Shared Parenting, Visitation and Child Support

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In Sanjari v Sanjari, the Indiana Court of Appeals found that when both parents exercised custody approximately 50 percent of the time, the child support obligation should be computed in a manner similar to what would have been employed in the case of split custody. Their suggested remedy was to first compute the father's obligation assuming that the mother had custody of the child with and spent no time with the father. Then compute the mother's obligation assuming that the father had custody and the mother did not spend time with the children. Finally the mother's obligation was subtracted from the father's obligation. If the difference is positive then enter the difference as the obligation of the father. If the difference is negative then enter minus the difference as the obligation of the mother.

To illustrate the Court of Appeals treatment of shared parenting, we will assume that Basic Child Support Obligation for the child (Line 4) was $200 per week based upon the combined weekly income of the parents. Assuming that the father's income was 70 percent of the combined total weekly income, if the mother had custody of the child then the father's obligation would be $140 (=.70*$200) per week. If the father had custody then the mother's obligation would be $60 (=.30*$200). The difference between the father's obligation and the mother's is $80 (=$140-$60) and would be entered as the obligation owed by the father.

While the Appeals Court found this approach appealing, is it appropriate it? I will define an appropriate order to be that level of child support that would require each parent to pay their 'fair' share of the total expenses of raising the children. In the Income Shares model that Indiana has adopted a parent's fair share of expenses is interpreted to be the parent's share of their combined income.

To simplify the shared parenting situation, we will assume that the child spends one week with their mother and one week with their father. Further we will assume that only during the time when the child is with the parent does the parent incur any direct cost of raising the child. During a two week period, the mother will incur a direct out of pocket cost of $200 and the father will also incur the same out of pocket costs. Over the two week period $400 will have been spent on the child where the father has directly paid for $200 during his week of custody and another $160 in child support payments. This implies that the father has paid $360 or 90 percent of the

total costs of raising the child over the two week period when he should have only been obligated to pay 70 percent under the Income Shares Model. A clever reader will notice that this 'overpayment' of support by the father is created by having the father paying child support during periods when he has custody of the child and the mother is not incurring any costs on behalf of the child. If the child support payment during the week when the father has custody of the child is abated then he would have contributed $280 -- $200 of direct spending and $80 of child support payments – over the two week period. This would have represented his 'fair share' of 70 percent of the cost of raising the child over the two week period. Or equivalently the father's weekly child support obligation could be halved and entered as $40 per week.

Split Custody

It is instructive to examine the case of split custody in order to see why the commentary's procedure does in fact produce an appropriate deviation in this situation. Split custody is the situation where the parents have more than one child and each parent has sole physical custody of at least one of the children. To extend our example to the split custody case, we will assume that the parents have two children where the daughter lives with her mother and the son lives with his father. We will assume that given the combined income of the parents, the Basic Child Support Obligation is $200 per week for one child and we will assume that the father has 70 percent of the combined parental income. The commentary suggests that a deviation from the guidelines be formulated as the following. Assuming that the daughter is the only child, the father would be obligated to pay the mother $140 (=.70*$200) per week for the cost of raising the daughter. On the other hand, the mother would be obligated to pay the father $60 (=.30*$200) for the cost of raising their son. To avoid checks going in both directions, the father's child support order would be reduced to represent the difference of the two orders, $80.

Each week, both the father and the mother would spend $200 on the child for which they have custody. The father's weekly expenditures would be $200 directly on his son who lives with him and $80 in child support for his daughter for a total of $280 per week. Hence of the combined total of $400 spent per week on the two children by the two parents, the father would be contributing 70 percent, his fair share.

The Role of Time Spent with Each Parent

Why does this method of 'cross crediting' parental obligations produce a 'fair' obligation in the case of split custody but not in the case of the shared parenting? The answer lies in the fact that the fundamental difference between the two situations is that in the case of split custody, each parent has a direct expenditure on a child each week. In the case of the shared parenting, each parent only incurs direct spending on the child one half of the time (one week every other week in our example). This suggests that an appropriate 'correction' to the Court of Appeals procedure would be to give a credit for the direct spending when they have custody of the child. While our example for shared parenting was over a two week period, let us telescope the example into an one week period where both the mother and the father equally share physical custody of the child. In the Court Appeals method, we would first compute the obligation of the father if the mother had sole custody. This would be equal to $140 (=.70*$200) per week. But now let us amend this procedure by giving the father a credit of $70 (= .50*$140) on this obligation reflecting the fact that he will have the child one half of the week. Hence the father's net obligation would be $70 (=$140-$70). Now do exactly the same for the mother. First compute her obligation if the father had sole custody as $60 (=.30*$200) and then give her a credit of one half this obligation for the time she has custody of the child. Her net obligation will be $30. Now 'cross credit' the two net obligations and the father will owe the mother $40 per week. On the average week, the father will spend $100 (=($0+$200)/2) on the child when he has custody and $40 each week in child support. The combined total of $140 is his fair share of the total weekly spending of $200.

