

Application of Equity to Child Support

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This paper proposes that the economic criteria of horizontal and vertical equity can be applied to Child Support and may be used as standards for evaluation of the Child Support formula of the Australian Child Support Scheme. Financial modelling is used to simulate the financial circumstances of separated parents. While some previous research published in Australia has analysed the financial circumstances of parents, financial modelling has been limited to, at most, a handful of particular circumstances (for example, Scott, 1989). The only previous attempt to model a broad range of situations is an unpublished work developed by the Department of Social Security. The Joint Select Committee on Certain Family Law Issues considered this model and called for the development of an alternative model (JSC, 1994). This challenge has not been taken up to date.

This paper is limited to an evaluation of the Child Support Scheme against equity criteria and does not propose changes to the Scheme. While the Scheme clearly has other (possibly competing) policy objectives, they are beyond the scope of this paper. Sections of the paper discuss Child Support, equity principles in relation to Child Support, the model underpinning our analysis, results in respect to horizontal and vertical equity and sensitivity testing.

Child Support Scheme

The Child Support Scheme in its current Australian form came into operation on 1 October 1989. The Scheme provides for the transfer of income from a parent (normally the Non-Resident Parent or NRP) to a person caring for the children (normally the Resident Parent or RP). The amount of this transfer is determined by administrative assessment using calculations legislated in the *Child Support (Assessment) Act 1989* (CSA). These calculations are generally referred as the 'Child Support formula' — though assessment is, in reality, more complex than applying a single formula. The formula considers a number of inputs including the parents' taxable income, number of children, and the amount of time parents care for the children.

The Child Support formula has been contentious since the start of the Scheme (see, for example, Carr, 1994). Generally, the debate on Child Support has consisted of calls for increasing or decreasing assessments based upon more or less substantiated claims of unfair treatment from either parent. In the opinion of some observers (for example, Wakelin, 1998), debate on underlying policy has been absent. Indeed, arguably the most complete evaluation of the scheme to date

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(JSC, 1994) concluded that the existing formula was 'arbitrary'. This paper represents an attempt to provide a policy underpinning to the debate on Child Support by applying equity principles to Child Support.

Equity

Background

Economists usually invoke two equity principles or objectives known as horizontal and vertical. Horizontal equity is the principle that people in equal positions should be treated equally. Vertical equity, as applied to taxation, holds that those who have a greater ability to pay higher taxes should do so.

While both equity concepts have general appeal, they are not based on economic analysis. For example, Boadway (1979) sees horizontal equity as more a principle of justice requiring a value judgement and argues that economists assume that most, if not all, members of society would accept it. Nevertheless, economic theory recognizes a number of issues that must be reconciled before the concepts are applied. In general, these issues concern what is used to define ability to pay (equal position), relative position and equal sacrifice.

Economic theory holds that the ideal way to judge initial position (from the literature on taxation) would be to base it on the overall well-being of an individual. In economic theory this is termed an individual's utility (satisfaction). Theoretically, utility would be used as the (tax) base defining equal and relative position, with equal sacrifice defined as equal utility sacrifices in terms of tax payments (see Cullis and Jones, 1992). However, economists are reluctant to make interpersonal utility comparisons and it is impossible to use them as a measure in practice, since all personal circumstances would have to be taken into account. In contrast, reality requires a transfer system based on observable variables that can be measured.

Thus economists and policy makers rely on measures like income or expenditure. As noted by Boadway (1979), the most common measure of ability to pay is the comprehensive income base, which includes all the income of an individual regardless of its source or its use. Although most authors consider this to be the best available measure of the overall well-being of individuals, there is still room for debate. For example, if two brothers with an equal ability to earn devote different amounts of time to work and leisure, they would earn different incomes. A tax structure based on income means that the one earning the greater income pays a greater amount of tax. Hence it can be argued that income represents the outcome of peoples' decisions, not equal position, and that both brothers started with an equal ability to pay (see Rosen, 1992). There can also be problems on the consumption side as with different tax rates on beer and wine, and one brother preferring each drink. According to Ng (1979), if all factors are allowed to enter into the determination of equal circumstances, the principle of horizontal equity becomes vacuous since all individuals are different. Many economists would argue that differences in tastes or earning ability are not

sufficient to render the equity concepts useless if individuals face the same opportunity sets.

Application of Equity to Child Support

While the equity principles were originally applied to taxation, they have since been applied to a large number of areas in which equity is seen as a desirable feature. These include the distribution of welfare (see Brownlee and Macdonald, 1986), the provision of government services such as housing and the distributional consequences in specific markets (see Friedman, 1984). The authors submit that these principles can also be applied to Child Support. This argument rests in part on the general principle that fairness is a desirable property of Child Support just as it is desirable in other areas such as those referenced above. However we also find support for our submission in the legislation.

