Child Cost Economics and Litigation Issues: An Introduction to Applying Cost Shares Child Support Guidelines ©

by R. Mark Rogers and Donald J. Bieniewicz*

Presented at the Southern Economic Association Annual Meeting,
Section for National Association of Forensic Economics
Alexandria, Virginia
Original, November 12, 2000
Revised, October 17, 2002

Introduction

With the implementation of presumptive child support guidelines by the states, is there a role for forensic economists in family court? Yes! Contrary to public perception, child support guidelines enacted, judicially implemented, or administratively implemented by the states bear little relationship to actual expenditures on children. The divergence of presumptive awards from economic-based child support obligations is significant not only for high-income situations but generally all income levels. Given that the financial stakes can be high for the parties involved and that presumptive awards do not reflect true economic costs, there clearly is a role for economists to offer an economics basis for rebutting the legal presumption. The forensic economist can then present a rational, economic-based recommendation for the child support obligation. Federal regulations require that state guidelines allow for a rebuttal of the presumptive award when the presumptive award is shown to be unjust or inappropriate and states have put such language in their guideline statutes.

In order to clarify the potential role of a forensic economist in family court, it is appropriate to briefly review the origins of the prevailing child support models and their economic implications. That is, how do these presumptive awards diverge from actual child cost patterns? How can the excesses of presumptive child support awards be shown along with the extraordinary burden on the obligor and the windfall to the obligee? What is an alternative

---

* R. Mark Rogers is an economic consultant based in metropolitan Atlanta, Georgia, specializing in litigation support, macroeconomic analysis, and various corporate and government applications. Previously, Rogers was macroeconomic forecast coordinator and a 19-year veteran economist for the Federal Reserve Bank of Atlanta. He is the author of the *Handbook of Key Economic Indicators* (2nd ed., McGraw-Hill, 1998). Rogers was a commissioner on the Georgia Commission on Child Support, 1998, as a governor's appointee and has published extensively on child cost issues. Donald J. Bieniewicz is a policy consultant for the Children's Rights Council (CRC) in Washington, D.C., and is on the Economic Analysis Staff, Office of Policy Analysis, U.S. Department of the Interior. He is the author of the CRC model child support guideline, as published in *Child Support Guidelines: The Next Generation*, U.S. Department of Health and Human Services, 1994. The views expressed in this paper are those of the authors and do not necessarily reflect the views of any federal agency. Comments can be sent to R. Mark Rogers at: RMRogers@mindspring.com or by telephone, 770-412-1059. Comments can be sent to Donald J. Bieniewicz at DonBien@erols.com or by telephone, 703-255-0837. Copyright 2000.

methodology for a forensic economist to recommend an economic-based child support obligation?

This paper is organized in the following manner: (I) a review of current child support guideline methodologies and their flawed economic foundations, (II) special discussion of favored tax treatment for custodial parents and the proper treatment of tax benefits as a cost offset, (III) presentation of an economics based child support model, (IV) the role of the forensic economist in family court, and (V) notes on economic background and comparisons with guidelines and guideline awards.

I. Review of Current Child Support Guidelines and Their Flawed Economic Foundations

Over the last decade, child support determination in family court situations has changed dramatically. Prior to 1989, non-welfare cases generally were argued on a case-by-case basis but within parameters established by statute and case law. With the Family Support Act of 1988, the U.S. Congress established funding incentives for states to adopt statewide child support guidelines. The states only had one year to implement statewide presumptive guidelines—but in reality, the deadline was tighter since most state legislatures do not operate year-round. Federal regulations—without requiring any specific guidelines—require that state guidelines be based on economic data and result in an economically appropriate award. The intent of the new law and regulations was to boost the level of award "adequacy," to create uniformity in application of child support awards, and to simplify the process of child support determination—all of which theoretically would reduce the incentive to seek modifications or to contest the original finding.

Origins of Child Support Guidelines in General Use by the States

There are three basic child support models in the United States: (1) percent of obligor income only (known as Wisconsin-style guidelines due to the origin), (2) Income Shares, and (3) Delaware-Melson. Percent of obligor guidelines are used by only about a dozen states and base the presumptive award on the obligor's income but not the obligee's. Generally, the percentage is fixed across the applicable income range but increases with the number of children. Income Shares guidelines generally are based on a statistical technique known as Betson-Rothbarth and take into account both parents' income to identify a portion of the parents' income as the child's share. Child support obligations rise in dollar value with income but decline as a share of income. About 35 states use this type of guideline. Delaware-Melson was originated by Judge Elwood F. Melson in the State of Delaware and is a hybrid of Wisconsin-style guidelines and Income Shares. This guideline type is used in only a few states and for simplicity is not discussed in further detail in this paper. What are the origins of Wisconsin-style guidelines and incomes shares and what are their economic implications?

Origin and Original Intent of the Percent of Obligor Income Model (Wisconsin-Style)

Obligor-only child support guidelines in the U.S. are based on those developed for the State of Wisconsin. Wisconsin regulatory code specifically points to the origins. Chapter HSS 80 of the Wisconsin State *Register*, January 1987, No. 373, is entitled, “Child Support Percentage of Income Standard.” This chapter's introduction explains the alleged academic underpinnings for this particular obligor only child support model. As seen in Section HSS 80.01:

> The percentage standard established in this chapter is based on an analysis of national studies, including a study done by Jacques Van der Gaag as part of the Child Support Project of the Institute for Research on Poverty, University of Wisconsin, Madison, entitled "On Measuring the Cost of Children," which disclose the amount of income and disposable assets that parents use to raise their children.[1]

<u>Van der Gaag's Definition of Child Costs</u>

Van der Gaag's definition of child costs diverges sharply from common definitions that generally are tied to how much families with children actually choose to spend on children. His study's definition begins with one-child costs being based on how much income a one-child couple must be compensated in order to be equally well off economically as without the child. From Van der Gaag, "Thus the question is: How much income does a couple with one child need, to obtain the same level of economic well-being as a childless couple?"[2] His studies did not look at actual expenditures on children but rather how much income the parents needed to get back to the prior standard of living. He expanded this definition for additional children. The State of Wisconsin took Van der Gaag's estimates and with minor adjustments, adopted them for advisory guidelines for welfare cases. Wisconsin's guidelines, based on Van der Gaag's study, are as follows:

Number of Children	Percentage of Obligor's *Gross* Income
1	17 percent
2	25 percent
3	29 percent
4	31 percent
5 or more	34 percent.

One of the chief criticisms of the Van der Gaag's cost estimates is brought up by Van der Gaag himself as commentary within his study. The cost estimates do not take into account any "utility"—or satisfaction—that children give to the parents. Essentially, his cost estimates are based on a definition such that all that matters is economic well-being of the parents—as though that is the only consideration used to determine whether to have children or not. His definition leads to an overstatement of child costs. In real life, when parents choose to have children, they realize it is with the loss of the standard of living for "other" goods and services consumed. They choose this lower standard of living for "other" because of the satisfaction from having children. Curiously, this issue has implications for the methodology behind Income Shares models—to be discussed later. Also, Van der Gaag assumed the custodial parent has the child 100 percent of the time.

Additionally, the studies reviewed by Van der Gaag are for low-income families and the studies ignore the impact of government transfers to subsidize child costs. The baseline income for the families studied is $12,000 (1982 dollars) for Van der Gaag's table comparing child costs as a

---

[1] Wisconsin, State of, *Register*, January 1987, No. 373, Chapter HSS 80, p. 316-1.

[2] Jacques Van der Gaag, "On Measuring the Cost of Children," Child Support: Technical Papers, Volume III, SR32C, Institute for Research on Poverty, Special Report Series, University of Wisconsin, 1982, p.18.

percentage of gross income. The low-income base would necessarily lead to high percentages for child costs since necessities would take up almost all and in many cases more than all income. Dependence on subsidies also would boost child costs as a share of income.

Importantly, these percentages were estimated as indirect measures of child costs from data in the late 1970s and early 1980s for low-income obligors. These obligors paid little if any income tax. The tax impact was not an issue since the percentages were only used in welfare cases. Also, today's earned income credits and child credits had not yet been enacted—which now can add thousands of dollars to the custodial parent's household annually. The adjusted percentages were adopted by the State of Wisconsin in 1983 as guidelines to be used in an advisory capacity and later as a rebuttable presumption.[3]

Wisconsin's Guidelines Were Never Intended by the Original Researchers to Apply to Situations Other than Low Income or Low Benefits

Based on early papers providing the technical foundations for Wisconsin's child support guidelines, the guidelines were originally developed for only welfare situations (in research papers, the child support obligation is described as a "tax" since the intent was for automatic with-holding as with other taxes). The intent was for both parents' income to be part of the formula and that there be a maximum level of benefits (child support).[4]

Wisconsin's child support guidelines originally were intended to be applied to only very limited circumstances. The original concept underlying Wisconsin's child support guidelines based on academic recommendations was to exempt some income for basic living needs, to require the custodial parent to pay for any difference between guaranteed benefits and what the non-custodial parent could pay, and to cap the benefits at a low level so that the "tax" (child support obligation) was regressive for the obligor.

It is well documented that the original concept of Wisconsin's child support plan included low-income exemptions, ceilings on income subject to the guidelines, and was based on a modest level of publicly guaranteed benefits to the child with the state's objective as recovery of the costs of those benefits from both parents as much as was practical. These guidelines were never intended to be extended beyond low-income situations or beyond low benefit guarantees.[5]

How did Wisconsin's welfare situation guidelines become applied to all types of cases? In its rush to comply with the Family Support Act of 1988, the Wisconsin legislature delegated guideline authority to the Wisconsin Department of Health and Social Services which in turn administratively chose to use welfare percentages in non-welfare cases. Additionally, other states—for example, Georgia—adopted their guidelines from Wisconsin's in the same rush to

---

[3] Irwin Garfinkel, "The Evolution of Child Support Policy," *Focus*, Vol. 11, No. 1, Spring 1988, University of Wisconsin-Madison, Institute for Research on Poverty, p. 13.
[4] Institute for Research on Poverty, University of Wisconsin-Madison. "Documentation of the Methodology Underlying the Cost Estimates of the Wisconsin Child Support Program," Child Support: Technical Papers, Volume III, SR32C, Special Report Series, 1982, pp. 143-144.
[5] Institute for Research on Poverty, University of Wisconsin-Madison. *Child Support: A Demonstration of the Wisconsin Child Support Reform Program and Issue Papers*, Volume II, SR32B, Special Report Series, 1981, p. 51.

comply with Federal regulations to keep Federal funding. Essentially, Wisconsin's and states adopting their guidelines for general use conflict with the underlying economic study and original intended use as indicated by that study.[6] Also, a federal advisory panel recommended that states not use obligor-only guidelines but rather should use guidelines taking into account both parents' incomes.[7]

Origins and Methodology of Income Shares Child Support Guidelines

The Income Shares model for child support guidelines was developed by Dr. Robert Williams of Policy Studies, Inc. (PSI) of Denver, Colorado. Williams obtained a grant from the National Center for State Courts to develop recommendations for state guideline use. The recommendations were part of a report requested by the U.S. House Ways and Means Committee. This committee had requested the establishment of an advisory panel on child support in 1984. Williams' research was published in 1987 along with the panel's recommendations.[8] Williams' original version of the Income Shares guideline was based on the research of Thomas Espenshade but more recent versions have been based on the research of David Betson. The more recent guidelines generally produce higher child support awards than the earlier version.

