

Social Welfare Provision

A decent provision for the poor is the true test of civilisation.

Samuel Johnson

Policy Objectives ♦ Social Welfare Provision in Australia ♦ Cash Transfers ♦ Transfers-in-Kind ♦ Social Insurance ♦ Incentive Effects of Social Welfare Programs ♦ Policy Implications

Social welfare provision is generally based on four pillars. These are the regulation of markets, cash transfers, transfers-in-kind and social insurance. Chapter 29 discussed market regulation. In this chapter we discuss the other three pillars.

Cash transfers are generally funded from consolidated revenue. In Australia, they total over 40 per cent of the Commonwealth government's own expenditure and about 9 per cent of GDP. **Transfers-in-kind** typically involve provision of free or subsidised goods such as health, food, housing or public transport. **Social insurance schemes** provide security for individuals who experience a specific adverse event, such as unemployment or sickness in the workplace. They may be publicly run or mandated private schemes. In some countries, such as the UK, public insurance schemes are a large part of the welfare program. In Australia, mandated private insurance is an important strategy for retirement.

Two further introductory points should be made. First, social welfare provision is not simply about relief of poverty, it is also about fairness. It involves fairness for many different types of persons, including persons with mental health problems, single parents and disabled persons, some of whom may not be poor as defined by poverty lines. Related to this, a social welfare system involves both expenditures and taxation. Indeed, cash transfers may be viewed as negative income taxes. In Chapter 27 we discuss the concept of an optimal income tax system, including negative income tax.

The chapter starts with a discussion of welfare objectives and a brief outline of the Australian welfare system. We then describe the major welfare pillars: cash transfers, transfer-in-kind and social insurance. The last part of the chapter discusses the critical issues of the incentive effects of welfare programs and the public policy implications.

Policy Objectives

Ideally, welfare policies would be designed to maximise social welfare as represented by a social welfare function. This approach is used to analyse optimal income redistribution (see Chapter 28; Kaplow, 2008). This formal approach clarifies and quantifies the nature of income trade-offs and choices. However, it is hard to articulate and narrow down many

diverse welfare programs and objectives into a formal social welfare function. For practical purposes, six looser welfare objectives may be identified.

1. **Poverty relief is a core aim of social welfare.** Most people believe that communities have a responsibility to protect all law-abiding members from severe poverty.¹ Others support poverty relief to reduce the negative externalities of poverty. On the other hand, there is also opposition to supporting individuals who can support themselves. In the words of Bill Clinton (1992, US Presidential campaign speech), ‘No one who works full-time and has children at home should be poor anymore. No one who can work should be able to stay on welfare for ever’.
2. **Provision of economic security for all households.** The objective here is to protect individuals against major adverse events such as unemployment, sickness or disability and retirement when private insurance markets are inefficient or insufficient, even if these events do not cause severe poverty.
3. **Reduction in inequality.** The principle of vertical equity requires that income should be redistributed from people with more income and fewer needs to those with less income and more needs. This principle implies that benefits should depend on factors that determine needs, such as age, household composition and health status, as well as on income. Equality here is equality of welfare rather than simply equality of income. One consequence is that there are many potential categories of welfare recipients.
4. **Social integration** embraces social cohesion and the preservation of individual dignity. Social cohesion means developing and maintaining a compassionate and cooperative society, minimising alienation and social disorder. The preservation of individual dignity requires that welfare recipients should not feel, or be regarded as, less worthy members of society.
5. **Efficiency** requires that welfare programs should be provided at least administrative cost and with minimum deadweight loss (DWL). DWL occurs when programs create incentives that distort behaviour, notably withdrawing labour supply or reducing savings.²
6. **Good governance** requires that welfare programs be transparent, easy to understand, accessible and non-intrusive. Also, system abuse should be minimised. Benefits should be provided to those who are entitled to them, but not to the un-entitled. This may require detailed scrutiny of welfare applicants and recipients. Unfortunately, it is often hard to minimise abuse without an intrusive monitoring system.

As Creedy (2010, p. 104) observes, it is hard to obtain ‘a precise specification of attitudes towards the basic aims of a tax and transfer system’. There is a multiplicity of welfare objectives. Each one involves normative judgements.

Three further observations may be made. First, there is the issue of the time period. Some people may be poor over a short period but well-off in the long run (over the life cycle). This applies to many tertiary level students and to some parents of young children. In this case the policy objective may become income smoothing rather than poverty relief. Second, in so far as people have income earning capabilities but choose a low income, they may be deemed not to need income support. Third, implementation of social security programs may require considerable information on personal behaviour. Thus, the contributions of individual programs to meeting these policy objectives (once agreed) may be hard to quantify. Nevertheless, these objectives provide some useful guides for policy making.

¹ Poverty relief programs may also be viewed as self-interested insurance against severe accidents that may happen to anyone. This is similar logic to Rawls’ argument that society should maximise the welfare of the least well-off person because, *ab initio*, anyone could be in that position (see Chapter 7).

² The US literature typically refers to these disincentives as “moral hazards”.

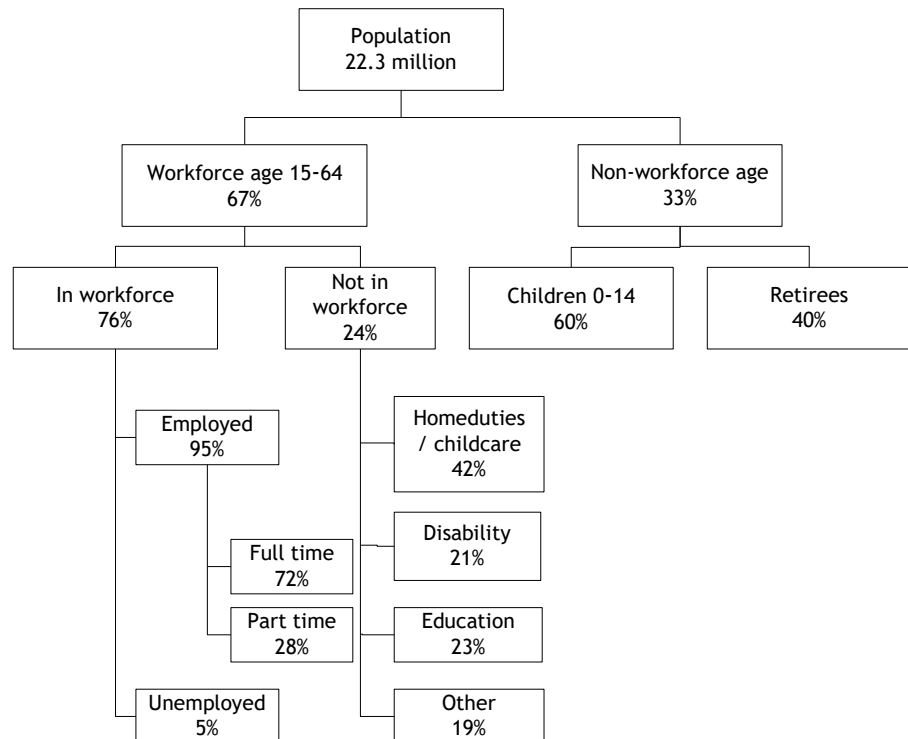
Social Welfare Provision in Australia

To provide a perspective on social programs, Figure 22.1 shows the major social groups in the Australian population in mid-2010. Of the then population of 22.3 million, nearly a quarter received income support (not including family support payments). Three main population groups received support:

- Individuals of non-workforce age (0 to 14 and 65 and older), especially those in low-income households. These make up a third of the population, but not all are poor.
- Individuals of workforce age (16 to 64) who are in the labour market but who are unemployed or working part-time for a low income. These are about 10 per cent of the total population.
- Individuals of workforce age who are outside the labour market, including parents with home care duties, individuals with a disability and students. These groups constitute about 16 per cent of the population, but again not all are poor.

