Understanding and Mitigating the Effects of the Childcare Cliff: A Case Study of Vermont

Lauren Alexandra Rayson

University of Vermont

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Understanding and Mitigating the Effects of the Childcare Cliff: A Case Study of Vermont

Lauren Rayson

Department of Economics Honors Thesis
University of Vermont
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Abstract

This research focuses on Vermont’s childcare cliff, examining how credit levels of different programs are impacted by changes in income. Specifically, it focuses on the Earned Income Tax Credit, the Child and Dependent Care Credit, the Child Tax Credit, and the Child Care Financial Assistance Program. It contains case studies that highlight how different life events – including increases in income and changes in marital status – impact the credit amounts that a family is receiving. This paper discusses the impacts of Vermont’s childcare cliff, specifically focusing on how the cliff creates high implicit and explicit marginal tax rates for those experiencing it. It concludes with policy recommendations the state of Vermont could utilize to mitigate the effects of the childcare cliff.
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I. Introduction

What happens to a parent who relies on government assistance when they get married, receive a raise, or are affected by a change in minimum wage? If that life change leads to a change in income, then, often times that shift leaves them at risk of losing some or all of the benefits that family is using to make ends meet. Often times, this loss of benefits is substantial enough that it becomes financially challenging for families to continue making ends meet. A family may see their household income increase, but barely experience an increase in their household resources, because of this loss of benefits. This phenomenon is known as the benefits cliff, or the cliff effect. Understanding the benefits cliff is important, as families who are facing it may not get married, decline a job offer or work fewer hours in order to avoid experiencing it. Alternatively, families who do experience it may not be better off economically after accepting a raise than they were before.

This research is on the benefits cliff in Vermont, with a specific focus on the state’s childcare cliff. Doing this analysis on the state level is important, as many of the credits and benefits that families receive are determined at the state level, not nationally. A family in Vermont that needs government assistance in order to access childcare is going to receive aid from different programs and tax credits than a family in Colorado or Texas. This work identifies the benefits and credits that help Vermonters pay for the costs associated childcare, and the conditions under which the families receiving these forms of government assistance are likely to experience the cliff effect, including illustrating where the cliffs are located in each of these programs. Families experiencing the childcare cliff are especially at risk, as losing benefits that make care accessible may force parents to leave the labor market in order to care for their children, which can have long-term negative impacts on their future job prospects and economic
stability. This work on the childcare cliff in Vermont adds to the research that is being done about the childcare cliff and its specific impacts in other states.

Data for this research was collected from the Vermont Department of Taxes, including information regarding the number of Vermonters present at different income levels, and the numbers of those receiving the Earned Income Tax Credit and the Child and Dependent Care Credit. This data will be analyzed to determine if those at risk of facing the cliff change their employment behavior in order to avoid facing it. In addition to this analysis, there are several cases studies demonstrating how different types of families will experience the cliff when their income changes. This paper also discusses the behavioral impacts that the benefits cliff, and the childcare cliff specifically, has on the families and individuals who are at risk of experiencing it. It includes a discussion of what Vermont has already done and is planning to do to address issues associated with the benefits cliff, and what other states are doing to attempt to mitigate the cliff’s impacts. It concludes with suggestions on potential policy options Vermont could utilize to mitigate the impacts of the benefits cliff and the childcare cliff based on the findings discussed.

II. The Benefits Cliff

The benefits cliff occurs when someone who receives government income assistance experiences an increase in their income. This can lead to reduced eligibility for government supports, and, overall, a loss of benefits that almost negates the original income increase (Prenovost & Youngblood, 2010). This increase in income could come from a variety of events, including a pay raise, an increase in hours worked, or a change in household composition (Romich, 2006). A family experiences the benefits cliff when their increased wages and current government supports begin to conflict with each other (Prenovost & Youngblood, 2010). At a
certain point, a family’s new income level will mean that they are no longer eligible for the government supports they were previously receiving, or the support amounts they are eligible for can be greatly reduced.

The problem that is generated by the benefits cliff is that a higher income can lead to higher taxes, a loss of eligibility for certain government benefits programs, or a combination of the two (Romich, 2006). Even if a family’s earned income is increasing, the loss of benefits they are being phased out of can mean that, overall, their net economic resources are not increasing at the same rate – their loss of benefits is occurring at a fast enough rate that their new, additional income cannot make up for that loss (Roll, 2014). The benefits cliff creates situations where families lose the government benefits they rely on – in the most extreme circumstances, their loss of benefits can exceed any additional income they are receiving (Prenovost & Youngblood, 2010).

Identifying and understanding issues associated with the benefits cliff is important because when people face the cliff, they are presented with a disincentive to work – it is hard to motivate people to try and earn more if they know that succeeding at that goal could be financially harmful (Prenovost & Youngblood, 2010). In addition to the threat of losing benefits that they are dependent on, the risk of a higher marginal tax rate is an added work disincentive for low-income families approaching the cliff (Romich, 2006). These families can simultaneously have an increasing explicit tax rate, from their increased income, and an increasing implicit tax rate, because of the reduced benefits associated with that income increase. Combined, these explicit and implicit tax increases can cause a large increase in a family’s marginal tax rate. Often times, these families are barely better off after their income increase
than they were before, because of their simultaneous reduction of benefits and increased marginal tax rates. High marginal tax rates can be a disincentive to work or to work more, as the people experiencing those tax rates are no longer benefitting for their work as much as they were before. Low-income workers, however, do not always react to this disincentive. One reason low-income workers may not reduce their hours, even after their earnings begin getting taxed at a higher marginal rate, is that these workers may not have the power to control how many hours they work, or the ability to choose to stop working – because they are so financially vulnerable, even when they are no longer receiving the same benefits from working, they do not have any other options (Romich, 2006).

Much of the literature describes the benefits cliff as phenomenon where a change in financial standing makes a family automatically worse off, because their immediate losses in government assistance. This would suggest that the benefits and credits a family is losing do not reduce steadily as a family’s income increases, but instead, fall abruptly after a certain income threshold. The findings presented in this paper partially diverge from this idea of a strict “cliff,” as the majority of the programs discussed have credit amounts that decrease steadily as income increases. Because of this, the issue associated with the cliff shifts away from the idea that a raise automatically makes a family receiving government assistance worse off, and instead focuses on what happens to a family that is reliant on and receiving multiple benefits when they begin to lose portions of each simultaneously. The families highlighted in this paper do not “fall off the cliff,” with the idea that, after a certain income increase, they are objectively worse off financially than they were before. Instead, these families reach a point where additional income will not make them financially better off by that increased amount, because of the potential simultaneous reduction in all of the benefits they are receiving. For these families, the benefits
cliff means that they are not as financially better off as they should be, because of the simultaneous reduction they experience in so many benefits. The benefits cliff is not necessarily making families worse off, but its existence does make it much harder for the families who are experiencing it to move towards self-sufficiency.

A. The Childcare Cliff

A family receiving government work supports is at risk of facing the benefits cliff for any subsidy they are receiving, or more typically, for multiple subsidies simultaneously. There are challenges and risks associated with each of these cliffs. This research will focus specifically on the cliffs of the benefits and credits associated with the costs of childcare in Vermont, and does not consider SNAP benefits, housing vouchers, or any other benefits a family may be receiving. The credits discussed in this paper are those identified by the Vermont Department of Children and Families as the credits that are available to help families with childcare costs. Understanding the childcare cliff is important because childcare is often one of the largest expenses a family has every month (East & Roll, 2010). Families, especially low-income, working, single parents, rely on childcare to maintain employment and be financially stable – childcare subsidies help these families afford this crucial service (Improving Child Care, 2014; Roll, 2014). When someone who is reliant on this subsidy experiences a change in income and reaches the childcare cliff, the reality of no longer being able to pay for childcare may mean that they are no longer able to keep their job (Prenovost & Youngblood, 2010). Disruptions like this can negatively impact both the children who are losing their care and their parents. Lack of continuous, high-quality childcare can negatively impact childhood development socially, emotionally, and cognitively (National Conference of State Legislatures, 2014; McNeil, 2005). Access to childcare assistance helps vulnerable families become more self-sufficient, and when the loss of this benefit prevents
parents from maintaining employment, it is less likely that these low-income families will be able to successfully transition to self-sufficiency (Roll, 2014).

i. Vermont

In Vermont, families receiving government support are at risk of experiencing the cliff effect on any of the federal or state-level programs from which they receive assistance (Cathuen, et. al, 2008). They may also experience a situation where they are facing the benefits cliff for multiple work supports at the same time. This is because all federal and state programs are developed and put into place independently of each other. One program’s eligibility cutoffs are not considered when another program is being designed, which creates the risk of a family simultaneously losing eligibility for multiple benefits at once (Cathuen, et. al, 2008). Potential work supports in Vermont include: 3Squares VT (SNAP), Low Income Heating Emergency Assistance Program (LIHEAP), TANF Cash Grants, Child Care Financial Assistance, Public Health Insurance, and numerous federal and state tax credits (Work Supports, 2018).

