

# The 1995 Budget and Health Care Reform: A Generational Perspective

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## Introduction

Generational accounting is a new way of considering how government deficits, taxes, transfer payments, and other expenditures impact the distribution of income and wealth among various generations.<sup>1</sup> The technique is still being refined, and a number of the assumptions used to estimate the accounts are controversial.<sup>2</sup> Further development will be needed to improve the quality of the estimates and the usefulness of the method.

Generational accounts indicate, in present-value terms, the average net taxes (taxes paid less transfers received) that members of each generation can expect to pay both now and in the future. This is shown for existing as well as future generations. The method can also be used to calculate a given generation's lifetime net tax rate, defined as the present value of the net taxes it pays as a percentage of its lifetime labor income.

■ 1 See Auerbach, Gokhale, and Kotlikoff (1991) and Kotlikoff (1992).

■ 2 The merits of generational accounting are debated in Auerbach, Gokhale, and Kotlikoff (1994) and Haveman (1994).

Generational accounts for 1991 were presented in the 1993:1Q issue of this publication. That article explained the basic concept and provided some examples of how the accounts would be affected by policy changes. It also reported lifetime net tax rates by generation, beginning in 1900. The present article provides baseline generational accounts for 1992, estimates the effect of the Omnibus Budget Reconciliation Act of 1993 (OBRA93), and examines the further effects of the administration's health care reform proposal.

Our analysis reaches the following major conclusions:

- The lifetime net tax rates of baby boomers and later generations will be higher than the rates paid by those born earlier.
- Future generations' lifetime net tax rate will be much higher than the rates estimated for existing generations.
- OBRA93 will significantly lower the lifetime net tax rate facing future generations.
- The lifetime net tax rate facing future generations will be still lower if federal outlays and receipts are altered to equal those projected by the administration under its health care reform proposals.

## I. The Nature of Generational Accounts and Lifetime Net Tax Rates

The federal budget normally measures receipts and outlays for one year at a time and shows these estimates for only a few years into the future. Moreover, while the standard budget presentation divides receipts and outlays into a number of categories, it does not do so in a way that reveals the effects of the budget on different generations.

Generational accounts, in contrast, look ahead many decades and classify taxes paid and transfers received (such as Social Security, Medicare, and food stamps) according to the generation that pays or receives the money. For an existing generation, taxes and transfers are estimated year by year over its entire remaining lifespan. These amounts are then summarized in terms of one number, the present value of the generation's entire annual series of average future tax payments net of transfers received. For future generations, the accounts estimate net tax payments based on the proposition that any government bills not paid by current generations will accrue to them. Future generations' average payment to the government, above the amount they will receive in transfers, assumes that total government spending remains on its projected path and that those now alive do not pay more than anticipated.

Defined more precisely, generational accounts measure, as of a particular base year, the present value of the average future taxes that a member of each generation will pay minus the present value of the average future transfers that he or she will receive. This difference is called the "net tax" in the following discussion. A generation is defined as all males or females born in a given year.

The generational accounts as such — that is, these net tax payments — are prospective in that they consider only the present value of future taxes and transfers as of a base year. A prospective analysis can do two things: It can estimate the effect of policy changes, because all of these effects occur in the future, and it can compare the lifetime net taxes of the newly born and future generations, because their entire lifetime taxes and transfers are also in the future. It cannot, however, compare the lifetime net taxes paid by one existing generation with those of either a different existing generation or future generations, because part of any

living generation's taxes and transfers occurred in the past and thus are not taken into account.

A comparison of one existing generation with another, or with future generations, must be based on their entire lifetime taxes and transfers. The lifetime net tax rate of a generation represents the present value of its lifetime net taxes divided by the present value of its lifetime labor income. Present values are calculated as of the generation's year of birth in order to facilitate a comparison of the lifetime fiscal treatment of different generations. Because lifetime taxes, transfers, and income have tended to rise over time and have fluctuated to some extent, we compare the relative net taxes paid by various generations in terms of lifetime net tax rates rather than in terms of the absolute amounts of lifetime net tax payments.

Generational accounting can be used for two types of comparisons. First, it can compare the lifetime net taxes of future generations, of the generation just born, and of different generations born in the past. The lifetime net taxes of generations born in the past are based on estimates of actual taxes paid and transfers received through 1992, and on projections of taxes to be paid and transfers to be received in the future.

