Vermont Basic Needs Budgets And Livable Wage

Prepared in accordance with 2 V.S.A. § 505

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Prepared by the Vermont Legislative Joint Fiscal Office

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Part I - Executive Summary

This is the 12th edition of the Vermont Basic Needs Budgets and Livable Wage Report. A Basic Needs Budget is a market-based analysis that accounts for estimated monthly living expenses in Vermont. These basic needs budgets include the costs for essential items such as food, housing, transportation, child care, clothing and household expenses, telecommunications charges, health and dental care, renter's insurance, life insurance, and savings. The budgets differ based on family size and whether the family lives in an urban or rural part of Vermont.

This version of the study will include seven hypothetical family configurations: six that are consistent with the original families chosen in the 1999 report, and an additional configuration (single person, shared housing) starting in the 2015 report. All configurations are as follows:

- Single Person
- Single Person, Shared Housing
- · Single Parent with One Child
- Single Parent with Two Children
- Two Adults with No Children both wage earners
- Two Adults with Two Children one wage earner
- Two Adults with Two Children both wage earners

Tax obligations are then added to annual household expenses. Finally, hourly wage figures are calculated by dividing the total by a year of full-time work. Annual budgets and hourly wages are computed for each of the seven family profiles in both urban and rural Vermont, 14 budgets in total.

Vermont Livable Wage Rate

The Vermont Livable Wage is defined in statute as the hourly wage required for a full-time worker to pay for one-half of the basic needs budget for a two-person household, with no children, and employer-sponsored health insurance, averaged for both urban and rural areas. The 2018 Vermont Livable Wage is \$13.34 per hour. The Livable Wage is different from the wage for a single person because it accounts for the economies achieved by multiple-person households. This figure does not, however, include all potential household expenses because it is for families without children. There are seven family configurations presented in this report to show the variation in livable wages for family types.

The Basic Needs Budgets and Livable Wage methodology was originally established in 1999 as the result of the Legislative Livable Income Study Committee. Comprehensive improvements to the study methodology were recommended in 2008 by a Basic Needs Technical Advisory Committee. The Legislative Joint Fiscal Committee (JFC) has the authority to update the study methodology and adopted the Technical Advisory Committee's recommendations. Additional changes, described in Part II of this report, were approved in the fall of 2018 and are incorporated into the 2019 report. During fall of 2018, the Joint Fiscal Office recommended to the JFC that the General Assembly should consider appointing another technical advisory committee, or similar body, to perform a comprehensive review of the basic needs methodology and statute and make recommendations prior to the 2021 report.

The purpose of the Basic Needs Budgets and Livable Wage calculation is to provide information for the public on what it costs to live in Vermont, based on certain assumptions. This is not meant to be a mandate, but another source of comparative data when considering wage levels in Vermont.

Part II – Changes from the Last Report

Each biennium a number of potential improvements to the Basic Needs Budget methodology are typically discussed. There are a range of reasons why a change may be considered from technical issues surrounding data access or suitability, to a new policy choice or objective. The decision to make a change involves balancing the value of the improvement with the continuity of the report. For this report, expenses for transportation were calculated utilizing additional data from the National Household Travel Survey (NHTS), while the dental costs incorporate state-level out-of-pocket data from Northeast Delta Dental. Other methodology changes were considered and will be discussed within the context of a comprehensive review of the basic needs budget and livable statute and methodology prior to the next report.

Methodology Changes

Transportation Expenses

The 2009 National Household Travel Survey (NHTS) data was used for this report. Within this survey, Census Bureau urban-rural classifications are used to categorize travel data. For these classifications, there are three categories:

- Urban areas, which contain 50,000 or more people
- Urban clusters, which encompass populations between 2,500 and 50,000
- Rural areas, which are all areas and populations not meeting the definition of urban areas or urban clusters

The methodological change entails the incorporation of urban cluster travel data from the NHTS into the calculation for rural transportation costs. Urban clusters were previously omitted for transportation calculations. However, there are several around the State, almost exclusively outside of Chittenden County, the data for these clusters were merged with rural travel data for the rural travel cost calculations. Examples of urban clusters are Barre-Montpelier, St. Albans and Rutland.

Health and Dental Care Expenses

This report incorporates Vermont-specific data for out-of-pocket (OOP) dental costs that were provided by Northeast Delta Dental. Previous reports incorporated older national-level Medical Expenditure Panel Survey (MEPS) data that were trended forward to estimate Vermont basic needs budget dental costs. As a result of this methodology change, estimated dental OOP costs have increased significantly from previous reports, which have driven up total monthly dental costs for each family configuration. For example, estimated monthly OOP costs for a single person and a family of four increased from \$5 and \$20 to \$24 and \$83 respectively.

Other Changes

Federal and State Personal Income Tax Reform

The federal Tax Cuts and Jobs Act (TCJA), which overhauled the federal income tax code and included, among other items, several changes that impact the 2018 basic needs budgets and livable wage in Vermont, became law on December 22, 2017. These changes included reductions in the marginal individual income tax rates, increases to the standard deduction rates, the elimination of the personal exemption, and an increase in the child tax credit.²

¹ Though there is a 2017 update for this data, JFO decided against using it in this report due to very low response rates for Vermont. In 2009 there were 2,325 Vermont responses. In 2017, there were 509 responses.

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² All of the federal personal income tax changes are currently set to expire on December 31, 2024, after which time the tax code would revert back to pre-TCJA law.

In 2018, the Vermont General Assembly passed a bill overhauling the State personal income tax code. The legislation decoupled the State tax code from the federal code and included changes that also impact the 2018 basic needs budgets and livable wage, including reductions in the marginal rates and the enactment of a State standard deduction and a personal exemption. The changes became law on July 1, 2018 and are permanent. The federal and state changes resulted in net tax reductions for all 2018 basic needs budget families.

Part III – 2018 Vermont Livable Wage and Basic Needs Budgets

2018 Livable Wage = \$13.34 per hour [1]

${\bf 2018~Basic~Needs~Budget~Wages~{\it [2]}}$

Family Type	Urban	Rural
Single Person	\$18.09	\$15.79
Single Person, Shared Housing	\$14.82	\$12.98
Single Parent, One Child	\$30.43	\$25.11
Single Parent, Two Children	\$39.10	\$32.19
Two Adults, No Children	\$13.97	\$12.71
Two Adults, Two Children (one wage earner)	\$32.79	\$30.71
Two Adults, Two Children (two wage earners)	\$22.50	\$20.37

^[1] This is the average of the urban and rural rate for Two Adults with No Children. The 2016 livable wage was \$13.03.

^[2] All hourly wages given are per wage earner.

