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APPENDIX D

Earnings and Income

TABLE D-1

United States:

Annual Wage or Salary per Adult-Male Equivalent Employed in 38 Large Cities, 1899–1949

(dollars of buying power in Chicago in 1929)

	Manufacturing [a]			*All Industries* [a]	
	1899 [b]	*1919* [c]	*1929* [c]	*1939* [c, d]	*1949* [c, d]
	BASED ON LOCAL WORKWEEK				
Atlanta	945	898	996	1,275	1,512
Baltimore	1,092	1,215	1,343	1,497	1,893
Birmingham	...	1,080	1,130	1,527	1,754
Boston	1,474	1,125	1,444	1,509	1,829
Bridgeport	1,299	1,282	1,344	1,581	1,903
Buffalo	1,204	1,370	1,585	1,751	2,172
Chicago	1,310	1,459	1,615	1,571	2,249
Cincinnati	1,175	1,196	1,521	1,610	1,950
Cleveland	1,232	1,458	1,757	1,610	2,211
Columbus	1,156	1,303	1,603	1,751	2,079
Dallas	...	1,055	1,216	1,471	2,000
Denver	1,569	1,265	1,548	1,652	2,039
Detroit	1,130	1,560	1,865	1,885	2,374
Houston	...	1,088	1,328	1,586	2,003
Indianapolis	1,109	1,200	1,417	1,697	2,267
Kansas City	1,384	1,285	1,498	1,650	2,210
Los Angeles	1,327	1,326	1,575	1,608	2,062
Louisville	979	1,134	1,231	1,462	2,037
Memphis	1,062	895	1,101	1,240	1,645
Milwaukee	1,137	1,269	1,684	1,726	2,235
Minneapolis	1,232	1,291	1,461	1,687	2,193
Newark	1,310	1,276	1,477	1,588	2,001
New Haven	1,315	1,099	1,305	1,525	1,828
New Orleans	1,137	1,093	1,110	1,206	1,706
New York	1,467	1,408	1,737	1,533	2,178
Norfolk	...	1,178	1,240	1,418	1,534
Omaha	1,322	1,398	1,497	1,614	2,042
Philadelphia	1,261	1,338	1,533	1,572	2,026
Pittsburgh	1,322	1,357	1,495	1,647	1,996
Portland	1,320	1,556	1,461	1,872	2,231
Providence	1,216	1,005	1,208	1,502	1,732
Richmond	879	963	1,136	1,471	1,721
Rochester	1,159	1,266	1,642	1,792	2,186
St. Louis	1,239	1,238	1,420	1,544	2,020
St. Paul	1,166	1,309	1,533	1,665	2,247
San Francisco	1,427	1,430	1,598	1,693	2,162
Scranton	1,218	1,059	1,204	1,562	1,853
Seattle	1,618	1,593	1,552	1,895	2,224
Mean—38 Cities	1,241	1,245	1,432	1,591	2,008

TABLE D-1, *continued*

	Manufacturing [a]			*All Industries* [a]	
	1899 [b]	*1919* [c]	*1929* [c]	*1939* [c, d]	*1949* [c, d]
	BASED ON 48-HOUR WORKWEEK [e]				
Atlanta	723	816	853	1,391	
Baltimore	846	1,215	1,343	1,796	
Birmingham	...	864	951	1,788	
Boston	1,199	1,125	1,444	1,685	
Bridgeport	1,038	1,282	1,268	1,897	
Buffalo	995	1,370	1,585	2,101	
Chicago	1,083	1,459	1,615	1,885	
Cincinnati	941	1,196	1,463	1,885	
Cleveland	986	1,402	1,689	1,933	
Columbus	924	1,229	1,541	1,910	
Dallas	...	995	1,081	1,502	
Denver	1,197	1,265	1,548	1,802	
Detroit	863	1,530	1,759	2,263	
Houston	...	1,066	1,180	1,730	
Indianapolis	860	1,132	1,337	1,986	
Kansas City	1,126	1,285	1,469	1,799	
Los Angeles	1,116	1,326	1,575	1,838	
Louisville	746	1,031	1,161	1,672	
Memphis	810	795	979	1,295	
Milwaukee	867	1,244	1,559	2,072	
Minneapolis	941	1,291	1,461	1,928	
Newark	1,047	1,276	1,477	1,906	
New Haven	1,052	1,037	1,231	1,786	
New Orleans	867	1,071	951	1,315	
New York	1,213	1,408	1,737	1,752	
Norfolk	...	1,133	1,148	1,620	
Omaha	1,026	1,398	1,497	1,761	
Philadelphia	993	1,338	1,446	1,887	
Pittsburgh	1,040	1,207	1,410	1,977	
Portland	1,007	1,556	1,461	2,191	
Providence	972	985	1,162	1,802	
Richmond	671	908	1,052	1,642	
Rochester	957	1,266	1,642	2,150	
St. Louis	1,007	1,238	1,392	1,853	
St. Paul	891	1,309	1,533	1,949	
San Francisco	1,199	1,460	1,598	2,032	
Scranton	960	1,038	1,136	1,829	
Seattle	1,235	1,731	1,552	2,274	
Mean—38 Cities	982	1,218	1,376	1,839	

The 38-city study omitted 1890 and 1910 because of the difficulty presented by the probability of varying degrees of overcount or undercount in the different cities in these years. Birmingham, Dallas, Houston, and Norfolk were not covered by the census in 1900.

Source: Text of this appendix following Table D-7 and notes to Appendix Table C-8; Erika H. Schoenberg and Paul H. Douglas, "Studies in the Supply Curve of Labor: The Relation in 1929 between Average Earnings in American Cities and the Proportions Seeking Employment," *Journal of Political Economy*, February 1937, p. 79; Paul H. Douglas, *The Theory of Wages*, Macmillan, 1934, pp. 276–281; Margaret L. Stecker, "Intercity Difference in Cost of Living in March 1935, 59 Cities," *Research Monograph* XII, *Handbook of Labor Statistics, 1941*, Vol. I,

Notes to Table D-1, *continued*

pp. 98–99, and *Monthly Labor Review*, February 1951, p. 153, Bureau of Labor Statistics.

[a] For adjustment to adult-male equivalents, see text in Appendix C following Table C-7.

[b] Adjusted for cost of living in 1899 compared with 1929, but not adjusted for intercity differences in 1899. The lack of an intercity adjustment in 1899 may not have mattered in view of the fact that the associations between income and labor force in 1919, 1929, and 1939 were almost as high for unadjusted, as for adjusted data.

[c] Adjusted for variations in the cost of living over time and among cities at the same time. Within accuracy limits of living-cost indexes, a dollar of earnings in any of the 38 cities in any year has the same purchasing power as in Chicago during 1929. The adjustments for intercity differences in 1919 and 1929 were made by Paul Douglas (Douglas, *op. cit.*, p. 281; Schoenberg and Douglas, *op. cit.*, pp. 66–67). The adjustments for 1939 and 1949 rest on 1935 and 1941 Work Progress Administration indexes among different cities for a 4-person manual worker's family extended by means of indexes of the Bureau of Labor Statistics for individual cities over time. See: Stecker, *loc. cit.; Statistical Abstract of the United States, 1956*, Bureau of the Census, pp. 325–326.

[d] Annual wage or salary per employed male. Data were given separately for males; no adjustment was made for the lower earnings of boys, since the number employed was not large enough to distort the averages.

