



INCOME SHARING BETWEEN PARENTS AND YOUNG PEOPLE LIVING AT HOME

By Judy Schneider

SPRC Discussion Paper No. 125

September 2003

Published by
The Social Policy Research Centre
University of New South Wales
Sydney NSW 2052
Australia
© SPRC 2003

ISSN: 1447-8978
ISBN: 0 7334 2065 6

Social Policy Research Centre Discussion Papers are a means of publishing selected results from the Centre's research, work commissioned by the Centre or research by visitors to the Centre, for discussion and comment in the research community and/or welfare sector before more formal publication. As with all the Centre's publications, the views expressed in this discussion paper do not reflect any official position on behalf of the Centre. This publication may be downloaded for use in private study, research, criticism and review. The publication is copyright, and may not be reproduced in any form without the prior permission of the author.

Peter Saunders, Jenny Chalmers and Saba Waseem
Editors

About the Author:

Judy Schneider produced this paper while a Research Scholar at the Social Policy Research Centre

Correspondence to: Judy Schneider
Email: jschneider@unsw.edu.au

Abstract

Since the 1970s, changes in the Australian labour market, education and income policies have led to reductions in income for young people aged 15 to 24 years. Young people today are therefore more reliant on their parents sharing income with them.

This paper presents the results of original research that shows how parents share, or 'pool' their income with young people living at home. Australian household expenditure data is examined using new and extended methods to show how different levels of income received by young people and their parents affects expenditure on themselves and other family members.

It is found that on average, young peoples' consumption of basic food items is unaffected by their level of personal income indicating that parents pool income for these items. However, in low-income families, young people are more likely to consume luxury food items if they have higher personal incomes suggesting less pooling by parents. It is also found that regardless of levels of parental income, young peoples' consumption of adult goods such as alcohol and cars is restricted unless they have incomes of their own.

1 Introduction

1.1 Overview

Since the early 1970s, changes in the Australian labour market and education and income policies have led to a reduction in the incomes of young people aged 15 to 25 years. Young people today are much more likely to be financially dependent¹ on their parents than previously. Schneider (2000: 10) showed that between 1982 and 1996, the proportion of young people aged 15-17 years who were financially dependent increased from 79 per cent to 96 per cent and the proportion of financially dependent young people aged 18-21 years increased from 38 per cent to 62 per cent.

Instead of relying on their own incomes, young peoples' well being is increasingly dependent on the extent to which parents share income with them. Therefore, sharing between parents and young people is of greater importance than before.

This paper examines income sharing between parents and young people who live at home while a forthcoming discussion paper examines sharing between parents and young people living away from home.

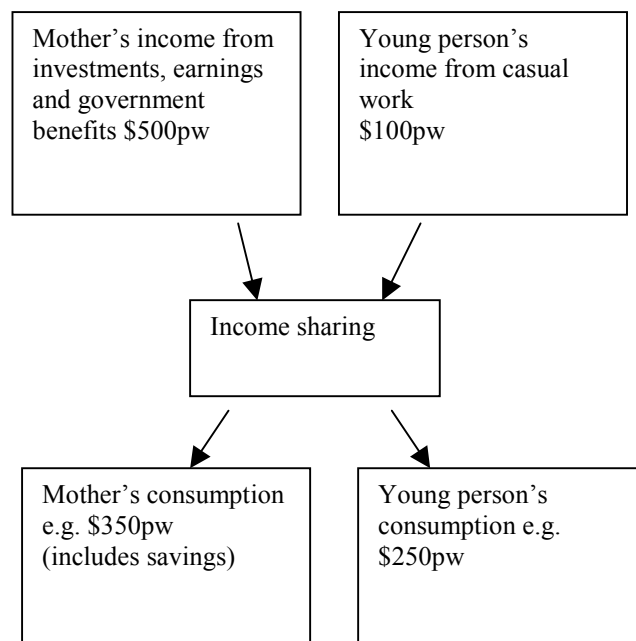
1.2 The concept of income sharing

Before undertaking further discussion, it is useful to clarify what is meant by 'income sharing'. In this paper, the concept of income sharing refers to the process by which the personal incomes of family members are combined and shared resulting in consumption for each family member.

Say a family consists of a mother and young person where the mother receives a relatively high personal income (\$500pw) and the young person receives a smaller personal income (\$100pw) as illustrated in Figure 1.1. Through a process of income sharing, the mother and young person combine their income so that the mother effectively subsidises the consumption of the young person. The end result is that the value of the mother's personal consumption (\$350pw) is less than her personal income and the value of the young adult's consumption (\$250pw) is higher than his or her personal income.

¹ In that study, financial dependency referred to young people having personal incomes below the Henderson Poverty Line, where personal income was derived from market or state sources but not from parents (see Schneider 2000: 1-2 for further discussion). In following sections of this paper, 'financial dependency' is used more generically to refer to reductions in income leading to greater reliance on others.

Figure 1.1: Hypothetical example of how income might be shared in a lone parent family



An issue that is well acknowledged within income policy development and research is the adequacy of family income i.e. what happens if the young adult loses his or her income and there is no compensating increase in the mother's income? While there is scope for further research on the adequacy of family incomes for supporting young people², this is not covered by this paper.

This paper is concerned with the subtler question of whether a change in the distribution of the personal incomes of family members results in a change in the consumption, or well being, of family members. i.e. What happens if the young person loses his or her \$100pw and instead, the mother receives an extra \$100pw? Is the consumption of the young person unchanged or does it decrease? If changes to the personal incomes of family members do not result in a change in the consumption of those family members, then changes in the financial dependency of young people may not matter. Young people may benefit to the same extent regardless of whether they personally receive income (say from work or social security payments) or whether their parents support them.

1.3 Theories of income sharing

Theories of income sharing within families or households can be broadly divided into two groups³:

² However, Irwin (1995) suggests that this may not be an issue since reductions in young peoples' incomes since the 1970s may have been compensated by increases in mothers' incomes, so that average family income has been maintained over time.

³ A comprehensive and critical description of the seven main theories of family sharing is provided in Schneider (2002: 16-43).

- i) those that predict families ‘completely pool’ their income so that it makes no difference to each family member’s consumption who receives income, and
- ii) theories that predict partial or no pooling so that who receives income does make a difference to each family member’s consumption.

Drawing on the previous example, theories that predict ‘complete pooling’ suggest that if the mother receives an extra \$100pw and the young person loses his or her \$100pw, this will make no difference to the young person’s consumption i.e. the young person will continue to consume the equivalent of \$250pw. If these theories are correct, then financial dependence should make no difference to a person’s consumption.

Theories that predict complete pooling of family income include the consensus model by Samuelson (1956), the obligation model as described by Finch (1989) and Becker’s (1974 and 1981) theory of an altruistic head, which are briefly described below:

- i) Samuelson produced the first of the economic models of income sharing in 1956. He suggested that family members share consumption according to a common set of values, or consensus, regarding each members’ (socially defined) needs. This theory predicts that consumption outcomes will be the same regardless of who receives the income in a family (ie complete pooling) because consumption outcomes are determined according to need.
- ii) Similarly, Finch (1989: 147-148) argues that there is an implicit model of income sharing adopted by many social scientists, in which family members are assumed to share consumption according to feelings of obligation or duty towards one another. This theory predicts that consumption outcomes will be the same regardless of who receives the income in a family (ie complete income pooling) because consumption outcomes are determined according to obligation.
- iii) Lastly, Becker (1974 and 1981) describes a model in which the household head has enough income to compensate for changes in family members’ incomes, and shares out consumption between family members according to his or her own preferences. For example, a father might reduce his contribution to the consumption of one of his children who obtains an independent source of income, so that each of his children end up with the same relative level of consumption as would occur if the child did not have an independent income. In this model, consumption outcomes will be the same regardless of who receives the income in a family (ie complete income pooling) because the head compensates for changes in each person’s income.