2018 Vermont Basic Needs Budget Single Person

	Urban	Rural
Category	Cost estimates are per month	Cost estimates are per month
Food	322	322
Housing	1,121	781
Transportation	503	512
Health Care	163	163
Dental Care	28	28
Child Care	0	0
Clothing & Household Expenses	151	151
Personal Expenses	91	91
Telecommunications	101	101
Rental Insurance	17	17
Term Life Insurance	0	0
Savings	125	108
Total Monthly Expenses	2,621	2,274
Annual Expenses	31,456	27,285
Federal & State Taxes	6,161	5,551
Annual Income	37,617	32,836
Hourly "Livable" Wage	\$18.09	\$15.79
Average Wage PER Earner		
Tax Calculations	2018 Tax Yea	ar - Single Filer
AGI	37,617	32,836
Standard Deduction	(12,000)	(12,000)
Taxable Income	25,617	20,836
Federal Tax (before credits) Child Credit	2,884	2,310
Dependent Care Credit	_	_
Net Federal Tax	2,884	2,310
VT Standard Deduction	(6,000)	(6,000)
VT Personal Exemption	(4,150)	(4,150)
VT Taxable Income	27,467	22,686
State Tax (before credits)	920	760
Dependent Care Credit	-	-
Renter Rebate	(520)	(31)
Net State Tax	400	729
FICA/Medicare	2,878	2,512
Total	6,161	5,551

2018 Vermont Basic Needs Budget Single Person, Shared Housing

	Urban	Rural
Category	Cost estimates are per month	Cost estimates are per month
Food	322	322
Housing	721	477
Transportation	503	512
Health Care	163	163
Dental Care	28	28
Child Care	0	0
Clothing & Household Expenses	116	116
Personal Expenses	91	91
Telecommunications	80	80
Rental Insurance	17	17
Term Life Insurance	0	0
Savings	102	90
Total Monthly Expenses	2,143	1,896
Annual Expenses	25,711	22,755
Federal & State Taxes	5,121	4,238
Annual Income	30,831	26,993
Hourly "Livable" Wage	\$14.82	\$12.98
Average Wage PER Earner		
Tax Calculations	2018 Tax Yea	r - Single Filer
Tax Calculations AGI	2018 Tax Yea 30,831	r - Single Filer 26,999
AGI	30,831	26,999
AGI Standard Deduction Taxable Income Federal Tax (before credits)	30,831 (12,000)	26,999 (12,000)
AGI Standard Deduction Taxable Income Federal Tax (before credits) Child Credit	30,831 (12,000) 18,831	26,999 (12,000) 14,999
AGI Standard Deduction Taxable Income Federal Tax (before credits)	30,831 (12,000) 18,831	26,999 (12,000) 14,999
AGI Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit	30,831 (12,000) 18,831 2,069	26,999 (12,000) 14,999 1,609
AGI Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax VT Standard Deduction	30,831 (12,000) 18,831 2,069 - - - 2,069 (6,000)	26,999 (12,000) 14,999 1,609 - - - 1,609 (6,000)
AGI Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax	30,831 (12,000) 18,831 2,069 - - - 2,069 (6,000) (4,150)	26,999 (12,000) 14,999 1,609 - - - 1,609 (6,000) (4,150)
AGI Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax VT Standard Deduction VT Personal Exemption VT Taxable Income	30,831 (12,000) 18,831 2,069 - - - 2,069 (6,000)	26,999 (12,000) 14,999 1,609 - - - 1,609 (6,000)
AGI Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax VT Standard Deduction VT Personal Exemption	30,831 (12,000) 18,831 2,069 - - 2,069 (6,000) (4,150) 20,681	26,999 (12,000) 14,999 1,609 - - - 1,609 (6,000) (4,150) 16,843
AGI Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax VT Standard Deduction VT Personal Exemption VT Taxable Income State Tax (before credits)	30,831 (12,000) 18,831 2,069 - - 2,069 (6,000) (4,150) 20,681	26,999 (12,000) 14,999 1,609 - - - 1,609 (6,000) (4,150) 16,843
AGI Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax VT Standard Deduction VT Personal Exemption VT Taxable Income State Tax (before credits) Dependent Care Credit	30,831 (12,000) 18,831 2,069 - - 2,069 (6,000) (4,150) 20,681	26,999 (12,000) 14,999 1,609 - - - 1,609 (6,000) (4,150) 16,843
AGI Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax VT Standard Deduction VT Personal Exemption VT Taxable Income State Tax (before credits) Dependent Care Credit Renter Rebate	30,831 (12,000) 18,831 2,069 	26,999 (12,000) 14,999 1,609 - - - - 1,609 (6,000) (4,150) 16,843 564

2018 Vermont Basic Needs Budget Single Parent, One Child

	Urban	Rural
Category	Cost estimates are per month	Cost estimates are
Food	490	490
Housing	1,442	955
Transportation	486	483
Health Care	326	326
Dental Care	64	64
Child Care	992	806
Clothing & Household Expenses	230	230
Personal Expenses	137	137
Telecommunications	101	101
Rental Insurance	17	17
Term Life Insurance	39	39
Savings	216	182
Total Monthly Expenses	4,541	3,831
Annual Expenses	54,491	45,971
Federal & State Taxes	8,802	6,257
Annual Income	63,293	52,227
Hourly "Livable" Wage	\$30.43	\$25.11
Average Wage PER Earner		
Tax Calculations	2018 Tax Year – F	Head of Household
AGI	63,293	52,227
Standard Deduction	(18,000)	(18,000)
Taxable Income	45,293	34,227
Federal Tax (before credits)	5,163	3,835
Child Credit	(2,000)	(2,000)
Dependent Care Credit	(600)	(600)
Net Federal Tax	2,563	1,235
VT Standard Deduction	(9,000)	(9,000)
VT Personal Exemption	(8,300)	(8,300)
VT Taxable Income	45,993	34,927
State Tax (before credits)	1,541	1,170
Dependent Care Credit	(144)	(144)
Renter Rebate	-	· ,
Net State Tax	1,397	1,026
FICA/Medicare	4,842	3,995
Total	8,802	6,257

2018 Vermont Basic Needs Budget Single Parent, Two Children

	Urban	Rural
Category	Cost estimates are per month	Cost estimates are per month
Food	723	723
Housing	1,442	955
Transportation	486	483
Health Care	530	530
Dental Care	127	127
Child Care	1,606	1,330
Clothing & Household Expenses	280	280
Personal Expenses	182	182
Telecommunications	101	101
Rental Insurance	17	17
Term Life Insurance	48	48
Savings	277	239
Total Monthly Expenses	5,820	5,016
rotal Monthly Expenses	5,620	5,016
Annual Expenses	69,840	60,186
Federal & State Taxes	11,477	6,759
Annual Income	81,317	66,945
Hourly "Livable" Wage	\$39.09	\$32.19
Average Wage PER Earner	<u> </u>	· · ·
Tax Calculations	2018 Tay Vear _ F	Head of Household
AGI	81,317	66,945
Standard Deduction	(18,000)	(18,000)
Taxable Income	63,317	48,945
Federal Tax (before credits)	8,478	5,601
Child Credit	•	(4,000)
Dependent Care Credit	(4,000)	
· · · · · · · · · · · · · · · · · · ·	(1,200)	(1,200)
Net Federal Tax	3,278	401
VT Standard Deduction	(9,000)	(9,000)
VT Personal Exemption	(12,450)	(12,450)
VT Taxable Income	59,867	45,495
State Tax (before credits)	2,266	1,524
Dependent Care Credit	(288)	(288)
Renter Rebate		(=30)
Net State Tax	1,978	1,236
FICA/Medicare	6,221	5,121
Total	11,477	
i Ulai	11,4//	6,759

