

## Wealth Levels and Distribution in the Early American Republic, 1785-1815

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Compared to other periods of American history, our understanding of wealth levels and distributions in the Early Republic is incomplete. As Cathy Matson observes, “in the face of mounting evidence that standards of living rose during the colonial era, we still do not know much about who enjoyed the benefits of economic maturation or how the rates of growth compared from place to place.”<sup>1</sup> Two of the important studies of wealth distribution include Alice Hanson Jones’s work on probate inventories for 1774 and Lee Soltow’s investigation of the 1798 Direct Tax. Both projects took more than a decade to complete using punch cards and tabulating the data painstakingly by hand.<sup>2</sup> In a recent series of articles and working papers, Peter Lindert and Jeffrey Williamson have investigated early American wealth levels and distribution and attempted to reconcile Jones and Soltow’s interpretations. The authors compare measurements from Jones, Soltow, and others for the years 1774 and 1800, and conclude that per capita incomes exhibited only modest growth, and possibly negative rates of growth in the South, despite the fact that most scholars point to the 1790s as a period of significant economic growth. The authors also suggest, in an earlier version of the paper, that inter-regional inequality “demands further scrutiny.”<sup>3</sup> While Lindert and Williamson use new data on employment to compare existing data on wealth inequality, this paper presents a new, larger, and more-

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<sup>1</sup> Cathy Matson, “A House of Many Mansions: Some Thoughts on the Field of Economic History” in Cathy Matson ed. *The Economy of Early America: Historical Perspectives & New Directions* (University Park, PA: Pennsylvania State University Press, 2006), 19.

<sup>2</sup> Alice Hanson Jones, *American Colonial Wealth: Documents and Methods* Three Volumes (New York: Arno Press, 1977); Alice Hanson Jones, *Wealth of a Nation to Be: The American Colonies on the Eve of the Revolution* (New York: Columbia University Press, 1980); Lee Soltow, *Distribution of Wealth and Income in the United States in 1798* (Pittsburgh: University of Pittsburgh Press, 1989)

<sup>3</sup> Peter H. Lindert and Jeffrey G. Williamson, “American Colonial Incomes, 1650-1774” NBER Working Paper 19861 (January 2014); Lindert and Williamson, “American Incomes Before and After the Revolution” *Journal of Economic History* 73, no. 3 (September 2013), 725-765; Lindert and Williamson, “American Incomes Before and After the Revolution.” NBER Working Paper 17211 (July 2011), 30.

representative dataset that facilitates comparisons of wealth levels and inequality across time and region in the Early Republic.

Both Jones and Soltow designed their studies with the intention of producing data significant at the national level, with little concern for fluctuations among the state or county data.<sup>4</sup> As a result, neither study can be easily disaggregated to show variation beyond the national level. Because neither author used a large enough dataset to facilitate comparisons between states or local data, their projects minimize regional complexity and are have difficulty accounting for regional economic growth. Jones produced a detailed study of 919 weal holders, but her sample was not large enough to consider questions of regional distinctiveness. Likewise, Soltow attempted to draw regional comparisons between the rural and urban areas by grouping his results into categories such as the “Rural South” or “Urban North.” The problem with using Soltow’s data for regional comparison is particularly acute when one examines the sources behind the large, amorphous categories he employed. Soltow constructed his wealth distribution for the “Rural South” using the individual enumerations from Georgia, North Carolina, and Tennessee coupled with the aggregate returns for other states. In addition, Soltow constructed estimates for the “Urban South” using only the “complete enumeration of collated inventories for Baltimore.”<sup>5</sup> In contrast, this paper uses a sampling technique that not only produces representative data at the national level, but also facilitates comparisons between individual

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<sup>4</sup> This is not to say that either study provides an inaccurate picture of the national economy. Both authors carefully considered the range of errors yielded by their dataset, and adjusted their conclusions accordingly. Neither author, however, designed their data collection procedures with the intention of producing regional or local data. As a result, neither study can be disaggregated to show variation beyond the macro level.

<sup>5</sup> Soltow, *Distribution of Wealth and Income in the United States in 1798*, 39-42, 44; quotation, Soltow, “Wealth Inequality in the United States in 1798 and 1860” *The Review of Economics and Statistics* 66, no. 3 (August 1984), 446.

states, regions, and counties.<sup>6</sup> The sample includes the tax assessments of 31,343 households from five of the seven most populous states in 1815.

