JULY 1988
DISSCUTION PAPER NO. 191
R. Ngulet, R.C. Creedy and P. Dowrick
Commonwealth Department of Community Services and Health
A Study Commissioned by the
GOVERNMENT SPENDING ON WORK-RELATED CHILD CARE.

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DISCUSSION PAPER NO. 191

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O. F. Phoos

Australasian National University

R. M. Ankle, P. C. Groog, P. V. Donnlick

Commonwealth Department of Community Services and Health

A Study Commissioned by the

SOME ECONOMIC ISSUES

GOVERNMENT SPENDING ON WORK-RELATED CHILD CARE
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The paper was commissioned by the Department of Community Services and Health to meet the following goals of relevance.

NOTE

-7-
the relative costs of different forms of child care provision;
the best form of a government subsidy for child care; and
the relationships between child care provision, the distribution of income
and child poverty, and the growth of female employment and wages.

The paper makes no policy recommendations as to the appropriate amount or
form of government funded child care.

The principal authors of the report are R. Anstie, S. Dowrick, R.G. Gregory, and
J.J. Pincus. The views expressed in the paper are those of the authors and are not
necessarily those of the Department of Community Services and Health.

References

Apps, P. and E. Savage "Labour Supply, Welfare Rankings and the Measurement of
Inequality" Sonderforschungsbereich 303 Rheinische Friedrich - Wilhelms -

88 Cents in the Hourly Male Dollar?" forthcoming in Advances in Industrial
Relations, proceedings of Pacific Rim Comparative Labour Policy Conference,
Vancouver, Canada, June 1987.
The economic burdens of the program are higher in the long term than the short term. The costs of the program are less than the economic benefits. The government provided education, job opportunities, and health care in the region. The programs will increase the expected lifetime of children by reducing child mortality. The programs will increase productivity of children, thereby reducing the poverty rate for women with children. The programs reduce the overall costs of providing the programs. The programs will increase the productivity of children. The programs will reduce the costs of providing the programs. The programs increase the productivity of children. The programs increase the productivity of children.}

**Summary**

Economic benefits of increased government subsidies for child care. Children are enrolled in early childhood programs for the purpose of reducing their future economic burdens. There is no evidence that enrollment in early childhood programs benefits children. Our assessment of funded child care shows that there are several economic benefits to early childhood programs.
Our estimate of the fiscal impact of the program shows that there is a net gain to society if the number of additional jobs available as a result of the program is greater than two-thirds the number of work-related users in the program at any one time.

There are additional effects of the program, which would be considered beneficial by this society. Equity and income distribution effects are in keeping with government emphasis on such issues. Also, changing attitudes are demanding a better deal for children, and hence higher standards of childcare outside the home.

Demands for a more skilled Australian workforce have implications for the reduction of career interruptions for mothers of young children, and hence implications for the provision of work-related childcare.

Our estimate of the fiscal impact of the Children's Services Program could be improved upon if more data were available concerning the users and potential users of childcare services. Current data could be better utilised and additional data collected which would allow a more accurate measurement of the fiscal outcome of the program.

The education level of the parents, family income, number of other children and country of birth. For those who have joined the work force we can identify their industry, occupation and hours of work. We can also investigate the changes in labour force participation rates over the 1976/1986 period. There are two considerations that should be borne in mind. First the 1986 Census tape is not yet available although it should be within two months. Second, there seems to be an understatement in the Census of those who work a small number of hours.

The work can also be done on a local government area basis.

Possible further research

Of major interest for the assessment of the current childcare program is the improvement in the measurement of the fiscal impact of the program. We have indicated the data needs for this research.

Our study provides economic arguments for government funded child care. Further research could study the most efficient form this child care might take.

A major part of our study concerned the economic reasons for, and effects of, interrupted careers. We have not provided any estimates of the loss of income associated with interrupted careers. It would be of value in assessing the long term effects of funded childcare to have such estimates.

The ANU Family Project.

There is extensive information on this tape which records the results of a two hour interview of about 2500 women. Drs. Bruce Chapman and John Beggs are beginning to process the tape for the Institute of Family Studies. Their project is to estimate the loss of
the proportion of the population that is economically active. We know that the funding of child
out of public funds in the 1970s, where we understand to mean the federal budget of
and increase distribution outcomes.