In the literature on Child Support, Sorensen and Halpern (2000) have identified inconsistencies in judicial awards as an issue of horizontal equity. However the authors are not aware of any previous attempt to apply equity principles to the two parents who are the parties to a Child Support transaction. In the Australian context, this is somewhat surprising since horizontal equity is mentioned fairly explicitly as an objective in Section 4 of the CSA. Similarly, as a result of the consideration of vertical equity in the development of the Child Support formula (Consultative Group, 1988), Section 4 of the Act suggests that it also is, at least, in line with the objectives of the legislators. Section 4 of the CSA, in part, states:

(2) Particular objects of this Act include ensuring:

(a) that the level of financial support to be provided by parents for their children is determined according to their capacity to provide financial support and, in particular, that parents with a like capacity to provide financial support for their children should provide like amounts of financial support; ...

(d) that children share in changes in the standard of living of both their parents, whether or not they are living with both or either of them.

Ability to Pay

In general, the process of applying equity principles to Child Support is straightforward. In Australia (as elsewhere), Child Support is taken from after tax income. Consequently, it is common to consider after tax income as the basis for measuring ability to pay. Other government transfers such as social security payments can also be seen to contribute to ability to pay. Hence the money available to a person after tax, social security and all other transfers (except Child Support) is the starting point for measuring ability to pay. We use the term Disposable income for this.

Much literature on Child Support goes further and sets aside a reserve for self-support. If this reserve is deducted from Disposable income, this gives a more refined measure of ability to pay by allowing for a basic cost of living. The Australian Child support formula, like most recent formulae in other jurisdictions, sets aside a self-support reserve before calculating Child Support (CSA:Section 3).

In the remainder of this paper we use the term Discretionary income for this measure. The amount set aside for self-support is described in the following section. Note that, as we use the term in this paper, Discretionary income aligns with the description above and does not allow for support of the children, which is considered separately.

Model

This paper deals with separated parents who invoke the Child Support formula and each has time with the children. To simplify the discussion, they are assumed to have not re-partnered and to have no children from other relationships. Basically the model considers a single scenario in terms of the circumstances of the two parents. The model is then iterated to determine different outcomes in response to changing the important inputs such as the number of children, the percentage of nights spent with each parent and the parent's earnings from paid employment. Parameters include the costs of children data (described below), tax rates and tables of social security benefits.

All income related parameters were inflated to May 2002 in proportion to movements of the Average Weekly Earnings — All employees (ABS, 2002a). All cost of living data were inflated to 31 March 2002 in proportion to movements of the All Groups CPI (ABS, 2002b). Social security entitlements, taxation and Child Support transfers are at the level of 1 April 2002. The model does not consider transfers between parents outside the Child Support system, although they were found to be common by the Child Support Evaluation Advisory Group (1992). Such transfers mean that the transfers between parents are not (solely) based on the Child Support formula. While equity considerations could, in principle, be applied to such arbitrary transfers, that is not the focus of this paper.

The effects of differences between parents in their asset base are not considered. This is in line with the treatment in most other literature and also in all national Child Support formulae known to the authors. However, we note that differences in assets are common and affect household expenditure requirements.

Costs

Our model requires as input, data on costs of living applicable to separated parents and to raising children. Unfortunately most available data deal only with intact families. However, a few Australian studies that deal with separated parents have recently become available. This paper draws heavily upon two of them.

Henman and Mitchell (2001) develop costs for households consisting of a NRP and, for part of the year, either one or two children. This research is the only

available Australian data on the direct costs of children to NRPs. Henman (2001) develops a number of different cost estimates for children in the household of the RP. Here, the data used is taken from tables D1 and D2 since these were seen as being most comparable to the Henman and Mitchell (2001) study. Both studies estimate the cost for a parent to live at a low-cost level. This level is used as the self-support reserve set aside when calculating Discretionary income.