Tax records facilitate the use of a larger dataset than would probate inventories or account records. While probate inventories have the benefit of including all personal property retained by the owner at the time of death, and are therefore more inclusive in their measurements than tax records, probate inventories are painstakingly difficult to tabulate and access. Using probate inventories from a single year, Jones was forced to develop price estimates for obscure household items such as “good leather boots” and “fine leather boots,” an arduous task that took her more than a decade to complete. Since probate inventories are only recorded at the time of an individual’s death and tend to only record individuals with significant personal estates, moreover, they also suffer from age and class biases. Tax lists present a manageable alternative because they measure only a fixed subset of taxpayer’s possessions, which represent the vast majority of household wealth during this period, and because tax collectors assembled the lists annually using standardized practices of assessment and collection. As a result, the lists facilitate comparison for a number of taxable items. Taxpayers in the Early Republic paid taxes on a variety of items including land, slaves, horses, and cattle. East state also taxed a variety of luxury goods such as billiard tables, coaches, carriages, chariots, gold and silver plate, silver shoe buckles, mirrors, and furniture. In addition, the tax lists provide a more-representative

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<sup>6</sup> Referring to his study of American wealth in 1798, Lee Soltow suggested the potential for future research, noting that “[t]here was large regional variation and, indeed, variation between townships and counties ... and averages or aggregates shown in national accounts seem far removed from reality for most individuals.” Robert E. Gallman and John Joseph Wallis ed., *American Economic Growth and Standards of Living Before the Civil War* (Chicago: University of Chicago Press, 1992), 131.

sample of the population than would probate inventories since nearly all free white males over the age of twenty-one paid a poll tax during this period.<sup>7</sup>

Tax records also overcome many of the obstacles presented by income assessments. As Hartmut Kaelble and Mark Thomas observe, income valuations rarely include non-monetized elements of consumption, such as rates of homeownership, causing inequality figures to be understated. Income valuations also introduce difficulties in determining the size of households, a setback overcome through the use of tax records, which record household wealth.<sup>8</sup> Because states assessed household for assets employed in agricultural production, moreover, their concentrations provide an indication of economic growth for the Early Republic.

Although tax records provide a more efficient means of tabulating household wealth statistics, several limitations exist. Tax records only record a fixed subset of personal property, serving to exaggerate the disparity in wealth by neglecting the value of some household possessions.<sup>9</sup> Through neglecting household possessions, the tax lists for some states may understate nonagricultural wealth, particularly the contributions of household manufactures, which many historians believe may have accounted for a significant portion of the eighteenth-century economy. In addition, tax assessments frequently exempted from taxation those

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<sup>7</sup> Most states exempted clergymen, Revolutionary war veterans, college professors, elected officials, noncitizens, and ferrymen from the poll tax levied on adult whites. In addition, sheriffs frequently exempted those who were too poor to pay the tax along with those who were considered old or infirm.

<sup>8</sup> Hartmut Kaelbble and Mark Thomas, “Introduction” in Y.S. Brenner, Hartmut Kaelble, and Mark Thomas ed. *Income Distribution in the Historical Perspective* (Cambridge: Cambridge University Press, 1991), 16-22.

<sup>9</sup> The exclusion of household items could also serve to understate or exaggerate the level of inequality. Personal possessions might have accounted for a greater proportion of household wealth for poor taxpayers. At the same time, wealthy individuals would have been more likely to own a greater number and variety of personal possessions. These individuals would have also possessed more luxury goods and more expensive household items—silver spoons instead of wooden ones. Jan De Vries argues that early-modern consumers participated in “consumption clusters,” employing a range of consumer choices based on income level. These choices could reinforce the level of inequality if consumers spent similar proportion of their incomes. Jan de Vries, *The Industrious Revolution: Consumer Behavior and the Household Economy, 1650 to the Present* (New York: Cambridge University Press, 2008), 37.

