The Effects of a Basic Income Guarantee on Poverty and Income Distribution

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INTRODUCTION

A universal demogrant, credit income tax (Garfinkel, 1983), or to use the current term, a Basic Income Guarantee (Van Parijs, 1992, 2001) is a universal cash benefit paid to all citizens. Entitlement is based only on citizenship. The same benefit is paid to all regardless of income, wealth, or work history. Benefit amounts vary only with age.

Advocates of BIG stress different justifications, including promotion of freedom, increased economic efficiency, and reduction in poverty. For example, Wilderquist and Lewis (1997) in good Rawlsian fashion asserts that the ultimate goal of social policy is to reduce poverty to the greatest extent possible, and goes on to argue that Guaranteed Income " is the most efficient and comprehensive method to attack poverty" (pg. 1). Research supports this claim. Programs aimed directly at poor people via income-testing have done little to alleviate poverty (Burtless, 1994). These programs create strong disincentives to work in the legitimate labor market, are stigmatizing, and promote divisions among population groups rather than solidarity (Garfinkel, 1982). Non-income tested programs, on the other hand have been highly effective in lifting people out of poverty as well as in serving non-poor people. Entitlement to BIG is based on citizenship rather than income. As such, BIG does not involve a separate income test with an implicit marginal tax rate on income that is higher than marginal rates in the positive tax system. This is a special appeal of BIG. Under the present system, as our poorest citizens who are aided by our safety net programs begin to earn income, they must forfeit a large portion of their means-tested transfers as their income rises. The rate of this marginal tax is significantly higher than the highest rates in income tax rate — 50% to 60% is common, and, if the loss of Medicaid is at stake, over 100% — making it difficult for a family to work itself out of poverty, and discouraging low income persons from supplementing their income by working.

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As detailed by Van Parijs (1992, 2001) Widerquist (2001a, 2001b), proposals for BIG range from very small (Friedman, 1966) to so big as to be unachievable (Schutz, 1996). In the 1960's a number of economists, including three future Nobel Prize winners proposed variants of BIG, which in those days was referred to as the Negative Income Tax (NIT). Milton Friedman (1966) advocated a very small NIT—a refund of unused income tax deductions--as a substitute for all other social welfare programs. James Tobin advocated a far more generous NIT—a universal tax credit or demogrant—as a substitute for only a limited set of existing programs. James Meade's proposal for Great Britain was similar to Tobin's. A fourth economist, Robert Lampman (1971), who unlike the other three specialized in income transfer policy, advocated a modest NIT not as a substitute for, but rather as an addition to, the existing set of income transfer programs. The range of generosity in today's proposals for a BIG is equally impressive. At the same time, there is little empirical evidence on the effects of variations in generosity on costs and poverty reduction.

Whether described as a demogrant, a guaranteed income, or one of a number of other labels, most advocates believe that BIG should be judged by the degree to which it reduces poverty. Surprisingly, however, there are few empirical estimates of the extent to which various BIG proposals reduce poverty. This paper is designed to fill that gap. In the next section of the paper, we describe the benefit structure and financing of four different BIG Plans. In sections three and four respectively, we describe the data and methodology and report our estimates of poverty reduction and costs. In section five, we discuss a few considerations for the optimal size of a BIG. The paper ends with a brief summary and conclusion.

THE BIG PLANS

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Benefit Structure

The BIG alternatives examined in this simulation are designed to place a high percentage of families above the poverty threshold, whether the family has a productive (working) adult or not. For families in which there are members who can work, the BIG amounts will be given to help them escape from poverty through their endeavors to work.

*We simulate four different BIG plans that we have named as follows: Standard Plan, Children Plus Plan, Single-Parent Plus Plan, and the Adult Plus Plan.*The first plan, the Standard Plan, provides a baseline from which the other plans depart. In the Standard Plan, all children up to age 18 receive a BIG of $2,175 per year; all adults between the age of 18 and 65 receive a $4,000 per year BIG. The elderly receive $8,000 or their social security payment. In all plans OASDI beneficiaries are held harmless, meaning that OASDI recipients receive either their OASDI benefit or BIG, whichever is higher.   The benefit structure of the four plans are summarized succinctly in Table 1.

The BIG, in all plans, is taxable. The net gain for people with higher incomes is smaller than for people who are poor. For example, if a person pays a federal income tax rate of 40%, the net gain of the BIG of $4,000 is only $2,400.

Table 1

The Basic Income Guarantee Plans

Plan Name	Benefits	Financing
Standard Plan	Elderly (E) $8,000; Adult (A) $4,000; Children (C) $2,175 OASDI kept harmless.	Offsets from OASDI. Elimination of 115 programs. Elimination of personal exemptions. Taxation of BIG benefits.

Children Plus Plan	E $8,000; A $3,150; C $4,000 OASDI kept harmless.	Offsets from OASDI. Elimination of 115 programs. Elimination of personal exemptions. Taxation of BIG benefits.
Single-Parent Plus Plan	E $8,000 First A with children $6,000 Other A $3,000 C $2,700 OASDI kept harmless.	Offsets from OASDI. Elimination of 115 programs. Elimination of personal exemptions. Taxation of BIG benefits.
Adult Plus Plan	E $8,000; A $6,000; C $2,000 OASDI kept harmless.	Offsets from OASDI. Elimination of 115 programs. Elimination of personal exemptions. Taxation of BIG benefits. Imposition of a federal contribution equal to a proportional tax rate of 0.0548.

The Children Plus, Adult Plus, and Single Parent Plus plans, respectively, focus higher

benefits on children, prime age adults, and

single parents. Note from Table 1 that the Children Plus Plan not only raises the benefits per

child from $2,175 to $4,000, but also lowers the benefit per adult from $4,000 to $3,150.

Similarly, the Single Parent Plus Plan not only raises the benefit to a single parent from $4,000

to $6,000, but also raises the benefit to all children from $2,175 to $3,000, and lowers the benefit

for all other adults to $3,000.