The economic effects are to be added to the policy
effects that flow from the program. The economic effects will be considerable: economic
growth and quality of life, particularly for women. There will be considerable economic
growth and increase distribution outcomes. In the long term, the policy effects of the
program will be considerable. In the short term, the main benefits of the program refer to
better outcomes for the government's child welfare program. There are short-term and long-term
economic benefits.

In Part 2 we discuss some of the issues involved in assessing the economic benefits.

Problems

In Part 2 we discuss some of the issues involved in assessing the economic benefits.

The paper shows how well
the program works, and the impact on economic efficiency. This paper shows how well
the benefits of the funding of children lie in the improvement of both the government's
economic performance and the economy. It is argued that the benefits of the program are
large. Around 519 million of the 1987-88, roughly 5% of the children's work-related day

Introduction

The 1976-1981 and 1986 Census Figures

Child Care Arrangements

(3) Those who use child care service,

Here your

information and show in an accessible form of change in demand that have occurred over the

The 1976-1981 and 1986 Census Figures

Child Care Arrangements

(3) Those who use child care

service,

- Reasons for using child care centers:
  - Little demand for child care centers due to a range of parental circumstances,
    - by household size in the short run,
    - by household size in the long run,
    - lower demand for child care
  - Household's marital status
    - cohabiting
  - Household's marital status
    - cohabiting
  - By household size in the short run,
  - By household size in the long run,

The 1987 Child Care Arrangements Figure

(2) Those who use child care services.
care has a net cost to the budget far less than the gross cost of $190m, and could very likely save taxpayers more than it costs. If, as a result of increasing the supply of female workers, the Children’s Services Program leads to more female jobs in the economy equal to the number of mothers using the program then these extra workers either contribute net revenue to the budget or enable budget savings to the total of around $106m. The net fiscal impact of the program will still be positive provided the new jobs created by the increased labour supply is greater than two-thirds the number of mothers who use the program.

In Part 4 we discuss some of the income distribution and equity issues, as well as economies of scale in childcare.

Part 5 provides a discussion of data sources and gives an indication of possible further research into childcare issues.

**Part 1. General Labour Market Issues in the Provision of Child Care.**

Female labour force participation has grown rapidly over the last two decades, particularly among women who are of typical childbearing age. Over the 20 years, 1966 to 1986, the participation rate of women 25-34 years increased from 35 per cent to 55 per cent and that of women 35-44 years from 38 per cent to 61 per cent (Table 1). In 1986 the participation rate of women with children between 0 and 4 years was 41 per cent.

This rapid growth is a reflection of changing attitudes towards women’s role in the labour market. Married women now expect to be far more economically independent than they have been in the past and younger women are increasingly preparing

- education level
- marital status
- workforce experience last year
- age and number of children
- extent to which other child care services are used
- age of mother.

**Fee Relief Application Form.**

Some of the following questions should be added.

- age, sex and marital status of mother/father
- work force status, hours worked
- years of education, post school qualifications
- length of time in current job
- number of years outside the workforce after leaving school
- number of children
- income

**Family Day Care Scheme**

- Sex, age, marital status of parent
- country of origin
- workforce status- hours of work
- post school qualification
- length of time in the job
- number of children
- income
- length of time outside the workforce since leaving school
worksforce commitment
parent income level

Parental involvement
There could be a financial benefit to the Child Care Cass which

The Child Care Cass
Here we discuss the advantages of the existing arrangement.

Recommendation
be updated. The best source of this information is the Department of

(1) How does the service work?
(2) Does the service meet the needs of children in the area?
(3) Does the service meet the needs of families in the area?

To adequately measure the impact of the Children's Service Program we need to

Part 5 Discussion of data sources and possible further research
Services provided end up reduce the demand of Child Care Cass. 22
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Source: The Labour Force Australia, ABS Cat. No. 6203.0

Note: Figures are for August each year.

families with more than one child in care can be even greater. In the case of a family with three children in care and assessed family income of less than $226 per week they can receive childcare services which cost around $300 per week for $15 per week. Such income distribution is in keeping with other government programs which redistribute income towards low income families, and as such, must be considered a benefit of the Children’s Services Program.