Robert Williams' child support model—known as "Income Shares"—is a variation of an income equivalence model. In simplified terms, income equivalence researchers look at data over a range of income levels and compare percentages of certain adult types of goods consumed and then compare to percentages after having the additional child. The cost of the additional child is the amount of income needed to restore the percentage of income spent on these specified adult goods. This is the definition of child costs in Van der Gaag's study of low-income families that underlies Wisconsin-style models.

For Williams' Income Shares models, the approach is to look at intact families with and without the additional child and compare income and consumption levels when the share of adult goods consumed has returned to the pre-additional child level. The extra *total* consumption is attributed to the child and is the estimate of child costs. The measure is indirect—there are no components for actual expenses. There are no components for child costs of food, housing, medical costs, etc. Williams' Income Shares model is based on the academic work of David Betson who developed his own version of a Rothbarth estimator for child costs. In his model, the specified bundle of adult goods is: adult clothing, tobacco, and alcohol. If two families of different size have the same proportion of their total expenditures on these adult goods, they are

---

[6] Apparently, the only appeals case to address the issue of using child support guidelines specifically designed for welfare cases in non-welfare situations was in Oregon. Although not in the context of constitutional issues, the Oregon Supreme Court in *Smith v. Smith*, 626 P2d 342 (1981) specifically stated that it is not appropriate to use welfare guidelines in higher income situations, citing a long list of economic and equity reasons (with many of those repeated in this article).

[7] See the recommendation of the Federal Advisory Panel on Child Support Guidelines, appointed by the U.S. House Ways & Means Committee in Robert G. Williams, *Development of Guidelines for Child Support Orders*, U.S. Department of Health and Human Services, Office of Child Support Enforcement, September 1987, p.I-16.

[8] Ibid., Preface.

deemed to be equally well off economically. As noted in Williams' own notes on his methodology:

> Of the models used by Dr. Betson for these new estimates of child-rearing expenditures, the "Rothbarth estimator" seems to have the most economic validity and plausibility. As discussed in more detail below, this estimator defines equivalent well-being between households (with and without children, for example) in terms of their spending on "adult goods." In our judgment and in the judgment of Dr. Betson, estimates based on this Rothbarth model constitute the best available evidence on child-rearing costs for use in the development of child support guideline tables.[9]
>
> Several economic methodologies have been developed to produce such estimates [of child costs]. Most attempt to estimate the marginal, or extra, costs of child-rearing relative to expenditures in the absence of any children. They do so by comparing expenditures between two households that are equally well off economically, one with children and one without. The additional expenditures by the household with children are deemed to be the costs of child rearing.[10]

In contrast to Van der Gaag's emphasis on low-income situations, Williams did evaluate the Rothbarth definition at varying income levels and obtained child cost estimates with the appropriately shaped pattern—that of declining percentages at income levels higher than low income levels. This, however, does not mean the methodology identified the estimated level of child costs correctly nor the proper slope of the guideline decline in percentages of income. The Income Shares methodology appears to overstate child costs.

Reasons Behind Income Shares Model's Overstatement of Child Costs

There are several reasons why Williams' methodology leads to an overstatement of child costs: (1) non-recognition of a budget constraint, (2) the choice of adult goods share of consumption as a target definition, and (3) the use of intact families to estimate child costs. First, the income equivalence approach ignores the budget constraint faced by families who have children. In "real life," families do not spend on children based on some notion of extra income for economic well-being equivalence, but must make spending decisions based on the same level of income as prior to having the additional child. Furthermore, families assume their economic standard of living will decline as a result of new child costs. The income constraint seen in real life leads to much lower actual child costs than those that are estimated by income equivalence models of child costs—as in Income Shares. The bottom line is that the Income Shares tables for child costs—at every cost level—are based on more income than the parents actually have. This leads to an overestimation of child costs.

The choice of adult goods consumed as the defining measure of income equivalence leads to an upward bias for child cost expenditures. Not only is there an income constraint, but there are

---

[9] See Robert G. Williams, David A. Price, & Jane C. Venohr, *Economic Basis for Updated Child Support Schedule, State of North Carolina*, November 24, 1993, Policy Studies, Inc., Denver, Colorado, pp. 3-4.
[10] *Id.* p. 8.

substitution effects—consumers switching consumption between types of goods—that make the approach of targeting a fixed share of adult goods inappropriate. The child actually becomes a consumption good for a parent. Notably, consumption of some of the particular adult goods chosen by Williams to target—tobacco and alcohol—may be intentionally consumed less as a result of having children. The parent consumes fewer adult goods after having the child as a matter of choice. Using a standard that targets equalizing consumption shares of adult goods overstates child costs because families choose to consume fewer adult goods after having children. This standard results in an income level that is too high for the comparison of the change in total consumption that is attributed to child costs.[11]

Both Wisconsin-style guidelines and Williams' Income Shares guidelines are based on studies of intact families. A key economic feature of divorced and unwed families is that there is dramatically higher household overhead compared to intact families. Instead of paying a mortgage or rent on one house, there are now payments for two. This also is the case for overhead items such as utilities, insurance, and probably transportation (automobiles). Higher overhead means that the amount of income left over for other spending is less than in an intact family situation. Notably, one of the "other" categories would be for child costs. Higher overhead of divorced families would have the effect of reducing the percentages of overall income spent on children. By using intact family data, Wisconsin-style and Income Shares models tend to overestimate child costs.

The Myth That Income Shares Estimates of Child Costs Are Low

In the very limited amount of literature discussing the nature of the Rothbarth estimation technique, there are assertions that this methodology is biased downward and can be considered a "lower bound" (floor) to estimates for child costs.[12] This is based on the belief (that is never substantiated in studies) that with the addition of children, adults choose to consume more purely adult goods and fewer goods shared between the adults and children. This shift supposedly is because when a good is shared with kids, the adult has to purchase more to have the same amount of the adult's consumption, thereby raising the overall perceived price of the shared good. Supposedly, since a family shifts toward greater consumption of adult goods after having additional children, it takes less income to restore the previous level of consumption of targeted adult goods. This allegedly leads to an underestimate of child costs since this additionally needed income to restore the standard of living is less than if the household did not have this change in preference.

But this argument completely lacks credibility with the consumption goods used in the Betson-Rothbarth estimator: alcohol, tobacco, and adult clothing. The Betson-Rothbarth technique uses the share of total consumption of these goods to measure overall well being for the family. For the argument that Betson-Rothbarth underestimates child costs to be true, one would have to believe that when a household has an additional child, the adults suddenly decide to drink more

[11] The corollary is that any adjustments to Income Shares basic cost estimates—with the adjustment based on percentage add on factors (a multiple of the base)—exacerbates the upward bias. An example would be age-of-child adjustments. Another example would be the Income Shares multiplier (allegedly economically based) for shared custody situations.

[12] See the October 1990 "Lewin Report" on child costs, section 2, page 29.

alcohol, smoke and chew more tobacco, and go on spending binges for adult clothes. Common sense tells us that social pressure from other family members tends to lead to less consumption of these particular goods after having an additional child. Economic studies also tell us that consumption of these goods does not respond well to changes in income and therefore require larger increases in income to restore previous levels of consumption. Therefore, Betson-Rothbarth likely overestimates child costs. As a consequence, Betson-Rothbarth estimates of child costs cannot be argued to be a floor to "true" child costs.[13] Betson-Rothbarth estimates more likely should be considered a newly discovered <u>upper</u> limit to child costs. Rogers in 1999 published that in most typical types of cases in which the child support award is based on Betson-Rothbarth estimates and in which the custodial parent has significantly lower gross income (30 percent less in the study), the custodial parent actually ends up with a significantly higher standard of living than the non-custodial parent.[14] Without basis, this erroneous "lower bound" argument has been used to discredit estimates of child costs that are lower than Betson-Rothbarth estimates.

II. Favored Tax Treatment for Custodial Parents and Treating Tax Benefits as a Cost Offset

One reason why obligor only and Income Shares methodologies are not soundly based on economic principles is that they do not take into account the significant cost offset enjoyed by the custodial parent through favored tax treatment. Additionally, the progressive income tax structure in the U.S. means that child costs decline as a share of gross income—meaning that most obligor-only guidelines conflict with actual child cost patterns. As will be shown further below, the tax benefit offset helps the custodial parent enjoy a higher presumptive standard of living than the non-custodial parent in most income situations—even when the custodial parent earns significantly less prior to the child support transfer. For all of these reasons, it is appropriate to review the favored tax treatment received by custodial parents. This includes a review of how tax treatment has changed since development of Wisconsin-style guidelines.

Differences in Tax Treatment Between Head of Household/Custodial Parent Versus Single-Taxpayer/Non-custodial Parent

[13] In economic terms, demand for these goods (alcohol, tobacco, and adult clothing) has shifted down due to a change in preferences (the new child reduces the acceptability of using alcohol and tobacco) and due to product substitution (toward child goods, also reflecting a change in preferences). But as income is increased in the Betson-Rothbarth comparison to "return" to the same level of consumption, demand is income inelastic (not very responsive). Hence, substantially more income is needed to boost spending on these goods back to the pre-child level. The difference in total consumption between these two income levels is exaggerated. Therefore, "child cost"—which is defined as this difference in total consumption—is thereby exaggerated. These economic facts are quite basic to typical graduate students in economics and show that the claim that the Betson-Rothbarth child cost tables are a "floor" for child costs has no economic merit. The typical Betson-Rothbarth advocate "ignores" the fact that there are two very different factors changing the consumption levels—a change in preferences lowering consumption (a non-income factor) and income boosting spending in this "before and after" experiment.

[14] See R. Mark Rogers, "Wisconsin-Style and Income Shares Child Support Guidelines: Excessive Burdens and Flawed Economic Foundation," *Family Law Quarterly*, Spring 1999, 149.

From Federal form 1040 from the Internal Revenue Service for calendar tax year of 2000, the divergent treatment of custodial and non-custodial parents is substantial:

- The standardized deduction (line 36, Form 1040), for a single person (the non-custodial parent) was $4,400 compared to $6,450 for a head of household taxpayer (the custodial parent). This is a bonus of $2,050 in deductions for the custodial parent.

- The custodial parent only is able to claim the dependent exemptions as a legal right (lines 6c and 38, Form 1040). The 2000 value of each dependent exemption is $2,800.

