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APPENDIX C

Estimates of Tax Liabilities for Four Tax Base Variants for 1953

NOTES TO TABLE 5

Column 2. The tax liability figures presented in Table 5 differ somewhat from those published in *Statistics of Income* for 1953. To make the estimates presented in columns 3 and 4, an estimate of the tax base and its distribution was necessary. Since *Statistics of Income* for 1953 includes no data on the tax base itself, it was necessary to compute a tax base from the available data and recompute the 1953 tax liability to insure comparability between column 2 and columns 3 and 4. The published estimate of individual income tax liability, based on figures reported on tax returns, is \$29,431 million. Our computed figure is \$29,366 million, a difference of 0.22 per cent.

To obtain our estimate we constructed a frequency distribution of returns by AGI less deductions and number of exemptions. AGI less deductions was obtained by subtracting personal deductions (estimated as described in Appendix B) from the amount of AGI reported on taxable returns in each income group, and dividing by the number of returns in that group. The amount of error resulting from the use of averages was relatively small, since the available data permitted computations on the basis of twenty-five income groups, which made for small class intervals.

A somewhat arbitrary rearranging of the frequencies by exemption classes was necessary to include exemptions for age and blindness. *Statistics of Income* classifies the frequencies only by the number of ordinary exemptions. We therefore had to apportion the blind and aged exemptions among the regular exemption classes to obtain figures of total exemptions per return. In each adjusted gross income group, blind and aged exemptions were assumed to be claimed only on returns with one, two, or three regular exemptions. Blind and aged exemptions were distributed in the following manner: one-sixth into the class with one regular exemption; one-half into the class with two; and one-third into the class with three. The number of blind and aged exemptions claimed somewhat exceeded the number of returns with such exemptions. The excess was assigned to the two-regular-exemption class, but no return was assumed to have more than two blind and aged exemp-

APPENDIX C

tions. Once the blind and aged exemptions had thus been assigned to ordinary exemption classes, the number of returns affected were shifted into a correspondingly higher exemption class, and the result was a distribution of returns by total number of exemptions. The procedure just described was carried out separately for joint returns, since they cannot have less than two regular exemptions. It was assumed that 60 per cent of the returns with blind and aged exemptions fell into the class with two regular exemptions, and the rest into that with three regular exemptions.

The alternative tax returns were allocated, for each income group, among the exemption classes in the same proportion as the total number of returns in that income group were distributed among the exemption classes.

The next step was to obtain average taxable income for the frequencies in each cell by subtracting from its average AGI less deductions the value of the exemption. By multiplying the average taxable income by the corresponding frequencies, and summing the amounts thus obtained for each cell, we obtained an aggregate tax base from which tax liabilities could be computed.

Columns 3, 4, and 5. The estimates of total tax liability due on taxable returns when only exemptions are allowed were made by the same method as that for column 2, except that we subtracted the amount of exemptions from average AGI rather than average AGI less deductions for each income group of the distribution. For column 4, we simply computed the tax liability on the average AGI less deductions in each AGI group and multiplied this by the frequencies in the group.

For column 5, the adjusted gross income itself, as reported on taxable returns, constituted the tax base.

The four tax bases underlying the figures in Table 5 are presented in Tables C-1 to C-4, distributed by rate brackets and AGI groups. From the table the reader will be able to repeat our computations with such alternate sets of bracket rates as he might find of interest or consider more appropriate.