The Vermont Legislature created the Minimum Wage Study Committee in 2017 in order to study minimum and living wage in Vermont and their relations to the cost of living, the economic impacts of increases to the Vermont minimum wage, and how raising the minimum wage would interact with the state’s Earned Income Tax Credit. Among their other tasks, the Committee was responsible for recommending methods to mitigate or eliminate the benefits cliff that Vermonters experience when receiving public assistance or earning wages below the livable wage level (VT House Committee on Commerce and Wage, 2018).

Although much of the Committee’s focus and subsequent recommendations focused on the potential impacts of different minimum wage increases, the Committee did also publish findings related to the benefits cliff as a whole, as well as about specific programs associated
with childcare access in the state. The Committee found that the benefits cliff is built into several state-level assistance programs, and because of that, some Vermonters do decline wage increases to avoid losing their work supports (Sirotkin et. al, 2017). A family experiencing an increase in income could see a simultaneous loss of benefits from 3SquaresVT, the Earned Income Tax Credit, and the Child Care Financial Assistance Program (Sirotkin et. al, 2017).

In addition to an overall evaluation of the benefits cliff, the Committee also did specific analyses of the benefit programs associated with the benefits cliff in Vermont. They found that the Earned Income Tax Credit should be considered a work incentive, because, up to a certain point, the amount of the credit that an individual or family can receive increases as their wages increase (Sirotkin et. al, 2017). With regard to the Child Care Financial Assistance Program (CCFAP), it is estimated that there are about 7,000 families in Vermont that have at least one child under the age of 13 in need of childcare because all parents are working, have a family income that is between 100% and 200% of the Federal Poverty Level (FPL), and would experience an increase in income if the minimum wage increased (Sirotkin et. al, 2017). The Committee estimated that 2,000 of these families could lose their CCFAP benefits if the minimum wage in the state increased, because the cliff is part of the program’s structure – at certain points along its sliding scale, loss of benefits can almost negate any increase in income associated with the raise. This idea, of an increase in income not leading to a significant increase in household resources because of declining benefit amounts, is explored in the case studies discussed later in this paper. Deb Brighton, the Vermont expert on the benefits cliff, argues that the design of the CCFAP program does not create a cliff, but instead a steep slope. Because of this, increasing the minimum wage without changing anything else would steepen the slope even more. Brighton’s recommendation to the Committee was to adjust the slope that already exists
within the CCFAP program by whatever percentage the minimum wage was changed by. While this would not prevent the cliff effect from ever occurring, it would ensure that any changes to the minimum wage would not make current beneficiaries of the program any worse off (Sirotkin et. al, 2017).

ii. Other States and the Childcare Cliff

Starting in the 1990s, some states have classified policies related to childcare as work supports, because they help people seek and maintain employment. Since 1990, states have used funding from the federal Child Care and Development Block Grant Act (CCDBG) to fund these work supports, which encourage people to work by ensuring that those with low incomes still have enough resources to afford basic necessities. With these grants, states receive federal funding, but they have the power to design their own specific programs, including requirements about the type of care that is being provided, and income levels of those eligible to receive state assistance (National Conference of State Legislatures, 2014). All states receiving these grants, however, are required to:

- Provide childcare subsidies to lower income families\(^1\) with children under 13;
- Provide childcare subsidies for families with incomes up to 85% of the state median income level;
- And provide childcare subsidies for parents who are working, at job training, or have children with protective services.

Because states do have flexibility in designing and managing their programs, they are able to react when it becomes apparent that there are issues in the design or effects of their program. Recently, states have been working to address the benefit cliffs that exist within their

\(^1\) States have the power to define the income eligibility levels of families participating in their programs.
childcare subsidy work supports, to ensure that families can both provide high-quality care for
their children and maintain their current levels of employment. Some strategies states have
utilized include: altering the income eligibility cutoff levels, changing how often program
eligibility is re-determined, and designing pilot programs that monitor and address the cliff effect
specifically.

One strategy many states are employing is altering the income eligibility cutoff. Doing
this ensures that more families have access to the subsidies overall, because it allows those with
higher incomes to receive, or continue to receive, the work support. In at least fourteen states,
eligibility for childcare work supports is not in jeopardy until the family receiving it achieves an
income at or above 200% of the FPL (Poppe & Likpowitz, 2016). In Nebraska, although the
cutoffs are lower, families with income levels between 135% and 185% of FPL who were
receiving the subsidy before their income increase made them ineligible can receive two years of
“transitional child care,” allowing them to taper off of the work support, so that they do not
immediately lose all assistance once their eligibility is lost (National Conference of State
Legislatures, 2014). States can also decide to set the eligibility limit at one level when
determining if someone can receive the work support, and at another level when determining if
someone receiving the support is no longer eligible. In Ohio, for example, the entry eligibility
limit is 130% FPL, while the exit eligibility limit is 300% FPL (State Early Care, 2015). Other
states, including Oregon, Colorado, and North Dakota, have established that families can receive
childcare work supports until their incomes reach 85% of the state median income level, which is
the maximum level allowed by the CCDBG (National Conference of State Legislatures, 2014;
Poppe & Likpowitz, 2016). By changing the income eligibility cutoffs so that more people are
eligible to receive, or continue receiving, these work supports, these states are ensuring that even
as families’ incomes rise by small amounts, they are still able to receive the assistance they need to ensure that their children can be enrolled in quality childcare programs.

Some states are changing aspects of the logistics of their programs, so that families who receive benefits only need to re-apply, and re-prove eligibility, every twelve months. This includes Colorado, Montana, Washington, and Pennsylvania, where families who qualify for the state’s childcare subsidy can maintain their benefits for one year, regardless of changes in income level during that year (National Conference of State Legislatures, 2014; Poppe & Likpowitz, 2016; State Early Care, 2015). Doing this ensures that families who experience small changes in income do not immediately lose the work supports they are depending on – it creates an added level of stability, as these families know that they will have this additional level of support for twelve months into the future, even as their income levels change. In Nebraska, families who are receiving the subsidy when their income expands to above 130% FPL can continue receiving the subsidy for twenty-four months, or until their income exceeds 185% FPL (State Early Care, 2015).

Certain states have multifaceted approaches to try and mitigate the impacts of the benefits cliff – both Colorado and Louisiana have designed pilot programs to try and combat multiple issues at once. In 2016, Louisiana increased the amounts provided by its childcare stipend by 250% to help families afford better quality care. Before this, the state’s childcare subsidy amounts were less than the average cost of care, which meant that even families receiving the subsidies still faced significant costs (Poppe & Likpowitz, 2016). This issue of subsidy amounts not covering the full cost of care is something found in many states, including Vermont. In addition to the increase in the amount of the subsidy provided, Louisiana now ensures that families who qualify for the subsidy receive it for a year, regardless of changes to their income or
employment status, as long as their income does not exceed 85% of the state median income, which is the cutoff for the federal funding used to run the state’s program. In 2012, Colorado also established a pilot program to give families who are no longer financially eligible for childcare work supports two years to transition off of the benefits, instead of immediately losing them all at once. This program was expanded in 2016, and now has ten counties participating. In 2019, when the program ends, the effectiveness of the policies within it will be analyzed and presented to the legislature, so that the state can determine the most effective ways to help families gradually move away from receiving assistance, so that they do not need to worry about facing the benefits cliff (Poppe & Likpowitz, 2016). By increasing the amount of the subsidy that families receive, and simultaneously ensuring that families who receive the subsidy will continue to do so for a set period of time regardless of income changes, Louisiana and Colorado are combatting the childcare cliff in multiple ways.