[e] Hours data were not available for 1949.

TABLE D-2

United States:

Average Hourly Earnings, Weighted by the Industrial Composition of Employment, 1940–1956

ANNUAL AND QUARTERLY AVERAGES

	Current Dollars		*1929 Dollars* [a]			*Current Dollars*		*1929 Dollars* [a]	
	Weighted by Employment in:		*Weighted by Employment in:*			*Weighted by Employment in:*		*Weighted by Employment in:*	
	Given Year	*1940*	*Given Year*	*1940*		*Given Year*	*1940*	*Given Year*	*1940*
1940	0.63	0.64	0.77	0.78	1947	1.17	1.14	0.90	0.88
I	0.63	0.63	0.77	0.77	I	1.13	1.10	0.90	0.87
II	0.62	0.64	0.76	0.78	II	1.15	1.12	0.90	0.88
III	0.62	0.64	0.76	0.78	III	1.17	1.15	0.89	0.88
IV	0.64	0.64	0.78	0.78	IV	1.21	1.18	0.90	0.87
1941	0.69	0.68	0.80	0.80	1948	1.26	1.24	0.90	0.89
I	0.67	0.66	0.81	0.80	I	1.23	1.20	0.90	0.89
II	0.68	0.67	0.81	0.80	II	1.24	1.22	0.89	0.88
III	0.69	0.69	0.79	0.79	III	1.28	1.25	0.90	0.88
IV	0.71	0.71	0.79	0.79	IV	1.30	1.27	0.92	0.90
1942	0.77	0.76	0.81	0.80	1949	1.31	1.30	0.95	0.94
I	0.74	0.73	0.80	0.79	I	1.31	1.29	0.95	0.93
II	0.75	0.74	0.79	0.78	II	1.30	1.29	0.94	0.93
III	0.78	0.77	0.81	0.80	III	1.31	1.30	0.95	0.94
IV	0.80	0.79	0.82	0.81	IV	1.32	1.31	0.96	0.95
1943	0.85	0.83	0.84	0.82	1950	1.37	1.35	0.98	0.96
I	0.83	0.80	0.84	0.81	I	1.35	1.32	0.98	0.96
II	0.84	0.82	0.83	0.81	II	1.35	1.33	0.98	0.96
III	0.85	0.84	0.84	0.83	III	1.38	1.36	0.98	0.96
IV	0.87	0.85	0.86	0.84	IV	1.41	1.39	0.98	0.96
1944	0.90	0.88	0.88	0.86	1951	1.50	1.47	0.99	0.97
I	0.90	0.87	0.89	0.86	I	1.47	1.43	0.98	0.96
II	0.90	0.88	0.88	0.86	II	1.48	1.45	0.98	0.96
III	0.90	0.89	0.87	0.86	III	1.50	1.47	0.99	0.97
IV	0.91	0.89	0.88	0.86	IV	1.53	1.51	0.99	0.98
1945	0.93	0.92	0.88	0.88	1952	1.58	1.55	1.02	1.00
I	0.92	0.90	0.89	0.87	I	1.56	1.53	1.01	1.00
II	0.92	0.91	0.88	0.87	II	1.57	1.53	1.02	0.99
III	0.94	0.93	0.89	0.88	III	1.58	1.55	1.01	0.99
IV	0.94	0.93	0.89	0.88	IV	1.61	1.58	1.03	1.01
1946	1.03	1.02	0.91	0.90	1953	1.66	1.63	1.06	1.04
I	0.97	0.95	0.92	0.90	I	1.64	1.60	1.06	1.03
II	1.01	1.00	0.94	0.93	II	1.65	1.61	1.06	1.03
III	1.05	1.04	0.90	0.89	III	1.67	1.64	1.06	1.05
IV	1.09	1.07	0.88	0.87	IV	1.68	1.65	1.07	1.05

TABLE D-2, *continued*

ANNUAL AND QUARTERLY AVERAGES

	Current Dollars		*1929 Dollars*[a]			*Current Dollars*		*1929 Dollars*[a]	
	Weighted by Employment in:		*Weighted by Employment in:*			*Weighted by Employment in:*		*Weighted by Employment in:*	
	Given Year	*1940*	*Given Year*	*1940*		*Given Year*	*1940*	*Given Year*	*1940*
1954	1.72	1.68	1.09	1.07	1956	1.87	1.83	1.18	1.16
I	1.71	1.67	1.09	1.06	I	1.85	1.81	1.18	1.16
II	1.71	1.67	1.09	1.07	II	1.86	1.82	1.18	1.16
III	1.71	1.68	1.09	1.07	III	1.86	1.83	1.17	1.15
IV	1.73	1.70	1.10	1.09	IV	1.91	1.87	1.19	1.16
1955	1.79	1.75	1.15	1.12					
I	1.77	1.72	1.14	1.10					
II	1.78	1.74	1.14	1.12					
III	1.78	1.75	1.14	1.12					
IV	1.82	1.79	1.16	1.14					

Source, coverage, and discussion of method: text at end of this appendix and the following. Data on hourly earnings cover production and related workers in manufacturing and mining; nonsupervisory employees in railroads, public utilities, trade, laundries and cleaning establishments; all employees, including teachers, in government; and wage and salary employees in agriculture, excluding family workers, owner-farmers, and tenant farmers. The types of earnings include full- and part-time, premium, and vacation pay (but they exclude special bonuses in manufacturing, mining, construction, railways, and public utlities), payroll divided by estimated man-hours of employment in government, and average wage rate without board in agriculture.

General sources were the Bureau of Labor Statistics for manufacturing, mining (except for hours in anthracite coal), public utilities, trade, services; Interstate Commerce Commission for railroads; Anthracite Institute for hours in anthracite coal mining; Bureau of the Census, Bureau of Labor Statistics, and laws and directives for hours in government; Agricultural Marketing Service (Bureau of Agricultural Economics) and the census, for agriculture. Specific references were:

Monthly Labor Review, Bureau of Labor Statistics: *January 1941*, p. 258; *May 1941*, p. 1321; *December 1945*, p. 22; *December 1949*, pp. 699–700; *September 1950*, p. 389; *September 1951*, p. 336; *April 1952*, p. 453; *September 1952*, p. 325.

Survey of Current Business, Department of Commerce: *1942 Supplement*, p. 55; *June 1943*, p. 31; *1947 Supplement*, pp. 54–71; *1949 Supplement*, p. 78; *December 1949*, p. S-15; *September 1950*, pp. S-10, 15 ff.; *February 1951*, p. S-11; *May 1951*, p. S-11; *June 1951*, p. S-15; *February 1952*, pp. S-11, 15; *April 1952*, p. 453; *July 1952*, p. S-11; *October 1952*, pp. S-11, 15; *February and November 1953*, pp. S-11, 15; *June 1955*, p. S-11.

Economic Almanac for 1950, National Industrial Conference Board, pp. 302, 345–347. "Hours and Earnings in the United States, 1932–40," Dept. of Labor, *Bull. 697*, p. 133. *Current Population Reports, Labor Force, Employment, and Unemployment in the United States, 1940 to 1946*, Series P-50, No. 2, pp. 18–23, and *Labor Force*, Series P-50, No. 13, p. 25, and Nos. 63–175. *Labor Force Bulletin, April 1947*, p. 11; *Statistical Abstract of the United States, 1949*, p. 908; *Government Employment, State Distribution of Public Employment in 1949*, Series G-GE49-No. 7, and *in 1950*, Series G-GE50-No. 7; *and Public Employment in July 1950, in October 1951, in April 1952, in May 1953, in October 1953, in October 1954*, and *in January 1955;* all from the Bureau of the Census.