2018 Vermont Basic Needs Budget Two Adults, No Children (both wage earners)

	Urban	Rural
Category	Cost estimates are per month	Cost estimates are per month
Food	641	641
Housing	1,121	781
Transportation	1,004	1,024
Health Care	388	388
Dental Care	70	70
Child Care	0	0
Clothing & Household Expenses	243	243
Personal Expenses	182	182
Telecommunications	160	160
Rental Insurance	17	17
Term Life Insurance	38	38
Savings	193	177_
Total Monthly Expenses	4,058	3,722
Annual Expenses	48,695	44,668
Federal & State Taxes	9,427	8,224
Annual Income	58,122	52,892
Hourly "Livable" Wage	\$27.94	\$25.43
Average Wage PER Earner	\$13.97	\$12.71
	2018 VT Livable Wage	\$13.34
Tax Calculations		
	2018 Tax Year - Ma	arried Filing Jointly
AGI	2018 Tax Year - Ma 58,122	arried Filing Jointly 52,892
AGI Standard Deduction		
	58,122	52,892
Standard Deduction	58,122 (24,000)	52,892 (24,000)
Standard Deduction Taxable Income	58,122 (24,000) 34,122	52,892 (24,000) 28,892
Standard Deduction Taxable Income Federal Tax (before credits)	58,122 (24,000) 34,122	52,892 (24,000) 28,892
Standard Deduction Taxable Income Federal Tax (before credits) Child Credit	58,122 (24,000) 34,122	52,892 (24,000) 28,892
Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit	58,122 (24,000) 34,122 3,714 -	52,892 (24,000) 28,892 3,086
Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax	58,122 (24,000) 34,122 3,714 - - - 3,714	52,892 (24,000) 28,892 3,086 - - - 3,086
Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax VT Standard Deduction	58,122 (24,000) 34,122 3,714 - - - 3,714 (12,000)	52,892 (24,000) 28,892 3,086 - - - 3,086 (12,000)
Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax VT Standard Deduction VT Personal Exemption(s)	58,122 (24,000) 34,122 3,714 - - - 3,714 (12,000) (8,300)	52,892 (24,000) 28,892 3,086 - - - 3,086 (12,000) (8,300)
Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax VT Standard Deduction VT Personal Exemption(s) VT Taxable Income	58,122 (24,000) 34,122 3,714 - - - 3,714 (12,000) (8,300) 37,822	52,892 (24,000) 28,892 3,086 - - - 3,086 (12,000) (8,300) 32,592
Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax VT Standard Deduction VT Personal Exemption(s) VT Taxable Income State Tax (before credits)	58,122 (24,000) 34,122 3,714 - - - 3,714 (12,000) (8,300) 37,822	52,892 (24,000) 28,892 3,086 - - - 3,086 (12,000) (8,300) 32,592
Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax VT Standard Deduction VT Personal Exemption(s) VT Taxable Income State Tax (before credits) Dependent Care Credit	58,122 (24,000) 34,122 3,714 - - - 3,714 (12,000) (8,300) 37,822	52,892 (24,000) 28,892 3,086 - - - 3,086 (12,000) (8,300) 32,592
Standard Deduction Taxable Income Federal Tax (before credits) Child Credit Dependent Care Credit Net Federal Tax VT Standard Deduction VT Personal Exemption(s) VT Taxable Income State Tax (before credits) Dependent Care Credit Renter Rebate	58,122 (24,000) 34,122 3,714 - - 3,714 (12,000) (8,300) 37,822 1,267 -	52,892 (24,000) 28,892 3,086 - - - - 3,086 (12,000) (8,300) 32,592 1,092

2018 Vermont Basic Needs Budget Two Adults, Two Children (one wage earner)

	Urban	Rural
Category	Cost estimates are per month	Cost estimates are per month
Food	1,004	1,004
Housing	1,442	955
Transportation	930	1,153
Health Care	530	530
Dental Care	151	151
Child Care	0	0
Clothing & Household Expenses	269	269
Personal Expenses	274	274
Telecommunications	160	160
Rental Insurance	17	17
Term Life Insurance	44	44
Savings	241	228
Total Monthly Expenses	5,061	4,784
Annual Expenses	60,729	57,404
Federal & State Taxes	7,466	6,473
Annual Income	68,195	63,877
Hourly "Livable" Wage	\$32.79	\$30.71
Average Wage PER Earner		
Tax Calculations	2018 Tax Year – M	larried Filing Jointly
AGI	68,195	63,877
Standard Deduction	(24,000)	(24,000)
Taxable Income	44,195	39,877
Federal Tax (before credits)	4,922	4,404
Child Credit	(4,000)	(4,000)
Dependent Care Credit	-	-
Net Federal Tax	922	404
VT Standard Deduction	(12,000)	(12,000)
VT Personal Exemption	(16,600)	(16,600)
VT Taxable Income	39,595	35,277
State Tax (before credits)	1,326	1,182
Dependent Care Credit	-	-
Renter Rebate	-	-
Net State Tax	1,326	1,182
FICA/Medicare	5,217	4,887
Total	7,466	6,473

2018 Vermont Basic Needs Budget Two Adults, Two Children (two wage earners)

	Urban	Rural
Category	Cost estimates are per month	Cost estimates are per month
Food	1,004	1,004
Housing	1,442	955
Transportation	930	1,153
Health Care	530	530
Dental Care	151	151
Child Care	1,606	1,330
Clothing & Household Expenses	319	319
Personal Expenses	274	274
Telecommunications	160	160
Rental Insurance	17	17
Term Life Insurance	57	57
Savings	324	297
Total Monthly Expenses	6,813	6,246
Annual Expenses	81,756	74,954
Federal & State Taxes	11,830	9,782
Annual Income	93,587	84,736
Hourly "Livable" Wage	\$44.99	\$40.74
Average Wage PER Earner	\$22.50	\$20.37
Tax Calculations	2018 Tax Year – M	larried Filing Jointly
AGI	93,587	84,736
Standard Deduction	(24,000)	(24,000)
Taxable Income	69,587	60,736
Federal Tax (before credits)	7,969	6,907
Child Credit `	(4,000)	(4,000)
Dependent Care Credit	(1,200)	(1,200)
Net Federal Tax	2,769	1,707
VT Standard Deduction	(12,000)	(12,000)
VT Personal Exemption	(16,600)	(16,600)
VT Taxable Income	64,987	56,136
State Tax (before credits)	2,190	1,881
Dependent Care Credit	(288)	(288)
Renter Rebate	· ,	· ,
Net State Tax	1,902	1,593
FICA/Medicare	7,159	6,482
Total	11,830	9,782

Part IV – Comparisons with Other Income Measures

The Vermont Basic Needs Budgets is one type of income benchmark. To put the Basic Needs Budgets and the Livable Wage measures in context, it is helpful to compare them with two other well-known income thresholds, the federal poverty guidelines and minimum wage rates.