Financing of The BIG Plans

Three of the four BIG plans are paid for solely by offsets from Old Age, Survivors, and

Disability Insurance (OASDI) and the elimination of 115 other existing federal programs. The

Adult Plus Plan, the most generous of the plans, requires additional taxation of all citizens

amounting to slightly over 5 percent of gross income for all citizens. Table 2 illustrates how the

Standard Plan is financed. In 1994, there were approximately 70 million children, 160 million non-aged adults, and 30 million aged adults. Thus, the gross costs of the Standard Plan equal 70 million times $2,175, plus 160 million times $4,000, plus 30 million times $8,000, or $1,032 billion. Making the BIG taxable and eliminating exemptions raises $170 and $118 billion in tax, reducing the net cost of the BIG to $743 billion.

As described above, recipients of OASDI receive either their existing OASDI benefits, or the BIG, whichever is higher. As of 1994, OASDI beneficiaries received $313 billion. Because they can receive either the BIG or their OASDI benefit, but not both, most of the cost of the BIG for these beneficiaries is offset by existing OASDI benefits. Indeed, as Table 2 shows, all but $37 billion of the current costs of OASDI, or $276 billion, offset the costs of the BIG.

The last section of Table 2 contains a list of the eliminated programs. The budget numbers included in this part of the table are taken from one of two government-published records that reflect actual expenses: the 1993 Green Book or the 1995 Catalog of Federal Domestic Assistance. As indicated in the Table 2, the total expenditures for the excluded programs were $467 billion in 1994, including $256 billion of Tax Expenditures programs, $90 billion of Direct Income Support Programs, $48 billion of Special Needs and Social Service Programs, $36 billion of Housing Subsidies, $14 billion of Business and Economic Development, $9 billion of Student

Table 2

Financing The BIG Plan

PROGRAM	1994 Budget
	(Million)
I. Gross Costs of BIG	1,030,888
II. Financing	1,031,418
1. **Revenue from Taxing BIG**	169,851
2. **Eliminating Personal Exemptions**	118,227
3. **Offsets in Social Security**: The amounts of Old Age, Survivors,	275,694
and Disability Insurance ($312.84 billion) minus harmlessness costs	
Of standard plan ($37.15 billion).	
4. **Elimination of Federal Programs**	467,646
A. Tax Exemption/Exclusions	256,400
B. Direct Income Support Programs	89,845
C. Special Needs/Social Services	48,057
D. Housing	36,406
E. Business/Economic Development	14,883
F. Student Loans	9,033
G. Farm Subsidies/Price Supports	8,616
H. Employment Programs	4,406

Loans, $9 billion of Farm Subsidies and Price Supports, and $4 billion of Employment

Programs. A more detailed list of programs included in these broad categories is provided in

Appendix A.

The Adult Plus Plan requires additional financing equivalent to a proportional tax on all income

of .0548 percentage points.

DATA AND METHODOLOGY

Microsimulation models provide useful tools for analyzing the effects of proposed

changes in government programs especially when the changes involve interactions among more

than one government program, and behavioral responses such as decisions to work. Therefore, we use a microsimulation model to estimate the effectiveness, first, of existing anti-poverty measures and, then, of four proposed BIG plans, in reducing poverty, decreasing the poverty gap, and redistributing income. The approach takes data on a large number of families and mimics the way that current and then alternative government programs would apply to each individual described in the records. (Citro and Hanushek, 1991)

Using specific employment, income, and demographic data on each of the 63,756 families in the 1995 March Current Population Survey (CPS) sample, the microsimulation replaces the reported level for 1994 of cash, in-kind and other programs, and tax benefits (including personal exemptions) for each family in the sample with a BIG. In a simplistic example, if a family of three receives AFDC, Food Stamps, and a housing subsidy, the income from these benefits would be subtracted from their current total income and replaced, in the Standard Plan, with $4,000 for the adult and $2,175 for each child for a total of an $8,350 BIG to this family. Each family in the sample is treated individually, and the data is maintained as part of the total.   This is a far more exacting way of examining the effects of policy on poverty than techniques based on aggregate information.

Since we first ran these simulations, there have been significant changes in the welfare laws, the way the welfare benefits are funded, and in the extent to which people participate in the program. Changes in welfare benefits were accompanied by changes in child care benefits and job training programs. Also, use of the EITC increased as more people went to work in the late-nineties and the Balanced Budget Act of 1997 improved its enforcement; and, the tax laws have changed. Despite these numerous shifts, we have chosen to stay with the original 1995 data. If we had used a later year in the 1990's, we would expect that the simulation results might show

smaller losses at the bottom, however we do not think that the results would be dramatically

different for a number of reasons. The programs that have changed are relatively small programs;

changes in some programs are offset by changes in others (e.g., while TANF recipients have

decreased, EITC recipients have increased); and, many of recent tax changes are set for the

future. Additionally, remaining with the 1995 data provides more conservative estimates of the

benefits of the BIG simulations. Data from 2000, at the peak of the business cycle, would likely

result in overestimating how well the BIG plans would do in more typical times.

We used a seven-step procedure in each simulation, except for the Adult Plus Plan in

which an eighth step was added. The steps of the microsimulation model are:

1. Select Representative Population Data Base, 1995 March CPS

2. Reconcile the Microdata from the CPS with Administrative Record Data

3. Impute the Value of the In-Kind and Other Programs

4. Calculate the Value of the Current System (Posttransfer and Posttax Income Plus In-Kind and Imputed Benefits) from Pretransfer and Pretax Income

5. Eliminate the Current System

6. Simulate the BIG Plans

7. Adjust for Labor Supply Change of Poor People

8. For Adult Plus Plan: Add In the Financing of the System

Step 1: Select Representative Population Data Base

This simulation is based on the 1995 March CPS. The CPS, conducted by the U.S.

Bureau of the Census, is a monthly cross-sectional survey of a large sample of the U.S.

population. In the 1995 survey, CPS interviewed 63,756 families, which included 149,642

people. This sample is drawn from the U.S. population of 69 million families or 262 million

people. The survey contains data on labor force status and income for people, ages 15 and older. Data collected for the basic CPS include demographic characteristics such as age, gender, race, marital status and educational attainment; and, labor force participation data such as usual weekly earnings, number of hours worked, and type of work. Annually, in March, supplemental employment and income-related data are collected including use of public and private transfer programs and receipt of non-cash benefits, such as food stamps. Income-related data is based upon income from the prior year.

