The Vermont Job Gap Study

Phase 1

Basic Needs and a Livable Wage

A report by the Peace & Justice Center.
Ellen Kahler, Project Director
Doug Hoffer, Research Director
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Purpose of the Study

The Vermont Job Gap Study is an effort to investigate and better understand certain aspects of the Vermont economy. Primarily, we are interested in whether the economy is producing enough jobs that pay a livable wage, defined as an income sufficient to meet a family's basic needs.[1] The Study will include several phases that will examine various aspects of this issue including:

Phase 1	Estimate the cost of meeting a family's basic needs;
Phase 2	Estimate the number of livable wage jobs in VT and the number and percentage created during the past five years;
Phase 3	Estimate the social costs of under-employment; and
Phase 4	Policy Recommendations.

Through this Study, we hope to: a) examine some assumptions about economic development and job creation; b) develop expanded methodology for data collection and analysis that can be replicated in the future; c) provide information to help guide decision-makers regarding economic development and public assistance policies; and, d) create new indicators to measure the performance of the economy and evaluate the effectiveness of state programs and policies.

Phase I of the Study will attempt to answer two key questions: What does it really cost to meet a family's basic needs in Vermont and what is the corresponding wage needed to cover basic needs and taxes -- the "livable wage"?

The Peace & Justice Center acknowledges the groundbreaking work of the Minnesota Jobs NOW Coalition, which published the Minnesota Job Gap study in 1995 (based in part on the earlier work of Renwick & Bergmann, see Footnote 15, p. 11). The methodology for our study has been adapted from the work done in Minnesota and, subsequently, in Maine. The methodology is described in detail in the Appendix.

The Vermont Job Gap Study has been underwritten by the Vermont Community Foundation, the Rural Development Administration (USDA), and the Anne Slade Frey Charitable Trust.

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[1] We believe that, as a matter of public policy, full-time work should be adequate to ensure economic self-sufficiency and a decent standard of living. Nevertheless, we have adopted conservative assumptions for our basic needs budget. We recognize that there may be differences regarding such a standard and invite comment about our assumptions and methodology (see Appendix).

"A man must always live by his work, and his wages must be sufficient to maintain him. They must even upon most occasions be somewhat more; otherwise it would be impossible for him to bring up a family."

Adam Smith, The Wealth of Nations

Federal Poverty Measure

The Federal poverty measure is a key social indicator and also determines eligibility for benefits for many government assistance programs.

Weaknesses in the federal poverty measure identified by the National Research Council in Measuring Poverty: A New Approach:[3]

1. No consideration of child care costs;
2. No accounting for significant variations in health care costs;
3. Thresholds ignore price variations across geographic areas for housing expenditures;
4. Family size adjustments do not reflect changing demographics;
5. The original concept of "minimum needs" (adjusted only for inflation) ignores changes in living standards and consumption patterns;
6. Because the current measure assumes only gross money income, it does not reflect important government policy initiatives that have both raised disposable income (e.g., Food Stamps) and reduced disposable income (e.g., increases to Social Security payroll tax).

Introduction

Vermont's current statewide unemployment rate of 4.5% has been below the national average (5.4%, Nov. 96) for some time and job creation nationally has been vigorous in recent years. This appears to be good news and is often cited as evidence of the health of the economy. But many Vermonters have learned first hand that low unemployment figures can be misleading and mask economic distress.[2]

Reliance on the unemployment rate as a key indicator of economic well-being diverts our attention from an important but unexamined assumption. **By focusing on those without jobs, we assume those with jobs earn enough to support their families.** The issue is further clouded by our continued use of the federal poverty measure as an indicator of how many people cannot meet their basic needs, even though many economists have called for its modification (see Box at left).[3]

There are ongoing public policy debates about the minimum wage, welfare reform, economic development, and taxes. We believe there is an unmet need for cost / benefit analyses of different remedial strategies. In particular, we think the growing inequality of incomes merits attention. We hope this study will contribute to a more informed debate.

What are Basic Needs and a Livable Wage?

According to the U.S. General Accounting Office, economic self-sufficiency requires independence from publicly provided income and housing assistance, and adequate income to provide for basic needs.

For this study, basic needs include necessary expenses: food, housing, child care, transportation, health care, clothing, household and personal expenses, and insurance.[4] We estimated the monthly cost of each category using market and survey data from the US Departments of Agriculture, Housing & Urban Development, Transportation, and Commerce, as well as the VT Department of Social & Rehabilitation Services, and the Health Care Authority. We also obtained rates from local service providers for telephone, renters insurance and child care.

A livable wage is the hourly wage / annual income necessary to cover basic needs plus all relevant Federal and State taxes.

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2 For example, declining real family incomes, higher unemployment in certain regions of the state, loss of high wage jobs and growth of low wage sectors.

3 Citro, Constance F. and Michael, Robert T., ed., Measuring Poverty: A New Approach, National Academy Press, Wash., DC, 1995.

4 Although not included, personal savings could be considered a necessity for supplemental retirement, children's education, and other long-term needs.

1990 Census Data

We chose family units based on their prevalence in the population.

