

## Comment on Final Report – Economic Table

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The Economic Table reflects the State’s presumption for the combined obligation of both parents to their child(ren) after a divorce or separation. The dollar amounts found in the table increase with the combined net income of the parents, number of children, and currently their age. The table reflects two underlying factors: a normative judgment about the level of support owed by the parents to their child(ren) and our ability to estimate that normative standard using economic data. I will begin with two suggestions or recommendations and then proceed to explain them and my rationale for providing them.

### *Recommendations:*

- After the divorce or separation of the parents of the child(ren), the State’s normative standard in setting support should be the level of spending on the child(ren) that would have existed if the parents had maintained one household. This is often referred to as the Income Shares Model.
- In setting the amounts of combined support found in the Economic Table, the State should average recent and available economic estimates of the level of spending of children in intact (both parents present) households.

### *Normative Standard of Income Shares Model*

What should the State presume is the appropriate level of support for the child(ren) after divorce? Should it reflect only the basic needs of the child(ren)? Or should it also reflect a financial responsibility of the parents to provide a standard of living that is consistent with their financial resources? Washington State through their statutes have stated their position,

“The legislature intends, in establishing a child support schedule, to insure that child support orders are adequate to meet a child's basic needs and to provide additional child support commensurate with the parents' income, resources, and standard of living. The legislature also intends that the child support obligation should be equitably apportioned between the parents.” (RCW 26.19.001)

While this statement of intent may appear to be definitive, I would suggest it is not in light of the economics of divorce. When a couple divorces and sets up two households, at least one of the newly formed households will be materially worse off when compared to their pre-divorce standard of living. It is quite possible that both households will be worse off. This economic ‘fact’ of divorce reflects that divorce will result in a loss of economies of scale in consumption – it is more expensive to have two separate households than one – and without additional resources, at least one household will be worse off. The public policy question is to what degree should the child’s material

standard of living decline due to the decision of their parents to divorce? Should the child's material standard of living be safeguarded? Or should they also feel the economic burden of divorce? If so, by how much? Clearly the State believes that child support should not be limited to the basic needs of the child(ren) and consequently their material standard of living should exceed some minimum level and should reflect some adjustment for the standard of living of the child prior to divorce.

A significant large range of possible child support obligations is consistent with this statement of intent. To narrow the range, a specific normative standard reflecting the judgment of the State to what is a fair and just obligation must be stated by the State. Many states have adopted what is known as the Income Shares Model that reflects the normative standard that child support obligations should reflect the amount of spending on the child(ren) that would have been made had the households remained intact.

An alternative normative standard favored by many advocates of the interests of non-custodial parents is the Cost Shares Model. In this model, the normative standard for setting child support obligations is what is being spent on the child(ren) in the post-divorce household. While this normative standard may seem reasonable, it raises as many questions as it answers. Is the amount of spending that will be shared the amount of spending that the custodial parent would make if no child support was paid? But when support is paid, economic theory suggests the custodial parent will spend more. If so, should the amount of support from the non-custodial parent be raised? If the differences in income and resource between the parents are substantial, should the standard of living of the child be tied to the resources of parent with whom they will spend the majority of the time?

Critics find fault in the Income Shares Model because they believe it seeks to hold the child(ren) materially harmless in the divorce. While I don't see anything fundamentally wrong with this standard, it is not the standard of the Income Shares Model. The critics' misunderstanding of this approach is based upon a confusion between spending on the child(ren) and their standard of living. The material standard of living of any member of a household is intertwined with the resources of other members of the household where they reside. Consequently one can maintain the level of spending on the child(ren) but fail to maintain their material standard of living if the other members of the household do not have sufficient resources.

To understand this claim, let us begin where there is wide spread agreement. The level of spending on the child(ren) should reflect the marginal costs of raising the child(ren). To understand the concept of marginal cost, consider the spending on housing. When a couple has a child, they may choose to have another bedroom and perhaps a little larger family room compared to when child was not present in the household. The costs of these additional spaces are reflected in the marginal cost of the child. Even though the child will utilize other parts of the home, no portion of the cost of these spaces are not assigned to the child. Consequently, we can hold the spending on the child constant in terms by providing the same bedroom and marginal increase in the size of the family room but there is no guarantee that the parent with whom the child resides after the

divorce will be able to provide the same standard of housing they lived in prior to the divorce. Consequently the standard of living of the child falls.

