Social Security

Social Security Payments and the Taxation System

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Social Security Payments and the Taxation System

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IMPORTANT NOTE

This paper contains descriptions of calculations of social security and taxation payments. While we have taken pains to make these as accurate as possible, there is always the possibility of error in such a complex field. Should there be any discrepancy between the methods or rates used in the paper and the Acts and Regulations from which they are drawn, the Acts and Regulations should be preferred as being authoritative.
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FOREWORD

This paper was originally written by Josh Polette but has been revised and updated for publication by Kate Chan. Most of the revisions reflect the introduction of Home Child Care Allowance in September 1994. Attachment E draws heavily on a short unpublished paper by Phil Gallagher.
INTRODUCTION

This paper is designed to give the reader an understanding of the effects that certain policy changes can have on existing clients and client numbers. It makes little attempt to explain the rationale behind most policies or the administrative procedures involved. Rather, it should be used as a tool for those interested in policy development. It demonstrates, for example, how the effects on clients of a change in a payment’s taper rate or income threshold can be calculated.

The paper is mostly written for the September 1994 to June 1995 social security and tax environments. It covers Partner Allowance and Home Child Care Allowance (HCCA) but not payments introduced in the White Paper on Employment Opportunities (Working Nation), such as Parenting Allowance. The rates used for calculations in the attachments are projected September 1994 pension and rebate rates. The 1993-94 composite tax scale was also used.

From 29 September 1994, HCCA will replace the Dependent Spouse Rebate (DSR) with children. However, the DSR without-child rate will remain.

This paper contains four main sections. The first section provides an explanation of the components in a social security payment. It describes the two types of income tests currently used (taper and sudden-death) and explains the effects of changes to payment rates, thresholds, cut-offs and taper rates. The second section describes calculations of social security payments according to family type. Section Three demonstrates how rebates and tax liability are calculated, including the Medicare levy component and the transferability of the manied pensioner rebate. Section Four examines the interaction between the social security and taxation systems, and the generation of Effective Marginal Tax Rates.
SECTION I
SOCIAL SECURITY PAYMENTS

Types of Income Tests

Social Security payments generally have one of these types of income tests:

1. Taper income tests; or
2. Sudden-death income tests.

These two income tests produce very different results when payment rates and thresholds are changed. Thus it is important to understand what the differences between these two types of income tests are when analysing the effects of your proposal.

Taper Income Tested Payments

The three components of a taper income tested payment are:

- the maximum payment rate;
- the income test threshold (or 'free-area'); and
- the taper rate(s).

Clients with private income below the threshold will receive the full rate of payment, while those with private income above the threshold will receive a part-rate payment according to the following formula:

\[ \text{Full Payment Rate} - [(\text{Private Income} - \text{Payment Threshold}) \times \text{Taper Rate}] \]

For payments with a two-tier taper rate such as JSA/NSA:

(a) if private income is between the first and second thresholds:

\[ \text{Full Payment Rate} - [(\text{Private Income} - \text{First Threshold}) \times \text{First Taper Rate}] \]

(b) if private income is above the second threshold:

Calculate:

(i) \[ \text{Full Payment Rate} - [(\text{Private Income} - \text{Second Threshold}) \times \text{Second Taper Rate}] \]
(ii) \((\text{Second Threshold} - \text{First Threshold}) \times \text{First Taper Rate}\)

Then subtract (ii) from (i).

These formulae are used until the payment reaches nil or the minimum payment amount.

Sudden-death Income Tested Payments

Sudden-death income tested payments have only two components:

- the rate of payment; and
- the income test cut-off.

People with income below the threshold receive the payment and people with income above the threshold do not.

When analysing the effects of a policy, it is very important to first determine whether the payment has a taper or sudden-death income test.

Changing Thresholds and Cut-Offs

A threshold can either be raised or lowered, with different results depending on whether the payment has a taper income test or a sudden-death income test.

Increase Threshold - Taper Income Tested Payments

Whenever the threshold of a taper income tested social security payment (eg. AFP, Age Pension, JSA etc) is raised, the following will happen:

- more people will be eligible for the payment;
- clients already receiving a part-rate payment will get an increase;
- more clients will receive the full rate; and
- current full-rate clients will not be affected.

For some payments, such as AFP, we would also expect some people who currently do not claim their small part-rate entitlement to claim their now larger entitlement.

Decrease Threshold - Taper Income Tested Payments

A reduction in the threshold of a taper income tested social security payment will result in:
• less people being eligible for the payment;
• clients already receiving a part-rate payment getting a decrease in payment or losing their payment altogether;
• some full-rate clients becoming part-rate clients; and
• current full-rate clients with income below the new threshold remaining unaffected.

When a change is made to the threshold of a taper income tested payment, it is often desirable to determine what the new cut-out income level is. To do this, use the following formula:

\[
\text{New Threshold} + \frac{\text{Maximum Payment Rate}}{\text{Payment Taper Rate}}
\]

For payments with a two-tiered income test, the following formula should be used to calculate the cut-out point:

Calculate:

(i) New Threshold 2

(ii) \(\frac{\text{Maximum Payment Rate} - [(\text{New Threshold 2} - \text{New Threshold 1}) \times \text{Taper Rate 1}]}{\text{Taper Rate 2}}\)

Then add (i) and (ii).

Increase Cut-Off - Sudden-death Income Tested Payments

• For sudden-death payments (eg. BFP), an increase in the cut-off will mean:
• more people will be eligible for the payment;
• these extra people will receive the full payment; and
• current recipients will not be affected.

Decrease Cut-Off - Sudden-death Income Tested Payments

Finally, a decrease in the cut-off of a sudden-death payment will result in:

• some current recipients no longer receiving any payment; and
• clients with income below the new cut-off will not be affected.
Changing Payment Rates

Changing payment rates may do more than just increase or decrease the amount received by current clients. It can change the number of clients who receive the payment or have no affect on client numbers at all. It depends, once again, on whether the payment has a taper income test or a sudden-death income test.

Increase in Rate - Taper Income Tested Payments

An increase in the maximum rate of a taper income tested payment will have the following effects:

- increase the number of clients;
- provide a flat-rate increase for all current recipients; and
- current clients with the lowest amount of payment (ie. part-raters) will receive the biggest percentage increase;

Decrease in Rate - Taper Income Tested Payments

Conversely, a decrease in the rate of a taper income tested payment will result in:

- less people receiving the payment;
- all current recipients receiving a flat-rate decrease in payment; and
- current clients with the lowest amount of payment (ie. part-raters) receiving the largest percentage decrease.

To calculate the new cut-out point for an income tested payment the following formula should be used:

\[
\text{Threshold} + \frac{\text{New Maximum Payment Rate}}{\text{Payment Taper Rate}}
\]

For payments with a two-tiered income test, the following formula should be used to calculate the cut-out point:

Calculate:

(i) \( \text{Threshold 2} \)
(ii) **Maximum Payment Rate** – \[\frac{[(\text{New Threshold 2} - \text{New Threshold 1}) \times \text{Taper Rate 1}]}{\text{Taper Rate 2}}\]

Then add (i) and (ii)

**Increase in Rate - Sudden-death Income Tested Payments**

Increasing the rate of a sudden-death income tested payment has the following effects:

- client numbers remain constant;
- all recipients receive the same flat-rate increase; and
- all recipients receive the same percentage increase.

**Decrease in Rate - Sudden-death Income Tested Payments**

A decrease in the rate of a sudden-death income tested payment will result in:

- client numbers remaining constant;
- all recipients receive the same flat-rate decrease; and
- all recipients receive the same percentage decrease.

Changing the rate of payment for a sudden-death income tested payment has no effect on the cut-out point of the payment.

**Changing Tapers**

Obviously, a change in taper rate will only affect those payments with a taper income test. Taper rates have a major effect on effective marginal tax rates (EMTRs) (see Section Four). The effects of a change in taper rate detailed in this section will not include a specific look at EMTRs. However, a general indication of the effect a change in taper rate has on EMTRs will be given.

**Increase in Taper Rate**

An increase in the taper rate for a taper income tested payment will have the following effects:

- the cut-off point will be moved down to a lower income range;
- less people will be eligible for the payment;
• some part-rate clients will lose their payment;
• part-rate clients will have a reduction in payment;
• full-rate clients will not be affected; and
• clients who receive a part-rate payment after the taper change will face higher EMTRs.

Decrease in Taper Rate

Decreases in taper rates result in:
• the cut-off point being pushed out to a higher income range;
• more people becoming eligible for the payment;
• part-rate clients having an increase in their payment;
• some part-rate clients becoming full-rate clients;
• full-rate clients remaining unaffected; and
• lower EMTRs for all part-rate recipients.

To calculate the new cut-out point for the payment, the following formula should be used:

\[
\text{Threshold + } \frac{\text{Maximum Payment Rate}}{\text{New Taper Rate}}
\]

For payments with a two-tiered income test, the following formula should be used to calculate the cut-out point:

Calculate:

(i) \( \text{Threshold 2} \)

(ii) \( \frac{\text{Maximum Payment Rate} - [(\text{New Threshold 2} - \text{New Threshold 1}) \times \text{Taper Rate 1}]}{\text{Taper Rate 2}} \) Then add (i) and (ii).

Then add (i) and (ii).
SECTION II
CALCULATING SOCIAL SECURITY PAYMENTS

Order of Withdrawal of Payment Components

Allowances and pensions generally consist of different components. Some of these components are taxable (base age pension or base allowance) and others are non-taxable (Rent Assistance and Pharmaceutical Allowance). Taper income tests reduce payments from the maximum rate, based on the private income of the client. When calculating effective marginal tax rates, it is essential to know which components of a payment are withdrawn first as the taxation status of the components can differ.

In calculating pensions and allowance, the different components are withdrawn in the following order:

1. Base Pension or Allowance.
2. Rent Assistance (if eligible).
3. Pharmaceutical Allowance (if eligible).

Generally, taxable components are withdrawn first and non-taxable components are withdrawn last.

The components that make up Additional Family Payment are all non-taxable. This means that they can be combined into one payment and income tested as such.

Pensions

Calculating the rate of pension received by a client depends on whether they are single or a member of a couple. Single pensioners receive an income tested amount of pension based on the single pension rate. If both members of a couple are eligible for a pension then each receives an income tested amount of half the married rate. If only one member is eligible, that person receives an income tested amount of half the married rate and their spouse receives no pension.

In determining what rate of pension a person receives, it is important to know the following things:

- maximum rate of pension (single or married);
- income test free area (single or married);
• income test taper rate;
• the pension cut-out point (single or married); and
• the amount of private income received.

The income test free area for couples is for combined income. This means that whenever income tests are applied to a couple or pension cut-out points are calculated, the combined income is used. Each member of a couple is deemed to be earning half of the combined income. They are then income tested based on half of the total married income test free area each. The pension cut-out point for married pensioners is based on half of the married pension free area and splitting the combined private income of the couple.