Second, the accounts can be used to compare the effects of actual or proposed policy changes on the remaining lifetime net tax payments of current and future generations. Such comparisons may be made in terms of either lifetime net tax rates or the absolute amounts of the generational accounts, because the changes in all lifetime taxes and transfers occur in the future for every generation and thus are included in the calculations. The comparisons can be made equally well for policies that 1) alter *total* receipts or expenditures while also changing the deficit, 2) alter *the composition* of receipts or expenditures without changing the deficit, and 3) alter *the level* of receipts and expenditures together without changing the deficit.

Unfortunately, generational accounts have a number of limitations as currently constructed. First, they include the taxes and transfers of all levels of government — federal, state, and local. While this approach is appropriate for some analyses, it does not allow us to separate the effect of the federal budget from that of the state and local sector. However, the difference in generational accounts due to a federal government policy *change* can be analyzed separately.

Second, generational accounts reflect only taxes paid and transfers received. They do not impute to particular generations the value of government purchases of goods and services

that provide them with education, highways, national defense, and so on. Therefore, the numbers do not reveal the full net benefit or burden that any generation receives from government fiscal policy as a whole. Insofar as the benefits of purchases could be imputed, they would reduce net tax payments. This omission may be important, because government purchases of goods and services account for about half of total government expenditures. Nevertheless, generational accounts can reveal a generation's net benefit or burden from a particular policy change that affects only taxes and transfers. Although the accounts do not show how the benefits of government purchases are spread across generations, they do illuminate which generations will pay for this spending.

Third, generational accounts do not yet incorporate any policy feedback on the economy's growth and interest rates. Feedback effects can be significant, but because they generally occur slowly, their impact on the discounted values used in the accounts is likely to be small. Moreover, there is reason to believe that they would reinforce the conclusions derived in this chapter. For example, policies that decrease the net tax payment of existing generations and increase the payment of future generations are likely to stimulate more current consumption and thereby reduce the savings available to finance investment. This, in turn, would lower productivity and real wage growth and raise real interest rates, which on balance would harm future generations.

Finally, generational accounting divides people born in the same year into only two categories, males and females, with each designated a "generation." This is an important distinction, since the sexes differ significantly in characteristics such as lifetime earnings and longevity. However, the accounts do not reveal differences with respect to other characteristics, such as income level or race, nor do they show the wide diversity among individuals within any grouping. The categories would be expanded if more data were available.

Lifetime net tax rates introduce a number of further conceptual issues. For example, how should lifetime income be measured? Lifetime income is defined as a present value, like lifetime taxes and transfers. The present-value calculation should factor in all income that increases a generation's resources, including labor earnings, inherited wealth, and capital gains over and above the normal return to saving. The normal return to saving is not included in income, because that would be double counting. Saving out of labor income and then earning a normal

rate of return does not increase the present value of a household's resources. Data do not exist on the share of each generation's income that stems from inherited wealth or supernormal capital gains, so labor earnings are used to represent income.<sup>3</sup>

Even within the scope of generational accounts as now constructed, the results presented here should be viewed as experimental and illustrative. They are limited by the availability and quality of the data, especially for earlier years. Lifetime net tax rates are calculated from historical data on taxes, transfers, and income up to 1992 as well as on projections of future data. The historical information, however, is sparse compared to the data for recent years and in some cases is not available at all. As work on generational accounting progresses, the estimates will likely be revised due to improvements in the data and refinements in the method. Some of the changes that have occurred since last year are discussed in the appendix.

In addition, generational accounts are necessarily based on a number of simplifying assumptions about which reasonable people may disagree. For instance, government intergenerational redistribution does not substitute for, and is not offset by, private intergenerational transfers in our calculations. This is similar to the usual assumption made in cross-section estimates of the distributional effect of taxes and transfers by income class or other characteristic. The accounts are also based on assumptions about the pattern of future taxes and spending, the interest rate used to discount future taxes and transfers to form present values, mortality and birth rates, and so forth. The absolute amounts of the generational accounts are sensitive to all of these.