144,895	Families
57,807	Two parent families w/children < 18
49,366	One-person households
19,360	Female heads-of-household (FHH) w/no partner
12,436	FHH w/no partner & w/children < 18

Other Research on Basic Needs

"Livable wage" income for a Single parent with two children:

Minnesota $32,057
House of Representatives Research Dept. 1996 (incl. FT child care for 2).

Maine $25,339
Margaret Chase Smith Center for Public Policy (avg. for FT and PT child care; 1993 data adjusted for inflation).

Phase I: Findings

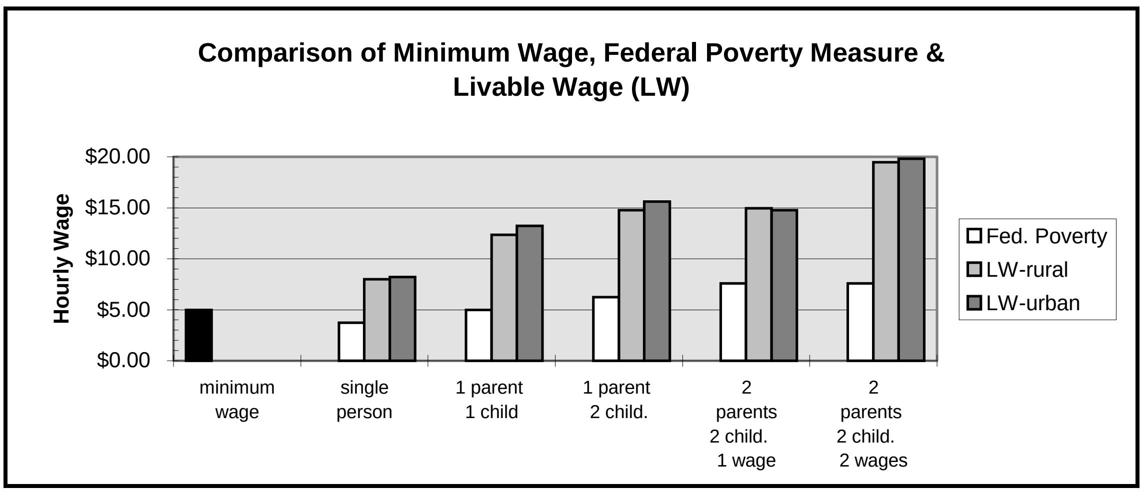
We estimated the cost of basic needs for five different family units in both rural and urban Vermont and the income required to meet their basic needs and taxes. The results are presented in detail on pages 5-7 and are similar to those from other states (see Box at middle left).

Table 1*

Family unit	Livable Wage (Basic Needs + Taxes) Rural	Urban
Single person with no children	$7.98/hr ($16,598)	$8.21/hr ($17,086)
Single parent with one child	$12.36/hr ($25,712)	$13.24/hr ($27,546)
Single parent with two children	$14.75/hr ($30,684)	$15.61/hr ($32,478)
Two parents (one male wage earner) with two children	$14.94/hr ($31,082)	$14.76/hr ($30,691)
Two parents (two wage earners) with two children	$19.46/hr ($40,474) Avg. $9.73/hr each	$19.82/hr ($41,224) Avg. $9.91/hr each

- **The minimum wage is inadequate to meet families' basic needs.**

Chart 1



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* Chittenden County was assumed to be urban and the rest of the state rural.
Although 3 times as many women raise children alone than men, there are over 3600 men raising children alone (1990 Census).
Men are 10 times as likely to be the wage earner in 2 parent families with children when only 1 parent works, (1990 Census).
We assumed no child support payments for single parent families.

Housing Data (1990 Census)

65,282	Renter households in VT
31%	of total households in VT
25,668	Rental households w/housing problems*
42%	of total rental households

145,368	Owner households in VT
69%	of total households in VT
36,068	Owner households w/housing problems
25%	of total owner households

* Housing problems defined as units that lack complete kitchen or plumbing facilities; units containing more than one person per room; and/or units where gross rent or mortgage + property taxes exceed 30% of gross income.

Child Care*

- Current SRS maximum subsidy for working families is over $1000 below avg. annual costs.
- Eligibility for 100% subsidy for a family of 4 requires income of no more than $12,696 although current poverty rate is $15,600.
- Eligibility for <u>any</u> subsidy is cut off if income for a family of 3 exceeds $22,044. Thus, using our cost estimates (see Chart 3, p. 6), a single mom w/2 children could pay 21% of her income for child care but be ineligible for any assistance.

* Source: Child Care Resource.

- We estimate that a significant percentage of working families do not have sufficient income to meet their basic needs (see Table 2 below).

Table 2[5]

How Many Working Vermont Families Don't Earn Enough To Meet Basic Needs?