Data on hours of Employment of Government Workers: Act of June 28, 1940 (Public Law 671), of Oct. 21, 1940 (P. L. 873), May 2, 1941 (P. L. 46), June 3, 1941 (P. L. 100), Feb. 10, 1942 (P. L. 450); S. J. Res. 170, Dec. 22, 1942; War Overtime Pay Act, May 7, 1943 (P. L. 49); War and Navy Depts. Exec. Orders of June 18 and August 20, 1941; Presidential memorandum to heads of all departments and agencies, Dec. 23, 1942, establishing general minimum work schedule of 48-hour week; Ismar Baruch, "The Federal Employees Pay Act of 1945," *Public Personnel Review*, October 1945, pp. 201–212.

[a] For description of adjustment for changes in the value of the dollar, see Table D-4, note *c*.

TABLE D-3

Canada:

Average Hourly Earnings, Excluding Agriculture and Government, Weighted by the Industrial Composition of Employment, 1945–1956

	ANNUAL AND QUARTERLY AVERAGES			
	Current Dollars		*1929 Dollars* [a]	
	Weighted by Employment in:		*Weighted by Employment in:*	
	Given Year	*1945*	*Given Year*	*1945*
1945	0.68	0.68	0.69	0.69
I	0.68	0.68	0.70	0.70
II	0.68	0.68	0.70	0.70
III	0.68	0.68	0.69	0.69
IV	0.67	0.67	0.68	0.67
1946	0.70	0.70	0.69	0.69
I	0.68	0.68	0.69	0.69
II	0.69	0.69	0.68	0.68
III	0.70	0.70	0.68	0.68
IV	0.73	0.73	0.70	0.70
1947	0.79	0.79	0.71	0.71
I	0.76	0.76	0.72	0.72
II	0.78	0.78	0.71	0.71
III	0.80	0.80	0.71	0.71
IV	0.83	0.83	0.70	0.70
1948	0.90	0.90	0.70	0.70
I	0.86	0.86	0.70	0.70
II	0.88	0.88	0.70	0.70
III	0.91	0.91	0.70	0.70
IV	0.93	0.93	0.71	0.71
1949	0.96	0.96	0.73	0.73
I	0.95	0.95	0.72	0.72
II	0.96	0.96	0.73	0.73
III	0.97	0.96	0.72	0.72
IV	0.97	0.97	0.73	0.73
1950	1.01	1.01	0.74	0.74
I	0.99	0.99	0.74	0.74
II	1.00	1.00	0.74	0.74
III	1.01	1.01	0.73	0.73
IV	1.03	1.03	0.73	0.73
1951	1.12	1.13	0.74	0.74
I	1.06	1.07	0.73	0.74
II	1.10	1.10	0.73	0.74
III	1.14	1.15	0.73	0.74
IV	1.17	1.18	0.75	0.75
1952	1.23	1.24	0.80	0.80
I	1.20	1.21	0.77	0.78
II	1.23	1.24	0.80	0.80
III	1.23	1.24	0.80	0.80
IV	1.23	1.26	0.82	0.83

TABLE D-3, *continued*

	ANNUAL AND QUARTERLY AVERAGES			
	Current Dollars		*1929 Dollars* [a]	
	Weighted by Employment in:		*Weighted by Employment in:*	
	Given Year	*1945*	*Given Year*	*1945*
1953	1.30	1.31	0.86	0.86
I	1.28	1.29	0.84	0.85
II	1.30	1.30	0.86	0.86
III	1.31	1.31	0.86	0.86
IV	1.32	1.32	0.86	0.86
1954	1.34	1.35	0.88	0.88
I	1.34	1.35	0.88	0.88
II	1.35	1.36	0.88	0.89
III	1.34	1.35	0.87	0.88
IV	1.34	1.35	0.87	0.88
1955	1.38	1.39	0.90	0.91
I	1.36	1.37	0.89	0.89
II	1.38	1.39	0.90	0.91
III	1.38	1.39	0.90	0.91
IV	1.39	1.40	0.90	0.91
1956	1.45	1.46	0.93	0.94
I	1.42	1.42	0.92	0.93
II	1.45	1.45	0.94	0.94
III	1.46	1.47	0.93	0.94
IV	1.48	1.49	0.93	0.94

Source, coverage, and discussion of method (see also text of this appendix following Table D-7): Data on hourly earnings cover wage earners in manufacturing, mining, construction, services, transportation, and trade; they do not cover those in government and agriculture. The types of earnings are: gross hourly earnings for manufacturing, mining, construction, and services; hourly rates in local transportation (chiefly street and electric railway); and hourly earnings, computed from weekly salaries, for trade. The general sources were the Dominion Bureau of Statistics and the Department of Labour, Ottawa. See *Annual Review of Employment and Payrolls in Canada; Eighth Census of Canada, 1941*, Vol. VI, pp. 578–593; *Canada Year Book, 1948–1949*, pp. 677–678; and *Canadian Statistical Review*, monthly issues beginning with October 1953; all from the Dominion Bureau of Statistics. See also *The Labour Gazette*, monthly issues beginning with January 1946; and *Annual Report on Wage Rates and Hours of Labour in Canada*, beginning with 1948; both from the Department of Labour.

[a] Adjusted for changes in the purchasing value of the dollar on the basis of the index of the Dominion Bureau of Statistics for urban wage earners in cities. *Canada Year Book, 1925*, p. 752; *1945*, p. 898; *1946*, pp. 861–863; *1954*, p. 1049. *Monthly Bulletin of Statistics* (New York, United Nations): *March 1949*, p. 156; *January 1956*, p. 140; *January 1957*, p. 140.

TABLE D-4

Personal Disposable National Income, 5 Countries, Various Periods, 1890–1951

	Per Adult-Male Equivalent Employed [a] *Three-Year Averages* [b]						
	1890	*1900*	*1910*	*1920*	*1930*	*1940*	*1950*
United States							
Current dollars	533	579	827	1,401	2,048	1,825	3,776
1929 dollars [c]	1,011	1,203	1,418	1,486	2,079	2,293	2,701
			1911	*1921*	*1931*	*1939*	*1951*
Great Britain							
Current pound sterling			144	321	240	261	487
1929 pound sterling [c]			245	229	252	274	338
1929 United States dollars [c]			1,190	1,135	1,224	1,332	1,644
				1921	*1931*	*1941*	*1951*
Canada							
Current Canadian dollars				1,489	1,373	1,441	3,120
1929 Canadian dollars [c]				1,354	1,426	1,651	2,225
1929 United States dollars [c]				1,340	1,411	1,634	2,203
			1901	*1926*	*1936*	*1945*	*1951*
New Zealand							
Current New Zealand pound sterling			117	323	206	425	751
1929 New Zealand pound sterling [c]			214	321	248	369	524
1929 United States dollars [c]			1,040	1,564	1,206	1,798	2,552