Projections of government expenditures are especially affected by assumptions about health care costs. From 9 percent of GDP in 1980, health care expenditures have risen to 14 percent currently and have been projected to reach more than 20 percent of total output early in the next century unless constrained by cost controls. The government pays about 45 percent of all health care costs, and its bill has been rising more rapidly than the private sector's; thus, future trends in government spending will be strongly influenced by future trends in health care costs. The estimates without

■ 3 The error due to this omission is relatively small in the aggregate, given that labor income has long accounted for approximately four-fifths of all income and that only part of the remaining income from capital should be included. However, errors for different generations could vary depending on trends and fluctuations in asset values and bequest behavior.

TABLE 1

Generation's Year of Birth	Net Tax Rate	Components of Net Tax	
		Gross Rate	Transfer Rate
1900	23.6	27.3	3.7
1910	27.2	33.0	5.8
1920	29.0	35.9	6.9
1930	30.5	38.7	8.2
1940	31.6	40.9	9.2
1950	32.8	43.7	10.9
1960	34.4	46.7	12.3
1970	35.7	49.8	14.1
1980	36.0	51.5	15.0
1990	35.5	51.5	16.0
1992	35.4	51.5	16.2
Future generations	93.7	—	—
<b>Percentage Difference in Net Payment</b>			
Future generations and age zero	165.1	—	—

SOURCE: Office of Management and Budget (1993).

health care reform reflect continued rapid growth in costs, but the probable pattern is uncertain.

Despite these qualifications, generational accounts can be useful when considered in light of their assumptions, as is the case for the 75-year projections made annually by the Social Security trustees. Moreover, our most fundamental result — that future generations' net tax payment will be relatively much larger than that of the newly born or other existing generations — holds for a wide range of reasonable changes in the assumptions. The following sections illustrate the results of generational accounting.<sup>4</sup>

## II. Lifetime Net Tax Rates before Deficit Reduction

Table 1 reports where lifetime net tax rates for different generations stood before OBRA93 was enacted. Rates are shown for the generations born in 1900 and every tenth year thereafter, for the generation born in 1992 (the "newly born" in this year's analysis), and for future generations (those born in 1993 or later). All federal, state, and local taxes and transfers are included in the calculations, and data for

males and females are combined.<sup>5</sup> The calculations in this table and throughout the article are as of calendar year 1992. Because of the time needed to prepare these estimates, we based them on receipts and outlays reported in the Office of Management and Budget's (OMB) *Mid-Session Review of the 1994 Budget* rather than on the current budget. Since the budget outlook has improved since the *Mid-Session Review* was issued, the lifetime net tax rates for both existing and future generations would probably fall if based on the updated numbers.

Lifetime net tax rates have exhibited a strong upward trend over the past century, rising from 23.6 percent for the generation born in 1900 to 35.4 – 36.0 percent for those born since 1970.<sup>6</sup> The rate for future generations was much higher before OBRA93 was enacted — 93.7 percent, or 165.1 percent greater than the lifetime net tax rate facing the newly born.<sup>7</sup>

Table 1 also breaks down the net tax rates between gross rates and transfer rates. To calculate the latter, the present value of a generation's lifetime taxes (or transfers) is divided by the present value of its lifetime labor income. This decomposition reveals the expanded role of government transfer payments over the past century. The lifetime transfer rate more than *quadrupled* between 1900 and 1992, starting at 3.7 percent and rising each decade to a rate of 16.2 percent. The increase was more rapid, in both relative and absolute terms, for the generations born before World War II than afterward.

The gross tax rate has risen substantially more than the net tax rate. It nearly doubled between the generations born in 1900 and 1992, starting at 27.3 percent and increasing each decade to a rate of 51.5 percent. In contrast, the net tax rate rose by about half. The larger increase in the gross tax rate is because a generation's lifetime gross taxes pay for the

■ 4 For a detailed explanation of the concepts, data sources, calculations, and other assumptions used here, see Auerbach, Gokhale, and Kotlikoff (1993).

■ 5 Data for the sexes were combined because of the conceptual problem of how to attribute taxes, transfers, and income within a family. For a description of the methodology and data sources used in the underlying calculations, see the appendix to Auerbach, Gokhale, and Kotlikoff (1993).