Federal Poverty Guidelines

The federal poverty guidelines are a version of the federal poverty measure developed in the 1960s. These figures are issued each year in the *Federal Register* by the Department of Health and Human Services (HHS). The guidelines are a simplification of the poverty thresholds used for administrative purposes. Many government programs, both federal and state, determine eligibility using these guidelines. Often programs use a multiple of the federal poverty level to measure need because it is generally recognized that many families with incomes above these guidelines lack sufficient resources to meet basic needs. The 2018 Vermont livable wage exceeds 300% of the federal poverty level. All 2018 Vermont basic needs budgets, except for the rural single adult, shared housing, exceed the 300% threshold.

2018 Health and Human Services (HHS) Federal Poverty Guidelines (48 Contiguous States and Washington D.C.)

Yearly Rates with Percentage Multiples								
Size of Family Unit	100%	120%	150%	175%	185%	200%	225%	300%
1	\$12,140	15,175	16,753	18,210	21,245	22,459	24,280	27,315
2	16,460	20,575	22,715	24,690	28,805	30,451	32,920	37,035
3	20,780	25,975	28,676	31,170	36,365	38,443	41,560	46,755
4	25,100	31,375	34,638	37,650	43,925	46,435	50,200	56,475
5	29,420	36,775	40,600	44,130	51,485	54,427	58,840	66,195
6	33,740	42,175	46,561	50,610	59,045	62,419	67,480	75,915
7	38,060	47,575	52,523	57,090	66,605	70,411	76,120	85,635
8	42,380	52,975	58,484	63,570	74,165	78,403	84,760	95,355
Each Add'l Person:	4,320	5,200	6,480	7,560	7,990	8,640	9,720	12,960

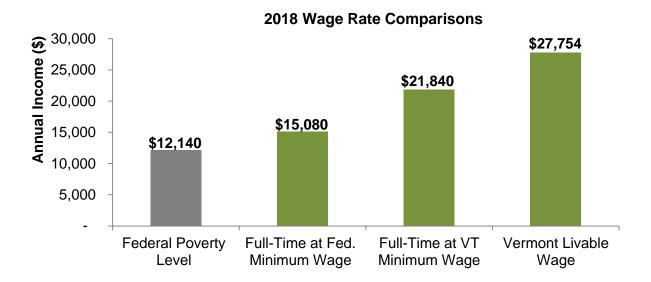
SOURCE: https://aspe.hhs.gov/poverty-guidelines

Minimum Wage

The minimum wage was established in 1938 as part of the Fair Labor Standards Act. Minimum wage increases are passed at the will of Congress and generally have not kept pace with inflation. The federal minimum wage is currently \$7.25 per hour effective July 24, 2009. States also mandate minimum wage rates, and employees in Vermont are entitled to the higher of the two minimum wages. The Vermont minimum wage is \$10.50 as of January 1, 2018. On January 1, 2019 and each year thereafter, the minimum wage rate will increase by the lesser of: 1) five percent or 2) the percentage increase of the Consumer Price Index, CPI-U, U.S. city average, not seasonally adjusted. The 2019 Vermont minimum wage will be \$10.78. The 2018 Vermont livable wage, as well as all basic needs budgets, exceeds the 2018 Vermont minimum wage.

Comparisons

The first comparison is between the Vermont Livable Wage rate and the federal poverty guideline, as well as federal and State minimum wage rates. This shows that the Vermont Livable Wage calculation for 2018 is nearly 2.3 times the federal poverty level (FPL) established for a single person. The federal minimum wage is only 54% of the Vermont Livable Wage, and the State (Vermont) minimum wage is 79% of the Livable Wage.



In addition, two different family configurations are used for comparison with the federal poverty guidelines, full-time minimum wage earnings and Vermont median family incomes: 1) the single parent with one child, and 2) two working parents with two children in rural Vermont. These comparisons are shown on pages 17 and 18.

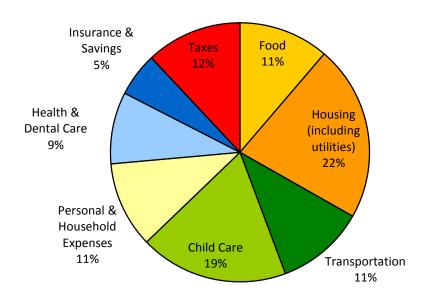
The first table and pie chart for each illustrate the breakdown of the major expense components of the family budget both pre-tax and within the overall budget. For the single-parent family, housing is the largest non-tax component of the budget at 22%, followed by child care, food, and transportation. Child care and transportation are the two largest non-tax components of the two-parent family budget, followed by food and housing. The health and dental care costs for each family are 9% and 10% respectively. Federal and State taxes (including FICA and Medicaid) combined for both families are approximately 12%.

The Basic Needs Budget for the rural single-parent family, shown on page 17, is about \$52,227 or 23% less than the Vermont median family income for a two-person family from the most recent 5-year Census data, released for 2017 and adjusted to November 2018 dollars. The Budget is well above both the federal poverty level and the equivalent of working full-time for the Vermont State minimum wage. The Basic Needs Budget for the family with two working adults with two children, shown on page 18, is 8% below the median four-person family income in Vermont in 2018 (adjusted). Again, the Budget for this family is well above both the FPL and the minimum wage.

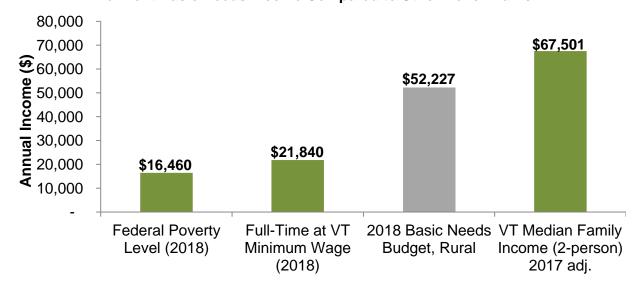
Single Parent with One Child (Rural)

Expense	Monthly	Annual	% of Budget
Food	490	5,885	11.3%
Housing (including utilities)	955	11,459	21.9%
Transportation	483	5,797	11.1%
Child Care	806	9,672	18.5%
Personal & Household Expenses	468	5,614	10.7%
Health & Dental Care	390	4,680	9.0%
Insurance & Savings	239	2,864	5.5%
Expense Budget	3,831	45,971	88.0%
Taxes	521	6,257	12.0%
Overall Budget	4,352	52,227	

Percentage of Income Needed to Meet Basic Needs in Vermont



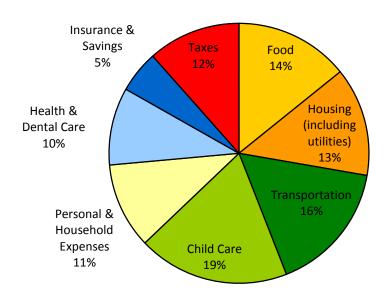
Vermont Basic Needs Income Compared to Other Benchmarks