individuals considered too poor or perceived as disabled from age or infirmities.<sup>10</sup> Because the tax lists only measure property held within the county, and cannot be collated with lists from other counties without considerable effort and a one-hundred-percent sample size, the records understate the wealth holdings of a few individuals who owned multiple plantations or held other properties outside their county of residence. Likewise, some historians argue that wealthy taxpayers may have been under-assessed compared to their poorer neighbors, or that the valuations provided by tax assessors were sometimes implausibly low.<sup>11</sup> Moreover, evidence from the tax lists should not be taken necessarily to argue that the opportunities of specific taxpayers improved or declined over time. Jack Marietta provides a useful analogy, noting that “the data indicate how the ‘pie’ of taxable wealth was sliced and distributed, and not the absolute size of the pie or pieces.”<sup>12</sup> While the tax lists provide a window into the life of the average taxpayer, they do not trace the experiences of specific families. These caveats, however, are shared by nearly all existing studies that employ tax data in their analysis and apply equally to all counties and regions in the dataset.<sup>13</sup>

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<sup>10</sup> Steven Sarson identifies a common practice of tax collectors in Maryland exempting those individuals with estates valued at less than forty dollars. Judging from the lists of insolvent and delinquent taxpayers from other states it appears that tax collectors employed similar policies. These lists often contained the names of individuals who had proved tax exemption, and sheriffs occasionally wrote “too poor” next to the names of these individuals as an explanation for uncollected debts. In addition, Peter Lindert and Jeffrey Williamson suggest that tax lists may exclude some middling or wealthy taxpayers, or that their properties may have been under-assessed. Because state law several states held sheriff’s *personally* liable for any uncollected taxes, the author finds it unlikely that tax collectors omitted many taxpayers beyond the specific exemptions in the tax code. Sarson, “Wealth, Poverty and Labor in the Tobacco Plantation South: Prince George’s County, Maryland in the Early National Era,” 37; *Ibid*, 11.

<sup>11</sup> Lindert and Williamson, “American Incomes Before and After the Revolution,” NBER Working Paper 17211 (July 2011), 10, 16-17.

<sup>12</sup> Jack D. Marietta, “The Distribution of Wealth in Eighteenth-Century America: Nine Chester County Tax Lists, 1693-1799” *Pennsylvania History* 62, no. 4 (fall 1995), 532.

<sup>13</sup> Soltow, *Distribution of Wealth and Income in the United States in 1798*, 44; Sarson, “Wealth, Poverty and Labor in the Tobacco Plantation South: Prince George’s County, Maryland in the Early National Era,” 35-75, 167-207, 437-440.

To facilitate comparisons with existing studies, this paper uses Gini coefficients to measure wealth inequality across regions and time.<sup>14</sup> Gini coefficients measure inequality using a staple for welfare economics, the Lorenz Curve. The Lorenz Curve charts the cumulative proportion of wealth against the cumulative proportion of population, ranked from smallest to largest, yielding a forty five degree line at perfect equality. Because Lorenz Curves often intersect, however, comparisons between them are difficult, and assessments vary depending on the biases of the observer.<sup>15</sup> Gini coefficients use ratio analysis to measure the area above the Lorenz Curve divided by the area under the line of perfect equality, providing a measure of statistical dispersion. The result is a value between zero and one, with zero representing perfect equality (no variance in ownership, all wealth holders are equal), and one representing perfect inequality (one individual owning all wealth in the economy). These values can then be compared across regions and time periods to assess the concentration of wealth for taxpayers living in the Early Republic.

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<sup>14</sup> Although there are many ways to approximate or calculate Gini coefficients, depending on the limitations of the data or convenience of computation, this paper will use the following formula because the dataset contains wealth information for all wealth holders sampled and uses all data points in its calculation of the Lorenz curve:

$$G_1 = 1 - \sum_{k=1}^n (X_k - X_{k-1})(Y_k + Y_{k-1})$$

Where  $X_k$  is the cumulative proportion of population, and  $Y_k$  is the cumulative proportion of wealth. For a general introduction to Gini coefficients, see A.B. Atkinson, *The Economics of Inequality* (Oxford: Clarendon Press, 1975), 45-49; for alternate measures of inequality, see Brenner, Kaelble, and Thomas, *Income Distribution in the Historical Perspective*, 28, 28n.

