2015-05-20

**Appendix A.**

**A Guide to the 1774 and 1800 Estimates**

 How did we get the income numbers that Chapters 2 through 4 have displayed for 1774? Most of this appendix guides the reader through the steps we used in measuring national income, its component parts, and its distribution among American colonial households in 1774. We illustrate the build-up of total incomes for six types of colonial households on the eve of the Revolution. Each step of the way we link the six illustrations to the fuller files available at <http://gpih.ucdavis.edu> (hereafter cited as just “http://gpih” and the file name). Then we turn more briefly to the 1800 estimates, which use different sources to build similar income aggregates.

**The Income Concept**

 National income, or national product, is the pie that the economy produces and divides up each year. It can be measured in any of several ways. Since the world has become most familiar with gross domestic product (GDP), we have chosen to measure a pie that closely resembles it. The income concept that most accurately describes our measures is gross national income, or GNI. Note the three operative words. Gross, in that depreciation is included, and not netted out. National, meaning that we follow the incomes of persons whose primary residence is in this country or colony, and not the incomes generated by what is produced here, which would be “domestic”. And incomes, rather than product, because we want to focus on the division of the national pie among rich, middle, and poor households, rather than the division of production among such output sectors as agriculture, industry, and services.

 Yet in practice there is little harm in casually equating our gross national income with GDP and also with some other national aggregates. Even today, with our elaborate corporate forms of business and globalization of ownership, the different concepts stack up about the same. For the year 2010, if we take the size of GDP as 100 percent, then this study’s GNI magnitude equaled 100.3 percent, essentially the same magnitude. Other concepts also stacked up similarly: GNP was 101.3 percent, and gross personal income was 98.3 percent. Back before 1870, the match was even better, since the household sector earned practically the whole of GDP or GNP.

 Another convenient feature of the early data was that there was little need to distinguish between pre-fisc and post-fisc measures of income. That is, the disposable (post-fisc) income one received after paying taxes and receiving transfers and the benefits of government services was almost exactly the same as what one received in the marketplace before dealing with government (pre-fisc). The reason is simply that government was then so tiny, especially in Britain’s tax-free colonies on the American mainland.[[1]](#footnote-2) Thus we can casually talk about “income” as though it referred to any of these familiar accounting concepts before the twentieth century.

 We have assembled the gross national income as the sum of the parts listed on the right-hand side of Figure A-1. The dominant share, 69 percent for the thirteen colonies as a whole in 1774, consisted of free own-labor earnings, a concept that here includes farm operators’ residual profits.[[2]](#footnote-3) To these will be added property incomes and slaves’ retained earnings.

**Building the Incomes of Six Kinds of Households in 1774, Step by Step**

 To describe each of these components by discussing its raw-data inputs, listed on the left-hand side of Figure A-1, let us follow six kinds of households from the larger set of 94 household types whose incomes are estimated in detail on line.[[3]](#footnote-4) Three of these six illustrative types are Northern, and three are Southern. Specifically, the six are:

(a.) a Boston common laborer;

(b.) a New England small-town shopkeeper;

(c.) a propertied widow in Philadelphia;

(d.) a middling rural Southern planter, where middling means that the planter’s household ranked between the 40th percentile and the 80th percentile in terms of farm wealth;

(e.) a free Southern male household head for whom no occupation was given, but who was listed as having positive wealth; and

(f.) a slave household in the rural South.

We follow the data-input steps listed on the left-hand side of Figure A-1, showing how these steps produce the numbers given for our six illustrative kinds of households in Table A-1 below.

 Counting occupations of free household heads in 1774. It is important to count household heads, both because eighteenth-century data sources tended to do so and because of our interest in economic inequality. Such counts emerge from a mixture of local censuses, urban directories, probates, and tax lists. The occupational detail is best for cities. Thus Table A-1 is perhaps close to the mark in suggesting that Boston common laborers headed 164 households, or that there were 2,560 widows with positive property who headed households in Philadelphia. For most small towns and the countryside, we lack direct observations of occupations, and must make guesses based on “cloning” the occupational mixes offered for Lancaster and rural Chester County in Pennsylvania, with some help for all regions from Jackson Turner Main’s readings of the local press and from Alice Hanson Jones’s occupational estimates for her probate work.[[4]](#footnote-5) Thus we attach less certainty to the estimated numbers of Yankee small-town shopkeepers (2,560 in Table A-1). Of course, in the colonial countryside, most free household heads were farmers or planters, helping us weigh this occupational category. Our 40,503 “middling” Southern planters were the middle 40 percent (40th percentile up to 79%, ranked by property). The 6,922 Southern free male household heads for whom we have no occupational data is a provisional number based on local tax lists and on Alice Hanson Jones’s guesses. Finally, for slaves, our sixth group in Table A-1, we know the total population numbers quite well, thanks to local censuses. The harder part is judging how many households, or houses, they were grouped into by their slaveholders. They were generally not allowed to live as family units, nor did the censuses ever count slave families. As elaborated in Appendix B, we use some early-nineteenth-century information to estimate the number of slave households as 35 percent of the population of ages 10 and up.