Hence if we give a credit on their obligation to reflect the proportion of the time they have custody of the child then the appropriate obligations will be computed. This is exactly what is being done in the split custody case. When we compute the father's obligation, we only compute the obligation for what his fair share of the costs of raising his daughter who lives with her mother. We do not compute the father's obligation for his son. Why? Implicitly we do compute this obligation but then give the father a full credit for the obligation since the son is assumed to live with him 100 percent of the time. The same is true for the mother's obligation for her daughter.

The time related credit allows us to consider shared parenting situations that differ from exactly 50/50 split of the time with each parent. For example if the mother had the child 60 percent of the time and the father the remaining 40 percent of the time. If the state wishes to

consider this parenting arrangement as a shared parenting case then this analysis suggests that the father's obligation to the child assuming the mother's sole custody of the child should be reduced by 40 percent while the mother's reciprocal obligation should be reduced by 60 percent. In our example, the father would be given a $56 (=.40*$140) credit for a net obligation of $84 per week. The mother would be given an $36 (=.60*$60) credit for a net obligation of $24. The cross crediting of the obligation will yield a $60 per week child support obligation for the father. Given that the child spends 40 percent of the time with the father, his average weekly spending on the child will be $80 (=.40*$200) which combined with his $60 weekly child support payment requires him to spend $140 per week or 70 percent of the cost of raising the child.

Costs of Shared Parenting versus Sole Custody

In the case of split custody, the costs of raising the two children are higher than if the two children would have been raised solely by one parent. This should make sense because when the children are raised apart there is a loss in any economies of scale in consumption on the children. In the example, each parent is expected to spend $200 weekly on the child they have custody. However, if the two children had been raised by only one parent then the Basic Child Support Obligation (what the states expects parents to spend on children) would have been $300 instead of the $400 (=$200+$200) used in the split custody situation. The implication is that deviations from sole custody raise the cost of the raising children. The question is, does shared parenting raise the cost of raising a child compared to sole custody with little or no visitation?

In the current formulation of the treatment of shared parenting, the total costs of raising the child is the same whether the child is raised solely by one parent or jointly by two parents. This may be a reasonable assumption if the child remains in the same home and the parents move in and out of the home. But if the child moves from the mother's home to the father's home then certain expenses will have be duplicated in the two homes. Extra space in both homes will be needed and maintained over the entire year. These duplicated expenses from shared parenting will increase the total costs of raising the child and should be reflected in the support obligations. For simplicity (and as we will see later the following assumption is common), we will assume that when shared parenting is adopted by the parents then 50 percent of the normal child expenses must be duplicated and should be reflected in the Basic Child Support Obligation (Line 4) by multiplying the BCSO by 1.50. This would change our shared parenting example in the

following manner. The father's obligation assuming custody by the mother would $210 (=.70*$300). If the child spent 50 percent of the time with the father then the father would receive a credit of $105 (=.50*$210). The net obligation of the father would be $105. The mother's obligation assuming custody by the father would be $90 (=.30*$300) but would receive a credit of $45. Her net obligation would be $45. Cross crediting the father's and mother's net obligation, the father would obligated to pay weekly support of $60 (=$105-$45).

The father's weekly expenses would be as follows. Each week he would incur $100 of expenses that are duplicated in the mother's household. These expenses would not vary with the visit of the child to his home. On average there would another $50 of direct spending the father would make when the child was present in his home -- $100 per week when the child was present and zero when the child wasn't present. When these expenses are added to the $60 of child support, each week the father would have contributed $210 or 70 percent of the total cost of raising the child.

Modified Approach – Cross-Crediting Approach

The above discussion has shown that Court of Appeals approach to computing support payments is flawed in two respects. By failing to account for the time that parents have custody of the child directly into the formula, the Court's approach overstates the amount of support that should be paid by the father (the parent with the greatest share of the parent's combined income). On the other hand by ignoring the additional costs of shared parenting in the calculations, the approach understates the appropriate support to be ordered from the father. To remedy these two problems, two modifications were proposed

> Prior to computing support obligations, adjust the BCSO to reflect the additional costs of shared parenting;

> After an artificial support order is computed assuming that the other parent has custody of the child, provide a credit to this obligation based upon the proportion of time spent with the parent. For example if the parent has the child X percent of the time then the parent's obligation would be reduced by X percent to reflect the time that the child spent with them.

Finally, one does have to specify when shared parenting provision is appropriate. For purposes of presentation, I have assumed that a parent must spend at least 35 percent of the overnights for the case to be considered a shared parenting situation. Figure 1 presents an example of an additional

worksheet that could be used to implement this modified adjustment for shared parenting deviations.