By virtue of using the two studies described above, the current paper inherits some assumptions:

- First, the study by Henman (2001) assumes that the children reside with the RP for 365 nights per year (whereas the model deals with scenarios in which both parents have time with the children). Rather than make adjustments, we use Henman's figures.
- Second, the cost data described above deals with certain specific households. In particular, households are located in Sydney in privately rented accommodation. The single child is assumed to be a girl aged six. With two children, a fourteen-year old boy joins the girl. Larger groups of siblings are not dealt with in the Henman and Mitchell study.
- Both the Henman and Mitchell (2001) and the Henman (2001) studies derive, more or less directly, from the key study by Saunders *et al* (1998). Consequently they share many normative assumptions about what constitutes appropriate expenditure. It is unclear to what extent these assumptions impact on the available data.
- Both studies use a budget standards methodology — also known as a basket of goods approach. Consequently they aim to state what *should* be spent on children — as judged by a committee of experts on nutrition, health economics, housing, clothing needs, consumer behaviour, and household budgeting. In the studies used here, two costs are derived — a ‘low cost’ standard and a ‘modest but adequate’ standard. These standards exist independently of constraints such as income and do not vary significantly with income. By virtue of using these studies, this paper is judging Child Support with reference to what should be spent on children.
- Other studies exist which use expenditure survey data to arrive at estimates of what parents *actually* spend on their children. (For a discussion of these two methodologies see McDonald, 1990.) The approach used in the current paper could also apply to expenditure survey studies — in which case we would be judging Child Support with reference to what parents typically spend. Regrettably there is no expenditure survey data available for NRPs, so this analysis is not yet possible.

Operation of the Model

The logic of the model including key assumptions is summarised below. Discussion under most of the steps is divided into method and example. Method refers to a general description of the step while the example is a numerical

illustration of the calculations. The example considers a scenario in which the NRP earns \$33,000 per year. The example also assumes two children who spend 23 per cent of their time with the NRP and RP earnings of \$24,400 per year.

Figure 1: Demonstration of Model

Step	Method	NRP	RP
1. Calculate the parenting payment and Newstart.	Assume RPs qualify for Newstart subject to income test.	The NRP does not qualify for any form of pension.	The RP qualifies for a parenting payment of \$3,034/year.
2. Determine tax liability and after tax income of parents.		Tax = \$6,775/ year After tax income = \$26,225	Tax = \$4,322/year After tax income = \$23,112.
3. Calculate the child support transfer.	Self-support is set at \$11,740 of NRP's taxable income. For two children, Child Support = 27% of remainder.	Adjusted Income: \$33,000 - \$11,740 = \$21,260 Child Support: 27% of \$21,260 = \$5,740	Child Support = +\$5,740
4. Calculate family tax benefit (including Rent Assistance).	Household cost data used to calculate Rent Assistance. Assumes both parents apply for family tax benefits.	Family Tax Benefit = \$4,486	Family Tax Benefit = \$7,285
5. Determine the costs of the children in each of the two households.	Uses 'low cost' figures for earnings less than AWE; 'modest' figures for earnings greater than twice AWE; and linear transition between these earnings.	Low cost range = \$6,942/ year. Henman & Mitchell (2001) data for 15%, 20% and 30% shares of time. The model interpolates to determine costs at other share times.	Low cost range = \$12,179/year.
6. Determine the Discretionary income of parents.	Allows for parent's cost of living the 'low cost' figures.	\$26,225 (after tax) + \$4,486 (FTB) - \$18,054 = \$12,657	\$23,112 + \$7,285 - \$17,743 = \$12,654
7. Determine each parent's contribution to the costs of the children.	Parent's contribution is sourced only from own income. Social Security payments otherwise due to a parent without children are deducted from Government's contribution.	\$6,942 (cost: step 5) - \$4,486 (Social Security payment: step 4) + \$0 (Social Security without children) + \$5,740 (Child Support from step 3) = \$8,196 (approximately).	\$12,179 (cost: step 5) - \$7,285 (FTB: step 4) - \$2,776 (after tax parenting payment: step 2) + \$0 (Social Security without children) - \$5,740 (child support: step 3) = -\$3,622 RP's contribution is negative as total children cost are less than Social Security and Child Support payments.

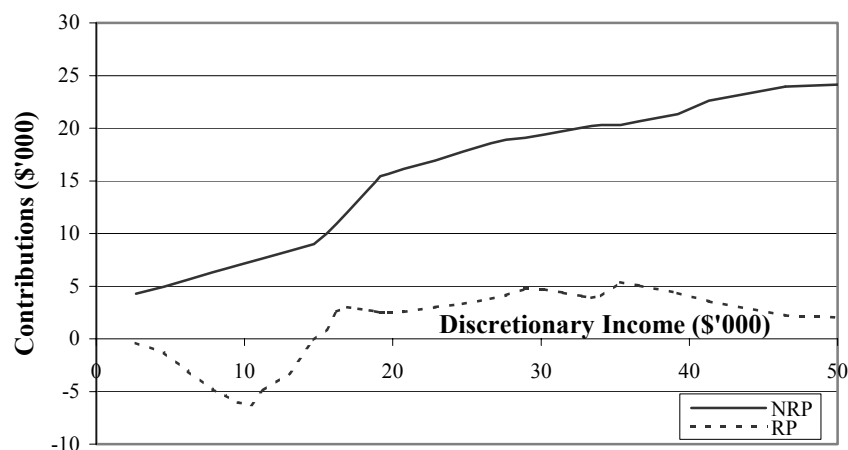
The interested reader can confirm that the above example yields points on the curves plotted in the first graph of the following section. The points relate to a Discretionary income of \$12,655 — the Discretionary income of both parents. Reading off this value on the X-axis, the corresponding value on the curve of NRP contributions is \$8,196 and the value on the curve for RP contributions is -\$3,622.