*Economies of Scale and Tax Distortions in Child Care Choice*

There is an additional benefit from the program, relating to the social cost of child care, which we do not attempt to estimate but which should be mentioned. It has to do with the costs to society of various types of child care. Although the statistical evidence has yet to be presented, we believe that there are significant economies of scale in child care: that is, the somewhat larger scale centres will have lower average costs for the same quality care than arrangements involving one-on-one or one-on-a few children. The cost savings, as well as other factors, are partly reflected within the informal sector, in that a parent or grandparent will frequently look after some children of close relatives or friends as well as the child of the immediate family. However, the full cost savings are probably only available in the formal sector.

Naturally enough, a parent or guardian would tend to choose the least-cost method of child care for a given quality of care. The differing taxation status of formal and informal care, however, distorts the choice of the form of child care. In the formal sector, costs are higher to the extent that employees pay income taxes on their salaries; whereas the same service provided in the informal sector escapes taxation. The tax free status of child care in the informal sector encourages parents not to use the larger facilities which are cheaper, net of taxation. Operational subsidies and fee relief through the Children’s
Figure 1: Apparent Retention Rates to Year 12, All Schools, Australia, 1986 to 1996

Source: Commonwealth Department of Employment, Education and Training.

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**Note:** Income refers to total income from all sources. In aggregate total income exceeds earned income by less than 3 percent.

Children. Sales, customs and excise taxation are heavier on items of adult luxury (alcohol, tobacco products) and lighter on items of children's necessities (children's clothing, school pre-requisites). Thus, children have benefited from the free provision of child-related goods and especially services, and by the favourable treatment in taxation of items of special value to children.

It could be argued that there should be a free and universal provision of child-centred services. Budgetary stringency, however, precludes that measure at this time. It is worth noticing, however, that governments (State governments with massive Commonwealth help) do make available to all comers free education from the age of 5 or so. The equity argument seems strong for extending these benefits, especially targeted to the most disadvantaged, to children of below school age.

The benefits of the childcare program on children include the following:

1. a high quality, supportive social environment.
2. The children benefit indirectly because of the advantages gained by their parents or guardians
   (i) lower childcare costs mean larger family income
   (ii) the option of subsidized childcare extends the opportunities of the parents, especially as regards workforce participation.
3. The children enjoy the benefits of a more complete social mixing.
4. Some behavioural and other problems are brought earlier to the attention of professionals capable of assisting.
Equity

The most important determinant of a child's economic and social future is mostly a matter of luck: choose your parents carefully. The child of competent, happy and well-off parents has a flying start in life, whereas the child of parents of the opposite characteristics begins with a handicap. In a variety of important ways, Australian governments do much to improve the prospects of the less advantaged child, by providing free or subsidised schooling, medical attention, and so on. Increasingly, because of increasing community expectations, there is a need to do more to assist the child in the pre-school ages. Funded childcare is an integral part of that increased effort on behalf of children.

The Prime Minister has announced and recently reinforced his determination to ensure that no Australian child is in poverty by the year 1990. A comprehensive package of measures for poverty relief should include specific programs for childcare. It is not enough, in alleviating child poverty, merely to give cash to parents and guardians. Measures have to be taken to make more certain that the children benefit sufficiently. The notion that all cannot be left to the discretion of parents has been long enshrined in Australian social programs. Possibly the most significant factor towards equality of distribution in Australia has been the provision of free and compulsory education for school aged children. Closely following, in its effects on equity, has been the provision of other free or subsidised services of relevance to children (medical and dental) so that all children, regardless of the circumstances of their parents or guardians, have been given a fair chance at education and a healthy life.

Reinforcing the effects of government-provided services has been a pattern of taxation designed to make relatively cheap commodities and services of particular value to
In Fig. 2 we present the full time weekly earnings of men and women employees by individual ages. The data are taken from the 1981 Census. From about the age of 25 years the earnings of women begin to fall quickly behind that of men. It appears that as male employees gain labour force experience their earnings steadily increase, at least until they are forty, but the average earnings of women employees either falls or does not increase after 25 years of age. To illustrate this point, a full time male employee of 40 years of age earns, on average, 20 per cent more than a 25 year old male employee. A female employee of 40 years of age, on average, earns 10 per cent less than a 25 year old.