Figure 1

Modified Worksheet for Shared parenting with Direct Cross-Crediting

Line		Mother	Father	
1M	Enter Number of Overnights			365
2M		365	365	
3M	Divide Line 1M by Line 2M			1.000
	If Line 3M is Less than or equal to .350 then STOP -- Shared parenting is not appropriate			
4M	Enter Line 4 from Worksheet			
5M		1.50	1.50	
6M	Multiply Line 4M times Line 5M			
7M	Enter Line 2 from Worksheet			
8M	Multiply Line 6M times Line 7M			
9M	Multiply Line 8M times Line 3M			
10M	Subtract Line 9M from Line 8M			
11M	Enter Difference of Mother and Father's Line 10M			

Once these modifications have been made to the Court of Appeals method of computing obligations in the shared parenting situation, the approach is called Cross-Crediting which was first proposed by Robert Williams of Policy Studies, INC.

Other States' Treatment of Shared parenting

The treatment of shared parenting is varied throughout the United States. Four states (Illinois, Minnesota, New York and North Dakota) do not mention shared parenting in their guidelines. Twenty one states (including Indiana, Ohio, and Kentucky) allow for a deviation to be made in the case of shared parenting but do not provide any formula or explicit guidance to trial judges how the deviation should be made. The remaining twenty six states provide explicit formulas for either direct use in the computation of the guideline amount (23 states) or for the calculation of a deviation from the guideline amount. Of those states that provide formula, nineteen states have adopted the Cross-Crediting approach that has been described. Three states

(Hawaii, Montana and Wisconsin) have adopted a 'Per Diem' approach that credits the parent with an obligation for the number of days the child spends with the parent. California and Michigan have adopted a method similar to the Cross-Crediting approach (see Appendix B) that uses the following formula to compute the modified obligation for the parent with the greatest share of combined income

$$\frac{\left(1-t_G\right)^2}{t_G^2+\left(1-t_G\right)^2} \times O_G - \frac{t_G^2}{t_G^2+\left(1-t_G\right)^2} \times O_s$$

where O_G and t_G is the obligation and percentage of overnights of the parent with the greatest share of combined and O_S is the obligation of the parent with the smallest share of combined income. Note that both obligations are computed without any adjustment for the additional costs of shared parenting.

Arizona has adopted the simplest approach to the treatment of shared parenting. After computing the obligation of the parents when assuming that shared parenting does not pose any additional costs compared to sole custody, a credit is computed based upon the number of overnights spent with the parent with an obligation. The size of the credit is the product of the obligation times a percentage found in a look up table whose cells are delineated by the number of overnights spent with the parent. The Arizona tables are included in Appendix A.

The remaining state, New Jersey, has adopted an alternative approach that I have proposed to rectify some of the problems that I see with the Cross-Crediting approach. I will delay my discussion of this approach until I have discussed the problems that I see with this most dominate approach to shared parenting – Cross-Crediting.

Even though nineteen states have adopted Cross-Crediting, not all states have made exactly the same policy decision when implementing the approach. The first policy decision is at what level of contact does shared parenting apply? States that explicitly provide thresholds range from 25 percent to nearly 50 percent with an average of 34 percent. The example I suggested above used 35 percent threshold of overnights which roughly corresponds to the average threshold of states that employ Cross-Crediting.

The second policy decision is how much of the costs of raising the child will be duplicated when shared parenting is undertaken by the parents? Empirical data does not exist to answer this

question, so a policy decision must be made. Typically these costs would represent shelter, utility and a proportion of transportation expenses (a larger vehicle and increased insurance) that would be expected to occur in both households and even if the child was not present. Williams claims that using data from Espendshade, an appropriate figure for the proportion of total spending in a sole custody that would be duplicated in a shared parenting case is 50 percent. Five years ago when New Jersey was considering this issue, their examination of the Consumer Expenditure Survey led them to conclude 38 percent was a more appropriate assumption. Some of the differences of the estimates can be attributed to data (Espenshade's data is from 1972 Consumer Expenditure Survey while New Jersey used data from the 90s Consumer Expenditure Survey) but also assumptions (New Jersey considered only shelter and utility spending as being potentially duplicated). In practice, states that have adopted the explicit Cross-Crediting approach have with the exception of one state (Idaho) have assumed that shared parenting increases the cost of raising the children by 50 percent.

Objections to Cross-Crediting

Given the assumptions that we have made in our examples to illustrate the case of shared parenting, the Cross-Crediting approach achieves it goal of establishing a support order that will result in both parents paying the total cost of raising the children in proportion to their relative incomes – the goal of the Income Shares Model. These assumptions are

the child(ren) spend roughly the same number of nights with both parents,

duplicated expenses incurred when shared parenting is undertaken are not affected by the amount of time the child spends with the parent, and

all expenditures that are not duplicated during shared parenting are incurred only by the parent who has custody of the child – all non-duplicated expenses of the child travel with the child's presence. For example, half of the anticipated clothing needs of the child is purchased by each parent or in proportion to the time that child spends with the parent.