<sup>15</sup> George Deltas notes that Gini coefficients suffer from a significant small-sample bias, and that “removing, at random, members of a population will tend to decrease the estimated Gini coefficient of that population.” A.B. Atkinson further notes that “the degree of inequality cannot, in general, be measured without introducing social judgments. By employing ratio analysis, Gini coefficients provide a better indication of the level of inequality among median wealth holders than of the inequality found at either end of the wealth spectrum. To confront these statistical biases, this study employs a twenty percent sample totaling more than twenty-two thousand wealth holders, significantly larger than many previous studies. See George Deltas, “The Small-Sample Bias of the Gini coefficient: Results and Implications for Empirical Research” *The Review of Economics and Statistics* 85, no. 1 (February 2003), 227; Atkinson, *The Economics of Inequality*, 47; Brenner, Kaelble, and Thomas, *Income Distribution in the Historical Perspective*, 28, 28n.

Thomas Piketty notes that in practice Gini coefficients typically range from approximately 0.2 to 0.4 for labor income, compared to 0.6 to 0.9 when measuring the distribution of capital ownership. Overall income inequality has been observed around 0.3 and 0.5 for most modern societies.<sup>16</sup> In constructing historical Gini coefficients, however, the results have been considerably higher; due in part to the way the measurement is constructed, emphasizing capital ownership (land and slaves) over labor income. Since probate inventories and tax records only assessed certain types of wealth, the distribution measurements have typically skewed toward greater inequality. Jones found a Gini coefficient of .67 for free wealth holders in the South for the year 1774, and Soltow estimated figures ranging from .503 for wealth holders in the “Rural North,” to .888 for white males in the “Rural South.”<sup>17</sup> Steven Sarson found even greater inequality in Prince George’s County, reporting figures ranging from .77 to .85 depending on the year and type of property assessed.<sup>18</sup> Recently, Lindert and Williamson have argued that American incomes were more equitable distributed, with a Gini coefficient of .437. One should exercise caution, however, when comparing Gini coefficients without engaging other measurements of inequality, as the methods used to construct each dataset often introduces biases that make comparisons inexact.<sup>19</sup> As a result, it is typically most effective to make comparisons to similarly-constructed datasets; particularly those assembled from tax lists and examine the same period in American history.

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<sup>16</sup> Thomas Piketty, *Capital in the Twenty-First Century* trans. Arthur Goldhammer (Cambridge and London: Belknap Press of Harvard University Press, 2014), 266.

<sup>17</sup> Alice Hanson Jones, *Wealth of a Nation to Be: The American Colonies on the Eve of Revolution* (New York: Columbia University Press, 1980), 164, Table 6.2; Soltow, *Distribution of Wealth and Income in the United States in 1798*, 42.

<sup>18</sup> Sarson, “Distribution of Wealth in Prince George’s County, Maryland, 1800-1820,” 848-850, 853.

<sup>19</sup> This is particularly true when comparing Gini coefficients of wealth to Gini coefficients of income. On this point, see Donald E. Ginter, “A Wealth of Problems with the Land Tax” *Economic History Review* 35, no. 3 (August 1982), 416-421.

The paper also employs an Atkinson index, another measure of inequality used to understand changes in the distribution of the sample.<sup>20</sup> While Gini coefficients provide an excellent measure of dispersion across a given sample, the coefficient cannot be decomposed to identify factors that might explain changes in the distribution. For example, consider two hypothetical populations. In the first population, declining economic prospects cause some taxpayers of middle wealth to fall into poverty or leave the county altogether to find better employment, widening the gap between the rich and poor. In the second population, new forms of employment allow some middling taxpayers to improve their circumstances, as workers shift to more productive forms of employment. Both populations would show increasing rates of dispersion, causing their Gini coefficients to rise, with no regard for differences in causality or changes in social structure. To remedy this consideration, the Atkinson index uses the parameter  $\epsilon$  to represent the emphasis placed on inequality within the distribution. The parameter ranges from zero, meaning that the observer is indifferent to inequality, to infinity, implying that the observer is concerned only with the conditions of the poorest wealth holders. These values have the benefit of being infinitely decomposable, allowing observers to examine any number of subgroups. The resulting index produces a range of coefficients, ranging from zero to one, that describe the concentration of the sample with respect to inequality. This study uses three values of epsilon, 0.5, 1.5, and 2.5, providing three measures of inequality with varying respects to poverty. While the Gini coefficient provides the best measure of inequality among those in the

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<sup>20</sup> This paper uses the following formula:

$$Index_w = 1 - \sum_{i=1}^n \left[ \left( \frac{w_i}{\mu} \right)^{1-\epsilon} f(w_i) \right]^{1/1-\epsilon}$$

Where  $w_i$  is the wealth of person  $i$ ,  $\mu$  equals the average wealth of the sample,  $f(w_i)$  is the proportion of the population that each wealth holder represents, and  $\epsilon$  is a constant term used to determine the importance of wealth. See Anthony B. Atkinson, “On the Measurement of Inequality” *Journal of Economic Theory* 2, no. 2 (June 1970), 244-263; Atkinson, *The Economics of Inequality*, 48.



middle of the distribution, moreover, the Atkinson Index provides the best measurement of inequality among the poorest classes.

