

Unmet Food Need in Washington State

Supporting Documentation

Food Lifeline, June 2008

Introduction:

This supporting documentation provides an explanation of the formulas, calculations, sources, and theories behind the data in Food Lifeline's Unmet Food Need in Washington State 2008 spreadsheet. The spreadsheet uses meals as the unit of measure. The data is shown as meals provided by individuals, public/federal programs, and non-profit sources, as well as the number of meals still needed in order to end hunger in all of Washington State. The spreadsheet includes the most recent data available for each source and spans from 2000-2007, as appropriate.

As the economy has worsened and food and fuel costs have risen, there is evidence that low income people are struggling and the need for hunger-relief services is rising. The U.S. Department of Agriculture's Consumer Price Index (CPI), economic research service stated food costs increased 4.0 percent in 2007, the highest annual increase since 1990. "Food-at-home prices, led by eggs, dairy, and poultry prices, increased 4.2 percent, while food-away-from-home (i.e. restaurants and other sources) prices rose 3.6 percent in 2007."¹ Wheat and or wheat by-products, corn, soybean prices have increased significantly as well. In 2008 the CPI has projected an increase from 4.0 to 5.0 percent, for all food prices, with food-away-from home prices are predicted to increase 3.5 to 4.5 percent.

As with most reports using secondary data, this report does not reflect the changes which occurred in the past six months (January-June 2008) nor does it include any changes to the federal nutrition programs legislated by the 2008 federal Farm Bill.

Data Sources and Methods:

Unit of Measure: The unit of measure for the Unmet Need Chart is meals. When the source data was available in **pounds**, pounds are converted to meals by dividing the pounds by 1.28. There are 1.28 pounds in 1 meal.²

When the source data was available in **dollars**, dollars are converted to meals by dividing the dollars by \$1.93. The USDA's Low-Cost Food Plan food price for 2007 (\$1.93) is used as the standard unit of measure for all formulas calling for meal price. The USDA food prices are available in weekly amounts, so this meal cost is based on the assumption that each member of the household eats three-meals a day, seven days a week (21 meals), with all meals eaten at home. The weekly meal cost is shown in Table 1.

Choice of Low-Cost Food Plan: The Thrifty Food Plan (TFP) is the basis for the maximum food stamp allotment. Updated monthly for inflation, the TFP is an emergency plan for obtaining a nutritious diet with minimal funds. The TFP is based on the 2005 Dietary Guidelines for Americans as well as the 2005 My Pyramid Food Guidance System, and it incorporates the

¹ <http://www.ers.usda.gov/Briefing/CPIFoodAndExpenditures/> retrieved on May 19, 2008

² USDA 2006 Thrifty Food Plan report.

<http://www.cnpp.usda.gov/Publications/FoodPlans/MiscPubs/TFP2006Report.pdf> retrieved on August 21, 2008.

“prices low-income people paid for many foods and the latest data on food consumption, nutrient content, and food prices: the 2001- 2002 National Health and Nutrition Examination Survey and 2001-2002 Food Price Database.”³

While the TFP is used as a basis for food stamp need, the USDA also suggests weekly expenditures for multiple plans (low, medium and liberal). Each plan category estimates expenditures for individuals of multiple age and gender groups, and also includes two family models: each using a family of two parents and two children, with the children being of different age groups. Because the Thrifty Food Plan originated from an emergency plan not intended to provide sustainable nutrition for a complete diet and is often not a practical or realistic option for working families, the **Low Cost Food Plan** meal cost will be used as the standard meal cost in this spreadsheet.

TABLE 1 Compares the USDA’s 2007 Thrifty Food Plan with the agency’s Low, Moderate and Liberal Food Plans.