There are also separate welfare programs for most sub-groups with needs.

In Australia, cash benefits to individuals are the basis of the welfare system. The Commonwealth and state governments also provide various benefits-in-kind, notably health care and housing services. In addition, employers are required to provide various welfare support programs for employees.³



Sources: ABS (2010) *Australian Social Trends*, Cat. No. 4102.0 and author estimates drawing on other sources.

Figure 22.1 Population groups in Australia in mid-2010

³ For an informative review of the US welfare system, see Martin (2011).

Table 22.1 Commonwealth welfare payments by major category, 2010-11

<i>Payments to/for:</i>	<i>\$bn</i>	<i>\$bn</i>	<i>No. recipients</i>	<i>Comments</i>
			<i>(2010)</i>	
Aged persons	44.0			
Age pensions		31.9	2 158 303	
Other payments to the aged		12.1		
Veterans and dependants	7.0		256 826	
People with disabilities	20.3		792 581	
Families with children	30.4			
Family tax benefits A and B		17.8	2 151 900	
Other family benefits		12.7	1 537 560	Includes parenting and baby bonus payments and childcare benefits
Unemployed and sick persons	7.0		642 422	Includes full-time students aged 16 to 24 and job seekers under 21
Other welfare programs	1.3			
Aboriginal advancement	1.5			
General administration	3.5			
Total	115.0			

Sources: Treasurer, *2010-11 Budget Paper No. 1, Statement 6*; Department of Families Housing, Community Services and Indigenous Affairs (2011) *Statistical Paper No. 9, Income Support Customers: A Statistical Overview, 2010*.

Table 22.1 shows the major Australian government cash transfers in 2010–11 along with the number of recipients in 2010. The largest programs, in terms of dollars and people, are pensions for aged persons and persons with disabilities; assistance to families; and unemployment and youth allowances. A common feature of most income recipients is lack of employment income (excepting families receiving family tax benefits Part A). Pensions to persons outside the workforce are generally higher than allowances to persons inside the workforce.

Australian assistance programs have three main features. First, most welfare payments are funded from consolidated revenue rather than from a mandated insurance fund. Unemployment and retirement are treated as welfare issues requiring social assistance rather than as social insurance. However, there are mandatory employer requirements for contributions to superannuation and to workers compensation for injury. Second, benefits are generally targeted to those in need rather than provided universally. Most benefits are based on categories of people deemed to be in need and means tested. However, the means tests for some family benefits are generous. Thirdly, benefits are paid at flat rates; they are not related to the recipient's prior income or contributions. Box 22.1 overleaf highlights these and other features of Australian assistance programs.

As summarised by Whiteford (2010), these system design features have some striking results. Overall Australia spends a small proportion of GDP on cash transfers compared with other OECD countries. But it provides the highest share of spending on income-tested programs and it is the most redistributive welfare system. In 2005, in OECD countries the average ratio of transfers received by the poorest quintile compared with the richest was 2:1. In Australia the ratio was 12.4:1. In absolute terms, Australian redistributed more to the poorest 20 per cent of the population than any other OECD country than Denmark.

Targeting welfare payments ensures that those with greatest need get most support. The main disadvantage of targeting is the high implicit marginal tax rates that occur when benefits are withdrawn as income is earned. This can create adverse incentive effects. Also, targeting requires subjective judgements of need and intrusive administration.

Box 22.1 Features of Australian social assistance programs

- Australian social assistance is a single nationwide system financed and run by the Commonwealth government.
- Most payments are funded from consolidated revenue.
- Most benefits are targeted to those in need rather than provided universally. Most programs are means tested for income and assets. For example, family payments and pensions are means tested.
- Many benefits are based on categories of people. The support granted varies according to the person’s current personal circumstances such as age, marital status, parental status and employment.
- Most programs provide cash benefits, which are paid to individuals who satisfy the stipulated eligibility criteria.
- Benefit recipients may also receive concession cards that may be quite valuable, for example for medicines or public transport.
- Benefits are paid at flat rates; they are not related to the recipient’s prior income. This means that unemployment benefit rates are low relative to many other countries.
- In addition to direct payments, minor assistance is provided indirectly through the personal income tax system via tax offsets for persons with dependants or mature age workers.

The major in-kind transfers in Australia are health care services, education and housing. Although the health services provided through Medicare are sometimes described as a national health insurance system, the free hospital and medical services are funded through consolidated revenue and provided to everyone independently of contributions (see Chapter 24). For housing assistance, the Commonwealth provides rent assistance payments and, with the states, subsidises public and community housing. The states also subsidise some other services, usually public transport and sometimes utilities.

In addition, governments at central and state level require the private sector to provide various benefits. Examples include:

- National compulsory occupational superannuation, whereby in 2017/18 all employers must contribute a minimum of 9.5 per cent of an employee’s earnings to a registered superannuation fund.
- Compensation arrangements for work injuries and deaths which provide no-fault earnings-related benefits. These are financed by compulsory risk-related premiums paid by employers to commercial insurers or state government funds.
- Compensation for road accident injuries and deaths financed by compulsory levies on vehicle owners paid either to commercial or state insurers.

Cash Transfers

Most OECD countries have some form of safety net system that provides cash transfers to low-income individuals, generally funded from consolidated revenue and independent of taxes paid or of contributions to an insurance fund. Such a system aims to ensure that individuals receive at least a minimum income. The benefits would be available to all adults, subject to means testing. The benefits may also depend on household composition. Such benefits are typically between one-third and one-half of the median income level in the country. Other cash transfers, for example family benefits and child allowances, are targeted at specific groups and are not universal.

Cash transfers may be categorical or non-categorical. A transfer is **categorical** if it depends on the recipient belonging to a specific social category, for example mothers, single parents, disabled persons and so on. A transfer is **non-categorical** if it depends only on the income of the recipient and not on his or her social category. Most benefit transfers involve some categorisation, even if it is simply age for aged pensions, whereas taxation is often non-categorical. We start below by discussing non-categorical transfers and then turn to categorical transfers.

Categorical transfer

A transfer in cash or kind that depends on the category of the recipient

Non-categorical transfer

A transfer that is independent of the category of the recipient

Negative income tax

The most general non-categorical transfer method would be a non-categorical **negative income tax** (NIT) system. With a NIT system, individuals may receive income (grants) from government or pay taxes. NIT is non-categorical when the grants and taxes are based on the gross private income of individuals regardless of their household status or of any other social category to which they may belong. However, even with an NIT system, transfers can be conditional on a person's social category.

Figure 22.2 illustrates how NIT can work. In both panels gross private income is measured along the horizontal axis and net income on the vertical axis. Net income equals gross private income plus or minus government cash transfers. With no transfer, net income equals gross private income. This case is represented by the 45° line, OXB . In panel (a) government provides a minimum grant of G to each individual. If Amy's private income is less than L , she receives the difference between G and her private income. But note that her private income is effectively taxed at 100 per cent. When her private income exceeds L , she pays tax. The line GXA represents her net income after cash transfers. Panel (b) shows a variation. Here, government provides a minimum income shown by G' . However, as Amy earns some income, she can keep part of it. In this panel the line $G'XA$ represents net income. This form of NIT provides some encouragement to grant recipients to earn income.

