2008 October Comparison of Six Economic Tables

By David Spring, October 21, 2008

% Comparison of six options for One Child:

(% of CMNI = Combined Monthly Net Income)
% costs excluding child care and health care* for average total cost, add about 5%

CMNI	Option 1 Status Quo Current Table Weighted average – 5%	Option 2 McCaleb Engel Marginal Table	Option 3 Krabill Modified Betson Rothbarth	Option 4 Betson-Rothbarth Per Capita Table -5%	Option 5 Betson-Engel Per Capita Table – 5%	Option 6 Betson-Rothbarth-Engel Ave - 5%
1000	SEE SSR	SEE SSR	SEE SSR	SEE SSR	SEE SSR	SEE SSR
2000	22.0	20.1	24.2	23.8	27.0	25.4
3000	19.0	17.8	21.5	23.3	26.9	25.1
4000	15.2	16.2	18.7	20.3	24.9	22.6
5000	15.2	14.8	16.4	18.1	22.8	20.4
6000	14.3	13.8	14.6	16.5	20.0	18.2
7000	13.3	12.9	13.2	15.8	19.7	17.7
8000	12.4	12.1	12.1	14.7	18.9	16.8
9000	11.4	11.4	11.1	14.0	18.1	16.1
10,000	11.2	10.8	10.3	13.3	17.4	15.4
11,000	10.6	10.2	9.65	12.6	16.8	14.7
12,000	10.3	9.75	9.06	12.0	16.3	14.1

All of these options, including our current table, assume that child care and health care (insurance) may be added to the obligation. This additional obligation was estimated by McCaleb et al (2004) to be about 5% of combined net monthly income for one child Thus a Table percentage of 20% converts to an estimated total obligation of 25% of combined net monthly income. Note that the current table was reduced to a single column using the weighed average formula proposed by Dr. Betson and then subtracting 5% as proposed by Judge Krabill. The result differs slightly from the EXCEL spreadsheet supplied by Judge Krabill because he used a simple average rather than a weighted average. The current Table was then extended from 7K to 12K using a constant ratio of the McCaleb et al percentages which were the closest percentages to the current table. Also the Modified Betson Rothbarth Table is a “best fit” curve as supplied by Judge Krabill. The Betson Rothbarth and Betson Engel estimates were from the 2005 Washington State “Alternative Tables”.

Option 1 Current Table = No change from current economic table
Option 2 McCaleb Table = nearly identical to the current table
Option 3 Krabill Best Fit curve = about a 10% increase above current table
Option 4 Betson Rothbarth = about a 20% increase above current table
Option 5 Betson Engel = about a 40% increase above current table
Option 6 Betson Rothbarth – Engel Average = about 30% increase above current table.

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1000	SEE SSR	SEE SSR	SEE SSR	SEE SSR	SEE SSR	SEE SSR
2000	$437	$402	483	476	540	508
3000	$570	$534	644	698	808	753
4000	$608	$646	746	811	996	903
5000	$760	$742	820	903	1141	1022
6000	$855	$826	878	988	1197	1092
7000	$930	$901	926	1103	1381	1242
8000	$988	$966	966	1173	1510	1341
9000	$1,026	$1,025	1002	1263	1631	1447
10,000	$1,122	$1,079	1033	1330	1744	1537
11,000	$1,170	$1,126	1061	1385	1852	1618
12,000	$1,230	$1,170	1087	1441	1953	1697

McCaleb at al (2004) Florida State Table for up to 6 children (see pages 23 to 28)

