness of various programs and services are quite complex, and depend on the ability of participants to benefit from the job leads, credentials or skills they have attained.

*Modeling Conclusions and Observations*

The time plots pictured in figures 5, 6, 7, and 8 illustrate the workforce transitions of TANF CA recipients over time in the system with various policy options simulated. The current program policies or status quo are indicated in figure 5. The results of increasing the length of time a person remains eligible for work support benefits are indicated in figure 6. Fewer families achieve economic security in this case than when benefits are received for shorter time periods. A summary of the outcomes data for each of the policy scenarios modeled is included in Table 4, below.

Table 4. Policy Modeling Outcomes

Policy Option	EmployedWS (t=60 mos)	EmployedPoor (t=60 mos)	Unemployed (t=60 mos)	EmployedSecure (t=60 mos)
Status Quo (1)	5,075	3,880	1,988	19,058
Extending Duration on TANF CA (2)	11,203	3,461	1,789	13,548
Improved Career Advancement (3)	3,492	2,612	1,380	22,516
Combining Options (2) & (3)	9,110	2,706	1,446	16,738

Increasing the add on benefits and, thereby, improving the effectiveness of career advancement resources, resulted in the third scenario (figure 7). This represents the outcomes achieved when workers, with and without TANF CA benefits, are connected with support services designed to improve their ability to attain higher wages. This was the optimal policy scenario with the greatest number of recipients eventually achieving economic security. The model was also used to explore the effects of combining the strategies of extending the duration of work supports and increasing the effectiveness of career advancement supports. This scenario yielded fewer

economically stable families than the simulation in which career advancement supports alone are provided. Figure 8 shows the outcomes of this scenario.

The model framework provides a foundation to build a fully functioning simulation model that allows exploration of program and policy design options. Future modifications may include the impacts of specific types of career advancement resources, and their associated degrees of effectiveness, on outcomes. As well, the use of an agent based model to inform the dynamics occurring within the employed with work supports stock will improve the endogeneity of the model. Lastly, expanding the model to include the integrated dynamics of combined income from multiple benefits programs will allow a better understanding of how disparate policies combine to support participants in their efforts to achieve economic security.

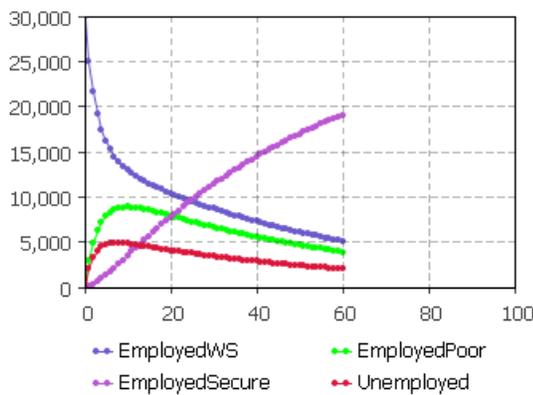


Figure 5. Status quo with AvgWSDuration=5 mos.

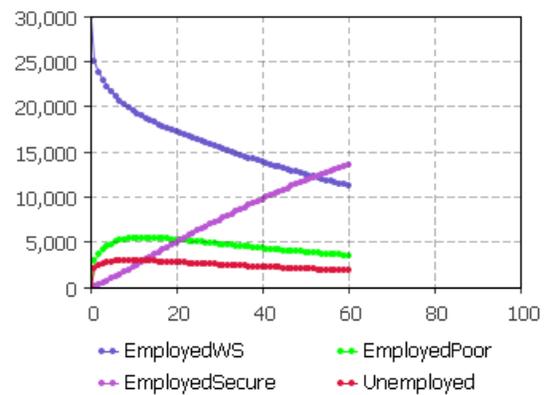


Figure 6. Extending AvgWSDuration≈12 mos.