June 2007	Weekly Cost in dollars <i>(per meal cost) [calculated by dividing by 21 meals a week for four people]</i>			
	Thrifty Food Plan	Low-cost Food Plan	Moderate Cost Food Plan	Liberal Food Plan
Couple, 20-50 years and children— 2 and 3-5 years	109.00 (\$1.30)	136.50 (\$1.63)	167.00 (\$1.99)	207.00 (\$2.47)
Couple, 20-50 years and children— 6-8 and 9-11 years	125.10 (\$1.49)	161.80 (\$1.93)	101.20 (\$2.40)	244.50 (\$2.91)

The Hunger in America 2006 Washington State report indicates that the majority of the children served by hunger relief agencies in Washington are between the ages of 6-17. (29% of the total members of all households are ages 6-17 compared to 7.3% of total members between ages 0-3 and 3.3% between ages 5-5). Therefore, a majority of the households would more accurately match with the household description of: **Couple, 20-50 years and children 6-8 and 9-11 years.**

Total Low Income Households

Total Low Income Households: Total low income households was calculated by using the 2006 or 2000 US Census data on the number of households with incomes less than \$24,999, by county, according to the most updated data available.⁴ The US Census Factfinder provides the

³ The Low-Cost, Moderate-Cost, and Liberal Food Plans, 2007, USDA, Center for Nutrition Policy and Promotion, CNPP-20, November 2007, <http://www.cnpp.usda.gov/Publications/FoodPlans/MiscPubs/FoodPlans2007AdminReport.pdf> on July 14, 2008

⁴ For 20 smaller counties, the 2006 estimates are not available and 2000 data was used. These counties are: Adams, Asotin, Columbia, Douglas, Ferry, Garfield, Jefferson, Kittitas, Klickitat, Lincoln, Mason, Okanogan, Pacific, Pend Oreille, San Juan, Skamania, Stevens, Wahkiakum, Walla Walla, and Whitman.

number of households making incomes within brackets including “less than \$10,000”, “\$10,000 to \$14,999”, “\$15,000 to \$24,999”, “\$25,000 to \$34,999” and higher. \$24,999 is the income threshold closest to \$29,230, which is 185% of the 2008 US Poverty Estimate for a household of 2.5 people. **The estimated numbers of total households with incomes below \$24,999 (and thus the total number of households in need) was calculated by adding together the total number of households making less than \$10,000, \$10,000 to \$14,999, and \$15,000-24,999.**

Household Size: The average family size in Washington State is 2.5 people (Census Bureau Fact finder for Washington), which is equivalent to the average family size of Washington emergency food clients.⁵ This report will use 2.5 people the average household size.⁶

Income level: 185% of the US poverty level was used as the highest income bracket to determine the total number of people because it is the maximum income level qualification for USDA’s The Emergency Food Assistance Program (TEFAP). TEFAP provides food to low income people, largely through food banks in Washington State. Thus, 185% of the poverty level can be used as a proxy for the income level the federal government determines makes a family in need of emergency food support. For reference, in 2008, Washington State will increase the gross income eligibility of the Food Stamp Program to 200% of poverty, the Women Infants and Children Supplemental Food Program (WIC) is 185% of poverty, and National School Lunch Program eligibility is 130% for free meals and 185% for reduced price meals. According to Hunger in America 2006, only 3.5% of all emergency food program customers in Washington State live in households that make above 185% of poverty.

Poverty Rate: The 2008 Poverty Guidelines for a Family of 2.5 is \$15,800. This is calculated by taking an average of the poverty guidelines for families of 2 and families of 3 according to US Census Bureau for 2008⁷. The income level equal to 185% of the poverty rate for a family of 2.5 is found by multiplying this dollar amount by 1.85 and is equal to \$29,230.

Total Low Income Individuals

FORMULA: Multiply the number of Households by 2.5 (the average family size).

Annual Meals Needed to Feed All Low Income People

FORMULA: Multiply the number of individuals by 3 (meals per day) by 365 (number of days per year).

Meals Provided by Individuals

In order to determine the number of meals low income people can provide for themselves, the average individual income and the percentage of this income that is spent on food must be determined.