Of special importance is the **effective marginal tax rate** (EMTR). The EMTR is the percentage of an additional dollar of private income that an individual loses due to the combination of income tax and the withdrawal of benefits.

$$EMTR = [1 - (\Delta NY / \Delta PY)] \times 100 \quad (22.1)$$

where NY is net income, PY is private income and Δ is the change in the variables. If PY increases by a dollar, but NY does not change, EMTR is 100 per cent. This is the case along GX in panel (a). There is effectively a 100 per cent tax on any earnings below L .

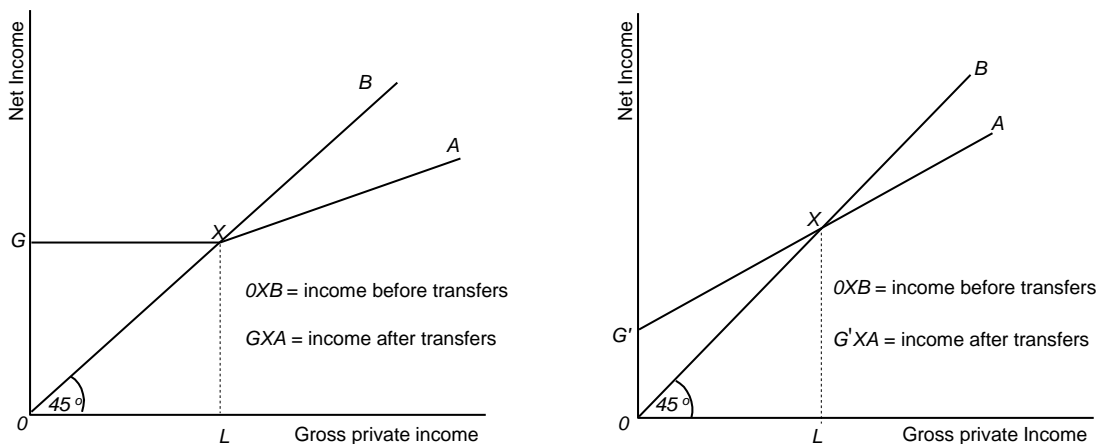
On the other hand, if the slopes of the NY and PY curves are equal, EMTR is zero. Generally, the flatter the net income schedule, the higher is EMTR. In panel (a), EMTR varies with income. In panel (b), EMTR is constant. In practice, EMTR is rarely constant. Indeed, it is often higher at low levels of income because of the combination of withdrawal of benefits with income tax payments.

Negative income tax system

A transfer system in which individuals may pay tax or receive grants from government

Effective marginal tax rate

The percentage of an extra dollar that an individual loses due to tax and loss of grants



(a) NIT with a fixed minimum grant

(b) NIT with retention of some private income at low income levels

Figure 22.2 Negative income tax: two structures

Table 22.2 EMTRs in a hypothetical negative income tax scheme

<i>Private income (PI) (\$)</i>	<i>Government grant = 7000 - 0.5 (PI - 7000)^a (\$)</i>	<i>Government tax on PI = 0.2 (\$25 000 - \$10 000) + 0.33 (\$50 000 - \$25 000) (\$)</i>	<i>Net income = PI + grant - tax (\$)</i>	<i>Nominal tax rate (%)</i>	<i>Effective marginal tax rate (%)</i>
0-7000	7000	0	7 000	0	100
10 000	5500	0	15 500	0	50
20 000	500	2000	18 500	20	70
30 000	0	4650	25 350	33	33
40 000	0	7983	32 017	33	33

(a) In this example the government grant falls as private income (PI) exceeds \$7000.

Table 22.2 provides a hypothetical example of an NIT with a non-linear EMTR. Government provides a minimum grant of \$7000 to each adult but reduces the grant by 50 cents for each dollar earned above \$7000. There is no tax on income below \$10 000 but government taxes incomes between \$10 000 and \$25 000 at a MTR of 20 per cent and higher incomes at a MTR of 33 per cent. However, EMTR equals the tax paid plus the grant lost as a proportion of an additional dollar of income. At private incomes below \$7000, EMTR is 100 per cent. At an income of \$10 000, it is 50 per cent. At an income of \$20 000 it rises to 70 per cent. EMTR then falls at higher income levels.

A major advantage of NIT is the potential to integrate welfare benefits with taxes. This should improve the transparency and consistency of the welfare system. Eligibility requirements are simplified. In a non-categorical NIT system, benefits do not depend on employment status, pensionable age or any other social category. Administration costs are low with large savings in the costs of running multiple benefit programs.

However, a non-categorical NIT has two main disadvantages. First, it does not allow for any needs of recipients other than low income or for differences in household composition. Consequently, non-categorical tax-transfer systems may not target aid to individuals with greatest needs. An NIT system can allow for individual needs. But, if this is done, the NIT system becomes categorical and more complex.

Second, a full non-categorical NIT system requires a high MTR. Dawkins *et al.* (1998) estimated that, with even a low basic grant, a revenue-neutral system in Australia would require a linear MTR of at least 45 per cent. This would have high leisure incentive effects and DWL and would be unlikely to be optimal. The EMTR could be reduced by withholding credits for people who are not working or by introducing categorical benefits. It could also be lowered for low-income individuals at the expense of increasing it for others. However, these modifications would introduce categorisation and complexity without eliminating high EMTRs for many taxpayers.

Earned income tax credits

With the NIT system discussed above, when Amy earns income, she loses part of her grant. In contrast, with an **earned income tax credit** (EITC), a worker on a low income receives an income supplement in the form of a tax credit per dollar of earnings. When the credit exceeds taxes owed, the worker receives a payment. Box 22.2 outlines the EITC system employed in the United States.

The basic form of an EITC, with no supplementary grant for non-income earners, is shown in Figure 22.3a. Note that in this figure the *x*-axis shows *earned* income instead of total private income. The *OVWXA* line represents income after transfers. In the *OV* segment, the

Earned income tax credit

A tax credit per dollar of earned income grants

Box 22.2 The earned income tax credit system in the United States

The earned income tax credit is a large anti-poverty program in the United States. The program has three ranges: the subsidy, flat and phase-out range.

In the subsidy range, each dollar of income is combined with a tax credit. In 2011, for a single earner with two children, the government paid 40 cents per dollar earned up to a total subsidy of \$5285 on earnings of \$12 570.

In the flat range (from \$12 570 to \$16 400) extra earnings do not affect the amount of credit received.

In the phase-out range from \$16 400 to \$40 295 the credit is reduced by 21 cents per dollar earned.

The EITC is categorical: it varies with the number of children and family income.

To receive credits, it is necessary to file tax returns and provide any extra information required, for example about qualifying children.

For an update to 2015 and further analysis, see Gruber (2016, pp. 666-673).