Step 2: Reconcile the Microdata (CPS) with Administrative Record Data

For the AFDC and Food Stamps programs, for example, discrepancies were noted in both the number of recipients and the aggregate costs between the data from the CPS and the administrative data recorded in the 1996 Green Book and the 1995 Catalogue of Federal Domestic Programs. We, therefore, reconciled the data using the eligibility criteria described in the 1996 Green Book. Discrepancies are due, we believe, to the underreporting of the receipt of benefits. Underreporting occurs when recipients do not report the benefit at all, or report an amount lower than the actual amount of the benefit received. It may be the result of the stigma attached to receiving income-tested benefits.

If the number of recipients reported in CPS data was less than the number reported in the 1996 Green Book, we examined the CPS data to determine how many people who were eligible to receive the benefit did not report receiving it. If the number of recipients reporting the benefit plus the number of eligible people-not reporting was equal to or slightly higher than the number reported in the administrative data, we assumed conformity. CPS data counts the number of recipients during the previous year; Green Book data is based on the average monthly recipients. We expected, therefore, that the imputed CPS data would be

somewhat higher than Green Book data. See Appendix B for additional detail on other programs.

Step 3: Allocate the Value of the In-Kind and Other Programs to the CPS Data

The value of most in-kind programs and some other programs is not included in the CPS data. We, therefore, estimated the value of the benefits from these programs. This value was then added to each family's posttransfer and posttax income to get the income of posttransfer, posttax, and in-kind and imputed benefits. There are two parts to the calculation of in-kind and other programs:

(1) Determine the amount of in-kind and other program benefits that each family is likely to receive based on the budgeted amount. The allocation is based on the incidence assumption of each program as indicated in Column 2 of Appendix A. Six different allocation methods were assumed because of the different methods that the programs use to distribute funds. Where CPS is indicated in the incidence assumption column of an in-kind benefit, the allocation method is described in Appendix B.

(2) Discount the amount calculated in the first step by a percent to reflect the actual value of the benefit received. This reflects a discount for administrative costs and the fact that the actual value of in-kind benefits and services is lower than the value of cash. The Food Stamps program in 1993 was $26 billion, of which $3.2 billion were for administration costs. In addition, in-kind benefits or services are worth less to recipients than cash because their use is restricted. Therefore, the aggregated value of Food Stamps for these recipients is less than $22.8 billion. To determine what percent would show up in the family income of recipients, we estimated the value of the in-kind and other programs at three levels: 100%,

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75%, and 50% (see Table 3). The 100% and 50% assumptions allowed us to bracket the high and low projections respectively. We used the 75% assumption, the intermediate projection, for the microsimulations believing that this most accurately reflected the actual benefit.

Step 4: Calculate the Value of the Current System (Posttransfer and Posttax Income Plus In-Kind and Imputed Benefits) from Pretransfer and Pretax Income

The family income presented in the CPS data reflects all cash-transfers, without incorporating tax liability. This is the posttransfer, pretax income. In this step, we first calculate the pretransfer, pretax income by subtracting all the cash-transfer benefits. Then, each family's tax liability for federal income tax, earned income tax credit (EITC), and payroll tax is deducted from the posttransfer, pretax income. We then distribute the in-kind benefits and other program benefits into posttax, posttransfer income. This gives us the Current System, each family's posttransfer, posttax income plus in-kind and imputed benefits at the 100%, 75%, and 50% levels.

Step 5: Eliminate the Current System

In this step, we removed all the benefits of the current system from family income. We started by removing in-kind benefits and benefits from other programs from the current system income at the 75% assumption. Then, we took away the tax exemptions and exclusions. Since the cash-transfer benefits were included in the CPS data, we deducted the value of the benefit at the micro level directly, using CPS data.

Step 6: Simulate the BIG Plans

In this step, we allotted the BIG benefits to each person. The criteria to determine the amount of BIG was based on age and family status, that is, whether you are an adult in a one- or a two-parent family. Recipients of OASDI are treated differentially depending on whether the BIG amounts exceed their OASDI benefits.

Step 7: Adjust for the Labor Supply Change of Poor People

Step 6 produces family incomes before the labor supply change. In step 7, we assume that 100% of the poor adults able to work will find jobs half-time jobs (20 hours a week) at the minimum wage ($5.15 per hour) because the BIG plans do not penalize individuals who earn additional income. This new earned income is added into the family income to arrive at the "After Labor Supply Change" family income. In actuality, the true labor supply change will probably lie somewhere in between the 0% change and the change to half-time work. Our calculation merely provides lower and upper estimates.

Step 8 (for the Adult Plus Plan): Add In the Financing of the System

In the Adult Plus Plan, the cost of the BIG exceeded the cost of the current system by $233 billion. In order to finance this system, an increase in income tax rates of 0.0548 is imposed.

We make a number of assumptions that merit further examination. Most important, the labor supply change assumption most likely overestimates the number of people who will go to work as a result of the BIG plan, and the values attributed to in-kind benefits may vary from the actual value of these benefits.

EFFECTS OF BIG ON POVERTY AND INCOME DISTRITUION

To place our results for poverty reduction in historical perspective, we begin this section with a brief review of the recent trend in US social welfare expenditures and poverty rates. Then we present our simulation estimates of the effects of various BIG proposals on poverty, and the vertical and horizontal distribution of income.

The US context

After a sharp drop between 1959 and 1969, when the economy boomed and social spending increased substantially, the US poverty rate reached a low point of 11.1% in 1973 and leveled off through the decade (Danziger, Sandefur, and Weinberg, 1994). Social spending continued to grow during the 1970's even as the economy slowed, so that the poverty rate was kept in check (Burtless, 1994). The rate began climbing again in the 1980's and into the 1990's (U.S. Bureau of the Census, 1995) as real wages of low income people continued to fall, real government social spending declined, especially in programs directed at the poor, and the number of female-headed single-parent families increased (Burtless, 1994).