It is apparent that if women’s earnings are to increase substantially in the future the increases will have to occur after 25 years of age, that is, during and after the principal child bearing years. Why is it that, on average, as women become older their earnings fail to keep pace with that of men?

The principal reason is that most married women experience interruptions in their labour force careers for child-rearing. A mother who leaves the workforce for a few years while her children are young will lose some of her labour market skills and, as a result, will return to lower real earnings and often work in a job which requires much less skill than she would have possessed if her career had not been interrupted. In addition, the time out of the workforce will reduce earnings over the remainder of her working life. The longer she is out of the workforce, the greater the cost in terms of earnings.

When married women are deciding as to the period of time to spend outside the workforce they will consider a number of factors. Among the more important ones will

On the basis of the above assumptions the total fiscal benefits of the Children’s Services Program is $296.4m which should be set against the costs of the program of $190m. There is a net addition to the budget of $106.4m. As indicated earlier, these calculations are based on the assumption that the recipients of the Children’s Services Program are net additions to the employed labour force. Suppose however, that this assumption overstates the number of new jobs created by the supply side encouragement that is offered by the program. The above calculations suggest that provided the 85,000 working users in the program are associated with at least an extra 55,000 jobs then there is a net fiscal benefit of the program. (Note that not all (or indeed any) of the additional jobs need be occupied by users of the program or by workers in the funded childcare area. Neither do all the additional women in the workforce need to be in funded childcare. But for the above calculations to be an accurate estimate of the fiscal benefit the earnings in the new jobs should be similar to the assumptions embodied in our calculations. The benefits of the program derive from the additional supply of and demand for women in the labour force in general.)

This calculation of course does not include the effects of any upgrading of jobs and earning capacity of those who have been through the program and as a result avoided some loss of human capital. If this effect was included, as it really should be, the net fiscal benefits of the program would be greater (not only in the current year but also, because of the continuing benefits of the enhanced human capital stock, into the future).

**Part 4. Further Benefits of the Children’s Services Program**

In Part 2, we stated that the short term benefits of the program are primarily in terms of equity, income distribution improvements and economies of scale. Of course, these benefits hold in the longer term as well. This section provides a discussion of the issues.
appreciate that child care places be subsidized to help avoid the depression of human
poor preparation of the investment in capital in the sector of the labor force. It is
and the quality of the investment in education, there is an interest in helping to
and from the point of view, and in the absence of some government contribution

Summary

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<td>Tax Reserve and Medicare Levy</td>
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(4) A Commission Policy for Skill Maintenance and Development

Individuals and communities want to return to the world of work:

government should invest in them and some of the incentives to reduce the effects of
or in order to achieve these objectives and be in the process of labor and occupational
decision or compacts process in the future. Here are the reasons to believe that
these goals can be achieved by improving the future of education and the effects of their

The gain in the government of having this group in the workforce rather than at home:

Pre service tax on $5,000 = $250

SSB tax = $250

Tax liability = $9.75
capital that would otherwise occur by the prolonged withdrawal of females from the labour force. The greater the fraction of education and training paid for by the government the greater the community interest in the decision to leave and return to the workforce. The child care subsidies should be seen as part of the contribution that government makes to the development and maintenance of the stock of human capital embodied in the labour force.

(b) Tax and welfare effects for parents of young children and implications for childcare provision

Funded childcare assists in an important way in offsetting some of the unintended and economically costly consequences of the tax-welfare system.

Australian governments rely, to an unusual degree, on personal income taxes to generate government general revenues. Mostly for reasons having to do with the administrative costs, Income taxes are not levied on certain kinds of production -- what can be called "home production, not for sale". Child care services, provided by a child's mother - to her own child - are not subject to income tax; neither indeed are any of the services provided in and by the home, as long as they are not for sale. Therefore, there is a tax advantage enjoyed by providing services at home. If I paint my own house I pay no tax. If I am paid to paint the house of someone else then I am taxed. Likewise if I stay at home to care for my own children I pay no tax but if I pay someone else to care for them then they are taxed and the cost of the service is increased to offset some of this tax burden. The tax system 'distorts' the choices made by people, especially women, concerning labour market participation. It encourages women to stay at home and produce services that are not taxed.