■ 6 The lifetime net tax rate for the generation born in 1900 was estimated as 21.5 percent last year. The increase is primarily due to a reduction in the estimate of its lifetime labor earnings. This revision also raises the lifetime net tax rate of generations born after 1900, including future generations, by roughly 10 percent.

■ 7 For a discussion of the equitable distribution of net tax burdens over different generations, see Kotlikoff and Gokhale (1994).

TABLE 2

**Percentage Difference in Net  
Payments between Future  
Generations and Age Zero**

Interest Rate	Productivity Growth Rate		
	0.25	0.75	1.25
3.0	167	127	93
6.0	205	165	131
9.0	350	297	249

SOURCE: Office of Management and Budget (1993).

government's purchases of goods and services as well as for public transfers to its own members and other generations.

Estimates of lifetime net tax rates by generation, such as those shown in table 1, are affected by the amounts of future taxes, transfers, and other government expenditures that are assumed year by year in the underlying projections. These assumptions differ widely, and the amounts that result could vary substantially based on the figures chosen. The projection methods generally seek to maintain current policy in some sense. However, "current policy" can be interpreted in various ways, especially for discretionary expenditures such as defense. Furthermore, the long-term projections for Medicare and Medicaid assume that even if the administration's health care reform initiative fails, other policy actions or forces will eventually hold spending growth to the overall rate of economic expansion (adjusted for shifts in the age and sex composition of the population), although the projected growth rate is still quite rapid relative to GDP for the next few decades.<sup>8</sup>

Lifetime net tax rates — and hence the imbalance between future and existing generations — are defined in such a way that the generations now alive, including the newly born, do not pay any more taxes (or receive any less transfers) than projected under the specified fiscal policy. This assumption is an analytical device for determining the size of the fiscal imbalance; it is not meant to suggest that future generations will in fact close the gap all by themselves. Any actual policy change, whether enacted in the past or proposed for the future, is almost certain to bear in some degree on generations now living as well as on the unborn. Thus, if a policy change were implemented today, the net tax rates paid by the newly born and other existing generations would be different than those shown

in table 1. Policy changes of this kind are considered below.

The generational imbalance shown in table 1 depends on the assumption that all future generations of the same sex have the same lifetime net tax rate. Alternatively, suppose that generations born during 1993–2000 pay the same lifetime net tax rate as those born in 1992. Because these future generations would pay less than otherwise assumed, those born after 2000 would have to pay more. The greater the number of future generations who pay no more than the newly born, the larger is the lifetime net tax rate that will be required of those generations born still later.

The size of the imbalance estimated between future generations and the newly born is also sensitive to assumptions about both the interest rate used for discounting future payments and receipts and the growth rate of the economy. Table 2 shows the percentage differential under interest rates of 3.0, 6.0, and 9.0 percent and productivity growth rates of 0.25, 0.75, and 1.25 percent. The assumptions used for all other calculations in this article are a 6 percent interest rate and a 0.75 percent growth rate. This leads to a 165.1 percent larger net payment by future generations than by the newly born. Under the alternatives in table 2, the difference ranges from 93 percent to 350 percent. While this spread is wide, our basic conclusion still holds for all of the alternatives; that is, future generations will face a much larger tax bill, net of transfers received, than the generation just born or other existing generations.

### III. Effects of OBRA93

OBRA93 slashed the estimated budget deficits from 1994 through 1998 by a cumulative total of about \$500 billion. As a result, the lifetime net tax rate of future generations is reduced from 93.7 percent to 82.0 percent (see table 3). To accomplish this, the Act raises the lifetime net tax rate on existing generations: The very young will pay roughly 1 percentage point more, baby boomers about 0.3 to 0.6 percentage point more, and older generations less than 0.3 percentage point more. The lower impact on the elderly is partly because they have fewer remaining years of life to be affected, and also because any given dollar amount of taxes or transfers is discounted over more years in order to calculate the present value as of a generation's year of birth.

<sup>8</sup> A pure extrapolation of recent trends, in contrast, implies that health care costs will eventually bankrupt the government.