 Counting the 1774 labor force. To know which parts of the population were employed, one starts with the population counts themselves. The Population censuses for seven colonies provided breakdowns by slave/free status and by crude age category (e.g. just over versus under 16 years of age).[[5]](#footnote-6) We then adopted Thomas Weiss’s plausible estimates of labor force participation rates in 1800, with helpful breakdowns by state, gender, slave/free, and three age groups (those under 10, those 10-15, and those 16 and up).[[6]](#footnote-7)

 Placing the non-heads in households. Of those who were in the labor force, one faces a double task. First, one must decide – or assume – what occupations they held, even though occupational labels were typically given only to household heads. The non-heads were generally either unskilled or tenant farmers, or both, but with exceptions. Second, one must decide how to allocate them among households defined by the head’s occupation. Here we had to make some particularly arbitrary assumptions. Some are obvious enough, such as assuming that working slaves lived only in slave households. Among the free, we generally allocated those in the 10-15 age groups to the unskilled-occupation category of the same sex, while we allocated those non-heads that were 16 years or older to the prevailing local mix of commercial, craft, farmer, and unskilled occupations.[[7]](#footnote-8)

 Wages and salaries by occupation in 1774. As already noted, we drew different occupations’ pay rates for free workers from the few available sources, most notably Jackson Turner Main’s compendium *The Social Structure of Revolutionary America*. And as discussed further in Appendix B, we adjusted these for numbers of days per year, and for whether or not the workers received board and/or lodging separately from their cash pay.

 For a male common laborer working in Boston around 1774, our illustration (a.), we have averaged six wage estimates from four sources. Four of the six estimates were daily rates, and required adding board, while two were annual rates. The simple average pay of these was $125.37 full time (313 days), or $89.01 for a part-time year of 222 days.[[8]](#footnote-9) Estimating 369 members of the labor force, with the same unskilled pay rates as the 164 unskilled household heads, implies Table A-1’s $310.09 per household full-time, or $219.94 per household part-time.

 The case of the Yankee small-town shopkeeper is one for which we cannot observe a wage or salary directly, since household heads in the commercial sector were self-employed. Jackson Turner Main offers us only two income observations on anybody close to this category, and does so only for two Bostonians. How to estimate the labor component for New England shopkeepers outside of Boston? For such cases, we had to use a social-ladder technique drawing on their relative wealth positions between higher and lower groups. A shopkeeper tended to be in between wealthier top professions (local officials, lawyers, and the like) and less wealthy craftsmen. Apportioning the shopkeepers’ imagined labor-and-profit earnings between those observed for higher professionals and for craftsmen in the same proportions as their wealth observed by Alice Hanson Jones yields the $391.54 as their annual labor earnings, inclusive of pure entrepreneurial profits.

 Similarly, for our average Philadelphia widow in Table A-1, we again lack direct wage rates. Indeed, we have no occupation for her other than “widow”, though she could well have been an innkeeper, and we know from Alice Hanson Jones’s data that she had some positive wealth. We have to position her relative to others of neighboring economic strata, for which her relative wealth was a clue. Her labor earning power, like her wealth, was seemingly above that of a younger female household head earning $59.94 a year if employed full-time in Philadelphia, yet below a similarly unskilled male in Philadelphia ($318.91). Giving her the same share of the distance between these two other groups, in earnings as in wealth, we estimate her earnings at $157.16. Indeed, to judge from a few wealth returns, we estimate the same for a Philadelphia male who had some wealth but no stated occupation. We will do the same for Table A-1’s illustration (e.), a rural Southern male who has some wealth but no stated occupation.