B. The Benefits Cliff and Behavioral Impacts

Work supports, like childcare subsidies, are government benefits that are supposed to help supplement a family’s income (East & Roll, 2010). The idea is that, when the cost of childcare is made more affordable, it is easier for the parents of low-income families to seek or maintain employment, because they do not have to worry about being able to afford care – in the long-term, their improved employment outcomes should help these families achieve self-sufficiency, and allow them to no longer be reliant on government subsidies to make ends meet (Ha & Miller, 2015). A major problem for families who receive work supports is that, if that family’s economic standing changes, they are at risk of losing the government subsidies they rely on. This risk can be especially overwhelming when the work support in jeopardy is related to
affordable childcare access, because low-income parents, most frequently single mothers, cannot work if they do not have steady access to childcare (Prenovost & Youngblood, 2010).

When a low-income family experiences a change in their economic standing, from something like an increase in income or a change in family status, they may begin to approach or cross the benefits cliff. Because of the potential of losing the work supports they rely on to make ends meet, these families may react in several different ways. Studies have identified both how these families may react to the threat of the benefits cliff more generally, and also how families may specifically react in response to facing the childcare cliff. More generally, when facing the benefits cliff, deciding to accept something that will cause an increase in income – like an hourly raise, or an increase in hours worked – is seen as a calculated risk (Prenovost & Youngblood, 2010). Many of the people discussed in these studies are aware of the cliff in some way, including some who are aware of the risks associated with the cliff because they have previously experienced them. When faced with this decision, or when already experiencing the cliff, there are several actions that people tend to take. The most common is to appeal the ruling, with the hope that, when more attention is given to the individual case, new information will be discovered that will help restore the benefits that were being lost (Roll, 2014). Another response to combat potentially losing work benefits would be to manipulate the information being supplied to the providing agencies, to try and delay a loss of benefits from an earnings increase. This could include not reporting income at all, only reporting selective types of income, or

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2 An example of new information being brought to light in the application process would be if a single mother is determined to be ineligible because the child support she receives causes her income level to be too high, when in reality she only receives that child support once every few months, meaning it actually has a negligible effect on her monthly income level (Romich, 2006).
misreporting income amounts. Based on the specific program, these actions would violate most programs’ policies, if not also break the law (Roll, 2014).

In addition to research on how families and individuals react to the benefits cliff more generally, there have also been studies that focus on how families respond to the threat of the childcare cliff specifically. Researchers found that when mothers do not have to worry about losing their subsidy from an increase in earnings, they are likely to work more hours (Joo, 2008). Relatedly, mothers were also found to work more hours when the state cutoff level was at a higher rate of the Federal Poverty Level – mothers in states with cutoffs up to 325% FPL were 1.65 times more likely to work full time than mothers in states with cutoffs at lower rates of FPL. In states where the eligibility cutoffs are low, mothers are less likely to accept an earnings increase out of fear of jeopardizing their subsidy eligibility (Joo, 2008).

Another study was done specifically on the childcare cliff in Colorado, and its relationship with the Colorado Child Care Assistance Program (CCCAP), and how the cliff associated with that program impacts the behavior of the families receiving it (Roll, 2014). The authors of the study emphasize that families who are at risk of losing their work supports, like their CCCAP subsidy, will “strategize” in order to keep their benefits – in this study, 34% of those interviewed said they had done so (East & Roll, 2010). In this situation, “strategizing” is seen as choosing not to accept a form of increased income in order to keep their current subsidies. The decisions these families made included: not taking extra hours (19% of respondents), choosing not to accept a raise (14% of respondents), declining job offers (11% of respondents), choosing not to get married or otherwise change their family status (10% of respondents), choosing not to report monthly income levels but actively withhold monthly tip amounts, because those tips would cause the monthly income level to surpass the eligibility cutoff (Romich, 2006).
respondents), not accepting child support payments (3% of respondents), and not submitting their redetermination paperwork (3% of respondents) (East & Roll, 2010). Overall, the families in the study most likely to strategize were those with relatively higher incomes, and those who had previously lost their CCCAP benefits (Roll, 2014). The authors believe that the families who reported not strategizing – 66% of the survey respondents – did not strategize because their overall income levels remained so low that they were not in danger of approaching the cliff (Roll, 2014).

The threat of the benefits cliff can force people to make decisions that are not in their best long-term interest, but are necessary for their short-term survival. Families who are approaching the cliff typically cannot accept a raise unless it would generate between $4.00 and $5.00 of additional income every hour, as otherwise their loss in benefits would exceed their new increase in income. For most low-income jobs, a $4.00 to $5.00 increase in hourly income is incredibly large – most hourly raises do not approach this amount, as a raise this substantial is typically associated with additional responsibilities or a promotion. Because of this, these families may choose not to accept the raise. While this does help them avoid the cliff in the short-term, their perceived lack of career advancement over time makes them appear less qualified when looking for a new job in the long run (Roll, 2014). A long-term impact like this can make it harder for a family to become self-sufficient, as they appear to be less skilled than they really are.

III. Federal & Vermont Credits and Benefits

There are multiple federal tax credits that can help subsidize childcare costs. The Earned Income Tax Credit is for working people with low to moderate incomes, the Child and Dependent Care Credit is for those who have childcare expenses because they are employed or
searching for employment, and the Child Tax Credit reduces the amount of federal income taxes owed for those who have qualifying children. In addition to the credits that are provided on the federal level, the state of Vermont provides additional supplements to the Earned Income Tax Credit and the Child and Dependent Care Credit, increasing the overall amount of each of these subsidies. Vermont’s Agency of Human Services also runs the Child Care Financial Assistance Program, which is a benefits program that helps families with eligible children access quality childcare.

A. Earned Income Tax Credit

i. Federal EITC

The Earned Income Tax Credit (EITC) is a federal tax credit for people who are working and have low to moderate incomes. To qualify for the EITC someone must be employed and either meet all of the rules for a worker without a qualifying child, including being between the ages of 25 and 65, or have a child that meets all of the required qualifications (IRS, Earned Income Tax Credit, 2017). Under the EITC, the maximum amount of the credit that can be received is determined by the number of qualifying children that are in the family – the more children that qualify, the higher the tax credit the family is eligible to receive (IRS Publication 596, 2017). Figures 1 and 2 demonstrate the scales that are used to determine the EITC credit amount for single and head of household filers and married filers respectively. For each number of qualifying children that a family has, both single and married filers have the same maximum credit amount that they are eligible for. However, the range of income levels that a family can have to be eligible for that maximum amount is larger for married couples filing jointly than it is for single filers. This is especially true for families with more than one qualifying child – for single filers with two, three, or more children there is only a $4,000 range during which they can
receive the maximum amount of the EITC. Married couples filing jointly that also have two, three, or more qualifying children have a $9,500 range during which they can receive the maximum amount of the EITC. Single filers start experiencing a reduction in their EITC benefits once their income exceeds $18,000, while those married filing jointly do not experience this reduction until their income exceeds $23,500.

**Figure 1: Federal EITC For Single/House of Household/Surviving Spouse, by Adjusted Gross Income**

![Figure 1](image1)

Source: IRS Publication 596

**Figure 2: Federal EITC For Married Filing Jointly, by Adjusted Gross Income**

![Figure 2](image2)

Source: IRS Publication 596
ii. Vermont EITC

The state of Vermont also has an Earned Income Tax Credit. The requirements to qualify for this credit are that:

- You must meet the federal EITC requirements;
- You must be a resident of Vermont for at least part of the year;
- And you must either have a child that qualifies or be between the ages of 25 and 65 (VT Tax Credits, 2017).

If all of those requirements are met, then someone in Vermont can receive the Vermont EITC, which is equal to 32% of the federal EITC that they receive, on income that they earned or received in Vermont (VT Tax Credits, 2017). In 2016, there were 8,309 Vermonters with incomes between $15,000 and $25,000 receiving the EITC, which cost the state $9.8 million to provide. Figures 3 and 4 demonstrate the additional amounts that someone who is receiving the federal EITC would receive from the state of Vermont. As the Vermont EITC is a percentage of the federal EITC, Figures 3 and 4 demonstrate the same patterns that are found in Figures 1 and 2.
iii. Total EITC

Overall, someone in Vermont who is eligible for and receiving the federal EITC can also receive an additional amount of money from the state. These values are demonstrated below, in Figures 5 and 6. The additional Vermont credit does not change the shape of the scale that is
established by the federal EITC, but it does ensure that Vermonters who are receiving the federal credit are eligible for additional assistance from the state. The EITC is a refundable credit on both the federal and state levels. This means that receiving the credit can lower the amount of taxes that someone owes to below $0.00.