In contrast, there are a number of more recent theories that suggest that families do not pool their incomes completely and relative levels of consumption depend on who

receives the income in the family. In terms of the previous example, if a young person loses his or her income of \$100pw and the mother gains \$100pw, then the young person's consumption will be reduced by as much as \$100pw. Such theories suggest that reductions in personal income, or financial dependence, can have an adverse effect on consumption.

Theories that predict partial or no pooling are based on the belief that family members consume according to their bargaining power in the family and this bargaining power is dependent on the income they receive. These theories have mostly been applied to sharing between husbands and wives and have been loosely classified as the 'feminist theories' of intra-household income distribution (eg Jenkins, 1991). These include:

- i) the 'divorce threat' model described by Manser and Brown (1980) and McElroy and Horney (1981), in which bargaining power depends on the non-wage income the person receives⁴;
- ii) the 'separate spheres' model by Lundberg and Pollak (1993) in which bargaining power is determined according to the total income of the person plus any unpaid household work they may contribute to the household; and,
- iii) more general models such as that adopted by Browning, Bourguignon, Chiappori and Lechene (1994) which suggest that the receipt of personal income is proportional to bargaining power and any reduction in personal income will affect the consumption of the individual.

If theories that predict incomplete pooling are correct, then increasing financial dependency matters because it has adverse consequences for those made dependent.

1.4 The importance of income sharing in public policy

Whether families share income through complete pooling or not is of importance to the construction of incomes policy in Australia. As discussed by Edwards (1983) in relation to husbands and wives, many of the rules in the Australian social security and tax system can structure financial dependency within families.

For example, the level of income support paid to eligible recipients (such as people who meet the criteria for unemployment benefits) in Australia is generally 'means tested'. Means testing reduces the level of payments made to an otherwise eligible income support recipient according to the income of the eligible recipient plus the income of his or her partner if a partner exists. The inclusion of the partner's income in the means test results in people being financially dependent on their partners where their partner's income is judged sufficient, since they are not otherwise eligible for State support.

In mid 1998, the Australian government extended the means testing of young people's unemployment benefits to take their parents incomes into greater account. Prior to that time, a proportion of the unemployment benefits for young people aged up to 18

⁴ Wage income is not taken into account because earning it detracts from the person's leisure.

years was means tested on their parents' incomes (DSS, 1997:87). In mid 1998, following the introduction of the Common Youth Allowance, parental means testing was extended to the whole of the unemployment benefits of young people aged under 18 years, and was also applied to the benefits of young people up to the age of 21 years (Centrelink, 1998). Thus, the financial dependence of young unemployed people on their parents was extended. Young unemployed people became totally financially dependent on their parents up to the age of 21 years if their parents' incomes were sufficient. It can only be argued that young unemployed people were not disadvantaged by this change if it is assumed there is complete income pooling with their parents⁵.

It is likely that this trend of increasing financial dependency between parents and young people will continue. As discussed by Deacon and Bradshaw (1983: 196-204) in relation to means-testing in Britain, policies that involve increased reliance on family income testing can contribute to reducing government expenditure and improving employment incentives, making the continuation and expansion of such policies attractive to government. It is also likely that as skill requirements continue to increase, more young people will spend time in upper secondary and tertiary education before becoming financially independent.

1.5 The need for further research

Despite the introduction of policies that increase young peoples' financial dependence on parents, and the pressure to extend these policies, there is very little material available to policy makers to inform them of the implications of such financial dependency. A survey of the literature, as briefly outlined in the next section, shows there is very little information on this topic and what little exists is not readily used for policy purposes. Instead, it appears that existing policy has been based to some degree on the faith that families completely pool income and family members are not disadvantaged by their financial dependency. This belief is consistent with numerous critiques of family policy which assert that family policy is driven by 'ideology' or middle class beliefs of how (traditional nuclear) families should behave (eg Tomlinson and Creed, 1984; Pascall, 1986; Gittens, 1993).

The difficulty with the assumption that families completely or largely pool income, is that it may not happen in practice⁶. Relying on families to share poses considerable risk of hardship. As discussed by Goodin (1988) and Rayner (1994), the family provides support that is discretionary or unregulated. No attempt is made to provide families with guidelines on how they should share, there is no monitoring of sharing to determine whether it is sufficient and there is no legal recourse available to dependent family members if it is not. In other words, a person's well being is not guaranteed by the family, regardless of the overall level of family income.

It is possible that policies that assume dependent family members will be supported by other family members cause great hardship to those dependants who are not

⁵ The parents of young unemployed people were also disadvantaged, but this was more explicitly acknowledged.

⁶ For example, Bittman and Pixley (1997: 145-171) have found divergence between the beliefs of family members regarding how they should behave and how they actually do behave in relation to household work.

supported, or are supported only to a limited extent. This is of concern, not just from compassionate grounds, but because it may lead to other social problems. These problems include homelessness, since dependants who are unable to live at home are also unable to afford independent living. It can also contribute to crime. Studies in Melbourne by White (1997) and in Sydney by Vinson, Abela and Hutka (1997) support the view that much crime committed by young people, involving theft and drug dealing, is undertaken to supplement their incomes and in some cases, for survival. White (1997) even suggests that lack of sources of legitimate income provide grounds for the expansion of the drug culture.

It is therefore important that we better understand how families share to determine the effects of policies that increase financial dependency. We need to know to what extent and under what circumstances, families can be expected to support their members based on empirical data on the actual behaviour of families. This would allow policy makers to be informed of the implications of their policy designs and allow them to consciously choose between the different costs and benefits of policy that changes reliance on family sharing.

2 Previous research on within-household family sharing

As discussed in Section 1, there is limited research on how families share income. In particular, there is little information on how family members who live in the same dwelling share income, which is the topic covered by the current paper. A forthcoming paper examines sharing between parents and young people living away from home

Sharing between parents and young people living at home, or *within*-household sharing is particularly difficult to investigate. Studies of within household sharing aim to describe how different members benefit from family income as indicated by their individual consumption. Unfortunately, most large-scale official surveys do not provide information on individual consumption of household members⁷ but instead focus on providing information on total household consumption. This is because it is very difficult to measure the individual consumption of public goods, such as lighting and heating and also because the assumption that families completely pool their income has pervaded this area of data collection so that production of estimates of individual consumption are not considered necessary.

Given these data constraints, examination of sharing within households is restricted to two types of studies: those with smaller and less representative samples which have attempted to collect information on individual consumption and studies which use indirect or inferential methods to tease out information from large-scale surveys. Studies that have been conducted to date and their findings are briefly summarised in the following sections.

⁷ However, some surveys provide individual expenditure information for some commodities because some household estimates are derived by adding together the individual expenditures of household members as recorded in personal expenditure diaries. This personal expenditure information has no official status, since it is simply a by-product associated with producing the household expenditure estimates, and it only covers selected commodities.

2.1 Small-scale qualitative studies

The small-scale studies include a study of family members' consumption of different foods by Charles and Kerr (1987) and studies of financial arrangements between husbands and wives (eg Edwards (1983), Pahl (1989)) and between young people and their parents (Powles (1986)).

These studies suffer from a range of methodological limitations, including small sample sizes as well as problems of data validity and reliability. In particular, as discussed by Wilson (1987a, 1987b) and Singh and Lindsay (1996), the studies of financial arrangements suffer from difficulties associated with obtaining information from people about their financial arrangements in a way that reflects how people actually behave rather than how dominant ideology expects them to behave⁸.

However, while allowing for their limitations, there are important points to be drawn from these studies. Their results suggest:

- i) pooling varies according to the status of the commodity being consumed (Charles and Kerr, 1987),
- ii) there is considerable variation between households in how they arrange their finances (Pahl, 1989: 90; Powles, 1986);
- iii) control over how money is spent is related to own income as well as social status (Edwards, 1983: 265; Wilson 1987a: 218; Pahl, 1989: 109); and
- iv) different sharing relationships apply at different income levels (Wilson 1987a: 212-218).