TABLE C-1, concluded

AGI GROUP	RATE BRACKETS										26-32	32-38	
	10-12	12-14	14-16	16-18	18-20	20-22	22-26	200 and over	200 and over	Capital Gains Subject to Alternative Tax			
Under 2													
2-3													
3-5													
5-10													
10-20	72,328	64,890	10,776								61,336	84,040	6,588
20-50	644,270	627,772	463,726	96,255	76,837						375,582	171,502	44,772
50-100	226,116	226,116	226,116	226,116	226,116	226,116	226,116	226,116	226,116	226,116	111,872	167,808	167,808
100-500	55,936	55,936	55,936	55,936	55,936	55,936	55,936	55,936	55,936	55,936	3,456	5,184	5,184
500 and over	1,728	1,728	1,728	1,728	1,728	1,728	1,728	1,728	1,728	1,728	552,246	428,534	224,352
Total	1,000,378	976,442	758,282	380,035	360,617	325,482	325,482	325,482	325,482	325,482	200 and over	200 and over	Capital Gains Subject to Alternative Tax
Under 2													
2-3													
3-5													
5-10													
10-20													1,294
20-50													85,080
50-100													189,848
100-500	27,530	53,608	53,608	8,300	8,300	8,300	8,300	8,300	8,300	8,300	4,673	307,872	137,802
500 and over	8,640	43,103	43,103	23,838	23,838	23,838	23,838	23,838	23,838	23,838	138,097	137,802	137,802
Total	36,170	96,711	96,711	32,138	32,138	32,138	32,138	32,138	32,138	32,138	142,770	721,896	721,896

^a Excludes capital gains subject to alternative tax which appear in the last column.

TABLE C-2, concluded

AGI GROUP	RATE BRACKETS										26-32	32-38	
	10-12	12-14	14-16	16-18	18-20	20-22	22-26	20-22	22-26	26-32			
Under 2													
2-3													
3-5													
5-10													
10-20	158,275	72,328	64,920	10,796						83,440	85,042	91,994	62,761
20-50	1,072,851	631,606	628,705	481,753					102,733	226,116	452,232	507,549	57,782
50-100	226,116	226,116	226,116	226,116					226,116	226,116	111,872	167,808	167,808
100-500	55,936	55,936	55,936	55,936					55,936	55,936	3,456	5,184	5,184
500 and over	1,728	1,728	1,728	1,728					1,728	1,728	3,456	5,184	5,184
Total	1,514,906	987,714	977,405	776,329					386,513	367,220	652,602	772,535	298,535
Under 2													
2-3													
3-5													
5-10													1,294
10-20													85,080
20-50													189,848
50-100													307,872
100-500		65,229	112,658						25,200		13,085		137,802
500 and over		8,640	43,200						43,200		216,191		137,802
Total		73,869	155,858						68,400		229,276		721,896

RATE BRACKETS

Capital Gains Subject
to Alternative Tax

RATE BRACKETS

a Excludes capital gains subject to alternative tax which appear in the last column.

TABLE C-3
 Taxable Net Income if Exemptions Had Not Been Allowed,
 by Rate Brackets and by Adjusted Gross Income Groups, 1953
(thousands of dollars)

		RATE BRACKETS					
Total Taxable Net Incomes		0-2	2-4	4-6	6-8	8-10	
AGI GROUP							
Under 2	8,212,607		892,011				
2-3	15,462,179	14,570,168					
3-5	54,962,421	47,879,801	7,001,185	81,435			
5-10	70,925,941	47,701,116	21,520,440	1,481,160			
10-20	17,269,327	5,763,418	5,763,418	4,008,607	215,379	7,846	
20-50	10,615,345	1,570,938	1,570,938	1,570,938	1,250,702	264,342	
50-100	3,318,682	226,116	226,116	226,116	1,570,938	1,570,938	
100-500	1,707,131	55,936	55,936	55,936	226,116	226,116	
500 and over	292,285	1,728	1,728	1,728	55,936	55,936	
Total	182,765,918	125,981,828	37,031,772	7,425,920	3,320,799	2,126,906	
		RATE BRACKETS					
Under 2		44-50	50-60	60-70	70-80	80-90	
2-3	38,44						
3-5							
5-10							
10-20							
20-50							
50-100	44,772	44,772	37,855				
100-500	167,808	99,322	124,134	67,080	52,801	36,205	
500 and over	5,184	5,184	8,640	8,640	8,640	8,640	
Total	217,764	149,278	170,629	75,720	61,441	44,845	