### *Methodology*

The methodology of this project closely follows previous studies by Lee Soltow and Steven Sarson.<sup>21</sup> Both authors sampled tax records in their construction of inequality measures, and because this study makes frequent comparisons to their work, several differences should be first acknowledged. While Soltow’s data included only real estate and slaves, Sarson’s tax lists also recorded gold and silver plate and “other” property such as “livestock, stills, ready cash, riding carriages, vessels over 20 tons ... [and] some furniture and farm equipment.”<sup>22</sup> In contrast, this study includes land, slaves, horses, and cattle in its construction of wealth estimates. The studies also differ in their sample size. While Sarson employed a one hundred percent sample size for only one county, believing that “Prince George’s was a more typical than exceptional early national Upper South plantation district,” Soltow used ten and twenty percent samples for select counties to produce national wealth estimates.<sup>23</sup> In tabulating my results, I have sampled every fifth page of the tax lists for New York, Pennsylvania, Virginia, North Carolina, and Ohio. While both Soltow and Sarson relied on tax collector’s assessments when measuring the value of taxable property, I have constructed wealth estimates using market values for each type of taxable property.<sup>24</sup>

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<sup>21</sup> For more information on the methodology, please see the Methodology Appendix. Steven James Sarson, “Wealth, Poverty and Labor in the Tobacco Plantation South: Prince George’s County, Maryland in the Early National Era” (PhD Diss: Johns Hopkins University, 1998),

<sup>22</sup> Sarson, “Distribution of Wealth in Prince George’s County, Maryland, 1800-1820,” 847.

<sup>23</sup> Steven James Sarson, “Wealth, Poverty and Labor in the Tobacco Plantation South: Prince George’s County, Maryland in the Early National Era” (PhD Diss: Johns Hopkins University, 1998), 8; Soltow, *Distribution of Wealth and Income in the United States in 1798*, 40.

<sup>24</sup> For New York and Pennsylvania I have been forced to rely on assessed values because tax collectors in these states did not always specify the amount of land or variety of personal property each taxpayer owned.

To account for differences in population between counties and to provide a representative sample for regional analysis, I have grouped each of the counties into geographically contiguous clusters based on their population in 1815 as derived from the 1810 and 1820 Censuses.<sup>25</sup> Each cluster of counties represents a population of approximately 4,657 free white males, a number that is comparable to the average populations of counties in New York and Pennsylvania in 1815. I have chosen to base my sample on the number of adult white males because this figure would likely approximate the number of taxpayers in each county in 1815. This technique produces a self-weighting sample, facilitating comparisons between regions, and approximates the methodology employed by Jones in her study of 1774.<sup>26</sup> I then sampled the clusters of counties randomly to produce my dataset. These considerations facilitate a larger, self-weighting sample that allows for comparisons between regions.

Table 1: *Number of Taxpayers from Each State in the Preliminary Sample*

State and Year	Number of Taxpayers Sampled
New York 1800	1,822
Ohio 1810	6,275
Pennsylvania 1785	436
Pennsylvania 1795	912
Pennsylvania 1805	1,328
Pennsylvania 1815	1,652
North Carolina 1785	1,737
North Carolina 1795	2,705
North Carolina 1805	2,454
North Carolina 1815	3,280
Virginia 1785	2,017
Virginia 1795	2,415
Virginia 1805	2,285
Virginia 1815	2,025

<sup>25</sup> For more information, please see the Methodology Appendix.

<sup>26</sup> One basic difference between this study and Jones, however, is that Jones constructed her clusters without regard for regional similarities. Instead, Jones grouped her clusters “as if an imaginary string were laid on a map.” Jones employed this method in the interests of producing a national unbiased sample. In constructing my clusters, I have worked to group counties by region, producing a self-weighting sample that is representative of the region as a whole. See Jones, *American Colonial Wealth*, 3:1836.