Adjusting Thresholds and Cut-Outs for Children

If a person or couple has dependent\(^1\) children then the pension free area is adjusted as follows:

\[
\text{New Free Area} = \text{Old Free Area} + (N^2 \times \text{Child Disregard})
\]

**Single Pensioners**

To calculate the rate of pension received by a single pensioner, the following steps are used:

1. Determine the person's free area and cut-out point. The threshold will be either the single free area or will be calculated as above if there are dependent children.
2. If the person's private income is less than their free area then the full rate of single pension is paid.
3. If the person's private income is between their free area and cut-out point, then the following formula is used to calculate the rate of pension received:

   \[
   \text{Maximum Single Pension Rate} - \left( \frac{\text{Private Income} - \text{Pension Free Area}}{\text{Pension Taper Rate}} \right)
   \]
4. If the person's private income exceeds their cut-out point then they receive no pension.

**Married Pensioners**

There are two different cases for married pensioners. In the first case, both members of a couple are eligible for pension and in the second case, only one member is eligible.

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\(^1\)A child is dependent for pension free-area purposes if they are eligible for BFP or they are a student who is not in receipt of AUSTUDY.
To calculate the rate of pension received when both members of a couple are eligible, follow the steps below:

1. Determine the couple's free area and cut-out as above.

2. If each person's private income (when the combined private income is split between the couple) is less than half their free area, then they each receive half the married rate of pension.

3. If each person's private income (when the combined private income is split between the couple) is greater than half their free area, but less than their cut-out point, then each member of the couple will receive the following amount:

   \[
   \text{Half Married Rate of Pension} = \frac{1}{2} \left( \frac{(\text{Combined Private Income} - \text{Pension Free-Area}) \times \text{Pension Taper Rate}}{2} \right)
   \]

4. If each person's private income (when the combined private income is split between the couple) is greater than their cut-out point, then no pension is payable to either partner.

For couples with only one member receiving a pension, the following steps should be used:

1. Determine the pensioner's free area and cut-out as above.

2. If the pensioner's private income (when the combined private income is split between the couple) is less than half their free area, then the pensioner receives half the married rate of pension.

3. If the pensioner's private income (when the combined private income is split between the couple) is greater than half their free area, but less than their cut-out point, then the pensioner will receive the following amount:

   \[
   \text{Half Married Rate of Pension} = \frac{1}{2} \left( \frac{(\text{Combined Private Income} - \text{Pension Free-Area}) \times \text{Pension Taper Rate}}{2} \right)
   \]

4. If the pensioner's private income (when the combined private income is split between the couple) is greater than their cut-out point, then no pension is payable.

Allowances

As with pensions, there are two general types of allowees - single and married. However, there are many different groups of clients within these types. To begin with, this section will describe the basic method of rate calculation for single and married allowees. This will be followed by examples of exceptions to the general method.

To calculate the rate of allowance received by a client, the following facts must be known first:
• age of client;
• maximum rate of allowance (single or married);
• income test thresholds (including earnings disregard);
• income test taper rates;
• allowance cut-out point; and
• the amount of earnings credit accrued and whether the client has chosen to use it.

Earnings Disregards

Earnings disregards are used to extend the allowance income test free area for people who have earned wages or salaries. It does not apply to investment or other 'non-earned' income.

The following formulae give the new allowance thresholds for single people:

New First Threshold = Old First Threshold + MIN(Wages and Salaries, Earnings Disregard)

New Second Threshold = Old Second Threshold + MIN(Wages and Salaries, Earnings Disregard)

MIN(Wages and Salaries, Earnings Disregard) means 'the minimum of the wages and salaries earned by the client and the maximum earnings disregard allowed.'

For example, if the earnings disregard was $15 pw and a person earned $10 pw in wages and salaries, the thresholds would be increased by $10 pw. If the earnings disregard was $15 pw and the person earned $40 pw, the thresholds would increase by $15 pw.

In the case of couples, the new thresholds are found using the following formulae:

First Threshold = Old First Threshold + A + B

Second Threshold = Old Second Threshold + A + B

where:

\[ A = \text{MIN (Male's Wages and Salaries, Earnings Disregard)} \]

\[ B = \text{MIN (Female's Wages and Salaries, Earnings Disregard)} \]

Suppose the earnings disregard for couples was $25 pw each. If both partners earned $30 pw of wages and salaries each, then both thresholds would be increased by $50 pw (ie. $25 + $25). If one partner earned $10 pw and the other earned nothing, then both thresholds would be increased by $10 pw (ie. $10 + $0). Finally, if one partner earns $40 pw and the other earns $10 pw, both thresholds would increase by $35 pw (ie. $25 pw + $10 pw).
It is important to remember that the earnings disregard is not transferable between members of a couple. However, the earnings disregard is transferable when a person moves from an allowance to a pension, or vice-versa.

**Earnings Credits**

These are available to maximum rate allowees and pensioners to offset against earned income. They differ from earnings disregards in the sense that they are accruable up to a maximum amount. In 1993-94, a maximum rate single allowee can build up earnings credit at a rate of $90 per fortnight up to a ceiling of $500. Earnings credits can only be used if a client's combined earned income plus other private income is below the income test cut-out for that fortnight. If a client's payment is cancelled, the accumulated credits are 'preserved' for a limited time period and can be accessed if he/she regains an allowance or pension. Once the maximum accruable amount is used, the client cannot access any more credits for 12 months. Earnings credits are also transferable when a person moves from an allowance or pension.

The amounts of accrued credit and accruable credit each fortnight depend on the following factors:

- whether the client is receiving the full rate of an allowance or pension.
- whether the client has elected to use any accumulated credit that fortnight.

**Single Allowee**

This is the general method for calculating the allowance received by most single people:

1. If the client's private income is less than the first allowance threshold then they receive the maximum rate of payment.
2. If the client's private income is between the first and second allowance thresholds, the following formula is used to calculate the rate of payment:

   \[
   \text{Maximum Payment Rate} - \left(\frac{\text{Private Income} - \text{First Allowance Threshold}}{\text{First Taper Rate}}\right)
   \]

3. If the client's private income is between the second allowance threshold and the allowance cut-out point, the amount of payment received is found using the following formula:

   (i) \[
   \text{Maximum Payment Rate} - \left(\frac{\text{Second Allowance Threshold} - \text{First Allowance Threshold}}{\text{First Taper Rate}}\right)
   \]

   (ii) \[
   \left(\frac{\text{Private Income} - \text{Second Allowance Threshold}}{\text{Second Taper Rate}}\right)
   \]

Then subtract (ii) from (i).
4. If the client's private income is more than the allowance cut-out point then no allowance is paid.

**Married Allowee With Both Partners Aged Over 21 or With Children**

In instances where both members of an unemployed couple are eligible for an allowance, the head receives the appropriate allowance (ie. JSA, NSA or Sickness Allowance) while the partner is entitled to Partner Allowance. The allowances are paid at half the married rate, and an income test based on the couple's combined private income is used. Activity-testing will only be performed on the 'head' of a couple.

The following steps are used to calculate the amount of allowance received by each member of a couple:

1. If the couple's combined private income is less than the first allowance threshold then the full rate of allowance is paid.

2. If the couple's combined private income is between the first and second allowance thresholds, then the allowance paid to each partner is:

   \[\text{Maximum Payment Rate} - \left(\frac{(\text{Combined Private Income} - \text{First Allowance Threshold}) \times \text{First Taper Rate}}{2}\right)\]

3. If the couple's combined private income is between the second allowance threshold and the allowance cut-out point, then the amount of allowance received by each partner is:

   (i) \[\text{Maximum Payment Rate} - \left(\frac{(\text{Second Allowance Threshold} - \text{First Allowance Threshold}) \times \text{First Taper Rate}}{2}\right)\]

   (ii) \[\left(\frac{(\text{Combined Private Income} - \text{Second Allowance Threshold}) \times \text{Second Taper Rate}}{2}\right)\]

   Then subtract (ii) from (i).

4. If the couple's combined private income is more than the allowance cut-out point then no allowance is paid.

**Exceptions To The General Method of Calculation**

There are many exceptions to the normal method of rate calculation for allowees. The most common of these are the methods for:

- single allowees aged under 18 and dependent;
- married allowees where one or both partners is aged under 21 and they have no dependents; and
• married allowees whose spouse is receiving a social security, veterans affairs or educational supplement payment.

Each of these different methods will be detailed below.

**Single Aged Under 18 and Dependent**

This class of client not only has their own private earnings income tested, but their parents' as well. The parental income test can only reduce the amount of allowance received to a certain minimum level. After this level is reached, only the client's income can affect the rate of payment. In calculating the rate of payment for single aged under 18 dependent allowees, two distinct steps must be followed. Firstly, the parental income test is applied to determine the maximum amount of payment. Then the normal allowance income test is applied to the maximum amount of payment determined by the parental income test.

Parental Income Test

1. If parental income is less than the parental income test free area, then the adjusted maximum payment is the maximum rate of payment.

2. If parental income is more than the parental income test free area, then the adjusted maximum payment is calculated by using the formula below:

   Maximum Allowance - [(Parental Income - Parental Income Test Free Area) x Parental Income Test Taper]

3. If the amount calculated in (2) is less than the minimum level that the parental income test can reduce the payment to, then the adjusted maximum payment becomes the minimum level.

After the parental income test is applied, a new allowance cut-out point is calculated using the adjusted maximum payment. Then the normal allowee income test is applied to the adjusted maximum payment as described in the single allowee section.

**Married Couples With One or Both Partners Aged Under 21 and With No Children**

In this situation, the partner(s) aged under 21 receive the single rate of allowance corresponding to their age. If one of the partners is aged over 21 then that partner will receive half the normal married rate of allowance. Once again, the combined private income of the couple is used for income testing purposes. So that both partners do not lose their individual allowances at the normal income test taper rate, the taper rate is halved. This produces the overall effect of reducing the couples total allowance at the same rate as other couples.

Since the taper rates have been halved, a new allowance cut-out point will need to be calculated for each partner.
In the formulae below, 'taper rate' refers to the normal taper rate for that income range. (ie. they have not been halved). To calculate the amount of allowance received by one partner, follow the steps below. Repeat the steps for the other partner.

1. If the couple's combined private income is less than the first allowance threshold then the full rate of allowance is paid.

2. If the couple's combined private income is between the first and second allowance thresholds, then the allowance paid is found using the formula below:

   \[
   \text{Maximum Payment Rate} - \frac{\left( \text{Combined Private Income} - \text{First Allowance Threshold} \right) \times \text{First Taper Rate}}{2}
   \]

3. If the couple's combined private income is between the second allowance threshold and the new allowance cut-out point, the amount of allowance received is:

   (i) \[
   \text{Maximum Payment Rate} - \frac{\left( \text{Second Allowance Threshold} - \text{First Allowance Threshold} \right) \times \text{First Taper Rate}}{2}
   \]

   (ii) \[
   \frac{\left( \text{Combined Private Income} - \text{Second Allowance Threshold} \right) \times \text{Second Taper Rate}}{2}
   \]

   Then subtract (ii) from (i).