⁵ Hunger in America 2006 Washington State Report

⁶ In an effort to continue to provide the most accurate data possible, the county level data was updated in December 2008 to reflect the average household size by county, instead of a statewide average. This update is reflected in the county-level data. The update caused minimal changes to the statewide and Western Washington data, and is not reflected in those documents.

⁷ <http://aspe.hhs.gov/poverty/08Poverty.shtml>

Average household income: Although the ceiling of income is 185% of poverty, the precise average income of households making between zero and 185% of poverty is unknown. Therefore, this report uses a weighted average, calculated by multiplying the number of people in each income category by the ceiling dollar amount for that category, summing these categories, and dividing the sum by the total number of people in all categories. This weighted average income was calculated separately for each county to allow for variances in cost of living.

Percentage of income spent on food: Although the USDA recommends in its food stamp benefit allocation formula that recipient households spend 30% of their post-deduction income on food⁸, research indicates that low income households as a whole actually spend a much smaller proportion.

Since 1980, the US Bureau of Labor Statistics has performed a survey of consumer expenditures and found that on average, Americans spend about 13% of annual income on food, based upon an average income of \$43,395 (reported for 2004).⁹ The survey reports food expenditures by income range. A view of the lowest income ranges (less than \$5,000; \$5,000 to \$9,999; \$10,000 to \$14,999; \$15,000 to \$19,999, \$20,000 to \$29,999), shows the following:

TABLE 3

Income and food expenditures, Consumer Expenditure Survey, 2006					
	less than \$5,000	\$5,000 to \$9,999	\$10,000 to \$14,999	\$15,000 to \$19,999	\$20,000 to \$29,000
Mean annual income before taxes	\$439	\$8,006	\$12,551	\$17,462	\$24,905.00
Average annual expenditures	\$20,708.94	\$16,751.09	\$20,611.63	\$24,422.39	\$29,041.68
Average annual food expenditures	\$3,048.73	\$2,859.81	\$3,098.97	\$3,631.47	\$4,135.89
Percentage of annual expenditures spent on food (both in and out of the home)	14.72%	17.07%	15.04%	14.87%	14.24%

All of the low income categories have higher than average food expenditures as a percentage of total expenditures. For the purposes of estimating the food expenditures for low-income users, this report will use the income category which includes the average household income

⁸ USDA Food and Nutrition Service “About Food Stamps” accessed at http://www.fns.usda.gov/fsp/applicant_recipients/about_fsp.htm on June 23, 2006.

⁹ Consumer Expenditures in 2005 Report 998 Released Feb. 2007 <http://www.bls.gov/cex/csxann05.pdf> on April 11, 2008

TABLE 3 Derived from: US Bureau of Labor Statistics, Division of Consumer Prices and Price Indexes: “Consumer Expenditure Survey, 2006.” April 2006, Report Accessed at <ftp://ftp.bls.gov/pub/special.requests/ce/stnderror/2006/income.txt> on April 11, 2008

established for this report: \$18,141. ¹⁰Falling between \$15,000 and \$19,999, households at this income range have an **average of 14.87% of their expenditures attributable to food.**

BLS data is used to estimate the percentage of income spent on food expenditures because this well-known and established survey applies to all of the population, without regard to participation in the federal nutrition programs.

FORMULA: Divide weighted average household income for county by 2.5 (statewide average household size) to convert the average household income to income available for individuals. Multiply this answer by 0.1487 to determine the percentage of income spent on food. Multiply this answer by the total number of individuals. Divide this answer by 1.93 (meal cost) to convert dollars to meals.

Basic Food Program (Federal Food Stamp Program)

“The Basic Food Program helps low-income individuals and families obtain a more nutritious diet by supplementing their income with Basic Food benefits.”¹¹ These benefits are available on electronic benefit cards and are used to purchase food at retail stores. Benefits vary based on family income and size, and Basic Food is a federal entitlement program, meaning that anyone who is eligible can receive benefits.