	Post-World War I Boundaries without the Saar					*Federal Republic of Germany without Berlin*	
	1895	*1907*	*1925*	*1933*	*1939*	*1939*	*1950*
Germany							
Current Reichsmark	1,574	1,836	2,469	2,559	2,939	3,061	3,910
1929 Reichsmark [c]	3,248	3,243	2,679	3,154	3,603	3,736	3,084
1929 United States dollars [c]	780	779	643	759	866	899	742

TABLE D-4, *continued*

	Per Capita Three-Year Averages [b]						
	1890	*1900*	*1910*	*1920*	*1930*	*1940*	*1950*
United States							
Current dollars	157	170	262	474	644	539	1,297
1929 dollars [c]	298	354	449	502	654	677	928
			1911	*1921*	*1931*	*1939*	*1951*
Great Britain							
Current pound sterling			48	110	80	94	188
1929 pound sterling [c]			82	79	84	99	131
1929 United States dollars [c]			401	382	409	481	636
				1921	*1931*	*1941*	*1951*
Canada							
Current Canadian dollars				432	404	431	953
1929 Canadian dollars [c]				393	419	493	679
1929 United States dollars [c]				389	415	488	673
			1901	*1926*	*1936*	*1945*	*1951*
New Zealand							
Current New Zealand pound sterling			42	114	70	153	254
1929 New Zealand pound sterling [c]			77	113	84	133	177
1929 United States dollars [c]			375	550	407	648	862

	Post-World War I Boundaries without the Saar					*Federal Republic of Germany without Berlin*	
	1895	*1907*	*1925*	*1933*	*1939*	*1939*	*1950*
Germany							
Current Reichsmark	492	600	886	769	1,071	1,153	1,284
1929 Reichsmark [c]	1,016	1,059	962	948	1,313	1,407	1,013
1929 United States dollars [c]	244	255	231	228	316	338	243

TABLE D-4, *continued*

	Per Adult-Male Equivalent Employed Census Years						
	1890	*1900*	*1910*	*1920*	*1930*	*1940*	*1950*
United States							
National Unstandardized for Farm-Nonfarm Composition of Employment							
Current dollars	530	634	886	1,915	1,960	1,894	3,951
1929 dollars [c]	1,035	1,275	1,417	1,545	2,054	2,370	2,808
National Standardized for Farm-Nonfarm Composition of Employment							
Current dollars	723	749	965	2,038	2,046	1,894	3,830
1929 dollars [c]	1,412	1,507	1,544	1,644	2,144	2,370	2,722
Farm							
Current dollars	156	302	499	965	614	783	2,557
1929 dollars [c, d]	306	577	776	652	654	991	1,598
Nonfarm							
Current dollars	869	864	1,085	2,315	2,415	2,180	4,158
1929 dollars [c]	1,697	1,756	1,738	1,921	2,528	2,726	2,988
			1911	*1921*	*1931*	*1939*	*1951*
Great Britain							
Current pounds sterling			139	311	223	267	507
1929 pounds sterling [c]			236	226	248	277	329
1929 United States dollars [c]			1,146	1,096	1,206	1,349	1,597
				1921	*1931*	*1941*	*1951*
Canada							
Current Canadian dollars				1,449	1,288	1,523	3,289
1929 Canadian dollars [c]				1,358	1,437	1,659	2,170
1929 United States dollars [c]				1,345	1,423	1,642	2,148
		1901		*1926*	*1936*	*1945*	*1951*
New Zealand							
Current New Zealand pounds sterling		117		323	244	455	874
1929 New Zealand pounds sterling [c]		214		321	283	391	557
1929 United States dollars [c]		1,040		1,565	1,379	1,904	2,715

	Post-World War I Boundaries without the Saar					*Federal Republic of Germany without Berlin*	
	1895	*1907*	*1925*	*1933*	*1939*	*1939*	*1950*
Germany							
Current Reichsmark	1,556	1,906	2,469	2,365	3,123	3,061	4,153
1929 Reichsmark [c]	3,208	3,367	2,679	3,086	3,814	3,736	3,369
1929 United States dollars [c]	771	806	643	741	917	899	809

For source and concept, see text of this appendix following Table D-7 and: *United States: Survey of Current Business*, Dept. of Commerce: *National Income Supplement, 1951*, pp. 146, 151, 209; *February 1952*, p. S-5; and *July 1952*, pp. 14–

Notes to Table D-4, *continued*

15, 30. *Historical Statistics of the United States, 1789–1945*, Bureau of the Census, pp. 14, 99, 233–234. Simon Kuznets, *National Income and Its Composition, 1919–1938*, 1941, pp. 137, 147, and *National Product since 1869*, 1946, p. 119, National Bureau of Economic Research. *Economic Report of the President*, January 1957, p. 136.

United Kingdom: Arthur L. Bowley, *Wages and Income in the United Kingdom since 1860*, London, Cambridge University Press, 1937, p. 83. A. R. Prest, "National Income of the United Kingdom, 1870–1946," London, *Economic Journal*, March 1948, pp. 58–59, Table II. J. N. R. Stone, "The Measurement of National Income and Expenditure," *Economic Journal*, September 1947, p. 286. *National Income Statistics, 1938–1947*, New York, United Nations, 1948, p. 103, Table 3. *Monthly Digest of Statistics, July 1947*, p. 123, Table 133, and *January 1949*, p. 123, Table 146; *Annual Abstract of Statistics, 1937–1947*, p. 221, Table 254, *1952*, pp. 241, 269, 273, *1953*, p. 269, *1954*, pp. 247, 250, Table 325, and *1955*, p. 242. All from the Central Statistical Office, London. *Statistical Abstract for the United Kingdom, 1913 and 1918–1931*, London, Board of Trade, pp. xiii, 115, 130, and *1913 and 1924–1937*, p. 153.

Canada: Colin Clark, *The Conditions of Economic Progress*, London, Macmillan, 1951, p. 54. *Canada Year Book, 1921*, p. 647, Table 28, *1946*, p. 863, Table 3, *1947*, p. 1001, Table 2, *1948–1949*, pp. 1093–1094, Tables 3 and 4, and *1952–1953*, pp. 1084–1085; *Canadian Statistical Review*, April 1952, pp. V, 6, 22; *Estimates of Labour Income in Canada, May 1949*, p. 2, *December 1950*, p. 2, and *May 1953*, p. 2; all from the Dominion Bureau of Statistics, Ottawa. *Monthly Bulletin of Statistics*, New York, United Nations, *March 1949*, p. 156, Table 63, and *August 1952*, p. 136, Table 54.

New Zealand: Clark, *op. cit.*, p. 148. *New Zealand Official Year Book, 1902*, p. 476, *1928*, p. 581, *1939*, pp. 483, 674, 805, *1945*, p. 512, *1947–1949*, pp. 414, 1108–1110, *1954*, p. 874; *Official Estimates of National Income and Sector Accounts, 1938–39 to 1953–54*, p. 24; and *National Income Statistics, 1938–1947*, p. 76, all Wellington, Census and Statistics Dept.