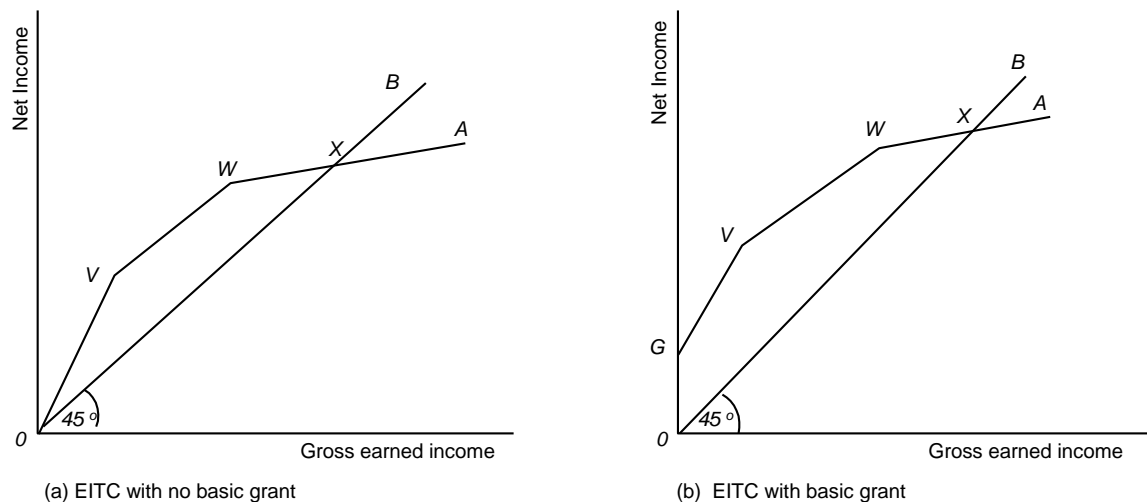


Figure 22.3 Earned income tax credit schemes

worker receives a subsidy. This line rises more steeply than the OXB line. From V to W , the tax credit is constant, so VW is parallel to OXB . From W to A , there is a net income tax.

A major aim of the EITC, in addition to poverty alleviation, is to encourage employment. Findings on this are mixed. Studies in California indicate that the EITC increased employment among some groups, for example the low skilled and single women (Hotz *et al.*, 2002; Eissa and Liebman, 1996). More recently, Gruber (2016, p.536) concluded that overall the program has been “very successful in terms of increasing the labour supply of low-income workers”. However, EMTRs are high in the phase-out stage of the tax credit as each additional dollar earned is both taxed and results in a reduction in the EITC. Thus, EITCs could increase part-time employment, but not full-time employment. Dickert *et al.* (1995) found that the EITC discourages employment among married females.

Some other issues may be noted. First, consistent with our analysis of tax incidence in Chapter 26 below, workers may not get all the benefits of the EITC. Unless the demand for labour is perfectly elastic, the EITC will result partly in a fall in wages. Leigh (2010b) estimated that a 10 per cent rise in the EITC in the United States would lead to a 5 per cent fall in the wages of high school drop-outs and a 2 per cent fall in the wage of those with only a high school diploma.

Second, the EITC is presumably intended to assist workers with a low hourly wage rate rather than those who choose to work only a few hours at relatively high hourly rates. In the UK EITC scheme, there is a minimum hours of work requirement. But it is hard to monitor whether low incomes reflect low wage rates or low hours and the UK scheme has been criticised for its administrative complexity.⁴ In effect, EITCs are sometimes attached to low incomes rather than to low wage rates.

Third, EITCs do not assist non-working individuals, who are a high proportion of the low-income population. A comprehensive poverty relief program would require combining EITCs with a basic grant for all adults (see Figure 22.3) or a parallel income support scheme for non-workers. A combined EITC/grant scheme would be more generous for workers than an NIT scheme, because low income workers would obtain extra benefits from the EITC. Accordingly, EMTRs would be higher as both grants and subsidies are withdrawn. On the other hand, running a separate welfare scheme for workers and non-workers may create anomalies and administrative complications.

Low income tax offsets

Low income tax offset

An increase in the threshold at which low earners are taxed

Another component of the redistribution system in Australia is the **low income tax offset** (LITO). The LITO is an amount subtracted from an individual's taxable income. In 2016/17, the LITO provided a tax offset of \$445 to all tax payers with a taxable income between \$20,542 and \$37 000. Adult tax payers eligible for the full LITO pay no tax until their income exceeds \$20,542. Taxpayers with a taxable income between \$20,542 and \$37 000 pay a MTR of 19 per cent which is offset partly by the LITO. The LITO was withdrawn at 1.5 cents in the dollar until it eroded entirely as \$66,667. This means that persons with a taxable income of \$37 000 to \$63 750 face an EMTR which is 1.5 per cent higher than the nominal MTR.

LITO has two main aims. One is to increase the progressivity of the tax system by reducing average tax rates for low-income individuals. The other is to maintain the tax revenue from medium and high-income individuals by retaining the low threshold for them. It succeeds in doing this without increasing MTRs for high income individuals. However, there is a small cost. As at 2016/17, this was the 1.5 per cent increase in EMTRs for anyone with an income between \$37 000 and \$66 667 as the tax offset benefit tapers off and is withdrawn.

Categorical benefit systems

In a categorical welfare system benefits vary by social group as well as by income. The aim is to target income as accurately as possible to those most in need. If this is achieved, each welfare dollar would provide maximum welfare benefit and not be expended on low priorities or, worse, on households not in need. Accurate targeting minimises the total revenue required for income transfers and lowers MTRs.

However, a categorical welfare system can have significant disadvantages unless the categories are clear and simple. A complex system with numerous categories has high administrative costs. The impacts may not be transparent or clearly understood. And the scheme may not satisfy the principle of horizontal equity—that poor persons who are similar in important respects to other poor persons are treated equally. Importantly, a highly targeted system requires high EMTRs as benefits are withdrawn from those who no longer need them.

Traditionally Australia has been a leader in targeting welfare. Mitchell *et al.* (1994) reported that there were over 30 separate tax transfer programs. Each program had its own rules for eligibility, differing means tests and varying rules for contingencies such as changing personal circumstances. There were also many differences within programs. For example, there were four payment categories for unemployed single persons aged over 18

⁴ EITCs are inexpensive to administer in the United States where most workers file their tax returns. Administration is more complex with pay-as-you-go tax systems.

without dependants, with further differentiation for persons between 18 and 20 years, depending on whether they live at home or not and for the over 21 age group by age and length of time on Newstart. Recognising the administrative and other costs, the Australian government has reduced the number of benefit categories in recent years.

Concluding points

Most social assistance systems are based on cash payments and involve significant categorisation of benefits. Categorical payments can target those most in need and meet vertical and horizontal equity objectives with lower revenue requirements than non-categorical systems. However, to provide adequate security to all in need, most social assistance systems require substantial revenue and involve high MTRs. Targeted categorical benefits reduce the total tax revenue required but create high EMTRs as benefits are withdrawn and tax rises with income. These EMTRs may well affect labour supply decisions.

Applying January 2007 income tax and social security rules to 2002–03 personal incomes Kalb (2007) estimated that nearly 30 per cent of Australian taxpayers faced an EMTR of over 40 per cent, 16 per cent faced an EMTR of over 50 per cent and more than 5 per cent faced an EMTR of over 70 per cent. Harding *et al.* (2009) reported slightly lower EMTRs for 2006–07. They estimated that 18.4 per cent of working Australians faced an EMTR over 40 per cent and that 9.5 per cent faced an EMTR over 50 per cent. They also reported a wide range of estimated EMTRs for 10 European countries. In 2003 over 20 per cent of workers faced EMTRs greater than 50 per cent in Belgium, Finland and Germany, whereas less than 2 per cent of workers faced an EMTR over 50 per cent in Austria, Greece and Spain.

The other major problem with cash transfers is that taxpayers often prefer to provide transfers-in-kind, especially services such as housing that may have external benefits, rather than income transfer that in their view may be misspent.

Transfers-in-Kind

In some countries, transfers-in-kind represent a major alternative to untied cash transfers. In the United States, the purchase of health care services, through Medicaid, constitutes 50 per cent of all welfare benefits; purchases of food, housing and energy account for another 20 per cent of benefits (Stiglitz, 2000a). Indeed, the food program is larger than the major US welfare program (Temporary Assistance for Needy Families, TANF) which is provided on a temporary and provisional basis to low income families (see Rosen and Gayer, 2014; Gruber, 2016). Note, also, that in the United States retirement income payments are provided by social insurance rather than under a welfare system, and unemployment insurance is funded via payroll taxes in state-based systems.