% Earning Less Than Livable Wage*	Family / Household Unit
20%	*Single person*
61%	*One parent w / one child*
83%	*One parent w / two children*
43%	*Two parents (one works) w / two children*
21%	*Two parents (both work) w / two children*

* Percentages based on a comparison of 1990 Census Family / Household annual income and the (inflation adjusted) estimated Livable Wage for each family unit. It is likely that the percentages will vary somewhat based on variances in the number of hours worked and the age of the children. The former will tend to overstate the percentage (due to some part-time work), while the latter will understate the percentage (due to lower child care costs for older children). In any case, the inflation adjusted Census median income for similar family units provides validation for the estimated percentages of families earning less than the Livable Wage.

Family unit (Census)	1990 Census Median Income (Adjusted for Inflation)	Livable Wage (rural)
Single mother w / children < 18	$15,674	$25,712 (1 parent, 1 child)
Two parents w / children < 18	$45,846	$40,474 (2 parents, 2 children)

- As is shown in Charts 2 - 4 (see pp. 5-7), housing is a major expense for all families. Notwithstanding considerable public and private investment in recent years, affordable housing remains a serious problem for many Vermonters (see Box at top left).
- Child care costs can be a significant burden for single parents seeking self-sufficiency through work outside the home and can also negate much of the income gained from a family's second wage earner. Finally, state eligibility and subsidy rates for child care have not kept pace with costs, or poverty guidelines (see Box at bottom left).

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5 Source: 1990 Census Public Use Micro-Sample File.

Chart 2

Estimated Cost of Basic Needs

Single Person Household
(Full-time work and employer-assisted health care)

Category	Single Person Urban Cost/mo.	Urban %	Single Person Rural Cost/mo.	Rural %
Food	$164	14%	$164	15%
Rent & Utilities	478	42%	416	37%
Telephone	25	2%	25	2%
Health Care	73	6%	73	7%
Transportation	227	20%	259	23%
Child Care	---	---	---	---
Clothing / HHold	138	12%	138	12%
Personal Expenses	33	3%	33	3%
Renters Insurance	10	1%	10	1%
Total monthly expenses	$1,148	100%	$1,118	100%
Annual expenses	$13,776		$13,416	
Federal & State taxes[1]	$3,310	19%	$3,182	19%
Annual Income	**$17,086**		**$16,598**	
Equivalent hourly wage	**$8.21**		**$7.98**	
Federal poverty level	**$7,740**			
Equivalent hourly wage	**$3.72**			

Primary Sources

Food:	USDA - "Low Cost Food Plan"
Housing:	HUD - Fair Market Rents
Telephone:	NYNEX - Standard Use Measured Service
Health Care:	BC / BS and VT Health Care Authority
Transportation:	US DOT - National Personal Transportation Survey & IRS
Child Care:	VT Social & Rehabilitation Services & Child Care Resources
Clothing / Household:	Bureau of Labor Statistics, Consumer Expenditure Survey
Personal Expenses:	Derived from BLS / CES
Insurance:	Smith, Bell & Thompson

[1] Does not include sales taxes.

See Appendix for complete description of methodology.

Chart 3

Estimated Cost of Basic Needs and Livable Wage

Single Parent Families
(Full-time work with employer-assisted health care)

	Single Parent & One Child				Single Parent & Two Children			
	Urban		Rural		Urban		Rural	
Category	Cost/mo.	%	Cost/mo.	%	Cost/mo.	%	Cost/mo.	%
Food	$250	13%	$250	14%	$366	16%	$366	17%
Rent & Utilities	582	30%	521	29%	582	25%	521	24%
Telephone	25	1%	25	1%	25	1%	25	1%
Health Care	223	12%	223	12%	262	11%	262	12%
Transportation	207	11%	237	13%	242	11%	276	13%
Child Care	392	21%	316	18%	558	24%	478	22%
Clothing / HHold	163	9%	163	9%	185	8%	185	8%
Personal Expenses	57	3%	54	3%	69	3%	66	3%
Renters Insurance	10	0.5%	10	0.6%	10	0.4%	10	0.5%
Total monthly expenses	$1,910	100%	$1,800	100%	$2,299	100%	$2,189	100%
Annual expenses	$22,920		$21,600		$27,588		$26,268	
Federal & State taxes[1]	$4,626	17%	$4,112	16%	$4,890	15%	$4,416	14%
Annual Income[2]	**$27,546**		**$25,712**		**$32,478**		**$30,684**	
Equivalent hourly wage	**$13.24**		**$12.36**		**$15.61**		**$14.75**	
Federal poverty level	**$10,360**				**$12,980**			
Equivalent hourly wage	**$4.98**				**$6.24**			

<u>Primary Sources</u>

Food:	USDA - "Low Cost Food Plan"
Housing:	HUD - Fair Market Rents
Telephone:	NYNEX - Standard Use Measured Service
Health Care:	BC / BS and VT Health Care Authority
Transportation:	US DOT - National Personal Transportation Survey & IRS
Child Care:	VT Social & Rehabilitation Services and Child Care Resources
Clothing / Household:	Bureau of Labor Statistics, Consumer Expenditure Survey (BLS / CES)
Personal Expenses:	Derived from BLS / CES
Insurance:	Smith, Bell & Thompson

[1] Does not include sales taxes.
[2] We assumed no child support payments for single parents.

See Appendix for complete description of methodology.

