TABLE 4-4.—*Percent selected tax categories to total tax revenue, 1902, 1927, 1938, 1948, and 1957*

[Revenues in millions of dollars]

	Tax revenue	Personal income		Corporate income		Sales, receipts, customs		Property		Miscellaneous and licenses	
		Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
1957 [1]:											
Total	98,856	37,387	37.82	22,151	22.41	20,588	20.83	13,097	13.25	5,634	5.70
Federal	69,815	35,620	51.02	21,167	30.32	11,127	15.94			1,902	2.72
State	14,531	1,563	10.76	984	6.77	8,436	58.06	479	3.30	3,069	21.12
Local	14,511	205	1.41			1,025	7.06	12,618	86.95	663	4.57
1948:											
Total	51,218	19,848	38.75	10,270	20.05	12,092	23.61	6,126	11.96	2,881	5.62
Federal	37,876	19,305	50.97	9,768	25.55	7,650	20.20			1,243	3.28
State	6,743	499	7.40	585	8.68	4,042	59.94	276	4.09	1,340	19.87
Local	6,599	44	.67	7	.11	400	6.06	5,850	88.65	298	4.52
1938:											
Total	12,949	1,495	11.55	1,498	11.57	3,815	29.46	4,440	34.29	1,701	13.14
Federal	5,344	1,277	23.90	1,333	24.94	2,021	37.82			713	13.34
State	3,132	218	6.96	165	5.27	1,674	53.45	244	7.79	831	26.53
Local	4,473					120	2.68	4,196	93.81	157	3.51
1927:											
Total	9,451	949	10.04	1,351	14.29	1,558	16.49	4,730	50.05	862	9.12
Federal	3,364	879	26.13	1,259	37.43	1,088	32.34			137	4.07
State	1,608	70	4.35	92	5.72	445	27.67	370	23.01	631	39.24
Local	4,479					25	.56	4,360	97.34	94	2.10
1902:											
Total	1,373					515	37.51	706	51.42	152	11.07
Federal	513					487	94.93			26	5.07
State	156					28	17.95	82	52.56	46	29.49
Local	704							624	88.64	80	11.36

[1] Preliminary.

Source: Calculated and adapted from "Governmental Finances in the United States, 1902 to 1957," G-CGA-No. 9, March 1959, U.S. Department of Commerce, Bureau of the Census, tables 2, 3, 5, 6.

SOME EMPIRICAL MATERIAL ON THE RESPONSE OF TAXES TO INCOME AND PRICE CHANGES

In this particular study, we have used a nonparametric test which gives the significance and the difference between two categories of a number of paired observations, each of which may have been generated under different conditions. For example, does the percentage change from year to year in the income tax yield, when rates did not change, exceed that in the assessed valuation of property a significant number of times so that we may conclude that the city income tax responds more than the city property tax, given constant rates? We used six cities which have had income taxes for sufficient periods of time, and observations were taken for St. Louis 1953–57, Philadelphia 1940–48 and 1950–55, Louisville, Ky., 1949–55, Columbus, Ohio, 1948–55, Toledo, Ohio, 1946–56, Dayton, Ohio, 1951–56.

We had to be content with comparing not income but income tax receipts and not property tax receipts but assessed valuations. The number of paired observations were 36 and the number of observations in which the change in income tax-yield exceeded that in assessed valuation was 31. We can be more than 98.8 percent certain that the city income tax responds better to income changes than the property tax, given constant rates. This is about what we might expect. These results are, however, subject to some reservation because of the effect of the adoption of an income tax, for example, on the collection of the property tax. A similar study for years of declining income indicates that we can be 99.9 percent sure that the income tax responds more to income declines than the property tax for cities.