POLICY BRIEF

PRESENTED TO THE JOHN T. GORMAN FOUNDATION
IN SUPPORT OF THE MAINE WHOLE FAMILY APPROACH TO JOBS WORKING GROUP
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The objective of this policy brief is to provide a deeper understanding of the disincentives that Maine's low-income families may face when transitioning off public assistance programs due to higher wages.

Benefits "cliffs" can occur when a family's increase in earnings results in a greater loss of social assistance benefits. While these cliffs are generally seen as flaws in social assistance programs, they are complex and often misunderstood. Most programs don't have cliffs, per se; they are intentionally designed so that benefit levels gradually decline as earnings increase. Unintended consequences like cliffs usually result when multiple programs interact, often in combination with macro-economic factors like high health care costs, to create an entirely new and unintended benefits structure. In this sense, cliffs are generally a symptom of a decentralized and opaque system of social assistance programs, each with complex rules and guidelines, often funded with a combination of federal and state sources. This makes remedying cliffs challenging, as they are not simply caused by benefit levels that are too high or too low or by eligibility requirements that are too strict or too lax.

To explore the presence of benefits cliffs in Maine's social assistance programs, a model of eligibility, benefits, and earnings was created using information from the most common social assistance and tax credit programs (Table 1, below). For most of the programs, the value of the benefit to the family was calculated by a formula based on earnings and household composition. When other factors were needed to estimate benefits, a series of plausible assumptions were made that, to the extent possible, reflect a typical or average family's experience utilizing Maine's social assistance programs.

The model tracks how total gross financial resources (benefits plus earnings) change as earnings increase for two low-income Maine families: a single parent with one child and a single parent with two children. For each assistance program and tax credit, benefit levels were calculated at intervals of $100 of earnings per month, starting at no income and continuing through $5,000 of earning per month ($60,000/year).[i] For the purposes of this briefing, a **"benefits cliff"** is defined as anytime a gain of $100 in monthly earnings is offset by a loss of $100 or more of total gross financial resources. "**Total gross financial resources"** means earnings plus benefits, which includes tax credits when appropriate but does not account for all federal and state tax liabilities.

To more finely measure the way financial resources change as earnings increase, a **"benefits slope coefficient"**[ii] is calculated from 0 to 100% and 0 to 250% of the 2017 federal poverty level.[1] The slope coefficient measures the change in total gross financial resources for an additional dollar earned over a range of income. A coefficient between 0 and 1 indicates that benefit levels declined as earnings increased but the net financial gain to the family is still positive. A coefficient below 0 indicates a cliff. A coefficient greater than 1 means that financial resources increased by more than earnings. This happens with some tax credit programs at low earnings levels.

Table 1: Programs Analyzed

Assistance Programs	Tax Credits
Temporary Assistance for Needy Families (TANF)[2]	U.S. Earned Income Tax Credit (EITC)
Childcare Subsidy Program (CSP)	ME EITC
Low Income Heating Energy Assistance Program (LIHEAP)	U.S. Childcare Tax Credit
National School Lunch Program	ME Childcare Credit
Supplemental Nutritional Assistance Program (SNAP)	U.S. Child Tax Credit
Mainecare (Medicaid)	U.S. Additional Child Tax Credit
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	Affordable Care Act (ACA)

The results of the model are presented through a series of charts and summary statistics that illustrate the overall benefits structure that results when multiple social assistance programs work independently. Three overarching conclusions are made:

- The sheer complexity of calculating eligibility and benefits levels adversely affects the ability of social assistance program to provide transparent and appropriate incentives for low-income families to transition off assistance.
- The issue of disincentives is less about cliffs, although they can occur, and more about the overall benefits structure that is created when multiple programs and transitional supports interact. The model shows that families are almost always financially better off by working more (or by being paid more), even accounting for declining benefits. However, the amount that they are better off can vary considerably and may be low compared to the actual increase in their earnings. For the two families modeled in this brief, between 0 and 250% of FPL, less than half of a family's earnings translated into more total financial resources.
- Tax credits, particularly refundable tax credits, work to counter declining benefits as earnings rise. In the absence of a holistic and integrated benefits structure that works across multiple assistance programs, tax credits can be used to create a more intentional and appropriate overall benefits structure.

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[1] 2017 poverty levels are used in this analysis to align with program eligibility requirements at the time of analysis
[2] TANF includes the basic grant plus housing special need and transportation and childcare reimbursements

MANY OF MAINE'S ASSISTANCE PROGRAMS DON'T HAVE CLIFFS; INSTEAD, THEY HAVE STEEP BENEFITS SLOPES.

In general, Maine's assistance programs are designed to provide gradually lower benefits as earnings increase. Charts 1 and 2 illustrate how benefits change with earnings for the TANF and SNAP programs. For TANF, a single parent with one child (lower blue line in Chart 1) with no income receives a maximum basic grant of $435 per month.[3] Benefits begin to decline when earnings reach just over $300/month and phase out completely around $1,200/month. Between 0 and 100% of poverty, the family experiences a benefit slope coefficient of 0.69, meaning that for every additional dollar of income earned, the family gains 69 cents of total financial resources including TANF and earnings.