 Free farm labor earnings and farm profits in 1774*.[[9]](#footnote-10)* For any farm operator, such as the Southern middling rural planter that is Table A-1’s illustration (d.), we again have the task of valuing the labor of somebody self-employed, along with the labor of his household members. Our first step is to partition all his own-labor earnings between the farm-labor component of their efforts and all the rest. For the unskilled labor earnings component, we multiply the total number of household members’ days of labor by the local farm wage. Of course, the farm wage must be adjusted for the payment or non-payment of board.

 Next one must put a value of earnings on the residual own-labor category for farm operators. This residual profit was the reward for their risk-taking and for the farm management skills exercised either by the operators themselves or by hired overseers within the household. Note that this return was over and above the competitive return on such marketable farm assets as real estate, equipment, livestock, product inventories, and slaves.

 Valuing these farm profits is exceedingly difficult. For 1860, we have the benefit of a regression technique for inferring such a farm profit residual from a large agricultural sample, thanks to a study by Lee Craig (1993), as we shall see in Appendix E. For 1774, our source is a section of Jackson Turner Main’s book that wrestles with the returns that farmers got other than just their labor or their normal return on farm assets.[[10]](#footnote-11) His gleanings from newspapers, personal journals, and estate accounts are not easy to interpret, presumably because the primary sources themselves were designed to serve different purposes. We interpret these passages of Main’s book as correctly trying to refine the “income” measure by excluding property income and the wages of hired labor. Our interpretation is supported by his referring to several of these estimates as ones that could apply equally to a tenant farm operator, who had to pay for his use of land. His passages seem to suggest a profit per farm of £16 ($71.04) for New England, £19.27 ($85.58) for the Middle Colonies,[[11]](#footnote-12) and £45 ($200) for the South. These profits have considerably enhanced our baseline estimates of free own-labor earnings, both overall and in Table A-1’s illustration of a middling Southern planter. They are large, though not radically higher as a share of all farm income than we shall find for the Northern farms of 1860 studied by Lee Craig (Appendix E) of for Southern farms in the Ransom-Sutch sample for 1880 (Appendix G).

 While adding the profits to the imputed farm labor earnings is consistent with other practice, it occurs to us that the primary sources might have meant that such profits or income were a remuneration for the farm operator’s own labor as well as for his risk-taking and management skills. If so, one could argue for subtracting his imputed farm wage in order to avoid double counting the reward to his labor when adding in the profit. This interpretation would imply that after adding in profits, one should deduct an annual farm wage of $137 per farmer for New England, $120 for the Middle Colonies, and $110 for the South. This would be a sizeable reduction, given that free farm operators were the largest single occupational group in each colonial region. Table A-2 reveals that this alternative interpretation would reduce gross national income by as much as 12.4 percent. Still, it would not remove any of the contrasts being featured for 1774, such as the greater purchasing power of the mainland colonies relative to the mother country, or the low level of income inequality. Nor does it reduce the income advantage of the Southern colonies. We retain our baseline interpretation that the profits described in Jackson Main’s sources should be added to the imputed free labor earnings to derive free own-labor incomes.

Slaves’ retained incomes, 1774 and 1800.[[12]](#footnote-13) The slaves’ own-labor incomes for 1774 are built on those for 1800 and later years, which are described more fully in Appendix C and in several downloadable gpih files cited there. That appendix begins by appraising the literature on the “exploitation rate” around 1860, a literature magnified by some claims that Fogel and Engerman made in *Time on the Cross*. From there we work back to 1800, using information about antebellum trends, and drawing on the useful Fogel-Engerman sample of slave hires and slave asset prices in Queen Anne’s County, Maryland in 1796-1804. For our 1800 benchmark, we compared different ways of calculating slaves’ retained earnings, and the implied share of their marginal product extracted by slaveholders. When combined with the asset valuations of slaves, these implied an annual rate of return of 11 percent.[[13]](#footnote-14)

 For 1774, the estimates of slaves’ retained earnings start with applying the 1800 shares of retained earnings, or one minus the exploitation rate discussed in Appendix C, to the 1774 free-labor wage rates representing slaves’ marginal product by occupation and region.[[14]](#footnote-15) These retained incomes per earner need to be checked against other information from the 1770s. The main competing data specific to that early setting are slave prices collected by other scholars. These are used as cross-checks because our derived slave incomes plus the exploitation rate will imply an annual flow of property income to slave holders. We explore whether the ratio of our implied property incomes from slave holding to the asset valuations of slave holding yield a plausible rate of return. The comparison does not yield a perfect fit. The crucial rate here, the implied Southern rural 15.8 percent rate of return, is above the 11.0 percent rate of return from Maryland slave hires 1796-1804. We cannot yet judge whether this represented a true change from 1774 to 1800, or some net error. For now we simply note that our 1774 estimate might understate the slaves’ retained incomes.[[15]](#footnote-16)