Horizontal Equity

It is possible to use quantitative analysis to test whether the existing Child Support formula fulfils the objective of horizontal equity. We have modelled a large number of scenarios to determine the formula's divergence from horizontal equity and the sensitivity of this divergence to different parameters. Here we illustrate by providing two examples.

When examining horizontal equity in the model, we are dealing with equal position and only need to define equal ability to pay and equal sacrifice. As discussed previously, people are deemed to be in an equal position if they have the same level of Discretionary income. Equal sacrifice for horizontal equity means an equal dollar value contribution to child support.

Figure 2: Contribution of Parents with Equal Discretionary Income, 2 Children and 23/77 Parental Percentage Time-Shares



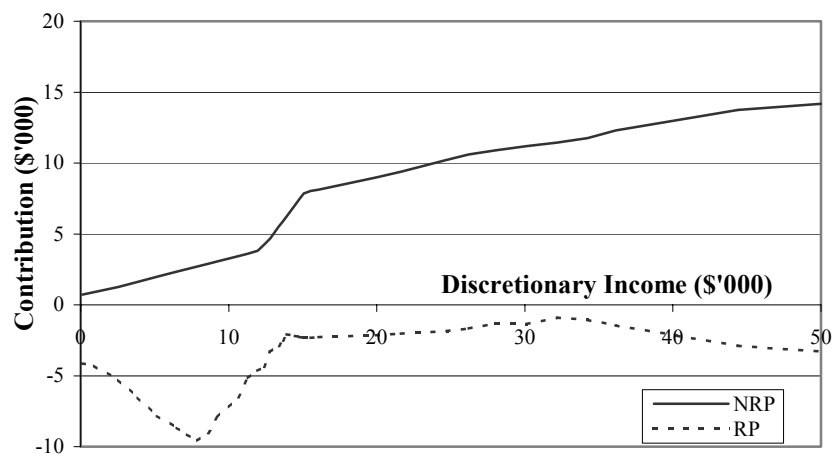
In the first scenario, we assume that there are two children whose time is split according to the standard Family Court orders where the NRP has access every second weekend and half of the school holidays. This yields a split of the time with the children of 77 per cent to the RP and 23 per cent to the NRP. The results are shown in Figure 2. The two curves represent the contributions of each parent and the distance between the lines represents the inequality in financial support. For example, given equal parental Discretionary income of \$20,000, the NRP

would be contributing \$15,806. The RP would only be providing about \$2,528. Horizontal equity would require equal contributions from the parents.

Readers may note that at high income levels, the contribution of the RP falls. This occurs because the costs of children do not increase with increases in household income in this range. Nonetheless the Child Support paid by the NRP continues to increase. Consequently as household income increases in this range, more of the costs of children are paid by the NRP leaving less for the RP to pay.

The results of our second scenario are shown in Figure 3. Here, we assume there is only one child and that time with the child is shared 15 per cent to the NRP versus 85 per cent to the RP. (The 15/85 share was chosen as it is described in the Henman and Mitchell study.)

Figure 3: Contribution of Parents with Equal Discretionary Income, 1 Child and 15/85 Parental Percentage Time-Shares



In this scenario, the shapes of the curves showing contributions of the NRP and RP are similar to Figure 2. Not surprisingly, the contributions required for one child are significantly lower than for two. What the reader may find surprising here is that contributions of the RP are negative for all levels of Discretionary income. (Obviously this finding cannot be generalised to other scenarios.) Essentially this is a result of the interplay of two factors. First, data from both Henman (2001) and also the preceding study by Saunders *et al* (1998) shows that the incremental cost of a second child is significantly greater than that of the first child. In contrast, both Child Support and government benefits provide significantly more for the first child than the second. The result is that, in comparison with the two children scenario, the greater Child Support and benefits for the first child exceed the lesser cost of the first child.

In both cases presented in this section, much greater financial support is demanded from the NRP than from the RP. Similar results applied in other scenarios we examined. We conclude that the current Child Support formula diverges from the objective of horizontal equity.