Studies based on the analysis of household expenditure surveys

Other studies of income pooling have been based on the analysis of expenditure data, as reported in the Canadian, United Kingdom and Australian household expenditure surveys. The primary purpose of these surveys is to measure changes in household expenditure in order to update the basket of goods and services for the compilation of consumer and (in some cases) retail price indices. These surveys also provide information on the characteristics and spending patterns of a large number of households which provide indirect information on the extent of family sharing.

Studies that have drawn on this data include the following

- i) studies of (unofficial estimates of) personal expenditure data⁹. These studies have shown that women report the most personal expenditure on

⁸ The following quote from Comer (1974) cited by Wilson (1987a: 46) provides a good example of how ideology can shape responses to interview questions. Comer (1974) states "...If any sociologist or interested person had inquired into the financial arrangements in my marriage, I would have lain my hand on my heart and sworn that we shared money equally. And in theory, I would have been telling the truth. In fact, it would no more have occurred to me to spend money on anything else but housekeeping than it would have occurred to him not to."

⁹ See footnote 7 for an explanation.

food, indicating that they did most of the family shopping which was then shared with other family members (Piachaud (1982: 479)¹⁰.

- ii) demand estimation studies, which test whether personal incomes (in addition to family income) are significant predictors of household expenditure using regression analysis. These have found that the distribution of income between husbands and wives is a significant predictor of expenditure for: clothing, alcohol and tobacco (Piachaud, 1982: 475), housing, alcohol and services (Smith, 1991: 23), restaurant food, home food, men's and women's clothing, childcare, charitable donations, tobacco and alcohol (Phipps and Burton, 1992; cited in Phipps and Burton 1995b: 9) and men's and women's clothing (Browning et al 1992; cited in Bergstrom, 1997: 39) indicating that husbands and wives do not completely pool their incomes for these commodities. Hayashi (1995) also found that the distribution of income between parents and older children (over 25 years) affected the types of food purchased by Japanese households containing two generations, indicating that these family members did not completely pool their incomes for the purchase of food.
- iii) Studies of sharing rules, which calculate the proportion of expenditure on a private commodity consumed by one partner in a marriage. Subject to a number of methodological limitations, Browning et al. (1994: 1077) found that personal consumption of clothing (as indicated by the sharing rule) was a function of the relative incomes of partners, as well as total household income and their personal characteristics. This was similarly found in the work of Lazear and Michael (1988) and Tran-Nam and Lee (1992) who examined sharing rules between parents and young children. They found that proportions spent on adult goods changed with total expenditure (Lazear and Michael 1988:95-96; Tran-Nam and Lee, 1992: 12)¹¹. These results suggest, like the other studies, that sharing relationships change with total household income.

2.2 Overview of previous research

In summary, the small- and large-scale studies of within family sharing provide little support for theories that predict that families completely pool their income for all commodities. Instead, these indicate that sharing is affected by the status of the good being shared, the level of household income and differences in income distribution within the household.

¹⁰ Johnson, Haralambopoulos and Hellwig (1997) conducted a more recent study that used personal expenditure information from the Australian 1988-89 Household Expenditure Survey. Unfortunately, however, this study has been based on a misunderstanding of Household Expenditure Survey data and therefore its results are not reported. Schneider (2002, Appendix I) provides more information.

¹¹ These studies, however, did not examine the question of how expenditure varied according to changes in the personal income of children, which is the issue of interest in this study.

It has also been shown that there is a lack of information on sharing between parents and young people, since most studies concern sharing between husbands and wives. While Powles (1986) did a study on financial arrangements between parents and young people, there has yet to be any study using household expenditure data which examines income sharing between parents and young people.

3 Methods and Results

This paper presents the results of the first demand estimation study using household expenditure data to examine income pooling between parents and young people. The study is based on an analysis of the results of the 1993-94 Household Expenditure Survey (HES)¹².

The 1993-94 Household Expenditure Survey sample was composed of 8389 households. Of these, 1356 households contained 1947 young people¹³ living at home with their parents.

Figure 1.2 shows the number of cases in the sample and the weighted estimates of the number of households in Australia that they represent.

In 1993-94, 1.9 million households contained young people, of which 0.3 million (16 per cent) were 'mixed households'¹⁴, 1.1 million households (58 per cent) contained young people living 'at home' and 0.4 million (21 per cent) contained young people living 'away from home'.

A young person was classified as living 'at home' if he or she lived in a single-family household composed of a couple or lone parent with children, where the young person was neither a member of the couple nor the lone parent. Of those households that contained a young person living 'at home', 68 per cent of households contained only one young person, 29 per cent contained two young people and 3 per cent contained three young people or more. Most of the households (80 per cent) were two parent households while the remainder were lone parent households (20 per cent).

¹² The study was undertaken just before the results of the later survey, the 1998-99 Household Expenditure Survey were released.

¹³ The number of young people exceeds the number of households because some households contain more than one young person.

¹⁴ Young people were classified as living in a 'mixed household' if they lived in a household that contained more than one family. Mixed family households include 'group households', in which a number of unrelated people live together as well as households containing extended family and households containing a family plus boarders. Unfortunately, it was not possible to distinguish households in which a young person may be considered to be living at home, such as in households containing an extended family, from households in which a young person may be considered to be living away from home, such as group households or households containing boarders. Rather than including the whole mixed household group in either the 'at home' or 'away from home' categories, which may have introduced bias, this group has been excluded from the following analyses.

3.1 Raw expenditure estimates

Table 1 shows estimates of household characteristics, household expenditure, personal incomes and personal expenditure for households containing young people with 'low', 'medium' and 'high' incomes.

Examination of the characteristics of the groups shows that there is a life-cycle effect associated with differences in young peoples' incomes. Households containing young people with higher incomes tend to contain heads that are older, smaller numbers of people (owing to siblings leaving home) and lower incomes for heads (owing to greater levels of retirement). These differences make it difficult to make meaningful inferences about how family sharing may vary with young peoples' incomes using simple tabulations, since differences in expenditure may be owing to differences in life-cycle stage rather than young peoples' incomes. This difficulty is overcome by using regressions in the following analyses.