4. If the couple's combined private income is more than the new allowance cut-out point then no allowance is paid.

**Married Allowee With Spouse on Other Payment**

This case is similar to the one above. The allowee will receive an income tested amount of half the married allowee rate if they are aged over 21 or have dependents. If the allowee is aged under 21 and has no dependents, they will receive the relevant single rate of allowance.

The income test for this class of allowee is the same as the one for **Married Couples With One or Both Partners Aged Under 21 and With No Children**.

**Family Payments**

Family Payments consist of Basic Family Payment (BFP), Additional Family Payment (AFP) and Home Child Care Allowance (HCCA).

The calculation of BFP and AFP rates are based on a family's income from the previous financial year, whilst the rate of HCCA is based on current income. The family payment system incorporates two different income tests; a sudden death income test for BFP and a taper income test for AFP and HCCA.
Allowees and pensioners with dependents receive the full rate of BFP and a rate of AFP that is only subjected to the maintenance income test, regardless of their income. This means that if an allowee or pensioner with dependents has no maintenance income, they will receive the full rate of AFP. This is termed 'auto-AFP'.

In order to calculate the rate of BFP or AFP received by a family, the following facts must be known:

- maximum rate of BFP or AFP for that family type;
- income test thresholds for BFP and AFP;
- income test taper for AFP; and
- the AFP cut-out point.

Although BFP and AFP are usually based on income from the previous financial year, a family's current income can be used for assessment if their income in the current financial year will change by a factor of at least 25% from the previous year.

**Adjusting Thresholds For Children**

For Basic Family Payment, the cut-out point can be calculated using the formula below:

$$\text{Cut-out} = \text{Normal BFP Cut-out} + [(\text{No. of Children Eligible for BFP} - 1) \times \text{BFP Child Disregard}]$$

For Additional Family Payment, the threshold can be calculated using the formula below:

$$\text{Threshold} = \text{Normal AFP Threshold} + [(\text{No. of Children Eligible for BFP} - 1) \times \text{BFP Child Disregard}]$$

Now that the threshold has been adjusted for AFP, a new AFP cut-out point (including Rent Assistance) can be calculated:

$$\text{New Threshold} + \frac{\text{Maximum Rate of AFP}}{\text{AFP Taper Rate}}$$

**Basic Family Payment**

The calculation of BFP is one of the most simple rate calculations in social security as this payment has a sudden-death income test. To find the rate paid, follow the steps below:

1. If the family's income in the previous financial year is less than the cut-out point and they have three or less children eligible for BFP, then the following formula is used to calculate the rate of BFP received:
If the family's income in the previous financial year is less than the cut-out point and they have four or more children eligible for BFP, then the following formula is used to calculate the rate of BFP received:

\[(\text{No. of Children Eligible for BFP} - 3) \times \text{Rate For } 4^{\text{th}} \text{ or More Child} + 3 \times \text{Rate For } 1^{\text{st}} \text{ to } 3^{\text{rd}} \text{ Child}\]

If the family's income in the previous financial year is more than the cut-out point, then no payment is made.

**Additional Family Payment**

To be eligible for AFP, a child must be eligible for BFP. If the child is not eligible for BFP, then no AFP will be paid. Rent Assistance is only included if the family is eligible for it (see the Rent Assistance section). The steps below are used to calculate the rate of AFP paid to a family:

1. Calculate the values at (i), (ii) and (iii).
   
   (i) \(\text{No. of Children Eligible for AFP Aged Under 13} \times \text{AFP Under 13 Rate}\).
   
   (ii) \(\text{No. of Children Eligible for AFP Aged 13 to 15} \times \text{AFP 13 to 15 Rate}\).
   
   (iii) Maximum Rent Assistance Payable.
   
   (iv) Guardian Allowance (Sole Parents only)
   
   Then add (i), (ii), (iii) and (iv). Call this amount the 'Maximum Rate'

2. If a family's income in the previous financial year is less than the AFP threshold, then the family receives the Maximum Rate.

3. If a family's income in the previous financial year is between the AFP threshold and the AFP cut-out, then the following formula is used to calculate the amount of AFP received:

\[
\text{Maximum Rate} - \frac{[\text{Families Assessable Income} - \text{AFP Treshold}]}{26} \times \text{AFP Taper Rate}
\]

4. If a family's income in the previous financial year is greater than the AFP cut-out, then no AFP is received.

---

# This expression is divided by 26 to convert the income and threshold to fortnightly figures. If this has already been done, then there is no need to divide by 26.
Home Child Care Allowance (HCCA)

HCCA is to be paid to the principal carer of a child or children. While sole parents are theoretically eligible, in practice almost all will have sufficient income to preclude them from this payment. The principal recipients of the payment will be the spouses of taxpayers who would previously have been able to claim the Dependent Spouse Rebate (Children).

In determining the rate of HCCA a person receives, the following items must be considered:

- maximum rate of HCCA;
- income test free area;
- income test taper rate; and
- the payment cut-out point.

The HCCA income test is based on the income of the claimant only (ie. the partner at home caring for children), rather than family income. The rate of HCCA does not depend on the number of eligible children.

To calculate the rate of HCCA, carry out the following steps:

1. Determine the person's free area and cut-out point.
2. If the person's private income is below the free area, he/she receives the maximum rate.
3. If the person's private income is between the free area and the cut-out point, then the following formula is used to calculate the rate of HCCA received:
   \[
   \text{Maximum HCCA Rate} - [(\text{Private Income} - \text{Free Area}) \times \text{Taper Rate}]
   \]
4. If the person's private income exceeds the cut-out point, then they are not eligible for HCCA.

Rent Assistance

Rent Assistance is added to a person's basic pension or allowance if they have no dependent children (ie. children eligible for AFP), or added to a persons AFP payment if they have dependent children. The Rent Assistance is then a part of the normal payment and is income tested in the same way.
A person is eligible for Rent Assistance if they are paying private rent (ie. non-government rent) in excess of a certain threshold. This threshold depends on the person's family status (ie. single/couple, children/no children). The Rent Assistance rate also depends on the person's family status.

The following steps calculate the maximum amount of Rent Assistance an eligible person or couple can receive:

1. If the person or couple pays less rent than the rent threshold then no Rent Assistance is paid.

2. Calculate the following value:

   \[
   \frac{\text{Rent Threshold} + \text{Rent Assistance Rate}}{\text{Rent Assistance Taper Rate}}
   \]

   This amount is called the 'Maximum Rent Assistance Level'

3. If the person or couple pays rent greater than the rent threshold, but less than the Maximum Rent Assistance Level, then the following formula is used to calculate the maximum amount of Rent Assistance received:

   \[
   (\text{Rent Paid} - \text{Rent Threshold}) \times \text{Rent Assistance Taper Rate}
   \]

4. If the person or couple pays rent greater than the Maximum Rent Assistance Level, then the maximum amount of Rent Assistance received is the Rent Assistance Rate.

Once the maximum amount of Rent Assistance is calculated, this is added to the pension, allowance or family payment as required.

**Pharmaceutical Allowance and Minimum Payments**

For single and married pensioners and allowees eligible for Pharmaceutical Allowance, the minimum amount of payment that can be received is the maximum rate of Pharmaceutical Allowance. In other words - if, after the income test is applied, a pensioner or allowee is eligible for a small part payment that is less than the maximum rate of Pharmaceutical Allowance, then they will actually be paid the full Pharmaceutical Allowance.
### Taxability of Payments

The social security system has both taxable and non-taxable payments. In theory, payments which promote vertical equity are taxable (e.g., Age Pension, JSA, NSA and Sickness Allowance) and payments that promote horizontal equity are non-taxable (e.g., BFP, AFP and Rent Assistance). In practice, historical factors have blurred this distinction. The table below details most taxable and non-taxable payments for 1993-94:

<table>
<thead>
<tr>
<th>Taxable</th>
<th>Non-Taxable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Pension</td>
<td>Pharmaceutical Allowance</td>
</tr>
<tr>
<td>Education Entry Payment</td>
<td>Employment Entry Payment</td>
</tr>
<tr>
<td>Job Search Allowance</td>
<td>Disability Support Pension (for recipients under age pension age.)</td>
</tr>
<tr>
<td>Newstart Allowance</td>
<td>Additional Family Payment</td>
</tr>
<tr>
<td>Partner Allowance</td>
<td>Child Disability Allowance</td>
</tr>
<tr>
<td>Sickness Allowance</td>
<td>Double Orphan Pension</td>
</tr>
<tr>
<td>Sole Parent Pension</td>
<td>Guardian Allowance</td>
</tr>
<tr>
<td>Special Benefit</td>
<td>Rent Assistance</td>
</tr>
<tr>
<td>Widow B Pension</td>
<td>Mature Age Partner Allowance (for recipients under age pension age.)</td>
</tr>
<tr>
<td>Widowed Person Allowance</td>
<td>Multiple Birth Allowance</td>
</tr>
<tr>
<td>Wife or Carer Pension (except where both the taxpayer and partner or person cared for are under age pension age or where the taxpayer is under age pension age and the partner deceased.)</td>
<td>Mobility Allowance</td>
</tr>
<tr>
<td>Young Homeless Allowance</td>
<td>Remote Area Allowance</td>
</tr>
<tr>
<td>Mature Age Allowance</td>
<td>Bereavement Allowance</td>
</tr>
<tr>
<td></td>
<td>Rehabilitation Allowance</td>
</tr>
<tr>
<td></td>
<td>Sheltered Employment Allowance</td>
</tr>
<tr>
<td></td>
<td>Disaster Relief Payment</td>
</tr>
<tr>
<td></td>
<td>Telephone Allowance</td>
</tr>
</tbody>
</table>
Rebates for Payments

The aim of most social security payments is to ensure that people receive a minimum level of income. This level of income is determined by such factors as the age of a client, the number of dependants of a client, the type of accommodation the client has and where the client lives. To ensure that social security recipients who are in greatest need of assistance are not disadvantaged by the taxation system, some payments are made exempt from tax and recipients of other payments are provided with a tax rebate.

The level of the rebate provided is dependent upon the amount of payment received. In general there are two types of rebates:

1. Rebates that cover only the value of the payment (eg. rebates for JSA, NSA and Sickness Allowance).
2. Rebates that cover the value of the payment and the income test free area (eg. Age Pension, Sole Parent Pension and Mature Age Allowance).

(Non-taxable payments such as Disability Support Pension and Family Payment do not receive a rebate since the payment is already exempt from tax.)

The maximum value of the rebate is provided to all clients with income below a certain threshold. This is the rebate threshold. When income exceeds this threshold, the rebate is tapered away in a similar manner to taper income tested payments. The rebate withdrawal rate is currently 12.5%.