- For low income and moderately low income working parents, custodial parents receive dramatically more favorable treatment than do non-custodial parents in terms of the size of earned income credits under Federal income tax law, calendar 2000 code.

  The earned income credit was as much as—
  - $353 if you did not have a qualifying child (non-custodial parent),
  - $2,353 if you had one qualifying child, or
  - $3,888 if you had two qualifying children.
  - Under special circumstances there are additional credits for a third child.

- The Taxpayer Relief Act of 1997 gave custodial parents a tax credit of $400 per child up to two children and additional credit for a third child under special circumstances. The credit went to $500 per child in 1999.

- The marginal tax rate increases for head of household taxpayers kick in at higher income threshold levels than for single, non-custodial parents. This is seen in Table 2, showing Schedule X and Schedule Z, 2000 1040, Forms and Instructions, Department of the Treasury, page 71.

The Economic Growth and Tax Relief Reconciliation Act of 2001 boosts the custodial parent's after-tax advantage even more. The new law lowers from 15 to 10 percent the tax rate for the first $12,000 of taxable income on a joint return, $6,000 for singles, $10,000 for heads of household, and $6,000 for married persons filing separate returns. The creation of the 10 percent bracket provides tax savings of up to $600 for married couples; $300 for singles and $500 for heads of household. Lowering the tax rate on the lowest income bracket also lowers the average rate for those earning above that bracket. In addition to the greater benefits to custodial parents from lowering the tax on the lowest income bracket, the Tax Relief Act of 2001 will double the size of child credits over the next several years. The per child credit rises from $500 in 2000 to $600 in 2001. The per child tax credit subsequently rises to $700 in 2005, $800 in 2009, and $1,000 in 2010. Custodial parents' after-tax advantage that is solely attributable to custody of children rises sharply as a result of the Tax Relief Act of 2001. These tax benefits should be treated as offsets to child costs and should be equitably shared with the non-custodial parent that shares responsibility of paying child costs attributable to the same children.

Table 1.

Schedule X—Use if your filing status is **Single**

If the amount On Form 1040, Line 39, is" Over --	But not over--	Enter on Form 1040, line 40	of the amount over--
$0	$26,250	……… 15%	$0
26,250	63,550	$3,937.50 + 28%	26,250
63,550	132,600	14,381.50 + 31%	63,550
132,600	288,350	35,787.00 + 36%	132,600
288,350	---------	91,857.00 + 39.6%	288,350

Schedule Z—Use if your filing status is **Head of household**

If the amount On Form 1040, Line 39, is" Over --	But not over--	Enter on Form 1040, line 40	of the amount over--
$0	$35,150	……… 15%	$0
35,150	90,800	$5,272.50 + 28%	35,150
90,800	147,050	20,854.50 + 31%	90,800
147,050	288,350	38,292.00 + 36%	147,050
288,350	---------	89,160.00 + 39.6%	288,350

Source: "2000 Tax Rate Schedules," p. 71, 2000 Federal Form 1040

The Impact of Tax Benefits on Each Parent's Ability to Pay Shares of Child Costs

Chart 1 summarizes the difference in tax code treatment of custodial parents (CPs) to that of non-custodial parents (NCPs). The horizontal axis is gross income for each parent (with each having the same gross income). The vertical axis is the net income advantage that the custodial parent has at each level of gross income. It shows the after-tax income of the CP minus the after-tax income of the NCP. Taxes are Federal and Georgia (as a state example) personal income taxes, Medicare, and Social Security taxes (2000 tax code). Earned income credits are added. Standard deductions are used. Chart 1 shows a dramatic after-tax advantage for the custodial parent.

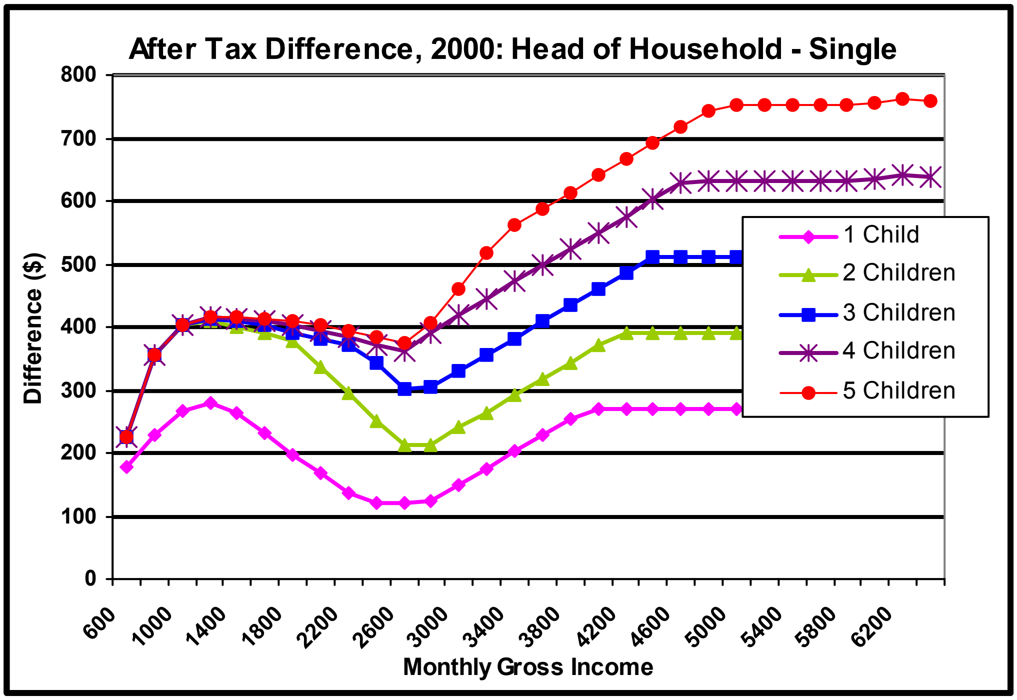
As seen in the chart, the first "hump" is primarily due to the earned income credit that the custodial parent receives as a cost offset. The rising advantage on the right two-thirds of the chart is due to differences in marginal tax rates. Deductions and exemptions also boost the overall level for custodial parents. Use of gross income for guidelines ignores the advantage that custodial parents receive from preferential tax treatment. This advantage typically is worth several hundred dollars in net income per month. For example, at gross income of $4,000, the custodial parent with two children has about $370 more net income monthly than the non-custodial parent to support the children (roughly $4,400 after tax extra income annually). At low-income levels, the difference is quite striking. A little above the poverty level, for equal levels of gross income, the custodial parent has 30 to 50 percent more after-tax income than the non-custodial parent for which to support the children due to favorable tax treatment.

On a final note regarding ability to pay near the poverty level, the above analysis does not include discussion of other potential cost offsets that a custodial parent has that the NCP does not have—or at least the CP has more readily. Food stamps, WIC, Medicaid, housing subsidies are generally more available to the CP and are not part of the formula for sharing child costs and cost offsets with the NCP.

Because of these tax code changes, for a given level of gross income, the custodial parent has a significantly higher ability to provide the CP's share of child costs compared to the NCP. Use of gross income without adjustments for the sharing the child tax benefits between both parents clearly creates an unequal burden for the NCP.

States have differing statutes and case law on whether a court can award deductions and exemptions to the non-custodial parent over the objection of the custodial parent. However, this issue can be easily side-stepped to achieve economic equity. Courts can address the differential tax treatment by treating the tax benefits as a direct cost offset against total child expenditures prior to determining the child support award. The child support guidelines should take into account the favored tax treatment for the custodial parent by requiring that the tax benefit be deducted from overall child costs as part of a specific step in the calculation of the NCP's child support obligation. The cost offset the custodial parent receives would simply be the difference in the CP's after-tax income comparing filing as head of household and filing as a single taxpayer. States' statutory and case law clearly indicates that each parent has an equal duty to bear the financial costs of rearing children. It only follows that both parents have an equal right to share the cost offsets of tax benefits attributable to the same children.

Chart 1.



III. Introduction to An Economic Based Child Support Model: Cost Shares—An Expenditure Based Model

In the mid-1990s, the Children's Rights Council (CRC) developed a prototype child support model based on the parents' sharing of child costs with the costs being based on actually measured costs in surveys of households.[15] This sharing of costs differs from the Betson-Rothbarth model which is a sharing of income (based on a flawed, upwardly biased measure of the amount to be shared). The CRC model focuses on sharing the marginal costs of children and is differentiated from Income Shares methodology by being called Cost Shares. By marginal cost, one means the added costs incurred by a household by having a child. For example, one looks at how much a utility bill is higher after having a child than before to calculate a child's share of utility costs. This is the appropriate method since the adult household would incur the earlier costs without the child anyway.

It is appropriate to review in a little greater depth what sets the CRC model apart. The CRC Cost Shares child support guideline model diverges from percent-of-obligor income models and Income Shares models in several key facets. For the CRC model, child expenditures are based on actual costs as measured by surveys. Percent-of-obligor and Income Shares models base child costs on indirect estimation methodologies. Their estimates of child costs are derived by

[15] See Donald J. Bieniewicz, "Child Support Guideline Developed by Children's Rights Council," Chapter 11, *Child Support Guidelines: the Next Generation*, U.S. Department of Health and Human Services, April 1994, pp. 104-125.

comparing changes in adult consumption before and after having a child or additional child. Cost Shares measures are based on actual child costs—not some theoretical concept.

CRC child expenditures are taken from surveys of single-parent households rather than of intact households. Similarly, the appropriate income used in the support tables is average gross income of the two parents instead of combined income.

The Cost Shares methodology explicitly shares between the parents both child costs and child cost offsets. An explicit measure of child-related tax benefits is used as a cost offset as an intermediate step in determining the economically appropriate child support award. This is a procedural advance over percent-of-obligor and Income Shares models which ignore the tax benefit impact on net child costs. It also is a procedural simplification for states that allow courts to order the custodial parent to sign over (per IRS regulations) the tax benefits every other year.

The Cost Shares model has components for various major child cost categories. These are housing, food, transportation, clothing, health, child care & education, and "other." Each category is based on an average of the expenditures by category from survey data. Families within the survey varied as to whether they spent specifically on day care or medical insurance. While the medical insurance likely averaged a small figure, the child care figure is quite significant. With the new category for "child care & education" it is easy to exclude this category from the total and to treat child care & education as an "add-on" in the Cost Shares model. The "schedule of child costs" in Table 2 reflect total child costs excluding child care & education.

Importantly, explicit dollar values for a presumptive award by category allows for a specific basis for rebutting the presumption. Neither percent-of-obligor only nor Income Shares models have components to create a rebuttable presumption. Neither of these models have components because the estimates are made indirectly by measuring changes in adult consumption—not actual child costs.

Basic Steps in the Cost Shares Model

The CRC Cost Shares methodology can be implemented with varying degrees of "richness." Just as Income Shares models have differing levels of depth for quantifying (putting into the guidelines formula), so does the Cost Shares model. **The basic model makes the following simple calculations:**

1) Determines basic child costs for a single-parent household using an average of both parents' income as the income factor. The basic child support table has child costs for a single-parent household according to gross income.

