

THE DISTRIBUTIONAL EFFECTS OF AN INCREASE IN
SELECTED FEDERAL EXCISE TAXES

APPENDIX:

A COMPARISON OF THE DISTRIBUTION OF FEDERAL INDIVIDUAL
INCOME TAX REDUCTIONS FROM THE TAX REFORM ACT OF 1986
TO INCREASES IN SELECTED FEDERAL EXCISE TAXES

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In this appendix, the distributional effects of a \$1 billion increase in gross revenues generated through increases in each of the major federal excise taxes is compared to the distribution of individual income tax reductions from the Tax Reform Act of 1986 (TRA-86).^{1/}

Table A-1 shows the share of federal income taxes, under prior law and under TRA-86, and the share of federal excise taxes paid by families in different income classes. As the table illustrates, for all income classes under \$30,000, the share of excise taxes paid exceeds the share of total income while the share of income taxes paid, under both TRA-86 and prior law, is less than the share of income. The reverse is true for income classes of \$50,000 or above.

Comparing the distribution of excise tax payments to the distribution of income tends to overstate the burden of these taxes on lower income families. As discussed in section one of the paper, although income is measured over a single year, excise tax payments reflect expenditures that probably are more closely related to a family's expected long-term level of income. Families whose income may have fallen temporarily are likely to maintain their previous level of consumption in the expectation that their income will return to normal levels. Young families may consume a large fraction of their current income because they expect that their income will rise over time. Thus the share of excise taxes paid by lower income families will correspond more closely to their share of income measured over a number of years, rather than their share of income

1. For each excise tax, the simulated increase is designed to generate an additional \$1 billion in gross excise tax revenues before inclusion of the associated reduction in income taxes.

in a single year.

Table A-2 compares the distribution of the average reduction in individual income tax payments to the average increase in excise taxes from a \$1 billion increase in gross revenues from each of the federal excise taxes. For the lowest income class, a \$1 billion increase in gross excise tax revenues from any of the major federal excise taxes would offset from between 8 to 13 percent of the average reduction in individual income taxes. For families in the \$10,000 to \$20,000 income class a \$1 billion increase in gross excise tax revenues would offset from between 3 to 5 percent of the average reduction in income taxes.

The methods for simulating the excise tax increases are the same as those used in section three of the paper with the exception that realized capital gains were included in family incomes and the data were aged to 1988. The tables show only the immediate effect of excise tax increases on consumers of the taxed items and thus reflect only the distribution of expenditures on the taxed items. The results do not include the effects of a tax increase on relative prices or on personal income. The full distributional results, which are discussed in section four of the paper, illustrate that the overall distributional effects of excise tax increases would also depend on the distribution of total expenditures and of total incomes. This would tend to make the distributional results somewhat more proportional to income than shown here and, as discussed in section four, would show considerably less impact on lower income families because recipients of indexed transfer payments, such as Social

Security or Supplemental Security Income benefits, would be protected from the decline in real personal incomes resulting from excise tax increases.

Individual income taxes under both prior law and TRA-86 were simulated at 1988 levels of family income. Thus incomes reflect adjustments in behavior made in response to the Tax Reform Act. The most important of these is a reduction in realized capital gains in 1988. If taxes were simulated with a level of realized capital gains consistent with prior law, the share of individual income taxes paid by the highest income group would be higher.

The distribution of individual income tax reductions from the Tax Reform Act of 1986 shown here are somewhat different from the distributional results shown by the Joint Committee on Taxation in their report on TRA-86.^{2/} These differences arise because the results in tables A-1 and A-2 are shown for families rather than for tax units, income is at 1988 rather than at 1986 levels, and the tax reductions are evaluated at the projected 1988 level of capital gains.

2. See: Joint Committee on Taxation, "General Explanation of the Tax Reform Act of 1986 (H.R. 3838, 99th Congress; Public law 99-514)" (JCS-10-87), May 4, 1987.