Rebates for couples are generally calculated on an individual basis (ie. based on an individual's payment and ordinary tax liability) rather than the couple's total payment.

Rebate - Payment Only

When calculating the value of any rebate, the first step is to calculate the ordinary tax liability on the amount being protected. In the case of a rebate that covers the payment only, the ordinary tax liability is found using the following formula:

\[(\text{Annual Payment} - \text{Lowest Tax Threshold}) \times \text{Lowest Tax Rate}\]

This maximum rebate value is then rounded up to the nearest dollar.

To find the rebate threshold, use the formula below. Once again, round the value up to the nearest dollar.

\[
\text{Lowest Tax Threshold} + \frac{\text{Maximum Rebate}}{\text{Lowest Tax Rate}}
\]
Rebate - Payment and Free Area

Similarly, the ordinary tax liability for a payment and its free area is found using the following formula:

\[(\text{Annual Payment} + \text{Annual Free Area Amount}\text{\footnote{The free area does not include my extra free area for dependents.}} - \text{Lowest Tax Threshold}) \times \text{Lowest Tax Rate}\]

The maximum rebate is calculated by rounding this value up to the nearest dollar.

Once again the rebate threshold is found by using the formula below:

\[
\frac{\text{Lowest Tax Threshold} + \text{Maximum Rebate}}{\text{Lowest Tax Rate}}
\]

Calculating the Rebate Received

The value of the rebate received can never exceed the ordinary tax liability of the client. That is, the rebate is not a refundable credit. For example, if a client is eligible for a rebate of $500 but only has an ordinary tax liability of $300, they will only, receive a rebate of $300. To calculate the rebate received, the following steps should be used (except for the Sole Parent Rebate and pensioner couples):

1. If the client has income at or below the rebate threshold, use the following formula:

\[(\text{Taxable Income} - \text{Lowest Tax Threshold}) \times \text{Lowest Tax Rate}\]

2. If the client's income is above the rebate threshold, use the following formula:

\[
\text{Maximum Rebate} - [(\text{Taxable Income} - \text{Rebate Threshold}) \times \text{Rebate Taper Rate}]
\]

3. If the rebate calculated in 1 or 2 above is negative, then the rebate received is nil.

Calculating the Rebate Cut-out

The level of income at which a rebate cuts out is found using the following formula:

\[
\text{Rebate Threshold} + \frac{\text{Maximum Rebate}}{\text{Rebate Withdrawal Rate}}
\]

Transfer of Pensioner Rebate Between Members of a Couple

Married pensioners with a taxable pension are allowed to transfer the unused portion of their rebate to their partner. This is only the case if both partners are on a pension. Where one partner receives some of the other's rebate, the threshold of the first partner is also increased.
The transfer of the rebate is determined as follows:

1. Determine which partner has the lowest taxable income. If their taxable income is above the rebate threshold then they will not transfer any of their rebate and you can stop here. Otherwise continue.

2. If their (the lowest earner in the couple) income is below the rebate threshold, then calculate the rebate actually used by this partner as follows:

\[(\text{Taxable Income} - \text{Lowest Tax Threshold}) \times \text{Lowest Tax Rate}\]

3. Using the result above, calculate the leftover rebate as follows:

\[
\text{Leftover Rebate} = \text{Maximum Rebate} - \text{Rebate Used}
\]

4. Now calculate the new rebate for the highest earning partner:

\[
\text{New Rebate} = \text{Maximum Rebate} + \text{Leftover Rebate}
\]

5. Using the following formula the new rebate threshold for the highest earning partner can be calculated:

\[
\text{New Rebate Threshold} = \text{Lowest Tax Threshold} + \frac{\text{New Rebate}}{\text{Lowest Tax Rate}}
\]

The new rebate for the higher income partner will begin to be withdrawn for income above this new rebate threshold.

**Low Income Rebate**

The Low Income Rebate (LIR) consists of an income threshold and a taper rate. The maximum amount of LIR a person may receive can be found by following the steps below:

1. Calculate the LIR cut-out as follows:

\[
\text{LIR Income Threshold} + (\text{LIR} / \text{LIR Taper Rate})
\]

2. If the taxable income of the person is less than the LIR income threshold, then the taxpayer is eligible for the full rate of LIR.

3. If the taxable income of the person is between the LIR income threshold and the LIR cut-out, then the taxpayer is eligible for the following amount of LIR:

\[
\text{LIR} - [(\text{Taxable Income} - \text{LIR Threshold}) \times \text{LIR Taper Rate}]
\]

4. If the taxable income of the person is more than the LIR cut-out, then the taxpayer receives no LIR.
Sole Parent and Dependent Spouse Rebates

All sole parents with dependent children as defined by the Income Tax Assessment Act are eligible for the full Sole Parent Rebate (SPR), regardless of their income.

The Dependent Spouse Rebate (DSR) has an income test based on the dependant's income rather than that of the primary earner. However, the primary earner is eligible for the rebate. The DSR income test consists of an income threshold and a taper rate. With the introduction of HCCA only couples without children will be eligible for the DSR.

The income test relates to the 'separate net income' of the dependant as defined in the Income Tax Assessment Act. Generally, 'separate net income' is income, both taxable and non-taxable, received by the dependent spouse with the exception of BFP, AFP, and Child Disability Allowance. The maximum amount of DSR a taxpayer may receive can be worked out using the following steps:

1. Calculate the DSR cut-out as follows:
   
   \[
   \text{DSR} = \frac{\text{DSR Separate Net Income Test Threshold}}{\text{DSR Taper Rate}} + \text{DSR Taper Rate}
   \]

2. If the separate net income of the spouse is less than the DSR threshold, then the taxpayer is eligible for the full rate of DSR.

3. If the separate net income of the spouse is between the DSR threshold and the DSR cut-out, then the taxpayer is eligible for the following amount of DSR:

   \[
   \text{DSR} - \left(\frac{\text{Separate Net Income of Spouse} - \text{DSR Threshold}}{\text{DSR Taper Rate}}\right)
   \]

4. If the separate net income of the spouse is more than the DSR cut-out, then the taxpayer receives no DSR.

Ordinary Tax Liability

In 1993-94, the following annual income tax scales were in place:
### Annual Income Scales

<table>
<thead>
<tr>
<th>Annual Income</th>
<th>Tax Rate</th>
<th>Ordinary Tax Liability Within Range</th>
<th>Tax Liability At End Of Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - $5400</td>
<td>0.00</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>$5401 - $20700</td>
<td>0.20</td>
<td>(Annual Income - $5400) x 0.20</td>
<td>$3060</td>
</tr>
<tr>
<td>$20701 – $36000</td>
<td>0.355</td>
<td>$3060 + (Annual Income - $20700) x 0.355</td>
<td>$8491.50</td>
</tr>
<tr>
<td>$36001 – $38000</td>
<td>0.385</td>
<td>$8492 + (Annual Income - $36000) x 0.385</td>
<td>$9261.50</td>
</tr>
<tr>
<td>$38001 - $50000</td>
<td>0.44125</td>
<td>$9262 + (Annual Income - $38000) x 0.44125</td>
<td>$14556.50</td>
</tr>
<tr>
<td>$50001 and over</td>
<td>0.47</td>
<td>$14557 + (Annual Income - $50000) x 0.47</td>
<td>N/A</td>
</tr>
</tbody>
</table>

These annual scales were a composite resulting from the changes in the PAYE tax scales during the course of the financial year (November 1993).

In the column labelled 'Tax Liability At End Of Range', the figure is calculated by adding the previous value to the income tax that would be paid in the income range. For example, in the $20701 - $36000 range the tax liability at the end of the range would be:

\[
$3060 + [(\text{Annual Income} - \$20700) \times 0.355] = \$8491.50
\]

### Medicare Levy

The components of the Medicare levy are:

- the Medicare levy rate;
- the Medicare shade-in rate;
- the single Medicare threshold,
- the family Medicare threshold; and
- the additional dependant threshold.

The Medicare levy is different to income tax in that it is generally a flat rate of a person's income regardless of the level of income. Income tax is a 'progressive' system of taxation in which the rate of tax increases as a person's income increases.

In calculating the Medicare threshold for single people without dependants and not in receipt of a daughter/housekeeper rebate, the single Medicare threshold is used. For couples, sole parents or single people in receipt of a daughter/housekeeper rebate, the family Medicare threshold is used.

For each additional dependent child or student, the family Medicare threshold is increased by an amount equal to the additional dependant threshold:
Medicare Threshold + [N^2. of Dependent Children x Additional Dependant Threshold]

Persons with income below the single Medicare threshold pay no levy. Members of a couple (or others with dependants) with family income below the family Medicare threshold pay no Medicare levy. For the purposes of Medicare, family income is the total taxable income of the husband and wife for a couple, and the taxable income of the parent in a one-parent family.

When a person's or family's income exceeds their Medicare threshold by only a small amount, the Medicare levy paid is 'shaded in' at a percentage of the income that exceeds their Medicare threshold. The rate at which the Medicare levy is shaded in is called the 'shade-in rate'. This 'shade-in rate' is only used up to a certain level of income, after which the full Medicare levy rate is applied. This level of income is found by using the formula below and is called the 'shade-in cut-off':

\[
\text{Shade-in Rate} \times \text{Medicare Threshold} = \frac{\text{Shade-in Rate} - \text{Levy rate}}{\text{Annual Taxable Income} \times \text{Medicare Levy Rate}}
\]

**Single Medicare Levy**

The Medicare levy for single people can be calculated by following the steps below:

(Note: this excludes sole parents and single people eligible for the daughter/house keeper rebate)

1. If the person's income is below their Medicare threshold, they will pay no levy.
2. If the person's income is between their Medicare threshold and their shade-in cut-off, then the Medicare levy paid is:

   \[
   (\text{Annual Taxable Income} - \text{Medicare Threshold}) \times \text{Shade-in Rate}
   \]

3. If the person's private income is above the shade-in cut-off, then the Medicare levy paid is:

   \[
   \text{Annual Taxable Income} \times \text{Medicare Levy Rate}
   \]

**Calculating Medicare Levy for Couples and Sole Parents**

1. Calculate the family's Medicare threshold and shade-in cut-off.
2. Determine whether the family's income is above or below the family's Medicare threshold. If it is below the Medicare threshold, then no member of the family pays the Medicare levy.

   If the family's income is between the family's Medicare threshold and shade-in cut-off, then:

   a) Calculate each partner's Basic Medicare Levy based on the rules for single people.
b) Subtract each partner's proportion of the Reduction Amount (see below) from their Basic Medicare Levy.

This is how much Medicare Levy they pay.

3. If the family's income is greater than the family's Medicare shade-in cut-off, each partner is treated as a single person for Medicare calculation (ie. there is NO Reduction Amount).