To further illustrate this point, consider the following numerical example of a couple and a single child over 12 years old with a combined net monthly income of \$6,000. A traditional indicator of the household's (and implicitly every member of the household) material standard of living is the ratio of the household's net income to their needs. The US poverty guideline in 2008 for a family of three is \$1,467 per month. Hence when the parents reside in the same household, the intact family's net income is 4.09 times their needs.

Now let us consider the economic impact of divorce on the child assuming that \$1,065 was spent on the child when the family was intact (the amount of basic child support obligation from the current Washington State Economic Table). If the parents divorce, their combined obligation would be \$1,065 per month. This amount will be shared between the parents based upon their relative incomes. Let us assume that the mother has \$2,000 of net income per month and the father has the remaining \$4,000. The mother's share of the obligation would be \$355 per month and the father's obligation is \$710 per month. If the child resides with the mother, then the mother's net resources (her net income and the amount transferred from the father) would be \$2,710 or 2.32 times the needs of a family of two (\$1,167 per month). The child is materially worse off even though the level of spending on the child remained the same as prior to the divorce. If the child resides with the father, the mother would be obligated to transfer \$355 per month to the father. This would imply that the household with the father and child would have \$4,355 of income per month or 3.73 times their needs. The child would still be worse off compared to pre-divorce standard of living.

#### *Estimating What Intact Families Spend on Children:*

During the work group's discussion of the Economic Table, there were constant references to the 'science' of different studies. The intended implication of such discussion was that if science was on the side of one set of estimates then that methodology or set of estimates was better than others. How can one argue with science? The problem is that the entire discussion ignored the most fundamental lesson that science tells us about the estimates of the cost of raising children. There is no single truth when estimating the cost of children (in technical terms, the model is under identified). The assumptions used by each methodology may have an effect on the estimates. There is no way to determine which set of assumptions are true and which are false. Hopefully, the assumptions one has to make in order to estimate the cost of raising children will not have a significant or large effect on the estimates. But what my research has shown is that the assumptions make a significant and large impact on the estimates. I made this point in my November 2007 presentation to the work group but it seems to have been lost on many of the members of the group.

The Engel, Rothbarth, US Department of Agriculture methodology and numerous other approaches employ different assumptions to confront the data in order to estimate the cost of raising children. Science tells us there is no objective way to decide between these alternatives. To judge the reasonableness of the estimates by judging the reasonableness of the assumptions is as subjective as judging the estimates using the criteria of the higher the better, or lower is better.

Recognizing that the choice of the particular entries of an Economic Table can't be done by turning to the disinterested third party, science, how should the State proceed? Should the table entries be determined through the political process? Or should the State choose to set the Economic Table by averaging the estimates from the available and recent economic studies on the cost of raising children in intact families? I would favor the second approach for two reasons. The Federal statutes mandate that the state's guidelines should reflect economic data on the cost of raising children. But just because the Federal government has made this mandate isn't sufficient reason to choose this approach. I believe that in making these types of decisions, it is better public policy to decide upon the relative strength of the evidence gathered from empirical studies than to rely upon the relative political strengths of opposing points of view. I don't want to imply that the use of averaging makes this approach scientific, because it isn't. It is still a highly subjective exercise. The reason why I prefer this approach is that it focuses the discussion where it should be -- on the relative quality of evidence.

The use of the average of alternative estimates explicitly recognizes that we don't know what is the actual level of spending on child in the average family. Individuals will have alternative perspectives on this question and an average is a way to combine these different perspectives while respecting the differences in opinion. To pick one set of estimates is to implicitly declare the other estimates are wrong and the chosen set is the right one. Since there exists a great deal of uncertainty over what is the correct answer, it seems a prudent not to place 'all of your eggs in one basket'. The averaging strategy not only respects the differences that exist in opinion but also serves to minimize the risk of choosing the 'wrong' set of estimates. The only caveat is that in constructing this average is that only estimates of the cost of raising children in intact families should be used and consequently Cost Shares estimates should not be reflected in the average because they will not reflect the Income Shares normative standard.

The choice of methodology is not the only choice made by researchers in estimating the cost of children. In the work group discussions, two other types of choices were also debated – the function form of the equation used in the estimation and the data used in the estimates.

Estimating the cost of children is in reality an attempt to allocate the total spending in the family to the individual members. A per capita approach is the simplest approach to utilize. The percentage of total spending allocated to the children would be the percentage of family members who are children. For example in a two parent family with one child, 1/3 (33%) of the family's total spending would be allocated to the child. There is agreement that this approach would overstate the marginal cost of the child.