Germany: *Wirtschaft und Statistik*, Wiesbaden, Statistiches Bundesamt, 1952, Vol. IV, pp. 192, 243 *. *Statistisches Jahrbuch*, Berlin, Statistisches Reichsamt, *1927*, pp. 458, 482–483, Table 24; *1933*, p. 494; *1938*, p. 331; *1939–1940*, pp. 339, 576, 579; *1941–1942*, p. 605; *1952* (Wiesbaden, Statistisches Bundesamt), p. 375. *Statistisches Handbuch von Deutschland, 1928–44*, München, Länderrat des Amerikanischen Besatzungsgebiets, 1949, pp. 556, 601. *Deutschland in Zahlen*, Köln, Wirtschaftswissenschaftliches Institut der Gewerkschaften, 1951, pp. 134–135; *Einzelschriften zur Statistik des Deutschen Reichs, Das Deutsche Volkseinkommen vor und nach dem Kriege*, Berlin, No. 24, pp. 31–32, 64–68, 83–85. Maxine Y. Sweezy, *The Structure of the Nazi Economy*, Harvard University Press, 1941, p. 204; Kossuth Kent Kennan, *Income Taxation*, Burdick & Allen, 1910, pp. 104, 129.

[a] For adjustment to adult-male equivalents, see Appendix C, following Table C-7.

[b] Where data were available: averages of the census year and the two preceding years. Where data were not available for these years, income data were based on different years for the following nations:

United States: 1884–1893, 1894–1903, 1904–1913, 1914–1923

New Zealand: 1901–1903, 1925–1926

Germany: 1925; for Federal Republic of Germany without Berlin, 1939, 1949–1950

[c] Conversion of foreign currencies to United States dollars was made at exchange rates of 1929. Adjustment for changes in the purchasing value of the currencies of each nation over time was made on the following bases:

United States: Index of cost-of-living items, variously for working class, wage and clerical, or moderate income families in large cities: *1870–1910*, Paul H. Douglas, *Real Wages in the United States, 1890–1926*, Pollak Foundation for Economic Research, Publication No. 9, 1930, p. 60 (rent was not included during these years). *1920–1950, Historical Statistics of the United States, 1789–1945*, pp. 228–230, 236; *Statistical Abstract of the United States, 1951*, p. 282, and *1956*, p. 324; and *Bulletin* Nos. 375 (1924), and 699 (1941), all from the Bureau of the Census. *Monthly Labor Review*, Bureau of Labor Statistics, September 1935, pp. 819–837. Adjustment for 1929–1950 was based on an implicit price deflator for personal consumption expenditure (*Survey of Current Business, National Income Supplement, 1951*, p. 146).

Notes to Table D-4, *continued*

Great Britain: Index of cost-of-living items of working class families in urban areas. *Guide to Official Sources, No. 1, Labour Statistics*, London, Inter-departmental Committee on Social and Economic Research (rev. August 1950), pp. 14–15. *Nineteenth Abstract of Labour Statistics of the United Kingdom*, London, Ministry of Labour, 1928, pp. 130–134. *Cost of Living of the Working Classes*, London, Ministry of Labour, Report of 1912, Cd. 6955 of 1913. *Monthly Digest of Statistics: Supplement, Definitions and Explanatory Notes, 1950*, pp. 54–55, and *1947*, p. 35; *July 1947*, p. 123, and *January 1949*, p. 123. *Ministry of Labour Gazette*, London, *February 1921*, pp. 69–71, and *August 1947*, p. 255. *Statistical Abstract for the United Kingdom*, Vol. 76, p. 115; Vol. 82, p. 153; Vol. 85, p. 244.

Canada: Index of cost-of-living items for urban wage earners for 1921–1951. *Canada Year Book, 1921*, pp. 646–647, and *1946*, pp. 861–863. *Monthly Bulletin of Statistics, loc. cit. Canadian Statistical Review, April 1952*, p. 22, and *December 1956*, p. 8.

New Zealand: Index of cost-of-living items based on average consumption of the population for 4 or more centers. *New Zealand Official Year-Book: 1945*, pp. 505–506, 512; *1947–49*, pp. 1007–1010; *1954*, p. 874.

Germany: Since 1920, the index of the cost of living has been that of a typical wage earner in urban areas; before 1920 it was based on the price of food. *Wirtschaft und Statistik*, Berlin, Statistisches Reichsamt, *1925*, pp. 159–162; *1935*, pp. 759–762; *1938*, p. 282; *1952* (Wiesbaden, Statistisches Bundesamt), p. 243.* *Statistisches Jahrbuch, 1938*, pp. 331; *1939–1940*, p. 339; *1952*, p. 404.

[d] Adjustment of farm income for changes in the value of the dollar was made on the basis of the Department of Agriculture index covering family maintenance items. The adjustment makes use of wholesale prices for 1890 and 1900. *Historical Statistics of the United States, 1789–1945*, pp. 82, 99, 233–234, and *Economic Report of the President*, January 1957, p. 190.

TABLE D-5

United States:

Personal Disposable National Income, 1940–1956

	Annual and Quarterly Averages, Adjusted for Seasonal Variations [a]			
	Per Adult-Male Equivalent Labor Force [b]		*Per Adult-Male Equivalent Employed* [b]	
	Current Dollars	*1929 Dollars* [c]	*Current Dollars*	*1929 Dollars* [c]
1940	398	486	467	571
I	388	477	455	559
II	389	475	456	557
III	396	483	466	569
IV	417	509	491	600
1941	472	550	523	609
I	437	531	489	595
II	456	542	509	605
III	485	558	541	622
IV	510	567	552	614
1942	575	605	602	633
I	522	567	561	609
II	555	586	582	616
III	598	624	622	648
IV	626	641	642	657
1943	618	613	629	624
I	611	617	625	631
II	628	617	639	627
III	609	603	619	614
IV	624	615	631	622
1944	677	661	683	668
I	665	657	672	665
II	671	658	678	665
III	681	661	688	668
IV	689	667	694	672
1945	699	667	711	678
I	690	667	698	674
II	698	667	705	674
III	697	660	709	671
IV	712	674	732	692
1946	766	674	795	701
I	736	693	764	719
II	756	702	787	730
III	779	663	808	689
IV	791	639	822	665

TABLE D-5, *continued*

	Annual and Quarterly Averages, Adjusted for Seasonal Variations [a]			
	Per Adult-Male Equivalent Labor Force [b]		*Per Adult-Male Equivalent Employed* [b]	
	Current Dollars	*1929 Dollars* [c]	*Current Dollars*	*1929 Dollars* [c]
1947	802	618	831	639
I	789	627	815	648
II	777	609	806	631
III	809	617	841	641
IV	832	617	860	637
1948	875	627	905	648
I	841	615	869	635
II	878	632	907	653
III	891	627	922	649
IV	889	633	920	655
1949	853	618	903	654
I	863	623	899	650
II	857	619	905	654
III	849	615	903	654
IV	844	615	903	658
1950	921	656	968	689
I	892	649	948	690
II	899	650	947	684
III	935	661	977	690
IV	959	664	998	691
1951	983	649	1,013	667
I	956	639	987	659
II	982	650	1,011	668
III	993	654	1,020	671
IV	1,002	651	1,034	671
1952	1,025	661	1,052	679
I	1,000	651	1,027	668
II	1,012	656	1,039	673
III	1,030	661	1,059	680
IV	1,056	677	1,084	695
1953	1,083	694	1,108	710
I	1,060	684	1,084	699
II	1,092	701	1,118	717
III	1,094	697	1,117	712
IV	1,088	693	1,107	712
1954	1,087	694	1,142	729
I	1,075	685	1,125	717
II	1,082	690	1,139	726
III	1,087	693	1,144	730
IV	1,103	706	1,158	741

TABLE D-5, *continued*

	Annual and Quarterly Averages, Adjusted for Seasonal Variations [a]			
	Per Adult-Male Equivalent Labor Force [b]		*Per Adult-Male Equivalent Employed* [b]	
	Current Dollars	*1929 Dollars* [c]	*Current Dollars*	*1929 Dollars* [c]
1955	1,139	728	1,184	757
I	1,109	711	1,156	741
II	1,135	728	1,181	757
III	1,145	732	1,187	759
IV	1,166	744	1,208	771
1956	1,185	747	1,224	771
I	1,151	737	1,190	762
II	1,181	750	1,219	774
III	1,206	756	1,245	781
IV	1,200	746	1,240	772

Source and concept: See text of this appendix following Table D-7 and notes to Table D-4. Data for the years 1953–1956 are revised (see *Economic Report of the President*, 1957, p. 137).