Basic Food Plan (food stamps) information is from the Washington State Department of Social and Health Services (DSHS) website and is for the service fiscal year 2006.¹² Total numbers downloaded from individual county datasheets, including the total dollars spent. The total meals provided is calculated by dividing the total Basic Food dollars spent per county by \$1.93 (the cost for one meal).

National School Breakfast and National School Lunch Programs

“The School Breakfast Program (SBP) is administered by the Federal Food and Nutrition Service and provides cash assistance to States to operate nonprofit breakfast programs in public and nonprofit private schools and residential child care institutions. School districts and independent schools that choose to take part in the breakfast program receive cash subsidies from the U.S. Department of Agriculture (USDA) for each meal they serve.”¹³ In Washington State, children in families that receive food stamps are automatically eligible for free school meals.

“The National School Lunch Program (NSLP) is a federally assisted meal program operating in over 101,000 public and non-profit private schools and residential child care institutions. In 1998, Congress expanded the National School Lunch Program to include reimbursement for snacks served to children in after school educational and enrichment programs to include children through 18 years of age.”¹⁴

¹⁰ Average of weighted average household incomes from all counties.

¹¹ https://fortress.wa.gov/dshs/f2ws03esaapps/onlinecso/food_assistance_program.asp

¹² DSHS Research and Data Analysis Division, “DSHS Clients and Services by County and Age Fiscal Year 2004” accessed at <http://www1.dshs.wa.gov/rda/research/clientdata/2006/county/default.shtm> on June 16, 2006.

¹³ The Breakfast School Program, FNS –Update July 2007 Retrieved on May 16, 2008
<http://www.fns.usda.gov/cnd/Breakfast/AboutBFast/SBPFactSheet.pdf>

¹⁴ National School Lunch Program, Updated July 2007, Retrieved May 16, 2008,
<http://www.fns.usda.gov/cnd/Lunch/AboutLunch/NSLPFactSheet.pdf>

The total number of reduced price or free meals provided by the National School Breakfast and Lunch Programs is for the school year of September 2006 through June 2007. Source information is already provided in meals; therefore no calculations need to be made. Data on the number of the reduced price and free breakfasts and lunches programs is from the Office of Washington State Superintendent of Public Instruction website for 2007 and was downloaded individually by school district, then matched to a listing of school districts and their corresponding county.¹⁵

Summer Meal Program

The summer meal program offers breakfast, lunch and two snacks to low income children in certified locations during the summer months. Summer meal program totals include the total of breakfasts, lunches, and both snacks from the summer of 2007. Statistics on number of meals served by county by contractor were provided by Donna R. Parsons, MS, RD Supervisor, School & Summer Nutrition Programs Child Nutrition Services and Nancy Van't Hul, Summer Food Program Specialist, for the Office of the Superintendent of Public Instruction Child Nutrition Services. Data is not available for all participating counties, and some counties do not have participating agencies serving meals. However, data for a majority of counties is included.

Free Fresh Fruits and Vegetables Program in Schools

“The Fresh Fruit and Vegetable Program (FFVP) was initiated by Congress as a pilot project to encourage schools to serve more fresh fruits and vegetables. The pilot became a permanent program in 2004 and currently operates in 25 schools in each of eight states including Washington.”¹⁶ Data is included for the fifteen counties in Washington that currently participating.

In Washington State, the Fresh Fruits and Vegetable Program is monitored differently by each school. Therefore there was no statewide record of how many pieces or pounds of produce were distributed to each student or per county. In absence of this data, the total dollar amount for the initial operating grant is divided by the standard meal cost of \$1.93 to estimate the number of meals provided by the Free Fresh Fruits and Vegetables program.

The Fresh Fruits and Vegetables Program data for the 2007-2008 school year was provided by Jim Wick, Fiscal Analyst for the Office of Superintendent of Public Instruction Child Nutrition Services.

Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)

WIC provides federal grants to states to provide supplemental food vouchers, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional

¹⁵ Office of Superintendent of Public Instruction: Child Nutrition, “Free and Reduced-Price Meal Eligibility” access at <http://www.k12.wa.us/ChildNutrition/FreeReducedDistrict.aspx> on June 23, 2008. Contact for questions: Donna R. Parsons, MS, RD Supervisor, School & Summer Nutrition Programs Child Nutrition Services.

¹⁶ Fresh Fruit and Vegetable Program, Updated February 29, 2008 Retrieved, June 9, 2008 <http://www.fns.usda.gov/cnd/FFVP/FFVPdefault.htm>

risk.¹⁷ Grocery store vouchers can be used at many public shopping markets. In Washington State, the Farmer's Market vouchers are distributed during the summer months and can only be used at farmer's markets.

WIC data is available in total voucher dollar values for both the grocery store vouchers and the Farmer's Market Nutrition Program vouchers. This information was accessed through the Washington State Department of Health WIC information page.¹⁸ Annual updates are kept for each county by fact sheets in PDF form. Voucher values were given in dollars spent which was converted into meals using the \$1.93 figures for dollars/meal. This information is from 2007.

Congregate Senior Meals, Senior Farmers' Market Programs, and Home Delivered Senior Meals/Meals on Wheels

Congregate senior meals and home delivered senior meals are meals provided either on-site or by delivery to seniors, often in exchange for a suggested donation. The Seniors Farmers' Market Program distributes funding vouchers to seniors to be used at farmer's markets. Funding for the Farmer's Market Program is limited and not all eligible seniors can receive vouchers.

Because the Senior Meals are administered locally, senior meal program data is provided from contacts including the Area Agency on Aging (AAA), Aging & Long Term Care (ALTC), Olympic Community Action Programs, Department of Social and Health Services (DSHS), Aging & Adult Care of Central Washington, Aging & Disability Services Administration, and the State Unit on Aging. These services are broken down by county. Telephone contact information and email contact was used to find total meals for the congregate and home delivered meal programs, as well as the number of clients allocated \$40 Farmer's Market Nutrition Program vouchers, by county. Note: Island, Skagit, Whatcom, San Juan, Adams, Chelan, Douglas, Grant, Lincoln, and Okanogan counties provide \$2 vouchers to each client in an amount that totals \$40.

In general, the numbers are for produce only and do not include administrative costs, nutrition program costs, or other costs which each program incurs. Island, Skagit, Whatcom and San Juan Island also used money for bulk purchases from local farmers on top of vouchers. However, this sum was not included because the total amount of dollars spent was unknown.

Home delivered meals are also known as the Meals on Wheels program. Data for the Meals on Wheels program in King County was acquired by Adam Porter, Program Manager of Meals on Wheels for King County Senior Services. Information on counties not included in the aging agencies data were obtained from Marcee Woffinden Washington State Senior Nutrition Programs (WASNP). Data from WASNP is from federal fiscal year 2007.

Note: For several counties, the source data was provided in one large sum, with no additional data to inform the breakdown. Therefore, for use in this report, the data for these counties is divided evenly amongst the clump of counties. Although this is likely not a direct reflection of how the food was distributed, it will serve as a proxy. For Clallam and Jefferson counties, the Farmer's Market vouchers total is divided by two. Ferry, Pend Orielle, Spokane, Whitman and

¹⁷ <http://www.fns.usda.gov/wic/>

¹⁸ <http://www.doh.wa.gov/cfh/wic/>

Stevens totals are divided by five. Adams, Chelan, Douglas, Grant, Lincoln, Okanogan totals are divided by six. Thurston and Mason totals are divided by two.

Commodity Supplemental Food Program (CSFP)

In Washington State, the federal Commodity Supplemental Food Program (CSFP) provides food to four different geographic areas covering 10 counties. Information on the total program pounds of food is provided for 2007 by Kim Eads, Dept. of General Administration Food Programs. Data is provided in pounds and food dollar value in nine counties, Grays Harbor, Pacific, Snohomish, Spokane, Whitman, Walla Walla, Garfield, Thurston, and Kitsap counties. Food pounds were divided by 1.28 to calculate total meals.