**Reduction Amount**

\[
\text{Levy Rate} \times \text{Family Threshold} \\
\text{less} \\
(\text{Shade-in Rate} - \text{Levy Rate}) \times (\text{Family Income} - \text{Family Threshold})
\]

**Proportion of Reduction Amount**

\[
\frac{\text{Spouse Income}}{\text{Family Income}} \times \text{Reduction Amount}
\]

(This applies only if the spouse's income is greater than the Medicare threshold; otherwise other partner gets the full reduction).

**Calculating Total Tax Liability**

The total tax liability of a person is calculated by subtracting the combined rebates from ordinary income tax and then adding the Medicare Levy.

Rebates can only be used to offset a person's ordinary tax liability, not the Medicare levy. This is equivalent to saying that the maximum amount of rebate a person can receive is equal to their ordinary tax liability.

To calculate a person's total tax liability use one of the following formulae:

1. Where ordinary income tax is greater than the sum of rebates:

   \[
   \text{Ordinary Income Tax} - \text{Sum of All Rebates} + \text{Medicare Levy}
   \]

2. Where ordinary income tax is less than the sum of the rebates:

   \[
   \text{Medicare Levy}
   \]
SECTION IV
INTERACTION OF THE TAXATION AND SOCIAL SECURITY SYSTEMS

Disposable Income

A person's disposable income is their net income. Disposable income can be used as an indicator of a person's spending power. To calculate disposable income a person's private income, cash transfers and non-cash transfers are added and their total tax liability is subtracted. The formula below is used:

Private Income + Cash Transfers + Non-Cash Transfers - Total Tax Liability

Private income is income derived from employment, investment and the like. That is, it is generated by the person. Cash transfers include social security payments, veteran's payments and AUSTUDY. They also include things like education and government grants. Non-cash transfers are provided by the State and Federal Governments in the form of concession cards and other non-cash benefits. Total Tax Liability is calculated by using the method described in Section Three.

Cash transfers are usually dependent on a person's private income. Once a person's private income is known, the value of their cash transfers can be calculated taking into account the eligibility rules for the transfer. Section Two details how to calculate most cash transfers.

In most cases, it is difficult to set a dollar value on non-cash transfers. By their nature they do not have an explicit value attached to them. Since the value of non-cash transfers such as concession cards are very much dependent on their use, they have different values for different people. People who frequently use the concession gain more value than people who rarely use the concession. This makes the decision to attach a dollar value to non-cash transfers a subjective one which should only be made in well defined situations. In most situations the value of non-cash transfers is not included in modelling a proposal unless it is specifically requested.

Effective Marginal Tax Rates

EMTRs are a measure of the level of effective taxation a person faces when they increase their private income. A high EMTR indicates a high level of 'effective taxation' on marginal changes in income. This should not be confused with Effective Average Tax Rates (EATRs) which measure the overall assistance or tax burden at a given income. From a policy point of view, EMTRs are usually seen as affecting incentives, while EATRs affect equity.
EMTRs consist of income test tapers, income tax rates, Medicare levy rates and rebate withdrawal rates and the thresholds at which these 'effective taxes' take place.

Generally, the more of these 'effective taxes' that occur over the same income range the higher the rate of EMTRs.

The formula for calculating the EMTR at a certain level of private income is:

\[
\left( 1 - \frac{\text{Disposable Income}^a - \text{Disposable Income}^b}{\text{Private Income}^a - \text{Private Income}^b} \right) \times 100
\]

Where:

\[
\text{Disposable Income}^a = \text{Disposable Income at Private Income}^a \\
\text{Disposable Income}^b = \text{Disposable Income at Private Income}^b \\
\text{Private Income}^a = \text{Private Income You Want EMTR For} \\
\text{Private Income}^b = \text{Private Income Marginally Less Private Income}^a \text{ (usually $1)}
\]

The result obtained from the above formula is the percentage of extra income that will be 'taken away' when private income is increased from Private Income\(^b\) to Private Income\(^a\) (eg. if the EMTR was 50% and private income was increased by $1, then 50 cents of the private income would be taken as 'effective taxation').

EMTRs are usually calculated for income units rather than individuals. In the case of couples, this means that the EMTR will be a combined EMTR for both spouses.

High EMTRs are thought to discourage people from increasing their private income. If a person has an EMTR of 100% or higher (ie. if they increase their private income, their disposable income does not increase or it decreases), they may be discouraged from increasing their private income and become reliant on welfare. This is more likely if the high EMTRs occur over a long range of income. High EMTRs are commonly caused by high taper rates on income tests (such as JSA/NSA). A high EMTR may only be over a relatively short period of income if the payment being income tested is thus reduced very quickly to nil.

Low EMTRs do not discourage people from increasing their private income as much, since they leave people with a greater proportion of any additional private income they earn. EMTRs below 50% usually apply to non-welfare recipients.

**General Rules for Calculating EMTRs**

When calculating EMTRs for social security clients, the following steps should be used. Examples of these steps can be found in the tables below.
1. Determine the characteristics of the client being examined (e.g., married age pensioner couple, with no children, private income split 50/50 and in receipt of Rent Assistance).

2. Decide what income range the EMTR will be calculated for.

3. Determine the order of withdrawal of the payment components (e.g., base pension, Rent Assistance and Pharmaceutical Allowance).

4. Determine which income tests and tax rates apply to the client by calculating all the relevant thresholds and cut-outs (e.g., income test threshold, base payment cut-out, Rent Assistance cut-out, Medicare levy thresholds, rebate thresholds, rebate cut-out points, etc) and the client’s taxable income.

5. Assume the family earns an extra dollar of private income (taking into account the private income split).

6. Apply any social security income test to that extra dollar of income.

7. Apply the taxation rules to the remaining amount of extra taxable income. If the client has less taxable income, then the taxation rules which apply are subtracted from the EMTR.

8. Add up all of the income test and taxation EMTR components to find the final EMTR.

**EMTRs for Single People in Receipt of Social Security Payments**

Attachments A and B provide examples of the theoretical EMTRs faced by single aged pensioners and single disability support pensioners respectively. Each report details the level of private income at which the EMTR faced by the client changes. The reports also give an explanation for the change in the EMTR (e.g., 'Beginning Reduction of Base Pension').

As mentioned in the Order of Withdrawal of Payment Components section, it is essential to know the order in which payment components are withdrawn before EMTRs can be calculated. An example of this is provided in the EMTRs of Age Pensioner Couples section.

The best way to explain the calculation of EMTRs is by example. To begin with, the EMTRs faced by a single age pensioner will be examined, followed by the EMTRs faced by a single disability support pensioner.
EMTRs of Single Age Pensioner

When calculating the EMTRs of a person or couple, the first step is to determine the assumptions to be made about the client or clients. In this case, a single age pensioner, with no children and not in receipt of rent assistance will be examined. The rates and thresholds used (in weekly amounts) are as at 17 September 1994.

The age pension income test withdraws base pension firstly and Pharmaceutical Allowance secondly.

The following is an explanation of some of the turning points, shown in Attachment A, as output by DSS' Policy Effects Model (PEM), which is a hypothetical model.

- **Beginning Reduction of Base Pension (Turning Point Number = 1)**

- **Start Paying Tax (Turning Point Number = 2)**

As can be seen on the report, private income has reached the single pension income test threshold. Since the pensioner rebate threshold is set at the pension free area plus base pension, the rebate will now also begin to be reduced.

To calculate the EMTR at this point, assume the pensioner earned one more dollar of income. The EMTR will be the amount of this dollar that is lost to income tests and taxation:

<table>
<thead>
<tr>
<th>Step in Calculation of EMTR</th>
<th>Income Affected</th>
<th>Additional EMTR</th>
<th>Cumulative EMTR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pensioner earns extra $1</td>
<td>$1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pension income test applies to $1</td>
<td>$1</td>
<td>0.50 - $1 = 50%</td>
<td>50%</td>
</tr>
<tr>
<td>Income Tax on extra taxable income</td>
<td>$0.50 ($1 - $0.50)</td>
<td>0.20 - $0.50 = 10%</td>
<td>60%</td>
</tr>
<tr>
<td>Rebate Withdrawal</td>
<td>$0.50</td>
<td>0.125 - $0.50 = 6.25%</td>
<td>66.25%</td>
</tr>
</tbody>
</table>

- **Medicare Levy Single Threshold (Turning Point Number = 3)**

At this turning point, the Medicare levy shade-in begins.

Once again, to calculate the EMTR at this point, assume the pensioner earned one more dollar of income:
### EMTRs for Single Disability Support Pensioners

In the report in Attachment B, it is assumed that the pensioner is not old enough to receive age pension, has no children and receives no rent assistance. Once again, all rates and thresholds are current as at 17 September 1994.

Below is an explanation of some of the turning points from Attachment B:

- **Start Paying Tax (Turning Point Number = 2)**

At this level of private income, the pensioner has already exceeded the income test free area and has just begun to pay tax. Note that the client has no pensioner rebate because disability support pension is non-taxable and only private income is included for income tax purposes.

In calculating the EMTR, assume that the client earned one more dollar of private income:

<table>
<thead>
<tr>
<th>Step in Calculation of EMTR</th>
<th>Income Affected</th>
<th>Additional EMTR</th>
<th>Cumulative EMTR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pensioner earns extra $1</td>
<td>$1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pension income test applies to $1</td>
<td>$1</td>
<td>0.50 - $1 = 50%</td>
<td>50%</td>
</tr>
<tr>
<td>Income Tax on extra taxable income</td>
<td>$0.50</td>
<td>(0.20 - $0.50 = 10%)</td>
<td>60%</td>
</tr>
<tr>
<td>Rebate Withdrawal</td>
<td>$0.50</td>
<td>0.125 - $0.50 = 6.25%</td>
<td>66.25%</td>
</tr>
<tr>
<td>Medicare levy shade in</td>
<td>$0.50</td>
<td>0.20 - $0.50 = 10%</td>
<td><strong>76.25%</strong></td>
</tr>
</tbody>
</table>
Medicare Levy Single Threshold (Turning Point Number = 3)

This change in EMTR occurs because the client begins to pay the Medicare levy. This is shaded in at a rate of 20%.

Assume that the client earns one more dollar of income, the EMTR is calculated as follows:

<table>
<thead>
<tr>
<th>Step in Calculation of EMTR</th>
<th>Income Affected</th>
<th>Additional EMTR</th>
<th>Cumulative EMTR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pensioner earns extra $1</td>
<td>$1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pension income test applies to $1</td>
<td>$1</td>
<td>0.50 - $1 = 50%</td>
<td>50%</td>
</tr>
<tr>
<td>Income Tax on extra taxable income</td>
<td>$1</td>
<td>0.20 - $1 = 20%</td>
<td>70%</td>
</tr>
<tr>
<td>Medicare Shade-in commences</td>
<td>$1</td>
<td>0.20 - $1 = 20%</td>
<td>90%</td>
</tr>
</tbody>
</table>

EMTRs for Couples in Receipt of Social Security Payments

Calculating EMTRs for couples is a much more complicated exercise because many other factors are involved. Due to the fact that EMTRs are generally calculated for income units, rather than individuals, a greater number of factors can influence the level of EMTRs faced by a couple. These factors include:

- the split of private income earned by the couple (eg. 50-50, 75-25, 100-0);
- the age of the members of the couple and the number of dependants they have;
- the Dependent Spouse Rebate (DSR);
- the transferability of the pension rebate;
- and the family Medicare rules.