 Property incomes in 1774. To generate property incomes for 1774, we start with the wealth data in Alice Hanson Jones’s sample of 919 probated estates, re-weighted to give an estimated population of living household heads. Part of that wealth would have generated the kinds of property incomes than enter into the National Income and Product Accounts (NIPA). For each such NIPA-type asset, we apply a net rate of return plus a rate of depreciation, to derive net and gross property incomes. The net rate of return is taken as six percent for both 1774 and 1800, though we will use five percent for 1850-1870, given the movements of interest rates over time.[[16]](#footnote-17) The rates of depreciation, or “capital consumption allowances”, are set as follows for NIPA-type assets: zero percent for financial assets, real estate, producers’ perishables, business inventory, and crops in the field; five percent for slaves in the labor force; and ten percent for producers’ durables, business equipment, and livestock. We ignore any returns on the following non-NIPA asset categories given in Jones’s data set: consumers’ durables, consumers’ perishables, cash, bad financial assets, household equipment, and apparel.[[17]](#footnote-18)

**Free labor earnings and property incomes in 1800**

 Our source materials for circa 1800 are summarized in Table A-3, using the same format as in Table 2-1 of Chapter 2.

 Free labor earnings. The primary sources and procedures for quantifying rates of pay are the same for 1800 as for 1774. The secondary sources are different, however. No longer can we use Jackson Turner Main’s *Social Structure of Revolutionary America*. For the most common kinds of wages and salaries, we can still raw on several scholars’ work, though we lack good coverage of the higher professions’ salaries.[[18]](#footnote-19)

Property incomes circa 1800. In 1798, Congress passed its first federal direct tax. This one-off tax was levied on real estate wealth and slaves, and its purpose was to fund a possible conflict with France.[[19]](#footnote-20) The 1798 federal tax returns remain by far the most useful source available for estimating the property income side of 1800 national income. True, one might view these returns with some suspicion. Can we trust the quality of the data collected by tax authorities representing a new nation that had just fought a bloody and expensive war to shed its Imperial government partly over tax issues? This suspicion turns out to be warranted, especially given evidence that properties had already been under-assessed in local tax returns from the previous two decades. For example, warned by Gerard Warden’s (1976) investigation of the Massachusetts 1771 tax rolls, we found implausibly low assessments not only in those rolls but also in the Philadelphia 1772 returns supplied to us by Billy Gordon Smith and in the 1786 New York City returns supplied to us by Herbert Klein. While these city tax rolls were useful for identifying urban occupational distributions -- including occupations revealed by the presence or absence of each asset type -- they are not useful for estimating assessed values themselves. Thus, while the 1798 federal returns are the superior source from which to construct 1800 property incomes, we must identify, and adjust for, their likely biases before using them.

The 1798 direct tax probably under-assessed real estate market values by something like 15.5 percent in New England and the Middle Atlantic, a figure based on a contemporary study of marketed real estate in Connecticut in that same year. That is, Lee Soltow (1989: pp. 37, 256-257) found correspondence in the Oliver Wolcott papers showing that for 518 Connecticut properties sold in 1798, the average ratio of federal-assessed value to market value was 0.845. Thus, we have raised our 1800 property income estimates by this 15.5 percent underassessment in New England and the Middle Atlantic, and also by the 7 percent rise in average asset values from 1798 to 1800 suggested by the contemporary Samuel Blodget (1806).

In the South, the federal tax authorities appear to have under-assessed rich households’ realty, and slaves, by even more than that 15.5 percent underassessment we have identified for the North. Elsewhere, we lay out the peculiarities of southern assessment for the 1798 tax, and present our preferred estimates for the extent of the underassessment.[[20]](#footnote-21) The adjustment for the extra southern underassessment raises real estate plus slave wealth values by 30.1 percent for the South Atlantic. This combined with the nationwide underassessment of real estate by 15.5 percent raises real estate plus slave wealth values by 40.4 percent for the South Atlantic, or 27.7 percent for the whole Eastern seaboard.