TABLE 3

**Lifetime Net Tax Rates  
under Alternative Policies  
(percent)**

Generation's Year of Birth	Before OBRA93	After OBRA93		
		Without Health Care Reform	Adminis- tration's Plan	With Faster Cost Growth
1900	23.6	23.6	23.6	23.6
1910	27.2	27.2	27.2	27.2
1920	29.0	29.0	29.1	29.1
1930	30.5	30.6	30.9	30.9
1940	31.6	31.9	32.4	32.2
1950	32.8	33.2	34.0	33.5
1960	34.4	35.0	35.9	35.2
1970	35.7	36.5	37.6	36.6
1980	36.0	36.9	38.2	36.7
1990	35.5	36.5	38.3	36.2
1992	35.4	36.3	38.3	36.0
Future generations	93.7	82.0	66.5	75.2
<b>Percentage Difference in Net Payment</b>				
Future generations and age zero	165.1	126.0	73.9	108.8

SOURCE: Office of Management and Budget (1993).

OBRA93 thus narrows the gap between the lifetime net tax rates of future and existing generations. The generational imbalance — defined as the percentage difference in lifetime net tax rates between future generations and the newly born — is reduced by about a fourth, from 165.1 percent to 126.0 percent. These calculations show roughly where lifetime net tax rates now stand. The main reason the generational imbalance remains substantial despite OBRA93 is that, to a great extent, government health care spending is projected to continue rising rapidly relative to GDP.

#### IV. Effects of Health Care Reform

The administration's health care reform initiative would provide every American with comprehensive medical benefits and would limit the rapid growth of health care costs as a share of GDP. If future health care outlays are reduced and revenues are increased as projected

under the Clinton plan, the current generational imbalance would be substantially reduced.<sup>9</sup> Table 3 reports lifetime net tax rates with health care reform. Under the Clinton plan, future generations would see their net rate of taxation reduced beyond the effect of OBRA93 — from 82.0 percent to 66.5 percent. Because estimates of the effect of health care reform on taxes and spending are not available after 2000, this calculation is based on rough projections for subsequent years. Medicare and Medicaid transfers are assumed to grow at a rate similar to that of benefits under the reform package, although neither program is directly limited by the administration's plan. Our estimates do not include the premiums paid to health alliances or the benefits financed by these premiums.

Health care reform would increase the lifetime net tax rates of all existing generations by decreasing the lifetime transfers that they would be recorded as receiving. This is because government health care spending is recorded as a direct transfer to the individuals receiving the care. However, one of the basic principles of the administration's proposal is to reduce the complexity and improve the efficiency of the current health care system. To the extent that the plan succeeds, it will allow lower government transfer payments, but people will not receive less health care. Thus, the measured decline in lifetime transfers to existing generations would overstate the change in the value of benefits they receive, and the increase in the lifetime net tax rates from this effect would not represent a rise in their actual fiscal burden.

As shown in table 3, the administration's plan reduces the generational imbalance by about two-fifths, from 126.0 percent to 73.9 percent. In combination, OBRA93 and health care reform would eliminate more than half of the previous imbalance of 165.1 percent.

Table 3 also illustrates the importance of implementing the cost-containment principle of health care reform. Column 4 reports lifetime net tax rates with the administration's proposal modified so that all government health care transfers from 2000 through 2020 grow 2 percentage points faster than warranted by demographic change and economywide productivity growth. In this case, the generational imbalance would be reduced from 126.0 percent to only 108.8 percent.

<sup>9</sup> Our calculations are based on the OMB's projections of changes in revenues and expenditures that would follow adoption of the administration's health care reform proposal.