Chart 4

Estimated Cost of Basic Needs and Livable Wage

Two Parent Families

(Full-time work and employer-assisted health care)

	Two Parents & Two Children				Two Parents & Two Children			
	One parent working				*Both parents working*			
	Urban		Rural		Urban		Rural	
Category	Cost/mo.	%	Cost/mo.	%	Cost/mo.	%	Cost/mo.	%
Food	$507	24%	$507	23%	$507	18%	$507	18%
Rent & Utilities	582	27%	521	24%	582	20%	521	18%
Telephone	25	1%	25	1%	25	1%	25	1%
Health Care	301	14%	301	14%	301	10%	301	11%
Transportation	474	22%	559	26%	558	19%	655	23%
Child Care	---	---	---	---	558	19%	478	17%
Clothing / HHold	178	8%	178	8%	259	9%	259	9%
Personal Expenses	64	3%	65	3%	87	3%	85	3%
Renters Insurance	10	0.5%	10	0.5%	10	0.3%	10	0.4%
Total monthly expenses	$2,141	100%	$2,165	100%	$2,887	100%	$2,841	100%
Annual expenses	$25,692		$25,980		$34,644		$34,092	
Federal & State taxes[1]	$4,999	16%	$5,102	16%	$6,580	16%	$6,382	16%
Annual Income	**$30,691**		**$31,082**		**$41,224**		**$40,474**	
Equivalent hourly wage	**$14.76**		**$14.94**		**$19.82**		**$19.46**	
Avg. per wage earner					**$9.91**		**$9.73**	
Federal poverty level	**$15,600**							
Equivalent hourly wage	**$7.50**							

<u>Primary Sources</u>

Food:	USDA - "Low Cost Food Plan"
Housing:	HUD - Fair Market Rents
Telephone:	NYNEX - Standard Use Measured Service
Health Care:	BC / BS and VT Health Care Authority
Transportation:	US DOT - National Personal Transportation Survey & IRS
Child Care:	VT Social & Rehabilitation Services and Child Care Resources
Clothing / Household:	Bureau of Labor Statistics, Consumer Expenditure Survey (BLS / CES)
Personal Expenses:	Derived from BLS / CES
Insurance:	Smith, Bell & Thompson

[1] Does not include sales taxes.

See Appendix for complete description of methodology.

Federal Poverty Guidelines (FPG)

VT Department of Social Welfare programs based on FPG include:

	Program	% of FPG		As a % of LW[6]
•	Medicaid	100%	➡	41%
•	Fuel Assist.	125%	➡	52%
•	Food Stamps	130%	➡	54%
•	Emerg. Fuel	150%	➡	62%

Credit and Debt Service*

For Households with income from $10,000 to $19,999:

- ➡ 62% have consumer debt
- ➡ Median consumer debt in '92 was $2100 (not including auto or mortgage loans)
- ➡ Median ratio of debt payments to income was 15% in '92
- ➡ Share of consumer debt increased 61% from '83 to '92.

$2100 in outstanding consumer debt @ 16% interest = a minimum monthly bill of $37 or a $444 annual expense not included in our Basic Needs estimate.

* Source: Federal Reserve System, Division of Research and Statistics.

Vermont Benefit Programs: Recipients and Costs*

FY 94 Recipients

60,876	Food Stamps
27,002	ANFC
25,355	Supplemental Fuel (HH)

FY 94 Costs (Federal & State)

$40,343,093	Food Stamps
$66,356,339	ANFC
$192,121,190	Medicaid
$9,132,196	Fuel (LIHEAP)

* Source: Department of Social Welfare

- Welfare reform policies and programs based on the ability of wage earners to support their families at or near minimum wage should be replaced with more realistic assumptions and goals.
- State public assistance programs with eligibility requirements based on the federal poverty measure should be revised to reflect the actual cost of living in Vermont (see Box at top left).[6]
- To the extent that families bridge some part of the income gap with credit, personal debt creates additional burdens on their monthly budgets and may prevent families from saving for retirement, children's education, or other long-term needs (see Box at left middle).
- If families earned a livable wage, tax revenues would rise considerably and, at the same time, demand for public assistance would diminish. The magnitude of the effects is unknown but it would likely be significant given the number of current recipients and the costs. We recommend that an analysis be conducted of the potential costs and benefits of increased wages on tax revenues, public assistance, consumer prices, and the demand for goods and services from increased purchasing power.[7]

How Do Families Make Up The Difference?

Since we know that a significant percentage of working families earn less than we estimate is necessary to meet their basic needs (see Table 2, p. 4), we must ask how, if at all, they make up the difference. Unfortunately, many are unable to do so[8] and have no choice but to do without some of the basics (e.g., 60,000 are without health care[9]). Others rely on public assistance to fill part of the gap (see Box at lower left). Some may live in substandard housing (or pay a high percentage of their income for housing, thereby reducing available funds for other expenses). Others may receive help from other family members, work two jobs, barter and/or work "under the table." Finally, many depend on credit which creates additional monthly burdens from debt service on credit cards. In any case, as a result of insufficient income, the standard of living for many working Vermonters is one of insecurity, dependence, and, in some cases, deprivation.