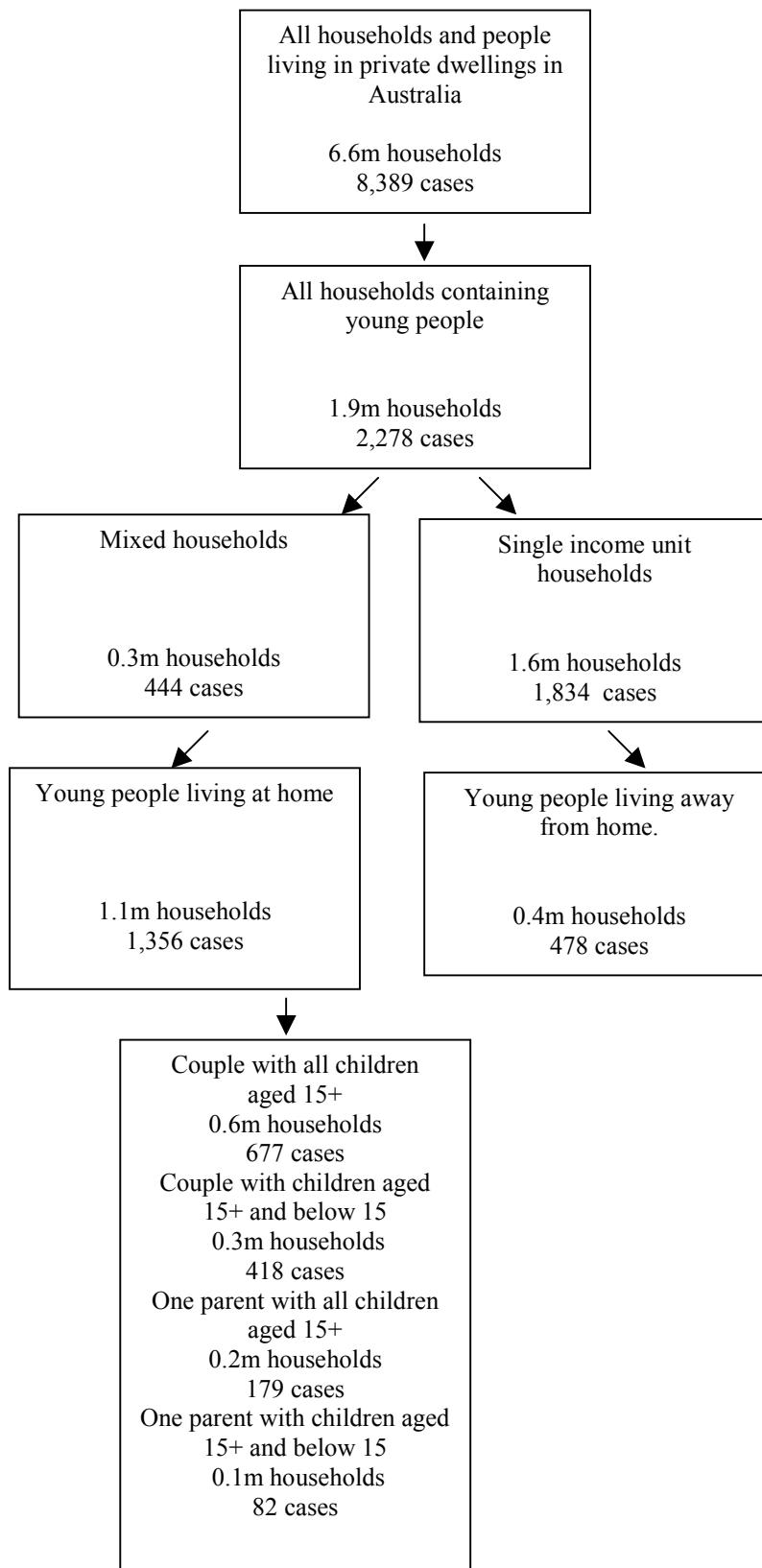
However, before examining the regression results, it is worth noting the personal expenditure estimates shown in Table 1. These show that young people report very little expenditure on basic food items, which include cereals, meat and seafood, dairy products and fruit and vegetables. On average, young people living at home spent \$2.26pw on these items. In contrast, heads spent \$30.72pw on basic food and spouses, where they exist, spent \$54.75pw on basic food. This shows that on average parents do most of the shopping for basic foods. The low level of shopping by young people also suggests that they benefit from their parents shopping, since otherwise, they probably would not be eating enough to survive.

3.2 Methods

The current study uses similar methods to those used by Piachaud (1982), Smith (1991) and Hayashi (1995) in the demand estimation studies described in Section 2. These studies test the 'pooling hypothesis' that families pool their incomes completely. The 'pooling hypothesis' is not supported if personal incomes are significant predictors in regression equations that predict household expenditure. Piachaud (1982) and Smith (1991) tested the pooling hypothesis by examining the effects of wives' incomes on household expenditure while Hayashi (1995) examined the effects of older parents' incomes on household food expenditure. This study is the first to apply these methods to examine the effects of young people's incomes on household expenditure.

The study is also original in that it tests the pooling hypothesis using personal expenditure data, which has yet to be attempted in the literature. This requires a different approach that is, in effect, the inverse of tests of household expenditure.

Figure 2: Flow diagram showing households containing young people: population estimates and number of cases in survey



Source: Unpublished data from the ABS 1993-94 Household Expenditure Survey confidentialised unit record file.

Table 1. Households in which young people live at home: characteristics by income levels of young person, Australia, 1993-94.

	Young people with low incomes (-\$534 ^a to \$39pw)	Young people with medium incomes (\$40 to \$181pw)	Young people with high incomes (\$182 to \$3,419pw)	Total
Household characteristics*				
Household income (\$pw)	875.86	958.07	1,289.38	1,045.26
Number of usual residents (persons)	3.89	3.83	3.48	3.73
Average age of household head (years)	40-44	45-49	50-54	45-49
No. households in population	372,608	381,582	394,849	1,149,039
Selected household expenditure (\$pw)				
EXP03: Food and non alcoholic beverages	150.16	161.98	175.83	162.91
EXP04: Alcohol	15.46	20.16	34.29	23.49
EXP06: Clothing and Footwear	46.52	59.52	66.77	57.79
EXP10: Transport	105.94	129.63	199.57	145.98
EXP11: Recreation	94.77	112.00	135.54	114.50
Total	760.93	799.18	966.81	844.38
Personal income (\$pw)				
Head	659.95	583.18	579.34	606.79
Spouse	247.92	267.27	227.56	247.47
<i>Other</i>				
Young person	7.27	100.57	353.03	160.83
Person aged 25+	412.37**	347.98**	460.89**	420.43
Personal expenditure on basic foods (\$pw)				
<i>Head</i>	33.61	29.52	29.17	30.72
<i>Spouse</i>	52.33	56.73	55.10	54.75
<i>Other</i>				
Young person	1.64	2.09	2.95	2.26
Person aged 25+	4.20	4.67	3.83	4.14

^a Negative income relates to income from business or investments where costs exceed receipts.

* Households were categorised according to the average income of young people living in the household.

** Estimates are based on less than 50 cases.

Source: Unpublished data from the ABS 1993-1994 Household Expenditure Survey confidentialised unit record file.

Household expenditure regressions

Household expenditure shares were predicted using a multivariate regression equation, which is summarised as follows.

$$w_i = a_i + \beta_h \log Y_h + \beta_y Y_y + \beta_l V_l + \epsilon^{15}$$

where :

w_i = expenditure share on good i (i.e. expenditure on i (E_i)/ total expenditure (E))

a_i = constant

β_h = partial slope coefficient for the log of household income ($\log Y_h$)

β_y = partial slope coefficient for the young person's income (Y_y)

β_l = partial slope coefficient for other¹⁶ independent variables (V_l)

ϵ = error

For the household expenditure regressions, the alternative hypothesis was that the partial slope coefficient for the *young person's income* was significantly different to zero (it could be positive or negative), or in other words, the young person's income had a significant effect on a given household expenditure share. Support for the alternative hypothesis was equivalent to rejecting the pooling hypothesis. A weaker test, which suggested rejection of the pooling hypothesis was that the partial slope coefficient for household income was not significantly different from zero¹⁷.

i.e. $H_1: \beta_y \neq 0$ (which is further supported by $\beta_h = 0$)

The null hypothesis for each household expenditure regression was that the partial slope coefficient for the *young person's income* was zero, which indicated that the young person's income did not affect the size of a given expenditure share. This indicated a failure to reject the pooling hypothesis. The pooling hypothesis was also not rejected (weakly) if the partial slope coefficient for household income was significantly different to zero, indicating that household income did affect the size of a given expenditure share. i.e. H_0 (supports pooling hypothesis): $\beta_y = 0$ (which is further supported by $\beta_h \neq 0$)

¹⁵ This equation is based on the Working-Leser functional form for predicting an Engel curve, which helps to reduce heteroskedacity and is conventional in this type of analysis. Schneider (2002: 254-255 and Appendix 6) provides more details.

¹⁶ Other independent variables that were potentially added to the equation (using stepwise selection) were: number of usual residents; whether the family resided in an owned or rented dwelling; age of the household head, and; number of young people in the household.