2) Adds other non-basic expenses when appropriate.

3) Deducts from total child costs the tax benefit that the custodial parent receives that is solely attributable to having custody of the child(ren).

4) Allocates the net child cost obligation (net of tax benefits) between the two parents based on each parent's share of combined after-tax income that is above a recommended self-support level.[16]

The CRC guideline sets a limit on the amount of the child support obligation so that the obligor retains income sufficient for basic living needs and so the state and employer (when involved with an income deduction order) comply with the Consumer Credit Protection Act. Where the NCP provides direct support for the child, the CRC guideline also considers this when setting the award. This can be handled through simple cross crediting based on the number of overnights visited or by using a more sophisticated approach. That would be to include adjustments for differentiating the fixed cost of housing from other "moveable" child expenses when the non-custodial parent provides housing for the child(ren) on a year round basis; that is, the NCP pays for and maintains housing for the child(ren) even when they are not in the NCP's custody—e.g., the child(ren) has/have a bedroom in each parent's house or apartment. The Cost Shares formula can be designed to quantify how to allocate child costs based on each parent's fixed costs for the child(ren), moveable costs, and the number of days and/or nights each parent has parenting time with the child(ren). Such a methodology can be a replacement for current methodologies in use for shared parenting (joint physical custody or extended visitation) adjustments to basic guidelines. Nonetheless, the shares adjustment can be a simple, analogous version to current methodologies by simply using overall net child costs and making a simple allocation based on each parent's share of total parenting time.

Table 2 shows expenditures on children for one, two, and three children. Data are not shown for four or more children since the original data source compiled data only for households with one through three children. The authors are currently updating these tables based on recently released data from the Department of Agriculture as well as other sources, with publication anticipated in coming months. Because the housing component is based on data from the U.S. Department of the Interior survey of housing costs in its southeastern region, these child cost tables should be viewed as appropriate for states in this southeastern region (as discussed further below).

Underlying Data for the Cost Shares Child Support Model

The primary source of data for the Cost Shares child support model is 2001 Expenditures on Children by Families, published by the Family Economics Research Group (FERG), U.S. Department of Agriculture.[17] Data used to estimate expenditures on children are from the 1990-

[16] A self-support reserve of 133 percent of the poverty threshold is the recommendation of an appointed panel on medical child support reporting to the U.S. Department of Health and Human Services and U.S. Department of Labor. See U.S. Department of Health and Human Services, "21 Million Children's Health: Our Shared Responsibility, The Medical Child Support Working Group's Report, Full Report," June 2000, p. 70. The poverty threshold for a one-adult only household in 2000 is $8,959 annually or $747 monthly.

[17] More detail on the source data can be found in Donald J. Bieniewicz, "Child Support Guideline Developed by Children's Rights Council," Chapter 11, *Child Support Guidelines: the Next Generation*, U.S. Department of Health and Human Services, April 1994, pp. 104-125.

92 Consumer Expenditure Survey—Interview portion. This survey is administered by the Bureau of Labor Statistics, U.S. Department of Labor. This survey is based on a sample of 12,850 husband-wife households and 3,395 single-parent households. The Bureau of Labor Statistics weights the survey data to reflect the composition of the overall U.S. population of interest. Econometric analysis was used to estimate household and child-specific expenditures. That is, statistical techniques were used to evaluate the expenditure data to control for family size, income, and other factors to determine expenditures on children by family size.

The FERG report provides estimates of family expenditures on children for separate cost categories. These are housing, food, transportation, clothing, health, child care & education, and "other." Each category is based on an average of the expenditures by category from survey data.

The FERG estimates are on a marginal cost basis, except for the housing, transportation, and other miscellaneous cost estimates, which are per capita (household costs are allocated equally to all household members, including children). Per capita estimation is known to yield much higher estimates of child costs than marginal cost estimation and should be viewed as an "upper limit" for child costs for these categories.

To obtain marginal housing costs for children, the housing costs in the Cost Shares tables originally were based on a housing survey by Dr. David Garrod of Purdue University (currently retired) instead of the unrealistically high per capita estimates from the FERG report. Adjustments were made to the data to add furniture and utilities costs. More recently, the Cost Shares model developed for reform legislation in the state of Georgia incorporated housing cost data from the latest U.S. Department of the Interior's "Regional Quarters Rental Survey Covering Government-Furnished Quarters Located in the Southeast Survey Region," July, 2001. Data also are available for other regions in the U.S. and are the basis for deriving a housing cost component that can be used for other states. These are extensive surveys of private housing to provide a basis for determining market rents to charge government employees for government-furnished housing. Data are used for owner-occupied types of houses—not for apartments. The current version of the Cost Shares child cost tables has an expanded definition for the housing component cost. The housing component includes not only the rental cost for owner-occupied types of houses but also includes utilities, maintenance, and furnishings. These costs are derived from cost ratios (of these costs to rental costs) from the Bureau of Labor Statistics.

The FERG data are used "as is" from the single-parent cost tables for food, clothing, and health care. For transportation and "other," the husband-wife data are used as a proxy for marginal costs for single-parent households. Both sets of data are on a per capita, but the husband-wife per capita data are closer to the marginal child costs for single-parent households.

For future updates of these tables, it may be appropriate to base the transportation component on a cost per mile basis for the family trips that are solely attributable to the child's activities. If refined and incorporated, this approach would lead to substantially lower transportation costs.

The Cost Shares model has the same components as the FERG estimates. However, for the Cost Shares model, child expenditure levels were interpolated at $50 income increments using a regression based technique.

Importantly, because the focus of child support is on single-parent households, the appropriate income level for determining the expenditure level is the average income of the two parents. Two households are being supported. The same standard of living cannot be sustained as in an intact two-parent household. Notably, the maximum standard of living that can be maintained in both households is the average income of both parents. Furthermore, an intact family standard for child support would violate equal protection for the non-custodial parent since the intact family standard of living can be maintained for the custodial parent only at the expense of the non-custodial parent with a disproportionate burden of child support. Finally, the single-parent standard is economically appropriate because the child support award is spent in a single-parent household.

Table 2

Child Costs Based on Cost Shares Methodology

Notes: The following table is for total expenditures on one, two, and three, four, and five or more children based on gross income of a single-parent household. The income level associated with the expenditure level on children is the average of both parents' incomes. The expenditure levels shown are total child costs excluding child care and education, to be netted against tax benefit offsets and then allocated between both parents. Income and expenditures for 2001. Copyright 2002, R. Mark Rogers and Donald J. Bieniewicz.

Average Monthly Gross Income	Monthly Expenditures on 1 Child	Monthly Expenditures on 2 Children	Monthly Expenditures on 3 Children	Monthly Expenditures on 4 Children	Monthly Expenditures on 5 or More Children
1000	449	681	773	872	941
1050	453	686	782	882	952
1100	459	693	789	890	961
1150	462	700	794	895	967
1200	466	706	804	907	979
1250	471	712	810	913	987
1300	475	720	819	924	997
1350	478	727	825	930	1005
1400	483	734	834	941	1016
1450	488	739	841	948	1024
1500	493	746	849	957	1034
1550	497	754	855	964	1041
1600	501	760	862	972	1050
1650	506	765	871	982	1061
1700	510	772	879	991	1071
1750	513	779	885	998	1078
1800	518	785	893	1007	1088
1850	523	792	901	1016	1097
1900	526	797	908	1024	1106
1950	532	806	916	1033	1116
2000	536	812	922	1040	1123
2050	539	819	931	1050	1134
2100	544	826	938	1058	1142
2150	549	832	945	1066	1151
2200	553	840	953	1075	1161
2250	557	844	961	1084	1170
2300	562	850	969	1093	1180
2350	566	858	975	1100	1187
2400	570	864	983	1109	1197
2450	573	872	991	1118	1207
2500	578	877	998	1125	1216
2550	584	885	1006	1134	1225
2600	588	891	1012	1141	1233
2650	593	897	1021	1151	1244
2700	596	904	1030	1162	1254

Table continues.

Table 2 Continued

Notes: The following table is for total expenditures on one, two, and three, four, and five or more children based on gross income of a single-parent household. The income level associated with the expenditure level on children is the average of both parents' incomes. The expenditure levels shown are total child costs excluding child care and education, to be netted against tax benefit offsets and then allocated between both parents. Income and expenditures for 2001. Copyright 2002, R. Mark Rogers and Donald J. Bieniewicz.

Average Monthly Gross Income	Monthly Expenditures on 1 Child	Monthly Expenditures on 2 Children	Monthly Expenditures on 3 Children	Monthly Expenditures on 4 Children	Monthly Expenditures on 5 or More Children
2750	600	911	1036	1168	1262
2800	605	919	1044	1177	1272
2850	609	925	1051	1185	1280
2900	613	930	1060	1195	1291
2950	617	937	1067	1203	1300
3000	622	944	1074	1211	1308
3050	627	950	1081	1219	1317
3100	631	957	1089	1228	1326
3150	635	964	1096	1236	1335
3200	640	970	1105	1246	1346
3250	644	977	1111	1253	1353
3300	648	983	1118	1261	1362
3350	653	990	1126	1270	1371
3400	656	997	1134	1279	1381
3450	660	1003	1142	1288	1391
3500	666	1008	1147	1294	1397
3550	669	1017	1157	1305	1409
3600	673	1022	1163	1312	1416
3650	679	1030	1172	1322	1427
3700	683	1037	1178	1328	1435
3750	688	1044	1186	1337	1444
3800	690	1050	1194	1347	1454
3850	695	1055	1202	1356	1464
3900	700	1064	1208	1362	1471
3950	704	1069	1216	1371	1481
4000	708	1076	1224	1380	1491
4050	713	1083	1231	1388	1499
4100	716	1089	1238	1396	1508
4150	720	1096	1245	1404	1516
4200	727	1101	1255	1415	1529
4250	729	1108	1261	1422	1536
4300	734	1116	1270	1432	1547
4350	740	1123	1276	1439	1554
4400	743	1128	1285	1449	1565
4450	748	1136	1293	1458	1575
4500	752	1143	1300	1466	1583
4550	755	1148	1308	1475	1593
4600	760	1157	1316	1484	1603
4650	765	1162	1323	1492	1611
4700	769	1170	1330	1500	1620

Table continues.

Table 2 Continued

Notes: The following table is for total expenditures on one, two, and three, four, and five or more children based on gross income of a single-parent household. The income level associated with the expenditure level on children is the average of both parents' incomes. The expenditure levels shown are total child costs excluding child care and education, to be netted against tax benefit offsets and then allocated between both parents. Income and expenditures for 2001.