CMNI	1 child	2	3	4	5	6
$1,000	$236	$238	$241	$244	$246	$249
$2,000	$402	$677	$947	$1,114	$1,186	$1,199
$3,000	$534	$895	$1,246	$1,457	$1,593	$1,638
$4,000	$646	$1,078	$1,498	$1,745	$1,899	$1,940
$5,000	$742	$1,237	$1,715	$1,992	$2,160	$2,196
$6,000	$826	$1,374	$1,903	$2,206	$2,386	$2,417
$7,000	$901	$1,496	$2,069	$2,394	$2,583	$2,609
$8,000	$966	$1,603	$2,216	$2,560	$2,758	$2,779
$9,000	$1,025	$1,699	$2,347	$2,709	$2,914	$2,931
$10,000	$1,079	$1,786	$2,466	$2,843	$3,055	$3,067
$11,000	$1,126	$1,864	$2,572	$2,963	$3,181	$3,190
$12,000	$1,170	$1,935	$2,669	$3,072	$3,295	$3,300

Facts supporting adopting the McCaleb et al (2004) Table

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Advantages of Option 2, The McCaleb Table was developed by 3 PHD Economists from Florida State University. It used recent CEX data and a very large sample size.
Unlike the Betson Tables, it used "incomplete responders" and thus the sample was more representative of the US and Washington State populations than the Betson Sample. It used a marginal method, meaning it did not assume that children cost the same as adults. The percentage of explained variation is quite high (44%) compared to the Betson Rothbarth method (8%). For the above reasons, the McCaleb study was the most scientifically credible and defensible "proxy method" study ever done on the cost of raising children. It's results are very similar to the current table so it would not cause substantial changes in child support rates or existing orders, but it would be far more credible than the math tricks used to construct our current table. It should therefore be politically acceptable.
Drawbacks of Option 2: The biggest drawback of the McCaleb Table is that it used an Engel Food Ratio method. Since it is known that children do not consume food at as high a rate of adults, the Engel marginal method is known to be about 20% above the actual cost of child rearing as determined by "direct cost" studies. A second drawback is that it is based on CEX survey data which is known to be inaccurate in the lower income end of the scale. It is therefore likely that the lower income estimates are way too high and that child costs inside the table never exceed 15% (and total cost for one child never exceeds 20%).
Despite these drawbacks, I support the McCaleb Table as the most scientifically defensible
Drawbacks of Option 1: **The current table** was based upon a series of math tricks, incorrect assumptions and political compromises. There is no scientifically credible argument for retaining the current table.
Drawbacks of Option 3: The Krabill Curve is based in part on the Betson Rothbarth Table. It therefore suffers from most of the shortcomings of the Betson Rothbarth table **Drawbacks of Option 4: The Betson Rothbarth Table** is based upon the assumption that there is a relationship between spending on adult clothing and spending on children. We know for a fact that this assumption is false because, according to Dr. Betson's own calculations, the percentage of explained variation is only 8% (anything under 20% is considered to be random). Also Betson artificially inflated the result by adding a per capita adjustment not used by any other researcher. Betson also only used "Complete" CEX responders thus severely biasing his sample. In addition, the CEX sample itself is known to be inaccurate in the lower income area. Thus the lower end of the Betson Table is certain to be way too high.
Drawbacks of Option 5: The Betson Engel Table is based upon the relationship between spending on food and spending on children. Also Betson artificially inflated the result by adding a per capita adjustment not used by any other researcher. Betson also only used Complete CEX responders thus biasing his sample. In addition, the CEX sample itself is known to be inaccurate in the lower income area. Thus the lower end of the Betson Table is certain to be too high.
Drawback of Option 6: The Betson Rothbarth Engel average Table is based on two assumptions. These are that the Betson Rothbarth Table is a "*lower bound*" and the Betson Engel Table is an "*upper bound*." It is known that both of these assumptions are false. The "lower bound" assumption came from a Deaton 1988 study in which he used a marginal Rothbarth method which resulted in an estimated child cost of 12%. Deaton stated that **12% was a lower bound.** Betson then used a "per capita adjustment to artificially raise the estimate to over 20%. Betson also used a "per capita adjustment to dramatically raise the Engel result. But neither Betson study has anything to do with the actual cost of raising children because we know that per capita adjustments lead to inflated results. The true "lower bound" is about 10% and the "upper bound" is about 20%.