Table A-1

**Distribution of Federal Individual and Excise Tax Burden,
for Families by Income Class: 1988
(percent)**

Income Class ^{b/}	Percent of Families ^{c/}	Income Share	Federal Individual Income Tax ^{a/}		Federal Excise Taxes						
			Prior Law ^{d/}	TKA-86	Gasoline	Beer	Wine	Distilled Spirits	Tobacco	Telephone ^{e/}	Airfare
Less Than \$10,000	21.0	3.1	0.1	-0.1	9.1	11.3	9.0	9.6	13.7	12.1	7.8
\$10,000 - \$20,000	21.2	10.0	4.0	3.2	15.4	15.9	13.0	14.2	18.6	16.0	13.6
\$20,000 - \$30,000	17.8	13.9	9.1	8.8	16.8	17.1	14.6	15.8	17.8	15.4	13.9
\$30,000 - \$40,000	13.7	14.9	12.3	12.2	15.9	16.1	14.4	15.7	16.2	14.8	13.7
\$40,000 - \$50,000	9.3	13.1	12.2	11.9	17.4	13.8	11.7	11.7	11.4	11.4	11.4
\$50,000 - \$75,000	11.4	21.6	23.2	23.7	19.0	15.9	19.9	18.0	15.3	17.6	19.8
\$75,000 - \$100,000	3.3	8.8	10.7	11.0	6.6	6.0	9.3	8.1	4.2	6.6	9.6
\$100,000 or more	2.4	14.7	28.3	29.2	4.7	5.0	8.7	6.9	2.7	6.1	10.1
All Incomes	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: CBO simulations. Income and individual income taxes derived from the March 1985 Current Population Survey, adjusted for consistency with the 1984 Statistics of Income, and aged to 1988. Excise taxes calculated from the 1982/1983 Consumer Expenditure Survey, aged to 1988.

a/ Includes the refundable portion of the earned income tax credit.

b/ Comparing the distribution of excise tax payments to the distribution of income tends to overstate the burden of these taxes on lower income families because although income is measured over a single year, excise tax payments reflect expenditures that probably are more closely related to a family's expected long-term level of income.

c/ Includes single individuals.

d/ Prior law taxes were calculated at 1988 income levels, after adjusting incomes for changes in response to the Tax Reform Act.

e/ Assumes that the telephone excise tax is extended through 1988.

Table A-2

Distribution of Federal Individual Income Tax Reductions and of a \$1 Billion Increase in
Each Federal Excise Tax, for Families by Income Class: 1988
(dollars)

Income Class ^{b/}	Average Federal Individual Income Tax ^{a/}			Average Federal Excise Tax Increase						
	Prior Law ^{c/}	TRA 86	Change in Avg Taxes	Gasoline	Beer	Wine	Distilled Spirits	Tobacco	Telephone	Airfare
Less Than \$10,000	24	-25	-49	4.33	5.37	4.27	4.58	6.55	5.77	3.71
\$10,000 - 120,000	737	550	-186	7.56	7.77	6.38	6.95	9.12	7.85	6.69
\$20,000 - 300,000	1985	1784	-200	10.25	10.47	8.91	9.66	10.87	9.42	8.53
\$30,000 - 140,000	3494	3185	-308	12.75	12.37	11.06	12.10	12.47	11.37	10.57
\$40,000 - 150,000	5099	4617	-482	13.82	14.21	12.97	12.97	12.66	12.66	12.68
\$50,000 - 175,000	7882	7475	-407	16.13	13.50	16.89	15.26	12.97	14.95	16.82
\$75,000 - 1100,000	12556	12011	-546	18.32	16.59	25.94	22.63	11.75	18.43	26.52
\$100,000 or more	45666	43482	-1984	17.36	18.50	30.06	25.47	9.96	22.30	37.17
All Incomes	3874	3590	-284	10.22	10.22	10.22	10.22	10.22	10.22	10.22

SOURCE: CBO simulations. Income and individual income taxes derived from the March 1985 Current Population Survey, adjusted for consistency with the 1984 Statistics of Income, and aged to 1988. Excise taxes calculated from the 1982/1983 Consumer Expenditure Survey, aged to 1988.

a/ Includes the refundable portion of the earned income tax credit.

b/ Comparing the distribution of excise tax payments to the distribution of income tends to overstate the burden of these taxes on lower income families because although income is measured over a single year, excise tax payments reflect expenditures that probably are more closely related to a family's expected long-term level of income.

c/ Prior law taxes were calculated at 1988 income levels, after adjusting incomes for changes in response to the Tax Reform Act.

