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# **Appendixes**



# A

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## **Adjusted National Income and Product, Sector Current and Capital Accounts, and Related Tables: Sources and Methods**

The summary descriptions of the sources and methods of estimation in this appendix are related to the twelve basic tables, seven of which (Tables 2-1 through 2-7) are presented in chapter 2, with the remaining five (Tables A-1 through A-5) at the end of these notes. The first seven tables are the basic national income and product accounts, by sector, adjusted to our concepts as described in chapters 1 and 2. The other five which are derived from, or related to, the basic accounts, present estimates that have been used in the analyses of investment and capital.

In general, the accounts and related tables show estimates for only the three key years 1929, 1948, and 1966 (or 1969). Time series covering all the years from 1929 to 1969 are presented for the variables used in the analyses (such as total adjusted GNP), in current and constant dollars, and the disposable income of each sector in Appendix B.

An economic accounting framework was used for the estimating procedures. It (a) ensures consistency of the product, income, saving, investment, and stock estimates and (b) facilitates analysis of saving and investment with reference to income, and of capital stocks in relation to income and product, at the national and sectoral levels. We follow the precedent of the Commerce Department in presenting the detailed interlocking national and sectoral accounts to show precisely the composition and interrelationships of the various flows. But it is the major

time series employed in the analyses that are important rather than the detailed accounts, so the latter are presented only for selected years. The last year for which the full detail in the accounts was worked out was 1966, although all the chief variables were extended through 1969.

Table 2-1 shows the adjusted national income and product accounts. It will be recalled that our GNP contains a much larger investment component than the official estimates, including some investments charged to current expense. Since our national income and product figures also include the imputed rental values of the nonbusiness tangible capital goods, they are considerably larger than the official estimates. The precise reconciliations between our adjusted GNP estimates and the official Commerce Department estimates in current and constant dollars are shown in Tables A-1 and A-2.

Tables 2-2 through 2-5 contain the current and capital accounts for the personal, business, government, and foreign sectors. In addition to the broadened investment concepts and measures for each of the domestic sectors accommodated in separate sector capital accounts, current incomes and outlays differ because of the expanded imputations and other items shown in the reconciliation tables. Note that the capital accounts provide for capital transfers, as does the United Nations standard system of national accounts, except that our transfers are from the financing sectors to the sectors benefiting from use, or "control," of the capital. The capital transfer estimates are described in the final part of Appendix B.

The consolidated capital formation account (Table 2-6) contains the contra-entries to the investment transactions and capital transfers of the various sectors, thus summarizing adjusted national investment, by sector and major type. Note that the capital transfers among the domestic sectors plus net capital transfers from abroad (chiefly human capital transferred by net immigration) sum to zero. So do net financial investments of the domestic sectors plus net foreign investment, when allowance is made for the statistical discrepancy.

Table 2-7 shows the derivation of gross disposable income in each sector, and its disposition in terms of consumption, investment, and the residual "net financial investment." Unlike the total economy, sectors do not show an equality of real investment and saving. Saving, defined as income less consumption, equals real (tangible plus intangible) investment plus net financial investment, positive or negative. As shown in the table, the gross disposable income of each sector plus statistical discrepancy equals adjusted GNP.

We have already referred to the reconciliations in Tables A-1 and A-2. Table A-3 presents adjusted GNP by sector of origin. The constant dollar estimates in Table A-4 are confined to the gross business product,

since this is the only sector in which the income and product estimates are independent of the capital estimates and thus relevant to production function analysis.

Table A-5 contains estimates of gross and net factor compensation (labor and nonlabor) and human maintenance costs, which make possible net labor compensation estimates comparable to net property compensation, already excluding maintenance costs.

To save space, methodology for entries on our accounts will be given only once and for the most detailed breakdown. Sources will not be shown for lines that represent totals of documented detail. Nor will sources be repeated for counterentries. The second place where an entry appears on the accounts is shown in parentheses. If documentation is desired for a line and is not shown for that line or its detail, it normally can be found for the counterentry given in parentheses. Note, however, that no methodology is given in Appendix A for investment, depreciation, and capital transfer entries, or for underlying capital stock series. Such technical notes are provided by type of capital in the relevant portions of subsequent appendixes.

In the interest of further condensing our technical notes, frequent sources will be referred to by an abbreviated citation. For example, "OBE, Table 1.1, line 1" means that the source of the 1929-1963 figures is the U.S. Department of Commerce, Office of Business Economics,<sup>1</sup> *The National Income and Product Accounts of the United States, 1929-1965, Statistical Tables*, a Supplement to the *Survey of Current Business*, Washington, D.C., U.S. Government Printing Office (1966), Table 1.1, line 1. The sources for the 1964-1966 figures are the comparable tables and lines in the national income issues of the *Survey of Current Business* in which the last revision of each year's figures appears (July 1967 for 1964 figures, July 1968 for 1965 figures, and July 1969 for 1966 figures). Another abbreviated citation used is *Business Statistics* for U.S. Department of Commerce, Office of Business Economics, 1967 *Business Statistics*, 16th Biennial Edition, a Supplement to the *Survey of Current Business*, Washington, D.C., U.S. Government Printing Office (1967).

