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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 rearraying 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 exemptions. 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*

Taxable Net Income, by Rate Brackets and by Adjusted Gross Income Groups, 1953

(thousands of dollars)

AGI GROUP	*Total Taxable Net Income*[a]	RATE BRACKETS *0-2*	*2-4*	*4-6*	*6-8*	*8-10*
Under 2	3,368,136	3,368,136				
2-3	7,561,161	7,561,161				
3-5	28,607,318	25,933,123	2,674,195			
5-10	46,161,260	39,028,785	6,436,512	621,884	74,079	
10-20	14,264,812	5,763,418	5,555,606	2,004,734	590,256	202,804
20-50	9,758,112	1,570,938	1,570,938	1,570,938	1,570,938	1,371,834
50-100	3,198,446	226,116	226,116	226,116	226,116	226,116
100-500	1,678,610	55,936	55,936	55,936	55,936	55,963
500 and over	291,438	1,728	1,728	1,728	1,728	1,728
Total	114,889,293	83,509,341	16,521,031	4,481,336	2,519,053	1,858,418

AGI GROUP	RATE BRACKETS *38-44*	*44-50*	*50-60*	*60-70*	*70-80*	*80-90*
Under 2						
2-3						
3-5						
5-10						
10-20						
20-50						
50-100	44,772	43,308	31,234			
100-500	158,595	96,468	114,625	67,080	49,847	35,100
500 and over	5,184	5,184	8,640	8,640	8,640	8,640
Total	208,551	144,960	154,499	75,720	58,487	43,740

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TABLE C-1, *concluded*

AGI GROUP	RATE BRACKETS *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	72,328	64,890	10,776						
20-50	644,270	627,772	463,726	96,255	76,837	41,702	61,336	84,040	6,588
50-100	226,116	226,116	226,116	226,116	226,116	226,116	375,582	171,502	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	1,000,378	976,442	758,282	380,035	360,617	325,482	552,246	428,534	224,352

	RATE BRACKETS *90-100*	*100-150*	*150-200*	*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	8,300	4,673	307,872
500 and over	8,640	43,103	23,838	138,097	137,802
Total	36,170	96,711	32,138	142,770	721,896

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

TABLE C-2

Taxable Net Income if Deductions Had Not Been Allowed, by Rate Brackets and by Adjusted Gross Income Groups, 1953

(thousands of dollars)

AGI GROUP	*Total Taxable Net Income*[a]	RATE BRACKETS *0-2*	*2-4*	*4-6*	*6-8*	*8-10*
Under 2	4,469,087	4,469,087				
2-3	9,749,027	9,502,442	246,585			
3-5	36,756,189	30,746,947	5,947,589	61,653		
5-10	56,980,575	43,736,699	11,716,105	1,275,510	233,333	18,928
10-20	16,697,018	5,763,418	5,759,790	3,409,293	1,198,568	259,630
20-50	11,095,575	1,570,938	1,570,938	1,570,938	1,570,938	1,570,938
50-100	3,684,308	226,116	226,116	226,116	226,116	226,116
100-500	2,055,101	55,936	55,936	55,936	55,936	55,963
500 and over	388,991	1,728	1,728	1,728	1,728	1,728
Total	141,875,871	96,073,311	25,524,787	6,601,174	3,286,619	2,133,276

AGI GROUP	RATE BRACKETS *38-44*	*44-50*	*50-60*	*60-70*	*70-80*	*80-90*
Under 2						
2-3						
3-5						
5-10						
10-20						
20-50						
50-100	44,772	44,772	67,196	22,729		
100-500	167,808	167,808	194,996	111,373	67,080	67,080
500 and over	5,184	5,184	8,640	8,640	8,640	8,640
Total	217,764	217,764	270,832	142,742	75,720	75,720

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TABLE C-2, *concluded*

AGI GROUP	RATE BRACKETS 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	158,275	72,328	64,920	10,796					
20-50	1,072,851	631,606	628,705	481,753	102,733	83,440	85,042	91,994	62,761
50-100	226,116	226,116	226,116	226,116	226,116	226,116	452,232	507,549	57,782
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	1,514,906	987,714	977,405	776,329	386,513	367,220	652,602	772,535	293,535

AGI GROUP	RATE BRACKETS 90-100	100-150	150-200	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	65,229	112,658	25,200	13,085	307,872
500 and over	8,640	43,200	43,200	216,191	137,802
Total	73,869	155,858	68,400	229,276	721,896

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)

AGI GROUP	*Total Taxable Net Income*[a]	RATE BRACKETS *0-2*	*2-4*	*4-6*	*6-8*	*8-10*
Under 2	8,212,607	8,212,607				
2-3	15,462,179	14,570,168	892,011			
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	215,379	7,846
10-20	17,269,327	5,763,418	5,763,418	4,008,607	1,250,702	264,342
20-50	10,615,345	1,570,938	1,570,938	1,570,938	1,570,938	1,570,938
50-100	3,318,682	226,116	226,116	226,116	226,116	226,116
100-500	1,707,131	55,936	55,936	55,936	55,936	55,936
500 and over	292,285	1,728	1,728	1,728	1,728	1,728
Total	182,765,918	125,981,828	37,031,772	7,425,920	3,320,799	2,126,906

AGI GROUP	RATE BRACKETS *38-44*	*44-50*	*50-60*	*60-70*	*70-80*	*80-90*
Under 2						
2-3						
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 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	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

AGI GROUP	RATE BRACKETS 90-100	100-150	150-200	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	56,223	8,388	4,856	307,872
500 and over	8,640	43,200	24,112	138,573	137,802
Total	36,170	99,423	32,500	143,429	721,896

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*[a]	RATE BRACKETS *0-2*	*2-4*	*4-6*	*6-8*	*8-10*
Under 2	9,313,411	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	625,632
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	2,564,147

	RATE BRACKETS *38-44*	*44-50*	*50-60*	*60-70*	*70-80*	*80-90*
Under 2						
2-3						
3-5						
5-10						
10-20						
20-50						
50-100	44,772	44,772	70,548	27,465		
100-500	167,808	167,808	207,068	120,882	67,080	67,080
500 and over	5,184	5,184	8,640	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 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

	RATE BRACKETS 90-100	100-150	150-200	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	67,080	117,196	25,350	13,495	307,872
500 and over	8,640	43,200	43,200	217,040	137,802
Total	75,720	160,396	68,550	230,535	721,896

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