In 1994, the year we use as the point of departure for our simulations, the poverty threshold for a family of four was $15,141[1] and the percentage of people living in poverty was as high as in the late 1960's. The poverty gap, the amount by which the income of a poor family falls below the poverty line, for the median poor family had increased from about $1,300 to over $5,000, in 1990 dollars (Danziger and Weinberg,1994). And, the

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[1] The poverty threshold is a measure "developed in the early 1960's as a indicator of the number and proportion of people with inadequate family incomes for needed consumption of food and other goods and services" (Citro and Michael, 1995). It is based on the assumption that an adequate family income is three times the cost of the minimum diet. The poverty threshold is adjusted for family size and, for some family types, it is adjusted based on the age of the head of the household. The current method of calculating the poverty threshold does not incorporate the value of in-kind benefits, certain expenses incurred by families such as child care, or regional differences in cost of living   The poverty threshold is also infrequently reassessed and does not take into account current economic conditions. Although using three times the minimum food budget as a standard when the poverty rate was first developed raised people out of poverty, under current conditions in which housing costs are the most significant

distribution of wealth in the U.S. had become increasingly concentrated among the wealthiest

Americans (Danziger and Weinberg, 1994). In 1994, the poverty rate after accounting for

cash transfers was 14.4% for adults, 21.2% for children and 11.7% for the elderly, with

female-headed single-parent families and minority households struggling disproportionately.

As the economy strengthened in the mid-nineties, the poverty rate peaked and then

began to decline. By 2000, the percentage of people living in poverty had declined to 11%

from its high of 15% in 1994; and, the poverty rate for children had declined to 16.2% after

being as high as 22% in the mid-nineties. The poverty threshold in 2000 was $17,603.

The Effect of BIG on poverty

All four BIG plans reduce the aggregate poverty rate and the aggregate poverty gap.

This is true no matter which assumption is made about the value of in kind benefits to

recipients. In a few cases, some subgroups are made worse off, if we assume that the worth

of in-kind benefits to recipients is 100% of its cost to taxpayers. This assumption is clearly

false. Recipients gain nothing from administrative costs. We confine the rest of the

comparisons to the assumption that recipients value the benefits at only 75% of cost. We

believe to be the most scientifically accurate of the assumptions.

The adult plus plan does the best job of reducing the poverty rate--from 10% to under

6% if there are no labor supply improvements and to under 2% with labor supply

improvements. These are very significant improvements. Similarly, the poverty gap would

be cut by more than half even without a change in labor supply--from $42 billion to $17

billion -- and with a large labor supply response, by more than 80%! It is not surprising that

part of family budgets, the food standard is questionable.

the Adult Plus Plan does the best job of combating poverty. It is the most expensive to finance.

The Child Plus Plan, which requires the same financing as the Standard Plan, does virtually as good a job as the Adult Plus Plan in reducing the poverty rate and nearly as well in reducing the poverty gap.   The Child Plus Plan also does a better job of reducing child poverty down to 8% as compared to 11% for the Adult Plus Plan. All plans provide the elderly with an $8,000 benefit; this immediately raises all recipients above the poverty line. Hence, poverty rates fall to 0.3% or less.

The Effect on the Vertical Distribution Of Income

The redistribution effect of the current system on income shares is significant in comparison to the pre-transfer, pretax system. This is particularly true in the lowest and highest quintiles. Before transfer and tax, the lowest 20% of earners received less than 1% of the income; the highest received 50%. The current system raises the lowest quintile to 5% and reduces the highest quintile to 43%.

All of the BIG plans favor the first three quintiles, both before and after the labor supply change. However, the degree of additional redistribution is small compared to the

Table 3

The Effects of the Current Tax Transfer System and BIG Plans on Poverty

	Poverty Rate of Persons	Poverty Rate of Children	Poverty Rate of Elderly	Poverty Gap (billion)
Pretransfer [1,] Pretax [2]	0.2243	0.2572	0.5038	189.68
Posttransfer, Pretax	0.1437	0.2170	0.1159	79.75
Posttransfer, Posttax	0.1441	0.2121	0.1166	78.06
Current System [3] (100%)	0.0859	0.1206	0.0588	34.05
Current System [4] (75%)	0.1001	0.1455	0.0682	42.15
Current System [5] (50%)	0.1168	0.1729	0.0817	52.27
BIG Plans				
Standard Plan [6]				
Before Labor Supply Change [7]	0.0783	0.1347	0.0029	28.97
After Labor Supply Change	0.0256	0.0503	0.0021	10.78
Child Plus Plan [8]				
Before Labor Supply Change	0.0605	0.0809	0.0000	23.66
After Labor Supply Change	0.0157	0.0205	0.0000	9.45
Single Parent Plus Plan [9]				
Before Labor Supply Change	0.0681	0.1026	0.0013	25.25
After Labor Supply Change	0.0175	0.0226	0.0012	10.39
Adult Plus Plan [10]				
Before Labor Supply Change	0.0581	0.1128	0.0030	17.42
After Labor Supply Change	0.0181	0.0342	0.0026	7.97

Note:

1. Pretransfer: Before any Cash Transfer (including General Assistance) Programs.

2. Pretax: Before Federal Income Tax, Payroll Tax, and Earned Income Tax Credit.

3. Current System: Posttransfer, Posttax, and in-kind and all other Programs except tax expenditures. The assumption is that the actual value of benefits from in-kind and other programs is 100 percent of face value of the benefit.

4. Same as 3, but the assumption is 75 percent of the face value.

5. Same as 3, but the assumption is 50 percent of the face value.

6. Standard Plan: Elderly $8,000, Adult $4,000, and Child $2,175 per year. OASDI kept harmless, i.e., people receive the BIG or OASDI, which ever is higher.

7. Labor Change: Each poor able-bodied adult with the implementation of a BIG plan is assumed to have a part time job (20 hours per week) with minimum wage ($5.15 per hour).