To form some of our continuous time series we have had to draw on two or more independent, but closely related, series for different portions of the chronology. Unless otherwise specified, linkage of two contiguous portions of such a series is accomplished essentially by

1. Under a reorganization effective January 1, 1972, the OBE is redesignated the Bureau of Economic Analysis (BEA) in a new Social and Economic Statistics Administration, and is referred to as such in the text of this volume. However, in the appendixes the old designation is used for the sake of statistical continuity.

applying an adjustment ratio (of an estimate from the later series to an estimate for the same year from the earlier series) to each figure in the earlier series. Where it was necessary to convert basic data from a fiscal year to a calendar year basis, we employed the usual convention of building a calendar year estimate from half of the estimate for the coincident fiscal year plus half of the estimate for the following fiscal year.

**Notes to Table 2-1: *National Income and Product Account***

Line No.

2. OBE, Table 2.1, line 2.
3. OBE, Table 1.9, line 11.
4. OBE, Table 1.10, line 8.
5. OBE, Table 1.10, line 9.

Proprietors' compensation, by industry group, is estimated by multiplying the number of proprietors by average annual earnings per full-time employee (OBE, Table 6.5). The number of proprietors in each industry grouping are persons engaged in production (OBE, Table 6.6) less full-time equivalent employees (OBE, Table 6.4).

9. Net rental income from auxiliary business activities represents the net return to persons from business-type activities which are not full-time business activity or are not imputed for self-rental of housing. This item is derived by subtracting from OBE's rental income of persons (Table 1.10, line 17) OBE's net rent for owner-occupied nonfarm residences (from unpublished detail supporting OBE, Table 7.3, line 55) and then adding our estimates of net rent for tenant-occupied, farmer-owned farm residences. In OBE's framework this last category is part of proprietors' income. Our estimates of the category are OBE's (unpublished detail with a data gap from 1930–1945 interpolated by the per cent deviation from a linear trend of owner-occupied residential net rents), plus a depreciation valuation adjustment (DVA). This DVA represents the deviation of OBE's depreciation on tenant-occupied farm residences over ours.

12. Net rental income of government represents the excess of imputed interest on government tangible capital over gross interest paid by government. (The latter are unpublished OBE figures.) The calculations are made separately for the federal government and for state and local governments. For a discussion of imputed interest on government capital, see the notes for Table 2-4, lines 3 through 5.

## Line No.

14. OBE, Table 2.1, line 14.
15. Interest paid by persons on brokers' loans; unpublished OBE figures.
16. Interest received by federal, state, and local governments; unpublished OBE figures.
17. Unproductive interest paid by federal government is taken as any interest paid in excess of imputed interest on federal government capital. (See line 12 above.)
25. OBE, Table 1.9, line 15.
26. OBE, Table 1.9, line 4, plus those parts of personal tax and nontax payments that we have classified as taxes on durable goods (i.e., motor vehicle license fees, property taxes, and automobile use taxes—OBE, Table 3.1, footnote 1, and Table 3.3, lines 5 and 6).
27. OBE, Table 1.9, line 7, plus our estimates of depreciation on government enterprise structures and equipment. (This addition results, in effect, in a subtraction from current surplus of government enterprises.)
28. OBE, Table 1.9, line 6.
44. OBE, Table 1.1, line 18.
45. OBE, Table 1.1, line 19.

**Notes to Table 2-2: *Personal Sector Accounts***

## Line No.

1. OBE, Table 2.1, line 21, less the taxes reallocated to indirect tax and nontax charges (see Table 2-1, line 26, above).
4. OBE, Table 2.5, line 22, plus unpublished detail for OBE, Table 7.3, line 59.
5. The gross rental value of institutional plant consists of our estimates for imputed interest, depreciation, and repair and maintenance on institutional structures and for imputed interest on institutional site land. Imputed interest is estimated by applying the Federal Reserve series on bank rates for short-term business loans in nineteen cities (*Business Statistics*, 1967 edition, p. 89; for years prior to 1939, extrapolated by our household lending rate) to net annual average stocks of capital.

Repair and maintenance of institutional structures is estimated by applying to gross stocks of institutional structures the ratio of repair and maintenance of civilian government structures to gross annual average stocks.



Line No.

6. Gross rentals for the services of consumer durables and household inventories consist of imputed interest (net return), depreciation, taxes on durables, reclassified from personal tax and nontax payments (see notes for Table 2-1, line 26), repair and maintenance expenses, and fire and theft insurance premiums.

Imputed interest consists of interest paid by consumers on the part of the net stock financed by credit plus an imputed interest on the residual net stock they own outright. The interest rate applied to this latter portion of the net stock is the opportunity cost of owning the stock, or household lending rate, calculated as the weighted yield on personal holdings of bank time deposits, U.S. government securities, and common stocks (with underlying data drawn from various FRB sources).

The cost of repair and maintenance of consumer durables are OBE figures (OBE, Table 2.5, lines 64, 83, and unpublished consumption expenditure detail on watch, clock, and jewelry repair; electrical repairs, upholstery and furniture repairs; and rug, drapery, and mattress cleaning and repair). Figures on fire and theft insurance premiums are from OBE, with an old OBE series linked in 1946 to their revised series for 1946 and subsequent years.