TABLE 4

**Generational Accounts for Males:  
Present Value of Taxes and  
Transfers under OBR93  
(thousands of dollars)**

Generation's Age in 1992	Taxes Paid					Transfers Received		
	Net Tax Payment	Labor Income Taxes	Capital Income Taxes	Payroll Taxes	Excise Taxes	Social Security	Health	Welfare
0	78.4	32.2	7.9	34.7	30.2	6.8	16.2	3.6
5	99.3	41.3	10.1	44.6	35.6	8.6	19.1	4.6
10	124.8	52.6	12.9	56.9	41.3	10.3	22.7	5.9
15	157.2	67.1	16.6	72.8	47.4	11.9	27.3	7.6
20	187.7	80.8	21.0	88.2	51.4	13.3	31.0	9.2
25	203.0	88.2	25.2	96.7	52.2	16.4	33.0	9.9
30	201.6	87.8	30.2	96.5	51.4	20.1	34.7	9.4
35	192.4	84.5	36.1	93.2	50.4	25.2	37.9	8.7
40	170.9	77.2	40.8	85.4	49.4	31.7	42.3	8.0
45	132.5	64.9	43.5	72.0	46.7	39.8	47.5	7.2
50	81.0	49.6	44.0	55.2	42.8	50.4	53.6	6.5
55	19.5	32.7	42.2	36.6	37.8	63.7	60.2	5.8
60	-43.9	17.5	38.9	19.6	32.2	80.4	66.7	5.1
65	-94.1	6.2	34.3	6.9	26.9	90.6	73.4	4.4
70	-98.6	2.5	27.1	2.9	21.5	82.7	66.1	3.8
75	-92.9	1.2	18.2	1.3	16.4	69.0	57.8	3.2
80	-79.4	0.6	9.2	0.7	11.5	52.0	47.2	2.2
85	-69.4	0.3	0.0	0.3	7.9	39.4	37.5	1.0
90	-11.6	0.0	0.0	0.0	1.7	6.9	6.4	0.0
Future generations	177.1	—	—	—	—	—	—	—
Percentage Difference in Net Payment								
Future generations and age zero	126.0	—	—	—	—	—	—	—

SOURCE: Office of Management and Budget (1993).

### V. Net Tax Payments by Different Generations

Tables 4 and 5 provide a complementary perspective to lifetime net tax rates by presenting, in absolute amounts, the net tax payments for different generations based solely on those taxes and transfers to be paid or received in the future. These are the "generational accounts" as defined previously and as emphasized in most presentations of the method. The accounts in the year of a generation's birth are the same as its lifetime net tax payments.

The numbers in these tables represent the generational accounts as of calendar year 1992 for every fifth generation alive in that year. The first column, "net tax payment," is the difference between the present value of taxes that a member of each generation will pay, on average, over

his or her remaining life and the present value of transfers that he or she will receive. The other columns show the average present values of different taxes and transfers. As with lifetime net tax rates, all federal, state, and local taxes and transfers are factored into these calculations. Federal spending and receipts include the effects of OBRA93.

### Remaining Net Tax Payments by Existing Generations

The present value of future taxes to be paid by young and middle-aged generations far exceeds the present value of the future transfers they will receive. For males age 40 in 1992 — a group that is close to its peak taxpaying years — the present value of future taxes is \$170,900 more than

TABLE 5

**Generational Accounts for Females:  
Present Value of Taxes and  
Transfers under OBRA93  
(thousands of dollars)**

Generation's Age in 1992	Net Tax Payment	Taxes Paid				Transfers Received		
		Labor Income Taxes	Capital Income Taxes	Payroll Taxes	Excise Taxes	Social Security	Health	Welfare
0	44.1	16.6	8.4	18.0	29.2	6.4	13.1	8.6
5	54.8	21.3	10.8	23.0	34.2	8.1	15.5	11.0
10	67.3	27.1	13.8	29.4	39.3	9.7	18.6	14.0
15	82.5	34.4	17.7	37.5	44.5	11.1	22.6	17.9
20	96.9	40.7	22.3	44.6	48.0	12.4	25.8	20.5
25	101.5	42.1	27.3	46.2	49.1	15.4	29.4	18.5
30	96.9	39.5	32.2	43.5	49.0	18.9	33.4	15.0
35	87.8	36.3	37.3	40.0	48.9	23.7	39.1	11.9
40	69.1	31.5	40.5	34.9	47.8	29.9	46.6	9.1
45	39.7	25.1	41.4	27.8	45.4	37.9	55.3	6.8
50	2.4	18.1	40.2	20.2	41.5	48.4	64.1	5.2
55	-40.2	11.6	38.1	13.0	37.0	62.0	73.9	4.1
60	-86.3	6.0	34.9	6.8	31.8	79.2	83.2	3.5
65	-122.5	2.2	29.5	2.4	26.6	88.4	91.6	3.1
70	-124.6	0.9	20.7	1.0	21.7	81.4	84.6	2.8
75	-117.9	0.4	11.4	0.5	16.5	69.1	75.2	2.4
80	-100.5	0.2	4.3	0.2	12.1	54.1	61.2	2.0
85	-79.3	0.1	0.0	0.1	9.2	39.9	47.1	1.6
90	-11.3	0.0	0.0	0.0	1.6	5.9	6.7	0.3
Future generations	99.6	—	—	—	—	—	—	—
Percentage Difference in Net Payment								
Future generations and age zero	126.0	—	—	—	—	—	—	—