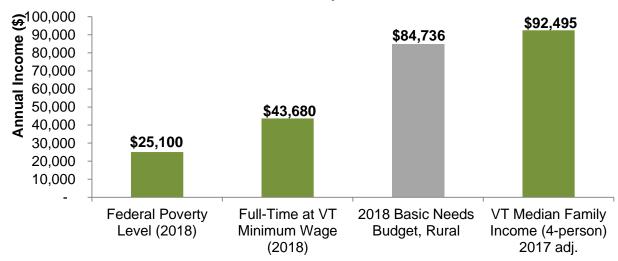
Two Working Parents with Two Children (Rural)

Expense	Monthly	Annual	% of Budget
Food	1004	12,044	14.2%
Housing (including utilities)	955	11,459	13.5%
Transportation	1153	13,836	16.3%
Child Care	1330	15,960	18.8%
Personal & Household Expenses	753	9,031	10.7%
Health & Dental Care	681	8,172	9.6%
Insurance & Savings	371	4,452	5.3%
Expense Budget	6,246	74,954	88.5%
Taxes	815	9,782	11.5%
Overall Budget	7,061	84,736	

Percentage of Income Needed to Meet Basic Needs in Vermont



Vermont Basic Needs Income Compared to Other Benchmarks



Part V – Methodology and Sources

Assumptions

- Single persons and single parents are women between 20- and 50-years-old and work outside the home; all other adults are between 20- and 50-years-old
- All families, except for singles with shared housing, live independently (i.e., not as subfamilies living with others)
- One child is 4-years-old; two children are 4- and 6-years-old
- The younger child is a boy, the older child is a girl
- Housing estimates are for rental units with 1 bedroom for singles and married with no children; two bedrooms for all other family configurations
- Single parents receive no child support
- The urban designation is for Chittenden County and rural is the rest of the State

Food

USDA has four levels of food plans for the cost of food at home: thrifty, low-cost, moderate, and liberal plans. The Vermont Basic Needs Budgets use the moderate cost food plans. The moderate cost food plan has been used since the 2007 report.

USDA Monthly Moderate Cost Food Plan: June 2018					
Age/Gender Group Moderate (\$)					
Child 4 – 5 years	169.30				
Child 6 – 8 years	231.20				
Adult Male 19 – 50 years	299.90				
Adult Female 19 – 50 years	255.20				

In addition, a percentage adjustment is applied to the monthly food costs depending on the family size as recommended by USDA below:

Family Size Adjustments				
Family size	Percentage adjustment (%)			
1-person	20			
2-person	10			
3-person	5			
4-person	No adjustment			

Lastly, these figures are adjusted for regional variation by the 10-year differential between the amount spent for food in the Northeast compared to the United States as a whole on the Consumer Expenditure Survey. There is no difference between the urban and rural food costs.

Data Sources:

U.S. Department of Agriculture (USDA), Center for Nutrition Policy and Promotion http://www.usda.gov/cnpp/

Bureau of Labor Statistics, Consumer Expenditure Survey http://www.bls.gov/cex/

Housing (Rent and Utilities)

The Housing data are from HUD's Fair Market Rents (FMR) survey. The Federal FY 2019 data were finalized in fall of 2018 for all counties in Vermont outside of the Burlington-South Burlington Metropolitan Statistical Area (MSA). Representatives from the Burlington-South Burlington MSA have requested a reevaluation of the FY 2019 FMR to HUD and so the FY 2018 FMR is currently still in effect until the reevaluation is completed and will be used for the urban housing estimate in this report. For the rural estimate, a population-weighted average of the remaining counties is used. FMRs are established for units of varying size (0 – 4 bedrooms) for every county in Vermont. Housing estimates are for rental units with 1 bedroom for the single person and the two adult with no children households, and two bedrooms for all other family configurations.

FY 2019 HUD Fair Market Rents (Monthly)						
County	1 Bedroom (\$)	2 Bedrooms (\$)				
Addison	858	1,006				
Bennington	797	912				
Caledonia	724	882				
Essex	595	762				
Lamoille	829	988				
Orange	735	960				
Orleans	664	760				
Rutland	788	939				
Washington	785	1,036				
Windham	792	994				
Windsor	810	988				
Burlington-South Burlington,						
VT MSA (**FY 2018**)	1,121	1,442				

Utilities are included in the HUD data. In order to calculate the Vermont renter rebate, the rent alone must be separate from utility costs. Utilities are estimated to be 15% of the FMRs.

Data Sources:

U.S. Department of Housing and Urban Development (HUD), "Fair Market Rents," www.huduser.org/datasets/fmr.html

U.S. Census Bureau, County Level Population Data, www.census.gov/popest/states/

<u>Transportation</u>

The methodology for calculating transportation expenses consists of two parts: 1) an estimate of vehicle miles traveled (VMT) per household, multiplied by 2) a mileage rate which encompasses all the fixed and operational costs of owning a vehicle. The VMT figures are from the Vermont-specific 2009 National Household Transportation Survey (NHTS). Annual vehicle mileage per driver is estimated using a cross-tabulation of survey data. The following NHTS data sets were used: Vermont, Urban and Rural, and Household Lifecycle. The mileage rate is from the most recent IRS reimbursement rates for business travel. The IRS mileage rate is adjusted using AAA mileage rate data to reflect the lower cost-per-mile of driving greater miles.

Results from the 2017 NHTS are available but due to the low number of Vermont-specific responses in the new survey the 2009 results were used for this report. There were 2,325

Vermont-specific responses in 2009 versus only 509 Vermont responses in 2017, a 78% drop in responses. A recommendation for the transportation cost methodology in future reports will be made to the Joint Fiscal Committee pending a comprehensive review of the overall basic needs budget methodology leading up to the 2021 report.

IRS Rate Adjusted by AAA Data

VMT	•	Cost Per Mile	
Х	2018	2016	2014
10,000	54.5	54.0	56.0
11,000	52.0	51.3	53.4
12,000	49.5	48.6	50.8
13,000	47.0	45.9	48.1
14,000	44.4	43.2	45.5
15,000	41.9	40.5	42.9
16,000	40.7	39.1	41.6
17,000	39.5	37.7	40.3
18,000	38.3	36.3	38.9
19,000	37.0	34.9	37.6
20,000	35.8	33.5	36.3

NOTE: Bold is IRS Mileage Rate.