[a] Seasonally adjusted with indexes which were computed by averaging the ratios of the original figures to four-term moving averages. See Arthur F. Burns and Wesley C. Mitchell, *Measuring Business Cycles*, National Bureau of Economic Research, 1946, pp. 46–50, and text of Appendix B following Table B-7.

[b] For adjustment to adult-male equivalents, see Appendix C, following Table C-7.

[c] For description of adjustment for changes in the value of the dollar, see Table D-4, note *c*.

TABLE D-6

Canada:
Labor Income, 1946–1956

	Annual and Quarterly Averages, Adjusted for Seasonal Variations [a]			
	Per Adult-Male Equivalent Labor Force [b]		*Per Adult-Male Equivalent Employed* [b]	
	Current Canadian Dollars	*1929 Canadian Dollars* [c]	*Current Canadian Dollars*	*1929 Canadian Dollars* [c]
1946	300	294	309	303
I	287	291	295	299
II	291	287	301	296
III	302	293	312	303
IV	320	306	329	315
1947	350	314	357	321
I	338	322	345	328
II	341	311	348	319
III	352	312	359	318
IV	368	311	375	317
1948	394	309	402	316
I	373	303	380	309
II	383	304	391	310
III	409	316	417	322
IV	410	313	421	321
1949	422	320	435	329
I	422	322	433	330
II	423	322	434	330
III	426	320	439	329
IV	418	314	432	325
1950	447	327	461	337
I	419	314	436	327
II [d]	460	341	477	353
III	444	321	457	330
IV	463	330	475	339
1951	503	331	513	338
I	472	326	482	333
II	502	334	512	341
III	512	330	523	337
IV	524	334	535	341
1952	551	357	565	367
I	532	340	546	348
II	543	352	557	362
III	552	358	565	367
IV	575	379	590	389

TABLE D-6, *continued*

	Annual and Quarterly Averages, Adjusted for Seasonal Variations [a]			
	Per Adult-Male Equivalent Labor Force [b]		*Per Adult-Male Equivalent Employed* [b]	
	Current Canadian Dollars	*1929 Canadian Dollars* [c]	*Current Canadian Dollars*	*1929 Canadian Dollars* [c]
1953	594	390	610	400
I	580	382	593	391
II	600	396	617	407
III	590	386	605	395
IV	603	393	623	406
	Averages of Monthly Estimates			
1953	594	390	611	401
I	585	386	599	395
II	596	394	611	404
III	592	387	609	398
IV	602	393	624	407
1954	601	392	630	410
I	598	392	622	407
II	597	391	625	409
III	598	388	632	410
IV	609	395	639	415
1955	625	406	652	425
I	612	399	642	419
II	625	407	660	430
III	619	403	643	419
IV	641	416	666	431
1956	686	440	708	454
I	649	422	680	442
II	690	447	711	461
III	702	447	716	456
IV	701	442	722	456

Source and concepts: Table D-4 and text of this appendix, following Table D-7.

[a] For method used in adjusting for seasonal variations, see note *a* to Table D-5 of this appendix.

[b] For adjustment to adult-male equivalents, see text of Appendix C following Table C-7.

[c] For description of adjustment for changes in the value of the dollar, see note *c* to Table D-4 of this appendix.

[d] Excluding Manitoba, where no census was taken due to flood conditions.

TABLE D-7

Great Britain:
Annual Personal Disposable Income, 1939–1955

	Per Adult-Male Equivalent Labor Force [a]		*Per Adult-Male Equivalent Employed* [a]	
	Current Pounds	*1929 Pounds* [b]	*Current Pounds*	*1929 Pounds* [b]
1939	240	249	255	265
1940	260	232	267	238
1941	281	232	282	232
1942	301	247	303	248
1943	310	256	312	257
1944	320	261	320	261
1945	336	271	338	273
1946	359	289	364	293
1947	388	311	392	315
1948	414	311	420	315
1949	436	318	441	322
1950	456	324	460	327
1951	483	313	488	316
1952	532	317	537	320
1953	575	330	581	333
1954	607	341	616	345
1955	653	352	660	355

Source and concept: See following text and notes to Table D-4. "Old Series" 1938–1947; "New Series" 1946–1954. Adjustment was made to reduce the income of the United Kingdom to that of Great Britain, by assuming that Northern Ireland's income was in proportion to its population.

[a] For adjustment to adult-male equivalents, see text of Appendix C. No separate adjustment was made for the earnings of young people. Earnings of the total female working population were adjusted by the ratio of earnings of women 18 and older to the total.

[b] For description of adjustment for changes in the value of the pound, see Table D-4, note *c*.

Composition and Treatment

The wage or salary coin has two sides: price or cost (to the employer) and income (of the employee). Its price to the employer depends, of course, on the output of labor which, in different places at different times, involves a varying complex of occupations, skills, and paces of work and which, in order to allow for the computation of real labor cost, would have to be translated into man-hours of standard quality and intensity. But this translation is impracticable and unnecessary, for the wage as price, though it helps determine how many workers are hired, can scarcely determine the size of the labor force (unless it can be shown that the number who seek work is significantly affected by the number who are hired). More likely it is the wage as income, in its relation to hours of work and to the standard of living, which can sway the decision of those who ponder the question of seeking employment. The materials on earnings and income to be compared with labor force among areas and over time are appraised in this appendix.

WAGE OR SALARY EARNINGS IN DIFFERENT CITIES AT A GIVEN TIME.

The data on wages and salaries (Table D-1, this appendix) used to test the association of labor force with earnings in 38 large cities in the United States in 1900, 1920, and 1930 derive from payrolls reported by censuses of manufactures for the immediately preceding years: 1899, 1919, and 1929 (Chapter 4, Table 1). They differ in certain respects from wages and salaries reported by households for 1939 and 1949 (the source of data used for these years) in the 1940 and 1950 censuses of population, respectively.

The payroll data are comparatively accurate, in that they rest on records of sums actually disbursed, but they have disadvantages. Covering only factory workers, they neglect four-fifths of the labor force; they do not show an employee's income from other sources, and thereby understate average earnings; and they lump workers together regardless of age, sex, or skill, and consequently vary with the composition of employees at different pay levels.

For 1899, 1919, and 1929, no adjustment could be made for the lack of statistics on income for nonfactory and dual employment. But by weighting women and young people according to relative earnings (Appendix C), it was possible to adjust the payroll figures to earnings per adult-male equivalent, and prevent some of the distortion due to changes in the age and sex composition of the labor force.