To illustrate how violations of either of these assumptions will cause Cross-Crediting to deviate from the Income Share's goal of maintaining sharing of expenses, let us return to our example. The example we have been using is when the father has 70 percent of the combined income; the Basic Child Support Obligation is $200 per week; when shared parenting occurs the

cost of raising the child increases by 50 percent because of duplicated expenses ($100); and the child spends 50 percent of the overnights with the father. In this situation, Cross-Crediting would require that the father pay $60 in child support per week. He would incur each week the cost of additional shelter and utilities ($100) for the child even the child was not present. When the child was present the father would incur expenses non shelter and utility expenses of $100 per week (=$200-$100). Hence on average he would incur $50 per weeks for these expenses. In total, the father on average will be contributing $210 (=$60+$100+$50) of the $300 of total expenditures on the child – his fair share.

But how will the father's situation change if the child only spends 40 percent of the overnights with the father yet shared parenting is granted? He will still have $100 per week in duplicated expenses. When the child does visits, he will still have $100 of additional expenses that won't being made by the mother. But now since the child only visits 40 percent of the time, his average expenses for these 'variable' spending will be $40. The father's Cross-Credit support obligation will rise to $90 (=$210(1-.40)-$90(1-.60)). The father's total contribution will be $230 (= $90+$100+$40) or 77 percent of the total costs of raising the child.

The father's share of total spending will continue to rise as percentage of overnights with the father decreases. If the child spends the minimum number of overnights with the father (128 days represents 35.1 percent of overnights), the father's obligation will be $104.70. He will still incur $100 of duplicated expenses but only $35.10 dollars of unduplicated expenses due the reduction in the number of overnights. The father's total contribution will $239.80 or 80 percent of the total costs of raising the child.

However, if the child spends one less night the father will no longer qualify for shared parenting. In this case, the father obligation after the visitation credit (10% reduction) would equal $126 (=.70*$200-.10*.70*$200) or a 20 percent increase in the support order. If we assume that the father does not truly incur any duplicated expenses then the father's contribution would equal $160.80 (=$126+$34.80) and his share of total expenses of the child will remain at 80 percent. However if he does incur the duplicated costs of shared parenting then his total contributions would be $260.80 out of the $300 of total costs or 87 percent. Clearly the effect of the threshold creates an incentive for the father to seek the additional night. On the other hand, the impact on the mother is clearly significant. The difference of one overnight can reduce her weekly support by $21.30 or $1,108 per annum.

The assumptions that duplicated expenses only occur in the case of shared parenting (percentage of overnights greater than 35% or some stipulated level) and that the level of duplicated expenses remain the same regardless of the number of overnights are both problematic. When the child spends every weekend with the NCP (28% of the overnights), it seems unlikely that the NCP would not seek to have a room reserved for the child's use and hence incur some extra shelter, utility and transportation (vehicle and insurance) costs that duplicate what is being provided in the custodial parent's household. Not accounting for these expenses will overstate the appropriate level of the support obligation for the NCP.

Finally, the Cross-Crediting approach assumes that all child expenses that are deemed duplicated are paid by the parent who has custody of the child. While most of the non-duplicated expenditures such as food will be paid by the parent with whom the child resides, other expenditures such as clothing will remain with the custodial parent. By assuming that even these expenditures are purchased by both parents, the Cross-Crediting approach understates the amount of support due the custodial parent.

Proposed Solution

From my perspective, shared parenting is the end point of a continuum that begins with regular visitation and ends with the child spending equal time with both parents. Currently the Indiana guidelines provide for a 10% visitation credit when the percentage of time spent with the NCP exceeds 14.3 percent (52 days). I would propose changing the visitation credit to the following 'Shared Parenting Credit' that would make the appropriate adjustments to the NCP's obligation to account for time spent with the NCP that exceeds 14.3 percent of overnights.

To construct this credit, I will assume that the extent that the NCP must duplicate spending that will continue in the CP's household will continuously increase with increases in the time that the child spends with the NCP. I want to make that assumption to eliminate any 'threshold' effect that is present in the Cross-Crediting approach. Cross-Crediting assumes that when visitation with the NCP exceeds a given threshold then the NCP will exactly duplicate the shelter, utility and some transportation spending that is being made in the CP household. As the previous discussion noted this threshold assumption does cause problems. To alleviate these problems, I will make an alternative assumption about the proportion of the shelter, utility and transportation expenses that are being duplicated in the NCP household. Figure 2 contrasts the assumptions

made by Cross-Crediting with the alternative assumptions that I will be making in my proposal. Appendix C provides the numerical details for these assumptions.