**Figure 5: Total EITC For Single/Head of Household/Surviving Spouse, by Adjusted Gross Income**

![Graph showing EITC amounts by adjusted gross income for single or head of household/surviving spouse.](image)

Source: VT Department of Taxes, Author’s Calculations

**Figure 6: Total EITC For Married Filing Jointly, by Adjusted Gross Income**

![Graph showing EITC amounts by adjusted gross income for married filing jointly.](image)

Source: VT Department of Taxes, Author’s Calculations
B. Child and Dependent Care Credit

The Child and Dependent Care credit is a federal credit available for those who pay for childcare while working or actively looking for work (IRS Topic No. 602, 2017). Anyone who must pay for the care expenses of a qualifying dependent in order to work or look for work can be eligible for this credit. The eligibility requirements for this credit are that: the person receiving the care is a “qualifying” person, the person paying for the care has some form of earned income, and the care expenses are such that the person paying for care can work or look for work (IRS Publication 503, 2017). If the person paying for care does not have a job, is not actively looking for a job, or has no earned income, then they are not eligible for this credit. The actual credit amount is a percentage – up to 35% – of the amount that the caregiver paid to the care provider for the care of the qualifying child (IRS Topic No. 602, 2017; IRS Publication 503, 2017). The actual percentage that is used, as displayed in Figure 7, depends on the adjusted gross income of the person paying for the care, including their wages, salaries, tips, other taxable forms of employee compensation, and net earnings from self-employment. The care costs used for the reimbursement calculations can be up to $3,000 of care for one qualifying dependent, or $6,000 of care for two or more qualifying dependents. Families with adjusted gross incomes of up to $15,000 are eligible to have 35% of their care expenses reimbursed by this credit. As a family’s adjusted gross income increases the reimbursement percentage that they are eligible for decreases. However, regardless of their income level, families who are paying for childcare in order to work or look for work are always eligible to have 21% of their care expenses reimbursed – there is no upper income limit on this reimbursement rate (IRS Publication 503, 2017).
iii. Vermont Child and Dependent Care Credits

Vermont has two credit options for individuals who are eligible for and receiving the federal Child and Dependent Care Credit: the state’s Credit for Child and Dependent Care, and its Low Income Child and Dependent Care Credit (VT Tax Credits, 2017). The main difference between the two credits is the income eligibility level. Parents and caregivers who are eligible for and receiving the federal Child and Dependent Care Credit are automatically eligible for the Credit for Child and Dependent Care Credit (VT Tax Credits, 2017). This credit is worth 24% of the credit that the family is receiving from the federal government. Vermont also has the Low Income Child and Dependent Care Credit, which has more restrictive eligibility requirements, but a higher reimbursement rate for those receiving the credit. Those seeking to receive this credit must be paying for care from an accredited provider, and must meet the adjusted gross income requirements as well (VT Tax Credits, 2017). Parents and caregivers eligible for this credit will receive a credit from the state of Vermont equivalent to 50% of the value of their

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4 Someone filing as a single person or head of household cannot have an adjusted gross income of above $29,999, and someone filing as married joint or civil union joint cannot have an adjusted gross income of above $39,999.
federal Child and Dependent Care Credit (VT Tax Credits, 2017). In 2016, there were 561 Vermonters with incomes between $15,000 and $25,000 receiving one of these credits, which cost the state $161,000 to provide. The potential reimbursement rate that a Vermont family receiving one of these credits could experience is shown in Figure 8. The VT Credit for Child and Dependent Care reimburses families for between 5% and 8% of their costs, while the VT Low Income Child and Dependent Care Credit reimburses families for between 11% and 18% of their costs.

**Figure 8: Care Expenses Covered by Vermont, by Adjusted Gross Income**

![Figure 8: Care Expenses Covered by Vermont, by Adjusted Gross Income](image)

Source: VT Department of Taxes, Author’s Calculations

**iv. Total Child and Dependent Care Credit**

Figure 9 displays the total reimbursement rate for childcare expenses that a family in Vermont could receive, based on if they receive the Vermont Credit for Child and Dependent Care in addition to the federal credit, or if they instead receive the Vermont Low Income Child and Dependent Care Credit in addition to the federal credit. The Credit for Child and Dependent Care increases the maximum reimbursement rate a family could receive from 35% to 43%, and increases the reimbursement rate for those receiving the credit with the highest incomes from
21% to 26%. On both the federal and state level the Child and Dependent Care credit is non-refundable, which means that it cannot reduce the amount of taxes that someone owes to below $0.00.

Figure 9: Total Care Expenses Covered, by Adjusted Gross Income

Source: VT Department of Taxes, Author’s Calculations

C. Child Tax Credit

The Child Tax Credit is a federal credit that may decrease the amount of federal income tax that someone owes by up to $1,000 per qualifying child (IRS Ten Facts, 2017). This is a separate credit from the Child and Dependent Care Credit and the Earned Income Tax Credit. The amount of the Child Tax Credit that an individual is eligible for is calculated using IRS Schedule 8812 (IRS Publication 972, 2016). There are also certain times that the maximum credit amount - $1,000 per qualifying child – must be reduced. This can occur when the amount of federal income taxes owed is lower than the value of the Child Tax Credit – as it is a non-refundable credit, it cannot be used to reduce the value of taxes-owed to below $0.00 (US Tax Center, 2017). The value of the Child Tax Credit is equivalent to 15% of a family’s income above $3,000, up to $1,000 per child (Chart Book, 2016). Figures 10 and 11 demonstrate the
Child Tax Credit cliffs for single and married filers. For single filers, they begin receiving the full amount of the credit when their income reaches $10,000, and they are eligible for the credit until their income exceeds $75,000. For married filers filing jointly, they begin receiving the full amount of the credit when their income reaches $10,000, and they are eligible for the credit until their income exceeds $110,000. While there is a cliff built into this program, it occurs at an income level that is well above the median household income for a family in Vermont. At this time, the state of Vermont does not offer any tax credits associated with the Child Tax Credit.

**Figure 10: Child Tax Credit for Single/Head of Household, by Adjusted Gross Income**

![Credit Amount vs. Adjusted Gross Income](image)

Source: Center on Budget and Policy Priorities, Author’s Calculations
D. Child Care Financial Assistance

The Child Development Division (CDD) of Vermont’s Department for Children and Families runs the Child Care Financial Assistance Program (Child Care Financial Assistance Program, 2017). This program, in addition to the tax credits already discussed, is another state resource to help families afford childcare. The goals of the program are: to ensure that there is a quality, adequately supported system of childcare in Vermont; and to help families pay for a system of care that will ensure their children have the necessary resources for the best possible development. The program is run with a combination of state and federal funds, and is discussed in 33 V.S.A. § 3512-3514, and U.S. Department of Health and Human Services, Administration for Children and Families, 45 CFR, Parts 98 and 99.\(^5\) The program also receives support from the US Department of Health and Human Services’ Administration for Children and Families,

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5 33 V.S.A. § 3512 states that “The Child Care Financial Assistance Program is established to subsidize, to the extent that funds permit, the costs of child care for families that need child care services in order to obtain employment, to retain employment, or to obtain training leading to employment;” The purpose of 45 CFR part 98 is “to allow each State maximum flexibility in developing child care programs and policies that best suit the needs of children and parents within that state.”
including official regulations from the Child Care Development Fund (Child Care Financial Assistance Program Regulations, 2009).

A family is considered eligible for Child Care Financial Assistance if they have an established service need, meet the income requirements, and adhere to the family eligibility standards. If all of these requirements are met, and the family is determined to be eligible, then they can receive financial assistance from the CDD to pay for childcare for their children who are between six weeks and thirteen years old, or nineteen years old if the child has additional developmental needs. The CDD’s financial assistance is in the form of a payment made directly to the provider that the family has chosen. Families have the ability to choose their care provider, as long as that provider meets the requirements established by the CDD, and accepts payments directly from the CDD. The Child Care Financial Assistance payment does not always cover the full cost of services – if the entire cost is not covered by that CDD payment, the family receiving assistance then pays a co-payment, also directly to the provider. This co-pay is equal to the difference between the rate that is paid by the CDD, and the price that the specific provider typically charges (Child Care Financial Assistance Program, 2017).

Figure 12 displays the reimbursement rates that a family is eligible for from the CDD, based on their family size and adjusted gross income. In addition to these two factors, the state also has different subsidy amounts that it is willing to pay depending on the type of care it is helping to subsidize. These include: care provided by a licensed program, care in a registered

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6 An “established service need” is the reason that the family applying needs childcare financial assistance. Many service needs are related to the employment status of the primary caretaker, including if they are employed or working towards employment.