2009 NHTS						
Average Annual Vehicle Miles of Tra	vel (VMT) Per D	Driver				
Vermont Household Life Cycle Annual VMT / Driver (Mean)						
	Urban	Rural				
one adult, no children	12,846	14,341				
2+ adults, no children	12,827	15,093				
one adult, youngest child 0-5	11,223	10,727				
2+ adults, youngest child 0-5	10,731	18,728				
one adult, youngest child 6-15	11,125	10,848				
2+ adults, youngest child 6-15	10,620	15,297				
one adult, youngest child 16-21	10,184	11,523				
2+ adults, youngest child 16-21	9,327	12,232				
one adult, retired, no children	4,794	8,802				
2+ adults, retired, no children	7,936	10,439				

Data Sources:

U.S. Department of Transportation, 2009 National Household Transportation Survey, http://nhts.ornl.gov/ Internal Revenue Service, (IRS) Standard Mileage Rates, https://www.irs.gov/pub/irs-drop/n-18-03.pdf

AAA 2018 Your Driving Costs publication, https://exchange.aaa.com/wp-content/uploads/2018/09/18-0090 2018-Your-Driving-Costs-Brochure FNL-Lo-5-2.pdf

Child Care

The Vermont Agency of Human Services, Department of Children and Families conducts ongoing market surveys. This information shows, by county, average weekly child care rates by age of the child (infant, toddler, preschooler), and type of child care (either in a Registered Home or Licensed Center). The rural estimates are an average of all the counties except Chittenden and the two types of child care. The urban estimate is the average of the two types of care in Chittenden County. The calculations reflect the 2017 market rate survey adjusted by changes to the Consumer Price Index for all Urban Consumers (CPI-U)from January through November 2018.

The four-year-old child (single-child configurations) is assumed to require 52 weeks of full-time child care, while the 6-year-old child (two-child configurations) is assumed to require 15 weeks of full-time care and 37 weeks of part-time care. The two single-parent households as well as the two-parent, both-working household are the only households in this study that incur child-care costs.

None of these families qualify for a child care subsidy from the State of Vermont.

Data Sources:

Vermont Agency of Human Services, Department for Children and Families, https://dcf.vermont.gov/sites/dcf/files/CDD/Reports/Market_Rate_Survey_2017_AHS_Districts_Supplement.pdf

Clothing and Household

These figures are from the 2017 Consumer Expenditure Survey (CES) tables reported by size of consumer unit and income before taxes. The tables report expenses by family size and income level in order to link clothing and household expenses more closely to household income. This category includes housekeeping supplies, apparel and services, and household furnishings and equipment. Major appliances and misc. household equipment have been subtracted from the totals because these are renter households. There is no urban/rural distinction for clothing and household costs. Because the CES tables reflect averages for the two-year period from 2016-2017 the costs from the tables have been adjusted by CPI-U changes from January through November, 2018.

Data Sources:

U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey, www.bls.gov/cex/
U.S. Dept. of Labor, Bureau of Labor Statistics, Consumer Price Index, https://www.bls.gov/cpi/

Personal Expenses.

Personal expense began at \$2.00 per person per day in 1999. Indexed to November 2018 by changes to CPI-U, the amount is now \$3.00 per adult in the household per day and \$1.50 per child per day.

Telecommunications Expenses

This category is intended to provide telephone, cable, Internet, cell phone service, or some limited combination of these services as part of the household budget. These figures are from the 2017 Consumer Expenditure Survey Table 1203 categories of telephone services and

computer information services. The costs represent an average over the lowest six income categories. Telecommunications expenses were adjusted to reflect CPI-U changes from July 2017 through November 2018.

Data Sources:

U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey, www.bls.gov/cex/ U.S. C.D.C. National Center for Health Statistics, Household Telephone Status by State, https://www.cdc.gov/nchs/data/nhis/earlyrelease/Wireless state 201712.pdf

Rental Insurance

Insurance rates reflect the lowest cost from the range provided on the VT Dept. of Financial Regulation webpage and adjusted by inflation. The estimates do not distinguish between urban and rural as previous sources have generally stated that there is, on average, not an appreciable difference between the two.

Data Source:

http://www.dfr.vermont.gov/insurance/insurance-consumer/renters-insurance-advisory

Savings

All family configurations savings amounts are 5% of the before-tax expenses. Savings could encompass any sort of family savings priorities, including retirement, college, and emergency accounts.

Health Care

This report looks at two components of health care costs: insurance premiums and out-ofpocket (OOP) costs, which is spending for care not covered by insurance, including deductibles and coinsurance. Previous reports included a separate budget column for those families without employer-sponsored health insurance, but this was discontinued in the 2008 report when it was estimated that at the time less than 1% of Vermonters were enrolled in individual plans. Today it is only slightly higher around 5%. Since employer-sponsored insurance plans represent the overwhelming majority of the commercial insurance market, this report only includes estimates for those with employer-sponsored insurance.³

Estimating the cost of health insurance premiums and out-of-pocket expenses borne by Vermonters to meet a basic standard of living is an imperfect science. We aim to provide sound estimates and assumptions using the most up to date information and data available to us at the time. As such, parts of the methodology have evolved over the years and this year is no different. As such we will highlight any methodological changes where applicable.

Employer-Sponsored Insurance

This report utilizes data collected as part of the 2016 Medical Expenditure Panel Survey (MEPS) as a proxy to estimate the average costs of premiums for employer-sponsored insurance (ESI) premiums, adjusting for a two-year data lag.4 When compared to the mean of the second-

³ According to the 2016 Vermont Health Care Expenditure Analysis (published May 2018 by the Green Mountain Care Board As of 2016), approximately 5% of Vermonters were enrolled in individual group market plans. Forty-five percent of Vermonters had some form of employer-sponsored health insurance.

⁴ MEPS is compiled and maintained by the Agency for Healthcare Research and Quality (AHRQ) which is part of the

U.S. Department of Health & Human Services.

lowest cost silver and gold plan monthly premiums in Vermont's health benefit exchange, the average premium for ESI using MEPs data is only slightly (2% to 4%) higher. These data are also fairly consistent with other sources including the 2018 Kaiser Family Foundation and Health Research & Education Trust (KFF/HRET) national survey of employer health benefits and a fringe benefit survey conducted by the University of Massachusetts Medical School in 2015 on behalf of the Vermont Department of Labor (VT DOL), both of which were adjusted for 2018 using trend data.

Comparison of Total 2018 Estimated Premium Cost

	SINGLE		SINGLE + 1	1	FAMILY	
	Silver	Gold	Silver	Gold	Silver	Gold
2nd Lowest Cost Plan in Exchange	\$505	\$597	\$1,011	\$1,194	\$1,420	\$1,677
Mean	\$ 55	1	\$1,1	02	\$1,5	49
MEPS (VT) Kaiser/HRET (US)* VT DOL (VT)*	\$56 \$57 \$59	75	\$1, 1 \$1,1 \$1,1	149	\$1, 5 \$1,6 \$1,4	35

^{*} Numbers have been adjusted to reflect 2018 estimates by JFO.

It should also be noted that employers have been increasingly offering heath savings accounts (HSAs) and health reimbursement accounts (HRAs) to their employees. At this time the Basic Needs report does not account for this as we do not have data on the use of these accounts.

The report also uses MEPS to estimate employee contributions to premiums as the proxy distribution. According to the 2016 MEPS data, the employee share of the premiums for single, single plus-one, and family coverage were 22%, 26%, and 27%, respectively. This is also fairly consistent with the Kaiser/HRET and VT DOL surveys.