Although some states, particularly those in New England had already begun to assess taxable property based on value in the Early Republic, many tax lists record only the number of acres of land along with the number of slaves, horses, cattle, and other taxable items. The valuations for other taxable items have been estimated using a variety of sources. While the records for Pennsylvania and New York record the value of land and real estate, the tax lists for North Carolina and Ohio do not. For North Carolina and Ohio, land values have been estimated for this paper to be \$4.31 per acre. This figure is based on Peter Lindert’s analysis of Samuel Blodget’s estimates for the average price of improved and unimproved land in the United States in 1805.<sup>27</sup> Sheriffs in Virginia recorded land and personal property on separate tax lists. I am in the process of collating the lists for each county, but the results are not yet ready, and land values for Virginia are missing from this paper as a result. Admittedly, the difficulty in accounting for land prices is a major weakness of this paper that will be remedied in the final project once all of the data has been tabulated.

For slave prices, I have utilized an ICPSR dataset produced by Robert Fogel and Stanley Engerman, a database that includes more than 76,000 slave sales and appraisals.<sup>28</sup> Through limiting my search to slaves in Maryland, Virginia, and North Carolina who would have been old enough to have been taxed, and eliminating those slaves who would have likely been exempted for age or infirmities, I have constructed average slave prices for the period 1785-1815 using

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<sup>27</sup> Blodget provided multiple estimates for land values between 1774 and 1805. Peter Lindert has assessed each of Blodget’s estimates and preferred his average of \$4.02, which I have converted to 1800 federal dollars using John J. McCusker’s *How Much is That in Real Money?* See Peter H. Lindert, “Long-run Trends in American Farmland Values” *Agricultural History* 62, no. 3 (summer 1988), 45-85; Peter H. Lindert, “Long-run Trends in American Farmland Values” Working Paper No. 45 Agricultural History Center (February 1988), Appendix D; Samuel Blodget, *Economica: A Statistical Manual for the United States of America* (1806; rpt. New York: Augustus M. Kelley, 1964).

<sup>28</sup> Robert W. Fogel and Stanley L. Engerman, “Slave Sales and Appraisals, 1775-1865” ICPSR Data Series 7421, National Science Foundation: Economics of American Negro Slavery Series, 1976 (updated 2006).

3,209 slave sales and appraisals.<sup>29</sup> These data yielded an average price of \$174.70 for slaves between the ages of twelve and sixteen, and \$186.83 for slaves over the age of sixteen.<sup>30</sup>

Although these data have the benefit of providing multiple observation points from which to examine slave prices, and provide contemporary market valuations, these estimates differ from those employed in previous studies. Soltow used \$350 in his estimation of average national slave prices in 1798, citing probate inventories, the contemporary observations of Samuel Blodgett, and noting that “a \$175 value is suggested by the South Carolina tax law of the 1790s.”<sup>31</sup>

Sarson’s records included valuations in their description, ranging from £15 for “older children, to £45 (Maryland currency) for “prime-aged men.” Sarson, however, notes that these assessments are well below market values for the period.<sup>32</sup> These differences in price estimates influence the way inequality measures are constructed. Because slave property was unequally held, Soltow’s price estimates may cause his inequality measures to be overstated. Likewise, by employing the low slave values provided in the tax records, Sarson’s study likely understates the level of inequality in Prince George’s County, Maryland.

A November 1791 letter from David Stuart to George Washington provides the basis for horse and cattle price estimates. A former delegate to the state legislature, Stuart frequently collected information for Washington, and the letter reports prices current from Loudoun and Berkeley counties for a variety of agricultural goods. Since the tax laws for Virginia and several other states assessed taxpayers for “every horse, mare, colt and mule except covering horses,” I

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<sup>29</sup> The tax lists for Virginia from 1785 include slaves under the age of sixteen, but I have used the figure for slaves aged twelve to sixteen due to the lack of price estimates for younger slaves and to remain consistent with data from other years.

<sup>30</sup> To facilitate comparison with other price data, I have converted these figure to 1800 federal dollars using the exchange rates described in McCusker’s *How Much is That in Real Money? A Historical Commodity Price Index For Use As A Deflator of Money Values in the Economy of the United States* second edition (Worcester, MA: American Antiquarian Society, 2001).

<sup>31</sup> Soltow, *Distribution of Wealth and Income in the United States in 1798*, 268.