¹⁷ Complete pooling is more directly supported by the finding that personal income affects household expenditure than the finding that household income affects household expenditure because the former implies that personal income has an effect on expenditure in addition to the effect of household income and the latter is a condition associated with complete pooling, but not sufficient to indicate complete pooling.

Personal expenditure regressions

The regression equation for the prediction of personal expenditure shares was the same for household expenditure shares, except that the variables that describe household expenditure were replaced with variables that describe personal expenditure. The equation is summarised as follows:

$$w_i = a_i + \beta_h \log Y_h + \beta_y Y_y + \beta_1 V_i + \epsilon$$

where :

w_i = the young person's personal expenditure share_{*i*} (i.e. personal expenditure on _{*i*} (E_i)/ total personal expenditure on food (E))

a_i = constant

β_h = partial slope coefficient for the log of household income ($\log Y_h$)

β_y = partial slope coefficient for the young person's income (Y_y)

β_1 = partial slope coefficient for other¹⁸ independent variables (V_1)

ϵ = error

The situation for personal expenditure is different to that of household expenditure. If household members completely pool their incomes, then it would be expected that household income would affect the personal expenditure of young people. For example, parents may supplement young people's incomes either through the provision of cash allowances¹⁹ or through the provision of meals and snacks. If households do not pool income then only the young person's personal income should affect personal expenditure.

For the personal expenditure regressions, the pooling hypothesis was the alternative hypothesis rather than the null hypothesis. The alternative hypothesis was that the partial slope coefficient for *household income* was significantly different to zero, or in other words, that household income had a significant effect on a given personal expenditure share. Supporting the alternative hypothesis led to supporting the pooling hypothesis. The pooling hypothesis was also weakly supported if the partial slope coefficient for personal income was not significantly different to zero, indicating that personal income did not impact on a given personal expenditure share. i.e. H_1 (supports pooling hypothesis): $\beta_h \neq 0$ (which was further supported by $\beta_y = 0$).

The null hypothesis was that the partial slope coefficient for *household income* was zero, which indicated that household income did not affect the size of a given personal expenditure share. The weaker test was that the partial slope for personal income was significantly different from zero.

i.e. H_0 : $\beta_h = 0$ (which was further supported by $\beta_y \neq 0$)

¹⁸ Other independent variables that were potentially added to the equation (using stepwise selection) were: whether the young person was female; whether the young person was aged 15-19 (rather than 20-24); whether the young person was in the labour force.

¹⁹ The 1993-94 Household Expenditure Survey did not include pocket money in estimates of young peoples' incomes.

3.3 Results

Food expenditure (all households)

Each row of Table 2 shows the results of a regression that tests the pooling hypothesis for a given commodity type. The results of the strongest tests (ie those that support the alternative hypothesis) are in bold.

For household expenditure, there was support for the alternative hypothesis (leading to rejection of the pooling hypothesis) only for non alcoholic beverages. In the other cases of cereals, meat and seafood, dairy, fruit and vegetables, miscellaneous food and meals out, the tests failed to reject the pooling hypothesis. The pooling hypothesis was also weakly supported by significant partial slope coefficients for household income for these commodities. This indicated that on average, households completely pool income for food.

The exception was for household expenditure on non alcoholic beverages, which includes mostly soft drinks and some fruit juices (ABS, 1996), indicating that families do not pool income for this type of expenditure. Instead, it appears that household expenditure on non alcoholic beverages is increased when young peoples' incomes are higher.

The personal expenditure regressions are quite different to the household expenditure regressions, because they predict how much of young peoples' total spending on food is spent on a particular food rather than how much of a household's total expenditure on food is spent on a given food. Unlike for household expenditure, support for the alternative hypothesis (the bolded results) indicates support for (rather than rejection of) the pooling hypothesis.

The personal expenditure regression results in Table 2 show that household income was a significant predictor for two types of young persons' food expenditure shares: dairy and non-alcoholic beverages. This indicates that household income had a significant impact on young people's own expenditure shares which provides further support for the pooling hypothesis. Household income affects not only household expenditure but young people's personal expenditure as well.

It is interesting that for non alcoholic beverages, increased household income had a negative impact on young peoples' own spending on non alcoholic beverages. This, in combination with the results from the household expenditure regressions, suggest that there is increased expenditure on non alcoholic drinks on the behalf of young people by parents with higher incomes, which displaced young peoples' own expenditure. Examination of the expenditure estimates for non alcoholic drinks (provided in Appendix A) provides further support for this conclusion, since it shows that spouses' expenditure on non alcoholic beverages increases as young peoples' incomes increase.

The other significant result was that young people's income was a significant (negative) predictor of their personal expenditure shares on fruit and vegetables indicating that households do not pool income for this commodity. However, as discussed earlier, significant coefficients for personal income are a relatively weak indicator that pooling does not occur. Given the weakness of this test, and the small

Table 2. Medium level food expenditure in households in which young people live at home: R² and standard partial slope coefficients for regressions (max cases = 1,356 households), Australia, 1993-94.

Expenditure share	Number of cases included	R ²	Standard partial slope coefficient for log of household income (β_h)	Standard partial slope coefficient for young person's income (β_y)
Household expenditure regressions				
EXP151-160: Cereals	1,342	0.050	-0.210 SIG	0.000
EXP161-178: Meat & Seafood	1,308	0.018	-0.125 SIG	-.010
EXP180-188: Dairy	1,339	0.063	-0.262 SIG	-0.043
EXP189-206: Fruit & Vegetables	1,323	0.017	-0.078 SIG	-0.049
EXP207-230: Miscellaneous food	1,342	0.053	-0.112 SIG	-0.016
EXP231-237: Non-alcoholic beverages	1,331	0.025	-.031	0.091 SIG
EXP238-240: Meals out	1,313	0.117	0.288 SIG	0.046
Personal expenditure regressions				
EXP151-160: Cereals	715	0.017	-0.018	-0.032
EXP161-178: Meat & Seafood	159	na	na	na
EXP180-188: Dairy	590	0.076	-0.081 SIG	-0.004
EXP189-206: Fruit & Vegetables	255	0.019	0.025	-0.151 SIG
EXP207-230: Miscellaneous food	1,355	0.066	-0.037	-0.045
EXP231-237: Non-alcoholic beverages	1,456	0.059	-0.090 SIG	-0.038
EXP238-240: Meals out	1,597	0.053	0.033	0.014

Source: Unpublished data from ABS 1993-1994 Household Expenditure Survey confidentialised unit record file.

number of contributing cases for this regression, it does not constitute strong evidence that pooling does not occur in the wider population.

Food expenditure (low-income households)

Table 3 shows the effect of young people's incomes on expenditure in households where young people live at home with parents who have low incomes²⁰. Households have been ranked according to the combined incomes of heads and spouses (where spouses exist), and those households in the lowest third have been categorised as having 'low incomes'. These households had combined parental incomes of less than \$526pw.

For the household expenditure regressions, the pooling hypothesis was rejected only for meals out. Weak support for the pooling hypothesis was provided by the significant partial slope coefficients for household income on cereals, meat and seafood and dairy. Overall, support for the pooling hypothesis for household expenditure is slightly weaker for households with low parental incomes compared to all households since there are fewer significant partial slope coefficients for household income. This suggests that there may be an income-elastic dimension to sharing within households. When income is low and consumption is constrained, it appears that pooling may be reduced.

²⁰ An alternative approach would be to include a dummy variable in the previous analysis that related to parental income (e.g. low, medium or high parental incomes).

Table 3. Medium level food expenditure by households containing young people living at home with parents with low income: R² and standard partial slope coefficients for regressions (453 households), Australia, 1993-94.