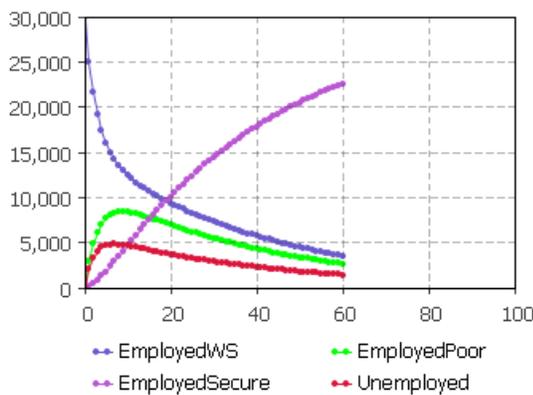


Figure 7. Improved Career Advancement Resources  
ResourceEffectiveness=1%\*\*\*

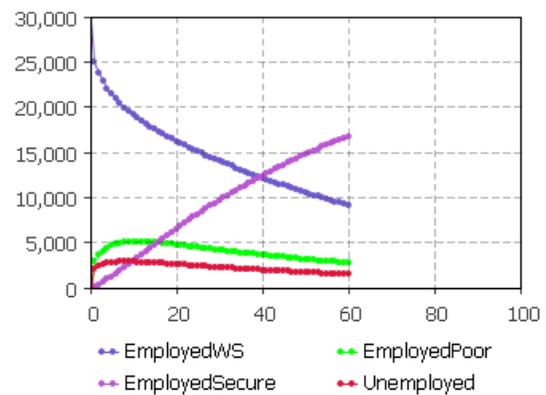


Figure 8. Extending AvgWSDuration≈12 mos. and  
ResourceEffectiveness=1%

\*\*\*Best outcome with significantly more people becoming EmployedSecure

## Conclusions and Policy Recommendations

### *Defining a Policy Cliff*

A benefit cliff might be called the “cash cliff” – in that a recipient’s loss of benefits causes an immediate reduction in income. As noted in the introduction this is easily understood through an example. By losing funding through TANF, available resources drop substantially and immediately. From another perspective, however, a benefits cliff is simply an indication that the “system” is functioning as it is intended. If benefits are lost when income exceeds the threshold set by the legislature or administrative agency it simply means that individual benefits are reduced in compliance with administrative procedure or law.

Therefore, there are several things public agencies should consider when deciding when and if a program is creating a benefits cliff:

- Are individual benefits cut off at low levels of income? In other words, if individuals are losing benefits when they are earning very low amounts from regular employment it implies that loss of benefits will result in increased possibility of loss of subsistence – food and housing. This will be the case with benefits such as TANF.
- Are individual benefits cut off immediately or is there a reduction over time? A benefits cliff – as the name implies – is much more likely to occur when the policy dictates an abrupt drop in received benefits as opposed to a stepped down receipt of benefits.
- Are benefits linked to other statutory programs? In the course of the analysis we learned that loss of one benefit should be understood in relation to other programs. Losing TANF must be considered in the context of the effect on eligibility for childcare benefits. A “steep cliff” is more likely to exist when benefits are linked.

### *Ohio’s Policy Options*

Ohio has several options to address the benefits cliff and help make the transition to employment more effective for individuals in TANF and SNAP. As reviewed in this report, policies that other states have focused on include increasing income eligibility or putting in an earned income disregard. In both cases the policy focuses on allowing people to earn more money before they are forced to give up TANF or SNAP benefits, both of which would provide additional resources that individuals can use to pay bills and help make the transition to employment. Another option is to extend the recertification period, which from an administrative perspective is attractive as it would reduce the frequency with which local staff would have to meet with recipients and certify income.

In the statistical analysis, however, these policies might not be as useful as adding on services to TANF such as access to Ohio Means Jobs or Workforce Investment Act training. The reason is that the labor market barriers for TANF recipients specifically and struggling families in general are so high, that much more needs to be done to support entry to work than can be accomplished with TANF funds alone. Average earnings of TANF participants after they exit are quite low, and after a year ODJFS data shows that at most 40% of exits are a result of entry into Ohio’s labor market.

Therefore, drawing up policies to address the benefits cliff should take into account other benefits people can receive. If an individual can be transferred from TANF to an employment oriented program such as WIA that approach is more effective than simply extending TANF benefits. If, however, there are underlying barriers to employment that TANF benefits can help facilitate – such as access to mental health counseling – continuing to receive TANF might be useful. Although in some instances the expansion of TANF may be effective at achieving the desired outcome, in other cases eligibility and participation in other ancillary benefits that support training, employment and earnings growth are a more effective means to achieving the desired outcome.

### ***Data Considerations***

Ohio has come a long way in recent years in building the capacity to conduct analysis of workforce and welfare programs. The Ohio Longitudinal Data Archive (OLDA), a collaborative between The Ohio State University and Ohio state government agencies provides secure data access to approved researchers with the active consent of agencies that hold the data. The OLDA maintains many core ODJFS files, including the Workforce Investment Act program files and the Unemployment Insurance Wage Records files.<sup>3</sup>

However, researchers' ability to understand how individuals interact with the full range of state and local programs is limited because of the coverage of the data. The OLDA does not, for example, maintain any data from the TANF or SNAP programs. Without these core data files researchers cannot answer critical questions that state government may ask. For example, the authors of this study were unable to answer questions such as “how many TANF recipients transfer to WIA programs to receive additional job training?” Or, “to what extent does income increase after TANF recipients exit the welfare programs?”

Ohio has a compelling reason to build the best data system in the United States. In addition to serving as a way to understand program recipients across agencies, comprehensive and linked program data enables government to better understand the net impact of benefit programs along with the associated costs and benefits of the programs.

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<sup>3</sup> Programs covered in the OLDA data archive are documented at [www.ohioanalytics.gov](http://www.ohioanalytics.gov)

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