Chart 1: TANF Basic Grant
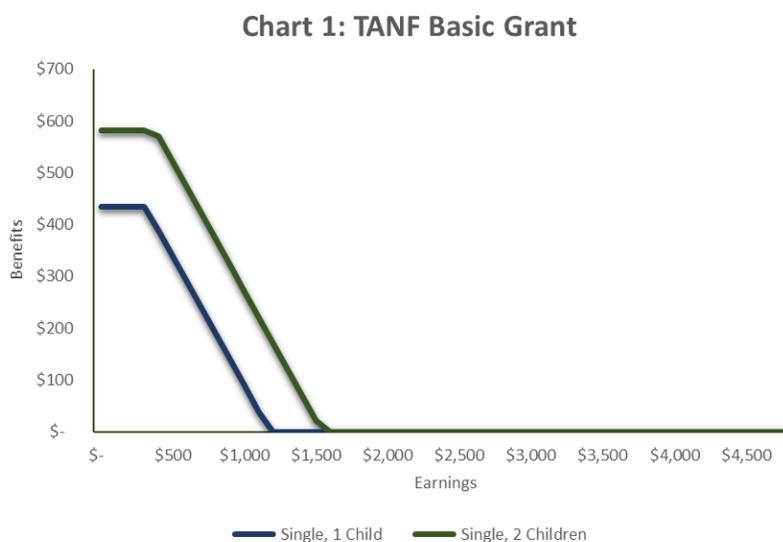
The same family is eligible for a maximum monthly benefit of $350 from SNAP (lower blue line, Chart 2), which counts the TANF basic grant as income.[4] Benefits decline as earnings increase and SNAP phases out around $2,300. Between 0 and 100% of poverty, the benefit slope coefficient for SNAP is about 0.91, meaning that for every additional dollar of income earned, the family gains 91 cents of total financial resources.

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[3] This example assumes no housing, transportation, or childcare expenses are included in the basic TANF grant.
[4] As with Chart 1, no medical, shelter, or other deductions are assumed.

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Chart 2: SNAP
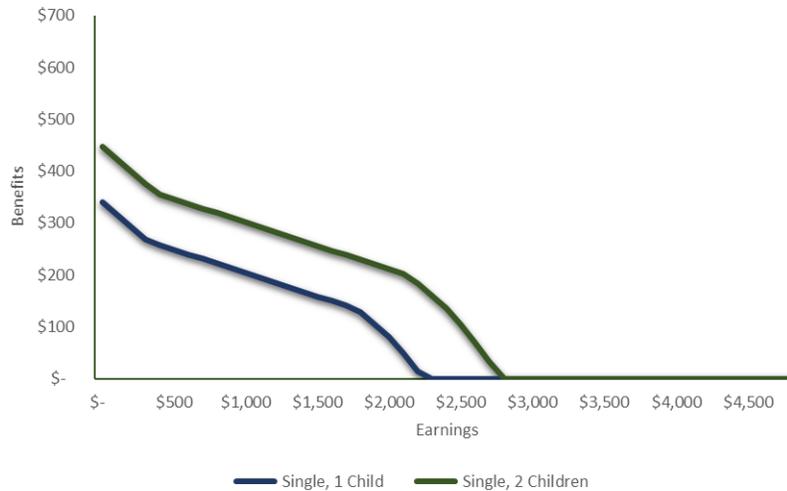
A FEW ASSISTANCE PROGRAMS DO HAVE CLIFFS WHEN BENEFIT LEVELS DO NOT VARY BY EARNINGS.

Several programs like WIC and the National School Lunch Program have benefits that don't change as income levels rise. For example, Chart 3 shows the value of an average WIC monthly prescription[5] for a parent with one child under five (lower blue line) and a parent with two children under five (green line). Both families receive a fixed benefit based on their nutritional needs until they are no longer eligible for WIC at 185% of FPL.

Chart 3: WIC

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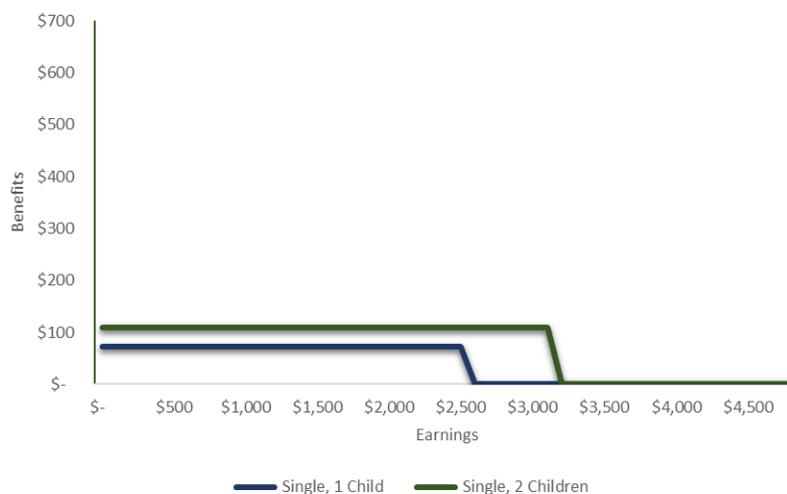
[5] WIC is available for women who are pregnant or postpartum, infants, or children under age 5.

CLIFFS SOMETIMES HAPPEN DURING TRANSITIONS FROM ONE PROGRAM TO ANOTHER

Chart 4 illustrates how childcare reimbursements change as a family transitions from TANF to either the TANF Transitional Childcare (TTC) program or the Childcare Subsidy Program (CSP).[6] Under TANF, eligible childcare expenses are paid in full. When a family transitions to TTC or CSP, a fee based on earnings is applied, causing an initial drop in benefits and then a gradual decline. Chart 4 shows childcare reimbursement levels for a single parent with an infant (blue line) and a single parent with an infant and a school-age child (green line), needing ½ time care in Kennebec County.