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TABLE C-3, concluded

AGI GROUP	RATE BRACKETS										26-32	32-38	
	10-12	12-14	14-16	16-18	18-20	20-22	22-26	200 and over	150-200	200 and over			
Under 2													
2-3													
3-5													
5-10													
10-20	105,904	72,412	40,524										
20-50	960,372	631,606	599,292	252,076	86,932	62,249	61,336	88,348	18,444				
50-100	226,116	226,116	226,116	226,116	226,116	226,116	422,036	237,199	44,772				
100-500	55,936	55,936	55,936	55,936	55,936	55,936	111,872	167,808	167,808				
500 and over	1,728	1,728	1,728	1,728	1,728	1,728	3,456	5,184	5,184				
Total	1,350,056	987,798	923,596	535,856	370,712	346,029	598,700	498,539	236,208				
Under 2													
2-3													
3-5													
5-10													
10-20													
20-50													
50-100	27,530	56,223	56,223	8,388	8,388	4,856	4,856	189,848	307,872	137,802			
100-500	8,640	8,640	43,200	24,112	24,112	198,573	198,573	721,896	721,896				
500 and over													
Total	36,170	36,170	99,423	32,500	32,500	143,429	143,429	721,896	721,896				

Capital Gains Subject to Alternative Tax

a Excludes capital gains subject to alternative tax which appear in the last column.

TABLE C-4
Taxable Net Income if neither Deductions nor Exemptions Had Been Allowed,
by Rate Brackets and by Adjusted Gross Income Groups, 1953
(thousands of dollars)

AGI GROUP	Total Taxable Net Income	RATE BRACKETS						
		0-2	2-4	4-6	6-8	8-10		
Under 2	9,313,411							
2-3	17,650,047	15,450,252	2,199,795					
3-5	63,113,542	50,942,235	11,408,919	762,388				
5-10	81,757,257	47,681,116	30,076,651	3,424,076	491,617			83,797
10-20	19,699,545	5,763,418	5,763,418	5,597,709	1,514,482			625,682
20-50	11,952,384	1,570,938	1,570,938	1,570,938	1,570,938			1,570,938
50-100	3,804,480	226,116	226,116	226,116	226,116			226,116
100-500	2,083,631	55,936	55,936	55,936	55,936			55,936
500 and over	389,840	1,728	1,728	1,728	1,728			1,728
Total	209,764,137	131,005,150	51,303,501	11,638,891	3,860,817	70,860,817	2,564,147	
		RATE BRACKETS						
Under 2	38-44	44-50	50-60	60-70	70-80	80-90		
2-3								
3-5								
5-10								
10-20								
20-50								
50-100	44,772	70,548	27,465					
100-500	167,808	207,068	120,882					67,080
500 and over	5,184	8,640	8,640					8,640
Total	217,764	217,764	286,256	156,987	75,720	75,720		

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TABLE C-4, concluded

AGI GROUP	RATE BRACKETS										Total	Capital Gains Subject to Alternative Tax	
	10-12	12-14	14-16	16-18	18-20	20-22	22-26	26-32	32-38				
Under 2													
2-3													
3-5													
5-10													
10-20	249,467	72,412	72,412	40,595									
20-50	1,570,938	648,514	631,606	603,495	272,739	89,018	110,465	92,004	78,915				
50-100	226,116	226,116	226,116	226,116	226,116	226,116	452,232	562,029	115,386				
100-500	55,936	55,936	55,936	55,936	55,936	55,936	111,872	167,808	167,808				
500 and over	1,728	1,728	1,728	1,728	1,728	1,728	3,456	5,184	5,184				
Total	2,104,185	1,004,706	987,798	927,870	556,519	372,798	678,025	827,025	367,293				
Under 2													
2-3													
3-5													
5-10													
10-20													
20-50													1,294
50-100	67,080	117,196	117,196	25,350	13,495	200 and over							85,080
100-500	8,640	43,200	43,200	43,200	217,040	217,040							189,848
500 and over													307,872
Total	75,720	160,396	160,396	68,550	230,535	230,535							137,802

a Excludes capital gains subject to alternative tax which appear in the last column.