During the discussion of my research, one work group member argued that my approach was a per capita methodology. He drew this conclusion based upon my choice of functional form. To estimate the relationship between spending on either food (Engel methodology) or adult goods (Rothbarth methodology) and total spending, I chose to control for total spending by including a constructed variable equal to the ratio of total spending to the family size or per capita total spending. A study by a group of economists from Florida State chose a different function form by including just the variable total spending and found lower estimates. In their analysis, they concluded that the difference between my estimate and theirs was due to this choice. However, they also concluded that there was no way to determine which assumption was right empirically or theoretically.

But more importantly was my choice truly a per capita approach? Had I not also separately controlled for the size of the family then the characterization would have been correct. However, I did allow for a separate effect of family size in the estimates – my approach is not a per capita approach. It has been said that I am the only ever to use such a specification. Again this is wrong, Deaton and Paxson in their study on food consumption used this specification. I want to give credit for where it is due. Angus Deaton (current president of the American Economic Association) suggested this specification to me; it is not my own invention.

During my presentation in both November and December of 2007, I tried to describe the limitations of the primary data set used the majority of researchers to estimate the cost of children – the Bureau of Labor Statistics Consumer Expenditure Survey (CEX). Somehow this discussion of the CEX's limitations was interpreted as implying that I felt that the data was bad. No data set is ever perfect. Despite its limitations, the data set is adequate for this task.

I have been criticized for the criteria used in selecting my sample and in particular 'throwing 95% of the sample away.' While I disagree with the claim that I have not used 95% of the CEX sample, large reduction in sample size will occur because of what we are trying to estimate – the cost of raising children in intact families. To estimate the costs in intact families, we will focus upon two parent families with children and compare their consumption patterns to two adult families without children. As the Census Bureau has announced, the majority of households are single individuals who will not be used in the estimation process. Single parent families with children also will not be included in the sample because they do not represent intact families. Finally those families where the head was over 55 years old were also excluded from the sample. These types of sample exclusions have been made in other studies examining spending in intact families, so while many observations are excluded I believe they were done reasonably and with precedent.

The CEX samples the same household four times during the year, however, not every household responds to every survey. I chose to limit my sample to those households that responded to three or four surveys and excluded those households who responded to one

or two surveys. I did this because I wanted to examine annual not quarterly expenditure patterns and felt that by including households with only one and two surveys would introduce too much additional measurement error in food spending, adult good purchases and total spending. In particular I was concerned with the potential measurement error in the total spending variable that could introduce biases into the estimates.

A member of the working group was critical of this decision. He said I did this on purpose because if I hadn't I would have found there was no relationship between adult good spending, the number of children and total spending. The Rothbarth methodology would have undermined. At the January 2008 meeting, he found evidence in my own work. In my 1990 report to Congress I provided estimates using the all of the observations and only those with three or more quarterly surveys. The proportion of explained variance ( $R^2$ ) fell from 23% to 9% that he said proved his point.

The appropriate statistical test is the F test not  $R^2$  (although there is a nonlinear relationship between the F ratio and  $R^2$ , there is no test based upon  $R^2$ ). While it is true the  $R^2$  declined as reported, the F test in both sets of estimates was significant at a 1% level of significance implying a statistically significant relationship. Finally what the work group member didn't mention to the group was that the estimates of the proportion of total spending devoted to children was virtually unaffected by the use of the full sample or my sample restriction (page 190 of my 1990 report, "Alternative Estimates of the Cost of Children from the 1980 – 86 Consumer Expenditure Survey).

During the work group's discussion and public comment there has been a constant criticism that I would not provide the data that I used in my analysis. This is puzzling for two reasons. First the work group member who requested the data stated in his comments at the January 2008 meeting and his long memo to the work group that he no longer needed the data. So if there was no longer a need for the data, why continue to complain about it? The second reason I am puzzled is that the data that I used (CEX) is a publicly available data set which anyone can either purchase (like I have done for \$145 per year of data) or access through the Census Bureau web site. The Florida State researchers were able to access the data as well as numerous other researchers. I saw no reason why I should give them something they could have done on their own. In fact, I would argue it is better science for their inquiry to be independent of my work.

The lack of certitude in our ability to estimate the cost of raising children should not be taken as license for public officials to do anything they wish as they set entries the Economic Table. They should be constrained by the available evidence and when they depart they should acknowledge that departure.

Sincerely,

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