For example, if an allowee couple has no dependants and the spouse has no private income, then the allowee would qualify for the full DSR. However, if the spouse earned more than a certain level of private income, the allowee would receive less DSR and the couple's EMTR would increase. This example shows how a simple matter of who earns private income can affect EMTRs.
In order to explain the calculation of EMTRs for couples, two EMTR reports have been generated (see Attachments C and D). Attachment C is an EMTR report for an age pensioner couple, with both partners eligible for pension and Rent Assistance, one partner earning all of the private income, and no children. The report in Attachment D is for an allowee couple with income split 50-50, no Rent Assistance, and two children aged between 13 and 15.

**EMTRs for Age Pensioner Couples**

As stated previously, Attachment C refers to a childless age pensioner couple in receipt of Rent Assistance. It is also assumed that one partner earns all of the private income. This means that when calculating the rate of payment, base pension is reduced first, followed by Rent Assistance and finally Pharmaceutical Allowance. All rates and thresholds are for 17 September 1994.

In the following explanation of some of the more difficult turning points, the tables calculating the EMTRs are divided into two parts - one for each member of the couple.

- **Spouse Drops Below Tax Threshold (Turning Point Number = 3)**

  At this level of private income, the spouse's income is below the tax-free threshold. This means that the spouse has no tax liability and has excess pensioner rebate or threshold to transfer to the 'head'. Both partners are having their pension reduced as the income earning partner's private income increases. However, only the private income earning partner is having his/her pension rebate reduced.

  To calculate the EMTR at this level of private income, assume that the 'head' (or the private income earning partner) earns an extra dollar of income. The 'spouse' is the non-income earning partner.
<table>
<thead>
<tr>
<th>Step in Calculation of EMTR</th>
<th>Income Affected</th>
<th>Additional EMTR</th>
<th>Cumulative EMTR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Head</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head earns extra dollar of income</td>
<td>$1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pension income test applied</td>
<td>$0.50</td>
<td>$0.50 - $0.50 = 25%</td>
<td>25%</td>
</tr>
<tr>
<td>Income Tax applied</td>
<td>$0.75</td>
<td>($1 - $0.25)</td>
<td></td>
</tr>
<tr>
<td>Reduction in rebate</td>
<td>$0.75</td>
<td>$0.125 - $0.75 = 9.375%</td>
<td>49.375%</td>
</tr>
<tr>
<td><strong>Spouse</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pension income test applied</td>
<td>$0.50</td>
<td>$0.50 - $0.50 = 25%</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$1</td>
<td>$49.375% + 25%</td>
<td>74.375%</td>
</tr>
</tbody>
</table>

- Head Begins Paying Medicare Levy (Turning Point Number = 4)

All of the characteristics that have applied in the previous turning point still apply, but so do the Medicare shade-in rules for couples. As has been shown in the Medicare Levy section, these rules are very complex because of the reduction amount that applies to the Medicare levy.

If the private income of the head of the couple increases by $1, the EMTR could be calculated as follows:
### Step in Calculation of EMTR

<table>
<thead>
<tr>
<th>Step in Calculation of EMTR</th>
<th>Income Affected</th>
<th>Additional EMTR</th>
<th>Cumulative EMTR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Head</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head earns extra dollar of income</td>
<td>$1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pension income test applied</td>
<td>$0.50</td>
<td>0.50 - $0.50 = 25%</td>
<td>25%</td>
</tr>
<tr>
<td>Income Tax applied</td>
<td>$0.75</td>
<td>0.20 - $0.75 = 15%</td>
<td>40%</td>
</tr>
<tr>
<td>Reduction in rebate</td>
<td>$0.75</td>
<td>0.125 - $0.75 = 9.375%</td>
<td>49.375%</td>
</tr>
<tr>
<td>Medicare Shade-in</td>
<td>$0.75</td>
<td>0.20 - $0.75 = 15%</td>
<td>64.375%</td>
</tr>
<tr>
<td><strong>Spouse</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pension income test applied</td>
<td>$0.50</td>
<td>0.50 - $0.50 = 25%</td>
<td>25%</td>
</tr>
<tr>
<td>Medicare reduction amount</td>
<td>- $0.25</td>
<td>0.186&quot; - (- $0.25) = - 4.65%</td>
<td>20.35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$1</td>
<td>64.375% + 20.35%</td>
<td>84.725%</td>
</tr>
</tbody>
</table>

# 0.186 = 0.2 – 0.014 = Shade-in less Medicare levy

- Head Eligible Part DSR (Turning Point Number = 6)

This turning point occurs after the Medicare levy has been shaded-in for the head. The change in EMTR occurs because the separate net income of the spouse has been sufficiently reduced to qualify the head for a part Dependent Spouse Rebate.

Once again, in order to calculate the EMTR assume that the head earns one extra dollar of private income.
This income level causes the pension income test to start withdrawing the Rent Assistance received by the couple. This increases the EMTR because Rent Assistance is non-taxable. The head of the couple is no longer eligible for the pensioner rebate and is paying income tax at a higher marginal tax rate (35.5 cents in the dollar).

Assume that the head earns an extra dollar of private income. The EMTR can be calculated as follows:

- **End of Reduction of Base Pension (Turning Point Number = 10)**

<table>
<thead>
<tr>
<th>Step in Calculation of EMTR</th>
<th>Income Affected</th>
<th>Additional EMTR</th>
<th>Cumulative EMTR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Head</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head earns extra dollar of income</td>
<td>$1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pension income test applied</td>
<td>$0.50</td>
<td>0.50 - $0.50 = 25%</td>
<td>25%</td>
</tr>
<tr>
<td>Income tax applied</td>
<td>$0.75 ($1 - $0.25)</td>
<td>0.20 - $0.75 = 15%</td>
<td>40%</td>
</tr>
<tr>
<td>Reduction in rebate</td>
<td>$0.75</td>
<td>0.125 - $0.75 = 9.375%</td>
<td>49.375%</td>
</tr>
<tr>
<td>Medicare Levy</td>
<td>$0.75</td>
<td>0.014 - $0.75 = 1.05%</td>
<td><strong>50.425%</strong></td>
</tr>
<tr>
<td><strong>Spouse</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pension income test applied</td>
<td>$0.50</td>
<td>0.50 - $0.50 = 25%</td>
<td>25%</td>
</tr>
<tr>
<td>DSR income test</td>
<td>- $0.25</td>
<td>0.25 – (- $0.25) = - 6.25%</td>
<td><strong>18.75%</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$1</td>
<td>50.425% + 18.75%</td>
<td><strong>69.175%</strong></td>
</tr>
</tbody>
</table>
EMTRs of Married Allowees

In this example, an allowee couple with two children aged between 13 and 15, no rent assistance and income split 50/50 between the head and the spouse will be analysed. The rates and thresholds are as at 17 September 1994.

As this example involves a 50/50 income split and the existence of Partner Allowance, both the head and spouse are experiencing the same effective marginal tax rates. In a similar manner to pensioner couples, the table explaining the calculation of EMTRs is divided into two sections.

If the private income of the couple increases by $1, the EMTR could be calculated as follows:

- **Start Paying Tax (Turning Point Number =1)**
  
  Both head and spouse are paying tax on their taxable income and having their allowee rebates reduced. As combined income is within the free area, there is no reduction of allowance.

To calculate the EMTR at this point, assume that the couple earned one extra dollar of private income:

<table>
<thead>
<tr>
<th>Step in Calculation of EMTR</th>
<th>Income Affected</th>
<th>Additional EMTR</th>
<th>Cumulative EMTR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Head</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head earns extra dollar of income</td>
<td>$1</td>
<td>$0.50 - $0.50 = 25%</td>
<td>25%</td>
</tr>
<tr>
<td>Pension income test applied</td>
<td>$0.50</td>
<td>$0.355 - $1 = 35.5%</td>
<td>60.5%</td>
</tr>
<tr>
<td>Income tax applied</td>
<td>$1</td>
<td>$0.014 - $1 = 1.4%</td>
<td>61.9%</td>
</tr>
<tr>
<td>Medicare Levy</td>
<td>$1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Spouse</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pension income test applied</td>
<td>$0.50</td>
<td>$0.50 - $0.50 = 25%</td>
<td>25%</td>
</tr>
<tr>
<td>DSR income test</td>
<td>- $0.25</td>
<td>0.25 - ( - $0.25) = - 6.25%</td>
<td>18.75%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$1</td>
<td>61.9% + 18.75%</td>
<td>80.65%</td>
</tr>
</tbody>
</table>
### Step in Calculation of EMTR

<table>
<thead>
<tr>
<th>Step in Calculation of EMTR</th>
<th>Income Affected</th>
<th>Additional EMTR</th>
<th>Cumulative EMTR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Head</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head earns extra $0.50 of income</td>
<td>$0.50</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Income tax applied</td>
<td>$0.50</td>
<td>$0.20 - $0.50 = 10%</td>
<td>10%</td>
</tr>
<tr>
<td>Reduction of allowee rebate</td>
<td>$0.50</td>
<td>$0.125 - $0.50 = 6.25%</td>
<td>16.25%</td>
</tr>
<tr>
<td><strong>Spouse</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spouse earns extra $0.50 of income</td>
<td>$0.50</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Income tax applied</td>
<td>$0.50</td>
<td>$0.20 - $0.50 = 10%</td>
<td>10%</td>
</tr>
<tr>
<td>Reduction of allowee rebate</td>
<td>$0.50</td>
<td>$0.125 - $0.50 = 6.25%</td>
<td>16.25%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$1</td>
<td>16.25% + 16.25%</td>
<td>32.5%</td>
</tr>
</tbody>
</table>

- **Beginning Reduction of Base Benefit (Turning Point Number =2)**

  All of the characteristics that have applied in the previous turning point still apply, except that combined income is now above the free area (but below the cut-out) so that allowance is being reduced at the first taper rate.

  If the couple earned an extra dollar of income, the EMTR would be calculated as follows:
Step in Calculation of EMTR & Income Affected | Additional EMTR | Cumulative EMTR
--- | --- | ---
**Head**
Head earns extra $0.50 of income | $0.50 | - | -
Allowance first taper applied | $0.50 | $0.50 - $0.50 = 25% | 25%
Income tax applied | $0.25 ($0.50 - $0.25) | 0.20 - $0.25 = 5% | 30%
Reduction of allowee rebate | $0.25 | 0.125 - $0.25 = 3.125% | **33.125%**

**Spouse**
Spouse earns extra $0.50 of income | $0.50 | - | -
Allowance first taper applied | $0.50 | 0.50 - $0.50 = 25% | 25%
Income tax applied | $0.25 ($0.50 - $0.25) | 0.20 - $0.25 = 5% | 30%
Reduction of allowee rebate | $0.25 | 0.125 - $0.25 = 3.125% | **33.125%**

**Total**
$1 | 33.125% + 33.125% | **66.25%**

- Begin Paying Medicare Levy (Turning Point Number = 7)

At this income level, base benefit is no longer paid and AFP is being reduced at the rate of $0.50 in the dollar. The couple is also starting to pay the Medicare shade-in.