There are three main arguments for in-kind transfers: merit goods (paternalism), positive externalities (interdependent preferences) and commodity egalitarianism (see Currie and Gahvari, 2008). In-kind transfers may increase the consumption of goods regarded as merit goods and so raise the recipient's welfare more than would an equivalent untied cash transfer. In-kind transfers may also provide positive externality benefits to taxpayers. This could occur because recipients increase expenditure on goods such as food or housing rather than on alcohol or drugs that are associated with anti-social behaviour. Third, in-kind transfers are consistent with the notion of commodity egalitarianism. This is the idea that some basic commodities should be made available to everyone. There is also a political factor. Public officials may favour transfers-in-kind because they require more administration and control than do cash transfers.

We now consider the implications of two scenarios: one in which a tied transfer changes Amy's consumption basket and one in which Amy's consumption is unchanged. Figure 30.4

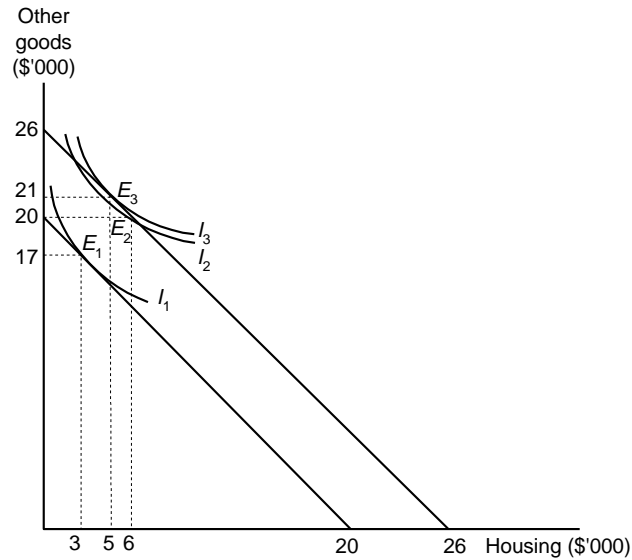


Figure 22.4 Welfare implications of transfers-in-kind

depicts Amy's income constraints and her preferences between housing and other goods embodied in indifference curves. Amy starts with an income of \$20 000 and chooses to spend \$3000 on housing and \$17 000 on other goods. Now suppose that government provides Amy with housing valued at \$6000 per annum and that Amy spends her own income of \$20 000 on other goods. This is depicted by point E_2 , which sits on indifference curve I_2 . However, if government gives Amy \$6000 in cash, her new untied budget constraint is \$26 000. Amy now consumes \$5000 of housing and \$21 000 of other goods, which is point E_3 on a higher indifference curve I_3 . In general, if Amy makes rational decisions about her own welfare, she cannot be better off with a tied transfer than with the income equivalent. On the other hand, if an in-kind transfer changes her consumption basket compared with what she would have chosen with an untied cash transfer, she obtains less welfare.

Now suppose that the transfer-in-kind does not change Amy's expenditure pattern. If government provides Amy with \$3000 to be spent on housing and she is already spending \$3000 or more on housing, the transfer-in-kind becomes a *de facto* income grant, effectively increasing Amy's income to \$23 000.

In **summary**, if transfers-in-kind do not change the consumption patterns of recipients, they serve no purpose compared with cash transfers. Also, they usually involve significant administration costs. On the other hand, if consumption patterns are changed, the welfare of recipients is potentially reduced. However, tied transfers-in-kind may be justified by merit good considerations or positive externalities.

Social Insurance

Social insurance funds are generally schemes that provide benefits to individuals based on (1) previous contributions to the insurance fund and (2) the occurrence of a specified contingency such as unemployment, sickness or retirement. Note that the beneficiary may be different from the contributor (as with some health insurance schemes). These schemes may be

managed by government or by the private sector subject to the government's rules and regulations.

Because benefits are related generally to past contributions, but not to current income, they are not limited to low-income workers. Social insurance funds are generally expected to be self-funded, with contributions funding future withdrawals. However, public insurance funds that in principle guarantee a defined benefit or pension are often in actuarial deficit and withdrawals may have to be funded from current contributions rather than past ones.

Most OECD countries have social insurance schemes covering unemployment, disability and retirement. An unemployment benefit program replaces part of the earnings lost due to involuntary loss of a job. The benefit is usually between 30 and 80 per cent of lost earnings. Periods of eligibility for employment benefits vary but can exceed a year. A disability program provides income to workers who become handicapped during their working age years, either on or off the job. Receipt of these benefits is usually of long duration. Retirement programs provide pensions on retirement from the workforce. These pensions are as high as 70 per cent of lost earnings in some countries.

The rationale for public insurance programs (or for mandated private insurance) is based on the familiar two main grounds: the market failures and inequity of market provision of insurance. As we saw in Chapter 4, insurance markets suffer from adverse selection and moral hazard problems. If insurers cannot identify who is likely to be unemployed or sick, they have to offer average premiums. These premiums are unattractive to those with low risk of unemployment or sickness, so the insurance market is incomplete. On the other hand, if insurers can identify individuals who are most at risk, they will charge them high premiums that are inconsistent with the welfare purpose of insurance. Moreover, private firms will not provide insurance for large-scale unemployment that may be created in part by government fiscal actions.

Social insurance differs from private insurance in two fundamental respects. First, social insurance usually has a redistributive component. It does not necessarily provide an actuarially fair return to each individual—that is, a fair matching of contributions and benefits. Lower paid workers may get defined minimum payments that exceed the value of their contributions. Also, government may vary the terms of the benefits to cover unanticipated needs. In effect, although there is a conceptual distinction between government acting in response to failures in insurance markets and provision of social assistance to alleviate poverty, the distinction between social insurance and assistance is often fuzzy. Most public insurance schemes, including those in the United States and the UK, include significant social net components and are not solely actuarial schemes.

Second, unlike private insurance, a public insurance program may be funded on a pay-as-you-go basis rather than be fully funded by contributions in advance. This is also redistributive, in this case from future generations to present ones. For further discussion of financing alternatives see Chapter 23.

The different approaches to social welfare (social insurance and social assistance) in different countries are mirrored in the literature. Much economic literature (especially US literature) analyses unemployment benefits and pensions, as well as health care, primarily in terms of the social insurance that is needed to offset failures in insurance markets rather than as welfare payments.⁵ On the other hand, in this book we view welfare, like most Australians, primarily as social assistance rather than as social insurance. If the social insurance provisions are inadequate, safety-net expenditure programs to assist the poor are then also required.

⁵ Gruber (2016, pp.4-5) notes that in 2010, before the *Affordable Care Act* in the US, there were 49 million persons (18.5% of the non-elderly) who did not hold health insurance. He observed that this did not imply a problem in the market. "It just implies that those without insurance don't value it enough to buy it at existing prices". He acknowledges that there may be negative externalities that would justify some government intervention. But this is not described as a problem of poverty or as a social welfare issue.

Incentive Effects of Social Welfare Programs

Virtually all welfare programs have incentive effects of some kind that distort behaviour and create a deadweight loss (DWL). Most welfare benefits are means tested, which creates an incentive for the potential recipient to choose leisure instead of earning income. In the US literature (for example Rosen and Gayer, 2014), this incentive is typically described as a moral hazard. **Moral hazard** occurs when the provision of a benefit against an outcome, for example unemployment or retirement, increases the likelihood of the outcome occurring.