Figure Two
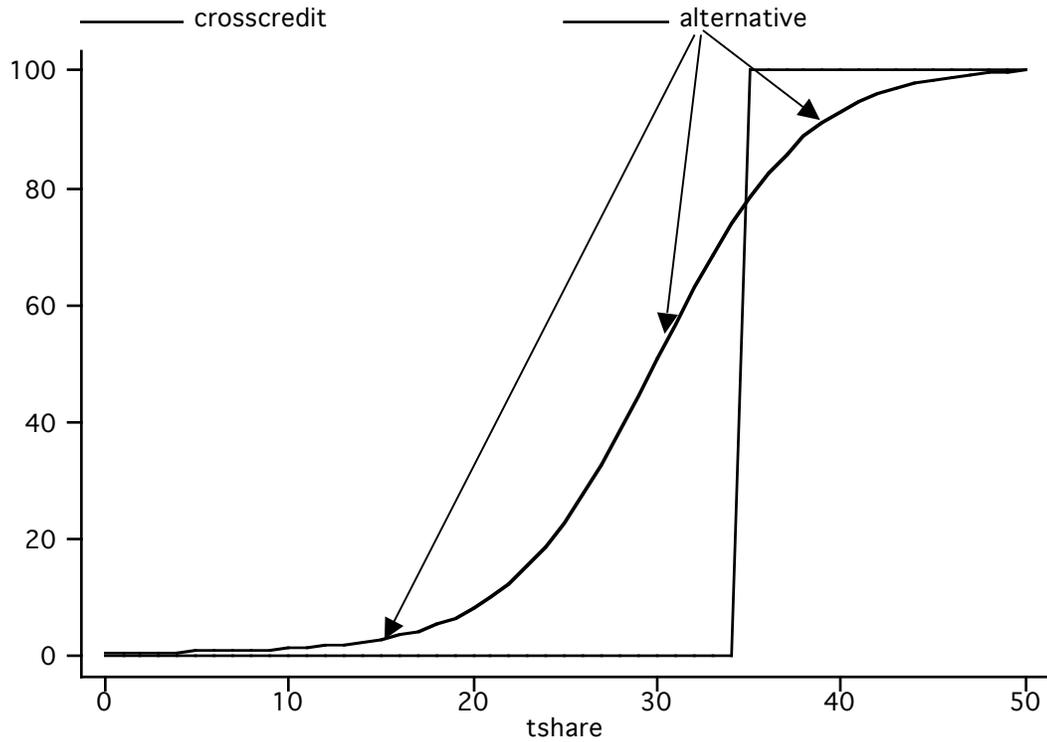
Proportion of Duplicated Expenses as a Function of the
Proportion of Overnights with NCP Parent

As the figure shows, the NCP is assumed to duplicate some spending at all levels of visitation by the child but the proportion of these expenses is quite low at low levels of visitation. Let us denote the function depicted in the above figure as *p(t)* where *t* is the percentage of overnights with the NCP. If *d* is the percent of the Basic Child Support Obligation (BCSO) that is devoted in the CP's household to shelter, utilities, and some transportation then the total amount of duplicated expenses in the NCP would be equal to

$$Duplicated\ Expenses\ =\ p\!\left(t\right)\times d\times BCSO.$$

Now if *d* percent of the BCSO is duplicated then *(1-d)* percent is not. However, as we have discussed above not all of these expenses will incurred by the NCP when the child visits and will purchased by the CP. Denote *v* as the percentage of the BCSO that is the NCP will spend on the child when they visit, in particular, *v* must be less than *1-d*. Thus the spending that is done during the visits would be equal to

$$Variable\ Expenses\ =\ t \times v \times BCSO$$

Total child rearing expenses would be equal to

$$BCSO + p(t) \times d \times BCSO = BCSO\left[1 + p(t) \times d\right]$$

of which the NCP's fair share these expenses would be equal to

$$S_{NCP} \times BCSO\left[1 + p(t)d\right]$$

where S_{NCP} is the share of the combined income of NCP. However, the NCP directly pays for some of these expenses and the NCP should be given credit for these purchases by subtracting these purchase from the NCP's total obligation. If we subtract these expenses from the NCP total obligation then the support that should be ordered would be equal to

$$S_{NCP} \times BCSO\left[1 + p(t)d\right] - \left[\left(p(t)d \times BCSO\right) + \left(v \times t \times BCSO\right)\right]$$

Which can be rewritten as

$$S_{NCP} \times BCSO - BCSO\left[\left(p(t)d + vt\right) - S_{NCP} \times p(t)d\right]$$

where $S_{NCP}xBCSO$ is the NCP obligation as computed at Line 6 while the second term is new visitation credit to be used at Line 7.

To implement this credit which is similar to the New Jersey approach, I would suggest that a value for *d* would be .50 and a value of .4 for *v* be used. New Jersey employs a value of .38 for *d* and .37 for *v*. While I don't have any evidence that New Jersey is wrong, most states that use Cross-Crediting have employed a value of .50 for *d* and I would suggest following their lead. With regards to *p(t),* Appendix C describes my preferred specification but New Jersey employs the assumption that *p(t)* is equal to twice the percentage of overnights with the NCP *(2t)*. For

values of *t* over .35, these two assumptions are close but for *t* less than 35 percent, the New Jersey dramatically overstates my preferred assumptions.