<sup>32</sup> Sarson, “Wealth, Poverty and Labor in the Tobacco Plantation South: Prince George’s County, Maryland in the Early National Era,” 38.

have used Stuart’s descriptions to produce an estimate of £15 current Virginia currency (\$28.19 in 1800 federal dollars) for the horse valuations for Virginia, North Carolina, and Pennsylvania.<sup>33</sup> Likewise, I have averaged Stuart’s descriptions of varying qualities of cattle, using £3 current Virginia currency (\$5.64 in 1800 federal dollars) in analyzing the records for these three states.<sup>34</sup> Although the letter provides only one assessment of contemporary prices, in the absence of official statistics these descriptions are more reliable than most travelers’ accounts because Stuart lived nearby and corresponded frequently with Washington regarding agricultural prices.<sup>35</sup>

#### National Data

American wealth appears to have been very unequally distributed in the Early Republic, with a Gini coefficient ranging from .712 to .773 (Table 2). These results show greater concentrations of wealth than Lindert and Williamson found for income inequality in the same period, but the results are not far from the estimates produced by Jones and Soltow. The differences in measurements can be accounted for by the differences in types of property measured. Jones included the value of all household assets, while Soltow measured the value of all land, dwelling houses, and slaves, which were more unequally distributed in the eighteenth-century than other forms of property. Because this paper measures the value of horses and cattle in addition to land and slaves, it is understandable that the Gini for total wealth is situated between Jones and Soltow’s figures.

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<sup>33</sup> Although the letter does not list prices for mules, it provides the following estimates: “Best horses from £20 to £25 ... 2<sup>nd</sup> rate from £12 to £20 ... small horses may be bought much lower.” I arrived at the £15 figure by assuming that colts and small horses would reduce the average price. See Gertrude R.B. Richards, “Dr. David Stuart’s Report to President Washington on Agricultural Conditions in Northern Virginia” *The Virginia Magazine of History and Biography* 61, no. 3 (July 1953), 283-291.

<sup>34</sup> Stuart provides the following prices for cattle, “oxen from £8 to £15 a pair ... steers unbroke at £2-10 to £3 ... best milch cows at £5 ... 2<sup>d</sup> rate at about £2-10 to £3.” The tax laws assessed taxpayers for “every head of cattle.” I arrived at the £3 figure by assuming that a greater number of second rate cattle and calves would have lowered the average price. *Ibid.*

<sup>35</sup> That being said, prices could have differed between regions, particularly in regions that were more isolated such as Southside, or located closer to major ports such as Tidewater.

As previous studies have found, wealth levels were significantly higher in the Southern states than in the North, with an average wealth of \$941.19 in Maryland, Virginia, and North Carolina, compared to \$773.61 for New York and Pennsylvania. Slaves were the most unequally distributed among taxable property, with a Gini coefficient of .848, compared to .661 for land, .587 for horses, and .719 for cattle. Although the median farm size remained around 100 acres, median wealth declined from \$333.43 in 1785 to \$215.02 in 1815.

Table 2: *Gini Coefficient of Wealth by State and Year*

	1785	1795	1800	1805	1810	1815
NY			0.606			
OH					0.531	
NC	0.724	0.673		0.660		0.763
VA	0.729	0.727		0.733		0.748
PA	0.611	0.701		0.701		0.797
Whole Country	0.726	0.721		0.712		0.773

The level of inequality did not change significantly over time, confirming Lee Soltow’s observation that American inequality remained relatively constant throughout the antebellum period. Although inequality did rise significantly between 1805 and 1815, the results do not support the argument that inequality increased with each successive decade in the early-nineteenth century.<sup>36</sup> Pennsylvania experienced the greatest transformation, moving from the most equal of the states under consideration in 1785, to the most unequal by 1815. The level of inequality was lower in New York and Ohio, due primarily to differences between the sources. The tax records for New York measure total household wealth, and are more inclusive than the records for the other states. The tax records for Ohio record only land, which was more equally distributed along frontier settlements.