The two main sources of incentives are the EMTR and the replacement rate. The EMTR was defined in Equation 22.1 and discussed above under Cash Transfers, where we also noted some high EMTRs in Australia and elsewhere. The **net replacement rate** (NRR) compares the net income from social assistance with after-tax income that it replaces:

$$\text{NRR} = \text{social security payment after tax} / \text{after-tax income replaced} \quad (22.2)$$

If Amy can earn \$1000 a week gross and \$800 after tax and can receive a pension of \$600 a week after tax, the NRR would be 75 per cent.

Similar calculations apply to marginal work choices. Suppose that Amy is willing to work for \$15 an hour. If she can earn \$20 an hour after tax but social assistance would provide her with \$12 an hour after tax, the NRR is 60 per cent. Amy's additional consumption for an hour's work is only \$8, which is not enough to induce her to work. As the NRR increases, the incentive to work falls.

Figure 22.5 illustrates the effect of social assistance on labour supply. The *OCB* line shows the initial budget constraint, that is, how the consumption of goods may rise with hours of work assuming a zero or constant MTR. The indifference (*I*) curves show the hours of leisure and the consumption of market goods between which Amy is indifferent. A loss of leisure has to be compensated (increasingly) by extra goods. Given the initial budget constraint, Amy maximises her welfare by choosing to work H_1 hours.

When social assistance (*OA*) becomes available, Amy's budget constraint changes to *ACB*. Note that the slope of the budget line between *A* and *C* is flatter than the original budget line. This indicates that the EMTR has risen and that Amy obtains fewer goods for each extra hour of work. This is because she loses some assistance income as she earns private income. In

Moral hazard
The risk, when a payment depends on certain conditions, that an individual will change their behaviour to make the conditions more likely to occur

Net replacement rate
The ratio of a social security payment after tax to the after-tax income replaced

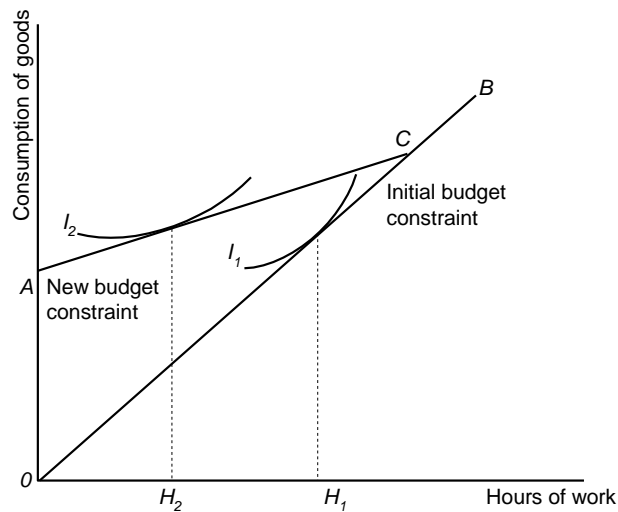


Figure 22.5 Effect of social assistance on labour supply

other words, the price of leisure has fallen. Amy now chooses H_2 hours of work. Of course, with different preferences, Amy might now choose to do no work. Note also that the income effect works here in the same direction as the substitution effect. The social assistance increases Amy's real income. Because leisure is a normal good, Amy demands more of it.

Replacement rates for unemployment. As an example of NRRs, Table 22.3 shows NRRs for unemployment for four family types in relation to the average wage in 2005 in 17 OECD countries. In 10 of these countries NRRs in all categories exceed 60 per cent. In other words, working increases disposable income by less than 40 per cent. This is a major disincentive to work. NRRs are generally lower in Australia than in all other countries because most benefits are flat-rate safety-net benefits not related to income, whereas benefits in most other countries are based on social security contributions and relate ultimately to income. On the other hand, unemployment benefits are of unlimited duration in Australia (subject to continuing search for employment) whereas the duration is limited in some other countries.

Estimating incentive effects

So much for theory, but how are incentive effects estimated? The key problem is to identify cause and effect and to distinguish this from correlations. There are three basic empirical methods known as observational, experimental and quasi-experimental. We discuss each of these below.

Observational studies. Observational studies are based on observed data of actual economic behaviour. Much of this data is obtained by surveys. Observed data are natural data and not data obtained from experiments. The data sets may be time series, cross-sectional or a combination of time series and cross-sectional data. Econometric methods (the application of

Observational studies
Studies based on data from observed economic behaviour

Table 22.3 Net replacement rates for unemployment for four family types, 2005, in selected countries^a

	<i>Single</i>	<i>Married couple^b</i>	<i>Couple-two children</i>	<i>Lone parent-two children</i>
Australia	33	29	65	54
Canada	63	66	78	77
Denmark	63	64	75	78
France	67	66	67	67
Germany	60	60	73	73
Ireland	31	49	59	58
Italy	63	69	70	71
Japan	54	53	53	54
Korea	48	48	48	49
Netherlands	65	65	70	70
New Zealand	38	33	46	63
Norway	64	65	70	77
Spain	62	63	75	76
Sweden	62	62	69	67
Switzerland	70	71	85	85
United Kingdom	41	41	60	60
United States	62	62	56	58

(a) Income after tax and including unemployment benefits, family and housing benefits in the first month of benefit receipt, relative to the average wage.

(b) Married couple with only one earner.

Source: OECD (2007) *Benefits and Wages*, OECD Indicators.

statistics to economic data), especially regression analysis, are employed to identify relationships, especially between the dependent and independent variables. These methods are generally guided by economic reasoning or theory.

Time series analysis typically draws on aggregate or average data over time. The variable to be explained could be labour force participation or unemployment. The explanatory variables would include the policy variable, such as the replacement rate, as well as other key explanators such as the change in GDP. In principle such an approach should provide estimates of the effect of a policy change. However, there are significant difficulties. The use of aggregate data necessitates use of average benefit levels or NRRs, although there are often many NRRs. There are also issues of cause and effect between the ‘dependent’ and the ‘independent’ variables (does unemployment drive GDP or the reverse?). Also, it is often difficult to isolate the impact of policy changes from other factors that may cause a change in the dependent variable.

Many empirical studies are based on cross-sectional data. Cross-sectional studies are usually based on individual data, which greatly increases the number of observations. However, care must be taken to identify the relationships between an individual’s behaviour and their benefits and their personal characteristics. If the benefits are correlated with other individual characteristics, the precise effects need to be sorted out. In contribution-based schemes, variations in benefit entitlements are often correlated with previous income, which may be correlated in turn with unobserved characteristics that affect labour supply decisions. Moreover, cross-sectional analysis models relative behaviour. It may tell us that people with high benefits act differently from those with low benefits. But this is still consistent with there being no overall effect when decisions are interdependent. The replacement rate may determine who is employed rather than the overall rate of employment.

Combined time series and cross-sectional data may draw on aggregate comparisons as between countries or between states within a country or on longitudinal data on individuals typically collected as panel data. In cross-country or cross-state studies the analyst explores the effects of national or state differences in benefits and institutional arrangements on labour supply or other behaviour. However, differences in other economic or social factors may also influence behaviour and be difficult to model precisely. With panel data, the aim is to infer how changes in individual circumstances or benefits influence individual decisions. Given the need for extensive longitudinal data sets, there have been few such studies although their use has increased greatly over the last 10 or so years.⁶ As with other approaches, modelling all the critical factors and their inter-relationships is not easy.