If the couple earned one more dollar, the EMTR they would face is calculated as follows:
<table>
<thead>
<tr>
<th>Step in Calculation of EMTR</th>
<th>Income Affected</th>
<th>Additional EMTR</th>
<th>Cumulative EMTR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Head</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head earns extra $0.50 of income</td>
<td>$0.50</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AFP reduction</td>
<td>$0.50</td>
<td>0.50 - $0.50 = 25%</td>
<td>25%</td>
</tr>
<tr>
<td>Income tax applied</td>
<td>$0.50</td>
<td>0.20 - $0.50 = 10%</td>
<td>35%</td>
</tr>
<tr>
<td>Medicare shade-in</td>
<td>$0.50</td>
<td>0.20 - $0.50 = 10%</td>
<td>45%</td>
</tr>
<tr>
<td>Medicare reduction amount</td>
<td>$0.50</td>
<td>0.186 - $0.50 = 9.3%</td>
<td>54.3%</td>
</tr>
<tr>
<td><strong>Spouse</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spouse earns extra $0.50 of income</td>
<td>$0.50</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>AFP reduction</td>
<td>$0.50</td>
<td>0.50 - $0.50 = 25%</td>
<td>25%</td>
</tr>
<tr>
<td>Income tax applied</td>
<td>$0.50</td>
<td>0.20 - $0.50 = 10%</td>
<td>35%</td>
</tr>
<tr>
<td>Medicare shade-in</td>
<td>$0.50</td>
<td>0.20 - $0.50 = 10%</td>
<td>45%</td>
</tr>
<tr>
<td>Medicare reduction amount</td>
<td>$0.50</td>
<td>0.186 - $0.50 = 9.3%</td>
<td>54.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$1</td>
<td>54.3% + 54.3%</td>
<td>108.6%</td>
</tr>
</tbody>
</table>
ATTACHMENT A - SINGLE AGE PENSIONER

Policy Effects Model Output

Turning Point Number = 1

Estimated Exact Turning Point of Private Income = $44.00
Estimated Exact Disposable Income at Turning Point = $205.65
EMTR before Turning Point = 0.00%
EMTR after Turning Point = 50.00%
Critical Point Type = Beginning Reduction of Base Pension

Turning Point Number = 2

Estimated Exact Turning Point of Private Income = $61.75
Estimated Exact Disposable Income at Turning Point = $214.53
EMTR before Turning Point = 50.00%
EMTR after Turning Point = 66.25%
Critical Point Type = Start Paying Tax

Turning Point Number = 3

Estimated Exact Turning Point of Private Income = $124.90
Estimated Exact Disposable Income at Turning Point = $235.84
EMTR before Turning Point = 66.25%
EMTR after Turning Point = 76.25%
Critical Point Type = Medicare Levy Single Threshold

Turning Point Number = 4

Estimated Exact Turning Point of Private Income = $161.56
Estimated Exact Disposable Income at Turning Point = $244.54
EMTR before Turning Point = 76.25%
EMTR after Turning Point = 66.95%
Critical Point Type = End Medicare Levy Taper

Turning Point Number = 5

Estimated Exact Turning Point of Private Income = $361.92
Estimated Exact Disposable Income at Turning Point = $310.76
EMTR before Turning Point = 66.95%
EMTR after Turning Point = 25.33%
Critical Point Type = End Withdrawal Pensioner Rebate

Warning - approximation for this turning point.
### Turning Point Number = 6

Estimated Exact Turning Point of Private Income = $368.00  
Estimated Exact Disposable Income at Turning Point = $312.90  
EMTR before Turning Point = 21.40%  
EMTR after Turning Point = 21.40%  
Critical Point Type = End Pharmaceutical Allowance

### Turning Point Number = 7

Estimated Exact Turning Point of Private Income = $398.08  
Estimated Exact Disposable Income at Turning Point = $336.54  
EMTR before Turning Point = 21.40%  
EMTR after Turning Point = 40.90%  
Critical Point Type = Beginning 3rd Tax Bracket

### Turning Point Number = 8

Estimated Exact Turning Point of Private Income = $470.19  
Estimated Exact Disposable Income at Turning Point = $379.16  
EMTR before Turning Point = 40.90%  
EMTR after Turning Point = 36.90%  
Critical Point Type = Low Income Rebate Ends

### Turning Point Number = 9

Estimated Exact Turning Point of Private Income = $692.31  
Estimated Exact Disposable Income at Turning Point = $519.32  
EMTR before Turning Point = 36.90%  
EMTR after Turning Point = 39.90%  
Critical Point Type = Beginning 4th Tax Bracket

### Turning Point Number = 10

Estimated Exact Turning Point of Private Income = $730.77  
Estimated Exact Disposable Income at Turning Point = $542.32  
EMTR before Turning Point = 39.90%  
EMTR after Turning Point = 45.53%  
Critical Point Type = Beginning 5th Tax Bracket
ATTACHMENT B - SINGLE DISABILITY SUPPORT PENSIONER

Policy Effects Model Output

Turning Point Number = 1

Estimated Exact Turning Point of Private Income = $44.00
Estimated Exact Disposable Income at Turning Point = $205.65
EMTR before Turning Point = 0.00%
EMTR after Turning Point = 50.00%
Critical Point Type = Beginning Reduction of Base Pension

Turning Point Number = 2

Estimated Exact Turning Point of Private Income = $118.27
Estimated Exact Disposable Income at Turning Point = $242.78
EMTR before Turning Point = 50.00%
EMTR after Turning Point = 70.00%
Critical Point Type = Start Paying Tax

Turning Point Number = 3

Estimated Exact Turning Point of Private Income = $243.50
Estimated Exact Disposable Income at Turning Point = $280.35
EMTR before Turning Point = 70.00%
EMTR after Turning Point = 90.00%
Critical Point Type = Medicare Levy Single Threshold

Turning Point Number = 4

Estimated Exact Turning Point of Private Income = $261.83
Estimated Exact Disposable Income at Turning Point = $282.19
EMTR before Turning Point = 90.00%
EMTR after Turning Point = 71.40%
Critical Point Type = End Medicare Levy Taper

Turning Point Number = 5

Estimated Exact Turning Point of Private Income = $362.10
Estimated Exact Disposable Income at Turning Point = $310.86
EMTR before Turning Point = 71.40%
EMTR after Turning Point = 21.40%
Critical Point Type = End Reduction of Base Pension

Warning - approximation for this turning point.
Turning Point Number = 6

Estimated Exact Turning Point of Private Income = $368.00
Estimated Exact Disposable Income at Turning Point = $312.90
EMTR before Turning Point = 21.40%
EMTR after Turning Point = 21.40%
Critical Point Type = End Pharmaceutical Allowance

Turning Point Number = 7

Estimated Exact Turning Point of Private Income = $398.08
Estimated Exact Disposable Income at Turning Point = $336.54
EMTR before Turning Point = 21.40%
EMTR after Turning Point = 40.90%
Critical Point Type = Beginning 3rd Tax Bracket

Turning Point Number = 8

Estimated Exact Turning Point of Private Income = $470.19
Estimated Exact Disposable Income at Turning Point = $379.16
EMTR before Turning Point = 40.90%
EMTR after Turning Point = 36.90%
Critical Point Type = Low Income Rebate Ends

Turning Point Number = 9

Estimated Exact Turning Point of Private Income = $692.31
Estimated Exact Disposable Income at Turning Point = $519.32
EMTR before Turning Point = 36.90%
EMTR after Turning Point = 39.90%
Critical Point Type = Beginning 4th Tax Bracket

Turning Point Number = 10

Estimated Exact Turning Point of Private Income = $730.77
Estimated Exact Disposable Income at Turning Point = $542.32
EMTR before Turning Point = 39.90%
EMTR after Turning Point = 45.53%
Critical Point Type = Beginning 5th Tax Bracket
Married Age Pensioner, receiving Rent Assistance  
100% of income to head, no children

Policy Effects Model Output

**Turning Point Number = 1**

- Estimated Exact Turning Point of Private Income = $76.00
- Estimated Exact Disposable Income at Turning Point = $376.10
- EMTR before Turning Point = 0.00%
- EMTR after Turning Point = 50.00%
- Critical Point Type = Beginning Reduction of Base Pension

**Turning Point Number = 2**

- Estimated Exact Turning Point of Private Income = $93.75
- Estimated Exact Disposable Income at Turning Point = $384.98
- EMTR before Turning Point = 50.00%
- EMTR after Turning Point = 66.25%
- Critical Point Type = Start Paying Tax

**Turning Point Number = 3**

- Estimated Exact Turning Point of Private Income = $191.22
- Estimated Exact Disposable Income at Turning Point = $417.87
- EMTR before Turning Point = 66.25%
- EMTR after Turning Point = 74.38%
- Critical Point Type = Spouse drops below tax threshold

**Turning Point Number = 4**

- Estimated Exact Turning Point of Private Income = $226.70
- Estimated Exact Disposable Income at Turning Point = $426.96
- EMTR before Turning Point = 74.38%
- EMTR after Turning Point = 84.72%
- Critical Point Type = Head begins paying Medicare Levy

**Turning Point Number = 5**

- Estimated Exact Turning Point of Private Income = $275.12
- Estimated Exact Disposable Income at Turning Point = $434.36
- EMTR before Turning Point = 84.72%
- EMTR after Turning Point = 75.42%
- Critical Point Type = End Married Medicare Levy Taper
Turning Point Number = 6

Estimated Exact Turning Point of Private Income = $288.97
Estimated Exact Disposable Income at Turning Point = $437.76
EMTR before Turning Point = 75.42%
EMTR after Turning Point = 69.18%
Critical Point Type = Head eligible part DSR

Turning Point Number = 7

Estimated Exact Turning Point of Private Income = $328.57
Estimated Exact Disposable Income at Turning Point = $449.97
EMTR before Turning Point = 69.18%
EMTR after Turning Point = 83.80%
Critical Point Type = Beginning 3rd Tax Bracket

Turning Point Number = 8

Estimated Exact Turning Point of Private Income = $399.43
Estimated Exact Disposable Income at Turning Point = $461.45
EMTR before Turning Point = 83.80%
EMTR after Turning Point = 74.42%
Critical Point Type = End withdrawal Pensioner Rebate

Turning Point Number = 9

Estimated Exact Turning Point of Private Income = $424.72
Estimated Exact Disposable Income at Turning Point = $467.92
EMTR before Turning Point = 74.42%
EMTR after Turning Point = 71.42%
Critical Point Type = End Low Income Rebate

