

# Living Wage Summary for Chattanooga, Tennessee, May 2013

Prepared by Dr. Parthasarati Dileepan, UTC Chapter of United Campus Workers

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This Living Wage Summary outlines the central findings of The Living Wage study for Chattanooga, TN conducted by the UTC Chapter of the United Campus Workers. In the study, we compiled the cost to families in Chattanooga of a basic set of necessities, namely, (1) Food, (2) Housing, (3) Childcare, (4) Apparel, (5) Transportation, (6) Medical care, and (7) Recreation & Communication. We looked at the needs of two family profiles as follows.

Family Profile A: *Family of four consisting of two parents and two children -- one child of age between 12 and 13 years and the second between 6 and 11 years (hereafter), and*

Family Profile B: *Family of three with one parent and two children -- one child of age between 12 and 13 years and the second between 2 and 11 years*

The study shows that Living Wage for Family Profile A is \$52,151 per year and that for Family Profile B is \$41,233. (Please see The Living Wage Study for Chattanooga, May 2013 for the details.)

Taking the case of Family Profile A, and further assuming that both parents work full-time outside of their home, each parent must earn  $\$52,151/2 = \$26,075$  per year, or \$12.54 per hour in order to meet the basic necessities outlined above.

Using the payroll database for UTC as of 9/1/2012 we calculated the number of UTC workers at or below 70% to 100% of living wage. The results are summarized below.

## Number of UTC workers

Wage bracket as % of living wage	No. of workers	Cumulative number of workers
Below 70% (Below \$18,253)	17	17
70% - 80% (\$18,254 - \$20,860)	41	58
80% - 90% (\$20,861 - \$23,468)	42	100
90% - 100% (\$23,469 - \$26,075)	46	146

There are 146 UTC workers (about 12.6% of the UTC work force) who earn less than the living wage of \$26,075 per year, or \$12.54 per hour.

## Recommendations

- **Establish a floor of \$12.54 for all UTC workers. This would add \$683,000 to the payroll per year, that is about 1.1% of the total UTC payroll.**
- **Ensure all the workers of UTC contractors such as the Dining Services are paid at least \$12.54 per hour.**

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## INTRODUCTION

Adam Smith in Wealth of Nations states,

*"No society can surely be flourishing and happy, of which the far greater part of the members are poor and miserable. It is but equity, besides, that they who feed, clothe and lodge the whole body of the people, should have such a share of the produce of their own labour as to be themselves tolerably well fed, cloathed and lodged".<sup>1</sup>*

Article 23 (3) of the United Nations Universal Declaration of Human Rights states,

*Everyone who works has the right to just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity*

Living wage, as stated by Adam Smith so eloquently and affirmed by the Universal Declaration of Human Rights, of which the U.S. is one of the signatories, is wages required to meet the basic needs of a dignified life of the worker and his/her family. These basic needs are determined by the social condition in which we live. Stated differently, living wage is the wage a worker who works forty hours a week for fifty weeks of a year is entitled to, so that he or she may live a dignified life and raise a family in the social condition in which he or she lives.

Living wage is not Minimum Wage mandated by the Federal, State, or local government. Neither is it poverty wages determined by the Census Bureau. These metrics, besides being arbitrary, fail to take into consideration regional and local differences in cost of living. Further, living wage for a worker can vary on the basis of his or her family condition such as the size of the family, ages of family members, and the number of wage earners. In this study we will calculate what living wage is for Chattanooga taking all these disparate factors into account. To keep the complexity of the computations manageable we will consider only two possible family profiles, (i) family of four consisting of two parents and two children – one child of age between 12 and 13 years and the second between 6 and 11 years (hereafter Family Profile A), and (ii) family of three with one parent and two children -- one child of age between 12 and 13 years and the second between 2 and 11 years (hereafter Family Profile B). We will calculate the financial resources needed per year for each of these two family profiles. We will use data available from government data bases such as the Census Bureau, Internal Revenue Service, US Department of Agriculture, and Housing and Urban Development.

## MARKET BASKET

The first step in calculating the financial resources needed for a family to live in at least a minimally dignified condition, we need to precisely define what the basic needs are for a family. Richard Anker<sup>2</sup> defines the cost for basic quality life style as the sum of the cost of (i) nutritious low-cost diet, (ii) basic housing, (iii) adequate clothing and footwear, (iv) transportation, (v) children’s education, (vi) health care, (vi) child care, (vii) household furnishings and equipment, (viii) recreation and cultural activities, and (ix) communications, and personal care and services. Further, Anker states a small margin must be added to the total cost estimated for a frugal and basic life style to help provide for unforeseen events, such as illnesses and accidents, so that common unforeseen events do not easily throw workers into a poverty trap that they may never be able to get out of.