		•	MR	Ε%
	•		-	_ /u

	Single	Single+1	Family
MEPS (VT)	22%	26%	27%
Kaiser/HRET (US)	17%		28%
VT DOL Survey (VT)	22%	29%	31%

Out-of-Pocket Costs

This year's report again employs VHCURES data, which are Vermont specific claims data collected and maintained by the Green Mountain Care Board. The report uses average OOP costs by type of insurance plan (single, two-person, and family plans) for everyone with insurance (whether they had an OOP expense or not) with 12 months of continuous coverage.

⁵ Both the federal government and the state use the second lowest-cost silver plan as a benchmark for exchange subsidies. Since premium costs can vary significantly, even within the same 'metal level', JFO felt using the second-lowest cost silver and gold plans for comparison purposes seemed appropriate. The second-lowest cost silver plan in 2018 was the MVP Silver HDHP. The second-lowest cost gold plan was the MVP Standard Gold Plan.
⁶ MEPS 2016 data was adjusted by 3.2% (single) and 3.3% (single+1 and family) annually based on growth in

⁶ MEPS 2016 data was adjusted by 3.2% (single) and 3.3% (single+1 and family) annually based on growth in average annual worker premiums between 2011 and 2016 according to MEPs. The VTDOL data (released June 2015) were adjusted by 3.5% annually based on the average five-year growth in annual worker premiums using Kaiser/HRET data.

VHCURES stands for Vermont Healthcare Claims Uniform Reporting and Evaluation System.

To control for extreme high cost outliers, we've truncated the data excluding the highest 3% of out-of-pocket spenders.

Also, as noted earlier, the use of employer-funded HSAs and HRAs has increased significantly over the years. The VHCURES data does not differentiate whether the source of OOP spending was through an employer-funded HSA, HRA, or directly by the beneficiary. As such, estimated employee OOP spending may be overstated.

Dental Care

Just as employer-sponsored health insurance represents an overwhelming majority of those with commercial insurance, so does employer-sponsored dental coverage. There also appears to be a strong relationship between employer size and those that offer dental benefits to their employees. For instance, 17% of firms with 3-9 employees offered a stand-alone dental benefit to full-time employees, while 78% of firms with 50-249 employees and 92% of firms with more than 250 employees offered dental benefits to both part and full-time employees. It should be noted that health insurance plans sold through Vermont Health Connect include pediatric dental benefits imbedded in those plans.

VHCURES does not collect data on dental claims and finding consistent and up to date data for OOP dental claims has also been difficult. Estimates and assumptions used in the previous report were based on a combination of data from the Center for Medicaid and Medicaid Services (CMS), the American Dental Society, and other national-level data. However, there were many limitations. This year's report uses OOP data provided by Northeast Delta Dental, specific to their Vermont book of business. Northeast Delta Dental has a significant market share in Vermont with approximately 89,000 subscribers covering approximately 178,000 lives. However, we were unable to control for outliers as we did with the other health care OOP data. Therefore, the Dental OOP costs may be slightly overstated.

According to Northeast Delta Dental, 78% of small group subscribers are enrolled in the PPO Plus Premier Plan with no office visit co-payment. We used this plan as the proxy. This is a 'contributory' plan which requires an employer contribution of at least 50%. 'Voluntary' plans which require no minimum employer contribution have slightly higher premiums.

Finding consistent data regarding the average employer contribution to dental plans has also proven elusive. In the absence of statewide data, we used the same assumptions as the previous reports which assumed 90% for single coverage, 70% for two-person coverage, and 50% for family coverage. For comparison, Vermont Education Health Initiative (VEHI) requires a minimum of 50% participation, although many employers cover as much as 100%.¹¹

Technical Information

The health and dental care numbers in the basic needs budgets are a combination of the employee-only share of premiums as well as OOP costs. For readers of this report who would like to see the specific break-out of employer share, employee share, and OOP estimates used, we have provided a chart below.

⁸ Based on data provided by NE Delta Dental, we estimate that only roughly 7% of dental plans are individual plans. ⁹ 2015 Vermont Health Benefits Survey. Prepared by the University of Massachusetts Medical School for the Vermont Agency of Administration and Vermont Department of Labor. June 2015.

¹⁰ As of August 31, 2018. Data provided by Northeast Delta Dental, Oct 2018.

¹¹ VEHI is a large, non-profit purchaser of health care for Vermont public schools, covering over 19,000 employees and retirees.

Estimated	Health	Insurance	Premiums	+ (Out-of-Pocket (Costs	(Monthly	/ S)
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			(a)	(b)	(a) + (b)
	Health Inst	urance Premiu			TOTAL est.
		Employer	Employee	OOP	Employee
2018	Total	Share	Share	Costs	Share
Single	563	439	124	39	163
Single + 1 child	1,086	847	239	87	325
Single + 2 children	1,582	1,162	421	109	530
Two Adults	1,146	844	301	87	388
Two Adults + 2	1,582	1,162	421	109	530

Estimated Dental Insurance Premiums + Out-of-Pocket Costs (Monthly \$)

			(a)	(b)	(a) + (b)
2018	Dental Inst	urance Premiu Employer Share		OOP Costs	TOTAL est. Employee Share
Single	42	38	4	24	28
Single + 1 child	77	54	23	41	64
Single + 2 children	135	68	68	59	127
Two Adults	77	54	23	47	70
Two Adults + 2	135	68	68	83	150

Life Insurance

There are no changes in the recommended amounts of coverage from the last study. Insurers recommend 10 to 12 times annual earnings as a proxy for the amount of coverage a family should have. In order to remain conservative, ten times annual income was used for these calculations. The average annual income across a family profile, for example, a single parent with one child in both urban and rural areas is used to estimate the coverage amount. For premium pricing, the "rule of thumb" is \$0.60 per \$1,000 of coverage plus an annual \$75 policy fee. The premium pricing has been adjusted by inflation for this report to \$0.67 per \$1,000 and to a policy fee of \$82 annually. This report assumes that single persons do not have life insurance coverage.

Federal and State Income Taxes and FICA/Medicare

The tax estimates included as part of the Basic Needs Budgets are for tax year 2018, and reflect all federal changes from the 2017 Tax Cuts and Jobs Act (TCJA) as well as State personal income tax law changes made in 2018, and applicable to the 2018 tax year. The federal tax liability is calculated using TCJA-expanded standard deduction amounts for the various filing statuses (single, married filing joint, and head of household for single parent families). The federal tax liability is net of any earned income tax credit (EITC), child tax credit (increased in TCJA), and dependent tax care credits. These calculations do not assume other forms of tax savings such as medical or dependent care savings accounts.

The State tax liability is net of the new State standard deduction and personal exemption amounts, the State earned income credit which is 32% of the federal amount, the dependent care tax credit at 24% of the federal amount, and finally the Vermont renter rebate program. The

renter rebate has not been calculated for the single person, shared housing configuration due to the likelihood that household income would exceed \$47,000 when earnings subject to the expense scenarios in this report are combined. None of the families in the study qualify for either the federal or State earned income tax credit because the budgets are well above the federal income phase-out thresholds.