Vertical Equity

We have also tested whether the Child Support formula meets the objective of vertical equity. As with horizontal equity, we illustrate with a few examples out of the many scenarios tested. Again we have varied the number of children and the time spent with each parent. Recall that we assume that equal contribution (sacrifice) is measured by an equal percentage payment out of the income measure. This is consistent with the form of the current Child Support formula. The analogous policy in taxation would be proportional rather than progressive taxation. In the following parts of this section we use proportional contributions. The final part of this section considers some other policy options for vertical equity.

Given the aim of proportional contributions, to achieve vertical equity between the RP and the NRP, both parents would have to contribute an equal percentage of the income measure towards the costs of the children. Consequently, vertical equity requires that the ratio (here termed the Sacrifice Ratio) between the RP's and NRP's percentage contributions would be equal to one. Conversely, if the Child Support formula required NRPs to contribute twice the percentage of income as RPs, then the Sacrifice Ratio (NRP/RP) would be two. Obviously a Sacrifice Ratio other than one does not meet our vertical equity criterion. The extent to which the Ratio differs from one provides a measure of the extent to which the actual Child Support formula differs from the vertical equity objective.

Figure 4 shows Sacrifice Ratios (on the Y-axis) for the two children, 77/23 percentage time-share split scenario. Here it is assumed that the RP's earnings are equal to Average Weekly Earnings for all (both full and part-time) employees, at \$35,797 per annum.¹ The X-axis shows varying earning levels for the NRP. Note that this is different to the graphs used for horizontal equity. In principle, any income related measure could be used on the X-axis with essentially the same result. We chose earnings since they are computationally more tractable in our model.

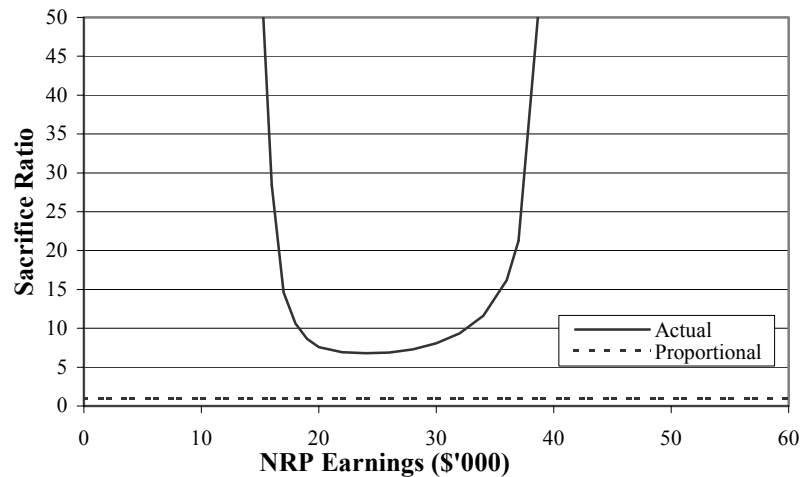
Two curves are plotted:

- The solid line shows actual Sacrifice Ratios for the current Child Support formula.
- The dotted line shows the Sacrifice Ratios required to meet our baseline goal (proportional contributions). As described earlier the required Sacrifice Ratio is always one so this is a simple straight line.

¹ We use AWE in part because it is less arbitrary than most other choices. Also it yields graphs which are of interest. In most cases, both RPs and also NRPs have incomes less than AWE. However where the RP's income is low, the RP's net contribution is negative at almost all levels of NRP earnings. This puts the curves 'off the scale'. Our later discussion of Figure 7 investigates situations of low RP earnings.

The distance between the lines for the actual Sacrifice Ratio and the line for our equity baseline gives a measure of the extent to which the Child Support formula fails to meet the objective.

Figure 4: Relative Contributions for Varying NRP Earnings, 2 Children and 23/77 Parental Percentage Time-Shares



As an example, if the situation for a NRP earning \$30,000 is examined, one finds that the NRP has a Discretionary income of \$10,601 and pays \$7,281 towards child costs. Thus the percentage of Discretionary income that the NRP contributes towards the costs of the children is:

$$\frac{\text{Contribution}}{\text{Discretionary Income}} = \frac{\$7281}{\$10601} = 69\%$$

Similarly when we consider the situation of a RP in the given scenario (two children, \$35,797 earnings etc), the model yields a Discretionary income of \$16,358 and a contribution towards child costs of \$1,393. Thus the percentage of Discretionary income that the RP contributes towards the costs of the children is:

$$\frac{\text{Contribution}}{\text{Discretionary Income}} = \frac{\$1393}{\$16358} = 8.5\%$$

This gives a Sacrifice Ratio (Discretionary income) of 69 per cent divided by 8.5 per cent or approximately 8.1. Throughout the graph shown in Figure 4, the Sacrifice Ratio is significantly in excess of one.