Chart 4: Childcare Benefits (TANF + CSP)
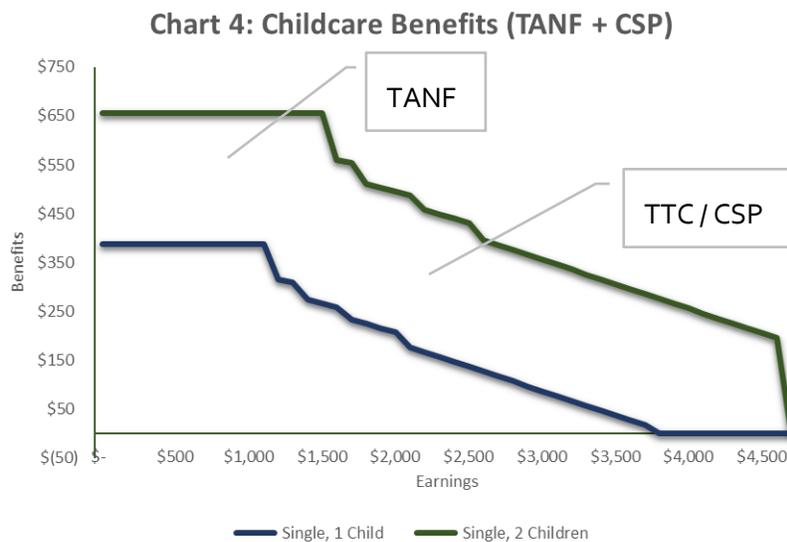
Aspire-TANF reimburses for transportation expenses associated for a working parent. A family can be reimbursed for up to 400 miles per week at 30 cents/mile plus annual costs of $500 and $300 for car repairs and insurance, respectively. When a family earns too much for Aspire-TANF, they may be eligible for TANF Transitional Transportation (TTC) benefits; however, the transitional benefits are only available for 18 months and do not vary by income level; in essence they postpone the cliff rather than diminishing it.[7]

Chart 5 shows two scenarios for a family transitioning off Aspire-TANF. The lower blue line assumes the parent is reimbursed for driving 50 miles/week for work and the upper red line assumes the parent is reimbursed for driving 400 miles/week for work, the maximum allowed mileage. Both scenarios show cliffs at about $1,200 of earnings, when basic TANF eligibility ends, and at 250% of FPL when transitional transportation benefits end. The higher mileage reimbursement makes for a steeper transitional cliff and a lower benefits slope coefficient overall.

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[6] TCC and CSP have equivalent benefits but different eligibility rules; for this analysis, we assume the family transitions to CSP because eligibility lasts longer compared to TTC.

[7] The drop at 250% FPL could be thought of to happen at any income level once 18 months has passed.

Chart 5: TANF Transportation
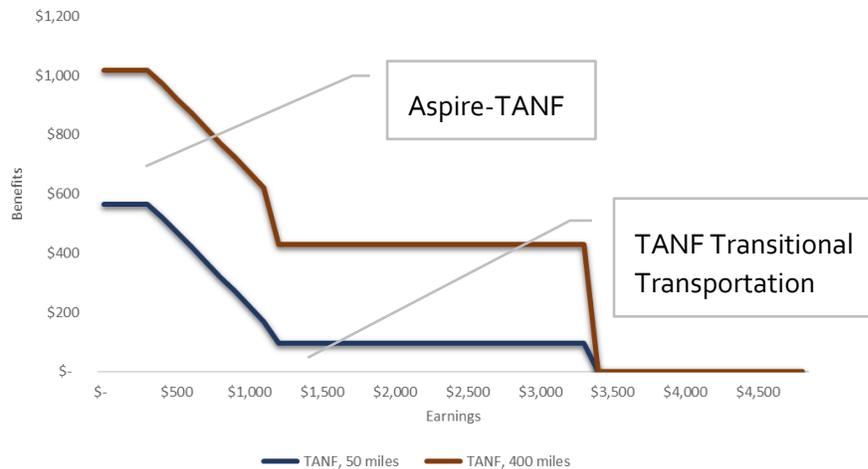
A transitional cliff can also occur if a family transitions from Mainecare to subsidized insurance from the ACA. Chart 6 illustrates this experience for a single parent with one child. Estimating the value of Mainecare is difficult – Mainecare does not pay cash benefits to families. For this example, the family is assumed to have out-of-pocket expenses at the average level for the bottom 80% of Mainecare members, which is approximately $1,644/person annually or about $3,300 for the family.[8] The top line in blue represents the value to the family in avoided costs when Mainecare pays the full cost of the family's health bills. When the parent becomes ineligible for Mainecare at 105% of the poverty limit (about $1,500/month in earnings), the level of Mainecare benefits drops sharply as Mainecare no longer pays healthcare costs for the parent.

In the absence of Mainecare, the ACA provides both a subsidy for the parent to buy insurance and subsidies for out-of-pocket costs. This is shown by the red line which represents the combined benefits of Mainecare for the child and ACA subsidies for the parent. At 100% of FPL, the parent can buy an insurance plan with 2% of his/her income that will pay approximately 94% of out-of-pocket costs[9], so the cliff from losing the parent's Mainecare eligibility is not severe. However, when the child becomes ineligible for Mainecare, at 213% of FPL (about $2,800 earnings), the ACA subsidies have decreased and the cost of private insurance is now just under 7% of income for a plan that will pay about 73% of out-of-pocket costs. At the level of costs assumed for this example, there is no longer a benefit (i.e., cost savings) for purchasing insurance, and the loss of the child's Mainecare eligibility becomes a cliff.