Since 1984, incomes have risen and so have sole parents' benefits. It is difficult to say what has happened to the distribution over that time. It is not automatic that many sole parents would move up from the lowest income category, because they may adjust downwards their hours of work so that they retain the full SSPB. Since Nov. 1984, average weekly earnings for female employees have increased by 20.5%. Based on this information, we assume the following with regard to the average distribution and earnings of sole parents using funded care.

Table 4: Sole Parents: Earnings and Tax Liability

<table>
<thead>
<tr>
<th>%</th>
<th>No. of parents</th>
<th>SSPB</th>
<th>Income p.w.</th>
<th>Tax liability p.a.</th>
<th>Total tax p.a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
<td>(4)</td>
<td>(5)</td>
<td>(2 x (5))</td>
</tr>
<tr>
<td>50</td>
<td>11,500</td>
<td>Full</td>
<td>202.00</td>
<td>159.00</td>
<td>1.83m</td>
</tr>
<tr>
<td>40</td>
<td>9,200</td>
<td>Part</td>
<td>277.50</td>
<td>1040.00</td>
<td>9.57m</td>
</tr>
<tr>
<td>10</td>
<td>2,300</td>
<td>None</td>
<td>417.00</td>
<td>4166.00</td>
<td>9.58m</td>
</tr>
</tbody>
</table>

* This includes Medicare levy based on the 1987/88 rate of 1.25% of taxable income.

For sole parents in funded care who receive part benefits, we have assumed an average income of $277.50 per week. This is composed of $203 of earned income and $74.50 of SSPB.

\[
\text{SSPB saved} = \frac{150 - 74.50}{\text{SSPB saved}} = 75.50 \text{ per week} \\
= 3926.00 \text{ per year} \\
9200 \times 3926 = 36.12m
\]
For so long been a feature of the tax and welfare system, a second-child policy would be one of the most efficient ways for the Chinese government to set aside the dilemma of a declining population and increased pressure on resources. However, the distribution of children by age has not been uniform in recent years, with the effect of the second-child policy. The number of children born in recent years has shown a steady increase, and more parents are choosing to have a second child. This is partly because of the increasing cost of living and the desire for a balanced family structure.

Over the past few years, it has become increasingly clear that the cost of raising a child is a significant burden for many families. The government has taken steps to address this issue by increasing the financial support available for families with children. These measures include providing subsidies for child care and education, and increasing the amount of money available for families with children. In addition, the government has also introduced a number of programs designed to help improve the quality of life for children, such as expanding access to early childhood education and providing support for families who are struggling to make ends meet.

Another factor contributing to the rising number of children is the increasing availability of affordable childcare services. In recent years, there has been a significant increase in the number of childcare centers and programs available to families, which has made it easier for parents to balance work and family responsibilities. This has resulted in a greater willingness among parents to have a second child, as they feel better equipped to handle the additional responsibility.

The government has also taken steps to ensure that children have equal opportunities to succeed, with a focus on improving the quality of education and providing support for children who are at risk of falling behind. These efforts have been successful in improving the overall well-being of children and have contributed to a decline in child labor and other forms of exploitation.

In conclusion, the second-child policy has played a significant role in shaping the demographic landscape of China. By allowing families to have more children, it has helped to address the challenges of an aging population and increased the number of young people in the workforce. However, it is important to remember that the policy is just one part of a broader strategy to ensure the well-being of children and their families, and that ongoing efforts are needed to address the complex issues facing the country today.

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*Note: The above text is a fictional account and does not represent any actual data or policies.*
to employ some offsets - like funded child care - as long as the offsets bring more economic benefits than they introduce by way of economic costs.

Funded child care does offset, to some extent and for families with young children, the distortions listed above. It offsets some or all of the biases in the system that encourage women not to participate in the paid labour force. It is possible that other child care policies, reliant on the public purse, would also produce offsets to the tax bias against working for taxable income. In the absence of firm policy proposals and the necessary differential analysis of their effectiveness compared with funded child care, it would seem illogical to abandon funded child care because there could exist, somewhere, a more effective program.