The FICA calculations are the amounts that would be withheld for Social Security and Medicare from an individual's paycheck. Employees and employers are both subject to the FICA tax. In 2018, the FICA rate for Social Security is 6.2% of all income up \$128,400 and Medicare is 1.45% of all income.

Appendix A – Statute

2 V.S.A. § 505. Basic needs budget and livable wage; report

- § 505. Basic needs budget and livable wage; report
- (a) For the purposes of this section:
 - (1) "Basic needs" means the essentials needed to run a household, including food, housing, transportation, child care, utilities, health and dental care, taxes, rental and life insurance, personal expenses, and savings.
 - (2) "Basic needs budget" is the amount of money needed by a Vermont household to maintain a basic standard of living, calculated using current state and federal data sources for the costs of basic needs.
 - (3) "Livable wage" means the hourly wage required for a full-time worker to pay for onehalf of the basic needs budget for a two-person household with no children and employer-assisted health insurance averaged for both urban and rural areas.
- (b) On or before January 15 of each new legislative biennium, beginning in 2009, the joint fiscal office shall report the calculated basic needs budgets of various representative household configurations and the calculated livable wage for the previous year. This calculation may serve as an additional indicator of wage and other economic conditions in the state and shall not be considered official state guidance on wages or other forms of compensation.
- (c) The methodology for calculating basic needs budgets shall be built on methodology described in the November 9, 1999 livable income study committee report, modified as appropriate by any statutory changes made by the general assembly and subsequent modifications adopted by the joint fiscal committee under subsection (d) of this section.
- (d) The joint fiscal committee may adopt modifications to the methodology used to determine the basic needs budget calculations under subsection (c) of this section to account for public policy changes, data availability, or any other factors that have had an impact on any aspects of the methodology. Changes or revisions in methodology adopted by the committee shall be effective no later than November in the year preceding the release of the report. (Added 2005, No. 59, § 1; amended 2007, No. 202 (Adj. Sess.), § 1.)

Appendix B - Comparison to Living Wage Calculators

The Joint Fiscal Office reviewed two separate living wage calculators to compare with the 2018 basic needs budgets (BNB). The two calculators both offered living wages by county in Vermont, rather than by urban/rural area, so for purposes of this comparison Chittenden County will serve as a proxy for the urban area and Windsor County will serve as a proxy for a rural area. The first calculator is produced by the Massachusetts Institute of Technology (MIT) and is titled "Living Wage Calculator." The second calculator is provided by the Economic Policy Institute (EPI) and is titled "Family Budget Calculator."

The EPI calculator does not provide an estimate for family configurations of two adults (one working), and two children. Neither calculator provides an estimate for a single adult who shares housing with another unrelated adult. The MIT calculator wages are in 2016 dollars while the EPI calculator wages are in 2017 dollars. Comparisons of hourly wages from the three sources are given in the table below.

Comparison of Living Wage Calculators

Family Type	Urban			Rural		
	(hourly wages, per person)			(hourly wages, per person)		
	BNB	MIT	EPI	BNB	MIT	EPI
	(2018 \$)	(2016 \$)	(2017 \$)	(2018 \$)	(2016 \$)	(2017 \$)
Single	\$18.09	\$12.84	\$21.61	\$15.79	\$12.28	\$20.33
One Adult, One Child	\$30.43	\$27.42	\$39.66	\$25.11	\$25.20	\$32.96
One Adult, Two Child	\$39.10	\$31.31	\$47.15	\$32.19	\$29.08	\$39.01
Two Adults	\$13.97	\$10.27	\$15.11	\$12.71	\$9.55	\$14.24
Two Adults, Two Child	\$22.50	\$17.24	\$25.90	\$20.37	\$16.13	\$22.11
Two Adults (one works), Two Child	\$32.79	\$27.72	n/a	\$30.71	\$25.50	n/a

The table above shows that BNB wages tend to be approximately in the middle of the wages provided by MIT and EPI. The MIT wages were all lower than the BNB, except for the rural, one adult/one child family. The EPI wages were all higher than the BNB. There are differences in methodologies between all three comparison studies. The methodology¹⁴ differences are highlighted below:

- 1. Food: BNB assumes moderate-cost USDA food plans while MIT and EPI assume low-cost USDA food plans.
- 2. *Housing*: BNB assumes that a single adult is in a one-bedroom unit while MIT and EPI assume that a single adult rents an efficiency (studio) unit.
- 3. *Transportation:* There is variation between transportation methodologies in all three studies. BNB relies on the National Household Travel Survey, MIT relies on Consumer Expenditure Survey data, while EPI relies on a Housing and Transportation Affordability Index¹⁵ created by the Center for Neighborhood Technology.

¹² MIT Living Wage Calculator: http://livingwage.mit.edu/

¹³ EPI Family Budget Calculator: https://www.epi.org/resources/budget/

¹⁴ MIT Living Wage Calculator methodology: http://livingwage.mit.edu/resources/Living-Wage-User-Guide-and-Technical-Notes-2017.pdf

EPI Family Budget Calculator methodology: https://www.epi.org/publication/family-budget-calculator-documentation/

¹⁵ CNT Housing + Transportation Affordability Index: https://htaindex.cnt.org/map/

- 4. Child care: BNB utilizes market survey data provided by the VT Dept. of Children and Families. MIT and EPI utilize a state-level survey provided by the National Child Care Resource and Referral Network.
- 5. Health Care: BNB and MIT assume that families have access to employer-sponsored plans. EPI assumes that all families purchase health insurance through the Affordable Care Act (ACA) exchanges.
- 6. Savings: BNB assumes savings of 5% of pre-tax income for all families. Neither MIT or EPI build in an itemized cost for savings.
- 7. *Telecommunications*: BNB builds in estimated telecommunications costs based on Consumer Expenditure Survey data. Neither MIT nor EPI build in an itemized cost for savings.
- 8. Other Necessities:
 - a. BNB: Does not have an "Other Necessities" category. Instead itemizes costs for "clothing and household supplies," "personal expenses," "telecommunications," "life and renters insurance," and "savings." When these costs are added up they are significantly higher than MIT costs for "other necessities" but are very close, on average, to EPI costs for "other necessities."
 - b. MIT: Incorporates Consumer Expenditure Survey costs for 1) apparel and services, 2) housekeeping supplies, 3) personal care products and services, 4) reading, and 5) miscellaneous. All costs were adjusted for regional variations.
 - c. EPI: Incorporates Consumer Expenditure Survey costs for 1) apparel, 2) personal care, 3) household supplies, 4) reading materials, and 5) school supplies.
- 9. Taxes: Both MIT and EPI base budget calculations off of pre-tax year 2018 tax codes for federal and state taxation purposes. MIT utilizes a micro-simulation model from the Urban-Brookings Tax Policy Center to calculate overall federal (income and payroll) tax burden and utilizes the CCH State Tax handbook to calculate state tax burden. EPI utilizes a micro-simulation model from the National Bureau of Economic Research to calculate the overall tax burden.