Experimental studies

Studies based on a sample of individuals randomly assigned to a treatment and a control group

Experimental studies. A general problem with using observational data is their lack of randomness. This puts a lot of weight on the econometric analysis to sort out cause and effect. This problem is avoided in experimental studies where a sample of individuals is randomly assigned to a treatment and to a control group. Because on average the individuals in the two groups may be viewed as similar, any differences in outcomes can be attributed solely to the difference in treatment. Hotz *et al.* (2002) analysed the effect of a policy experiment in California in the 1990s where one-third of families randomly selected received about 15 per cent higher non-work (unemployment) benefits than other families. They found that there was about a 10 per cent increase in employment in families receiving the lower level of benefits, indicating an elasticity of employment relative to benefits of about -0.67 . Zabel *et al.* (2010) reported on a Canadian randomised trial in which the treatment group of unemployed workers were given a subsidy that roughly doubled their pre-tax salary for three years if they found

⁶ In Australia by far the largest household-based panel data set is generated by the Household Income and Labour Dynamics in Australian (HILDA) Survey conducted at Melbourne University. Starting in 2001, HILDA collects information annually about labour market and family dynamics from a panel of nearly 20 000 individuals and nearly 8000 households.

long-term full employment within 12 months. Four years later, the employment rate for the treatment group was approximately 25 per cent higher than for the non-treatment group.

While it is generally agreed that randomised experiments represent the ‘gold standard’ method of isolating and identifying cause and effect, there are several drawbacks. These include the need for a large sample size, problems associated with drop-outs or attrition that may not be random, making inferences from behaviour in experiments to longer-term behaviour, the costs of the experiments and the ethics of providing different levels of benefits or services to different groups in the community even if this is done randomly.

Quasi-experimental studies. These studies draw on observational data but identify situations in which individuals happen, due to external or natural circumstances, to be randomly assigned to different groups. These situations are sometimes described as natural experiments. There are several different quasi-experimental methods.

One method is **difference-in-difference analysis**. Suppose there are two jurisdictions X and Y and that a policy change (say a higher unemployment benefit) is applied in X and not in Y . The difference-in-difference method examines how, if at all, the *difference* in the unemployment rates has changed due to the policy change. This recognises that other factors may cause systemically different levels of unemployment in the two jurisdictions. But it does leave open the possibility that changes concurrent with the policy change could have affected the differences.

Instrumental variables analysis is another quasi-experimental study method. An oft-cited issue is estimating the impact of class size on child performance. The estimation problem arises because more education-motivated parents may send their children to smaller classes. Thus the analyst needs to find a variable which influences participation in smaller classes but which itself will not affect the educational outcome. Hoxby (2000) found that birth dates (which determine school entry) vary randomly over time so that class sizes in the United States vary randomly from year to year. She was then able to use these random annual differences in kindergarten class sizes within the same schools to test whether differences in class size affected educational outcomes.

Regression-discontinuity analysis is a third form of quasi-experiment study. This method estimates the impact of a welfare program by comparing outcomes for program participants who are just below the threshold level for participation with outcomes for non-participants who are just above the threshold but can otherwise be assumed to be similar to the program participants. Because both sets of individuals or households are close to the threshold, it is assumed that they are comparable individuals or households in most important respects.

Incentive effects: employment and household formation

The heavily studied issues are the effects of social welfare programs on labour supply and household formation. In a wide-ranging survey of the incentive effects of the US welfare system, Moffit (1992) concluded that there is:

unequivocal evidence of effects on labor supply, participation in the welfare system, and some aspects of family structure. Mostly these effects arise for female heads of family, the major recipient group under the current system. The econometric studies show that labor supply is reduced by the AFDC and Food Stamp programs, that higher potential benefits induce greater participation in these programs, and that the programs affect family structure though usually weakly.

These conclusions are consistent with the findings of labour supply studies (Dandie and Mercante, 2007), which suggest that the compensated labour supply for males has a mean wage elasticity of about 0.3 and for females a mean elasticity of about 0.6 (although there is much variance). These estimates imply that, ignoring income effects, for every 10 per cent fall in net hourly wage, male hours worked fall by 3 per cent and female hours by 6 per cent.

Quasi-experimental studies

Studies that draw on observational data where external or natural events randomly assign individuals to different groups

US studies quoted by Rosen and Gayer (2014) suggest that for every \$100 offered to a male-headed family, earning falls by \$25–\$30.⁷ Meyer and Mok (2007) found that a 36 per cent increase in unemployment benefits for high income earners in New York state led to a large increase in unemployment insurance claims.

A labour supply issue that has attracted much empirical work is the relationship between unemployment duration and level of unemployment benefits. Røed and Zhang (2003) reported that estimated point elasticities range from -0.2 to -0.9 , with a mean of about -0.6 . Men are typically at the higher end of the scale and women at the lower end. An elasticity of -0.6 would mean that a 10 per cent reduction in benefits would reduce unemployment duration by 6 per cent. A 6 per cent reduction in duration implies that someone who would be unemployed for 26 weeks would now be unemployed for about 24.5 weeks. This suggests that unemployment duration is not very sensitive to the level of unemployment benefits.

The possible impacts of social assistance on long-term welfare dependency or family structures are also issues of concern. If welfare benefits depend on household family income, families may be better off if one parent leaves the family because this increases its eligibility for assistance. Many welfare recipients in the United States are unmarried mothers and the possible implication is that welfare assistance has encouraged births outside marriage. However, the incidence of out-of-marriage births does not seem to be much higher in the states that offer higher benefits. Rosen and Gayer (2014) found that the evidence on the effects of welfare on family structure is inconclusive.

Policy Implications

The core public policy problem is how to produce an equitable welfare program that meets social welfare objectives without significant economic distortions and DWL and at least cost to taxpayers. Highly targeted programs are efficient at alleviating poverty but have high EMTRs as benefits are phased out with increased income. A slow phase-out means that some higher income individuals with less need of support receive benefits. Also, lower EMTRs for one group mean higher EMTRs for others.

In general, it is impossible to redistribute income without creating some DWL. It is especially difficult to provide everyone with an adequate minimum income, still less with a generous minimum income, without adversely affecting labour supply.

In practice, three problems are common to most social welfare systems: complexity and high administration cost, inequity in the treatment of some people and DWLs due to high NRRs or EMTRs. Governments also experience information problems with income testing, which often results in intrusive welfare administration. A major finding of the Henry Tax Review (2010, Part One, Chapter 9) was that the transfer system in Australia is overly complex and can treat people of similar means differently. There is also significant evidence of the DWLs of welfare programs in Australia and elsewhere, some of which is cited in the next chapter.

Reform options

Most discussion of reforms of social welfare focuses on simplification, transparency, equity and lower MTRs. But views vary as to the best strategies for achieving these outcomes. We discuss below a unified welfare/tax reform strategy, policy reforms with separate welfare and tax systems, and some policies to deal with moral hazard that could be integrated with either main strategy. Box 22.3 summarises the major conclusions of the Henry Tax Review.

⁷ For more discussion of labour supply elasticities see Chapter 27. For discussion of some other incentive effects see Chapter 23.

Box 22.3 Major welfare findings of the Henry Tax Review

The Henry Tax Review (2010) found that Australia has the most progressive transfer payment system in the OECD reflecting effective targeting of support to low income households. However, the Review found that the system is overly complex and can treat people of similar means differently and that clear work incentives should be built into the levels of income support payments.

The Review concluded that it is not practical to fully integrate the tax and transfer systems. However, within the transfer system payments should be streamlined into three main types: pensions for people who are not expected to work including retired persons and persons with disabilities; participation (unemployment) payments for people of working age who are expected to support themselves; and payments for full-time students. Pensioners would receive the highest basic income support and students the lowest as they can usually do some part-time work.