7. Institutional equipment gross rentals are made up of imputed interest, depreciation, and repair and maintenance. As with institutional structures, the FRB series on bank rates for short-term business loans in nineteen cities is used to impute interest returns on institutional equipment. Repair and maintenance is estimated by applying to institutional equipment gross stock the ratio of repair and maintenance to gross stock of consumer durables.
8. Imputed rentals allocated to rearing costs are either directly allocated to this type of investment or estimated via ratios of rearing cost expenditures to total expenditures, by category. Rentals allocated to intangible investment are estimated as 5.8 per cent of the investment outlay, the 1958 proportion. (Detailed figures for other years indicate that the proportion has not varied substantially from year to year.)
9. This line represents the remainder of OBE consumption expenditures (OBE, Table 2.5) not allocated to gross rentals or to personal sector investment.
10. OBE, Table 2.1, line 26.

## Line No.

12. The current account residual after subtracting lines 1, 2, 10, and 11 from Net Personal Income.
17. This is the same as the comparable investment series discussed under personal sector investment in education.
18. This corresponds to personal sector mobility investment in the frictionally unemployed, except that a deduction is made for the amount of frictional unemployment compensation subsidized through unemployment compensation. This adjustment is calculated by applying to unemployment compensation payments (OBE, Table 3.9, lines 5 plus 7) the ratio of frictional unemployment to average unemployment. Frictional unemployment is assumed to be 3.0 per cent of the civilian labor force, or actual unemployment for years when the unemployment rate falls below 3.0 per cent. In the average unemployment series, persons engaged in work relief are classed as employed. (In official government employment rates, persons on work relief are classed as unemployed. For further details on our employment and unemployment rates, see the technical notes for employed stocks.)
19. Withdrawal of proprietors' profits consists of OBE's proprietors' income before inventory valuation adjustment (OBE, Table 1.10, lines 14 plus 16) less the sum of our estimates of proprietors' compensation (see Table 2-1, line 6) and OBE's estimates of farmers' net tenant rent (see Table 2-1, line 9) and of net rent for owner-occupied farm residences (see Table 2-2, line 23). Undoubtedly some of these profits are retained in unincorporated businesses rather than withdrawn, but we found it impossible from the available data to estimate retained unincorporated business profits.
21. Same as Table 2-1, line 9.
23. Net rental on owner-occupied residences consists of OBE's estimates for farm and nonfarm categories (unpublished detail supporting OBE, Table 7.3, lines 55 and 66) plus an adjustment for the amount by which OBE's depreciation included in these net rent figures exceeds ours.
24. Net rent imputed for the value of institutional plant and site land is estimated as the imputed interest on the net capital stock (see notes for Table 2-2, line 5) minus OBE's figures on interest paid by institutions (unpublished detail for OBE, Table 7.3, line 58).
25. The part of the net rent on consumer durables and

Line No.

household inventories that accrues to persons is taken as the imputed interest on that portion of the capital stock which is not financed on credit (the "lending rate stock," see notes for Table 2-2, line 6). The net rent (imputed interest) on stock financed on credit is assumed to accrue to the creditors and is thus not included as part of personal income.

- 26. Net rental income on institutional equipment is the interest imputed on the net stock. (See notes to Table 2-2, line 7.)
- 27. OBE, Table 2.1, line 13.
- 31. OBE, Table 3.1, line 26, plus Table 3.3, line 30.
- 32. OBE, Table 2.1, line 20.
- 55. Net financial investment of the personal sector is the residual after subtracting lines 34 and 48 from Finance of Gross Accumulation.
- 73. OBE, Table 1.9, line 11.

#### Notes to Table 2-3: *Business Sector Accounts*

Line No.

- 3. OBE, Table 1.10, line 20.
- 6. Not available. See notes to Table 2-2, line 19.
- 7. OBE, Table 1.10, line 23.
- 8. Same as Table 2-3, line 14; the total of lines 15 and 16.
- 9. OBE, Table 1.10, line 15 plus line 24.
- 12. Same as Table 2-3, line 6.
- 13. OBE, Table 1.10, line 19.
- 15. The tangible capital amortization adjustment to profits represents the amount by which OBE's capital consumption allowances on capital allocated by us to the business sector exceeds our capital consumption allowances. This adjustment series includes the difference between expenditures on producers' durable equipment conventionally charged to current account and our depreciation on these series. (With these expenditures no longer charged to current account, profits are increased by the difference.)
- 16. The intangible capital amortization adjustment is found by subtracting intangible capital depreciation charged to the business sector from intangible capital investment financed by the business sector. Reallocating intangible capital expenditures to investment increases current profits by the amount of the transferred expenditures, less current depre-

Line No.

ciation. The depreciation charged to the business sector is on that capital we assume to be "controlled" by the business sector, not necessarily on capital financed by the business sector. (See the technical notes on capital transfers for this distinction.)

17. Same as Table 2-3, line 9.

36. Net financial investment of the business sector is calculated by subtracting lines 18 and 30 from Finance of Gross Accumulation.

#### Notes to Table 2-4: *Government Sector Accounts*

Line No.

3. The imputed rental for the services of public land equals imputed interest, calculated by applying an interest (or yield) rate to the annual average stock. The calculations are made separately for federal land and for state and local government land. Rentals are not imputed to government enterprise site land, since enterprises are treated as business entities for accounting purposes, and only their profit (i.e., surplus or deficit) conceptually enters into government income. (Ideally, the current surplus of government enterprises should appear as a credit item in government income, but statistical inadequacies dictated that we follow OBE's practice of netting these surpluses against government subsidies on the debit side of the current account.)