For 1939 and 1949, the data on wages and salaries were obtained by census enumerators in household interviews during April 1940 and 1950. This source of figures on earnings also has its disadvantages. It

does not reveal profits of employers, fees of the self-employed, or interest, dividends, royalties, and rents—all of which may affect the need or tendency to work (of both actual and prospective members of the labor force). The enumerators must often rely on teen-agers, servants, or landladies, who may relate nothing better than scraps of overheard conversation. They cannot get satisfactory information on earnings from a worker if he does not wish to disclose it or if he has trouble adding figures in his head while the enumerator is tapping his pencil, eager to get on to the next question. They can hardly obtain a full report without having to go into impractical detail.[1] And they are apt to be cluttered with earnings of persons who may have worked only a part of the year as employees and put in the rest as employers or professional practitioners. As a case in point, the figures on annual earnings of farm hands are unusable for this study because of dilution due to the inclusion of many self-employed farmers who worked for other farmers part of the time.

Note that canvasses of households in the censuses of April 1940 and 1950 inquired of each person enumerated (whether employed or idle at the time) what his or her wages, salaries, or commissions had been during the 12 months of the preceding year. Thus the census would report an income for a young woman employed the year before (even though she had ceased work in January 1940 or 1950 to settle down as a housewife or to open a gift shop), but would not report the income of a person not in the labor force before January (though gainfully occupied at the time of the enumeration). Note further that the census reported the labor force activity for early spring, three months after the end, and nine months after the mid-date of the year of the earnings. Such lags offer an advantage, should persons require time to adjust labor force participation to income; but they may lead to tenuous statistical comparisons, should persons really respond immediately to income changes, or if during the interval the income changes are greater in some states or cities than in others. However, the income differentials are substantial and could scarcely change enough in a short period to alter any labor force-income relationship materially.

But the censuses of population for 1940 and 1950 are preferable to the censuses of manufactures. The former provided median earnings, not affected by a comparatively few high incomes. They specify wages

[1] However, "the unascertained income is fairly sure to be chiefly in the higher brackets . . . among professional and proprietary groups . . . the total for salaries and earnings of nonfarm workers can be obtained with sufficient precision to make the distribution by size fairly reliable." C. E. Noyes and E. R. Hilgard, "Estimated Income Distribution in Three Surveys of Consumer Requirements," in *Studies in Income and Wealth, Volume Eight,* National Bureau of Economic Research, 1946, pp. 270–271, 277.

and salaries separately for males and females employed 12 months in 1939 or 1949, making it unnecessary to convert the earnings of women and young people to adult-male equivalents. And they are more complete, for the information they obtain in interviews from respondents, who (in theory at least) know all the jobs held during the previous year and can put together a rough total of income including tips and gifts, could never be furnished by an employer for his workers who receive other income or who are on his payroll only part of a day, week, or year.

QUARTERLY AVERAGES OF HOURLY EARNINGS.

Chapter 11 discusses the response of the labor force to quarterly variations in hourly earnings. Hourly earnings do not include dividends, interest, tips, profits of employers, and professional fees. But aside from the influence of premium payments for overtime, they have the merit of not reflecting statistically any variations in full- or part-time unemployment, but of covering, in the United States, the bulk of employees: those in state and local government, service industries, amusement, manufacturing, mining, contract construction, railroads, public utilities, wholesale and retail trade, and farming (except family help and tenants). In Canada they are also fairly comprehensive, but unfortunately do not include earnings of farm and government employees. In both countries, they refer almost entirely to production workers and ordinarily admit overtime premiums and vacation allowances; but they neglect most clerical, supervisory, management, and staff workers, and reject special bonuses or back pay. One series of averages in this study weighted earnings in the various industries according to employees currently on payrolls, and a second, according to employment composition at the start of the period (in order to abstract from shifts between low- and high-wage industries). In the United States the two series were rarely apart by more than 1 to 3 cents per hour, even in the midst of wartime, and in Canada they kept to their common path still more closely (Tables D-2 and D-3 of this appendix). Adjustments were made in both countries for variations in the consumer's price level.

PERSONAL DISPOSABLE INCOME IN THE UNITED STATES.

For decade comparisons in the nation as a whole, incomes were computed for 1920, 1930, 1940, and 1950, and annual average incomes were computed for 1884–1893, 1894–1903, 1904–1913, and 1914–1923. The latter four were each shifted one and a half years so as to center on 1890, 1900, 1910, and 1920 (Table D-4 of this appendix) and, so derived, were very close to unpublished annual estimates made by

Simon Kuznets in 1951. At each of the 7 decade dates, income was divided by the average number of adult-male equivalents employed during the year, and by the average number of adult-male equivalents in the labor force during the year.

Income for 1930–1950—estimated by the Department of Commerce—consisted of wages and salaries, interest and dividends, rents (including those implicit on owner-occupied dwellings) and pay and allowances to the military: they excluded business savings and personal income tax and other payments to the government. Incomes for 1920 were based on Kuznets' calculations of consumer goods expenditures, and were expanded here to include an estimate of personal savings assumed to be, at least during years of peace and fairly high employment, a roughly constant ratio to consumer expenditure: 4.75 (based on an average of 4.7 in 1929 and 4.8 in 1949).[2] In theory, personal disposable income covers such items as honey eaten by the beekeeper's family, meals consumed by restaurant employees, and the imputed rent a home owner pays himself for living in his own house. They bar capital gains and losses as well as pure transfers (relief, Christmas presents, and gambling earnings), and (insofar as they can be identified) direct proceeds from illegal activities. From these incomes, business savings were taken out by Kuznets, and personal taxes by the author, the latter deductions being based on material of the National Industrial Conference Board.[3] The concept used by Kuznets differed in treatment of rents on owner-occupied houses and subsistence allowances for the armed forces, but it was adapted to comparability with the Department of Commerce series on the basis of relationship during the years when the two series overlapped: 1929–1938.[4] The price adjustments made by the Department of Commerce and by Kuznets relied primarily on indexes of the Bureau of Labor Statistics for broad commodity groups.

Farm income differs here from personal income in that it includes entrepreneurial savings, personal income taxes, and nontax payments to the federal government. Payments to the government, however, have been a real factor only in the last two decades and even then did not greatly affect agriculture. Entrepreneurial savings doubtless merge, in

[2] *Survey of Current Business, National Income Supplement,* Dept. of Commerce, 1951. These savings estimates were much lower than those made by Goldsmith, who reclassified personal savings by including part of personal expenditures, such as saving through consumer durable goods. Raymond W. Goldsmith, *A Study of Saving in the United States,* Princeton University Press, 1955, Vol. 1, pp. 353, 357. However, by applying this constant ratio, the estimates for years prior to 1920 were made comparable to those used by the Department of Commerce in later years.

[3] *Economic Almanac for 1948,* National Industrial Conference Board, p. 313.

[4] *Survey of Current Business,* as cited.

the minds of most farmers, with personal savings, so that failure to deduct them might well have turned out for the best. Farm income for 1910–1950—figures of the Department of Commerce—was extended through 1890 on the basis of the N.I.C.B. estimates of realized private production income for agriculture.[5] Conversions to real income rested on a price index of farm living-cost items during 1910–1950 which was computed by the Bureau of Agricultural Economics and on an index of wholesale prices during the earlier period, computed by the Bureau of Labor Statistics. Nonfarm income was the difference between farm and national income. Each set was divided by the average number of adult-male equivalents employed or in the labor force during each decennial year (Appendix C).