Roger McElrath<sup>3</sup>, states a market basket for the purpose of calculating living wage to “typically include housing, transportation, food, energy, education, and health care.” Bureau of Labor Statistics<sup>4</sup> identifies eight major categories of expenditures for calculating Consumer Price Index. They are, (i) food and beverages, (ii) housing, (iii) apparel, (iv) transportation, (v) medical care, (vi) recreation, (vii) education and communication, and (viii) other goods and services.

Based on these research findings we will use a market basket consisting of (1) Food, (2) Housing, (3) Childcare, (4) Apparel, (5) Transportation, (6) Medical care, and (7) Recreation & Communication. It must be noted here that we are not including the small margin Anker suggests for unforeseen future events.

## SUMMARY OF LIVING WAGE

We first present the summary of these seven categories of costs. Following this summary, each category is discussed in more detail.

**Table 1: Living Wage summary**

	Family Profile A	Family Profile B
1. Food	9,067	6,490
2. Housing	8,724	8,724
3. Childcare	7,800	7,800
4. Apparel	4,656	4,056
5. Transportation	8,628	4,314
6. Medical care	6,663	4,432
7. Recreation & Communication	1,413	1,293
Total expense per year	\$46,951	\$37,109
Payroll FICA tax (7.65%)	\$3,592	\$2,839
Federal income tax (estimated)	\$1,608	\$1,285
Living wage per year	\$52,151	\$41,233
Wage rate per hour (1 year = 2080 hours)	\$25.07	\$19.82

## DETAILED DISCUSSION

### 1. Food

The Center for Nutrition Policy and Promotion (CNPP)<sup>5</sup> of USDA publishes every month the cost of food at home at four levels, (i) Thrifty plan, (ii) Low-cost plan, (iii) Moderate-cost plan, and (iv) Liberal plan. For each of the four plans, the report publishes food cost for individuals by gender and age group, and families with two and four members. (See Appendix A for March 2013 report). These costs represent US average. According to the Cost of Living Index published by the US Census Bureau<sup>6</sup>, cost of groceries in Chattanooga is 91.1% of the national average. In other words, the food cost for Chattanooga is 91.1% of the US average published by CNPP. Using these factors we calculated the cost of food for the two family profiles A and B and is given below in Table 2. (Please see Appendix B for the detailed computation.)

**Table 2: Cost of food for Chattanooga, TN**

	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan
<b>Family Profile A</b>				
Cost per week	\$135	\$174	\$216	\$264
Cost per year	\$6,998	\$9,067	\$11,247	\$13,721
<b>Family Profile B</b>				
Cost per week	99.22	124.81	154.20	187.70
Cost per year	\$5,003	\$6,490	\$8,019	\$9,760

We use the Low-cost plan for the purpose of Living Wage computation.

### 2. HOUSING

The US Department of Housing and Urban Development<sup>7</sup> publishes annually updated Fair Market Rent (FMR) data for all the areas from the metropolitan Core-Based Statistical Areas (CBSAs) as established by the Office of Management and Budget. Chattanooga is covered within CBSA of the Hamilton County, TN. Table 3 below gives the monthly rental cost for Chattanooga, TN from this HUD data.

**Table 3: Housing cost for Chattanooga, TN**

	FMR per month
Efficiency	\$484
One-Bedroom	\$584
Two-Bedroom	\$727
Three-Bedroom	\$989
Four-Bedroom	\$1,114

For this study we assume Two-bedroom housing at the rate of \$727 per month (\$8,724 per year) for both family profiles A and B.

### 3. CHILDCARE

We assume one of the two children in both family profiles A and B is of the age requiring childcare. We use the UTC Children Center fees schedule<sup>8</sup>. The cheapest cost is \$650 per month (\$7,800 per year) for a child between 3 and 5 years.