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[8] Stefanie Nadeua, DHHS presentation to the 118th Maine legislature, January 2017
[9] Based on ACA cost sharing subsidy requirements; for good explanation see
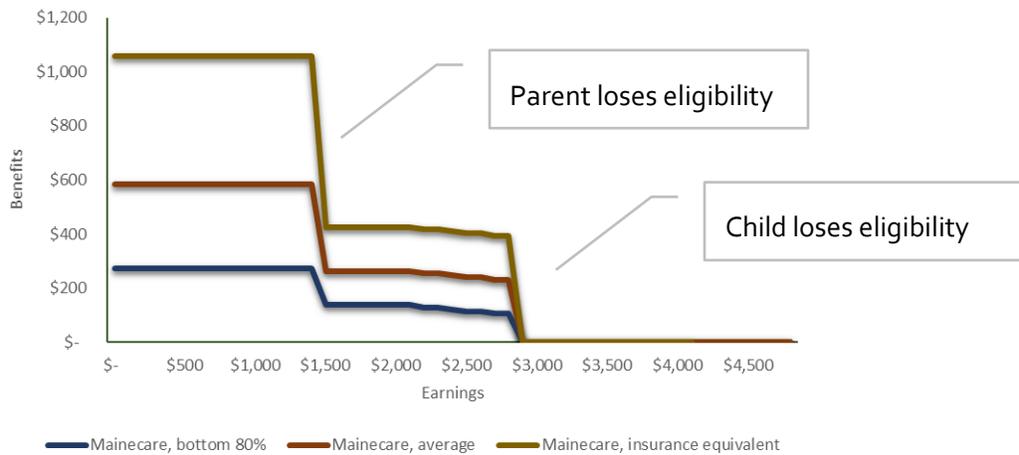https://www.actuary.org/pdf/health/Actuarial_Value_Issue_Brief_072211.pdf

Chart 6: Mainecare and ACA
Single, one child
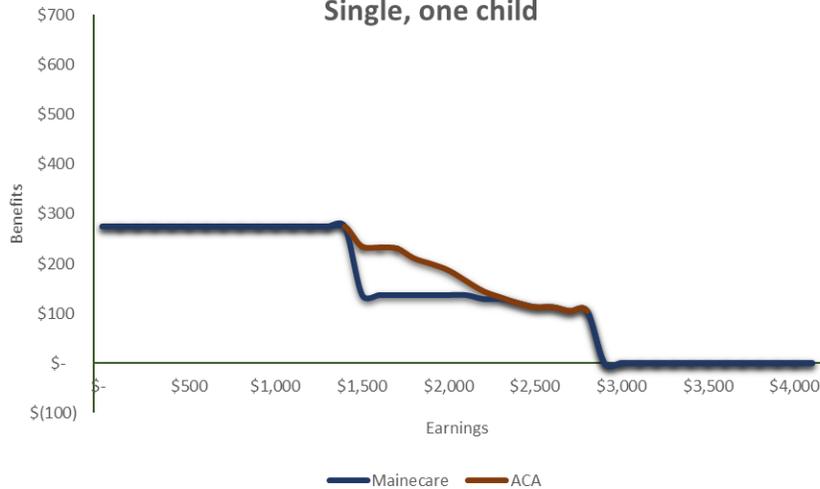
CLIFFS DO NOT EXIST IN A VACUUM; THEY CAN BE HEIGHTENED BY EXTERNAL FACTORS LIKE THE COST OF HEALTHCARE OR CHILDCARE.

As the Mainecare example above shows, the value of a benefit to a family – and therefore the presence or severity of a cliff – depends on factors outside of program design. With Mainecare, the value to an eligible family depends primarily on their exposure to the costs of healthcare and insurance. The example above looks different for a family with significantly higher costs. Chart 7 illustrates three scenarios of Mainecare coverage for a single parent with one child. The lowest line assumes that without Mainecare, the family would have paid healthcare costs at the average expenditure for the bottom 80% of Mainecare recipients (like in Chart 6 above); the middle line assumes that without Mainecare, the family would have incurred healthcare costs at the average for all Mainecare recipients, which is higher because it includes cases of very high costs; and the top line assumes that without Mainecare the family would have purchased an insurance plan with similar coverage. In each scenario there is a cliff, but the severity of the cliff depends not on program design, which doesn't change, but on external factors like the family's general health and the external costs of healthcare and insurance. While not shown in the chart, the effectiveness of the ACA in diminishing the cliff depends on the level of healthcare costs.

Chart 7: Mainecare
Single, one child

Parent loses eligibility

Child loses eligibility

— Mainecare, bottom 80%   — Mainecare, average   — Mainecare, insurance equivalent

Similarly, Chart 8 shows how childcare reimbursements (TANF and the Childcare Subsidy Program) vary by county for a single parent with two children. For this example, the family is assumed to need care for one infant and one school-age child for 50% of the workweek. The cost of care differs significantly between counties, with the steepest cliff in Cumberland County.