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<sup>36</sup> Steven Sarson found that inequality rose with each successive decade between 1800 and 1820 in Prince George’s County, Maryland, particularly in landownership, but found less inequality than one would expect in the ownership of slaves

Table 3: *Average Wealth by State and Year*

	1785	1795	1800	1805	1810	1815
NY			\$847.69			
OH					\$794.56	
NC	\$1247.25	\$1332.28		\$1337.42		\$926.19
VA	\$931.11	\$523.84		\$545.08		\$655.06
PA	\$515.86	\$391.53		\$571.35		\$1132.78
Whole Country	\$1019.20	\$866.45		\$871.37		\$896.32

The data also confirm Lindert and Williamson’s observation that American wealth levels experienced a significant decline between 1774 and 1800, and offer suggestions for the cause of the decline in real wealth. Average wealth declined considerably between 1785 and 1795, but rose steadily between 1795 and 1815. Lindert and Williamson propose several possible explanations for the decline in real wealth including trade disruptions and the loss of British protectionism after the American Revolution, and British depredations during the war. The data suggest that American per capita real wealth fell nearly 15% between 1785 and 1795. Given that much of the decline in real wealth occurred during this decade, it is likely that the postwar depression had a lasting effect on American wealth holding. Taxpayers were less wealthy in 1795 than they were in 1785 at every level along the wealth distribution even though landholdings generally remained the same or even increased for the taxpayers in each decile. Although the 1790s likely experienced rising real incomes as a result of rising export prices and a lower tax burden as a result of Hamilton’s assumption plan, the decline in wealth holding during this period is striking.

Table 4: *Value and Percentage Share of Total Wealth, 1785-1795*

Percentile	Wealth 1785	% Share 1785	Wealth 1795	% Share 1795
10%	0	0	0	0
20%	\$39.47	0.19	\$25.86	0.03
30%	\$95.85	0.63	\$56.38	0.53
40%	\$192.47	1.38	\$180.00	1.07
50%	\$333.43	2.45	\$287.46	2.54
60%	\$525.82	4.18	\$478.00	4.56

70%	\$862.00	7.68	\$779.00	7.27
80%	\$1,371.22	9.35	\$1,181.29	11.08
90%	\$2,294.09	17.31	\$1,982.60	17.48
99%	\$8,253.46	56.73	\$7,715.47	55.44

The share of wealth owned by the top one percent of taxpayers fluctuated between 16.46% and 24.64%, while the proportion of taxpayers with no taxable property rose steadily from 13% in 1785 to 18% by 1815. The majority of wealth gains were accrued by taxpayers in the top 10%, who saw their proportion of total wealth rise from a low of 53.55% in 1805 to 63.76% in 1815. Taxpayers in the middle deciles also experienced significant gains, while the proportion of total wealth generally declined for the poorest taxpayers and for those in the upper deciles who were not in the top ten percent of wealth holders. Inequality among those in the upper deciles was generally less pronounced than among the poorest wealth holders. These trends are reflected in the Atkinson index. With an epsilon value of 0.5, the Atkinson index fluctuated from .480 to .555, indicated that wealth was more equally distributed among wealth taxpayers than among the general population. In contrast, with an epsilon of 2.5, the distribution of wealth among the poorest taxpayers ranged from .903 to .963, indicating an extremely unequal distribution of wealth among those of the poorest ranks. Growing equality among those of middle wealth is also suggested by the Atkinson index with an epsilon value of 1.5, as inequality declined from .695 to .633 between 1785 and 1805.

### Conclusion

Taxable wealth was unequally distributed in the years following the American Revolution. Although wealth levels declined substantially between 1785 and 1795, average fortunes had improved significantly by 1815. Inequality increased over the course of the period as those of middle wealth improved their circumstances and those in the top decile made



considerable gains. The proportion of poor and landless taxpayers grew steadily in the Early Republic, and slave ownership became more concentrated among the wealthiest taxpayers. The results also point to opportunities for future research, as the data exhibit tremendous regional and local variation. While taxpayers in Granville, North Carolina could claim an average wealth of \$2,608.57, for example, residents of Mercer County, Pennsylvania owned an average of only \$268.52 of taxable property. The enormous disparities in wealth ownership suggest that Jefferson’s vision of an egalitarian country composed of independent smallholders may have been incongruent with the realities of the Early Republic, and that recent trends in the American wealth holding may not be unprecedented. The top one-percent of Americans possesses approximately the same proportion of total wealth today as it did after the Revolution, although the rest of the wealth distribution bears little resemblance. Data from the remaining states will help to improve the precision of these preliminary results, and allow me to examine the state and county figures in greater detail.

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