Turning Point Number = 10

Estimated Exact Turning Point of Private Income = $606.60
Estimated Exact Disposable Income at Turning Point = $519.89
EMTR before Turning Point = 71.42%
EMTR after Turning Point = 80.65%
Critical Point Type = End Reduction of Base Pension

Turning Point Number = 11

Estimated Exact Turning Point of Private Income = $654.51
Estimated Exact Disposable Income at Turning Point = $529.16
EMTR before Turning Point = 80.65%
EMTR after Turning Point = 86.90%
Critical Point Type = Head eligible full DSR


Turning Point Number = 12

Estimated Exact Turning Point of Private Income = $671.00
Estimated Exact Disposable Income at Turning Point = $531.32
EMTR before Turning Point = 86.90%
EMTR after Turning Point = 36.90%
Critical Point Type = End reduction of Rent Assistance

Warning - Approximation for this Turning Point

Turning Point Number = 13

Estimated Exact Turning Point of Private Income = $677.00
Estimated Exact Disposable Income at Turning Point = $532.50
EMTR before Turning Point = 86.90%
EMTR after Turning Point = 36.90%
Critical Point Type = End Pharmaceutical Allowance

Turning Point Number = 14

Estimated Exact Turning Point of Private Income = $692.31
Estimated Exact Disposable Income at Turning Point = $542.16
EMTR before Turning Point = 36.90%
EMTR after Turning Point = 45.52%
Critical Point Type = Beginning 4th Tax Bracket
Embedded Content:

**ATTACHMENT D - MARRIED NEWSTART ALLOWEE**

Married Adult NSA couple, not receiving Rent Assistance
2 children age 13-15,
Earnings split 50/50 between couple

*Spreadsheet EMTR Finder Output*

<table>
<thead>
<tr>
<th>Unit Weekly Earnings</th>
<th>Unit Weekly Disposable Income</th>
<th>Effective Marginal Tax Rate</th>
<th>Turning Point Number</th>
<th>Critical Point Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.00</td>
<td>$376.80</td>
<td>0.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$17.75</td>
<td>$394.55</td>
<td>32.50%</td>
<td>1</td>
<td>Start paying tax</td>
</tr>
<tr>
<td>$80.00</td>
<td>$436.57</td>
<td>66.25%</td>
<td>2</td>
<td>Beginning reduction base allowance</td>
</tr>
<tr>
<td>$104.34</td>
<td>$444.78</td>
<td>60.00%</td>
<td>3</td>
<td>End allowance rebate</td>
</tr>
<tr>
<td>$120.00</td>
<td>$451.05</td>
<td>100.00%</td>
<td>4</td>
<td>Begin 2\textsuperscript{nd} taper rate</td>
</tr>
<tr>
<td>$365.30</td>
<td>$451.05</td>
<td>20.00%</td>
<td>5</td>
<td>End reduction of base allowance</td>
</tr>
<tr>
<td>$422.57</td>
<td>$496.86</td>
<td>70.00%</td>
<td>6</td>
<td>Begin reduction of AFP</td>
</tr>
<tr>
<td>$507.59</td>
<td>$522.37</td>
<td>108.60%</td>
<td>7</td>
<td>Begin paying Medicare levy</td>
</tr>
<tr>
<td>$524.73</td>
<td>$520.90</td>
<td>90.00%</td>
<td>8</td>
<td>End Medicare TRA*</td>
</tr>
<tr>
<td>$528.66</td>
<td>$521.29</td>
<td>71.40%</td>
<td>9</td>
<td>End Medicare shade-in rate</td>
</tr>
<tr>
<td>$603.77</td>
<td>$542.77</td>
<td>21.40%</td>
<td>10</td>
<td>End reduction of AFP</td>
</tr>
<tr>
<td>$796.15</td>
<td>$693.98</td>
<td>40.90%</td>
<td>11</td>
<td>3\textsuperscript{rd} ordinary tax bracket</td>
</tr>
<tr>
<td>$940.38</td>
<td>$779.22</td>
<td>36.90%</td>
<td>12</td>
<td>End Low Income Rebate</td>
</tr>
<tr>
<td>$1000.00</td>
<td>$816.84</td>
<td>36.90%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*TRA = transferable reduction amount*
AT WHAT LEVEL OF INCOME WILL SOLE PARENT PENSIONERS BEGIN TO PAY TAX IN 1993-94?

Tax Rebates Available to Sole Parent Pensioners

Sole Parent Pensioners are eligible for the sole parent rebate, and the income tested single pension and low income rebates. In 1993-94, the sole parent rebate is worth $1116. The single pension rebate is worth $1,058, with a rebate threshold of $10,686 and a rebate withdrawal rate of 12.5 cents for each dollar of taxable income over the threshold. The low income rebate is worth $150, with a rebate threshold of $20,700 and a rebate withdrawal rate of 4 cents in the dollar. The total rebate amount for someone over the rebate threshold can be expressed as:

\[
totspreb = solereb + spenreb - [sprebwr \times (taxinc - sprebth) ] + lir - [lirwr \times (taxinc - lirthr) ] \quad \text{.... (1)}
\]

where
- \( totspreb \) = total sole parent pensioner rebate
- \( solereb \) = sole parent rebate
- \( spenreb \) = single pension rebate
- \( sprebwr \) = single pension rebate withdrawal rate
- \( taxinc \) = taxable income
- \( sprebth \) = single pension rebate threshold
- \( lir \) = low income rebate
- \( lirwr \) = low income rebate withdrawal rate
- \( lirthr \) = low income rebate threshold

Substituting into equation (1) for a sole parent over the pension rebate threshold, we get:

\[
totspreb = 1116 + 1058 - [.125 \times (taxinc - 10686)] + 150 - [.04 \times (taxinc - 20700)]
\]

Calculating Tax Liabilities and the Effective Tax Threshold

A person's tax liability is equal to their ordinary tax liability minus the sum of their rebates plus their Medicare Levy Liability. Algebraically:

\[
\text{Taxliab} = \text{Ordinary Tax} - \text{Sum (rebates)} + \text{Medicare Liability} \quad \text{.... (2)}
\]
E (ii)

Because a sole parent pensioner has an additional rebate (ie. the sole parent rebate), they will begin to pay tax at an income higher than the pensioner rebate threshold. However, this income level is likely to be before the family Medicare threshold of $20,070 and before the third tax bracket beginning at $20,700. That is, the point at which a sole parent pensioner begins to pay tax will be in the 20% tax bracket and will be before any Medicare Levy is payable.

The ordinary tax liability in this bracket will be 20% of the difference between the taxable income and the tax threshold of $5400. That is:

\[
\text{Ordinary Tax} = 0.20 \times (\text{taxinc} - 5400)
\]

The *effective tax threshold* can be found by solving Equation (2) for the point where the tax liability is zero.

Substituting into Equation (2) we get:

\[\text{Taxliab} = \text{Ordinary Tax} - \text{Sum (rebates)} + \text{Medicare Liability} \quad \ldots(2)\]

\[0 = [0.20 \times (\text{taxinc} - 5400)] - \text{totsppreb} + \]

That is,

\[0.20 \times (\text{taxinc} - 5400) = \text{totsppreb}
\]

\[= 1116 + 1058 - [0.125 \times (\text{taxinc} - 10686)] + 150 - [0.04 \times (\text{taxinc} - 20700)]
\]

Solving for taxable income (taxinc) we get:

\[0.20 \times \text{taxinc} + 0.125 \times \text{taxinc} + 0.04 \times \text{taxinc} = 1116 + 1058 + 150 + (0.125 \times 10686) + (0.04 \times 20700) + (5400 \times 0.20)
\]

\[0.365 \times \text{taxinc} = 5566.95
\]

\[\text{taxinc} = 5566.95 / 0.365 = 15251.92
\]

That is, the amount of taxable income above which sole parent pensioners will need to pay tax in 1993-94 is $15,252.

However, this amount of taxable income will include the taxable base pension. In order to work out how much earnings or other taxable private income a sole parent pensioner can have, we need some further equations.

**At What Private Taxable Income Will Tax Become Payable?**

A sole parent pensioner's taxable income includes both their taxable private income and the amount of taxable single base pension which they receive. Taxable private income includes wages, interest, dividends and compensation or leave payments in lieu of wages.
Algebraically:

\[
taxinc = privinc + \text{base pension paid} \quad \text{..... (3)}
\]

Base pension is a function of private income. Ignoring any differences in the definitions of taxable and assessable income we can say that:

\[
\text{base pension paid} = \max \text{base pension} - .5 \times (privinc - \text{free area})
\]

In 1993-94 the maximum rate of the taxable single base rate pension is $8,346 if received for the full year. The free area for a sole parent pensioner can be treated as the single pension threshold ($2340 pa) plus the number of children times the pension child disregard ($624 pa).

So the base pension paid to a full year sole parent pensioner would have been:

\[
\text{base pension paid} = 8346 - .5 \times (\text{privinc} - (2340 + (nkids \times 624)))
\]

Setting number of children (nkids) to 2 and substituting into Equation 3 we get:

\[
\begin{align*}
taxinc &= \text{privinc} + 8346 - .5 \times (\text{privinc} - (2340 + (2 \times 624))) \\
&= .5 \times \text{privinc} + 8346 + [.5 \times (2340 + 1248)] \\
&= .5 \times \text{privinc} + 10140
\end{align*}
\]

Now substituting the effective tax threshold for taxable income in this equation and rearranging we get:

\[
.5 \times \text{privinc} = 15251.92 - 10140
\]

\[
\text{privinc} = 10223.84
\]

That is, the effective tax threshold for a full year sole parent pensioner with two children in 1993-94, using September 1994 rates, is $10,224 of private taxable income.

This private income tax threshold will drop by $624 for each additional child.

**Technical Note:**

This attachment is only meant as an illustrative example. The figures that have been used are not the same as those used by DSS and ATO for 1993-94. The results in this attachment should not be considered as actual values that pertain to 1993-94. Projected rates for September 1994 have been used. These are:

- Single pension rate = $321 pf
  
  Annual amount is $321 \times 26 = 8346$

- Single pension free area = $90 pf
  
  Annual amount is $90 \times 26 = 2340$

It has been assumed for illustration that there are 26 paydays in 1993-94. (There are in fact 27)

- Pension rebate = (8346 + 2340 - 5400) \times .2 = 1057.2 \quad \text{rounded up to 1058}
  
  [5400 is the general tax-free threshold.]

- Rebate threshold = 1057.2/.2 + 5400 = 10686
  
  [.2 is the lowest marginal tax rate.]
E (iv)

- Rebate cut-out = 1057.2/.125 + 10686 = 19143.60
  [.125 is the rebate withdrawal rate.]

Hence, the effective tax threshold calculated is not the same as the true figure for a sole parent pensioner in 1993-94.