Chart 8: TANF Childcare and CSP
One infant, one school-age child, 1/2 time care

— Cumberland   — Kennebec   — Aroostook
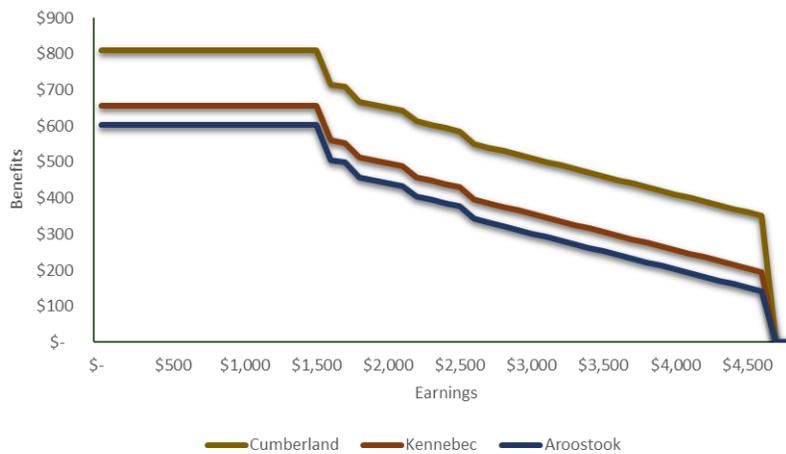
TAX CREDITS HELP OFFSET THE DECLINE IN BENEFITS.

Tax credits available to low-income families increase in value as a family's earnings rise from $0 to about $1,500, and then begin to taper. The EITC and Maine EITC are both refundable, as is the Additional Child Tax Credit under certain conditions. These provide a benefit to low income families with zero or low tax

liability.[10] Chart 9 shows that the cumulative shape of the benefits structure from tax credits[11] generally works in the opposite direction as the assistance programs, particularly at low levels of earnings. For a parent with one child, between 0 and 100% of FPL, the slope coefficient is 1.31, meaning that for every additional dollar of income earned, the family gains 31 cents of tax credits, partially offsetting the decline in benefits from the assistance programs. For a parent with two children, the coefficient is 1.38.

Chart 9: Tax Credits
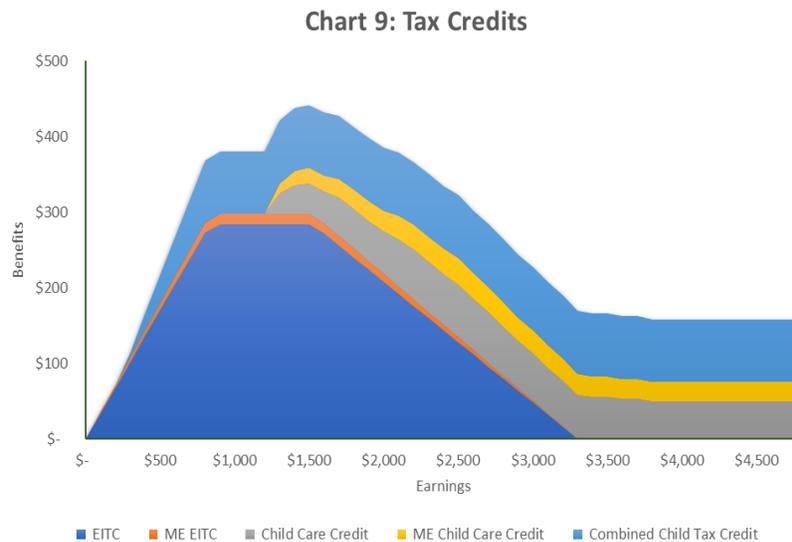
CLIFFS AND SLOPE CHANGES FROM MULTIPLE PROGRAMS CAN MAKE FOR A BUMPY RIDE.

When multiple programs each reduce benefits as earnings increase, the cumulative benefit structure can result in a series of slope changes and small cliffs that are a far cry from the original intent of the individual programs. The rest of this analysis aggregates benefit levels for all of the programs to illustrate an overall benefit structure. The analysis makes the following assumptions:

- In addition to the basic TANF grant, families are eligible for a monthly housing stipend (up to $300) and a monthly transportation benefit. The transportation benefit reimburses for mileage for 50 miles per week plus annual costs of $300 for car insurance and $500 for car repairs. Transitional transportation benefits are included, although they're time-limited.
- The family is eligible for a childcare reimbursement, first through TANF, then through TTC and/or CSP, for an infant (single parent with one child) and an infant and a school age child (single parent with two children) at a licensed provider in Kennebec County according to the maximum market cost allowed by the Maine Department of Health and Human Services.

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[10] The childcare tax credit is not refundable, so its value is capped at a family's total tax liability, which may be zero.
[11] This briefing is based on 2017 tax law.

- WIC benefits are assumed to be at the average benefit for all participants, which is $72 for a mother and one child and $109 for a mother and two children.[12]
- LIHEAP benefits are also assumed to be at the average benefit for all LIHEAP participants of $663/annually. This analysis uses Maine Housing's scoring matrix to provide a larger LIHEAP benefit for lower-income households.[13]
- Healthcare costs are assumed at the average for the bottom 80% of participants, about $3,300 annually for a family of two and $5,000 annually for a family of three. The value to family of Mainecare is estimated at the avoided out-of-pocket cost when Mainecare pays the family's health bills. The value of the ACA subsidies are estimated at the avoided out-of-pocket costs minus the family's premiums and out-of-pocket costs based on actuarial values.