SOURCE: Office of Management and Budget (1993).

the present value of future transfers. For newborn males, on the other hand, the comparable figure is much smaller, \$78,400, because they will pay minimal taxes for a number of years.

Older generations, who are largely retired, will receive more Social Security, Medicare, and other future benefits than they will pay in future taxes. That is, they have negative net tax payments. Females will have smaller net payments than males, mostly because they earn less and therefore pay lower income and Social Security taxes.

Because the figures in these tables show the remaining lifetime net tax payments of particular generations, they do not include taxes paid or transfers received in the past. This should be kept in mind when considering the net tax payments of those now alive. The portion of a generation's lifetime net payment that remains depends on whether its members are 10, 40, or

65 years old. The fact that 40-year-old males can expect to pay more in the future than they receive, in present-value terms, while the reverse is true for 65-year-old males, does not mean that the government is treating 40-year-olds unfairly. Men who are now 65 paid substantial taxes when younger, and these amounts are not reflected in the remaining lifetime net tax payments shown in their generational accounts. Thus, the remaining lifetime payment of one existing generation cannot be compared directly with that of another. The lifetime payment of existing generations can be compared, however, using the net tax rates presented previously.

Tables 4 and 5 also show the different generational effects of various taxes and transfers. For example, the present value of future labor income taxes and payroll taxes is much higher for generations 60 years of age or less than for older generations, whereas the present value



TABLE 6

Generational Account Balance  
 Policies (Thousands)

Generation's Age in 1992	After OBRA93							
	Before OBRA93		Without Health Care Reform		Administration's Plan		With Faster Cost Growth	
	Males	Females	Males	Females	Males	Females	Males	Females
0	76.4	42.9	78.4	44.1	83.2	45.8	79.3	42.2
5	96.8	53.3	99.3	54.8	104.8	56.5	100.3	52.5
10	121.6	65.5	124.8	67.3	130.8	68.9	126.0	64.6
15	153.2	80.3	157.2	82.5	163.8	84.3	158.7	79.6
20	183.0	94.2	187.7	96.9	194.7	100.1	189.5	95.0
25	197.8	98.4	203.0	101.5	210.2	106.5	204.9	101.0
30	196.2	93.4	201.6	96.9	209.3	103.8	203.9	97.9
35	186.9	84.0	192.4	87.8	200.9	96.7	195.2	90.2
40	165.2	65.0	170.9	69.1	180.3	80.1	174.4	73.0
45	127.0	35.4	132.5	39.7	142.6	52.1	137.1	45.1
50	75.9	-2.0	81.0	2.4	91.1	15.2	87.0	9.4
55	14.7	-44.8	19.5	-40.2	29.3	-27.4	27.5	-30.9
60	-48.4	-91.2	-43.9	-86.3	-35.0	-74.4	-35.5	-76.3
65	-98.1	-127.1	-94.1	-122.5	-87.6	-113.2	-87.0	-113.4
70	-101.9	-128.4	-98.6	-124.6	-94.2	-118.0	-93.2	-116.9
75	-95.3	-120.9	-92.9	-117.9	-90.3	-114.0	-89.4	-112.5
80	-80.9	-102.6	-79.4	-100.5	-77.9	-98.2	-77.5	-97.4
85	-70.4	-80.7	-69.4	-79.3	-68.9	-78.5	-68.9	-78.5
90	-11.6	-11.3	-11.6	-11.3	-11.6	-11.3	-11.6	-11.3
Future generations	202.5	113.8	177.1	99.6	144.7	79.7	165.6	88.2
Percentage Difference in Net Payment								
Future generations and age zero	165.1	165.1	126.0	126.0	73.9	108.8	108.8	108.8

SOURCE: Office of Management and Budget (1993).

of future capital income taxes and excise taxes is somewhat higher for those under 60. This is because the elderly tend to retire from the labor force, but still own homes and buy goods and services subject to property tax, sales tax, and other excises. As another example, the present value of Social Security and health care transfers is much higher for the elderly than for the young and middle-aged, because these kinds of transfers primarily accrue to the elderly and thus are discounted in the calculations over relatively few years. Welfare benefits, on the other hand, provide comparatively large benefits to the young, so their present value is higher for these age groups than for others.