7 Income eligibility for Child Care Financial Assistance is met if the family’s monthly gross income is at or below the levels that are established in the Child Care Financial Assistance Schedule. As family size increases, families with higher gross incomes are still eligible for higher proportions of the state subsidy. As monthly gross income within a family of a certain size increases, the state will pay less of the subsidy provided for that type of childcare.

8 Unlike some of the credits, the CDD reimbursement rate is impacted by family size, not number of children. Under this system, a family with one parent and two children would be classified the same as a family with two parents and one child.
home, or care by an approved relative (Child Care Financial Assistance Program, 2017). Each of these types of care has their own subsidy values, which are determined by the quality of the program, the age of the child, and the amount of care that is needed. The base rate of the subsidy increases with the quality of the program and the amount of time the child is receiving care, and decreases with the age of the child receiving care. For each of these subsidy amounts, the percentage of that subsidy that the family receives is established by the sliding scale that is demonstrated in Figure 12.

**Figure 12: Percentage of CDD Reimbursement Rate, by Adjusted Gross Income**

Source: Child Care Financial Assistance Program Booklet

**IV. Case Studies**

The following section contains case studies of individuals in Vermont who are at risk of experiencing, and do experience, the childcare cliff. The goal of these theoretical examples is to better demonstrate what a Vermonter may actually experience when they have another child, or experience a change in income or marital status. In order to better highlight the specific details of the benefits programs being focused on, many of the other details about the people in these case
Studies are the same. For example, both studies of single parents – a parent with either one or two children – have the same starting and ending Adjusted Gross Income. Additionally, all children receiving care are at 3 STAR Licensed Providers.\textsuperscript{9} The starting and ending incomes in each of these cases were chosen to reflect a person who passes the cliff after their income increases. The section highlights six case studies, which have been separated into three groups of two:

- A single parent, with one child and with two children;
- A married couple, with one child and with two children;
- And a single parent with two children who gets married, and either remains in or exits the labor force;

The information used for the calculations in these studies comes from the sliding scales and other tables used to determine a filer’s eligibility for the EITC, the CDCC, the Child Tax Credit, and the Child Care Financial Assistance Program.

A. Pair One: Single Parents

i. Single Parent with One Toddler

Table 1 demonstrates the case of a single parent with one toddler enrolled in full-time care at a 3 STAR Licensed Provider. When this parent experiences an increase in income of $5,000, they experience a loss of government assistance used to offset childcare costs of $1,445. The majority of this loss comes from the change in the EITC that this parent is eligible for, although they do also lose portions of their CDCC and CCFAP Reimbursements. Overall, an increase of $5,000 for this single parent with one toddler led to a loss of childcare-related

\textsuperscript{9} The Child Care Financial Assistance Program will pay more for programs that have a higher ranking from the state’s STARS program. STARS stands for Step Ahead Recognition System, and is used by the state to identify care providers that are exceeding the requirements established by the state’s care regulations. The Program includes a base rate for the subsidy, as well as increasing rates for those providers that receive 1, 2, 3, 4, or 5 STARS.
government assistance of $1,445 – 29% of this parent’s new income is needed to supplement the money that they lost because of their change in credit eligibility.

Table 1: Single Parent, One Toddler

<table>
<thead>
<tr>
<th></th>
<th>Start Amount</th>
<th>End Amount</th>
<th>Change</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGI</td>
<td>$18,000</td>
<td>$23,000</td>
<td>$5,000</td>
<td>21.7%</td>
</tr>
<tr>
<td>Total EITC</td>
<td>$4,452</td>
<td>$3,443</td>
<td>-$1,009</td>
<td>-22.7%</td>
</tr>
<tr>
<td>Total CDCC</td>
<td>$1,158</td>
<td>$1,079</td>
<td>-$79</td>
<td>-6.8%</td>
</tr>
<tr>
<td>Child Tax Credit</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>Child Care Costs</td>
<td>$8,905</td>
<td>$8,905</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>CCFAP Reimbursement</td>
<td>$8,905</td>
<td>$8,549</td>
<td>-$356</td>
<td>-4.0%</td>
</tr>
<tr>
<td>Total Government Assistance</td>
<td>$15,515</td>
<td>$14,071</td>
<td>-$1,445</td>
<td>-9.3%</td>
</tr>
</tbody>
</table>

ii. Single Parent with One Toddler, One Infant

Table 2 demonstrates a potential case of a single parent with one toddler and one infant, both enrolled full-time at 3 STAR Licensed Providers, when that parent has a change in income from $18,000 to $23,000. This $5,000 increase in income leads to a potential loss of assistance used to offset the costs of care of $2,407. This parent’s most substantial decrease in benefits also comes from their reduced EITC, but their reduced CDCC and CCFAP reimbursements are also large. This loss of government assistance related to mitigating the costs of childcare means that 48% of this parent’s new income would be needed to supplement their loss of benefits related to childcare access.

Table 2: Single Parent with One Toddler, One Infant

<table>
<thead>
<tr>
<th></th>
<th>Start Amount</th>
<th>End Amount</th>
<th>Change</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGI</td>
<td>$18,000</td>
<td>$23,000</td>
<td>$5,000</td>
<td>21.7%</td>
</tr>
<tr>
<td>Total EITC</td>
<td>$7,355</td>
<td>$6,024</td>
<td>-$1,331</td>
<td>-18.1%</td>
</tr>
<tr>
<td>Total CDCC</td>
<td>$2,317</td>
<td>$2,139</td>
<td>-$178</td>
<td>-7.7%</td>
</tr>
<tr>
<td>Child Tax Credit</td>
<td>$2,000</td>
<td>$2,000</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>Child Care Costs</td>
<td>$17,958</td>
<td>$17,958</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>CCFAP Reimbursement</td>
<td>$17,958</td>
<td>$17,060</td>
<td>-$898</td>
<td>-5.0%</td>
</tr>
<tr>
<td>Total Government Assistance</td>
<td>$29,630</td>
<td>$27,223</td>
<td>-$2,407</td>
<td>-8.1%</td>
</tr>
</tbody>
</table>
B. Pair Two: Married Couples

i. Married Couple with One Toddler

A married couple with one toddler whose income increases from $18,000 to $23,000 will experience a reduction in government assistance used to mitigate childcare costs of $3,158, as demonstrated in Table 3. Unlike the previous cases with single parents, the majority of the reduction in assistance for this couple is from a loss of eligibility for their CCFAP reimbursement. In this situation, an increase in income of $5,000 caused loss of benefits related to childcare access of $3,158, which means that 63% of this family’s increased income is being lost to the increased costs they must pay for childcare.

Table 3: Married Couple, One Toddler

<table>
<thead>
<tr>
<th></th>
<th>Start Amount</th>
<th>End Amount</th>
<th>Change</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGI</td>
<td>$23,000</td>
<td>$28,000</td>
<td>$5,000</td>
<td>21.7%</td>
</tr>
<tr>
<td>Total EITC</td>
<td>$4,452</td>
<td>$3,559</td>
<td>-$893</td>
<td>-20.0%</td>
</tr>
<tr>
<td>Total CDCC</td>
<td>$1,079</td>
<td>$958</td>
<td>-$121</td>
<td>-11.2%</td>
</tr>
<tr>
<td>Child Tax Credit</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>Child Care Costs</td>
<td>$8,576</td>
<td>$8,576</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>CCFAP Reimbursement</td>
<td>$8,147</td>
<td>$6,003</td>
<td>-$2,144</td>
<td>-26.3%</td>
</tr>
<tr>
<td>Total Government Assistance</td>
<td>$14,678</td>
<td>$11,520</td>
<td>-$3,158</td>
<td>-21.5%</td>
</tr>
</tbody>
</table>

ii. Married Couple with One Toddler, One Infant

In this case, a married couple with one toddler and one infant that has an increase in income of $5,000 will experience a reduction of credits and benefits of $2,317. As shown in Table 4, the most significant change leading to the reduction of this family’s government assistance is from the change in their EITC. For this family, a change in income from $23,000 to
$28,000 caused a decrease in government assistance related to childcare of $2,317 – 46% of the new income they have access to will be needed to supplement their lost childcare benefits.