### 4. APPAREL

Based on Consumer Expenditure Survey (CES) conducted by Bureau of Labor Statistics, IRS publishes<sup>10</sup> national standards for consumer expenditures on food, housekeeping supplies, apparel and services, personal care products and services, and miscellaneous. Expenses such as housing and food vary significantly from region to region. However, cost of apparel, personal care products, housekeeping supplies, etc., do not vary significantly from region to region. Therefore, we will use the IRS figures for this category of cost. Table 4 below gives this cost for the two family profiles A and B.

**Table 4: Apparel and other personal expenses**

Monthly expense	Family Profile A	Family Profile B
Housekeeping supplies	74	65
Apparel & services	244	209
Personal care products & services	70	64
Cost per month	388	338
Cost per year	\$4,656	\$4,056

### 5. TRANSPORTATION

Rapino, McKenzie, and Marlay<sup>9</sup> of the US Census Bureau calculated the annual cost to commute for various regions of the U.S. based on many factors including the federal standard reimbursement rate of \$0.55 mile for 2009 approved by the U.S. General Services Administration (GSA). Table 5 below, taken from this presentation, gives the average commuting cost for small, medium, large and very large cities in the South.

**Table 5: Transportation cost for cities in the South**

City	Annual cost
Small	4,475
Medium	4,314
Large	4,889
Very Large	5,474

Chattanooga being a medium sized city the commute cost of \$4,314 per adult is used in our calculations.

### 6. MEDICAL CARE

Cost of medical care comprises of insurance premium and out-of-pocket expenses. The insurance premium rates are readily available from the employer. We will use UTC premiums and expenses for the purpose of this study. Where there is an option we use the less expensive one. The Out-of-pocket cost will depend on the actual medical incidences that occur in each family in a given year. This is difficult to estimate with any degree of accuracy. Therefore, we use the IRS<sup>10</sup> standard of \$60 per

month for each person under age 65. Table 6 below gives the current insurance premium for a standard set of health, dental and eye care coverage for UTC workers.

**Table 6: Health insurance cost for UTC employees**

	Family Profile A	Family Profile B
BCBST Health Insurance	282.15	162.78
Assurant Prepaid Dental	23.47	20.00
Basic Vision plan	9.61	6.54
Total per month	\$315.23	\$189.32
Annual insurance cost	\$3,783	\$2,272
Annual Out-of-pocket cost (\$60 per month per person)	\$2,880	\$2,160
Annual healthcare cost	\$6,663	\$4,432

## 7. RECREATION & COMMUNICATION

Under this category we will include such items as movie outings, TV, internet connectivity, and mobile phone service. The following Table 7 summarizes these costs based on the cheapest available service. Cost of movie outing is calculated at the rate of \$10 per person.

**Table 7: Cost of Internet, TV and Mobile phone**

Service	Family Profile A	Family Profile B
Internet	15.00	15.00
TV + 8.25% tax	21.65	21.65
Mobile phone + 17.45% tax	41.11	41.11
Movie outing	40.00	30.00
Total	117.76	107.76
Annual cost	\$1,413.12	\$1,293.12

In summary, a single parent raising two children needs a minimum of \$41,233 per year to lead a frugal and dignified life. A family of four with two wage earners needs \$52,151 per year. It must be emphasized that these estimates do not include any scope for savings for children's education, medical emergencies, unforeseen expenses such as broken down car, let alone an occasional vacation.

## REFERENCES

<sup>1</sup> Adam Smith, The Wealth of Nations, Book 1, Chapter 8

<sup>2</sup> Richard Anker, Estimating a living wage: A methodological review, International Labour Organization, Geneva, Switzerland, 2011, ISBN 978-92-2-1125215-3 (print), ISBN 978-92-2-125216-0 (web [.pdf](#))

<sup>3</sup> Roger McElrath, Implementing a Living Wage Program, [BSR Insight](#), November 22, 2011

<sup>4</sup> Bureau of Labor Statistics, U.S. Department of Labor [FAQ](#)

<sup>5</sup> <http://www.cnpp.usda.gov/USDAFoodCost-Home.htm>

<sup>6</sup> [Cost of Living Index published by the US Census Bureau](#)

<sup>7</sup> [Fair Market Rent data from the US Department of Housing and Urban Development](#)

<sup>8</sup> [UTC Children's Center Fee Schedule](#)

<sup>9</sup> Melanie A. Rapino, Brian McKenzie, Matthew Marlay, "[Research on Commuting Expenditures and Geographic Adjustments in the Supplemental Poverty Measure](#)" Presented at The Joint Statistical Meetings of the American Statistical Association