Since the 1798 federal returns covered only real estate and slaves, we had to use the same ratios of total property/(realty plus slave values) obtained from the 1774 evidence to inflate them to total property. We apply region-specific ratios to each of the three regions – New England, the Middle Atlantic, and the South.[[21]](#footnote-22) The resulting estimates of total property, and property income, around 1800 allow us to reconstruct total gross national income. We are also able to offer new estimates of the inequality of total labor earnings and the inequality of property incomes, but not of income and property together, as noted earlier.

|  |  |
| --- | --- |
| **Table A-1.**  | **Six Examples of Calculating Household Incomes in 1774** |
|  |  |  |  |  |  |
|  |  | (Incomes in dollars at $4.44 per £) |  |
|  |  |  |  |  |  |
|  |  | Type of household head: |  |
|  |  | (a.) Boston | (b.) Yankee | (c.) Philadel- |  |
|  |  | common | small-town | phia widow |  |
|  |  | laborer | shopkeeper | (wealth > 0) | Notes |
|  |  |  |  |  |  |
| (1) No. of such households | 164 | 2,560 | 231 |  |
| (2) Persons in labor force | 369 | 4,525 | 231 |  |
|  | Ratio, LF/HH | 2.25 | 1.77 | 1.00 |  |
|  |  |  |  |  |  |
| Own-labor earnings |  |  |  |  |
| (3a) Per h'hold, full-time | 310.09 | 391.54 | 157.16 |  |
| (3b) Per h'hold, part-time | 219.94 | 391.54 | 157.16 |  |
|  | Part/full ratio | 0.71 | 1.00 | 1.00 |  |
| (3c) Total value, full-time | 50,855 | 1,002,385 | 36,236 |  |
| (3d) Total value, part-time | 36,070 | 1,002,385 | 36,236 |  |
|  |  |  |  |  |  |
| NIPA-type property income |  |  |  |  |
| (4a) Per household | 12.26 | 132.64 | 46.50 |  |
| (4b) total value | 2,011 | 339,574 | 10,721 |  |
|  |  |  |  |  |  |
| Total income |  |  |  |  |  |
| (5a) Per h'hold, full-time | 322.36 | 524.18 | 203.66 |  |
| (5b) Per h'hold, part-time | 232.20 | 524.18 | 203.66 |  |
| (5c) Total value, full-time | 52,866 | 1,341,959 | 46,957 |  |
| (5d) Total value, part-time | 38,081 | 1,341,959 | 46,957 |  |

|  |  |
| --- | --- |
| **Table A-1.**  | **Six Examples of Calculating Household Incomes in 1774** |
|  | **Continued** |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  | Type of household head: |  |  |
|  |  | (d.) Southern | (e.) Southern | (6) Rural |  |
|  |  | middling  | free male, no | Southern |  |
|  |  | rural planter | occ, wealth >0 | slave |  |
|  |  |  |  |  |  |
| (1) No. of such households | 40,503 | 6,922 | 88,938 |  |
| (2) Persons in labor force | 58,338 | 6,922 | 228,698 |  |
|  | Ratio, LF/HH | 1.44 | 1.00 | 2.57 |  |
|  |  |  |  |  |  |
| Own-labor earnings |  |  |  |  |
| (3a) Per h'hold, full-time | 403.90 | 106.84 | 117.10 |  |
| (3b) Per h'hold, part-time | 359.47 | 106.84 | 117.10 |  |
|  | Part/full ratio | 0.89 | 1.00 | 1.00 |  |
| (3c) Total value, full-time | 16,359,251 | 739,538 | 10,414,917 |  |
| (3d) Total value, part-time | 14,634,474 | 739,538 | 10,414,917 |  |
|  |  |  |  |  |  |
| NIPA-type property income |  |  |  |  |
| (4a) Per household | 182.48 | 18.12 | 0.00 |  |
| (4b) Total value | 7,391,004 | 125,438 | 0 |  |
|  |  |  |  |  |  |
| Total income |  |  |  |  |  |
| (5a) Per h'hold, full-time | 586.38 | 124.96 | 117.10 |  |
| (5b) Per h'hold, part-time | 541.95 | 124.96 | 117.10 |  |
| (5c) Total value, full-time | 23,750,255 | 864,976 | 10,414,917 |  |
| (5d) Total value, part-time | 22,025,477 | 864,976 | 10,414,917 |  |