Readers will note that in many cases, Sacrifice Ratios are 'off the scale' being greater than 50 to one. This occurs at both low and high earning levels. At earnings less than \$14,000 per annum, Discretionary income for a NRP is effectively zero since income (including Social Security payments) is less than

required to meet the low cost standard of living given by Henman (2001). At greater than \$40,000 the Sacrifice Ratio is again 'off the scale' — the cause being that the RP makes no contribution to child costs since Child Support together with the Government contribution amounts to more than the cost of the children. Figure 5 demonstrates this effect.

Figure 5: RP's Contribution to Costs and NRP Discretionary Income, 2 Children and 23/77 Parental Percentage Time-Shares

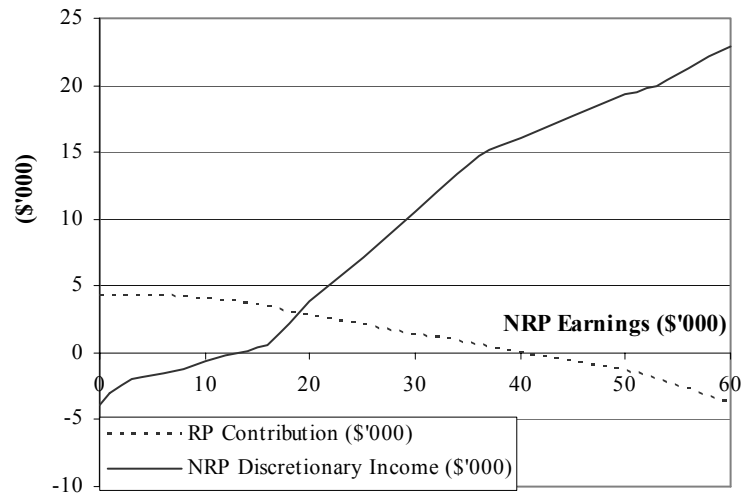
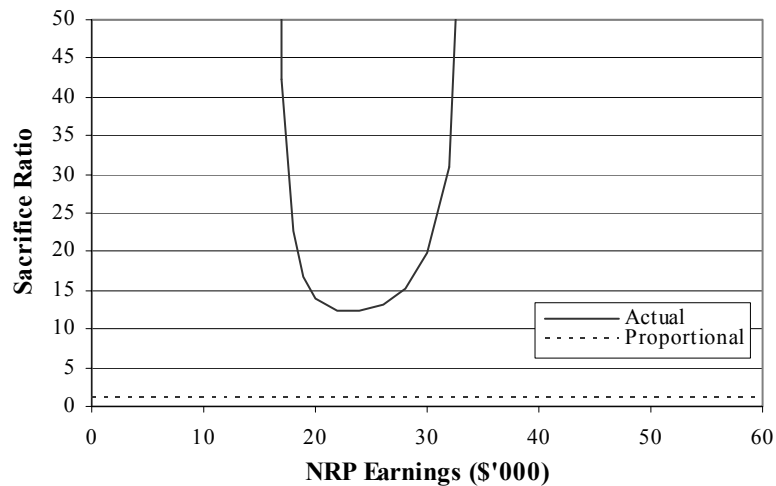


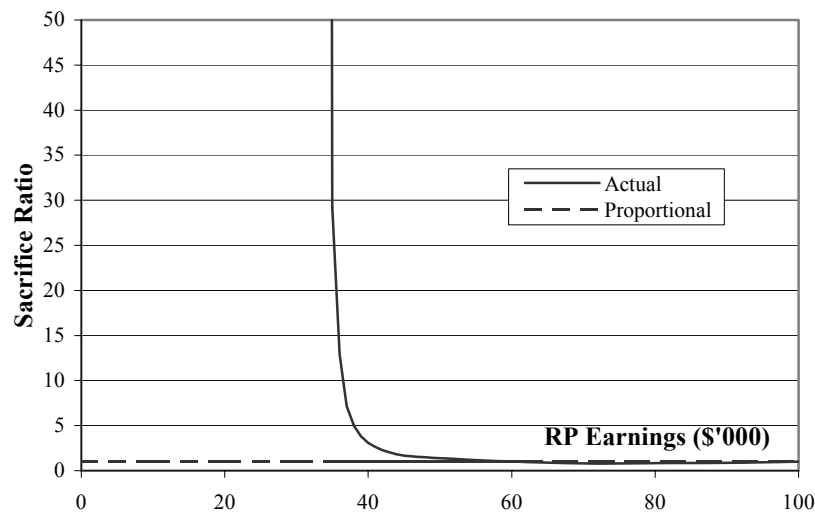
Figure 6: Relative Contributions for Varying NRP Earnings, 2 Children and 15/85 Parental Percentage Time-Shares