8. Child Plus Plan: Elderly $8,000, Adult $3,150, and Child $4,000 per year. OASDI kept harmless.

9. Single Parent Plus Plan: Elderly $8,000, First Adult with children $6,000, other adult $3,000, and Child $2,700 per year. OASDI kept harmless.

10. Adult Plus: Elderly $8,000, Adult $6,000, and Child $2,000 per year. OASDI kept harmless. Since the plan's cost exceeded the eliminated amounts by $233 billion. The authors finance it through a proportional tax rate of 0.0548.

redistribution already achieved by the current system -- less than a 1 percentage point increase in the first quintile in almost all cases.   (The Adult Plus Plan is slightly higher at 1.24%). In comparison, the two highest quintiles do not benefit under the BIG plan. The fourth quintile receives a slightly higher share (never more than 0.2%) before the labor supply change and a slightly lower share (never more than 0.23%) after the change. The highest quintile receives a lower portion both before and after labor supply change. Under the Adult Plus Plan, in which we impose a tax on the states which is assumed to be equivalent to a proportional income tax on individuals, the income share in the highest quintile decreases more than 2%.

The Effect on the Horizontal Distribution of Income

To simplify the discussion, Table 5 presents the results only for the simulations which include no labor supply increase. Except for the bottom quintile, the results are virtually identical for the labor supply increase simulations. The bottom quintile results without the labor supply increase are more conservative estimates of the gains to the poor.

Perhaps the most striking aspect of Table 5 is the large percentage of families in the first four income quintiles who experience either significant increases or decreases in their incomes. In the standard plan, for example, over 80% of families in the bottom quintile gain or lose 10% or more, and the figures for the next three quintiles are 71%, 61%, and 46%. Note that within the first three quintile, while more families gain than lose, a large minority of families in these quintiles experience significant losses. The BIG plans redistribute a lot of

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Table 4

The Effects of the Current Tax Transfer System and BIG Plans
on the Vertical Income Distribution

	1st Quintile	2nd Quintile	3rd Quintile	4th Quintile	5th Quintile
Pretransfer [1,] Pretax [2]	0.0085	0.0716	0.1530	0.2632	0.5038
Current System [3]	0.0511	0.1060	0.1648	0.2514	0.4267
BIG Plans					
Standard Plan [4]					
Before Labor Supply Change [5]	0.0544	0.1086	0.1709	0.2526	0.4135
After Labor Supply Change	0.0607	0.1100	0.1699	0.2501	0.4094
Child Plus Plan [6]					
Before Labor Supply Change	0.0541	0.1084	0.1709	0.2533	0.4133
After Labor Supply Change	0.0594	0.1099	0.1700	0.2511	0.4096
Single Parent Plus Plan [7]					
Before Labor Supply Change	0.0539	0.1077	0.1717	0.2533	0.4134
After Labor Supply Change	0.0591	0.1102	0.1702	0.2511	0.4094
Adult Plus Plan [8]					
Before Labor Supply Change	0.0590	0.1118	0.1743	0.2531	0.4018
After Labor Supply Change	0.0635	0.1126	0.1736	0.2513	0.3990

Note:

1. Pretransfer: Before any Cash Transfer (including General Assistance) Programs.

2. Pretax: Before Federal Income Tax, Payroll Tax, and Earned Income Tax Credit.

3. Current System: Posttransfer, Posttax, and post-imputation of in-kind and all other programs except tax expenditures, using the assumption that actual value of in-kind and other program benefits is 75 percent of face value.

4. Standard Plan: Elderly $8,000, Adult $4,000, and Child $2,175 per year. OASDI kept harmless, i.e., people will get the BIG or OASDI, which is higher.

5. Labor Change: Each poor able-bodied adult with the implementation of BIG plans is assumed to have a part time job (20 hours per week) at minimum wage ($5.15 per hour).

6. Child Plus Plan: Elderly $8,000, Adult $3,150, and Child $4,000 per year. OASDI kept harmless.

7. Single Parent Plus Plan: Elderly $8,000, First Adult with Children $6,000, Other Adult $3,000, and Child $2,700 per year. OASDI kept harmless.

8. Adult Plus Plan: Elderly $8,000, Adult $6,000, and Child $2,000 per year. OASDI kept harmless. This plan also imposes a proportional tax to finance the budget. The tax rate is 0.0548.

Table 5

The Effects of the Current Tax Transfer System and BIG Plans
on the Horizontal Income Distribution

	1st Quintile	2nd Quintile	3rd Quintile	4th Quintile	5th Quintile
Current System					
Percentage of Winners [1]	0.7495	0.5317	0.2913	0.1450	0.0477
Percentage of Losers [1]	0.0725	0.3073	0.5500	0.7541	0.8482
Mean Increase of Winners	5,883	9,512	11,503	12,441	19,723
Mean Decrease of Losers	1,597	3,009	5,093	8,945	22,695
BIG Plans [2]					
Standard Plan					
Percentage of Winners	0.4706	0.4743	0.4358	0.3702	0.0578
Percentage of Losers	0.3601	0.2472	0.1702	0.0927	0.0606
Winners' Mean Increase	2,557	3,269	5,395	6,227	7,683
Losers' Mean Decrease	3,164	4,627	7,245	10,875	15,745
Child Plus Plan					
Percentage of Winners	0.4716	0.3106	0.4078	0.3752	0.1005
Percentage of Losers	0.3399	0.2550	0.1757	0.0968	0.0628
Winners' Mean Increase	2,241	4,233	5,816	7,638	7,880
Losers' Mean Decrease	3,033	4,547	7,350	10,797	15,676
Single Parent Plus Plan					
Percentage of Winners	0.4757	0.3050	0.4005	0.3995	0.0789
Percentage of Losers	0.3376	0.2555	0.1771	0.0991	0.0633
Winners' Mean Increase	2,116	4,352	6,059	7,291	7,266
Losers' Mean Decrease	2,978	4,559	7,340	10,674	15,660
Adult Plus Plan					
Percentage of Winners	0.4647	0.6014	0.4688	0.4445	0.0881
Percentage of Losers	0.3872	0.2390	0.1518	0.0899	0.0803
Winners' Mean Increase	3,551	3,791	6,603	7,114	8,624
Losers' Mean Decrease	3,217	5,737	9,202	12,605	16,864

Note:

1. Winners or losers are those with 10% more or less income than with the previous income base. The income base of current system is pretransfer and pretax, while the base of BIG plan is the current system.
2. All the numbers among alternative BIG plans are before labor supply changes

money even within quintiles because they are much less discriminatory than the current mix of programs.