Expenditure share	Number of cases included	R ²	Standard partial slope coefficient for log of household income (β_h)	Standard partial slope coefficient for young person's income (β_y)
Household expenditure regressions				
EXP151-160: Cereals	441	0.036	-0.111 SIG	-0.009
EXP161-178: Meat & Seafood	419	0.010	-0.110 SIG	-0.003
EXP180-188: Dairy	441	0.019	-0.145 SIG	-0.062
EXP189-206: Fruit & Vegetables	429	na	na	na
EXP207-230: Miscellaneous food	441	0.044	-0.039	-0.066
EXP231-237: Non-alcoholic beverages	433	0.019	0.054	-0.052
EXP238-240: Meals out	421	0.147	0.046	0.248 SIG
Personal expenditure regressions				
EXP151-160: Cereals	206	na	na	na
EXP161-178: Meat & Seafood	50	na	na	na
EXP180-188: Dairy	175	0.054	-0.057	-0.074
EXP189-206: Fruit & Vegetables	76	na	na	na
EXP207-230: Miscellaneous food	413	0.063	0.054	-0.157 SIG
EXP231-237: Non-alcoholic beverages	423	0.041	-0.003	-0.173 SIG
EXP238-240: Meals out	473	0.061	-0.013	0.137 SIG

Source: Unpublished data from ABS 1993-1994 Household Expenditure Survey confidentialised unit record file.

Such a conclusion is supported by the finding that the pooling hypothesis is rejected for meals out. Meals out is the only food type for which there are positive partial slope coefficients for both household and young peoples' incomes for all households and households with low levels of parental income, indicating this is a luxury good. The regression results for low-income households suggest that pooling did not occur for this luxury good.

Further (albiet weak) support for the finding that pooling may be income-elastic was provided by the personal expenditure regression results, which showed that young peoples' incomes have a positive significant impact on their personal expenditure on meals out.

The other significant results for the personal expenditure regressions relate to miscellaneous food, which includes sweet and savoury confectionery, and non alcoholic beverages. In these cases, though, the relationship is negative. It is possible that this represents substitution from these cheaper goods (ie separate purchases of chips, chocolate and soft dink) to more expensive meals out as young peoples' income increases.

Broad expenditure analysis

Table 4 shows the results of regressions on broad household expenditure categories²¹. These provide mixed support for the pooling hypothesis. In three cases, the pooling hypothesis is rejected. These occur for the expenditure groups: alcoholic beverages, transport and miscellaneous goods and services, for which the partial slope coefficient for young people's income is significant. The coefficients were positive (indicating these shares increase with young peoples' incomes) for alcohol and transport but negative for miscellaneous goods and services.

This suggests that for some commodities, especially those associated with 'adult' status (such as alcohol and cars, for which access to these goods is subject to age-based legal constraints), households do not pool income and young people need to finance their own expenditure²². It appears that household spending on miscellaneous goods and services may decrease, perhaps to compensate for increased expenditure on transport and alcohol for young people.

²¹ Personal expenditure estimates are not available for most of these categories and therefore, personal expenditure regressions have not been performed as part of the broad expenditure analysis.

²² An exception is tobacco, for which there was not a significant relationship with young peoples' incomes. This is likely to be owing to tobacco being viewed negatively, particularly by higher income groups.

Table 4. Broad household expenditure shares (grouped) for households in which young people live at home: R² and standard partial slope coefficients for regressions (1,356 cases), Australia, 1993-94.

Expenditure share	Number of groups included*	adj R ²	Standard partial slope coefficient for log of household income (β_h)	Standard partial slope coefficient for young person's income (β_y)
EXP01: Current housing costs	30	0.708	0.148	0.221
EXP02: Fuel and power	30	0.785	-0.193	-0.080
EXP03: Food and non-alcoholic beverages	30	0.784	-0.504 SIG	0.015
EXP04: Alcoholic beverages	24	0.549	-0.371	0.330 SIG
EXP05: Tobacco	14	0.776	-0.330 SIG	-0.245
EXP06: Clothing and footwear	28	0.274	-0.039	-0.299
EXP07: Household furnishings and equipment	27	na	na	na
EXP08: Household services and operation	30	0.648	-0.254 SIG	-0.022
EXP09: Medical and health expenses	30	0.600	-0.136	-0.053
EXP10: Transport	30	0.630	-0.143	0.802 SIG
EXP11: Recreation	30	0.645	0.729 SIG	0.008
EXP12: Personal care	30	0.262	-0.125	-0.274
EXP13: Miscellaneous goods and services	30	0.569	0.381 SIG	-0.622 SIG

Source: Unpublished data from ABS 1993-1994 Household Expenditure Survey confidentialised unit record file.

* Survey estimates have been grouped prior to running the regressions because some categories of expenditure contain items for which expenditure has been collected on an 'acquisitions' basis which is not representative of usual expenditure for individual households. See Schneider (2002: 253-254 and Appendix 5) for further discussion.

Table 5. Broad household expenditure shares (grouped) for households in which young people live at home with low income parents: R² and standard partial slope coefficients for regressions (453 cases), Australia, 1993-94.

Expenditure share	Number of groups included*	adj R ²	Standard partial slope coefficient Log of household income	Standard partial slope coefficient Young person's income
EXP01: Current housing costs	30	0.537	-0.120	-0.056
EXP02: Fuel and power	30	0.392	-0.513 SIG	0.170
EXP03: Food and non-alcoholic beverages	30	0.497	-0.339	-0.259
EXP04: Alcoholic beverages	20	na	na	na
EXP05: Tobacco	15	0.352	0.360	-0.166
EXP06: Clothing and footwear	25	0.439	0.043	-0.096
EXP07: Household furnishings and equipment	25	0.223	-0.274	-0.059
EXP08: Household services and operation	30	0.158	-0.433 SIG	-0.080
EXP09: Medical and health expenses	28	0.456	-0.140	-0.088
EXP10: Transport	30	0.703	0.561 SIG	0.205
EXP11: Recreation	30	0.184	-0.112	0.293
EXP12: Personal care	28	na	na	na
EXP13: Miscellaneous goods and services	30	0.161	0.295	-0.436 SIG

* Survey estimates have been grouped prior to running the regressions because some categories of expenditure contain items for which expenditure has been collected on an 'acquisitions' basis which is not representative of usual expenditure for individual households. See Schneider (2002: 253-254 and Appendix 5) for further discussion.

Source: Unpublished data from ABS 1993-1994 Household Expenditure Survey confidentialised unit record file.

However, for other commodities the pooling hypothesis is generally (weakly) supported, since household income generally has a stronger relationship with expenditure shares than young people's incomes. This is indicated by the greater prevalence of significant partial slope coefficients for household income. Significant partial slope coefficients are present for food and non-alcoholic beverages, tobacco, household services and operation and recreation. Overall, the results indicate that complete pooling occurs for most commodities.

Table 5 shows the results of regressions run on broad household expenditure shares for the approximate third of households containing young people living at home with the lowest parental incomes. It was expected that the pooling hypothesis was less likely to be supported in this analysis than in the previous analysis, since the food analyses suggested that sharing was income-elastic. However, the results provide no evidence of this. In fact, there were fewer significant partial slope coefficients for young people's incomes than in the previous analysis, providing greater support for the pooling hypothesis. Possibly, this reflects greater sharing by young people with their parents (for example, through greater board payments) since young people, in this analysis, appear to be less inclined to spend on adult goods such as alcohol and transport.

4 Discussion

This study is the first to investigate whether parents and young people completely pool their income. The results suggest that on average, parents and young people share income so that:

- i) complete pooling occurs for basic foods,
- ii) complete pooling occurs for other foods, which are more luxurious in nature, unless parents' incomes are constrained, and
- iii) complete pooling *does not* occur for alcohol and cars on average.