There is a further argument about tax distortions which is subtle but important. It has to do with the design of efficient tax systems. Previously we pointed out that the inefficiency of a tax system arose from the unintended effects of altering the choices made by people. The most efficient tax system, for a given total revenue raised, is the system that causes the least unintended distortions of choice per dollar of taxes raised. As to the personal income tax, higher rates should be levied on those income earners who are least easily dissuaded from earning taxable income, on the margin; and lower rates on those most easily pushed out of producing taxable income. Empirical evidence on labour supply indicate that the primary income earner in a family will withstand fairly high tax rates and not be dissuaded from earning extra income, whereas the secondary earner is more responsive to the tax rates and will not enter the workforce if tax rates are high. That is, female secondary earners have much higher responsiveness than do male primary earners to marginal tax or subsidy rates. (For an Australian study, see Apps and Savage.) Technically put, wives (secondary earners) have higher labour market supply

**Tax revenue** generated p.a. is given by the product of Col. (2) and Col. (5):

\[
24,567 \times 85.00 + 21,496 \times 2101 + 15,355 \times 4360 = 114.2 \text{ million.}
\]

**Medicare levy** generated p.a. is given by the product of Col. (2) and Col. (6):

\[
21,496 \times 170.46 + 15,355 \times 261.24 = 7.7 \text{ million.}
\]

**Dependent Spouse Rebate (DSR).**

We have assumed that all the married mothers in the funded sector would be entitled to the dependent spouse rebate, if they were not in workforce, and we also assume that earnings are sufficient to disqualify all from any concession. (Note that there will be some women whose non-earned income is high enough to reduce or remove entitlement to the DSR. The effect of this is likely to be small and will be ignored here.)

Maximum possible savings to government from non-payment of DSR is:

\[
61,418 \times 1030 = 63.3 \text{ million.}
\]

**Marginal tax rates** are likely to increase for family non-earned income. We do not know anything about income and income-earning assets of users to estimate this but the sums of money are probably small. Suppose the average amount of non-earned income for these families is $500 p.a. and that the average marginal tax rate is .34 then the tax paid on this amount (that would not be paid if women were not working):

\[
= 500 \times (21496+15355) \times 0.34
\]

\[
= 6.3 \text{ million}
\]

**Family allowances** will be lost by some who use funded child care but since joint income would need to be over $50,000 a year it is likely that the number of families involved will be small.
### Table 3: Marital Women: Hours, Earnings and Tax Liabilities

<table>
<thead>
<tr>
<th>(1) No of children</th>
<th>(2) Hours</th>
<th>(3) Earnings</th>
<th>(4) Median p.a.</th>
<th>(5) Earnings p.m.</th>
<th>(6) Earnings p.w.</th>
<th>(7) Tax liability p.m.</th>
<th>(8) Tax liability p.w.</th>
<th>(9) Tax liability p.a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>600</td>
<td>5000</td>
<td>2500</td>
<td>62.5</td>
<td>125</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>3</td>
<td>600</td>
<td>5000</td>
<td>2500</td>
<td>62.5</td>
<td>125</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>600</td>
<td>5000</td>
<td>2500</td>
<td>62.5</td>
<td>125</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

### Table 4: Marital Women: Hours, Earnings and Tax Liabilities

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>10000</td>
<td>2500</td>
</tr>
<tr>
<td>60</td>
<td>12000</td>
<td>3000</td>
</tr>
<tr>
<td>70</td>
<td>14000</td>
<td>3500</td>
</tr>
</tbody>
</table>

### Note

We assume working mothers who fund care earn average earnings.
Concluding Remarks.

We have presented a number of arguments as to why it is appropriate for governments to subsidise child care services and the economic framework utilises the role of the individual in making decisions as to whether to re-enter the labour force to preserve and further develop human capital skills or to accept the deterioration of skills that will accompany a long period of absence from the work force. We conclude this section with some comments on some other effects that might flow from a decrease in the period of female labour force withdrawal.

The pattern of interrupted careers and an inability often to return to previous jobs means that, in some professional areas, there may be a shortage of skilled workers. The skill creation process through the education system and on the job training may experience difficulties in meeting the growth of new demand and the replacement demand created as a result of the wastage rate. In other instances, there may be no absolute shortage of skilled workers but there may be a shortage of skilled workers with experience. For instance, there may be no shortage of trained pathologists, but they are mostly recently graduated and are likely to leave after a short time for childbearing reasons. Thus, there may be a shortage of experienced pathologists.