HOW BIG SHOULD BIG BE?

With one exception, the plans simulated in this proposal are modest sized BIGs. All are financed from the elimination of other domestic programs and tax expenditures. The Adult plus plan requires an additional 5.5 percentage points in income tax rates to finance, but achieves more poverty reduction. Non-aged adult benefits could be raised another $2000 to equal the aged benefit of $8000 at an additional cost of $320 billion, or 5.7 percentage points of additional income taxation. Why stop with modest programs? Why not have a much bigger BIG?

There are several answers. First, BIG is not the only desirable social welfare program. Universal Education and health care are two achievements of the welfare state that few BIG advocates would (or should) quarrel with. Each increases human capital and hence the productivity of citizens more than any cash benefit can hope to achieve. Though the US pioneered the provision of free public education and the rest of advanced industrialized nations did not catch up in secondary education until after World War II, a few countries have surpassed the US in very early childhood education. Sweden and France, for example, have nearly universal provision of child care for children. For the US to provide free universal child care would cost around $120 billion (Bergmann, 2002). Other BIG advocates may want to add a universal wealth transfer to their menu of desired reforms (Haveman, 1988; Ackerman and Alstott, 1999). Ackerman and Alstott estimate that a $80,000 stake for all adults reaching age 18 would cost about $268 billion annually. Finally, some of the

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programs eliminated in our simulations are undoubtedly worth keeping because for each

dollar spent they produce more than one dollar's worth of benefits. For example, at a cost of

about $50 billion, we could redesign a less expensive Unemployment Insurance System and

retain Head Start, WIC, Child Care, Student Loans, and Job-Training Programs. This $50

billion shortfall could be financed either by reductions in the BIG of under $200 per person.

Other readers may want to retain other programs. For this reason, we encourage each reader

to review the list of programs in Appendix A.

Second, in addition to social welfare programs, government provides law and order,

defense, and transportation and communication infrastructure. These public goods must be

financed as well as BIG and other social welfare programs. If the aggregate tax rate becomes

too high, incentives will be blunted and productivity and growth will suffer.

Third, as a general matter in public finance, it is a mistake to rely too heavily on any

single instrument—be it a tax or a transfer. Every tax and transfer has adverse incentives. In

general the adverse effects grow more than proportionally with the size of the tax or benefit.

Thus while a little or modest BIG, is in our judgment highly desirable, a very big BIG is not

desirable. Financing a very big BIG would require high marginal tax rates on earnings and

other sources of income which will discourage work in the legitimate labor market for the

bulk of the population much like our current welfare programs discourage legitimate work

amongst our poorest citizens.

The reader will note the similarity of the arguments made in this section to those

made by Bergmann in her paper. We agree that the left in the US should not advocate BIG

as a substitute for other advances in the welfare state such as universal health care and child

care. Where we disagree is on the utility of a small to modest BIG as a substitute for many

existing programs, including partial substitution and restructuring of social insurance

programs (see Garfinkel, 1983) and a complement to universal systems of health, education,

and child care, and social insurance.

SUMMARY AND CONCLUSION

The BIG plans we simulate decrease poverty more effectively than the current

system. This highlights the fact that some of the benefits in the current system, such as tax

expenditures favor the rich instead of the poor or the middle class. All the BIG plans

redistribute income from the highest quintiles to the lower ones.   BIG not only more

equitably distribute income among the quintiles, but the distribution of benefits is more

equitable within the quintiles, particularly for people in the first quintile.

The different BIG plans have different effects on poverty and income distribution.

Among them, the Adult Plus Plan is the most redistributive of the plans. It decreases the

poverty rate of persons most significantly, and favors the first three quintiles, instead of only

the first quintile. The Adult Plus Plan, however, is not self-financing. The equivalent of a

proportional tax on income of 0.0548 is required to finance the plan. Thus, losers' mean

decreases in the Adult Plus Plan are the highest among the plans. In contrast the Children

Plus and the Single-Parent Plus Plans are self-financing and more focused on children and

the first quintile. The disadvantage of the Children Plus Plan is that it may be too pronatalist.

Similarly, the Single Parent Plus Plan, by rewarding single parenthood, may encourage its

growth. If the Single Parent Plus Plan is achieved via a child support assurance system,

however, it will do more good at less cost and will have smaller effects on single parenthood than simply increasing benefits for all single parents (Garfinkel, 1992). These refinements, however, should not obscure the basic lesson. A small to modest BIG is a good fundamental building block for the modern welfare state.

Because other welfare state programs and other government functions are also valuable and because a very large BIG would have undesirable incentive effects, a small to modest BIG is preferable to a big BIG.

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Appendix A: Detailed List of Programs that Offset Costs or Are Eliminated: Budget Costs and Assumptions about Their Incidence