To simply the adjustment, I am proposing a lookup table that provides two adjustment factors which are a function of the percentage of overnights. There will be two entries in the table, total expenses incurred by the parent with the smaller number of overnights (TOTAL) and the duplicated expenses (DUPLICATED) both expressed as a percentage of the total expenses incurred in the sole custody (all time spent with one parent) case where

$$TOTAL = .5 \times p(t) + .4 \times t \quad and \quad DUPLICATED = .5 \times p(t)$$

The new visitation would require the following supplemental worksheet

Shared Parenting Credit Worksheet

Line:		
1SP	Enter Annual Number of Overnights	
2SP	Enter Weekly Basic Child Support Obligation – BCSO (Enter Line 4 from Child Support Worksheet)	_____.___
3SP	Enter Total Shared Parenting Time Expenses as a Percentage of the BCSO (Enter Appropriate TOTAL Entry from Table SP)	._____
4SP	Enter Duplicated Expenses as a Percentage of the BCSO (Enter Appropriate DUPLICATED Entry from Table SP)	._____
5SP	Parent's Share of Combined Weekly Income (Enter Line 2 from Child Support Worksheet)	._____
6SP	Average Weekly Total Expenses during Shared Parenting Time (Multiply Line 2SP times Line 3SP)	_____.___
7SP	Average Weekly Duplicated Expenses (Multiply Line 2SP times Line 4SP)	_____.___
8SP	Parent's Share of Duplicated Expenses (Multiply Line 5SP times Line 7SP)	_____.___
9SP	Allowable Expenses during Shared Parenting Time (Line 6SP – Line 8SP)	_____.___
	Enter Line 9SP on Line 7 of the Child Support Worksheet as the Shared Parenting Time Credit	

TABLE SP IS ON THE NEXT PAGE

Table SP

Assumes that d = .50 and v =.40

Annual of	Number Overnights	TOTAL	DUPLICATED
1	5	0.004	0.000
6	10	0.009	0.000
11	15	0.015	0.001
16	20	0.021	0.001
21	25	0.027	0.001
26	30	0.033	0.002
31	35	0.039	0.003
36	40	0.045	0.004
41	45	0.052	0.005
46	50	0.060	0.007
51	55	0.068	0.010
56	60	0.078	0.014
61	65	0.089	0.020
66	70	0.102	0.028
71	75	0.118	0.038
76	80	0.137	0.052
81	85	0.161	0.070
86	90	0.190	0.093
91	95	0.224	0.122
96	100	0.264	0.156
101	105	0.308	0.195
106	110	0.356	0.237
111	115	0.404	0.280
116	120	0.450	0.321
121	125	0.493	0.358
126	130	0.530	0.390
131	135	0.562	0.417
136	140	0.589	0.438
141	145	0.611	0.454
146	150	0.629	0.467
151	155	0.643	0.476
156	160	0.656	0.483
161	165	0.666	0.488
166	170	0.675	0.491
171	175	0.683	0.494
176	180	0.691	0.495
181	183	0.700	0.500

Comparison of Cross-Crediting with Shared Parenting Credits

Table 1 presents a comparison between the Cross-Crediting approach and my proposed alternative – the Shared Parenting Credit – that would be adopted in place of the current 10% visitation credit in the Indiana guidelines. The comparison is based upon the obligation that would be entered by the current Indiana guidelines, the Cross-Crediting described in Figure 1, the Shared Parenting Credit described in Figure 3, and the "Fair Share" obligation that requires the NCP to pay in support or directly the share of total expenses of the child equal to their share of total income. I have assumed that the true duplicated costs are incurred as depicted in Figure 2. All obligations assume that the BCSO is $200 per week. The four panels in the table present the comparison for four alternative assumptions about the NCP's share of combined income – 50%, 60% 70%, and 80%.

Comparing the Current Indiana guidelines with the Fair Share obligation, we see that in general the current guidelines are requiring that NCP pay more then their 'fair' share even with the visitation credit (the only exception is when the NCP has only minimum regular visitation – close to 15% -- and the NCP's share of combined income is over 70% then the current guidelines understate the fair share).

Adding a Cross-Crediting adjustment to the current guidelines when the percentage of overnights is at least 35 percent, does bring the obligations more in line with a Fair Share obligation at these levels of child residency with the NCP. Yet for percentage of overnights between 35 and 45 percent, Cross-Crediting still overstates the NCP's fair share obligation. When the percentage of overnights exceed 45 percent, Cross-Crediting creates an obligation that is smaller than the NCP's fair share. This occurs because the Cross-Crediting approach assumes that all non-duplicated expenses are incurred by the parent with physical custody of the child. In these examples we have assumed that 10 percent of expenses of sole custody (clothing) remain with the CP. This is a reasonable assumption based upon Indiana's Parenting Guidelines that stipulate that the child's clothes must travel with them. If we further assume that the CP makes all purchases of clothes then our assumption made in these calculations is correct.