Table 4: Married Couple with One Toddler, One Infant

<table>
<thead>
<tr>
<th></th>
<th>Start Amount</th>
<th>End Amount</th>
<th>Change</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGI</td>
<td>$23,000</td>
<td>$28,000</td>
<td>$5,000</td>
<td>21.7%</td>
</tr>
<tr>
<td>Total EITC</td>
<td>$7,355</td>
<td>$6,178</td>
<td>-$1,177</td>
<td>-16.0%</td>
</tr>
<tr>
<td>Total CDCC</td>
<td>$2,158</td>
<td>$1,915</td>
<td>-$242</td>
<td>-11.3%</td>
</tr>
<tr>
<td>Child Tax Credit</td>
<td>$2,000</td>
<td>$2,000</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>Child Care Costs</td>
<td>$17,958</td>
<td>$17,958</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>CCFAP Reimbursement</td>
<td>$17,958</td>
<td>$17,060</td>
<td>-$898</td>
<td>-5.0%</td>
</tr>
<tr>
<td>Total Government Assistance</td>
<td>$29,471</td>
<td>$27,153</td>
<td>-$2,317</td>
<td>-7.9%</td>
</tr>
</tbody>
</table>

C. Pair Three: Single Parents Getting Married

In addition to the changes demonstrated by the other case studies, when a single parent gets married their credit and benefit amounts will change because of a change in income, and also because of a change in family size. For the CCFAP Reimbursement, there is a different sliding scale for families of three or less than there is for a family of four. These families must also decide if they will be better off with both parents staying in the labor force, or with only one parent working. These two case studies demonstrate both of those decisions for a single parent with one infant and one toddler who gets married.

i. Single Parent Marries, Lower Earning Spouse Leaves Labor Force

Table 5 demonstrates the case of a single parent with one infant and one toddler who, after getting married, leaves the labor force, as their spouse’s income of $25,000 is higher than their income of $18,000. Because this family now has one parent working and one staying at home, they experienced a complete reduction in their childcare expenses – instead of paying $17,958 a year for childcare, they pay nothing. However, as their lack of care expenses made
them ineligible for several of the credit programs, this family also experienced a loss of government assistance of $20,618. The family’s increase in income of $7,000, and subsequent exit of one parent in the labor force, meant that, after accounting for the reduction of childcare expenses, this family had a loss of benefits of $2,660. That means that 38% of this family’s increase in income is being used to make up for lost government assistance, even when this family no longer has childcare costs.

Table 5: Single Parent Getting Married, Lower Earning Spouse Leaves Labor Force

<table>
<thead>
<tr>
<th></th>
<th>Start Amount</th>
<th>End Amount</th>
<th>Change</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGI</td>
<td>$18,000</td>
<td>$25,000</td>
<td>$7,000</td>
<td>38.9%</td>
</tr>
<tr>
<td>Total EITC</td>
<td>$7,355</td>
<td>$7,012</td>
<td>-$343</td>
<td>-4.7%</td>
</tr>
<tr>
<td>Total CDCC</td>
<td>$2,317</td>
<td>$0</td>
<td>-$2,317</td>
<td>-100%</td>
</tr>
<tr>
<td>Child Tax Credit</td>
<td>$2,000</td>
<td>$2,000</td>
<td>$0</td>
<td>0%</td>
</tr>
<tr>
<td>Child Care Costs</td>
<td>$17,958</td>
<td>$0</td>
<td>-$17,958</td>
<td>-100%</td>
</tr>
<tr>
<td>CCFAP Reimbursement</td>
<td>$17,958</td>
<td>$0</td>
<td>-$17,958</td>
<td>-100%</td>
</tr>
<tr>
<td>Total Government Assistance</td>
<td>$29,630</td>
<td>$9,012</td>
<td>-$20,618</td>
<td>-69.6%</td>
</tr>
</tbody>
</table>

ii. Single Parent with One Toddler and One Infant Getting Married

The case shown in Table 6 demonstrates the changes in government benefits that a single parent with two children experiences when they get married, and their household income increases from $18,000 to $43,000. Like the previous case, their spouse has an income of $25,000. Here, both parents decide to stay in the labor force. This decision leads to a loss of $18,013 in programs and credits associated with childcare costs. This family’s loss of assistance comes from a variety of sources, the most significant being the reduction in their EITC amount. They also lose a large portion of their reimbursement eligibility for both the CDCC and the CCFAP. Because of these loses and reductions in the benefits the family was dependent on, when this family got married and experienced an income increase of $25,000, they lost $18,013
of government assistance. This loss is equivalent to 72% of the family’s new income being used to offset the benefits losses they are experiencing.

<table>
<thead>
<tr>
<th>Table 6: Single Parent Getting Married, Both Spouses Stay in Labor Force</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Start Amount</strong></td>
</tr>
<tr>
<td>AGI</td>
</tr>
<tr>
<td>Total EITC</td>
</tr>
<tr>
<td>Total CDCC</td>
</tr>
<tr>
<td>Child Tax Credit</td>
</tr>
<tr>
<td><strong>Child Care Costs</strong></td>
</tr>
<tr>
<td>CCFAP Reimbursement</td>
</tr>
<tr>
<td><strong>Total Government Assistance</strong></td>
</tr>
</tbody>
</table>

**D. Limitations**

When analyzing these case studies, there are several pieces of information that must be noted. The first is that the loss of government assistance that is calculated in these cases only reflects the specific programs shown in each case: the Earned Income Tax Credit, the Child and Dependent Care Credit, the Child Tax Credit, and the Child Care Financial Assistance Program. These are all programs specifically related to childcare access. It is likely that any family that is receiving, and dependent upon, these credits is also dependent on other forms of government assistance. These cases studies help to demonstrate the specific impacts of the childcare cliff, but do not put that cliff into the larger context of the benefits cliff as a whole. This means that a family that has 60% of their new income replacing lost childcare benefits likely lost a number of other benefits at the same time – if they were impacted by more than one cliff at once, then their loss of benefits may exceed their additional income. If this occurs, the family is worse off than they were before their income increased.

Another thing that must be noted concerns the childcare costs that were used in each of these case studies. The costs used in the analyses were the base rates for the specific category in question determined by the CCFAP regulations. However, these costs do not reflect the current
market rates for care in Vermont, as they were decided in 2008. Because of this, the care costs used in these case studies are likely lower than the costs a family would actually face when paying for care in 2018. Under the CCFAP, if the base rate does not cover the full cost of care, the family is responsible for paying for the rest directly. This means that certain parts of these cases do not fully reflect the financial burden placed on these families, as they cannot account for their actual costs of care, because the available information about care costs is out of date. While updating actual costs of care would not change when a family utilizing this and other programs experiences a cliff, it would help to better demonstrate the actual hardships that a family experiences when trying to access affordable childcare.

V. Data Analysis

A. Vermont Department of Taxes

The data used in this section was provided by the Vermont Department of Taxes.\textsuperscript{10} It includes information regarding the number and type of filers, and number of EITC recipients. This specific data set focuses on those filers with AGIs between $15,000 and $25,000. That range of incomes was chosen because the two cliffs associated with the EITC – one for those filing as single or head of household, and one for those married filing jointly – are both found within this income range. The goal of using this data, and of restricting it to such a small range of incomes, is to focus specifically on Vermonters who are at or near the EITC cliff. Isolating the information about this subset of people allows for a clearer picture about this group’s characteristics. The goal of this analysis was to determine if data from the Department of Taxes

\textsuperscript{10} Thank you to Jake Feldman of the Department for his ongoing assistance with accessing the necessary data for this research.
supports findings from other states about bunching effects caused by the benefits cliff: Do Vermonters who are approaching the cliff try and alter their income, and bunch at certain income levels, in order to avoid that cliff. The data used in Figures 13 and 14 includes all EITC recipients with AGIs between $15,000 and $25,000 in Vermont in 2016. The figures demonstrate the number of overall EITC recipients that are found in each income bracket. The dashed orange lines in each figure identify the income bracket where that filing status’s cliff is located in the program.

For filers that are single or filing as head of household, if the behavioral impacts of the cliff that have been found in other states were also found in Vermont, we would expect to see more of these filers with AGIs in the $17,000-$17,999 bracket than we would $18,000-$18,999 bracket. This is because the cliff in the EITC for those who file as single or head of household is in the AGI range of $18,000-$18,999. If people were strategically altering their behavior to avoid the cliff, that strategy could include people bunching at income levels directly before the cliff, in order to avoid having an income level so close to the cliff. If this was occurring in Vermont, then it would make sense if there were more people in the $17,000-$17,999 range than the $18,000-$18,999 range, as those people may be attempting to strategically keep their income below the eligibility cutoff. However, as shown in Figure 13, there is no clear evidence of bunching. Instead, there are slightly more people in the $18,000-$18,999 bracket than there are just below or above that. The finding goes against the hypothesis that there would be many more people at income levels directly below the cliff, as instead, it shows that Vermonters receiving the EITC are slightly more likely to be at an income level at or close to that associated with the cliff than they are on either side of it.
For those that are married filing jointly, the same hypothesis – that there would be more people in the income bracket directly before the cliff than the bracket that contains the cliff – is again found to not be clearly present. For this hypothesis of bunching to be correct there would need to be more married filing jointly Vermonters in the $22,000-$22,999 bracket than in the $23,000-$23,999 bracket, where the cliff exists. If this were the case, it would suggest that Vermonters are altering their behavior to avoid having an income that is approaching the EITC’s cliff. Instead, as shown in Figure 14, like those single and head of household filers, there are more Vermonters in the income bracket that contains the cliff than the bracket directly below it.