These findings are supported by other studies of income pooling, which have also shown that:

- i) pooling varies according to status of the commodity being shared (eg Charles & Kerr, 1997),
- ii) pooling varies with the overall level of family income (eg Wilson, 1987a: 212-218; Browning et al 1994: 1077; Lazear & Michael, 1988; Tran-Nam & Lee, 1992),
- iii) consumption outcomes depend on the relative incomes of family members (Edwards, 1983: 265; Wilson, 1987a: 218; Pahl, 1989: 109; Piachaud, 1982: 475; Smith, 1991: 23; Phipps and Burton, 1992; Browning et al, 1992 and 1994; Hayashi, 1995).

It also suggests that the different theories of sharing apply differently to different commodities. For example, income spent on basic food may be shared according to a consensus model. However, income spent on the purchase of a car, which is a fairly high status good, is not completely pooled since it appears parents require their children to at least make a contribution towards the purchase of cars.

4.1 Sharing basic food

Basic food in this context refers to food that is generally consumed at home and forms the components of meals. It includes cereals, meat and seafood, dairy and fruit and vegetables.

For young people living at home, either generally or with low-income parents, there was only one (weak) finding that parents and young people did not completely pool income for basic groceries. The exception occurred for young people living at home with parents of all levels of income for whom there was a significant negative relationship between personal expenditure on fruit and vegetables and young people's incomes. It was noted that this relationship was based on only the small number of young people who actually had any expenditure on fruit and vegetables and therefore was not necessarily representative of most households.

The findings of the regression analysis of food expenditure, in conjunction with the personal expenditure estimates indicates that young people do not purchase basic food

items and they almost exclusively rely on provision of these goods by their parents. For these goods, it can be inferred that who receives the income in the family makes no difference because the expenditure outcomes are the same.

Overall, this indicates that on average for young people living at home, it makes no difference to their consumption of basic foods whether they have incomes of their own or are dependent on their parents' incomes.

4.2 Sharing other food

'Other food' in this context refers to food that is often bought for own consumption while outside of the house and/or is more of a luxury. It includes miscellaneous food (which includes crisps and chocolate), non-alcoholic beverages and meals out.

The results for this type of food were more mixed. The regressions for households with all levels of parental income indicated that overall, complete pooling did occur for these items²³.

However, sharing of other food was more limited within households containing young people living with parents with low incomes. For the young people living with low-income parents, the pooling hypothesis was rejected for household expenditure on meals out. There was also a significant relationship between young peoples' income and personal expenditure on miscellaneous food, non alcoholic drinks and meals out. It was inferred that the significant results for miscellaneous foods and non alcoholic drinks were driven by spending on meals out, which acted as a substitute for spending on these other two commodity types.

In summary, it appears that luxury items such as meals out are not subject to complete income pooling in low-income households and this results in changes in spending on miscellaneous food and non alcoholic beverages. Where income is constrained, it appears that complete pooling does not extend to luxury goods. In these cases, being financially dependent has an adverse effect on young peoples' consumption.

4.3 Broad expenditure on adult goods

The broad household expenditure regressions for all households led to rejection of the pooling hypothesis on three counts: for alcohol, transport and miscellaneous expenditure. There was a positive relationship between young peoples' incomes and expenditure on alcohol and transport and a negative relationship for miscellaneous goods and services. Possibly, expenditure on miscellaneous goods was decreased as a result of increased expenditure on transport and alcohol. This led to rejection of the pooling hypothesis for these goods, suggesting that families do not pool income for adult goods such as cars and alcohol and instead, young people need to purchase these on their own behalf when their income allows.

However, this finding was not repeated for young people living with low income parents. This might indicate that young people living at home with parents with lower incomes are less inclined to spend on adult goods, and to share more with their

²³ The exception was for non-alcoholic drinks, for which it appears parents purchase more of these drinks if the young people in the household have higher incomes.

parents (perhaps through higher board payments) which reduces their available spending money. Alternatively, it might indicate that low income parents are more inclined to share these goods with young people, but this seems unlikely given that these parents are constrained by their lower incomes.

Both the analyses provided some support for the pooling hypothesis, in that it was not rejected for the remaining commodities and there were many significant partial slope coefficients for household income. However, possibly this may be simply an artefact owing to the broad nature of expenditure categories in which there is scope for substitution of expenditure between household members, which is not being detected by this level of analysis.

In summary, these analyses indicated that young people needed to both have their own incomes and live in higher income families in order to consume adult goods.

5 Qualifications and further research

One of the reasons that the family-sharing literature is so undeveloped is that family sharing is difficult to examine. Direct information on how families share cannot be readily obtained because it is difficult to ask people to describe their private realities rather than public expectations of how they should share. Indirect information is more readily obtained, as in the current study, but it is limited in what it can show and is more difficult to interpret.

Like preceding studies, this study suffers from methodological problems. One problem is that the data is likely to suffer from 'self selection'. Analyses of the data for young people living at home are restricted to those households in which young people have 'chosen' to live at home (at least for the time being). In cases where young people and their parents have less than harmonious relationships, which may involve limited income sharing, young people are more likely to leave home as soon as they are able and hence, those relationships will be under-represented in the analysis. Therefore, the analysis is likely to be biased, particularly in the older age groups, towards showing complete pooling. The extent of this bias could be evaluated through by examining studies on the likelihood and reasons for young people leaving home by age.

There are also dangers in using regression analysis for this type of study. Income, expenditure and personal characteristics are highly inter-correlated which can lead to problems of multicollinearity in regression analysis. Although no symptoms were detected, the presence of this problem cannot be entirely discounted. A useful test for checking on the reliability of the results, and to improve the currency of the analysis, would be to repeat this analysis using more recent Household Expenditure Survey data. If similar results were obtained, then the current study would be well validated.

It would also be useful to supplement the current research with a qualitative study of how young people share with their parents. Detailed data could be gathered from a small number of young people about how expenditure is decided upon within their families, what input different family members have on decisions, how much each person finances household expenditure and household work performed. This

information could be used to further develop a model of how young people share with parents, which could then be tested using larger samples.

Another important area requiring further investigation is board payments. A study dedicated to these payments could obtain information on the extent to which these payments cover young people's costs and how board payments are adjusted when young people's incomes increase. This information is needed to better understand how young people share their incomes with their parents.

The current study is also restricted to showing what happens in families on average. Further research is needed to understand the extent to which sharing varies. This could be tackled using a number of different approaches. The introduction of the Common Youth Allowance poses many opportunities for studying the possible adverse consequences of increasing the financial dependence of young people. Information on the numbers of young people who have sought independent allowances would indicate the extent to which parental support has been inadequate, although it appears that these payments have been difficult for young people to obtain which may undermine the results of these studies. Other possible areas of research include increased usage of homelessness services by young people. Alternatively, there are opportunities to explore this issue further with Household Expenditure Survey data. Households in which young people have unusual spending patterns (such as households in which young people live at home but spend relatively large amounts on basic groceries) could be analysed to see if they have any common characteristics.

Lastly, the ability of parents to afford the increased financial dependency of young people needs to be examined. This needs to be considered in terms of the available income of parents as well as competing pressures for expenditure, including caring obligations, savings for retirement, maintaining other dependent children and large mortgages.

6 Conclusion – implications for policy

Like all studies of income sharing, the current study has methodological limitations. Nevertheless, it provides a number of useful findings with regard to the effects of financial dependency with implications for policy.

These results suggest that on average, young people aged 15-24 years can rely on their parents for basic support. However, the extent of that support is reduced if parental incomes are low. There are also commodities such as cars and alcohol which parents do not appear to provide to their children. This suggests that parents will look after financially dependent young people, so that they are not destitute, but their standard of living is less than that they could obtain if they had a higher personal income. This provides young people with what could be described as an adequate standard of living while maintaining their work incentives.

While these findings might be interpreted as providing some reassurance that the financial dependency of young people can be further increased, thus reducing government expenditure and improving work incentives, this is only possible without putting young people into hardship if parental incomes are adequate and an effective

safety net is put in place for those young people whose parents share less than average. The impact on parents and their ability to spend on themselves and other children in the family would also need to be taken into account.