Comparing the Shared Parenting Credit with the Cross-Crediting approach, two points are worth mentioning. First, the Shared Parenting produces lower levels of NCP obligations at all levels of overnights from 15 to 45 percent. This is not surprising given that the Shared Parenting Credit is modeled to closely approximate the NCP's fair share of the expenses of the child and we

have already noted that Cross-Crediting overstates the NCP's fair share. But the more important contrast occurs at 35 percent of overnights when the shared parenting is assumed to begin in the Cross-Crediting approach. As noted earlier, this threshold creates a significant reduction in the NCP's support obligation – ranging from a 50 percent reduction where parents have equal levels of income to only a 6 percent reduction when the NCP's share of income is 80 percent. This threshold effect is one of the more troubling feature of Cross-Crediting approach. One possible remedy is to limit its effect would be to raise the threshold level to a higher level say 40 percent of overnights. By raising the threshold, few cases would most likely be affected. However, in percentage terms the threshold effect does increase to 67 percent reduction where parents have equal incomes to 17 percent when the NCP has 80 percent of combined income.

Finally, a comparison between the Fair Shares and Shared Parenting Credit obligations shows the use of the look up table (TABLE SP) works fairly well as an approximation to the actual credit needed to achieve a fair sharing of expenses.

Table 1

Child Support Obligations with Various Credits for Visitation and Shared parenting

Assumes that d = .50, v =.40, and BCSO = $200 Weekly

Income Share of NCP =   50%

Percentage of Overnights	Current Indiana	Cross Crediting	Shared Parenting Credit	Fair Share
0%	100	100	100	100
5%	100	100	100	95
10%	100	100	100	91
15%	90	90	86	86
20%	90	90	82	80
25%	90	90	71	68
30%	90	90	53	50
35%	90	45	33	33
40%	90	30	21	21
45%	90	15	14	15
50%	90	0	10	10

Income Share of NCP =   60%

Percentage of Overnights	Current Indiana	Cross Crediting	Shared Parenting Credit	Fair Share
0%	120	120	120	120
5%	120	120	120	115
10%	120	120	120	111
15%	108	108	106	107
20%	108	108	103	100
25%	108	108	93	91
30%	108	108	77	75
35%	108	75	61	60
40%	108	60	50	51
45%	108	45	44	44
50%	108	30	40	40

Table 1 -- Continued

Income Share of NCP =   70%

Percentage of Overnights	Current Indiana	Cross Crediting	Shared Parenting Credit	Fair Share
0%	140	140	140	140
5%	140	140	140	135
10%	140	140	140	131
15%	126	126	127	127
20%	126	126	123	121
25%	126	126	115	113
30%	126	126	102	100
35%	126	105	89	88
40%	126	90	80	80
45%	126	75	74	74
50%	126	60	70	70

Income Share of NCP =   80%

Percentage of Overnights	Current Indiana	Cross Crediting	Shared Parenting Credit	Fair Share
0%	160	160	160	160
5%	160	160	160	155
10%	160	160	160	151
15%	144	144	147	147
20%	144	144	144	142
25%	144	144	137	135
30%	144	144	127	125
35%	144	135	116	116
40%	144	120	109	109
45%	144	105	104	104
50%	144	90	100	100

Conclusions

The policy decision of how to make an adjustment for shared parenting and how that adjustment should interact with existing credits for visitation will reflect two competing concerns. On one hand by providing an adjustment for visitation and shared parenting in the awards, NCP will face lower awards that will reflect their 'fair' share of the costs of raising the child. By making contact with the children more 'affordable', more non-custodial parents may seek more contact with their children. Yet on the other hand, these reductions in awards does mean that there will be less money available for the children in the custodial parent's household. Given that many custodial parents have little resources for their children, one should be concerned that in an effort to encourage more contact with the non-custodian parent the economic situation for the child could be worsen. This observation leads me to wonder if shared parenting is really worthwhile for all cases and some cases should be prohibited from extended visitation or shared parenting. New Jersey explicitly provides guidelines for when shared parenting is appropriate and when it is not.

Appendix A

Arizona's Adjustment for Visitation and Shared parenting

Arizona has provided for an adjustment to the child support obligation for the costs associated with time spent with the non-custodial parent. As such this credit is an adjustment for both visitation and shared parenting situations. The percentage reductions in the NCP's obligation is determined by the following two tables. If the number of days that the child is with the NCP is less than 143 days or it is agreed that expenses of child are shared roughly equally by both parents then Table A is used. However, if the numbers of days with the NCP is greater than 142 days and it is determined that the expenditures on clothing, entertainment, personal care, and reading material are borne by the CP then Table B is used.