The yield rate applied to federal stocks is taken as the interest rate paid on the annual average net debt outstanding of the federal government. These calculations are based on OBE's unpublished interest paid series and unpublished OBE and U.S. Treasury Department figures on debt outstanding.

The yield rates used for state and local government capital are comparably derived from unpublished OBE figures on state and local government interest paid and debt outstanding.

4. Gross imputed rental for the services of structures consists of imputed interest, depreciation, and repair and maintenance expenditures. Again, rentals are not imputed for government enterprise capital.

Imputed interest is calculated by applying the yield rates discussed under line 3 above to net capital stocks.

## Line No.

Government repair and maintenance from 1929 to 1957 is derived from statistics of the U.S. Department of Commerce, Building Materials and Construction Industries Division. It includes repair and maintenance for military construction, Corps of Engineers construction, highways, 85 per cent of sewage and water supply works, and 75 per cent of an "all other" category (which excludes also residential; farm service building; nonresidential, nonfarm business structures; and public utility categories). The 1958-1966 figures are rough estimates based on the 1957 level and the gross stock trend.

5. Gross imputed rental for government equipment and inventories is comprised of imputed interest on inventories and of imputed interest, depreciation, and repair and maintenance on equipment. No rental is included for government enterprise capital.

Imputed interest is calculated by applying the yield rates discussed under Table 2-4, line 3, to net capital stocks. Repair and maintenance on equipment is estimated by applying to gross stocks the ratio of consumer durables repair and maintenance to gross stocks.

6. Imputed rentals allocated to intangible investment are estimated as 18.5 per cent of intangible investment expenditures, the 1958 proportion.

7. Other consumption expenditures represent that part of OBE's government purchases of goods and services (OBE, Table 1.1, line 20) that has not been allocated to investment or capital service rentals.

10. OBE, Table 3.1, line 27.

13. The current account balancing item; equal to Government Income less the sum of lines 1, 8, 11, and 12.

39. The capital account balancing entry; equal to Finance of Gross Accumulation less lines 22 and 33.

**Notes to Table 2-5: Foreign Sector Accounts**

## Line No.

5. Surplus of the nation on current foreign account is the residual after subtracting the sum of lines 2, 3, and 4 from Receipts from Foreigners.

12. Net foreign investment is calculated by subtracting line 11 from Source of Accumulation. Our net foreign investment series is the same as OBE's (OBE, Table 4.1, line 8).

**Notes to Table 2-6:** *Consolidated Capital Formation Account*

All of the entries in Table 2-6 are contra-entries to variables contained in preceding tables, as indicated in the references on each line. The investment time series are contained in Appendix B.

**Notes to Table 2-7:** *Current-Dollar Disposable Receipts and Expenditures, by Sector*

The entries for the composition and disposal of each sector's income are cross-referenced on the table vis-à-vis the corresponding items in our modified national income accounts.

**Notes to Table A-1:** *Current-Dollar Reconciliation of Adjusted GNP and Commerce Department GNP*

## Line No.

1. OBE, Table 1.1, line 1.
2. Same as Table 2-2, line 17; enters GNP as investment.
3. Same as Table 2-2, line 18; enters GNP as investment. That part of the corresponding investment item which is subsidized by unemployment compensation is assumed to have already been in GNP through personal consumption expenditures.
4. Imputed rentals on consumer durables and household inventories that are added to GNP consist of imputed interest, depreciation, and reclassified taxes. (See notes to Table 2-2, line 6.) The other components of gross imputed rentals of repair and maintenance expenditures and fire and theft insurance premiums are already in OBE's GNP figure as part of purchases of goods and services.
5. Institutional imputed rentals added to GNP consist of imputed interest on the net stock, less OBE's institutional interest paid, and of our depreciation, less OBE's depreciation, on institutional stocks. These deductions and repair and maintenance expenses are already in OBE's GNP figure as part of personal consumption expenditures. (See notes to Table 2-2, lines 5 and 7.)
6. Tangible investment conventionally charged to current account enters GNP in our framework reclassified as investment. In OBE's framework these expenditures are written off against business profits.

## Line No.

7. Intangible business investment is added to adjusted GNP due to its reclassification from current expense to capital investment.
8. All of government gross imputed rentals except repair and maintenance expenditures are additions to GNP. (See notes to Table 2-4, lines 3 through 5.) Repair and maintenance outlays are already part of OBE's GNP as part of government purchases of goods and services.

**Notes to Table A-2:** *Constant-Dollar Reconciliation of Adjusted GNP and Commerce Department GNP*

## Line No.

1. OBE, Table 1.2, line 1.
2. Unpublished detail supporting OBE, Table 5.3.
3. Unpublished OBE series.
5. See notes for the corresponding constant-dollar investment item.
6. See notes for the corresponding constant-dollar investment item (personal sector frictional unemployment cost). The same deflator series as the one used to deflate total frictional unemployment compensation is used to deflate this imputed compensation excluding unemployment compensation subsidies.
7. See notes for Table 2-2, line 6, and Table A-1, line 4. Constant-dollar imputed interest is calculated by applying the 1958 yield rate to 1958-dollar net stocks. See the technical notes re investment and capital for the deflators used for investment entering stock and for depreciation. Indirect taxes are converted to 1958 dollars by applying the overall consumer durables implicit deflator series.
8. See notes for Table 2-2, lines 5 and 7, and for Table A-1, line 5. Constant-dollar imputed interest is calculated by multiplying 1958-dollar net stocks by the 1958 yield rate. OBE's institutional interest paid (which is deducted) is converted to constant dollars by applying a deflator series obtained through multiplying OBE's implicit deflator for nonresidential fixed investment (OBE, Table 8.1, line 8) by a  $1958 = 100$  index of the FRB series on bank rates for business short-term loans.