There are continuing demands for a more skilled Australian workforce. A recent report, for example, by the Department of Employment and Industrial Relations in 1986 (Meeting Australia's Skill Needs, the third report of the Occupational Share System for Skilled Migration) identified the need for an increased training effort and emphasized that if Australia is to eventually achieve self-sufficiency in the skills required for economic development then there needs to be a greater level of adaptability in the skills of the workforce. If we can retain the workforce participation of skilled female workers and

(a) married working mothers: we estimate tax revenue collected, savings from dependent spouse rebate not granted to husbands, some additional tax revenue from non-earned income in two-income families, and the additional Medicare levy.

(b) sole supporting parents: we estimate tax revenue collected, savings from sole parents benefit (SSPB), family allowance supplement (FAS), and the additional Medicare levy.

(a) Married working mothers

From data in the 1986 CSP Census, it is calculated that the number of working mothers in the funded sector is 85,303. Of these, 72 percent are from married couple families. Therefore, the number of working married mothers in the funded sector is 61,418.

Tax revenue from working married mothers who use funded care.

We have no information on the incomes of married women or hours worked by them. The 1986 CSP Census gives data relating to the number of hours per week each child is in funded care. One approach would be to use these data as an estimate of the number of hours worked. However, we know from the ABS publication on Child Care Arrangements 1984 that a fairly high proportion of families use a combination of formal and informal childcare. Consequently, it may be better to use an alternative set of assumptions.

In the funded sector, the distribution of child minding hours is:

- 60% of children - less than 20 hours/week of care
- 24% of children - 20 - 39 hours/week of care
Part 1: Estimation of the Fiscal Impact of the Program

Part 2: Assessment of Some of the Costs and Benefits of the Children's Program

Worker retention, recruitment, and implementation would result from expansion of the program, whereas productivity gains in the program would more than offset the increase in costs. Further, productivity gains in the program would be in addition to the pool of employed workers and by society towards our needs: reduce down below some affirmation based on our clean substantial contribution could.

Notes can be selected into two groups, each of which need to be considered.
will be less than the addition of newly funded government places. However, there will still be gains from the increase in larger and higher quality childcare facilities. With larger child care facilities come economies of scale. We present this argument more fully in Part 4. Formal child care can provide higher quality care in several respects. For instance, for informal childcare there is no back-up service and if the carer is unavailable, a parent must be absent from work to care for children. Formal childcare can provide more continuous care, hence reducing absenteeism. (These gains hold in the long-run as well as the short run.)

Second, the program will affect who holds the current stock of jobs. Women who previously could not enter the workforce, because of a lack of child care facilities, may substitute for other people. It is difficult however, to have a firm view as to the economic effects of this substitution without a detailed knowledge of the users of the child care facilities.

Third, there is the direct income distribution effect of the subsidy. Some families are receiving child care services which cost around 100 dollars per week for 13 dollars a week.

In the absence of any significant targeting on women with skills in short supply or women who live in areas of labour shortage any assessment of the short run contribution of the program should focus primarily on the fact that currently the main beneficiaries are low to middle income earners, sole parents and so on and that the major benefits of the program will be found in equity, the provision of a better service and a better income distribution created by job access and the child care subsidy. These issues are discussed in greater depth in Part 4.

The longer the program is in place, however, the more likely it is that it will affect the behaviour of employers and female workers and increase the number of jobs available for women. There will be three effects:

First, there will be an increase in the supply of female workers because more child care places are now available. The increase in the availability of female labour will eventually create more jobs through its effects on reducing the price of female labour. In accordance with economic demand and supply theory, an increase in the supply of labour will eventually lead to an increase in the demand. The actual increase will depend on the elasticities of demand and supply. More females seeking work will reduce time spent in filling vacancies and widen employer choice.

Second, because the addition of child care places will reduce the time spent outside the labour force and increase the general workforce-related skill level of women the program will lead to an increase in the quality of employment opportunities which will be reflected in the earnings capabilities of women.

Third, if women can depend on such childcare being available, then younger women are likely to invest more in acquiring skills and increase their commitment to the labour force thus enabling them to enter highly skilled occupations which have been traditionally male occupations which pay higher wages.

As a result of these factors the economy will tend to create more and better jobs than it would do in the absence of the program.

As more women pass through the program and thus gain the benefits of the skill development of reduced time spent outside the workforce it is quite conceivable that the number of jobs that the program creates in the longer term may exceed the number of