Alternative scenarios were also considered for vertical equity. Figure 6 shows similar results (to Figure 4) for a 15/85 percentage time-share split scenario, with Sacrifice Ratios that are now even higher. This occurs mainly because RPs receive approximately \$735 per year more in Government contributions when their time with the children increases from 77 per cent of the year to 85 per cent. This causes a significant decrease in the RP's contributions.

In Figure 7, the sensitivity of these results is checked for different levels of RP income. The scenario is the same as for that in Figure 4 except that we vary RP earnings on the X-axis with NRP earnings held constant at AWE. There are broadly three regions shown in the graph. Below RP earnings of approximately \$34,000 the graph is off the scale since the RP makes no contribution to child costs — those costs being less than the amount received in Child Support together with Government contributions. Where RP earnings are around \$40,000, Sacrifice Ratios are much greater than one but no longer off the scale. Where the RP earns \$50,000 or more per annum, Sacrifice Ratios are close to vertical equity. This is principally due to the fact that as RP income increases through this range, the Child Support formula reduces the contribution from the NRP. Consequently more of the child costs are borne by the RP. The combination of the reduced contribution from the NRP and the increased contribution from the RP gives Sacrifice Ratios close to one.

Figure 7: Relative Contributions for Varying RP Earnings, 2 Children and 23/77 Parental Percentage Time-Shares



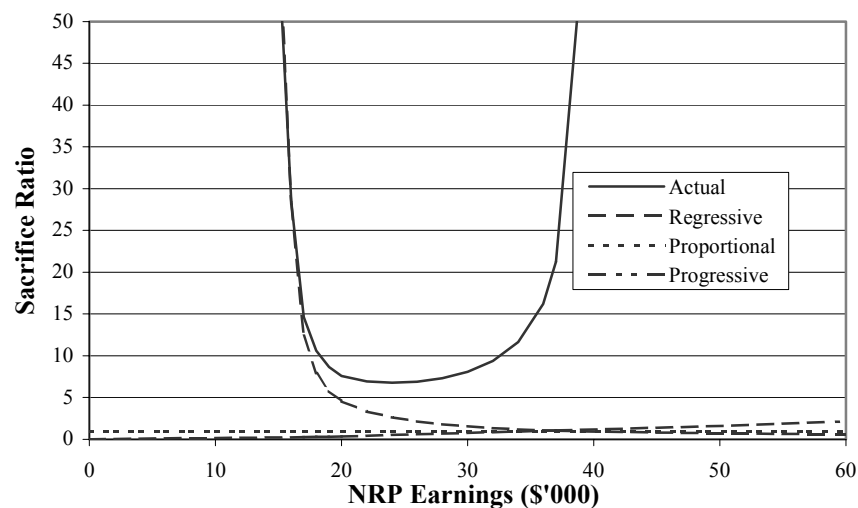
A case could be made that the parent with greater income should make a higher percentage contribution — in similar fashion to progressive taxation rates. At the opposite extreme, a case could also be made for a regressive approach — for example, that parents should each contribute half the cost of children. In Figure 8 we examine these alternative objectives.

The scenario used for Figure 8 is the same as that in Figure 4 — two children, 77/23 percentage time-share split and RP earnings equal to AWE. The same two lines plotted in Figure 4 appear again in Figure 8. As well, two further lines are plotted corresponding to the progressive and regressive goals just described:

- A regressive objective — that parents should each contribute half the cost of children. We note in passing that this would not qualify as a vertical equity policy.
- A progressive objective based upon Australia's progressive taxation rates. In particular the policy graphed is that parents should each contribute in proportion to the amount of income tax they pay.

As with Figure 4, the distance between the lines for actual Sacrifice Ratio and the line for a given objective is a measure of the extent to which the current Child Support formula fails to meet the objective.

Figure 8: Relative Contributions for Varying NRP Earnings, 2 Children and 23/77 Parental Percentage Time-Shares: Alternative Policies



Clearly, the current Child Support formula diverges from the progressive objective — essentially to the same extent that it does from the proportional objective. Indeed, the difference between the progressive and proportional objectives is minor compared to the divergence shown by the current formula. However the current Child Support formula does align with the regressive objective at low levels of NRP earnings. The reason is that both the current formula and the regressive objective require the NRP to contribute Child Support even when the NRP has a Discretionary income of zero. Consequently the curves

for both the current formula and the regressive policy disappear off the scale where NRP Discretionary income approaches zero. (As noted in Figure 5, this occurs where NRP earnings are approximately \$14,000.) Where the NRP's Discretionary income is significantly greater than zero, the current formula diverges greatly from the regressive objective as well.