Notes to Table A-1:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Table A-2.**  | **Free Farm Incomes in 1774:**  |  |  |
|  |  | **Baseline Results and an Alternative** |  |
|  |  |  |  |  |  |  |
|  |  |  | (Dollar values in 1000s) |  |
| (A.) Farm Incomes, baseline |  | New | Middle |  | Thirteen |
|  |  |  | England | colonies | South | colonies |
| Aggregate farm free-labor earnings | 16,164 | 5,912 | 21,116 | 43,193 |
| Gross property income |  | 4,519 | 5,370 | 25,270 | 35,159 |
| Farm profits |  |  | 4,023 | 2,763 | 20,328 | 27,114 |
| Total farm income, baseline |  | 24,707 | 14,045 | 66,715 | 105,466 |
|  |  |  |  |  |  |  |
| (B.) Denominators |  |  |  |  |  |
| Free farm households |  | 56,628 | 32,288 | 101,642 | 190,558 |
| Free farm labor force |  | 100,103 | 44,848 | 146,600 | 291,551 |
| Gross national income (full time) | 36,059 | 38,281 | 98,814 | 173,154 |
| Gross national income (part time) | 33,038 | 36,653 | 94,095 | 163,786 |
|  |  |  |  |  |  |  |
| *Minus* farmer's imputed labor earnings, full-time | -7,762 | -3,871 | -11,181 | -22,813 |
| Total farm income, alternative |  | 16,945 | 10,174 | 55,534 | 82,653 |
|  |  |  |  |  |  |  |
| Percent change in gross national income |  |  |  |
| implied by the alternative |  |  |  |  |  |
|  | Full-time |  | -21.5 | -10.1 | -11.3 | -13.2 |
|  | Part-time |  | -20.9 | -9.4 | -10.6 | -12.4 |

Notes to Table A-2:

See gpih, "Own-labor incomes 1774h", Workshop (2).

The middle colonies here include New York, New Jersey, Pennsylvania, and Delaware, conforming to Alice Hanson Jones's practice.

Part-time labor earnings = 0.89 times full-time labor earnings.

Gross property income is derived from real estate, reproducible non-human capital, and slave holding. See gpih, property income files for 1774.

The table excludes slave household heads and slave retained earnings.

**Table A-3. Main Data Inputs for 1800 Income Estimates**

 Data sources and adjustments for occupational shares

(A.) Population, labor force

 U.S. census, labor force participation rates for 1800 supplied by Thomas Weiss, expanding on his estimates in Weiss (1992).

(B.) Occupations of household heads and of the labor force

 • City directories and tax lists for Baltimore 1799, Boston 1800, Charleston 1800, Hartford 1799, New York City 1799, Norfolk 1801, Philadelphia 1800;

 • Town directories and tax lists for Lancaster PA 1800, Lexington KY 1806, Pittsburgh 1815; and

 • Rural tax lists from Burke County GA 1799, Chester County PA 1799-1802.

C.) Free labor earnings and farm profits

 Same sources and methods as in Table 2-1, except no coverage of c1800 by Main (1965) and we can offer no estimate of farm profits.

(D.) Slave retained earnings

 Sources and methods explained more fully in Appendix C.

(E.) Property income

 The 1798 direct tax on real estates and slaves, via Pitkin (1817) and the Connecticut State History Museum. See also Soltow (1989), Einhorn (2006). We assumed similar local ratios of real estate and slave valuations to total property as in 1774.

Note to Table A-3: See the details of these data sources and their use in <http://gpih.ucdavis.edu>.