<sup>10</sup> IRS Publication, "[National Standards: Food, Clothing and Other Items](#)"





## Appendix A: Cost of Food



United States  
Department of  
Agriculture

Center for Nutrition  
Policy and Promotion

3101 Park Center Drive  
Alexandria, VA 22302

### Official USDA Food Plans: Cost of Food at Home at Four Levels, U.S. Average, March 2013<sup>1</sup>

Age-gender groups	Weekly cost <sup>2</sup>				Monthly cost <sup>2</sup>			
	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan
<b>Individuals<sup>3</sup></b>								
<b>Child:</b>								
1 year	21.50	28.80	32.70	39.60	93.40	124.90	141.90	171.70
2-3 years	23.40	29.60	35.80	43.60	101.50	128.10	155.20	188.90
4-5 years	24.40	30.80	38.10	46.30	105.60	133.50	165.20	200.60
6-8 years	31.20	42.90	52.00	61.10	135.40	185.70	225.20	264.80
9-11 years	35.60	46.60	60.30	70.30	154.00	201.90	261.30	304.40
<b>Male (M):</b>								
12-13 years	38.00	53.70	67.30	78.70	164.90	232.80	291.60	340.90
14-18 years	39.00	54.80	69.10	79.40	168.90	237.30	299.60	344.30
19-50 years	42.10	54.40	68.20	83.60	182.40	235.90	295.50	362.00
51-70 years	38.40	51.30	63.60	76.80	166.50	222.20	275.60	332.60
71+ years	38.80	50.90	63.20	77.80	167.90	220.50	273.70	337.20
<b>Female (F):</b>								
12-13 years	38.10	46.30	55.70	67.90	164.90	200.50	241.20	294.30
14-18 years	37.50	46.60	56.20	69.30	162.40	202.00	243.70	300.10
19-50 years	37.50	47.30	58.40	74.40	162.40	204.70	253.20	322.60
51-70 years	37.00	46.10	57.20	68.50	160.10	199.60	247.90	296.80
71+ years	36.40	45.90	56.90	68.50	157.80	198.90	246.70	296.60
<b>Families</b>								
<b>Family (M&amp;F) of 2:<sup>4</sup></b>								
19-50 years	87.50	111.90	139.30	173.80	379.30	484.70	603.60	753.10
51-70 years	82.90	107.10	132.90	159.80	359.20	464.00	575.90	692.30
<b>Family of 4:</b>								
Couple (M&F), 19-50 years and children—								
2-3 and 4-5 years	127.40	162.10	200.60	247.90	551.90	702.20	869.10	1074.10
6-8 and 9-11 years	146.40	191.10	238.90	289.40	634.20	828.20	1035.20	1253.80

<sup>1</sup>The Food Plans represent a nutritious diet at four different cost levels. The nutritional bases of the Food Plans are the 1997-2005 Dietary Reference Intakes, 2005 Dietary Guidelines for Americans, and 2005 MyPyramid food intake recommendations. In addition to cost, differences among plans are in specific foods and quantities of foods. Another basis of the Food Plans is that all meals and snacks are prepared at home. For specific foods and quantities of foods in the Food Plans, see [Thrifty Food Plan, 2006](#) (2007) and [The Low-Cost, Moderate-Cost, and Liberal Food Plans, 2007](#) (2007). All four Food Plans are based on 2001-02 data and updated to current dollars by using the Consumer Price Index for specific food items.

<sup>2</sup>All costs are rounded to nearest 10 cents.

<sup>3</sup>The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person—add 20 percent; 2-person—add 10 percent; 3-person—add 5 percent; 4-person—no adjustment; 5- or 6-person—subtract 5 percent; 7- (or more) person—subtract 10 percent. To calculate overall household food costs, (1) adjust food costs for each person in household and then (2) sum these adjusted food costs.

<sup>4</sup>Ten percent added for family size adjustment.