Average Monthly Gross Income	Monthly Expenditures on 1 Child	Monthly Expenditures on 2 Children	Monthly Expenditures on 3 Children	Monthly Expenditures on 4 Children	Monthly Expenditures on 5 or More Children
4750	775	1175	1339	1510	1631
4800	778	1182	1346	1518	1639
4850	783	1189	1354	1527	1649
4900	789	1195	1361	1535	1658
4950	791	1204	1369	1544	1667
5000	795	1209	1377	1553	1677
5050	801	1217	1386	1563	1688
5100	804	1223	1391	1569	1694
5150	809	1230	1400	1579	1705
5200	813	1237	1408	1588	1715
5250	818	1244	1415	1596	1723
5300	824	1250	1423	1605	1733
5350	827	1257	1432	1615	1744
5400	832	1263	1438	1622	1751
5450	836	1270	1446	1631	1761
5500	839	1277	1453	1639	1770
5550	844	1283	1460	1646	1778
5600	849	1291	1470	1658	1790
5650	853	1296	1477	1666	1799
5700	858	1305	1484	1674	1807
5750	862	1312	1492	1683	1817
5800	866	1319	1500	1692	1827
5850	872	1326	1506	1698	1834
5900	876	1331	1515	1709	1845
5950	880	1340	1524	1719	1856
6000	885	1344	1532	1728	1866
6050	889	1353	1538	1734	1873
6100	894	1358	1547	1745	1884
6150	897	1365	1554	1752	1893
6200	901	1373	1562	1762	1902
6250	907	1378	1569	1769	1911
6300	911	1387	1576	1777	1919
6350	914	1392	1585	1787	1930
6400	920	1401	1592	1795	1939
6450	925	1406	1600	1804	1949
6500	929	1413	1608	1813	1958
6550	932	1420	1616	1822	1968
6600	938	1426	1623	1830	1977
6650	942	1434	1631	1839	1986

Table continues.

Table 2 Continued

Notes: The following table is for total expenditures on one, two, and three, four, and five or more children based on gross income of a single-parent household. The income level associated with the expenditure level on children is the average of both parents' incomes. The expenditure levels shown are total child costs excluding child care and education, to be netted against tax benefit offsets and then allocated between both parents. Income and expenditures for 2001.

Average Monthly Gross Income	Monthly Expenditures on 1 Child	Monthly Expenditures on 2 Children	Monthly Expenditures on 3 Children	Monthly Expenditures on 4 Children	Monthly Expenditures on 5 or More Children
6700	946	1439	1637	1846	1994
6750	951	1446	1647	1857	2006
6800	955	1453	1655	1866	2016
6850	959	1460	1661	1873	2023
6900	963	1467	1669	1882	2033
6950	968	1473	1677	1891	2042
7000	973	1481	1684	1899	2051
7050	977	1487	1692	1908	2061
7100	982	1494	1700	1917	2071
7150	987	1501	1707	1925	2079
7200	991	1508	1716	1935	2090
7250	995	1514	1722	1942	2097
7300	999	1521	1730	1951	2107
7350	1003	1526	1739	1961	2118
7400	1007	1534	1747	1970	2128
7450	1013	1541	1753	1977	2135
7500	1017	1548	1762	1987	2146
7550	1022	1555	1769	1995	2155
7600	1026	1561	1777	2004	2164
7650	1031	1569	1785	2013	2174
7700	1035	1574	1793	2022	2184
7750	1038	1582	1801	2031	2194
7800	1043	1588	1808	2039	2202
7850	1048	1595	1816	2048	2212
7900	1051	1602	1823	2056	2220
7950	1056	1607	1832	2066	2231
8000	1062	1616	1840	2075	2241

End Table 2.

Table 3

Cost Shares Estimate Detail for Two Children***

	NCP, Single Taxpayer Status	CP, Head of Household Status	CP, Single Taxpayer Status
Monthly gross salary	3,500	2,333	2,333
Annual gross salary	42,000	28,000	28,000
Standard deduction	-4,550	-6,650	-4,550
Exemptions	-2,900	-8,700	-2,900
Federal taxable income	34,550	12,650	20,550
Federal income tax	-6,127	-1,901	-3,086
Earned income credit	0	863	0
Child credits	0	1,200	0
Social Security tax	-2,604	-1,736	-1,736
Medicare tax	-609	-406	-406
State adjusted income, annual (Georgia)	42,000	28,000	28,000
State standard deduction	-2,300	-2,300	-2,300
State exemptions	-2,700	-8,100	-2,700
State taxable income	37,000	17,600	23,000
State income tax	-2,033	-799	-1,193
After Tax Income, Annual	**30,627**	**25,221**	**21,579**
Child Cost Calculations, Monthly:			
Average monthly gross income with added adjustments for untaxed income	2,917		
Total child costs excl. child care & ed.	**930**		
Father's fixed expense, med. insurance	110		
Total child costs to be pro-rated by time	820		
Parent's incurred child cost expenses:	**Father's**	**Mother's**	
Basic costs excluding fixed, by time share	0	820	
Tax benefits as cost offset[18]	0	-304	
Father's fixed expense, med. insurance	110	0	
Each parent's total costs incurred	**110**	**516**	
Father's share of mother's expenses	342		
Mother's share of father's expenses		37	
Prelim. cash payment to other parent	**305**	**0**	
Preliminary total obligation	415		
Available income for child support	1,531	777	
Child support obligation	**415**		

***Assumes NO parenting time for the NCP. Components of two-child cost estimate base total of $930: housing, $148; food, $268; transportation, $187; clothing, $94; health, $94; and "other," $139.

[18]This is the difference in the CP's net income, head of household basis less single taxpayer status.

Presumptive award based on (pre-credits):
a) Obligor-only (Georgia version—25% midpoint) $875
b) Income Shares (North Carolina version) $653

An Example of Applying the Cost Shares Methodology

Applying the basic Cost Shares model is not difficult as can be seen in Table 3. Table 3 shows the monthly gross income and after-tax income (2001 tax code) for the non-custodial parent (NCP) and custodial parent (CP). Actually, the model can be applied without naming a custodial parent and a non-custodial parent. In that regard, it is only necessary to know which parent (or both) has head of household tax filing status and which parent gets the child exemptions and credits.

There are two columns for the custodial parent—one with calculations for after-tax income with the tax benefits related to custody (head of household status) and one for without the tax benefits. The difference between these after-tax incomes defines the tax benefit cost offset ($25,221 minus $21,579; $3,642 annually or $303.50 monthly). Average monthly gross income of $2,917 determines the level of child support expenditures to be shared. Looking at Table 2, one can see that for average monthly gross income of $2,900, the associated two-child cost is $930 monthly. This is carried over to Table 3. In this example, there are no added "other" costs not included within the basic table, so total child costs are $930 monthly.

Child costs are allocated to each parent according to which parent incurs the cost. As seen in Table 3, there is an incurred child cost column for each parent. In this example, the father is the non-custodial parent. The medical insurance cost is a fixed cost for the non-custodial parent and goes in that column. Because this expense is included in overall costs (from the cost table), it is subtracted from the total. The remainder, $820, is the amount of child costs that is to be allocated between the parents according to parenting time. In this example, it is assumed that the children are with the custodial parent 100 percent of the time and $820 goes into the custodial parent's cost column.

For this example, the tax benefit from having custody is $304 monthly. This amount is treated as a negative expense for the parent claiming the tax benefits. A tax benefit of $304 for the custodial parent offsets the other costs incurred by that parent. (The after-tax income for the custodial parent is based on single taxpayer status so as to not double-count the cost offset.) The father's incurred costs net of child-related tax benefits are $110 monthly and the mother's, $516.

Each parent is then obligated to help pay the other's incurred child expenses—this meets an equal protection standard. This amount is paid to the other parent and is based on each parent's share of after-tax income that is above a self-support reserve of 133 percent of the poverty threshold. In this example, the non-custodial parent has 66.3 percent of combined income above self support levels. The non-custodial parent owes the custodial parent 66.3 percent of the expenses the custodial parent incurs while the custodial parent owes the non-custodial parent 33.7 percent of the expenses incurred by the non-custodial parent. The non-custodial parent, as seen in Table 3, owes the custodial parent the net of $342 (NCP to CP payment) and $37 (CP to NCP payment) or $305. This is the cash obligation. The total child support obligation is $305 cash plus $110 paid directly for the children's medical insurance—or $415 total. Finally, the court should determine that the total obligation of the NCP does not push the obligor into a financial position in which basic living needs cannot be met by examining if the obligation exceeds income available above self support. If so, then the obligation is set equal to income available.

At the bottom of Table 3, presumptive awards are shown for an obligor only type guideline based on gross income and a "standard" Income Shares guideline. These presumptive awards would be $875 and $653, respectively, compared to the Cost Shares basic award of $398. Using estimates based on actual child expenditures, adjusting for tax benefit offsets, and properly allocating remaining costs to both parents results in an economics based award that is substantially lower than presumptive awards based on current child support models.

Cost Shares estimates show that current presumptive awards typically are two to three times awards justified by actual expenditures on children—not taking into account parenting time adjustments for the non-custodial parent. A comparison of Wisconsin-style, Income Shares, and Cost Shares awards is shown in Chart 2. The left axis is the award amount in dollars per month. The bottom axis is obligor monthly gross income. In this example, the custodial parent is assumed to have 70 percent of the gross income that the non-custodial parent has. The Cost Shares award is shown with and without the tax benefit adjustment to show how significant this factor is. At a minimum, current child support models should incorporate this feature for equal protection considerations.

Chart 2.

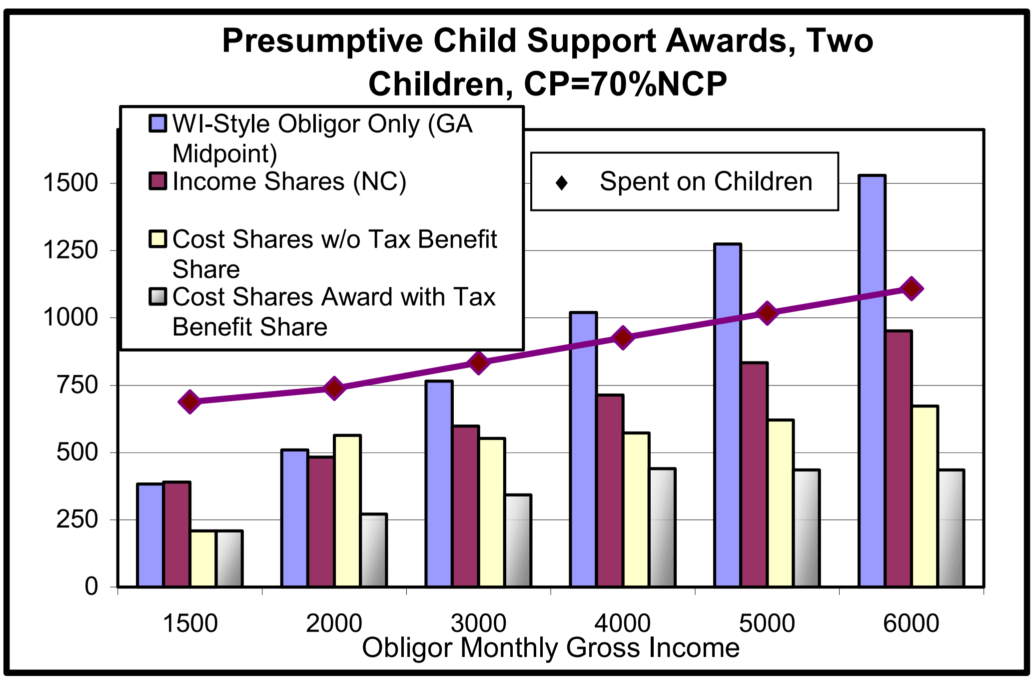


Chart 2 also shows awards that highlight self-support features of the Cost Shares methodology. For the comparative awards at the $1,500 monthly level, there is little difference in the Cost Shares awards with and without the tax benefit share. This is because the "without" award has been constrained by available income that is above self-support levels. The award equals this available amount. Lack of income results in some child costs not being covered. Under the other models, this is the resulting (and growing) arrearage. At the $2,000 level, the "without tax benefit" Cost Shares burden is relatively high for the non-custodial parent. This is because the custodial parent has self-support protection also and in this instance results in the non-custodial parent having a large share of combined income above self-support levels. At low and moderate income levels, the self-support reserve "tilts" the responsibility of covering child costs to the parent with the higher income. For the lower income parent, the self-support reserve protects a greater share of that parent's income than for the higher income parent. This effect diminishes when both parents are at high income levels.