In summary, for vertical equity, only when RP earnings are significantly more than average weekly earnings does the current Child Support formula share the costs of children in proportion to ability to provide financial support. In all other cases, the NRP is required to contribute a far greater proportion of their income than is the RP. Moreover the current formula exhibits significant divergence from other vertical equity objectives we have examined.

Sensitivity Testing

The robustness of the findings was evaluated by varying the assumptions on ability to pay and the cost of children. Disposable income, meaning that an allowance for self-support by the parent is not deducted, was used as an alternative measure of ability to pay. In preceding sections, the self-support reserve was set to equal the low cost standard of living from Henman (2001) or Henman and Mitchell (2001). However, it could be argued that a poverty line would be a better measure and that the Henman (and Mitchell) costs are too high to be considered a legitimate poverty line — see Saunders and Tsumori (2002). Regrettably, there appears to be no generally accepted poverty line. However, to test for robustness, we examine the (extreme) case where the self-support reserve is set to zero. In this case Disposable income will equal Discretionary income. The results can equally be viewed as examining the case where self-support reserve is zero.

The cost of children in the preceding discussion was based on data from Henman (2001) for the costs of children to the RP and from Henman and Mitchell (2001) for the costs of children to the NRP and reflected judgements on what *should* be spent on children. For the sensitivity analysis, data from Valenzuela (1999) were used to estimate the costs of children to the RP. These are based on expenditure survey data and estimate what parents *actually* spend on their children. For NRPs, because there are no relevant expenditure survey results pertaining to them, the Henman and Mitchell (2001) data was used as before. This meant that NRP costs did not change with respect to income. It also meant that budget standards data (for the NRP) was compared with expenditure survey data (for the RP). In the restricted context of sensitivity testing, the methodological difficulties this involved were ignored.

The earlier findings continued to apply when Disposable income was used an alternative measure of ability to pay. In summary, if Disposable income is used in place of Discretionary income then the current Child Support formula still diverges from a Horizontal Equity objective. At moderate to high NRP earnings the formula also diverges from a Vertical Equity objective. However, for Vertical Equity, at low NRP earnings the formula only requires approximately 50 per cent

greater sacrifice from the NRP than the RP when comparison is made based on Disposable income.

The findings also continued to apply when the analysis was repeated using alternative costs of children data for the RP. In this case, however, the divergence from Horizontal equity was not so great at high incomes.

The robustness of our conclusions should not be surprising. Our primary analysis shows that the current formula diverges from equity policies by an order of magnitude. Consequently even the major shifts in assumptions that were examined here did not shift the overall conclusions significantly.

Discussion and Conclusions

We have argued that the concepts of horizontal and vertical equity can be used to examine whether Child Support transfers are set at an appropriate level. To investigate this issue we have constructed a model that addresses the levels of Child Support in comparison to the levels dictated by equity principles.

The principle of horizontal equity is important because it is generally agreed that people in the same position should be treated equally. Hence horizontal equity serves as a baseline for evaluating whether a child support formula meets a basic hurdle of acceptability. This is true despite the fact that horizontal equity is only directly applicable in the (relatively extraordinary) circumstance that two parents are in equal positions. Our results show that the current child support formula yields transfers that diverge greatly from those dictated by horizontal equity. In particular the RP is treated more favorably than the NRP.

We have also evaluated the current Child Support formula against the objective of vertical equity. Vertical equity might be more relevant for actual use because it concerns parents in different income situations. Three different vertical equity policies were compared with the current formula and the formula showed significant divergence from each of them. Only in scenarios in which the RP has a high income does the formula yield transfers that approximate a vertical equity policy. In all other circumstances the RP is treated more favorably than the NRP in regard to vertical equity.

Our presentation of results in respect to vertical equity is based upon graphs of relative contributions against income. The format is useful because it summarises sensitivity to income and is readily adaptable to different assumptions and to accommodate comparison against different objectives.

Our central conclusion is that equity principles can be applied to Child Support and that they provide considerable illumination. We also conclude that the current Australian formula is overly onerous to NRPs and overly generous to RPs when compared against equity principles.

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The authors would like to thank the referees and Stuart Birks for their considerable contributions. Thanks also to Dr Paul Henman for his input. Any errors, however, are attributable to the authors.