In addition, there would be income supplements for parents (Parent Supplement) and for children (Family Assistance) and assistance for the direct costs of renting housing.

The Review also found that there should be increased support for child care to encourage workforce participation.

On the other hand, the use of concessions or payments that are linked to the purchase or supply of particular goods or services and the related use of concession cards provided by all levels of government should be reviewed. These concessions are often regressive and the benefits create strong incentives to achieve eligibility for the concessions.

There should also be a comprehensive means test base that incorporates a deemed return on assets with all other income to replace the diverse set of separate income and asset tests.

Systemic reform. This generally means unifying the welfare and tax systems, with both taxes and transfers based on individual income but with some allowance for household composition. This attempts to reduce the problems that arise when tax is based on individual income and welfare payments on household income. However, basing welfare payments on individual income makes welfare payments less targeted when low-income persons have a high-income partner. This is expensive and inequitable. On the other hand, basing tax on household income can create high MTRs for a secondary income earner in a household. This may be both inequitable to the second earner and a significant deterrent to labour supply.

Most studies conclude that such systemic reform is not feasible. Dawkins *et al.* (1998) examined the creation of a unified tax and transfer system, using a negative income tax or a tax-credit system. This would involve rolling some or, in extreme form, all social assistance benefits into the tax system. All individuals could receive grants (or tax credits) that would vary with household composition and other important needs and tax would be levied on an individual's gross income only above a threshold. There could be an income tax surcharge to recoup tax credits as income rises. The study was limited in that it did not incorporate behavioural responses. However, it concluded that the tax rates associated with a radical negative income tax system would be unacceptably high. Studies by Dawkins *et al.* (2003) and Scutella (2004) reach similar conclusions. Scutella examined two flat tax systems combined with a basic untaxed grant that varied with household circumstances that reflected the current social security system. She found that it was hard to avoid MTRs over 50 per cent and a level of income redistribution that was likely to be unacceptable.

Reforming the separate tax and transfer systems. Ingles (1998) and Keating and Lambert (1998) proposed that each system should be rationalised internally into single structures and the relationships between them rationalised. The large number of transfer payment schemes in Australia would be reduced. Also overlapping separate means tests for various cash payments would be replaced. Arguably, most of the means tests could be consolidated by having two separate tests of entitlement—one test based on a family's income and another on its eligibility characteristics. The assumption behind such proposals is that the administrative and

efficiency benefits from simplification of the tax and transfer systems would offset any loss in equity from a reduction in categorisation.

Kalb (2007) reviewed five possible reform policies. They were (1) reducing the lowest income tax rate, (2) increasing the lowest income tax threshold, (3) increasing the LITO, (4) reducing withdrawal rates on social security payments and (5) introducing an EITC. Given that these policies may be introduced separately or in combination, there are a large number of options. Thus, conclusions cannot be simply drawn. Moreover, a change that reduces EMTRs for some individuals often increases it for others. For example, reducing withdrawal rates on social security payments for one group usually has the effect of increasing the rates for higher income individuals unless the payment is made universal. Subject to these caveats, Kalb found that that an extended LITO or an EITC system would be relatively equitable and beneficial for labour supply. Changing the tax threshold for everyone, or changing the bottom tax rates, are more expensive and less targeted because they benefit high as well as low income individuals.

Detailed policy design. Gruber (2016) describes various approaches to reduce moral hazard and particularly impacts on labour supply. The first is to employ categorical benefits whereby individuals who are least able to work are placed into a category with the highest level of benefit and those with greater ability to work are placed in a category with the lowest level of benefit. Gruber cites blind people and single mothers as examples of people who could be in the former category. In fact, the Australian welfare system, like some others, does distinguish between disability (an inability to do any work) and other types of unemployment. But as Gruber concedes, there are considerable practical problems in categorising people by their capacity to work or earn income more generally.

A second policy to reduce moral hazard is to place ‘ordeals’ in the way of obtaining benefits, for example by requiring people to undertake training when unemployed or to join queues to obtain food relief. These ordeals are expected to discourage those who are more able to work from seeking income benefits. Where these ordeals may provide benefits to the recipients, such as training, they may be acceptable. Where they make life for needy people even more miserable they are unlikely to be acceptable.

The third policy is to provide incentives to people to work. Key examples here are the earned income tax credit, increased child support, increased training opportunities and reducing the rate at which other benefits decline with earned income. However, any system that provides improved conditions for targeted low-income earners increases EMTRs as the benefits are withdrawn. Alternatively, the benefits must be provided more generally, which is less progressive and more expensive.

Thus, we conclude where we started—it is hard to produce an equitable and generous welfare program without significant economic distortions or high expense, or both.

Summary

- The objectives of social welfare programs include: support for basic living standards, general economic security, reduction in inequality, social integration, minimising economic distortions and good governance.
- There are three main categories of social welfare programs: social assistance through cash transfers, transfers-in-kind and social insurance.
- Cash transfers provide the core welfare support in most countries and are usually preferred by recipients. Transfers-in-kind may be preferred by taxpayers and may provide positive externalities.
- Social insurance aims to protect individuals against adverse changes in circumstances.
- Many benefits are categorical. That is, they are made to individuals in specific household or other categories. A non-categorical payment depends only on the income of the recipient.
- Targeted categorical payments ensure that needs are met at least cost. However, targeted systems are often complex, expensive to administer, create anomalies and involve high effective marginal tax rates as grants are withdrawn.
- A negative income tax (NIT) scheme would integrate income transfers with income taxes. This could simplify the transfer system and reduce administration costs. However, there are complex issues in combining transfer that are based on households with taxes that are based on individuals and an NIT scheme would likely involve high marginal tax rates.
- High replacement rates and effective marginal tax rates can have significant effects on behaviour, notably on labour supply and even on household formation.
- The three main ways to estimate these effects are via observational studies (using econometric methods such as regression analysis), experimental studies and various quasi-experimental methods.
- The core policy challenge is to provide generous and equitable assistance without creating undue incentives that lead to lower labour supply and deadweight losses. Most policy reform attempts to simplify transfers and to reduce effective marginal tax rates and opportunities for “moral hazard” behaviour.

Questions

1. Outline the difference between social insurance and social assistance welfare systems. What is the guiding rationale behind each system? Which system do you think is preferable?
2. Why is a non-categorical negative income tax likely to be more expensive than a categorical system of assistance to needy households?
3. Do in-kind transfers sometimes affect incentives to work? Why?
4. If a company supplies an employee with a company car and pays the annual operating costs to a total value of \$6000 per annum, is the employee \$6000 better off than without the car?
5. Suppose that government provides \$500 each month to everyone with no income. Clare can work for \$16 per hour. The benefit falls by \$1 for every \$4 that she earns. What does Clare receive in total if she works 20 hours? How many hours does she have to work to reduce her benefits to zero? How much does she then earn? Using a diagram, show the income–leisure trade-offs that Clare faces with and without the government grant. What kind of indifference curves would ensure that Clare participates in the labour market?
6. Should income tax rates on individuals be adjusted to allow for their family or other responsibilities? If so, on what basis should these responsibilities be determined?
7. What are the relative merits of social (public) insurance compared with mandated private insurance?
8. How do welfare programs affect labour supply decisions? What is the evidence that welfare programs affect labour supply?
9. What methods are available for estimating labour supply effects of transfer programs? What kinds of problems arise?
10. Compare the merits of an earned income tax credit and a low income tax offset for assisting low-income earners.
11. It has been observed that married men earn higher wages. What, if anything, can be inferred from this correlation?
12. What methods are available for reducing moral hazard? Which ones would you recommend and why?

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