PROGRAM	1994 Budget (Million)	Incidence Assumption
I. Offsets in Social Security		
The amounts of Old Age, Survivors, and Disability Insurance ($312.84 billion) minus harmlessness costs of standard plan($37.15 billion).	**275,694**	CPS [1]
II. Elimination of Federal Programs		
A. Tax Exemption/Exclusions		
Exc. of Pension Contribution & Earning	55,300	Note [2]
Deductibility of Mortgage Interest	45,500	Note [3]
Exc. Employer Contri. for Med. care & Insurance Premiums	36,700	Note [2]
Exc. of Soc. Sec. & RR Benefits	28,000	Note [4]
Deduct. Of property tax on Owner-occupied Housing	13,700	Note [3]
Exc. of Medicare Benefit	13,100	Note [5]
Deferral on Sale of Principal Residence	14,300	Note [3]
EITC	12,200	Note [6]
Tax Expenditure related to Employment	7,200	Note [2]
Individual Retirement Plans	6,200	Note [2]
Tax Expend. related to elderly & disabled	5,900	Note [7]
Exc. on Sale of Resid. of person 55 & over	4,700	Note [8]
Deductibility of Medical Expense	3,500	Note [2]
Keogh Plans	3,000	Note [2]
Exc. of Interest on Bonds for Owner-occupied and Rental Housing	2,800	Note [3]
Depreciation of Rental Housing in Excess of Alternative System	1,500	Note [3]
Credit for Child Medical Insurance Prem.	1,300	Note [2]
Low-Income Housing Tax Credit	1,500	PP
Subtotal	**256,400**	
B. Direct Income Support Programs		
Unemployment Insurance	27,274	CPS
Public Assistance (AFDC and General Assistance) [14]	26,612	CPS
SSI [15]	24,460	CPS
SSI Administration costs [15]	3,695	GI [9]
Public Assistance Administration costs [15]	3,282	GI
Unemploy. Insurance Administration costs [15]	2,485	GI
Low Inc. Energy Asst.	1,737	CPS
Weatherization Asst.	206	CPS
Indian Gen Asst.	84	PP
Soc. Sec. Res. & Dev.	10	GH [10]

Subtotal	**89,845**	
C. Special Needs/Social Services		
Food Stamps	24,434	CPS
Food Stamps Administration costs [15]	3,665	GI
School Lunchs	4,350	CPS
Head Start	3,325	CPS
Title XX - Social Service	2,807	PCP [11]
WIC	2,480	CPS
Child & Adult Care Food Prog.	1,355	PCP & PEP [12]
Various Food Programs	104	PP
School Breakfasts	958	CPS
Child Care Block Grant	892	PCP
Spec. Programs for the Aging	725	PEP
Empowerment Zones	640	GI
Comm. Serv. Block Grant	396	GH
Corp. for Nat. & Community Service	348	GH
At Risk Child Care	275	PCP
Summer Food Program	243	CPS
Emer. Comm. Serv. for Homeless	198	PP [13]
Nutrition Programs for the elderly	149	PEP
Food Donation	118	PP
State Admin. Expenses for Child Nurtrition	86	CPS
Emer. Food Asst.	80	PP
Indian Child & Native American Programs	74	PCP
Refugee Assistance	62	PP
Family Preservation	59	PCP
CSBG Discretionary, Food & Demo	56	PP
Comprehensive Child Dev. Center	46	GH
Food for Soup Kitchens	40	PP
Runaway & Homeless Youth	36	PCP
School Milk Program	19	CPS
Social Service Research & Demo	13	PCP
Transitional Living for Homeless Youth	12	PCP
Fam. Support Ctr/Gateway	7	PCP
WIC Farmers Marketing Nutrition Program	5	PCP
Subtotal	**48,057**	
D. Housing		
S.8 Vouchers	14,576	CPS
Off. of Policy & Research	7,506	GH
Low Income Hsng Asst. (S.8)	5,158	CPS
Comm. Dev. Block Grant	3,003	PP
HOME	1,275	CPS
CDBG/States	1,232	GH
Supportive Housing for the elderly	1,162	PEP
Pres. of Affordable Hsng	398	PP
Supportive Housing/Disabled	395	PP
Elderly Home Equity Conversion Mortgage	347	PEP

Shelter Plus	266	PP
Public & Indian Housing	263	GH
Supportive Housing	150	PP
Operating Assistance for Troubled Projects	136	PP
Emergency Shelter Grants	115	PP
S.8 Pension Fund Demo	100	PP
HOPWA	100	PP
Hope 1, Hope 2, and Hope 3	92	PP
Small Cities	54	PP
Youthbuild	40	PP
Congregate Housing for the elderly	22	PEP
Housing Counseling Asst.	10	GH
Historically Black Colleges and University	6	GH
Subtotal	**36,406**	

E. Business/Economic Development

Small Business Admin	14,568	GI
Appalacian Programs	213	GI
Overseas Private Investment	75	GI
TVA Eco. Dev.	18	GI
Comm. Asst. Prog. (Flood Insurance)	4	GI
Indian Business Dev.	3	GI
CD Revolving Loan Program	2	GI
Subtotal	**14,883**	

F. Student Loans

Pell Grants	6,424	GH
Vocational Ed. Grants	955	PCP
Fed. Work Study	620	PP
Fed. Sup. Ed. Opty Grants	585	PP
Upward Bound	162	PP
Student Support Services	140	PP
State Student Incentive Grants	72	GH
Voc. Ed./Consumer & Homemaking	33	GH
Indian Higher Ed. Grants	29	PP
Voc. Ed./State Councils	9	GH
Legal Training/Disadvantaged	2	GH
College Asst. / Migrant	2	GH
Subtotal	**9,033**	

G. Farm Subsidies/Price Supports

Conservation Reserve Prog.	1,735	CPS
Wheat Stabilization	1,692	CPS
Free Grain Stabilization	1,538	CPS
Commodity Loans & Purchase	1,524	CPS
Cotton Stabilization	1,323	CPS
Rice Stabilization	559	CPS
Wool & Mohair	201	CPS
Emergency Conservation	29	CPS

Farmer Owned Reserve Prog.	12	CPS
Small Farmer Outreach Trng	3	CPS
Subtotal	**8,616**	
H. Employment Programs		
JTPA	3,505	CPS
JOBS	872	CPS
Apprentice Trng Adv. Serv.	17	CPS
Emp. & Trng R&D	12	CPS
Subtotal	**4,406**	
Total programs can be eliminated	**743,340**	
Total programs can be eliminated (except OA and SSI)	**522,449**	

Note:

1. CPS (Current Population Survey): The expenditure is distributed by micro level data.
2. The tax expenditure is allocated by the ratios of third party health care benefits according to income levels, as expressed in Table B1 in Irwin Garfinkel (1996).
3. The tax expenditure is allocated by the ratios of mortgage and tax credit according to income levels, as expressed in Table B1 in Irwin Garfinkel (1996).
4. The tax expenditure is allocated by the proportion of the Social Security and Railroad Retirement benefits received within each household.
5. The tax expenditure is allocated by the criteria of receipt or not of Medicare.
6. The tax expenditure is allocated by the formula of EITC.
7. The tax expenditure is allocated to subjects who are elderly or disabled in proportion to their income.
8. The tax expenditure is allocated to subjects 55 years old or over using ratios of mortgage and tax credit according to income levels, as expressed in Table B1 in Irwin Garfinkel (1996).
9. GI (General Expenditure related to Income): One-half of the expenditure is distributed equally to each family and the other one-half expenditure is distributed by the income portion of the family.
10. GH (General Expenditure related to Household): The expenditure is distributed equally to each household.
11. PCP (Program related to Child and Poverty): One-half of the expenditure is distributed equally to each poor household (below poverty) with child, the other one-half expenditure is equally allotted to families with child between one and two times poverty line.
12. PEP (Program related to Elderly and Poverty): One-half of the expenditure is distributed equally to each poor household (below poverty) with the elderly, the other one-half expenditure is equally allotted to families with the elderly between one and two times poverty line.
13. PP (Program related to Poverty): The 40 percent of the expenditure distributed to the families below 1/2 poverty level, the 35 percent expenditure to the families over 1/2 but below poverty level, and the other 25 percent expenditure to the families over poverty but below 1.5 poverty level.
14. Public Assistance, including AFDC and General Assistance, counted as two programs.
15. Program benefits and administration costs counted as one program, including SSI, Food Stamp, Unemployment Insurance, and Public Assistance programs.

Appendix B : Differences In and Reconciliation Of Administrative Reports and CPS Reports on Expenditures and Recipients

Program(s)	Admin Expend (billion)*	CPS Expend (billion)	Admin Number Recipient (million)#	CPS Number Recipient (million)	Avg Benefit/ Household	Imputation Assumption of Recipients	Imputation Assumptions for Benefits
OASDI: Old Age, Survivors, and Disability Insurance	312.88 billion (b)	273.49 b				Use the administrative numbers since the CPS data is somewhat skewed because some of the recipients are in institutions and therefore are not available to survey. (1994 Green Book, pp. 890-1)	
SSI	24.46 b	17.74 b				Same as OASDI.	
AFDC	22.79 b	16.49 b	5.04 million (m)	3.91 m		All eligible single mothers with family income lower than the government guaranteed income are assumed to participate.	After participant imputation, the aggregate number matches the administrative data. Participant imputation results in 1.51 m additional recipients adding 6.3 b to the CPS benefit.
Food Stamps	24.43 b	17.70 b		10.24 households (hh)		In addition to recipients reported in CPS, assume that families with incomes < 30% of the poverty line have an 80% probability of participation; families with inc. between 30-60% of poverty line have 50% participation; families with income 60-100% of poverty line have a 20% participation rate; and, all families eligible but over the poverty line reported. (Long, 1986)	After participant imputation, the aggregate number matches the administrative data.
Program(s)	**Admin Expend**	**CPS Expend**	**Admin Number**	**CPS Number**	**Avg Benefit/**	**Imputation Assumption of Recipients**	**Imputation Assumptions for Benefits**

	(billion)*	(billion)	Recipient (million)#	Recipient (million)	Household		
Housing: S8, Low Income Hsng Asst, and HOME	$21.009 b			5.36 m hh	$3,919		Assume total benefits of housing program is equally distributed to each household participating in program.
Energy Assistance: Includes weatherization assistance	$1.943 b		5.2 m hh	3.91 m recipients; 2.37 are poor.	$193	Assume that the underreported participants are families below the poverty line. The difference between the data from two sources is 1.29 m. There are 17.16 possible poor households, 2.37 million of which are reported in the data. The probability of a household not reporting is 1.29/(17.16-2.37)=0.087.	Assume that the imputed recipients have the mean benefit of the participants in the CPS data ($193). Then use a fixed ratio to bring the aggregate benefit to match the expenditures. The ratio to bring the fixed benefit per household to match the budgeted amount is 1.94.
Farmer's Benefits: 10 programs as per Table 1 Section VII	$8.616 b			2.38 m hh			All farmers in the CPS data receive part of this benefit. Distribution is based on the income of each family in proportion to the aggregate income of farm families.
WIC	$2.48 b			3.37 m hh	$735	1.78 m households have one infant, and 1.59 m households have two children under 4. Assume that families with children under 4 and income at 185% of the poverty level are eligible. 6.5m families would be eligible. 3.37/6.5=.518. Use this ratio to determine actual recipients.	Each participant household gets benefits equally.
Program(s)	**Admin Expend**	**CPS Expend**	**Admin Number**	**CPS Number**	**Avg Benefit/**	**Imputation Assumption of Recipients**	**Imputation Assumptions for Benefits**

	(billion)*	(billion)	Recipient (million)#	Recipient (million)	Household		
Head Start	$3.32 b		0.74 m hh		$4,493	Families with child age 3-5 and family income lower than federal poverty line are eligible; this gives high estimate of 2.73 m. Use random function to draw hh's to participate; probability of .271. Assume each household has only one child participating. (1994 Green Book, pp. 836)	Each participant gets benefits equally. 3.325 b/0.74 = 4493.
JTPA: Six programs as per Table 1 Section IV (omits UI Admin)	4.406 b		1.85 m hh		$2,381	According to the CPS data, 13.74 m households are eligible. Calculation of probability is 1.85/13.74=.134 to estimate number of actual households to receive benefit.	Each eligible household has only one adult participating in the program. Each participant household gets benefits equally.
School Lunch and Breakfast includes also Summer Food, Child Nutri.tion Admin and School Milk	5.65 b	6.00 b					A fixed ratio was used to bring the aggregate benefits down to match expenditures: 5.65/6.00 = .9423. CPS data reflects the market balue of these programs as reported by recipients. Administrative data reflects the actual government expenditure.

* **From 1995 Catalog of Federal Domestic Assistance**
# **From 1996 Green Book**