References

- Australian Bureau of Statistics (ABS) (1996), *1993-94 Household Expenditure Detailed Expenditure Items*, Catalogue No. 6535.0, ABS, Canberra.
- Becker, G. S. (1981), *A Treatise on the Family*, Harvard University Press, Cambridge, Massachusetts.
- Becker, G. S. (1974), 'A theory of social interactions', *Journal of Political Economy*, 82(6), 1063-1093.
- Bergstrom, T. (1997), 'A Survey of Theories of the Family', in M.R. Rosenzweig and O. Stark, eds, *Handbook of Population and Family Economics*, Eslevier, Amsterdam, 21-79.
- Bittman, M. and J. Pixley (1997), *The Double Life of the Family: Myth, Hope and Experience*, Allen and Unwin, Sydney.
- Browning, M., F. Bourguignon, P. Chiappori and V. Lechene (1994), 'Income and Outcomes: A structural model of intrahousehold allocation', *Journal of Political Economy*, 102(6), 1067-1096.
- Centrelink (1998a), *Youth Allowance – Summary*, http://www.centrelink.gov.au/assistance/yth/yal_sum.htm, 5/02/1998.
- Charles, N. and M. Kerr (1987), 'Just the way it is: gender and age differences in family food consumption' in J. Brannen and G. Wilson, eds, *Give and Take in Families: Studies in resource distribution*, Allen and Unwin, London.
- Deacon, A. and J. Bradshaw (1983), *Reserved for the Poor: the Means Test in British Social Policy*, B. Blackwell and M. Robertson, Oxford.
- Department of Social Security (1997), *Information Handbook: A Guide to Payments and Services*, DSS, Canberra.
- Edwards, M. (1983), *The Income Unit in the Australian Tax and Social Security Systems*, unpublished PhD Thesis, Australian National University, Canberra.
- Finch, J. and J. Mason (1993), *Negotiating Family Responsibilities*, Tavistock/Routledge, London.
- Finch, J. (1989), *Family Obligations and Social Change*, Polity Press, Cambridge.
- Gittins, D. (1993), *The Family in Question: Changing Households and Familiar Ideologies*, (2nd Ed), Macmillan, Houndmills.
- Goodin, R. (1988), *Reasons for Welfare: The political theory of the Welfare State*, Princeton University Press, Princeton.
- Hayashi, F. (1995), 'Is the Japanese extended family altruistically linked? A test based on engel curves', *Journal of Political Economy*, 103(3), 661-674.
- Irwin, S. (1995), *Rights of Passage: Social change and the transition from youth to adulthood*, UCC Press, London.
- Jenkins, S. (1991), 'Poverty measurement and the within-household distribution: an agenda for action', *Journal of Social Policy*, 20,4,457-483.
- Johnson, D., N. Haralambopoulos and O. Hellwig (1997) *Within Household Sharing Patterns*, Melbourne Institute Working Paper Series, 2/97, Melbourne Institute, Melbourne.
- Lazear, E.P. and R.T. Michael (1988), *Allocation of Income within the Household*, The University of Chicago Press, Chicago.
- Lundberg, S. and R. A. Pollak, (1993), 'Separate spheres bargaining and the marriage market', *Journal of Political Economy*, 101(6), 988-1010.
- Manser, M. and M. Brown (1980), 'Marriage and household decision-making: a bargaining analysis', *International Economic Review*, 21(1), 31-44.

- McElroy, M. B. and M. J. Horney (1981), 'Nash-bargained household decisions: toward a generalization of the theory of demand', *International Economic Review*, 22(2), 333-349.
- Pahl, J. (1989), *Money and Marriage*, MacMillan, Houndmills.
- Pascall, G. (1986), *Social Policy: A Feminist Analysis*, Tavistock, London.
- Phipps, S. A. and P. S. Burton (1995b), *Collective Models of Family Behaviour: Implications for Economic Policy*, Revision of a paper presented at the Status of Women Economic Equality Workshop, Ottawa, Ontario, November 29-30, 1993. Revision August 1995.
- Piachaud, D. (1982), 'Patterns of income and expenditure within families', *Journal of Social Policy*, 11, 4, 469-82.
- Powles, M. (1986), *Financial Arrangements between TAFE Students and Their Parents*, A research report commissioned by the Commonwealth Office of Youth Affairs, Department of Prime Minister and Cabinet.
- Rayner, M. (1994), 'Human rights, families and community interests', *Family Matters*, 37, 60-66.
- Samuelson, P.A. (1956), 'Social indifference curves', *The Quarterly Journal of Economics*, LXX(1), 1-22.
- Schneider, J. (2000), 'The increasing financial dependency of young people on their parents', *Journal of Youth Studies*, 3(1), 5-20.
- Schneider, J. (2002), *Income Sharing between Young People and Their Parents*, unpublished PhD Thesis, University of New South Wales, Sydney.
- Singh, S. and J. Lindsay, (1996), 'Money in heterosexual relationships', *Australian New Zealand Journal of Sociology*, 32(3), 57-69.
- Smith, S (1991), 'Economic Analysis and the Division of Income Within the Family' in Smith, S., ed, *Economic Policy and the Division of Income Within the Family*, London, Institute for Fiscal Studies, 10-31.
- Tomlinson, J. and H. Creed (1984), *Ideology of the Family: The Demystification of Social Welfare Provisions Relating to Youth and Income Maintenance Policies*, unpublished paper presented at the 54th ANZAAS Congress, Canberra.
- Tran-Nam, B and D.L.P. Lee (1992), *Intra-Household Allocation of Resources: Some Australian Evidence*, 21st Conference of Economists, University of Melbourne, July 8-10.
- Vinson, T., M. Abela and R. Hutka. (1997), *Making Ends Meet: A study of young unemployed people in Sydney*, Uniya Research Report No. 1, Sydney, Uniya Jesuit Social Justice Centre.
- White, R. (1997), *Any Which Way You Can: Youth livelihoods, community resources and crime*, Sydney, Australian Youth Foundation.
- Wilson, G. (1987a), *Money in the Family*, Avebury, Aldershot.
- Wilson, G. (1987b), 'Money: patterns of responsibility and irresponsibility in marriage', in J. Brannen and G. Wilson, eds., *Give and Take in Families: Studies in resource distribution*, Allen and Unwin, London.

Appendix A: Expenditure on non alcoholic drinks

The following table shows personal expenditure estimates for non alcoholic beverages classified by parental incomes. It can be seen that as parental income increase, spouses' expenditure on non alcoholic beverages increases.

Table A1 Households in which young people live at home: characteristics by income levels of parents, Australia, 1993-94.

	Parents with low incomes (-\$648 to \$525pw)	Parents with medium incomes (\$526 to \$958pw)	Young people with high incomes (\$960 to \$17 256pw)	Total
Household characteristics*				
Household income (\$pw)	541.42	979.10	1,704.22	1,045.26
Number of usual residents (persons)	3.42	3.79	4.01	3.73
Average age of household head (years)	45-49	45-49	45-49	45-49
No. households in population	401 163	400 894	346 981	1 149 039
Personal income (\$pw)				
<i>Head</i>	265.02	578.00	1,033.56	606.79
<i>Spouse</i>	57.60	185.44	448.19	247.47
<i>Other</i>				
Young person	162.92	166.78	152.51	160.83
Person aged 25+	370.72**	506.79**	486.34**	420.43
Personal expenditure on non alcoholic beverages (\$pw)				
<i>Head</i>	4.29	4.00	4.02	4.11
<i>Spouse</i>	4.14	6.18	7.42	6.10
<i>Other</i>				
Young person	2.97	3.45	3.08	3.17
Person aged 25+	3.09	5.90	2.66	3.65

** Estimates are based on less than 50 cases.

Source: Unpublished data from the ABS 1993-1994 Household Expenditure Survey confidentialised unit record file.