**Figure 13: Single/Head of Household EITC Recipients, by AGI Income Bracket**

![Bar chart showing number of recipients by income bracket](source: Vermont Department of Taxes)
Figure 14: Married Filing Jointly EITC Recipients, by AGI Income Bracket

Source: Vermont Department of Taxes

B. Analysis Limitations

The data used in this analysis can be used to show that there is no overwhelming bunching effect based on where the cliff is located. However, this observation cannot be used to conclude that there is no behavioral impact caused by the cliff, as there is not enough available information in the data set to draw that conclusion. In order to make a conclusion like that, there would need to be an additional data set with information about a population within the same income range that does not have the threat of losing the EITC to react to. With additional information, it would be possible to determine if the findings between the two data sets are similar, which could demonstrate if the Vermonters discussed have firm behavioral reactions to the threat of the EITC cliff. Without that data, we can only conclude that there are similar numbers of Vermonters receiving the EITC regarding each income bracket identified, but not that any of these similar numbers prove certain behavioral impacts.
C. Other Data Sources

Additional data for this research was originally collected from the Current Population Survey.\textsuperscript{11} This included information on household income, family type, and typical hours worked per week and year. Unfortunately, due to the nature of the survey, the amount of Vermont-specific data available that was related to these cliffs was limited. Because of this, the sample size associated with the data was so small that any analyses or illustrations done with the data could not be considered representative of the relevant Vermont population as a whole. The work on this data was not included, as it could not be considered indicative of any larger trends.

VI. Discussion

A. Vermont Programs

i. The Earned Income Tax Credit

The EITC has a cliff that is built into the program, but that begins at different income and benefit amounts depending on a person’s filing status, and on their number of dependents. Although the cliff is built into the program, once a family faces it, they do not immediately lose all their benefits eligibility – the cliff’s slope is flat enough that the credit amount a family can receive decreases steadily as income increases, not abruptly. Unless a family has a huge, sudden increase in income, they will likely not lose the entirety of their EITC benefits. While there is no doubt that losing any amount of this credit they are reliant on could potentially be very

\textsuperscript{11} The Current Population Survey is a survey that is jointly sponsored by the U.S. Census Bureau and the U.S. Bureau of Labor Statistics. It collects data on labor force statistics in the U.S.
challenging financially, this system ensures that they are not likely to use all of their credit at once.

The state of Vermont does provide an additional credit amount on top of the federal EITC. That credit amount is a fixed percentage of the federal credit amount. Logistically, this is helpful for both those receiving the credit and those distributing it, as it is always clear what the Vermont credit amount will be. However, this system also means that if someone is experiencing the federal EITC cliff, they will be experiencing the Vermont EITC cliff simultaneously. If the Vermont EITC was instead calculated with something other than a fixed percentage, this problem could be resolved, although this could add logistical challenges. Additionally, under this system, people would still face the federal EITC cliff, which involves a much larger credit.

ii. The Child and Dependent Care Credit

The CDCC is a credit where the family receiving it does not receive a strict credit amount, but instead, a reimbursement percentage of care expenses based on their income level – the costs used to calculate reimbursement can be up to $3,000 for one child, or $6,000 for two or more children. Although the percentage that a family is eligible for does fall over time, it never falls to zero, as there is no upper income limit associated with this credit. This lack of upper limit means that families can continue to receive some amount of assistance from this credit, even after they have lost eligibility for other credits they may have previously been dependent on. Having the credit designed to continue for a family, regardless of income level, softens the blow of losing credits as income increases.

As Vermont has two programs associated with the federal credit, there is a larger income range families can have while maintaining eligibility for some form of a Vermont credit. Families with the lowest incomes in the state are eligible for the Low Income Child and
Dependent Care Credit, which provides a reimbursement of a higher percentage of their federal credit. However, as their income increases and they are no longer eligible for that program, they are still eligible for the state’s Credit for Child and Reimbursement Care. This allows Vermont families to have continual access to some form of this credit, even as their income increases, which should help families better manage the credit reduction associated with an increase in their income.

iii. The Child Tax Credit

Unlike the other credits discussed, the Child Tax Credit does not have the same type of cliff associated with it. Almost all families receiving the Child Tax Credit are eligible for a credit of $1,000 per child. The income cutoff for this, regardless of filing status, is more than $100,000. This credit undoubtedly helps families, as it consistently provides a credit to them, but it cannot be analyzed in the same way as the other credits discussed, as the cliff associated with it is at such a high income level – in the context of the income levels associated with the other cliffs, this credit’s cliff is not relevant, because these families will never face it at the same time.

iv. The Child Care Financial Assistance Program

The reimbursement rate for care costs that a family utilizing the CCFAP decreases steadily as that family’s income increases. However, the slope that determines that reimbursement rate is not consistent. The majority of the slope is the same, and it declines steadily as a family’s income increases, meaning that the reimbursement rate a family is eligible for steadily declines as their income increases. However, the lowest reimbursement rate, 10%, has a different slope than the rest of the rates, allowing it to encompass a larger income range. As its slope is flat for a certain income range before falling to zero, there is a longer period of time during which families can access this rate, and in turn, the program. Designing the program in
this way should help to ease the burden families face as their income increases, as they continue to receive some form of assistance from this program for a longer period of time.

**B. Case Study Implications**

The case studies in section IV demonstrate the reality of a family that relies on government benefits and has an income that leaves them close to the benefits cliff, leaving them at risk of having to choose between accepting a raise that will technically make them financially better off, but that will lead to a decrease in government benefits, or maintain their current income level, so that their benefits remain unchanged. The more their increase in income is counteracted by a decrease in credits, the higher their implicit marginal tax rate will become. This change in income can come about in a variety of ways, some of which a family has control over, and some of which they do not. If an individual is offered a promotion or a new job with a higher salary, or given the opportunity to work more hours, they have the ability to accept or decline that offer. Theoretically, in a situation like this, the individual could decline that offer to prevent their income from increasing, and subsequently, to avoid the cliff. If, however, that change in income is from an increase in the minimum wage, as Vermont is considering, that individual approaching the cliff has fewer options. They may be able to work fewer hours at their new, increased hourly pay, so that they maintain their old income level, and do not lose any of their benefits eligibility. If that is not an option, and the minimum wage increase forces their income to rise, they may be pushed over the benefits cliff with no control over the situation. Additionally, declining a job offer or promotion can negatively harm an individual’s future job prospects, as they will be perceived to not have career growth, when in reality they declined those offers in order to protect their benefits eligibility.
Each of these pairs of case studies helps to demonstrate the variety of factors that impact how severely a family will experience the benefits cliff. Pair one highlights the different experiences of a single parent, paying for care for either one or two children. With all else equal, these examples show that a single parent with one child is less severely impacted by the cliff than a single parent with two children. When both parents experience an increase in income of $5,000, the single parent with one child must use 29% of their income to supplement the government assistance related to childcare they lost, while the single parent with two children must use 48%. With all else equal in the studies of the two married couples, the studies suggest that a married couple with one child is slightly worse off after an increase of $5,000 than a married couple with two children. The married couple with one child must use 63% of their new, additional income to make up for the childcare assistance they lost, while the married couple with two children needs to use 46% of their new income, which is slightly less.

The scenarios highlighted in pair three demonstrate the series of decisions a family has to make when a single parent gets married. The first case demonstrates what happens to this family when they decided to have the lower-earning spouse leave the labor market and take over the childcare responsibilities. Because the lower earning spouse leaves the labor force, the family does not experience a large increase in income, and does experience a total reduction in childcare costs. However, the increase in income was large enough to still require that 20% of the family’s new income be used to offset the losses of their government benefits related to child costs. This is significantly less than the percentage demonstrated by other scenarios, because of the complete reduction of childcare costs. If the best choice for this family was not to have a parent leave the labor force and also take over childcare responsibilities, then the results of this scenario would have looked different. The second case demonstrates another potential scenario for this family, if
both parents were to stay in the labor force. In this scenario this family has an increase in income of $25,000, which leads to a loss of $21,330 of government assistance, or 85% of their new income. This loss is so great because the family experienced an immediate, dramatic increase in their income. Although they are now making far more money than they were before, they also lost a huge portion of the government benefits they were relying on for childcare access and credits.