Charts 10 and 11 show the cumulative benefit structure for a family of two and three, respectively, receiving all of the benefits from each of the programs analyzed. Chart 12 and 13 shows the same information, except represented as a deficit to 250% of FPL.[14] The cliffs are identified in the charts by letter, explained below.

a. The steepest cliff occurs when the family becomes ineligible for TANF benefits. The loss of the basic TANF grant plus the transition to TTC/CSP and transitional transportation benefits create the cliff.
b. A cliff occurs when the parent becomes ineligible for Mainecare.
c. For the parent with one child, a cliff is observed when loss of the TANF housing special need interacts with reductions from other programs.
d. A cliff occurs when the family becomes ineligible for LIHEAP, in combination with reductions from other programs.
e. Both WIC and the national lunch program end at 185% of FPL, causing a cliff.
f. A cliff occurs when the child (or children) become ineligible for Mainecare.
g. A cliff occurs when transitional transportation benefits are assumed to end at 250% of FPL and a small cliff occurs. (They could end sooner if 18 months pass.)
h. For the family of three, a final cliff is observed when the childcare subsidy program ends.

The first thing to note in these charts is that most of the identified cliffs are not steep; in fact some could be better thought of as essentially flat slope changes. A line representing 250% of FPL is included as a reference to observe the overall flatness of the combined benefit structure. The final section, after the next four charts, analyzes the slope changes.

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[12] USDA FY2010 WIC Food Package Cost report; https://www.fns.usda.gov/wic/wic-food-package-cost-report-fiscal-year-2010
[13] Maine Housing annual report; http://mainehousing.org/docs/default-source/policy-research/Research-Reports/Housing-Profiles/mainehousing-energy-usage-the-liheap-program-profile---november-2017.pdf
[14] 250% FPL is an arbitrary target used here simply as a measure by which to compare progress out of poverty. Other studies have used a "self-sufficiency" metric or a living wage.

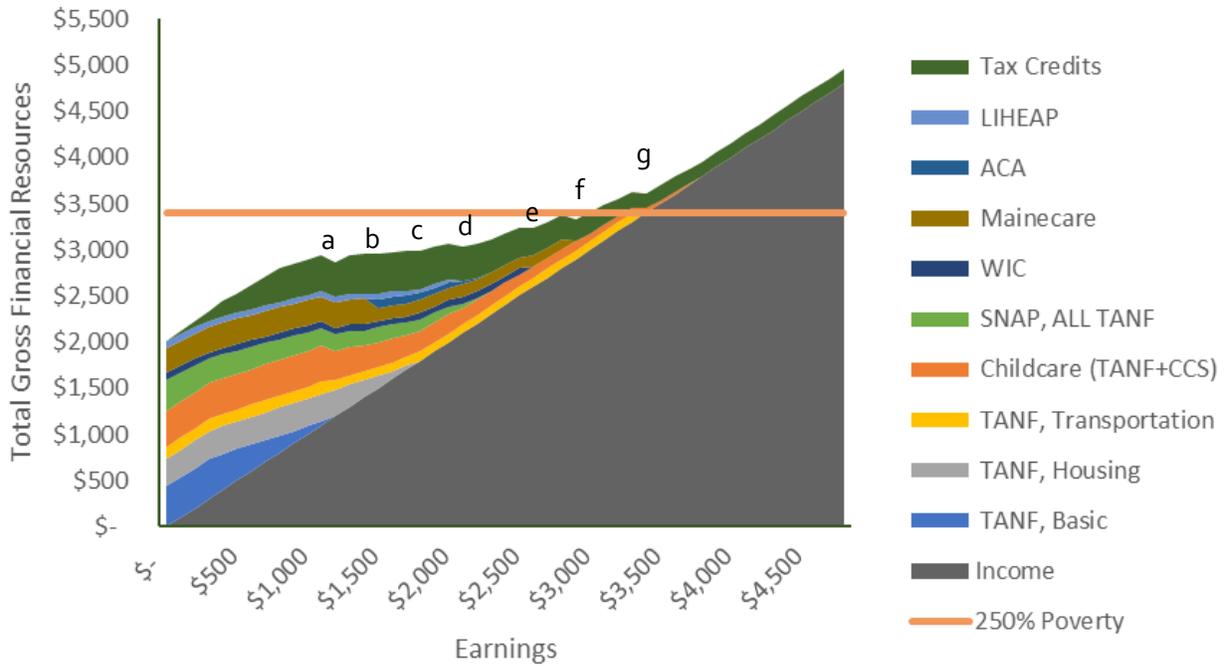# Chart 10: Overall Benefit Structure
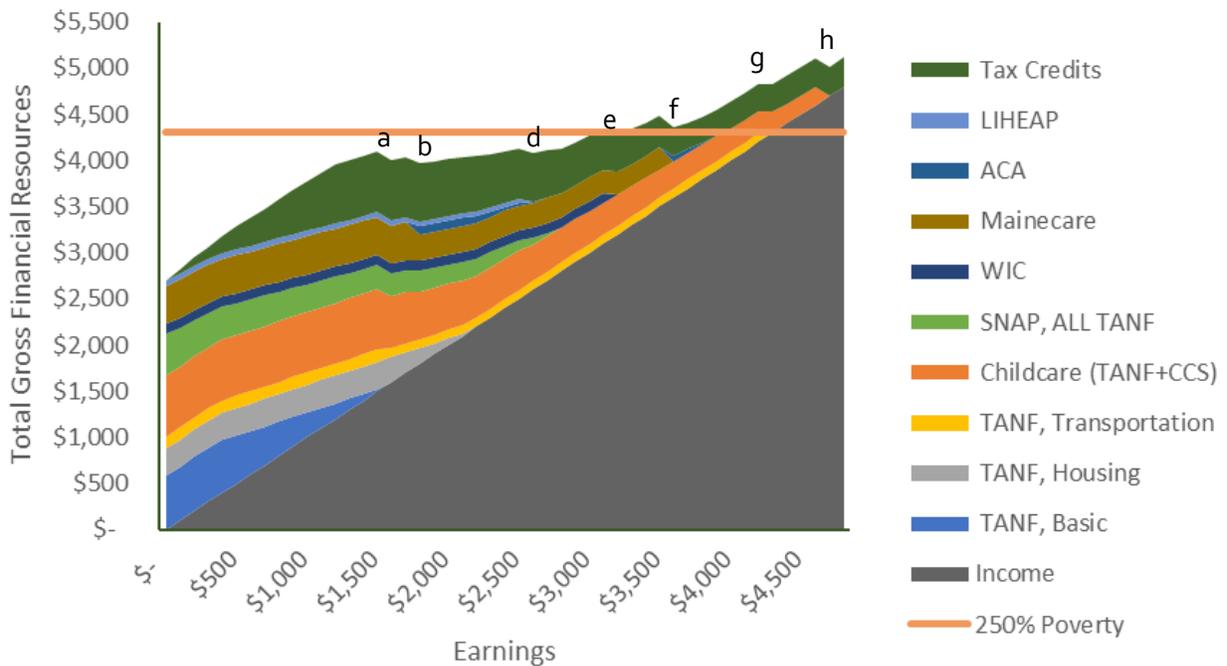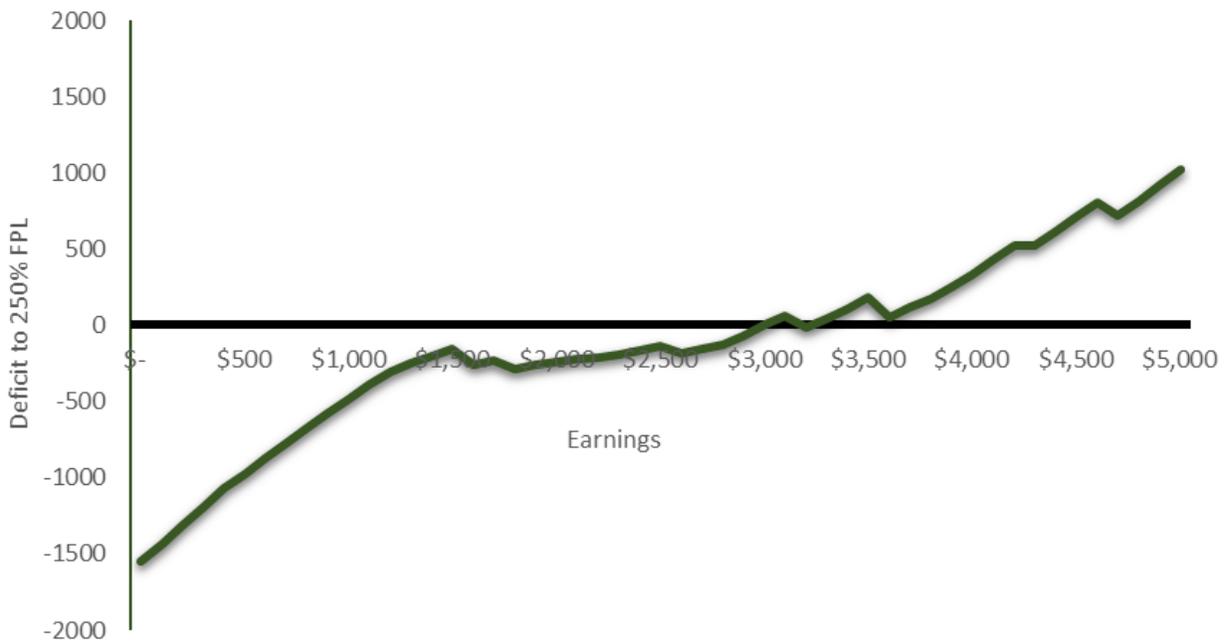## Single, one child