OBE's institutional depreciation, which is deducted from our institutional depreciation, is converted to 1958

Line No.

dollars by OBE's implicit deflator for nonresidential fixed investment (OBE, Table 8.1, line 8).

9. For the deflators used, see the technical notes for this category under business investment.
10. See the business intangible investment notes for the deflators used.
11. Constant-dollar imputed interest is calculated by applying the 1958 yield rates to constant-dollar net stocks. See the investment and capital notes for the derivation of 1958-dollar depreciation.

**Notes to Table A-3:** *Current-Dollar Adjusted Gross National Product by Sector of Origin*

Line No.

1. OBE, Table 1.13, line 34; corresponds to unpublished detail for OBE, Table 1.7, line 6.
2. Same as Table 2-2, lines 17 plus 18.
3. Same as Table A-1, line 4.
4. Corresponds to Table A-1, line 5, but without the deductions of OBE's institutional interest paid and OBE's depreciation on institutional stocks.
5. Unpublished detail supporting OBE, Table 7.3, line 51, and the components of line 62 pertaining to dwellings. Our entry represents the space rental value of owner-occupied dwellings exclusive of associated purchases of goods and services. These associated purchases are considered value added by the businesses from whom the purchases are made and are thus part of business product.
7. Unpublished detail supporting OBE, Table 1.7, line 2.
8. Same as Table A-1, line 6.
9. Same as Table A-1, line 7.
10. Same as line 5 above.
11. Unpublished detail supporting OBE, Table 7.3, lines 57 plus 58.
12. Annual figures of GNP originating in government enterprise back to 1947 are unpublished OBE detail. Estimates for 1929 through 1946 are derived from extrapolating the 1947 total via OBE's figures on compensation of government enterprise employees (OBE, Table 1.13, line 27).
14. OBE, Table 1.13, line 30; corresponds to unpublished detail for OBE, Table 1.7, line 8.



## Line No.

15. Same as Table A-1, line 8.
16. Same as line 12 above.
18. OBE, Table 1.13, line 38; corresponds to unpublished detail for OBE, Table 1.7, line 7.

**Notes to Table A-4:** *Constant-Dollar Adjusted Gross Business Product*

## Line No.

1. Unpublished detail supporting OBE, Table 1.8, line 3.
2. Same as Table A-2, line 2.
3. Same as Table A-2, line 3.
5. Same as Table A-2, line 9.
6. Same as Table A-2, line 10.
7. See notes for Table A-3, line 5. The imputations for nonfarm owner-occupied dwellings are deflated by OBE's implicit deflator for the space rental value of owner-occupied nonfarm dwellings (OBE, Table 8.6, line 36). The imputations for owner-occupied farm dwellings are deflated by OBE's implicit deflator for the rental value of farmhouses (OBE, Table 8.6, line 38).
8. See notes for Table A-2, line 8 for the explanation of how OBE's current-dollar figures are converted to 1958-dollar estimates.
9. GNP originating in government enterprises back to 1947 is from unpublished OBE detail. Our current-dollar estimates for 1929 through 1946 (Table A-3, line 12) are converted to constant dollars by a deflator obtained by linking to the implicit 1947 deflator OBE's implicit deflator for GNP originating in general government (OBE, Table 8.4, line 8).

**Notes to Table A-5:** *Factor Compensation, Gross and Net***A. U.S. Domestic Economy**

## Line No.

1. Gross domestic factor compensation equals adjusted domestic income plus capital consumption (lines 3 + 2).
2. Capital consumption, nonhuman: See Appendix B1.
3. Adjusted domestic income (factor compensation) equals adjusted national income (Table 2-1) minus rest-of-the-world property compensation (OBE, S.C.B., Table 1.13, lines 40 + 41).

## Line No.

4. Human maintenance: See Annex on p. 152 below.
5. Adjusted gross domestic income less maintenance equals lines 3 minus 4.
6. Human depreciation: See Appendix B4.
7. Adjusted net domestic income less maintenance: lines 5 minus 6.
8. Employee compensation: OBE, *S.C.B.*, Table 6.1, line 1.
9. Imputed proprietors' labor compensation equals the number of proprietors times annual average earnings. The number of proprietors is from the *Survey of Current Business*, "persons engaged in production" (Table 6.6) minus "full-time equivalent employed by industry" (Table 6.4). Average annual earnings are from the *S.C.B.*, Table 6.5.
10. Imputed compensation of students and frictionally unemployed: Table A-1, lines 2 + 3.
11. Total gross labor compensation equals 8 + 9 + 10.
12. Total gross labor compensation excluding maintenance equals lines 11 - 4.
13. Total net labor compensation equals lines 12 - 6.
14. Gross capital compensation equals lines 1 - 11.
15. Net capital compensation equals lines 3 - 11.