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6 LW = livable wage, defined as the weighted average of rural and urban livable wage for families with a single parent and two children.

7 Increased wages used to buy locally-produced goods and services would have a positive multiplier effect (enhancing other impacts) and should also be examined.

8 "Low wage levels and low available hours continue to make self-sufficiency difficult to achieve for many potential public assistance recipients" M. Jane Kitchell, Commissioner, VT Department of Social Welfare, "People, Payments & Programs in FY 96."

9 Source: VT Health Care Administration.

Definitions & Current Data

Per capita income = total income for all individuals (all sources) ÷ total population; 1995 VT per capita income = $21,231.

Note: Thus, if all income were equally distributed, a family of three would earn $63,693.

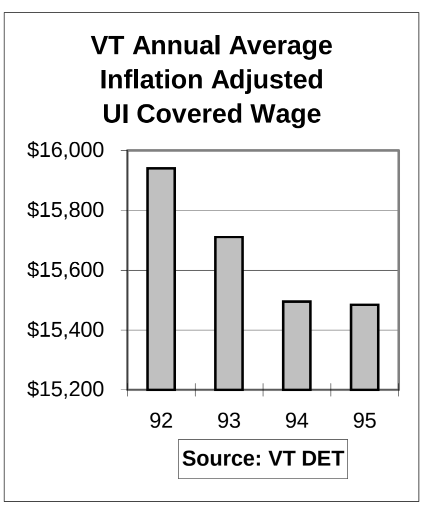
Average (mean) wage = total wages ÷ number of wage earners; 1995 VT individual average wage = $23,121 ($11.12/hr).

Median income = 50th percentile or middle income value with an equal number of people above and below; 1995 VT individual median income = $21,868 ($10.51/hr).

Recent Trends

Although average private sector wages have increased since 1982, virtually all of the growth occurred before 1987. According to the VT Department of Employment & Training, average annual inflation-adjusted wages are the same today as they were in 1987. Furthermore, they have declined since 1992 (see Chart 6 below).

Chart 6

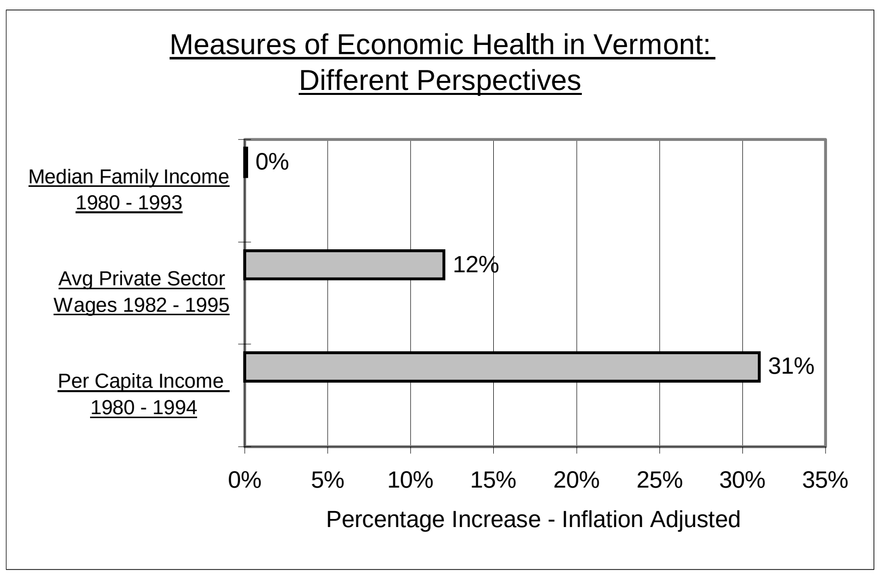


The Measurement Game:
Per-Capita Income - Average Wages - Median Income

Per capita income is regarded as an important indicator of economic health. But, like the unemployment rate, it can be misleading. Per capita income is total (aggregate) income divided by total population. Since total income includes income derived from all sources (dividends, business profits, social security, retirement, welfare, unemployment compensation, etc.), it does not reflect the experience of most working people who rely exclusively on wages. And with more and more two-earner families, per capita income may increase while average wages may not. Furthermore, even average wages can be misleading because the mean (average) can be skewed by a relatively small number of high wage earners. Finally, neither per capita nor average wage measures provide any useful information about the distributional effects of changes in income or wages.

Figures for Vermont demonstrate the measurement / perception problem. For example, three methods of reporting changes in income produce very different results (see Chart 5 below). How do we interpret these figures? It is clear that without more information one could easily misrepresent the economic condition of some Vermont workers.

Chart 5[10]



[10] Sources: Median family income and Per capita income - Statistical Abstract of the U.S., 1995, Tables 738 (p. 477) and 713 (p. 463) respectively; Average individual wages - VT DET, "Unemployment Insurance (UI) Covered Wages - Private Industry" (does not include the self-employed or government workers).