Chart 2 shows not only the different amounts for a child support award using differing models, but also shows the dollar amount that is typically spent on two children in a single-parent household (the line with diamonds). The expenditure is based on an income average of the two parents. This is the amount that is actually spent on the children as consistent with the Cost Shares award that is inclusive of treating the tax benefits as negative costs.

Chart 3 better clarifies this. The amount spent continues to rise as gross income rises, but the costs shares award flattens somewhat at higher income levels. This is because the tax benefit at these income levels rises as fast as the amount spent on the children. The custodial parent contribution also flattens out. Yet, the underlying total spent on the children continues to rise over all shown income levels. Essentially, at low and low middle income levels, the higher income obligor pays a child support award that rises sharply. At higher income levels, it is the rising government contribution that fuels higher overall spending on the children. Because of these economically appropriate considerations, the cost share award as shown indeed is appropriate for supporting a rising expenditure level that is consistent with single-parent households.

In contrast, as seen in Chart 2, the Wisconsin-style award not only has the obligor bearing an increasing share of child costs but has the child support award dramatically exceeding total child costs—not taking into account that there is the added benefit to the custodial parent of the tax offsets. The Income Shares award also shows the obligor taking on an accelerating share of total child costs as income rises.

Chart 4 shows that the Cost Shares award is quite adequate—perhaps even generous. The Cost Shares award, government tax benefits, and custodial parent contribution are assumed to be spent on the children in a single-parent household with income equal to the average of the two parents. Chart 4 shows that the amount spent on the children is a very large percentage of the target income level for the single-parent household. The expenditure share of income is as high as 50 percent just above the poverty level and still well above 20 percent at high-income levels. When the spending level on children is expressed as a share of custodial parent income, the shares are even higher.

Chart 3.

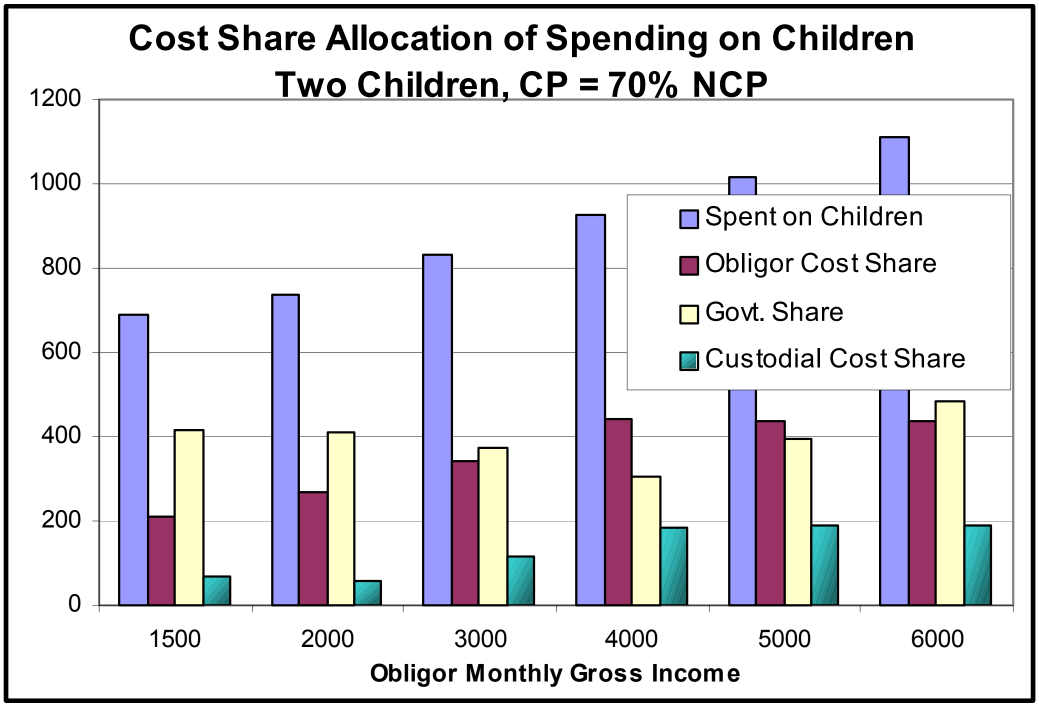
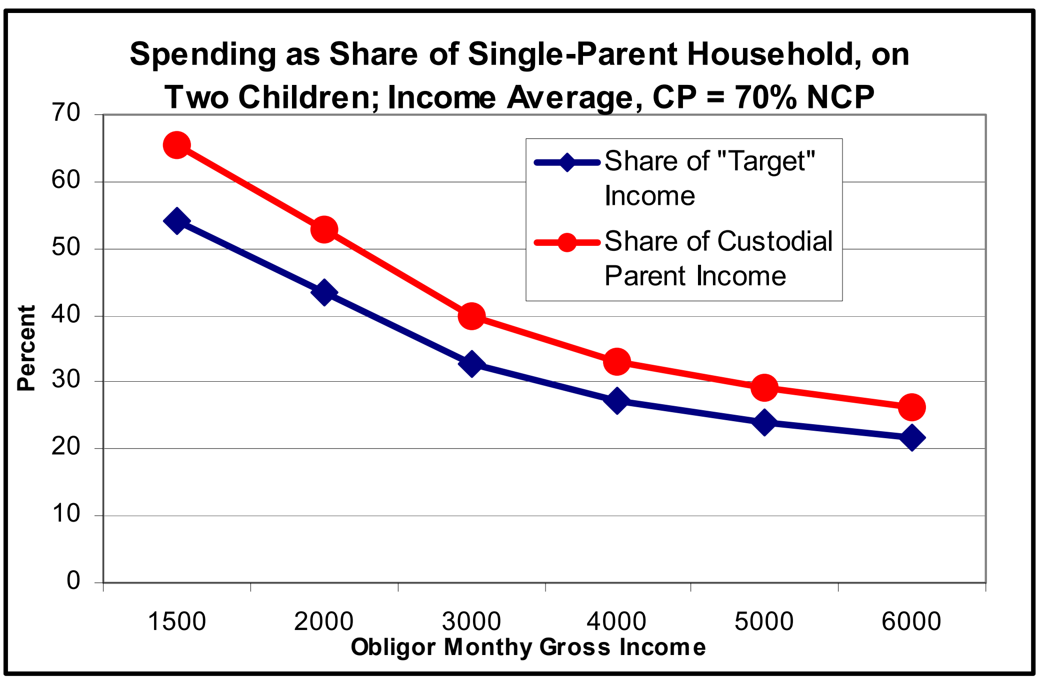


Chart 4.



Which Income Basis: Why Average Income Instead of Combined Income?

The use of average income helps to guarantee a child support award that is consistent with a budget for both the CP and the NCP and that is also consistent with a reasonable and sustainable standard of living for both. A child support award that is based on combined incomes is not economically rational. The family is no longer intact—or never was intact—and has household overhead that is notably higher per adult income earner. Neither the CP nor the NCP engages in actual child expenditures based on intact family income and household costs. Each parent engages in economic behavior clearly different from that of an intact household. Each parent makes expenditure choices as a single-parent/earner. Both the CP and the NCP have higher adult overhead and spend on children accordingly.

A joint income standard for child support imposes a greater burden on the NCP than the CP. The NCP is forced to pay for child costs assuming less burdensome intact family overhead that is not the actual circumstance. Instead, the NCP pays child support for intact family expenditure standards but truly can only afford one-parent household spending because of higher overhead. In contrast, the CP receives intact family based child support but actually spends on the child as though the CP is in a one-parent household because that indeed is the case. The intact family based child support that exceeds one-parent based expenditures is then a windfall—or profit—for the CP. The most obvious example when the joint income basis for child support benefits the standard of living for the CP at the expense of the NCP is when both parents have the same income. This preference for boosting the CP standard of living can be construed as a violation of equal protection—especially since it is not rational to base child support on combined income in non-intact family situations with higher overhead. Certainly, child support guidelines should have rational outcomes when both parents have equal financial resources.

A one-parent household standard treats unwed situations the same as divorced situations. This is desirable for equal protection considerations. Both situations have higher overhead. The one-parent household basis also has the desirable effect of keeping the issue of alimony separate from determining the appropriate target level of child expenditures. The court does not have to address the issue of that a family has never experienced the standard of living created by a joint household of those two parents. Certainly, it is not rational to use an intact family basis for support when such a standard never existed and when different overhead (higher) exists.

However, the average income basis does take into account differences in income between two parents. Whether an unwed or divorced situation, the child support basis is boosted if the NCP has higher income than the CP and in a Cost Shares formula the higher income parent would incur a higher share of the support burden.

Miscellaneous Issues in Applying the Cost Shares Model

Child Care, Medical Expenses, and Other as Above the Line or Below the Line Expense

Special cost needs can be handled both "above the line" and "below the line" in terms of the basic obligation. By "above the line," this means that the item would be included as part of on-going child support and would be a part of an income deduction order (IDO) should an IDO be made. This is an important issue in terms of whether the particular cost issue is likely to occur and continue to occur. For example, if child costs include day care, the question becomes, will the CP actually continue to incur day care expenses or will the CP discontinue high-cost, private company day care and find some other option after getting the day care expense made a part of the child support order? Will the NCP be made to pay child support for an expense that no longer exists but for which the NCP cannot afford to seek modification nor for which the court will want to "waste" time for a "minor" (for the court) issue? Yet, whether day care expenses are part of the above the line court order or on a reimbursement basis is an important issue. Day care easily can be $400 to $600 a month with the NCP share $200 to $300 or more a month. If day care is above the line and the CP ceases to incur private company expenses, then the CP is receiving a windfall in child support and the NCP continues to pay a portion of child support with no rational basis for that portion being incurred.