B. *Private Domestic Business Economy*

1. Gross factor income equals (a) private domestic business gross employee compensation plus (b) private domestic business gross property compensation.  
 (a) equals: labor compensation of total economy minus student and frictional unemployment compensation (Table A-1, lines 2 + 3), minus employee compensation for the personal sector (*S.C.B.*, Table 1.13, line 35); government sector (*S.C.B.*, Table 6.1, line 73); and rest-of-the-world (*S.C.B.*, Table 6.1, line 86).  
 (b) equals: private domestic business net property compensation plus private domestic business capital consumption.
2. Human maintenance equals total human maintenance (see Annex on p. 152) times the ratio of persons engaged in the private domestic business sector to the number of persons engaged in the total economy.
3. Gross income less maintenance equals lines 1 - 2.
4. Capital consumption, nonhuman: See Appendix B1.

Line No.

5. Human depreciation: See Appendix B4.
6. Net compensation equals (a) private domestic business economy net labor compensation plus (b) private domestic business net property compensation.  
 (a) equals private domestic business economy gross labor compensation minus maintenance, minus private domestic business depreciation (human).  
 (b) equals sum of business profits (Table 2-1, line 11), net income from auxiliary business activities (Table 2-1, line 9), and private domestic business economy net interest (*S.C.B.*, Table 1.13, lines 10 + 18 + 25); minus corporate profits for the rest of the world (*S.C.B.*, Table 1.13, line 40), and interest paid on owner-occupied dwellings and institutional plant (see Appendix B1).
7. Gross labor compensation, see B1 above.
8. Gross labor compensation excluding maintenance equals lines 7 - 2.
9. Net labor compensation excluding maintenance equals lines 8 - 5.
10. Gross property compensation equals 11 + 4.
11. Net property compensation, see B above.

#### **Annex to Table A-5: Human Maintenance, Sources and Methods**

Estimates of human maintenance were obtained by multiplying budgets for various sizes of farm and nonfarm households by the number of households in these categories and summing the results. Persons living in institutions were multiplied by a corresponding maintenance estimate, and the total was added to household maintenance.

#### *Budgets*

An attempt was made to work with actual household budgets set up over the years by governmental or private agencies, but these budgets, when available, were generally not comparable over time. The idea of interpolating between budgets was therefore discarded. Instead, the 1960 Social Security Administration poverty budget was used as a base and extrapolated forward and backward.<sup>2</sup>

The SSA assumed that a farm family would need 40 per cent less net cash than a nonfarm family of the same size. The basic budgets are as follows:

2. Mollie Orshansky, "Counting the Poor: Another Look at the Poverty Profile," *Social Security Bulletin*, January 1965, p. 28.

Family Size	Nonfarm	Farm
1 person	\$1580	\$ 960
2 persons	2050	1240
3 persons	2440	1410
4 persons	3130	1925
5 persons	3685	2210
6 persons	4135	2500
7 persons or more	5090	3055

### *Growth Rate*

Oscar Ornati<sup>3</sup> derived maintenance estimates from some sixty budgets for workers' families prepared over the years by governmental and private agencies. The budgets used to derive "minimum subsistence" levels were set up for relief purposes. His series shows an average annual increase between 1925 and 1960 of 1.06 per cent (see below).

Year	Minimum Subsistence (1960 dollars)	Index (1960 = 100)
1925	1,844	69.3
1926	1,901	71.4
1927	1,936	72.7
1928	1,958	73.6
1929	1,960	73.6
1930	2,015	75.7
1931	1,963	73.7
1932	1,998	75.1
1933	2,003	75.2
1934	1,750	65.7
1935	1,682	63.2
1936	1,783	67.0
1937	1,722	64.7
1938	1,754	65.9
1939	1,780	66.9
1940	1,765	66.3
1941	1,682	63.2
1942	1,803	67.7
1943	2,087	78.4

(cont.)

3. Oscar Ornati, "The Poverty Band" and "The Count of the Poor," in *Poverty amid Affluence*, New York, The Twentieth Century Fund, 1966, Appendix 2, Table A, p. 147.

Year	Minimum Subsistence (1960 dollars)	Index (1960 = 100)
1944	2,318	87.1
1945	2,463	92.5
1946	2,468	92.7
1947	2,556	96.0
1948	2,594	97.4
1949	2,474	92.9
1950	2,378	89.3
1951	2,473	92.9
1952	2,418	90.8
1953	2,703	101.5
1954	2,691	101.1
1955	2,701	101.5
1956	2,659	99.9
1957	2,571	96.6
1958	2,726	102.4
1959	2,702	101.5
1960	2,662	100.0

We used his series with rising subsistence levels because we consider the minimum basket of goods and services used for estimating the annual money budget as constituting material and psychological requisites in that year. If one accounts only for changes in the prices of the specified basket over time, the resulting subsistence level is pertinent to a particular time and place only.

Budgets were then derived for family sizes of one through seven or more, for farm and nonfarm locations, according to the proportions derived from Social Security estimates. The basic two-person nonfarm budget was set equal to 100 and all other household sizes were derived as percentages of this basic budget.