While two of the three indices in Chart 5 show aggregate income growth, a closer examination illustrates another measurement / perception problem: the majority of families did not benefit since all of the income growth was experienced by the top 40% of families (see Chart 7 below). This pattern is in stark contrast to the distribution of income growth during the preceding decades (see Chart 8 in Box at left).

Historical Perspective

In contrast to the unequal distribution of income growth shown in Chart 6, family incomes grew together from 1950 to 1978. During that period, all classes of American families experienced substantial income growth (see Chart 8 below).

Chart 8[11]

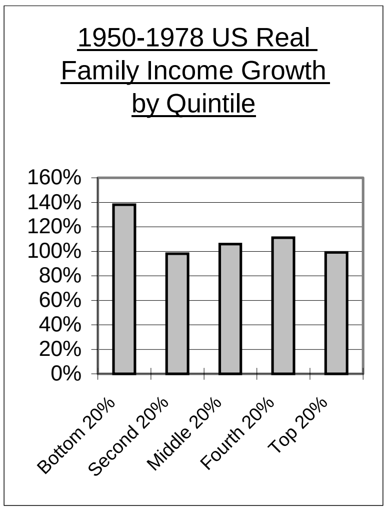
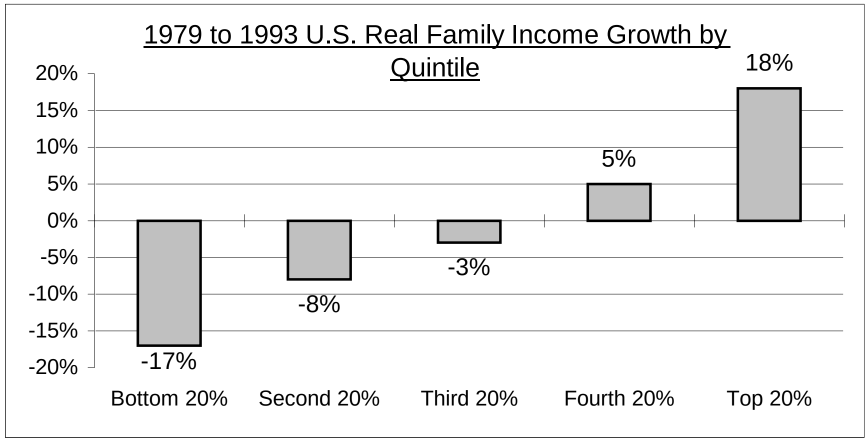


Chart 7[11]



There are many reasons for the differences but the point is that the use of per capita and average incomes does not reflect the experiences of most working Vermonters. Indicators are a necessary tool for policy makers and, if used properly, a valuable way of informing the public. But it is essential that we be clear about what we're measuring and be certain the measures selected are the most appropriate for the task.

11 Source: Bureau of the Census, as reported in "The Growing Divide: Exploring the Roots of Economic Insecurity," Share the Wealth, 1995, Boston.

Conclusions

- Income from full-time work is inadequate to meet basic needs for a significant percentage of working Vermont families.
- The minimum wage is less than half the amount needed for working families to meet their basic needs.
- The Federal poverty measure seriously under-estimates the cost of meeting basic needs and, therefore, may be an inappropriate tool for determining eligibility for public assistance.
- Child care costs can be a severe burden for working families and prevent economic self-sufficiency.
- Commonly used economic indicators (unemployment, and per capita and average income) can be misleading and misrepresent the condition of many working Vermonters.
- Research is needed to determine the potential impacts of increased wages on tax revenues, public assistance, consumer prices, and demand for goods and services.

Appendix: Methodology and Sources

The methodology for Phase 1 is described in detail below. It is similar to work done in Minnesota and Maine, uses a variety of official sources and, whenever possible, Vermont-specific data.

DEMOGRAPHICS:

We estimated basic needs for five separate family units based on their prevalence in the population (see box on page 3).

ASSUMPTIONS:

- Single parents are women between 20 and 50 yrs. old and work outside the home;[12]
- All families live independently (i.e., not as sub-families living with others);
- One child is 4 years old; two children are 4 and 6 years old[13];
- Housing: two bedrooms for all families; single person has one bedroom;
- Single parents receive no child support.[14]

WHAT'S NOT INCLUDED (but could be characterized as basic needs):

- Debt service on credit cards and other consumer debt;
- Savings for supplemental retirement, children's education, and other long-term needs;
- Life insurance.

SOURCES AND NOTES:

Food: US Dept. of Agriculture, Center for Nutrition Policy & Promotion, August, 1996. Figures are for the "Low Cost" food plan[15] and include recommended adjustments for family size (economies of scale). These national figures are further adjusted for Vermont based on the Northeast regional variation of 7.1% more than the national average expenditure for food according to the Bureau of Labor Statistics (BLS) Consumer Expenditure Survey (CES, Table 8, p. 42-45). USDA food plans are based on a nutritionally balanced meal plan, incorporate purchasing information from low-income persons who participated in surveys, and use average food prices from around the country.[16] Since this is current data, no CPI inflator was used. We assumed no urban / rural distinction for food costs.