“The Commodity Supplemental Food Programs (CSFP) is a federally funded program, which works to improve the health of low-income pregnant and breastfeeding women, other new mothers up to one year postpartum, infants, children up to age six, and elderly people at least 60 years of age by supplementing their diets with nutritious USDA commodity foods. It provides food and administrative funds to States to supplement the diets of these groups.”¹⁹

WA State Emergency Food Assistance Program (EFAP) Tribal Voucher Program

Washington State’s EFAP Tribal Voucher program provides funding to thirty-two tribes covering eighteen counties to distribute as food vouchers to tribal members. Since tribes have flexibility in how the voucher program is administered there is not a standard value for the vouchers. The funding is allocated from the state to the tribes based on a biennial budget. For this spreadsheet, the dollars allocated to for the tribal vouchers are converted to meals by dividing the total amount of funding for fiscal year 2008 by \$1.93 (standard meal cost).

Washington State EFAP also provides operational funding for food banks. Any food purchased with this funding is included in the food bank portion of this report.

Food Distribution Program on Indian Reservations (FDPIR)

“The Food Distribution Program on Indian Reservations (FDPIR) is a federal program that provides commodity foods to low-income households, including the elderly, living on Indian reservations, and to Native American families residing in designated areas near reservations and in the State of Oklahoma.”²⁰

Sarah Kellogg-Eby, USDA/FNS Field Operations Western Region, provided the total pounds distributed in FY 2007 by all of the participating Indian Tribal Organizations. The number of pounds of food is listed by lead ITO distributors, but is not broken down by reservation or tribe served. Each ITO may serve “areas of operation” that cross counties. Additionally, information was provided by two of the ITOs: Dorothy Palmer, Manager of the Food Distribution Program for the Colville Confederated Tribes and Mark Wise, Coordinator of the Food Distribution Program for the Makah Indian Tribe.

¹⁹ <http://www.fns.usda.gov/fdd/programs/csf/about-csf.htm>

²⁰ <http://www.fns.usda.gov/fdd/programs/fdpi/>

For the spreadsheet calculations, the total pounds distributed by each ITO is divided by 1.28 (pounds per meal). The pounds for each ITO is connected to the county where the organization is located, although the food may be distributed more widely based on the area of operation.

FORMULA: ITO lbs./ 1.28

Total of Public Services

FORMULA: Add the total meals for Basic Food, School Meals, Summer Meals, Free Fresh Fruits and Vegetables Program, WIC, Senior Meals, CSFP, EFAP Tribal Meals, and FDPIR.

Meals Programs

Non profit open meal programs, shelters, adult day centers, transitional housing youth programs and other similar organizations provide meals to those in need across the state. Although there is no central entity which collects data on the number of meals provided by these programs, the state's nonprofit distribution centers do collect data on the meals served by their member programs.

Information on the total number of meals from meal programs comes from Food Lifeline, the Oregon Food Bank, and Second Harvest Inland Northwest. Food Lifeline serves 117 member meal programs across Western Washington, Oregon Food Bank serves 6 member meal programs in Clark County, and Second Harvest of the Inland Northwest served 82 meal programs across Eastern Washington.

Food Banks

Over 320 non profit food banks distribute food to those in need across Washington State.²¹ The vast majority of these food banks receive financial support through the Community Trade and Economic Development (CTED)'s Emergency Food Assistance Program (EFAP). EFAP collects monthly data for participating food banks through the program's lead agencies. These reports include the total pounds of food (from all sources, including nonprofit distribution centers and the federal TEFAP program) distributed by all food banks in the lead's jurisdiction to the food banks' customers.

The total pounds distributed for each county is converted to meals by dividing the pounds by 1.28 (pounds per meal). Some EFAP lead agencies may oversee more than one county or only part of a county. For these lead agency listings, the spreadsheet breaks the data down by county or combines more than one leads' reports to determine pounds per county.