To preclude this inequity, non-recurring, non-guaranteed expenses probably should be below the line and included as part of the order on a reimbursement basis. Should non-payment (arrears) occur, then the arrears could be added above the line.

Because child care costs are potentially a "budget buster" for both the CP and NCP, the court probably should give preference to in-kind offers of assistance by either parent before allowing a claim for actual child care expenses through a third party provider. For example, if the NCP offers to alter the NCP's work schedule to provide child care or to offer one or both of his or her parents as care givers during the day (with an affidavit from the child's grandparent), then such an offer should be given priority over a scheme that sends either of the two parents' financial resources to outside parties.

Medical expenses are already included in the basic tables on average expenditures. Any child support order requiring the NCP to pay for medical and/or dental insurance should treat that payment as a credit against the basic presumptive cost. Otherwise, NCPs are held to a higher standard than for intact family parents. Also, the NCP would be paying medical costs twice. Both would violate equal protection standards. However, using this model, either party could argue to rebut the medical expense amount that should be part of the total child costs to be shared. Component rebuttal is one of the key features of this model.

Child Support Adjustments for Joint Custody and for Crediting the Non-custodial Parent for Non-custodial Parenting Time

Equal protection should always be a consideration when designing any portion of child support guidelines. A key question in designing child support guidelines is "what is the basis for a custodial parent being 'entitled' to child support?" The answer generally is along the line that the custodial parent has physical custody of the child and incurs costs to support the child. A variation is that the child is entitled to a share of the other parent's income when in the care of the custodial parent. For either situation, for equal protection to be in effect, the non-custodial parent should have the same entitlement when the child is in the non-custodial parent's care. Equal protection calls for perfect symmetry in the application of child support guidelines with the application of the guidelines being pro-rated by parenting time shares.

A more economically sophisticated variation would call for cross-crediting to be categorized by fixed costs and by shiftable costs. Fixed costs would include higher rent or mortgage payment for year-round housing for the child. The argument has been made erroneously that the non-custodial parent should not have child support cross-credited until a threshold is reached in terms of the number of days or nights that the non-custodial parent has the child because the custodial parent incurs fixed costs anyway. The question should be divided into: (1) does the NCP incur fixed costs for additional housing and (2) how much shiftable cost does the NCP incur? Child costs can be cross credited depending on the answer to each question without regard to a threshold and thereby meet equal protection standards.

If child support awards actually reflect true child costs and cross-crediting takes place to accurately reflect each parent's incurred child costs, then there is no monetary incentive to ask for increased shares of parenting time. Only when child support guidelines exceed true costs (representing a profit from custody) do parents ask for or seek to prevent changes in parenting time for financial reasons. Curiously, any argument that an NCP is asking for increased parenting time to reduce child support is at the same time an argument the CP is making a profit from child support.

IV. Child Support Determination—What Should the Role Be for a Forensic Economist?

What are the specific points an economist should present in court? Key points should highlight the issues just discussed. The proper role of an economist broadly should be to rebut the presumptive award. This is a two-fold process: (1) to differentiate the instant case economic circumstances from the economic assumptions underlying the given state's child support guidelines, and (2) to prepare and present to court a child cost estimate based on the economic circumstances of the case and based on actual economic studies on child costs. Rebuttal of the presumptive award requires that the award be shown to be unjust, unfair, and inappropriate for the circumstances. See 45 CFR 302.56 in Appendix material. Distinguishing the case circumstances from guideline assumptions is one part of this rebuttal. Showing divergence of appropriate economic-based child costs from the presumption is the second part of the rebuttal, showing an extraordinary burden for the non-custodial parent and/or an extraordinary windfall for the custodial parent. The key points in such a rebuttal would be as follows.

Showing a Divergence from Guideline Economic Presumptions

Each state's child support guidelines is based on some variation of obligor-only (Wisconsin-style) or Income Shares (Betson-Rothbarth) guidelines. Rebuttal will revolve around showing the lack of applicability or short-comings of the economic underpinnings of these guidelines.

Contrasting the Instant Case from Obligor-Only Assumptions

Child support guidelines for several states were taken from child support guidelines initially implemented by the State of Wisconsin for Title IV-D cases. The underlying economic study and conditions for appropriate application of the guidelines were conducted and published by Dr. Jacques Van der Gaag in 1982.[19] The guidelines were designed to be applicable only if the

[19] Jacques Van der Gaag, "On Measuring the Cost of Children," Child Support: Technical Papers, Volume III, SR32C, Institute for Research on Poverty, Special Report Series, University of Wisconsin, 1982.

household had certain economic characteristics. These underlying economic characteristics of the household are:

- The household is a low-income household. For the study, the <u>households</u> (both parents) averaged annual gross income of $12,000 in 1982 dollars. In year 2000 dollars, this would be household income of $21,426. The underlying study specifically states that at higher incomes, the applicable percentage should decline. The study also assumed the percentage would be applied only after setting aside a self-support reserve. Obligor-only guidelines generally do not have percentages that decline with income.

- The mother is assumed to care for the children and not earn any income outside the home.

- The father is the sole income earner and the percentages applied to the father's income are based on tax law of 1982. Under the tax code in which the percentages are derived, the non-custodial parent that provided over half of the child's support would receive use of all child income tax benefits.

- The low-income characteristic also includes the fact that the guidelines were to be applied to income earners paying little or no income tax. Hence, under the appropriate low-income application, there is no need to take into account differences between gross income and net income.

- The guideline percentages were derived based on the assumption that the father is absent and that the children are with the mother 100 percent of the time. The father is assumed to not incur any overhead expenses for the child such as a set-aside room and utilities costs.

- The guideline percentages were to be applied with the amount of the award limited to the size of the welfare payments to the custodial household.[20] The underlying study set a low ceiling on the amount of income on which the percentages would be applied.

Economic circumstances of the instant case that would show the presumptive award to be inappropriate would be:

- Combined income likely is significantly higher than the current dollar equivalent used in the underlying study. State the joint income of the parties and the difference from the study's assumption.

- The custodial parent earns $______ outside the home—in contrast to the underlying assumption of no income for the custodial parent.

- The CP receives the tax benefits in contrast to the guideline assumption that the NCP receives any tax benefits.

---

[20] Institute for Research on Poverty, University of Wisconsin-Madison. "Documentation of the Methodology Underlying the Cost Estimates of the Wisconsin Child Support Program," Child Support: Technical Papers, Volume III, SR32C, Special Report Series, 1982, pp. 143-144.

- The non-custodial parent is in a relatively high tax bracket, in contrast to the underlying assumption of a low income tax burden. State the NCP's marginal tax rate (federal, state, Social Security, and Medicare).

- The NCP has significant visitation with the child(ren), in contrast with the assumption of none. State how many overnights the NCP has and as a share of the total. Assert that the NCP is entitled to support for the child(ren) on the same basis as the CP. State (if true) that the NCP has set aside housing for the child(ren).

- The current case is not a welfare case. The percentages are not intended to be applied beyond an award equaling a welfare entitlement.

Contrasting the Instant Case from Income Shares Methodology (Betson-Rothbarth) Assumptions

Income Shares methodology assumes that:

- The family is still in an intact household.

- There is no additional overhead from an additional household that would reduce income available to spend on children.

- There is additional income when a child is added to the family—additional income to bring the standard of living back to its previous level.

- Tax benefits attributable to the child should not be shared by both parents and makes no appropriate adjustment in the child cost tables.

- The child is with the custodial parent 100 percent of the time (within the basic child cost tables).

- The best method of estimating child costs is to compare adult consumption levels of alcohol, tobacco, and adult clothing before and after having an additional child.

The first part of a rebuttal to a child support award based on Income Shares methodology would be to contrast the economic circumstances of the instant case with the assumptions of the Income Shares methodology. One would show or argue that:

- The family is no longer intact. Both parents must incur adult overhead living expenses (mortgage or rent, utilities, car note, etc.) that are no longer shared, thereby reducing funds available to spend on other goods—including children.

- The child support award will be spent according to the economic behavior of a single-parent household—not according to that of an intact household. A child support award based on an intact family standard treats the child support burden unequally—placing a higher preference for the standard of living of the custodial parent household. Essentially, a custodial parent would receive child support based on an intact family expenditure pattern but would spend the money based on single-parent household behavior—spending less on the child and a portion on the parent.

- There is no "phantom income" as assumed by the Income Shares methodology beyond what the parents actually earn. The guideline cost table assumption should be rebutted because the cost table is based on significantly more income than the parents earn at any given cost level. The parents do not earn what the cost table assume.

- Regarding the tax benefit, it would be appropriate to calculate the tax benefit received by the custodial parent, show that it is significant, and argue that just as both parents are responsible for meeting the costs of the child(ren) both parents are equally entitled to the cost offsets (tax benefits) attributable to the child(ren).

- The NCP is as entitled as the CP for child support based on the typical number of days and overnights that parent has with the child(ren). The non-custodial parent should be prepared to show that fixed costs also are incurred in behalf of the child(ren)—such as their own room(s) being set aside.

- Adult consumption patterns of alcohol, tobacco, and adult clothing bear no relationship to the instant case and that a better methodology is to examine actual expenditures on children.

Certainly, the economic studies underlying each state's guidelines vary and rebuttals clearly should be based on and respond to economic assumptions underlying the state's study. The assumptions themselves may not be economically sound. Such an underlying study should be available from the state agency inclusive of Child Support Enforcement.

The final portion of rebuttal would be presentation of an economics based estimate of the child support award and contrasting it with the presumptive award. The Cost Shares model provides data and a methodology for providing such an economics based recommended award. One would then compare how much the presumptive award exceeds this rational, economics based recommended award. State law generally requires a showing that the presumptive award is "unjust or inappropriate" for the case at hand.[21] A showing that the presumptive award drastically exceeds actual child costs based on economic data and sharing of the tax benefits should meet this requirement for rebuttal.

Lack of Quantified Case Law or Statutory Standard for Proving Rebuttal

A very significant consideration that is not addressed by the states in rebutting the presumptive child support award is that no state has quantified or clarified what the standard of rebuttal is. Clearly, all states have a vague standard—that the award is unjust and inappropriate—based on federal regulations. But no state has clarified this standard to an extent that attorneys know what circumstances need to be proven to achieve rebuttal. This lack of a clear standard likely violates due process and allows judges to ignore rebuttal arguments. The suggested economic rebuttals

[21] See 45 CFR 302.56.

in this article should help states set such standards and may help support challenges to the constitutionality of the currently vague standard.