Housing: U.S. Dept. of Housing and Urban Development (HUD), Office of Community Planning and Development (NH), Fair Market Rents (FMR - as cited in memorandum dated 2/26/96). FMR's are based on HUD survey data and reflect the 40th percentile of area rents including utilities except telephone. The sample is drawn from the distribution of rents of units occupied by recent movers (within the last 15 months) and excludes units less than two years old. Finally, adjustments are made to correct for the below market rents of public housing units included in the data base.[17] Since this is current data, no CPI inflator was used.[18]

Health Care: More than any other category, health care costs are extremely difficult to estimate due to variables such as whether the family has insurance, whether the employer pays all or part of the premiums, varying levels of co-payments and deductibles, relative health of family members, and out-of-pocket expenditures.

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12 When costs varied by gender (e.g., food, transportation), we used the lower amount (for women) in order to be conservative.

13 According to the 1994 Census estimates, the distribution by age of children under 16 in Vermont is very even. Therefore, using children aged 4 and 6 in our family units is no more or less justifiable than any other age groups.

14 According to the Dept. of Social Welfare, only 20% of all ANFC single parent families receive child support from the absent parent.

15 The USDA has a "Thrifty" food plan but "we rejected [it] because it is intended only for temporary or emergency use, and a USDA survey found that only 10 percent of families spending the amount allowed were obtaining a nutritionally adequate diet." Renwick, Trudi J. and Bergmann, Barbara R., "A Budget Based Definition of Poverty", Journal of Human Resources, V. 28, #1, Winter 1993, p. 6. The Low Cost plan assumes all food is purchased at the store and prepared at home.

16 Many families grow food in home gardens. We did not estimate the value of such food because: 1) not all families have the means (e.g., land & time); 2) families produce different items; 3) yields may vary widely; and, 4) the difficulty of imputing an average value.

17 Description of FMR methodology from the Federal Register, September 20, 1996, p. 49576.

18 More than 70% of rural Vermonters own homes but we used rental figures (which are less on average) in order to be conservative.

We assumed all families were employed and receiving employer-provided insurance with employee co-payments. We obtained current premium costs for both single and family (non-HMO) policies from Blue Cross / Blue Shield assuming a $2,000 deductible in both cases ($424/mo. family and $164/mo. single). Using data from the Vermont Health Care Authority[19], we multiplied these costs by the average percentage employee contribution (single - 34% and family - 21%). We then added monthly per capita out-of-pocket expenses[20] for each family.[21]

<u>Transportation</u>:[22] US Department of Transportation, National Personal Transportation Survey, Demographic Special Reports, 1990 (Tables 8 & 9, pp. 2-39 & 2-40). Average annual miles driven by gender, work status, and urban / rural settings for travelers ages 16-64.[23] Multiply the mileage by the IRS cost per mile for business travel[24] adjusted for Vermont based on a regional variation of 8.5% less than national average annual transportation costs (CES, Table 8, p. 42-4: multiplier = $0.2837/mile). We then adjusted each figure for the variation between the CES average expenditure by group characteristics and the average expenditure for each income sub-class (multipliers from CES Tables 29, 33 & 37). Finally, we also accounted for any differences between the average number of vehicles in the group average and the income sub-class average. The IRS mileage rate is current, so there's no CPI inflator.

<u>Child Care</u>: Urban - Child Care Resources (CCR), April, 1996. [25] Amounts are the average of the County-wide averages for child care centers and family day care homes. We assumed 50 weeks of full-time care for the 4 yr. old, and 40 weeks of part-time and 10 weeks of full-time care for the 6 yr. old. Since this is current data, no CPI inflator was used.

Rural figures are derived from data collected by the office of Child Care Services in the Dept. of Social & Rehabilitation Services. They are based on statewide averages for family day care homes but include Chittenden County. In order to remove the Chittenden Co. influence, we subtracted the product of the number of kids under 5 yrs. old in Chittenden Co. multiplied by the county average weekly cost (9,567 x $94 = $899,298) from the product of the number of kids under 5 statewide multiplied by the statewide average that weekly cost (37,983 x $80.47 = $3,056,492) and divided number ($2,157,194) by the number of kids under 5 statewide minus Chittenden Co. ($2,157,194 ÷ 28,416 = $75.91). This figure is 5.7% less than the statewide weekly average including Chittenden Co. We used the same multiplier to adjust the statewide weekly cost of school age day care to arrive at a statewide figure less Chittenden Co. ($32.46 school year x 0.943 = $30.61 and, $76.36 full-time/summer x 0.943 = $72.01). Since this is current data, no CPI inflator is needed.

<u>Clothing / Household</u>: US Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey 1992-1993 (September 1995). This category includes housekeeping supplies, household furnishings and equipment, and clothing.[26] We used the income ranges from the Consumer Expenditure Survey demographic matches (see BLS / CES Note on page 14). Except for the Single parent with one child (which is Northeastern data), all figures were adjusted for Vermont based on a regional variation of 5.5% more than the national average expenditures (Table 8, pp. 42-45). All figures were adjusted for inflation. We assumed there is no meaningful urban / rural distinction for these costs.

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19 Conversation with Steve Kappel, Vermont Health Care Authority, January 9, 1997.