Family Size	Nonfarm Budget	Farm Budget
1 person	77.1	46.8
2 persons	<u>100.0</u>	60.5
3 persons	119.0	68.8
4 persons	152.7	93.9
5 persons	179.8	107.8
6 persons	201.7	122.0
7 persons or more	248.0	149.0

The per capita institutional budget was set equal to the difference between the budgets of the two highest closed categories, namely those for five and six persons, respectively.

### *Number of Households*

The sources are as follows. Nonfarm: *Historical Statistics*, Series A 243. Farm: *Historical Statistics*, Series A 244. Persons not living in households: *Historical Statistics*, Series A 254.

### *Size of Households*

Households are distributed according to their size. Data are from the 1940 and 1950 population censuses.

Family Size	Households	
	1940	1950
1 person	7.7	9.3
2 persons	24.8	28.1
3 persons	22.4	22.8
4 persons	18.1	18.4
5 persons	11.5	10.4
6 persons	6.8	5.3
7 persons or more	8.7	5.8

For 1930 only a family breakdown is available.<sup>4</sup>

Family Size	Families, 1930
1 person	—
2 persons	26.1
3 persons	22.5
4 persons	18.8
5 persons	12.8
6 persons	8.1
7 persons or more	11.6

The difference between the total number of households in 1930 and the total number of families in 1930 was added in as one-person households, and the percentages adjusted accordingly.

4. See Paul Glick, *American Families*, New York, John Wiley, 1957, p. 24.

The most recent household data at the time of writing were the Social Security Administration data for 1963, which have a farm-non-farm breakdown,<sup>5</sup> as follows:

Family Size	Farm	Nonfarm
1 person	10.6	19.6
2 persons	30.6	25.8
3 persons	15.7	16.8
4 persons	14.3	16.2
5 persons	10.8	10.7
6 persons	7.4	5.6
7 persons or more	10.6	5.3

### *Farm-Nonfarm Breakdown*

While a breakdown by farm and nonfarm exists for 1963, only total farm and nonfarm data are available for the years 1930, 1940, and 1950. Farm and nonfarm percentages for other years are based on the 1963 distributions, on the assumption that the relation between farm and nonfarm in each subcategory remained constant during the period under review.

Since the overall percentage is a weighted average of the nonfarm and the farm percentage (the weights being the proportion of nonfarm households to total households in a given year and the proportion of farm households to total households, respectively), the nonfarm and farm percentages are derived as follows:

$$Z = X Xwt + Y Ywt$$

$$Z = \frac{X}{Y} Yst = Y Ywt$$

$$\frac{Z}{Y}$$

$$Y = \frac{X}{Y} Xwt + Ywt$$

where Z is the overall per cent in the subgroup, X is the nonfarm per cent in the subgroup, and Y is the farm per cent in the subgroup. Between the 1930, 1940, 1950, and 1963 data, all percentages were interpolated.

5. Mollie Orshansky, op. cit., p. 29.

## **Tables A-1 through A-5**



**Table A-1.** *Reconciliation of Adjusted GNP and Commerce Department GNP, 1929, 1948, and 1969 (billions of current dollars)*

Line		1929	1948	1969
1.	GNP, Commerce concept <i>Plus</i>	103.095	257.562	929.095
	Households and institutions:			
2.	Imputed student compensation (less unemployment adjustment)	5.141	15.660	92.265
3.	Imputed compensation of frictionally unemployed (less subsidies)	2.072	4.506	16.048
4.	Imputed rentals (excl. maintenance and insurance) on HH durables and inventories	10.405	20.499	100.057
5.	Imputed rentals (excl. maintenance) on institutional plant and equipment and land, over OBE depreciation and interest paid	0.337	0.544	5.711
	Business:			
6.	Tangible investment conventionally charged to current account	0.282	0.899	2.340
7.	Intangible investment conventionally charged to current account	2.187	6.953	35.387
	General government:			
8.	Imputed rentals (excl. maintenance) on land, durables, and inventories	3.825	21.048	66.967
	<i>Equals</i>			
9.	GNP, adjusted	127.344	327.671	1,247.870
10.	Ratio: Adjusted to Commerce GNP	1.235	1.272	1.343

**Table A-2. Reconciliation of Adjusted GNP and Commerce Department GNP, 1929, 1948, and 1969**  
(billions of 1958 dollars)

Line		1929	1948	1969
1.	GNP, Commerce concept, constant cost 1	203.6	323.7	724.7
	<i>Less</i>			
2.	Constant cost 1 purchases of nonresidential, nonfarm structures	13.535	11.341	23.800
	<i>Plus</i>			
3.	Constant cost 2 purchases of nonresidential, nonfarm structures	12.416	10.785	20.403
	<i>Equals</i>			
4.	GNP, Commerce concept, constant cost 2	202.481	323.144	721.303
	<i>Plus</i>			
	Households and institutions:			
5.	Imputed student compensation (less unemployment adjustment)	12.407	22.760	62.539
6.	Imputed compensation of frictionally unemployed (less subsidies)	5.029	6.549	11.222
7.	Imputed rentals on HH durables (excl. maintenance and insurance) and inventories	18.571	24.858	88.615
8.	Imputed rentals (excl. maintenance) on institutional plant, equipment, and land over Commerce depreciation and interest	1.216	1.056	3.276
	Business:			
9.	Tangible investment conventionally charged to current account	0.673	1.403	2.01
10.	Intangible investment conventionally charged to current account	4.629	10.298	25.222
	General government:			
11.	Imputed rentals on land, durables (excl. maintenance) and inventories	7.366	30.478	43.006
	<i>Equals</i>			
12.	GNP, adjusted	252.372	420.546	957.183
13.	Ratio: Adjusted to Commerce GNP, constant cost 2	1.246	1.301	1.327
14.	Ratio: Adjusted to Commerce GNP, constant cost 1	1.240	1.299	1.327