Quarterly averages of disposable income for 1940–1955 are comparable, in concept and coverage, to the annual data (Table D-5 of this appendix). They were corrected for seasonal variation by the method of four-term moving averages used for the quarterly averages of the labor force.

PERSONAL DISPOSABLE INCOME IN THE UNITED KINGDOM.

Personal income for 1939 and 1951 as estimated by the Central Statistical Office, omitted corporate profits which were not distributed to stockholders and is further stripped here of income taxes, death duties, and national insurance contributions (Table D-4). The resulting personal disposable income thus comprises profits, interest, rent, income in kind, pay and allowances to the armed forces, social security, and other transfer payments to individuals from government and corporations. The annual income data (Table D-7 of this appendix) for the same period, however, do not exclude death duties and other direct-tax payments. Disposable income for 1911, computed by Arthur Bowley as "the total of incomes that comes into the possession of individuals or corporations in the United Kingdom (less Southern Ireland)," [6] differed from later concepts of income in the United Kingdom and in the United States by omitting taxes paid directly to the government and corporation profits withheld from stockholders. These two items were not approximated by Bowley, but could not have been large in 1911. Since personal income estimates were for the United Kingdom and thus included Northern Ireland, adjustment was made to Great Britain's income by assuming that Northern Ireland's income was proportional to its population. In taking account of changes in the cost of living, it must be kept in mind that the official 1947 index, which

[5] *Economic Almanac for 1948*, p. 249.

[6] A. L. Bowley, *Wages and Income in the United Kingdom since 1860*, Cambridge University Press, 1937, p. 83.

showed a rise of only 29 per cent over 1939, was held down by price controls. This study, guided by Richard Stone's criticism of the official index for 1938–1945,[7] makes an additional computation of real income, using a rise of 60 per cent.

PERSONAL DISPOSABLE INCOME IN CANADA.

Data for 1931, 1941, and 1951 were estimated by the Dominion Bureau of Statistics after deduction of contributions by employers and employees to social insurance or government pension funds, and after further deduction here for individual income taxes. They contain military pay and allowances, net income of unincorporated businesses (including farms), property income, pensions, and charitable contributions to individuals from government and corporations (Table D-4). The figure for 1921 was obtained by using the 1931 estimate by the Dominion Bureau of Statistics as a bench mark and multiplying it by the ratio of Colin Clark's 1921 estimate of national income at market prices (less exports and gold production, plus imports) to his 1931 estimate. The 1911 income was not used, since the figure that Colin Clark secured from R. H. Coats was based on nothing more substantial than impression.[8] Incomes were reduced to constant price by means of the cost-of-living index of the Dominion Bureau of Statistics.

The quarterly averages during 1946–1956 (this appendix, Table D-6) were labor earnings in five fields, plus supplementary labor income, computed by the Dominion Bureau of Statistics. It was not possible to deduct income taxes, or to include property incomes, implicit rents on owner-occupied dwellings, dividends paid to individuals by corporations, or profits and fees enjoyed by small business men and the self-employed.

PERSONAL DISPOSABLE INCOME IN NEW ZEALAND.

Included in personal income here for 1945 were wages and salaries; pay and allowances of the armed forces; social security benefits and pensions; rental value of nonfarm, owner-occupied houses (net of depreciation, mortgage interest, insurance, and maintenance); service and property income of professional men, farmers, and individual traders; and dividends of corporations, assumed to be half of profits (Table D-4). Personal income taxes could be subtracted by averaging the taxes of 1944–1945 and 1945–1946, but contributions to income and

[7] J. N. R. Stone, 'The Measurement of National Income and Expenditure," *Economic Journal*, September 1947, p. 286. "It can be estimated that the [consumer's] price level rose . . . by 57% at market value."

[8] Colin Clark, *The Conditions of Economic Progress*, London, Macmillan, 1951, pp. 55, 58, 59.

pension funds could not. Incomes for 1936 and 1951 were very similar in composition.

Income produced during the period of March 31, 1925–March 31, 1926, as estimated by Clark, was reduced by £3.2 million for income taxes.[9] The estimates for 1901–1903 by Sir Timothy Coghlan, which Clark quoted, refer to average net income produced, less interest on private loans.[10] Neither for 1901–1903 nor for later years could any base be discovered which would allow deduction of profits withheld from shareholders by joint stock companies.

PERSONAL DISPOSABLE INCOME IN GERMANY.

"Privateinkommen" for 1925–1939 comprise wages and salaries (without deduction of employees' contributions to social insurance), returns from agriculture and forestry (counting incomes of self-employed farmers and rents on owner-occupied farm dwellings), incomes from commerce and trade (including earnings in self-employment and in free occupations), and interest on funded debt and rents going to persons (including the implicit rent on owner-occupied dwellings; pensions; insurance benefits; and other transfers). Excluded are employers' contributions to social insurance; undistributed company income; returns from publicly-owned, gainful enterprises, railroads, funded debt, land, and investments of social insurance funds. Personal income taxes were deducted in this study.

Data for 1895 and 1907 derive from national income figures of the German Statistical Office, which extended those of 1913 back to 1891 on the basis of Prussian income-tax assessments, supplemented with the approximations of tax-free income and deductions. The use of this base to extrapolate national income back to earlier years may not have been too risky, for in 1913 income in Prussia was 62 per cent of the German total, and in 1895 and 1907 it bore almost the same relation to 1913 income (51.6 and 79.2 per cent respectively) as analogous data for Saxony. Income taxes, RM 0.3 billion in 1907 and RM 0.1 billion in 1895, were calculated roughly from data of Prussia and other states, there having been no income tax in these two years for the nation. Since the German Statistical Office did not present the national income components, the coverage must be regarded as implicit.

The income data for 1895 and 1907 were reduced for comparison with that after World War I when the following areas, equal to 13.3 per cent of the pre-war territory, were ceded: Alsace-Lorraine, Eupen-Malmedy, northern Schleswig, part of Upper Silesia, almost the entire

[9] *New Zealand Official Year Book*, Wellington, Census and Statistics Dept., 1928, pp. 173 and 759.

[10] Clark, *op. cit.*, pp. 147–148.

province of Posen, West Prussia, the city and hinterland of Memel, the Saar, and Danzig. The adjustment was made on the basis of the ratio, in 1913, between the two sets of national income estimates for the postwar territory (without the Saar) and for the prewar territory (*Statistiches Jahrbuch,* Berlin, Statistisches Reichsamt, 1933, p. 494). The Saar, with a population of about 800,000 persons, was recovered by 1939, but it is not included in these data in order to retain comparability. The territory covered by the data of 1950 (and by the data of 1939 comparable to 1950) consisted of the zones occupied by the United States, Great Britain, and France (54.6 per cent of the area covered by Germany in 1914). Jostock says that there is no material which would allow reduction of the earlier data to comparability with the area of the Bundesrepublik of post-World War II. "A continuous comparison for the entire period . . . has to rely on per capita income figures." [11] No disposable personal income data have been published for the Federal Republic of Germany. These data were estimated on the basis of the increase of the national income of the Federal Republic between 1936 and 1950 and on the basis of published direct tax figures.

[11] Paul Jostock, "The Long-Term Growth of National Income in Germany," in *Income and Wealth,* Series IV, London, Bowes and Bowes for International Association for Research in Income and Wealth, 1955, p. 10.