In this situation, where a single parent with children is getting married, the two spouses have to decide what the best option is for their family, as neither presented is financially ideal. If they decide to have one person leave the labor force they are able to stop paying for childcare, which does significantly reduce their monthly expenses. However, this does mean that the family’s children lose the benefits associated with attending an accredited childcare center, and the family loses the opportunity to make significantly more money, and to move towards self-sufficiency. If, instead, the family chooses to have both spouses remain in the labor market, they do have the benefits that come with a higher income, but at the risk of having that higher income being used almost entirely to replace their lost government assistance. As neither option is a clearly superior choice, the family needs to carefully assess their options in order to make the decision that is in their best interest. In a situation like this, the cliff could also have other social impacts. A couple with children may decided to live together, but not get married, so that their change in marital status, family size, and income level does not negatively impact the benefits and credits they are relying on to access childcare.

C. Data Analysis Implications

As discussed previously, the analysis of the Vermont Department of Taxes data does not match the hypothesis that those with incomes close to the cliff would alter their behavior to avoid
approaching it further. Instead, this data demonstrated that the income brackets containing the EITC cliff for different filing statuses were equal or more populated than the income brackets immediately surrounding them, suggesting that if people are altering their behavior to avoid the cliff, that behavior is not demonstrated by the percentage of EITC recipients across income brackets.

There are several possible explanations for this finding. One is that it does not appear that people are strategizing about the EITC cliff because they are not – the data does not show any behavioral alterations because they do not exist. Another explanation could be that, if the EITC cliff occurs in a different income bracket than that of another major benefits program not discussed in this research, people could be strategizing to avoid that cliff instead. If that is the case, people are strategizing, but their behavior is not demonstrated in the data because they are reacting to a different cliff. The slope of the EITC could be flat enough, and the addition of the Vermont benefit could be large enough, that the benefit amount remains large enough, even after the cliff begins, that people do not alter their behavior in response to it – they are still receiving sufficient enough aid to not deem it necessary to actively change their behavior.

i. Limitations

The data analysis section focuses exclusively on the EITC, and the number of Vermonters receiving it. While it would have been ideal to have a similar analysis for all the credits discussed, this was not possible. The Vermont Department of Taxes was unable to disclose such specific information regarding the CDCC because the sample size was so small it violated confidentiality policies.\textsuperscript{12} The Department was also unable to provide data regarding Vermont usage rates of the Child Tax Credit, as that credit is exclusively a federal credit.

\textsuperscript{12} The Department is unable to release data concerning ten or fewer subjects.
VII. Conclusion

Families who experience the benefits cliff are at risk of having an increase in income lead to a substantial enough loss in benefits that, after this increase, their net household resources barely increase. In addition to these overall risks, the childcare cliff has its own challenges associated with it. This includes the chance that, if an increase in income leaves a family ineligible for substantial enough government assistance to afford childcare, a parent may be forced to leave the labor force in order to care for their children. Being forced to take this action can greatly limit an individual’s long-term career prospects, because of the perception that this absence of career advancement is because of lack of skill, not because of familial obligations and financial challenges.

The childcare cliff in Vermont includes the Earned Income Tax Credit, the Child and Dependent Care Credit, the Child Tax Credit, and the Child Care Financial Assistance Program. A family that is receiving each of these benefits can receive a significant amount of assistance towards alleviating the childcare costs they face. However, when a family’s income changes the credit amounts they receive can alter significantly, as demonstrated in the case studies in section IV. For many of the families highlighted, the combination of the increase in income and decrease in benefits means that a raise or promotion does not make them significantly better off. In fact, because of the rate at which they are losing benefits, when these families face the benefits cliff they are also confronted with extremely high implicit and total marginal tax rates. Not only do these families have minimal increases in net household resources, but they are also effectively being taxed at a rate that exceeds that of the highest earners in the country.

Currently, there are numerous discussions throughout Vermont about increasing the minimum wage. A decision to do this could have several effects on the childcare cliff, and on the
families at risk of experiencing it. If a family who is making minimum wage is near the cliff, an increase in the minimum wage could involuntarily push them over the edge. As the family would have no control over this increase in income, they would have fewer options to strategize with. A family in this situation may be forced to either work fewer hours and avoid the cliff, or continue working at an increased wage, and begin losing benefits. If Vermont’s programs are not altered when the minimum wage increases, people will see their incomes increase, and in turn, their benefits fall. However, if the state’s programs were altered, this would allow families to make more money, and not be adversely affected by a cliff that was designed when there was a different minimum wage in place, helping them become more self-sufficient. One alteration that would ensure this would be to increase each cliff’s payment scale by whatever rate the minimum wage increased by. This would not alter the existence of the cliff, but it would prevent the minimum wage making the current cliff any worse.

In addition to specific changes the state could make with regard to the cliff and its interactions with changes to the minimum wage, there are more general policy changes that Vermont could adopt to help mitigate the effects of the childcare cliff. The state could address this issue by altering the current slopes of the state-level credits that are tied to federal credits. Doing this would address several of the current issues in the existing structure. Vermont could both flatten the slope of its credit programs, and determine the credit amounts with a calculation that is not a flat percentage of the recipient’s federal credit. This alteration would accomplish several things. By determining Vermont credit levels independently, instead of solely as a fixed portion of federal credits, Vermonters receiving both will not experience both programs’ cliffs at once – each program may still have a cliff, but the federal one and the Vermont one will not happen at the same time. This would ease the burden of a family with an increasing income, as,
even if both credit values are reducing, they are not simultaneously falling at the same rates. Vermont should also flatten the rate at which their program credits amount decrease after the benefits cliff. A flatter slope would allow people to experience a slower reduction in credits as their income increases. This would help people adjust to their shrinking credit amount, and it would prevent the loss of credits from being such a substantial portion of someone’s increasing income, helping to lower the rate at which their implicit marginal tax rate is increasing. This change would help to ease people off of government assistance, so that they are better equipped financially as their credits decrease.

Both of these policy recommendations would help mitigate the effects of the benefits cliff that Vermonter’s experience. However, they would also be logistically challenging for the state to implement and manage. If the state credits are not flat percentages of the federal credits, then providing them becomes much more administratively challenging for the state, as they will need to establish a new set of calculations or scales to determine the Vermont levels of the credits. A task like this would be especially challenging in a small state like Vermont. A flatter slope for each of the credits would be more expensive for the state, as credit recipients would be receiving more money. However, these actions would match the trend of other states altering their existing policy programs to address the childcare cliff.

Although there are challenges associated with these proposed policy changes, their long-term positive impacts outweigh their potential costs and administrative issues. Mitigating the effects of the current cliffs present in Vermont’s benefits and credits will help more families in the state move towards self-sufficiency, and away from reliance on government assistance. In the long run, this will be helpful for the state for numerous reasons. If fewer Vermonters are reliant on government assistance, the programs will cost less for the state to maintain. Additionally, if
more Vermonters are thriving, and staying in the labor force while also providing quality
childcare for their children, more people in the state will be better off. The immediate actions
necessary to address and mitigate the childcare cliff may be costly, but their long-term impacts
are significant enough that they are worth being invested in.
Appendix

Appendix A: 2016 Federal Poverty Levels

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<th>Persons in Household</th>
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Appendix B: Unpublished Vermont Department of Taxes Data

i. Summary Data for 2016

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<th>AGI Income Bracket</th>
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<th>Total Exemptions</th>
<th>Total EITC</th>
<th>EITC Filers</th>
<th>Total CDCC</th>
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Grand Total       39,591  57,591  $9,785,194  8,309  $160,762  561

* indicates that is data unavailable due to confidentiality issues
ii. Credit Recipients by Filing Status for 2016

### Single/Head of Household EITC Recipients

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<th>Exemptions</th>
<th>EITC Total</th>
<th>Average EITC Amount</th>
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### Married Filing Jointly EITC Recipients

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Works Cited


Vermont Department of Taxes. 2016. Unpublished data regarding EITC and CDCC Distributions.