Figure A-1. Assembling the Parts of National Income in 1774



1. For the tiny magnitudes of American colonial taxation, see Perkins (1994) and Rabushka (2008). [↑](#footnote-ref-2)
2. Logically, the same concept should have included the residual profits, above all factor incomes, for non-farm enterprises as well as for farms. Yet it is only for farms that we are given anything resembling data on a pure-profit residual – for 1774, and for all dates up through 1860. [↑](#footnote-ref-3)
3. Follow the blue-shaded cells for these six cases, in http://gpih, “American incomes 1774, baseline part-time assumptions”, Worksheet (3). These cells report the same numbers as are presented in Table A-1 here. [↑](#footnote-ref-4)
4. A summary list of the occupational sources used appears in this book’s Table 2-1, and in Table 1 of Lindert and Williamson (2013). For cities, see http://gpih, “Charleston population and occupations, 1790, 1774”, “City populations and occupations 1746-1795”, and “Philadelphia occupations 1772, per B.G. Smith”. [↑](#footnote-ref-5)
5. The six colonies not supplying age distributions were generally Southern: Pennsylvania, Delaware, Virginia, North Carolina, South Carolina, and Georgia. For these we had to assume age distributions, guided by their initial federal censuses and by the nearest colonies supplying age brackets for the 1770s. [↑](#footnote-ref-6)
6. See http://gpih, “American labor force by colony” and “Estimated mix of occupations 1774 by region”. These labor force participation rates, kindly supplied by Thomas Weiss himself in Excel form, represent slightly updated versions of the rates he described in Weiss (1992). By "labor force" we mean all persons whose labor participated in generating product sold in significant part (or, for slaves, demanded in significant part) outside the household. Note that we equate labor employment with labor force participation, since the colonial data sources lacked any clear distinction between the two. [↑](#footnote-ref-7)
7. gpih, “Estimated mix of occupations 1774 by region”, Worksheet (3). [↑](#footnote-ref-8)
8. To these six observations for Boston common labor in the 1770s, we could have added William Weeden’s (1890) data recording about 2 shillings a day in the 1770s, which would work out to a similar wage rate. [↑](#footnote-ref-9)
9. See gpih, “Own labor incomes 1774”, Worksheet (2) or “American incomes 1774, baseline part-time assumptions”, Worksheet (2). [↑](#footnote-ref-10)
10. Main (1965, pp. 104-114). For very large plantations in the Chesapeake area, one can also consult the wide gaps between recorded revenues and recorded expenses for several estates detailed in Walsh (2010, pp. 449-456, 556-571). [↑](#footnote-ref-11)
11. Our Middle Colonies figure of £19.27 is based on his separate estimates for New York, New Jersey, Pennsylvania, and Delaware. For the “Middle Colonies”, probably excluding Delaware, he alternatively gave an average profit of £24 (p. 108). [↑](#footnote-ref-12)
12. We use the term “retained incomes” for continuity with our later placement of these incomes into the income-distribution ranks. It should be remembered, however, that incomes were the same thing as consumption for slaves, who are hardly allowed to save anything. And the adjective “retained” is not meant to imply any decision-making on the part of the slaves themselves, unlike corporations’ “retained earnings”. [↑](#footnote-ref-13)
13. For the resulting estimates of slaves’ retained incomes in 1800, see Appendix C and gpih, “Own-labor incomes 1800”, Worksheet (3). [↑](#footnote-ref-14)
14. For the 1774 estimates, see gpih, “Own-labor incomes 1774”, Worksheet (4). [↑](#footnote-ref-15)
15. Such a bias, if it exists, would mean that we are understating not only slaves’ retained earnings, but also national income. The understatement of national income would arise because we are sticking with the 11 percent rate of property return for slaveholders, not the 15.8 percent implied by our low estimate of slaves’ retained earnings. [↑](#footnote-ref-16)
16. Farley Grubb (2013) has found many sources that seem to support using the six percent interest rate, or net rate of return, shortly before and after the Revolution. See his references to work by Barlow, Brock, Davis, Eliot, Ferguson, Hutchison and Rachal, the *Pennsylvania Gazette*, Puls, Nettles, and Paul H. Smith (citing Morris 1777). See also Homer and Sylla (1991, pp. 276-299, 286-288). [↑](#footnote-ref-17)
17. The asset categories were chosen by Alice Hanson Jones (1977, 1980). [↑](#footnote-ref-18)
18. See gpih, wage rates 1800 and, alphabetically, Donald Adams (1968, 1970, 1982, 1986, and 1992), T.M. Adams (1944), Samuel Blodget (1806), Stanley Lebergott (1964), Lucy Simler (1990), Billy Gordon Smith (1990, pp. 110-121), and Carroll Wright (1885). [↑](#footnote-ref-19)
19. The best introduction to the quantitative dimensions of the 1798 direct tax returns is still that of Lee Soltow (1989). For the underlying political history, see Robin Einhorn (2009). [↑](#footnote-ref-20)
20. Appendix 3, in the supplementary materials to our article (Lindert and Williamson 2013a), at the *Journal of Economic History* web site. [↑](#footnote-ref-21)
21. See gpih, “American property income totals 1798-1800” for the detailed calculations. [↑](#footnote-ref-22)