V. Notes on Economic Background and Comparisons with Guidelines and Guideline Awards

To strengthen an economist's rebuttal in court, it can be useful to be familiar with the flaws in current guideline foundations as well as economic analysis showing current presumptive awards to be excessive. Much of this material is referenced in this paper's bibliography. Specifically, Bieniewicz (1999) outlines the economic features of a Cost Shares child support guideline. Rogers (June and July 1998) focuses on how obligor only guidelines contradict mainstream economic studies on household spending and lead to CP households generally having a higher presumptive standard of living than NCP households; Rogers (1999) expands this analysis to Income Shares models; and Rogers (2000) elaborates on how economic flaws in obligor only guidelines can form the basis of a constitutional challenge.

APPENDIX A

Federal Regulations on Child Support[22]

TITLE 45--PUBLIC WELFARE AND HUMAN SERVICES

PART 302--STATE PLAN REQUIREMENTS

Sec. 302.56 Guidelines for setting child support awards.

(a) Effective October 13, 1989, as a condition of approval of its State plan, the State shall establish one set of guidelines by law or by judicial or administrative action for setting and modifying child support award amounts within the State.

(b) The State shall have procedures for making the guidelines available to all persons in the State whose duty it is to set child support award amounts.

(c) The guidelines established under paragraph (a) of this section must at a minimum:

(1) Take into consideration all earnings and income of the absent parent;

(2) Be based on specific descriptive and numeric criteria and result in a computation of the support obligation; and

(3) Provide for the child(ren)'s health care needs, through health insurance coverage or other means.

(d) The State must include a copy of the guidelines in its State plan.

(e) The State must review, and revise, if appropriate, the guidelines established under paragraph (a) of this section at least once every four years to ensure that their application results in the determination of appropriate child support award amounts.

(f) Effective October 13, 1989, the State must provide that there shall be a rebuttable presumption, in any judicial or administrative proceeding for the award of child support, that the amount of the award which would result from the application of the guidelines established under paragraph (a) of this section is the correct amount of child support to be awarded.

(g) A written finding or specific finding on the record of a judicial or administrative proceeding for the award of child support that the application of the guidelines established under paragraph (a) of this section would be unjust or inappropriate in a particular case shall be sufficient to rebut the presumption in that case, as determined under criteria established by the

[22] When the Family Support Act of 1988 took effect, federal regulations also required states to comply with 45 CFR 302.53 which required, among others, that states include in the state child support guideline formula a method of protecting the obligor's ability to pay for basic living needs.

State. Such criteria must take into consideration the best interests of the child. Findings that rebut the guidelines shall state the amount of support that would have been required under the guidelines and include a justification of why the order varies from the guidelines.

(h) As part of the review of a State's guidelines required under paragraph (e) of this section, a State must consider economic data on the cost of raising children and analyze case data, gathered through sampling or other methods, on the application of, and deviations from, the guidelines. The analysis of the data must be used in the State's review of the guidelines to ensure that deviations from the guidelines are limited.

(Approved by the Office of Management and Budget under control number 0960-0385)

[50 FR 19649, May 9, 1985; 50 FR 23958, June 7, 1985, as amended at 51 FR 37731, Oct. 24, 1986; 56 FR 22354, May 15, 1991]

BIBLIOGRAPHY

Ackley, Gardner. *Macroeconomic Theory*, The Macmillan Company, New York, Collier-Macmillan International Edition, Third Printing, 1973.

Bell, Carolyn Shaw. *Consumer Choice in the American Economy*, Random House, New York, 1967.

Bernanke, Ben S. "Permanent Income, Liquidity, and Expenditure on Automobiles: Evidence from Panel Data," *Quarterly Journal of Economics*, August 1984, pp. 587-614.

Betson, David M. *Alternative Estimates of the Cost of Children from the 1980-86 Consumer Expenditure Survey*, A Final Report to the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, September 1990.

Bhalla, Surjit S. "The Measurement of Permanent Income and Its Application to Savings Behavior," *Journal of Political Economy*, 1980, vol. 88, no. 4, pp. 722-744.

Bieniewicz, Donald J. "Child Support Guideline Developed by Children's Rights Council," Chapter 11, *Child Support Guidelines: the Next Generation*, U.S. Department of Health and Human Services, April 1994, pp. 104-125.

Bieniewicz, Donald J. "The Relationship Between Child Support Guidelines and Child Support Compliance and Enforcement," invited paper presented to the Montgomery County Child Support Task Force, Maryland, October 5, 1994.

Bieniewicz, Donald J. "Improving State Child Support Guidelines," invited paper presented to 1999 Virginia Child Support Quadrennial Review Panel, June 22, 1999.

Dodson, Diane and Joan Entmacher. *Report Card on State Child Support Guidelines*, Women's Legal Defense Fund (now known as National Partnership for Women & Families), 1994.

Friedman, Milton. *A Theory of the Consumption Function*, Princeton University Press, Princeton, New Jersey, 1957.

Garfinkel, Irwin. "The Evolution of Child Support Policy," *Focus*, Vol. 11, No. 1, Spring 1988, University of Wisconsin-Madison, Institute for Research on Poverty, pp. 11-16.

Gay, Roger F. "Brief History of Prevailing Child Support Doctrine," Proceedings of the Sixth Annual Conference of the National Council for Children's Rights, Arlington, VA, March 19-22, 1992.

Henry, Ronald K. "Child Support at a Crossroads: When the Real World Intrudes Upon Academics and Advocates," *Family Law Quarterly*, Spring 1999, pp. 235-264, American Bar Association 1999 Child Support Symposium.

Houthakker, H.S. "An International Comparison of Household Expenditure Patterns, Commemorating the Centenary of Engel's Law," *Econometrica*, 25 (October 1957), pp. 532-551.

Institute for Research on Poverty, University of Wisconsin-Madison. *Child Support: A Demonstration of the Wisconsin Child Support Reform Program and Issue Papers*, Volume II, SR32B, Special Report Series, 1981.

Institute for Research on Poverty, University of Wisconsin-Madison. "Documentation of the Methodology Underlying the Cost Estimates of the Wisconsin Child Support Program," *Child Support: Technical Papers, Volume III*, SR32C, Special Report Series, 1982, pp. 142-152.

Keynes, John Maynard. *The General Theory of Employment, Interest, and Money*, Harcourt, Brace & World, Inc. New York, First Harbinger Edition, 1964.

Kittrell, Steven D. "An Overview of the 1984 Domestic Relations Tax Provisions," *Improving Child Support Practice, Volume Two*, The American Bar Association, 1986, pp. IV-53 through IV-71.

Kuznets, Simon. *Shares of Upper Income Groups in Income and Savings*, National Bureau of Economic Research, Inc., New York, New York, 1953.

Lewin/ICF. *Estimates of Expenditures on Children and Child Support Guidelines*, submitted to Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, October 1990.

Moulaert, Frank and Loïc de Cannière. "Income Inequality and Consumptive Spending Behavior: Empirical Evidence from the 1978-79 Household Budget Survey in Belgium," *Journal of Post-Keynesian Economics*, Winter 1987-88, Vol. X, No. 2, pp. 225-249.

Mueller, Eva and George Katona. *Consumer Response to Income Increases*, The Brookings Institution, Washington, D.C., 1968.

Reivitz, Linda. "Percentage of Income Standard for Setting Child Support Awards," memorandum by Secretary, Department of Health and Social Services, State of Wisconsin, to members of the Wisconsin Judiciary, December 20, 1983, *Improving Child Support Practice, Volume One*, The American Bar Association, 1986, pp. I-216 through I-226.

Rogers, R. Mark. "How Wisconsin-Style Child Support Guidelines Violate Mainstream Economic Theory and Empirical Research: Georgia as an Example," working paper presented to Georgia Commission on Child Support, June 4, 1998.

Rogers, R. Mark. *The Minority Report of the Georgia Commission on Child Support, 1998*, presented to Georgia Governor Zell Miller, July 1, 1998.

Rogers, R. Mark. "Wisconsin-Style and Income Shares Child Support Guidelines: Excessive Burdens and Flawed Economic Foundation," *Family Law Quarterly*, Spring 1999, 135-156, American Bar Association 1999 Child Support Symposium.

Rogers, R. Mark. "Georgia's Child Support Guidelines—No Economic Basis: Facts for a Constitutional Challenge?" State Bar of Georgia, *Family Law Section Newsletter*, July/August 2000, pp. 14-23.

Skyles, Ada and Sherwood K. Zink. "Child Support in Wisconsin: Income Sharing as a Standard of Law," paper presented at the Women's Legal Defense Fund Conference at The Aspen Institute, September 15-17, 1986.

U.S. Congress, Joint Committee on Taxation. Joint Committee Print, # JC-11-93, "Summary of the Revenue Provisions of the Omnibus Budget Reconciliation Act of 1993 (H.R. 2264)," (Joint Committee on Taxation 'Bluebook'), August 23, 1993.

U.S. Congress, Joint Committee on Taxation. Joint Committee Print, # JCS-10-87, "General Explanation of the Tax Reform Act of 1986," (Joint Committee on Taxation 'Bluebook'), May 4, 1987.

U.S. Congress, Joint Committee on Taxation. Joint Committee Print, # JCS-23-97, "General Explanation of Tax Legislation Enacted in 1997," (Joint Committee on Taxation 'Bluebook'), December 17, 1997.

U.S. Department of Agriculture, Agricultural Research Service, Family Economics Research Group (FERG). "Expenditures on a Child by Families, 1992," published 1993.

U.S. Department of Agriculture, Agricultural Research Service, Family Economics Research Group (FERG). "Expenditures on a Child by Families, 1999," published 2000.

U.S. Department of Health and Human Services. "21 Million Children's Health: Our Shared Responsibility, The Medical Child Support Working Group's Report, Executive Summary," June 2000.

U.S. Department of Health and Human Services. "21 Million Children's Health: Our Shared Responsibility, The Medical Child Support Working Group's Report, Full Report," June 2000.

U.S. Department of the Treasury, Internal Revenue Service, Form 1040, 1999.

U.S. House of Representatives Ways and Means Committee. *Committee Prints #104-14*— "House Ways and Means 'Greenbook,'" 1996, Chapter 9, pp. 529-624.

Van der Gaag, Jacques. "On Measuring the Cost of Children," Child Support: Technical Papers, Volume III, SR32C, Institute for Research on Poverty, Special Report Series, University of Wisconsin, 1982, pp. 1-44.

Williams, Robert G. "Child Support Guidelines: Economic Basis and Analysis of Alternative Approaches," *Improving Child Support Practice, Volume One*, The American Bar Association, 1986.

Williams, Robert G. *Development of Guidelines for Child Support Orders*, U.S. Department of Health and Human Services, Office of Child Support Enforcement, September 1987.

Williams, Robert G., David A. Price, and Jane C. Venohr, *Economic Basis for Updated Child Support Schedule, State of North Carolina*, November 24, 1993, Policy Studies, Inc., Denver, Colorado.

Wisconsin, State of. *Register*, January 1987, No. 373, Chapter HSS 80, page 316-1.