Chart 11: Overall Benefit Structure
Single, two children

Chart 12: Deficit to 250% FPL
Single, one child

Chart 13: Deficit to 250% FPL
Single, two children

CLIFFS ASIDE, THE CUMULATIVE IMPACT OF MULTIPLE PROGRAMS RESULTS IN A STEEP DOWNARD SLOPE OF BENEFITS

Most of the cliffs illustrated above result from the interaction of multiple programs. Working together, their primary effect is not to form cliffs, although some cliffs do occur, but to flatten the benefit structure out to a place where a family's marginal increase in financial resources is significantly less than their increase in earnings. The final two charts and the accompanying tables illustrate this effect on the overall benefits slope coefficient from 0 to 100% and 0 to 250% of FPL.

Chart 13 and Table 2 show that for a single parent with one child rising from 0 to 100% of FPL, for every dollar of increased earnings, total gross financial resources (pre-tax) increase by 68 cents. Without tax credits, the family's total resources would have increased by 37 cents per dollar. To illustrate the calculation: as earnings rise from $0 to $1,400, monthly benefits from TANF, including housing and transportation, childcare reimbursements, and SNAP decline by about $865. The net gain of $535 yields a slope coefficient of around 0.38 ($535/$1,400), meaning that more than half of a family's increase in offset by decreased benefits from these three programs. WIC, Mainecare, free/reduced school lunch, and LIHEAP don't change the benefits slope much as their benefits are relatively constant across this income range. Refundable tax credits then provide $1.31 per dollar of income to increase the coefficient to 0.68.
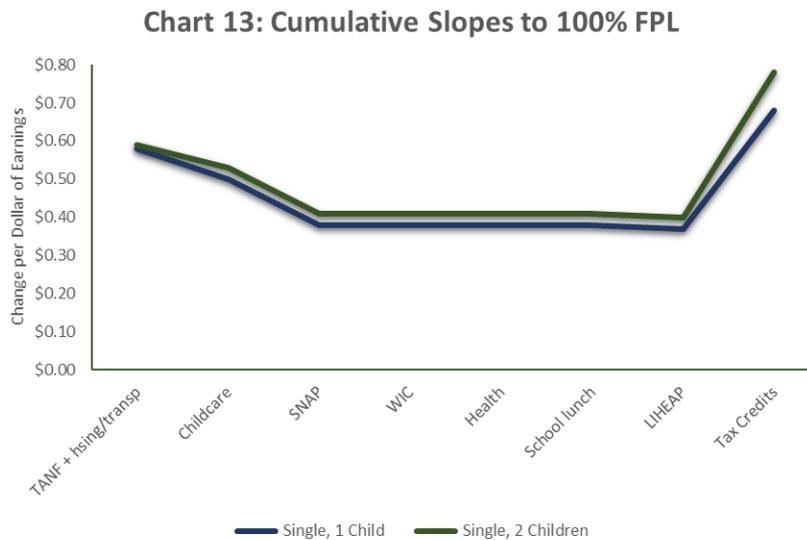

Chart 13: Cumulative Slopes to 100% FPL

Table 2: Benefits slopes between 0-100% FPL

	Single Parent, one child		Single parent, two children	
	Alone	Cumulative	Alone	Cumulative
TANF, incl. housing and	0.58	0.58	0.59	0.59
Childcare	0.92	0.50	0.94	0.53
SNAP	0.88	0.38	0.88	0.41
WIC	1.00	0.38	1.00	0.41
Health	1.00	0.38	1.00	0.41
School lunch	1,00	0.38	1.00	0.41
LIHEAP	0.99	0.37	0.99	0.40
Tax Credits	1.31	0.68	1.38	0.78

Between 0 and 250% of FPL, the overall benefits slope is lower compared to the slope between 0 to 100%. This happens because the loss of Mainecare and the phase-out of WIC, free/reduced lunch, and LIHEAP all happen during this range of income. EITC also begins to decline. For both families, total gross financial resources (pre-tax) increase by less than half of the increase in earnings, 46 cents per dollar for a single parent with one child and 47 cents per dollar for a single parent with two children.
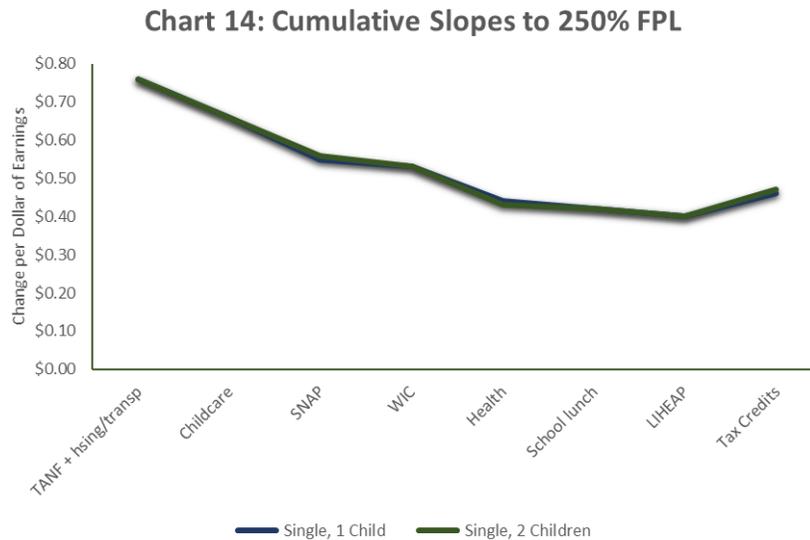
Chart 14: Cumulative Slopes to 250% FPL

Table 3: Benefits slopes between 0-250% FPL

	Single Parent, one child		Single parent, two children	
	Alone	Cumulative	Alone	Cumulative
TANF, incl. housing and	0.76	0.76	0.76	0.76
Childcare	0.90	0.66	0.90	0.66
SNAP	0.89	0.55	0.90	0.56
WIC	0.98	0.53	0.97	0.53
Health	0.91	0.44	0.90	0.43
School lunch	0.98	0.42	0.99	0.42
LIHEAP	0.98	0.40	0.98	0.40
Tax Credits	1.06	0.46	1.07	0.47

ENDNOTES

[i] Modeling a fixed increase in earnings of $100 instead of an hourly rate increase allows for additional earnings to come from a combination of higher wages and/or additional hours worked. An extra $100 of monthly income corresponds approximately to a raise of 60 cents/hour for an individual working full-time and $1.15/hour raise for a half-time worker. Alternatively, an extra $100/month results from working an additional 10 hours per month at minimum wage or 7 additional hours/month at $15/hour.

[ii] The "benefits slope coefficient" is similar but not equivalent to what other studies call the "marginal tax rate", defined by the CBO as "the percentage of an additional dollar of earnings that is unavailable to an individual because it is paid in taxes or offset by reduced benefits from government programs". Our measure is used to look at individual programs including an estimate for the value of Medicaid and does not fully account for tax liabilities; hence the different name. A CBO study on marginal tax rates for low income families can be found here:
https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/50923-marginaltaxrates.pdf