20 Out-of-pocket expenses include all expenditures not paid by insurers or other third parties, except insurance co-payments.

21 We used data from the 1994 Vermont Health Care Expenditure Analysis (VT Health Care Authority). Aggregate amounts for out-of-pocket expenses was imputed (by HCA) from the National Health Expenditure Survey and divided by Vermont's estimated 1994 population. Vermont's estimated annual per capita out-of-pocket expenditures were 26% less than national estimates (i.e., $471 VT vs. $636 US).

22 We assumed all transportation is by automobile.

23 Average annual miles driven by working men are considerably higher than for women. As a result, the cost of transportation for a married-couple with two wage earners is more than twice that for a single working woman. In addition, for a two parent family with one wage earner, we included average miles driven by a non-working spouse. We did not assume the family owns two cars, only that their total transportation costs include mileage for both adults.

24 The IRS mileage allowance is intended to cover all reasonable and necessary costs of auto ownership including purchase price and interest (with a five year replacement), insurance, fuel, fees, and maintenance.

25 According to CCR staff, Census data shows 48% of kids whose parents work are cared for by relatives. For this exercise, we could not reduce the average costs to reflect free care since it would grossly understate the costs for those who do pay for the services. Thus, it's easier to simply subtract the cost of child care entirely for parents who may have services provided without cost.
An ancillary issue is the condition of the providers who are not paid for their labor and therefore receive no benefits, pay no taxes, and may well receive public assistance themselves. And while this may appear to be a laudable example of people working cooperatively, it also highlights the inadequacy of the national accounting system (GNP & GDP) which does not include the value of such unpaid labor.

26 Because we assume these families rent, we did not include expenditures for major appliances or miscellaneous household equipment which are a sub-category of household furnishings and equipment.

Telephone: NYNEX Standard Use Measured Service (SUMS) plus the FCC Line Charge, VT Universal Service Fund charge, and applicable Federal tax. SUMS includes a Local Usage Allowance that makes this tariff more cost-effective than the Low Use Measured Service (LUMS), which has a cheaper base rate but a comparatively expensive per minute charge. By definition, LUMS is for those who use the phone infrequently and was deemed inappropriate.[27]

Personal Expenses: This category includes expenditures for miscellaneous goods and services such as diapers, books / magazines, children's birthday gifts / toys, movies / video rentals, and newspapers. We decided against using data from the CES because of wide variations in expenditures per person per month. Family expenditures for personal expenses for our demographic and income matches in the CES ranged from 4% to 9% of gross income. In order to be conservative, we assumed all families spent no more than 3% of their total monthly budget on personal expenses. This produced an amount of less than $1.00 per day per person (except for the single person HH which was just over a dollar/day).

Insurance: Renters insurance rates from Smith, Bell & Thompson. Policy coverage includes up to $20,000 replacement value, $1,000 medical, $300,000 liability, $250 deductible, and loss of use.

Note on the Bureau of Labor Statistics Consumer Expenditure Survey:

Data from the 1995 Bureau of Labor Statistics, Consumer Expenditure Survey (CES) was used for the Clothing / Household category and to develop multipliers to adjust national data for regional and income variations. The following categories of CES consumer units were used as appropriate demographic / income matches for the hypothetical families.

- *Single person with no children*: Table 33, pp. 130-133, "Consumer units of one person by income before taxes," Income between $15,000 and $19,999. Average income = $17,134.
- *Single parent and one child*: Table 29, pp. 114-117, "Northeastern region by income before taxes," Income between $15,000 and $19,999. Consumer unit characteristics: 2.2 persons, 0.9 earners, average income = $17,394.
- *Single parent and two children*: Table 5, pp. 30-33, "Composition of consumer unit," One parent and at least one child under 18. Consumer unit characteristics: 2.9 persons, 0.9 earners, 1.8 children, average income = $19,458.
- *Two working parents and two children*: Table 37, pp. 146-149, "Consumer units of four persons by income before taxes," Income between $20,000 and $29,999. Consumer unit characteristics: 4.0 persons, 1.9 earners, 1.7 children, average income = $25,037.
- *Two parents (one working) and two children*: Table 37, pp. 146-149, "Consumer units of four persons by income before taxes," Income between $10,000 and $14,999. Consumer unit characteristics: 4.0 persons, 1.1 earners, 2.1 children, average income = $12,344.

Methodology For Tax Calculations

We solved for a wage such that, after taking advantage of any credits available (earned income credit, renter rebate, child care credit) and after paying taxes (federal and state income, employee's share of social security and Medicare tax), the remaining income would cover expenses (basic needs).

Assumptions

- There is no income other than wages (i.e., no alimony in or out and no child support income).
- Household has custodial care of the child or children.
- Households will take the standard deduction.
- Wage earners work 40 hrs. / week for 52 weeks (2080 hrs. annually).

[27] It's unlikely that many families limit their calls to the local area but, for this exercise, we have chosen not to include long distance telephone expenditures. Based on data from the CES, low- and moderate-income families spend approximately $10-$15 per month on long distance charges.