Mary Soderquist, EFAP Program Coordinator, provided the EFAP food bank report data for fiscal year 2007.

FORMULA: Total no of lbs from food banks/1.28

Total Meals from Nonprofit Emergency Food Programs

²¹ <http://www.cted.wa.gov/site/271/default.aspx>

FORMULA: Sum of Meal Program meals plus Food Bank meals Total Individuals, Public, and Nonprofit Meals

FORMULA: Sum of the total meals from all sources (individuals, public sources, and nonprofit emergency food programs)

Annual Meals Needed

Copy the column “Annual meals needed to feed all low income people”

Meals Still Needed (Unmet Food Need)

FORMULA: Subtract the “Total individuals, public, and nonprofit meals” from the “annual meals needed to feed all low income people”

Appendix A: Research Notes

Poverty Levels and Number of Households in Need:

- U.S. Census Bureau, American FactFinder, provides city, county, and state data. The Census Bureau updated the data for about 50% of Washington's larger counties with estimates for the year 2006. Other county data will remain from the Census data 2000 Demographic Profile Fact Sheet. 2006 data from the American Community Survey Data Profile is provided for Benton, Chelan, Clallam, Clark, Cowlitz, Franklin, Grant, Grays Harbor, Island, King, Kitsap, Lewis, Pierce, Skagit, Snohomish, Spokane, Thurston, Whatcom, and Yakima.
<http://factfinder.census.gov/home/saff/main.html?lang=en>
- US Census, Small Area Income and Poverty estimates are done for 2005, but do not have detailed info on income. These reports only include the total persons in poverty and the median income levels. <http://www.census.gov/hhes/www/saipa/index.html>

Additional need and food expenditure information for Food Stamp recipients

- The national average monthly food stamp benefit was about \$86 per person and about \$200 per household in FY 2004.²²
- Food stamp need is based on income and deductions for some expenses.²³ In this documentation, the USDA deducts 30% from income as this is the expected contribution to food for eligible applicants.
- Needs and poverty line research refer to basic needs which include food, clothing and housing. This measure is adjusted for household size.²⁴
- Engel's Law: ratio of food expenditures to income declines as income increases. Formulated by German-born statistician, (1821-1896), Engel's Law states that as incomes increase, the proportion of income spent on food falls. Engel's Law is accepted as a basic principle of income and consumption.²⁵
- Issues with using food expenditures as a measure of need: underestimates consumption for HH that receive food from NSLP and NSBP as well as WIC benefits... but food stamp spending is included²⁶
- Information not included in the spreadsheet: pounds of food that households grow or catch on their own or food eaten at friends' or relatives' homes, and adjustments for regional costs of living and food cost variance²⁷

²² "Average Food Stamp Benefits", accessed at <http://www.fns.usda.gov/fsp/faqs.htm#2> on May 29, 2008

²³ Average Food Stamp Benefits, accessed at www.cbpp.org/6-6-06fa.htm

²⁴ ILAB: Wages, Benefits, Poverty Line and Meeting Worker's needs: Definitions and Measures. Accessed at <http://www.dol.gov/ILAB/media/reports/oiea/wagestudy/partI.htm> on June 23, 2006.

²⁵ *ibid*

²⁶ Nord, Mark, Andrews, Margaret and Carlson, Steven. "Household Food Security in the US, 2004" ERS Report (ERR11) 65pp, October 2005 accessed at <http://www.ers.usda.gov/publications/err11/> on June 25, 2006.

- 2004 CPS found that the average person spent \$40 a week on food, a ratio of 1.25 more than the thrifty food plan.²⁸
- Number of food insecure households in Washington, extrapolated²⁹

Households	Food insecure w or w/out hunger % (# of households)	Food insecure w/ hunger % (# of households)
2,421,000	12 (290,520)	4.3 (104,103)

²⁷ *ibid*

²⁸ *ibid*

²⁹ *ibid* p 19 chapter 1