## Appendix B Detailed computation of food cost for Chattanooga, TN

### US Average food cost per week<sup>1</sup>

	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan
1 Adult (Male 19 - 50 years)	42.10	54.40	68.20	83.60
1 Adult (Female 19 - 50 years)	37.50	47.30	58.40	74.40
1 Child (2 - 3 years)	23.40	29.60	35.80	43.60
1 Child (6 - 8 years)	31.20	42.90	52.00	61.10
1 Child (9 - 11 years)	35.60	46.60	60.30	70.30
1 Child (Male 12 - 13 years)	38.00	53.70	67.30	78.70
1 Child (Female 12 - 13 years)	38.10	46.30	55.70	67.90

CPI index ratio for groceries<sup>2</sup> 91.10%

### Average food cost per week adjusted for Chattanooga, TN

	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan
1 Adult (Male 19 - 50 years)	38.35	49.56	62.13	76.16
1 Adult (Female 19 - 50 years)	34.16	43.09	53.20	67.78
1 Child (2 - 3 years)	21.32	26.97	32.61	39.72
1 Child (6 - 8 years)	28.42	39.08	47.37	55.66
1 Child (9 - 11 years)	32.43	42.45	54.93	64.04
1 Child (Male 12 - 13 years)	34.62	48.92	61.31	71.70
1 Child (Female 12 - 13 years)	34.71	42.18	50.74	61.86
Average for 1 child (6 - 11 years)	30.43	40.77	51.15	59.85
Average for 1 child (12 - 13 years)	34.66	45.55	56.03	66.78
Family profile A <sup>3</sup>	\$135	\$174	\$216	\$264
Annual cost	\$6,998	\$9,067	\$11,249	\$13,721
Family profile B <sup>4</sup>	99.62	124.81	154.20	187.70
Annual cost	\$5,003	\$6,490	\$8,019	\$9,760

<sup>1</sup>Bureau of Labor Statistics, U.S. Department of Labor [FAQ](#)

<sup>2</sup>[Cost of Living Index published by the US Census Bureau](#)

<sup>3</sup>Family Profile A: Family of four consisting of a male, female, and two children one of age between 12 and 13 years and the second between 2 and 11 years

<sup>4</sup>Family Profile B: Family of three with one female and two children one of age between 12 and 13 years and the second between 2 and 11 years

**Appendix C: Transportation cost for 2012 published by AAA**

AAA Average Costs Per Mile

Miles per year	10,000	15,000	20,000
Small sedan	57.6 cents	44.9 cents	38.4 cents
Medium sedan	74.9 cents	58.5 cents	50.1 cents
Large sedan	98.8 cents	75.5 cents	63.6 cents

Source: <http://newsroom.aaa.com/wp-content/uploads/2012/04/YourDrivingCosts2012.pdf>

**Attachment to the Summary -- Number of UTC workers at or below living wage**

Cost Center Name	Wage bracket as % of living wage						Total
	Below 50%	50% - 60%	60% - 70%	70% - 80%	80% - 90%	90% - 100%	
Building Services			2	22	8	1	33
Educ-Utc Child Ctr	5			7	2	3	17
Bursar				1	1	4	6
Recruitment					4	2	6
Office Of Records				1	3	1	5
Campus Services				1	1	2	4
Nursing				1	2	1	4
Parking Authority			1	1	1		3
Probasco S Campus				1	1	1	3
Security Services				3			3
Utc Arena				1	2		3
Advisement					1	1	2
Coba					1	1	2
Disab Resource Ctr				1		1	2
Educ Comm Outreach				1	1		2
Engineering-Dean					1	1	2
Housing Admin			1		1		2
Law Enforcement						2	2
Mathematics					2		2
Residence Life		2					2
Stag & Pheiff Dorms		1				1	2
Vc-Std Development						2	2
A Provost Acad Aff						1	1
Affirmative Action						1	1
Boling Apartments						1	1
Bus & Finance Affrs					1		1
C And C Plan Ctr					1		1
Challenger Center						1	1
Communications						1	1
Continuing Education					1		1
Criminal Justice						1	1
Dean-Edc/Appl Prf S					1		1
Disbursements						1	1
English		1					1
Geosciences						1	1
History					1		1
Interior Design						1	1
Johnson Obear Apts					1		1
Library						1	1
Mcll						1	1
Men-Golf			1				1

Military Science						1	1
Music			1				1
Personnel Services					1		1
Philosophy		1					1
Polsci Pubadm Np Mgt						1	1
Probasco Chair/Stein						1	1
Psychology	1						1
Radio Station						1	1
Reps & Maint						1	1
Scholarship Office					1		1
Social Work					1		1
Sociology						1	1
Stdt Financial Aid						1	1
University Center						1	1
University Relations						1	1
Utc Mocs Card						1	1
Utc-Chancellor					1		1
Women-Volleyball						1	1
Total	6	5	6	41	42	46	146