Table A

Number of Parenting Days		Adjustment Percentage
0	3	0.000
4	20	0.012
21	38	0.031
39	57	0.050
58	72	0.085
73	87	0.105
88	115	0.161
116	129	0.195
130	142	0.253
143	152	0.307
153	162	0.362
163	172	0.422
173	183	0.486

Table B

Number of Parenting Days		Adjustment Percentage
143	152	0.275
153	162	0.293
163	172	0.312
173	183	0.331

The number of parenting days is located in the appropriate table and the corresponding adjustment percentage is selected. The adjustment percentage is multiplied times the NCP's obligation based upon the assumption the total costs of raising the child is unaffected by the amount of time spent with the NCP. This amount is then subtracted (credited) from the NCP's obligation.

For example, if the NCP share of total income is 70% and the BCSO is $200 then the NCP's obligation would be $140 if no visitation is made with the child. However if the child spends 50 percent of the overnights with the NCP and both parents shared equally in the expenses then a credit of $68 (=.486*$140) would be subtracted from the obligation of $140. The net obligation for this NCP would be $72. If the cost of raising was determined not to be shared substantially between the parents then Table B would have been used and the appropriate percentage was .331. This would result in a credit of $46 and a net obligation of $94.

I have tried to contact the Judicial Council of Arizona to see if they could provide me with a rational for their adjustment. But I have not received a reply at this time. I was able to talk with Jane Venhore of Policy Studies, INC who worked with Arizona when they reviewing their guidelines but her memory was that it done on pretty ad hoc basis with the idea that no obligation should every be reduced more than 50 percent for visitation, extended visitation or shared parenting.

Appendix B

Mathematical Equivalents of Cross-Crediting

Let G denote the parent with greatest share of combined income, S the other parent, and

B = Basic Child Support Obligation,

d = proportion of B that is duplicated when Shared parenting is used.

S_G = G's share of combined parental income

S_S = S's share of combined parental income = $1 - S_G$

t_G = G's share of overnights with child

t_S = S's share of overnights with child = $1 - t_G$.

O_G = G's obligation of total cost of Shared parenting = $S_G\, B\, (1+d)$

O_S = S's obligation of total cost of Shared parenting = $S_S\, B\, (1+d) = (1-S_G)\, B\, (1+d)$

The Cross-Crediting formula is

$$\left[O_G - t_G O_G \right] - \left[O_S - t_S O_S \right]$$

which can be rewritten as

$$\left[\left(1+d\right) \times B \times \left(S_G\left(1-t_G\right) \right) \right] - \left[\left(1+d\right) \times B \times \left(S_S\left(1-t_S\right) \right) \right]$$

$$\left(1+d\right) \times B \times \left[S_G\left(1-t_G\right) - S_S\left(1-t_S\right) \right]$$

$$\left(1+d\right) \times B \times \left[S_G\left(1-t_G\right) - \left(1-S_G\right)\left(1-\left(1-t_G\right)\right) \right]$$

$$\left(1+d\right) \times B \times \left[S_G - t_G \right] \tag{1}$$

$$O_G - t_G \times \left(1+d\right) \times B \tag{2}$$

The last expression states that the Cross-Crediting procedure is identical to the procedure of taking the obligation of the parent with the largest share of combined income and giving them a credit equal to the proportion of the time that the child spent with them times the total cost of raising the child in shared parenting. If the parent does indeed incur this amount of expenses when the child is with them then this credit will be appropriate in the sense that the net obligation will serve to equate the parent's outlays with their fair share obligation.

The formulas used by Michigan and California can be shown to be similar to a Cross-Crediting approach. Let

$$w_G = \frac{t_G^2}{t_G^2 + t_S^2} \qquad w_S = \frac{t_S^2}{t_G^2 + t_S^2} = \frac{\left(1-t_G\right)^2}{t_G^2 + \left(1-t_G\right)^2} \quad and \quad w_G + w_S = 1.$$

The Michigan formula is

$$\frac{\left(1-t_G\right)^2}{t_G^2 + \left(1-t_G\right)^2} \times S_G \times B - \frac{t_G^2}{t_G^2 + \left(1-t_G\right)^2} \times S_s \times B$$

$$B \times \left[S_G\left(1-w_G\right) - \left(1-S_S\right)w_G \right]$$

$$B \times \left[S_G - w_G \right] = S_G B - w_G B \qquad\qquad (3)$$

Comparing equations (1) with equation (3) shows the close relationship between this formula and the Cross-Crediting formula. Since w_G is strictly less than t_G, and the Michigan/California formula does not recognize the additional costs of shared parenting, the Michigan/California formula gives less credit for the time that the child spends with the parent with the largest share of combined income.

Appendix C

Proportion of Duplicated Expenses Incurred by NCP

In Figure 2, I have assumed that the proportion of duplicated expenses varied with the percentage of overnights using the following logistic function

$$p(t) = \frac{1}{1 + exp\left[-50(t - .30)\right]} \quad where\ 0 \le t \le .5$$

when t is equal to .50 (50% overnights) then p(t) is approximately 1.0.