### Net Tax Payments by Future Generations

The estimates in tables 4 and 5 show that future generations will have to pay 126.0 percent more to the government, on average, than those born in 1992. The \$177,100 average net tax payment for future males and the \$99,600 payment for future females are calculated assuming that the ratio of net tax payments by males to that of females is the same for future generations as for those born in 1992.

The numbers also assume that all future Americans of a particular sex will make the same average net tax payment over their lifetimes after adjusting for overall economic growth. This growth adjustment is needed because future generations will pay more in taxes, net of the transfers received, simply because their incomes will be higher. This does not

represent a heavier fiscal burden. To properly assess the net tax payment by future generations relative to the newly born, it is necessary to calculate the net payment they will make above and beyond the amount due to economic growth. The generational accounts assume that all future generations pay the same net taxes apart from the effect of growth. This net tax is the number shown in the tables for all future generations of the same sex.

### **OBRA93 and Health Care Reform**

Table 6 displays the generational accounts for the three policy regimes previously evaluated using lifetime net tax rates: a baseline before the enactment of OBRA93, estimates including OBRA93 (as shown in more detail in tables 4 and 5), and estimates including both OBRA93 and health care reform.

These numbers represent a different way of viewing the generational effects of policy changes and complement the effects of lifetime net tax rates revealed in table 3. OBRA93 and health care reform substantially reduce the generational imbalance between future and living generations. The net tax payments of future males (in present value) are reduced by both policies: \$25,400 by OBRA93 and \$32,400 by health care reform. For females, the comparable figures are \$14,200 and \$19,900. Each existing generation pays a larger net amount in present value, but the increase is not as much as the reduction for future generations. For example, 50-year-old males pay \$5,100 more due to OBRA93 and \$10,100 more due to health care reform. As explained above, the lower transfer payments under the health care initiative do not represent less care to the extent that they reflect a more efficient system.

### **VI. Conclusion**

The generational accounting exercise presented here reveals a severe imbalance in current fiscal policy, in that future generations will have to remit a huge portion of their lifetime income to the government if the tax treatment of current generations remains unchanged. Under post-OBRA93 policy, this share is estimated at *82 percent*.

We do not mean to imply, however, that such a massive burden will necessarily be borne by future generations. By pointing out

the dire consequences of continuing on our current policy path, this analysis suggests that legislative changes are imperative. Thus, the results of this exercise should be viewed as a projection based on the *assumption* that current policies will remain in force for the foreseeable future, and not on a forecast that they will actually do so.

### **Appendix**

#### **Differences in Projections from the 1991 Estimates**

The imbalance in the lifetime net tax rate between future generations and those born in 1992 is estimated at 165.1 percent before taking into account OBRA93 and health care reform. This baseline figure is much higher than the 111.1 percent estimated a year ago between future generations and those born in 1991.<sup>10</sup> Half of the difference can be traced to incorporating the Health Care Financing Administration's projection of Medicaid transfers through 2004 instead of assuming that these amounts will remain constant relative to GDP at the last actual ratio. If last year's method had been used, the current imbalance would be 145.0 percent.

The jump from 111.1 to 145.0 percent can be attributed to three factors: First, one more generation — those born in 1992 — will not make the higher lifetime net tax payments required of future generations. As a result, those born after 1992 will have still larger bills to pay. This effect accounts for about 8 percentage points of the increase. Second, of the remaining difference, a little less than half reflects the use of actual 1992 aggregate taxes, transfers, and purchases rather than projections. The rest of the increase can be explained by improvements in the cross-section profiles used to distribute taxes and transfers by age and sex, as well as to interactions among the various factors.

■ 10 See Auerbach, Gokhale, and Kotlikoff (1993).

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