Table A-3. *Adjusted Gross National Product by Sector of Origin* (billions of current dollars)

Line		1929	1948	1966
	Gross National Product originating in households and institutions			
1.	Commerce concept	2.863	5.599	20.206
	<i>Plus</i>			
2.	Additional labor compensation imputations	7.213	20.166	73.223
3.	Imputations on household durables and inventories	10.405	20.499	76.468
4.	Imputations on institutional plant, equipment, and land	0.518	0.768	57.16
5.	Imputations on owner-occupied dwellings	5.624	7.662	40.882
	<i>Equals</i>			
6.	Adjusted gross household and institutional product	26.623	54.694	216.495
	Gross National Product originating in business			
7.	Commerce concept	95.087	233.534	648.940
	<i>Plus</i>			
8.	Tangible investment conventionally charged to current account	0.282	0.899	1.845
9.	Intangible investment conventionally charged to current account	2.187	6.953	27.045

<i>Less</i>			
10.	Imputations on owner-occupied dwellings	5.624	40.882
11.	Commerce institutional imputation	0.181	1.454
12.	GNP originating in government enterprises	0.968	9.374
<i>Equals</i>			
13.	Adjusted gross business product	90.783	626.120
Gross National Product originating in government			
14.	Commerce concept	4.335	76.607
<i>Plus</i>			
15.	Imputations on land, durables, and inventories	3.825	49.866
16.	GNP originating in government enterprises	0.968	9.374
<i>Equals</i>			
17.	Adjusted gross government product	9.128	135.847
Gross National Product originating in rest of the world			
18.	Commerce concept	0.810	4.104
19.	Adjusted Gross National Product	127.344	982.566

**Table A-4. Adjusted Gross Business Product (billions of 1958 dollars)**

Line		1929	1948	1966
1.	Gross Business Product, Commerce concept, constant cost 1	182.100	285.961	584.918
	<i>Less</i>			
2.	Constant cost 1 purchases of nonresidential, nonfarm structures	13.535	11.341	23.300
	<i>Plus</i>			
3.	Constant cost 2 purchases of nonresidential, nonfarm structures	12.416	10.785	24.902
	<i>Equals</i>			
4.	GBP, Commerce concept, constant cost 2	180.981	285.405	586.520
	<i>Plus</i>			
5.	Tangible investment conventionally charged to current account	0.673	1.403	1.690
6.	Intangible investment conventionally charged to current account	4.629	10.298	21.750
	<i>Less</i>			
7.	Imputations on owner-occupied dwellings	6.828	10.164	36.865
8.	Commerce institutional imputations	0.454	0.316	1.228
9.	GNP originating in government enterprises	2.534	4.529	7.196
	<i>Equals</i>			
10.	Adjusted Gross Business Product	176.467	282.097	564.671

**Table A-5. Factor Compensation, Gross and Net (billions of current dollars)**

Line		1929	1948	1969
<b>A. U.S. Domestic Economy</b>				
1.	Gross domestic factor compensation	117.764	308.332	1161.365
2.	Capital consumption (nonhuman)	20.503	56.727	223.874
3.	Adjusted domestic income (factor compensation)	97.261	251.605	937.491
4.	Human maintenance	33.974	83.425	216.145
5.	Adjusted gross domestic income less maintenance	63.287	168.180	721.346
6.	Human depreciation	14.566	34.568	126.376
7.	Adjusted net domestic income less maintenance	48.722	133.608	594.952
8.	Employee compensation	51.098	141.131	565.548
9.	Imputed proprietors' labor compensation	9.110	21.509	47.081
10.	Imputed compensation of students and frictionally unemployed	7.213	20.166	108.313
11.	Total gross labor compensation	67.421	182.806	720.942
12.	Total gross labor compensation excluding maintenance	33.447	99.381	504.797
13.	Total net labor compensation	18.881	64.813	378.421
14.	Gross capital compensation	50.344	125.522	440.405
15.	Net capital compensation	29.841	68.795	216.531
<b>B. Private Domestic Business Economy</b>				
1.	Gross factor income	83.476	213.532	694.338
2.	Human maintenance	29.291	69.275	162.057
3.	Gross income less maintenance	54.185	144.257	532.281
4.	Capital consumption, nonhuman	9.016	19.446	95.557
5.	Human depreciation	12.558	28.705	94.752
6.	Net compensation excluding maintenance	32.611	96.106	341.972
7.	Gross labor compensation	52.251	137.253	469.772
8.	Gross labor compensation excluding maintenance	22.960	67.978	307.715
9.	Net labor compensation excluding maintenance	10.402	39.273	212.963
10.	Gross property compensation	31.225	76.279	224.566
11.	Net property compensation	22.209	56.833	129.009