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The Value of the Diet in the Lower South in the Eighteenth Century

Peter C. Mancall  
University of Southern California

Joshua L. Rosenbloom  
University of Kansas and National Bureau of Economic Research

Thomas Weiss  
University of Kansas and National Bureau of Economic Research

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## Introduction

We are interested in the value of the diet in the Lower South in the eighteenth century for two reasons. First, evidence on the value of the diet can be used to construct estimates of the value of crop and livestock production entering gross domestic product for the region, and as such is an important element in the derivation of estimates of gross regional product and gross regional product per capita.<sup>1</sup> Second, changes in the value of the diet over time are a direct indicator of changes in the standard of living in this period.

Because data necessary to construct comprehensive national accounts are not readily available before the mid-nineteenth century, all efforts to extend per capita income measures before this time are the product of a combination of partial and incomplete data and inferences used to extrapolate the available evidence to approximate changes in the rest of the economy. To date, the primary source of quantitative evidence available to scholars interested in the eighteenth century has been drawn from probate inventories. While creative use of these data has shed considerable light on many aspects of the early American economy, drawing inferences about the flow of income produced by the economy from data on the accumulated stocks of assets recorded in probate inventories requires a large number of assumptions. Focusing on the value of consumption expenditures provides an alternative and independent route to gauge the level of economic activity in this period, and one that measures a large part of total consumption and production.

The conventional wisdom about the American economy in the eighteenth century is that per capita income and standards of living were rising relatively rapidly, and that the colonies of Georgia, South Carolina, and North Carolina enjoyed above average levels of prosperity based

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<sup>1</sup> The value of crop and livestock production entering gross domestic product was primarily the value of exports and of food production. The latter value in turn was largely equal to the value of food consumed. Although there were some imports of food, the supply of food for consumption was predominantly obtained from domestic production. Thus, an estimate of the value of food consumed can be combined with evidence on exports and imports to yield a good approximation of the value of crop and livestock production for the region. Export statistics were recorded in official publications and although there are some difficulties with those data we have compiled the export series needed for our purposes. See Peter C. Mancall, Joshua L. Rosenbloom and Thomas Weiss, "Agricultural Labor Productivity in the Lower South," photocopy, University of Kansas, 2002.

on export-oriented production of staple agricultural products.<sup>2</sup> Elsewhere we have argued that in fact there was relatively little advance in the standard of living in the Lower South over most of the eighteenth century.<sup>3</sup> Our earlier work was based on conjectural estimates that assumed no improvement in the value of the diet over time (at least for European colonists). That assumption seemed to best describe the behavior of the diet as revealed in the evidence available to us at that time. We now have more evidence, and as we will show, there is sufficient evidence about the diet of free persons, slaves and Native Americans to allow us to estimate the value of the diet and its likely changes over time, and thus to estimate the value of food consumed and produced in the region. While the more abundant data that we present here could support a variety of assumptions about changes in the value of the diet, our reading of the evidence finds that they support our earlier assumption that there was essentially no increase in the value of the diet of the free population.

Before turning to the eighteenth century evidence we begin by establishing a benchmark measure of the value of the diet at the end of our period based on more comprehensive and reliable nineteenth century data. The second section details the evidence we have been able to locate on the diet of European colonists. We then explore the available evidence on the relative value of the diets consumed by slaves and Indians, information which is necessary for our conjectural estimation.

### **Benchmark Figure for 1800**

To obtain a benchmark for food consumption in 1800 we used Gallman's estimates of commodity production (1960, Table A-2) to derive the average value of food produced per person in current prices in 1840, 1850 and 1860 (see Table 1). We adjusted those figures to exclude the value of food exports per person and include the value of food imports per person and then revalued the result in prices of 1840 to obtain the average value of food consumed per

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<sup>2</sup> John J. McCusker and Russell Menard, *The Economy of British North America*, Chapel Hill, NC: Published for the Institute of Early American History and Culture by the University of North Carolina Press, 1985, pp. 57-58.

<sup>3</sup> Peter C. Mancall, Thomas Weiss and Joshua L. Rosenbloom, "Conjectural Estimates of Economic Growth in the Lower South, 1720-1800," in *History Matters: Economic Growth, Technology, and Population, Essays in Honor of Paul A. David* (Stanford, CA: Stanford

person in the U.S. in each of those three decennial census years. As can be seen, the values for 1840 and 1850 were nearly the same whether we look at food produced (in 1840 prices) or food consumed, whereas the 1860 value is higher by about \$4.00 due primarily to a higher level of food production and less so to an increase in food imports per person. We have used the average value for the three census years (\$29.98 per person) as the point of departure for our subsequent estimations rather than the lower value for 1840.<sup>4</sup>

The average consumption figures at the bottom of table 1 are the result of different average amounts consumed within separate population groups—such as free adults (ages 10 and over, free children (ages 0-9), and slaves. To estimate the amounts consumed by each population group we first estimated the national average for the free and slave populations by assuming that the average value of the slave diet equaled 75 percent that of a the average free person’s diet. We then solved for the values for free adults and free children by assuming that a child’s diet was equal to one-half that of an adult. The results of these calculations are reported in the first column of Table 2. To obtain the average value of the diet for the free population in the Lower South we reweighted the national averages for adults and children to reflect the population composition of the region. That latter figure was then multiplied by 75 percent to obtain the value of the slave diet for the region. Because there were relatively more children in the Lower South than in the nation the average for the region is slightly lower than for the nation, as is the value of the slave diet.

To extrapolate these mid-century estimates back to 1800 we used the procedures used by Gallman to estimate changes in perishable consumption for the period 1790 to 1840.<sup>5</sup> Gallman had assumed that the consumption of food remained constant for each component of the population. We have assumed that the diet in 1800 equaled that in 1840 for the two components

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University Press, forthcoming).

<sup>4</sup> This value is less than the figure calculated by Robert E. Gallman, “The Statistical Approach: Fundamental Concepts as Applied to History,” in George Rogers Taylor and Lucius Elsworth, eds., *Approaches to American Economic History*, Charlottesville: University of Virginia Press, 1971, pp. 76-78, for several reasons. Gallman was interested in the value of perishables, which includes a small number of non-food items, and his estimates also include wholesale and retail markups while we wanted the value expressed in prices received by farmers.

<sup>5</sup> Gallman, “Statistical Approach,” pp. 76-78. After allowing for the shifts in population structure, Gallman derived an average consumption of perishable products of \$35 for both 1790

of the free population. Because the child share of the population was somewhat greater in 1800 than in 1840, the weighted average value of the diet for a free person in the Lower South in 1800 was \$30.10, slightly less than the 1840 figure. The slave figure for 1800 was then calculated as 75 percent of this lower valued free person's diet, so it too was slightly lower than the 1840 figure.

The assumption of constant per capita consumption may not be the ideal basis on which to make extrapolations, but it is practical and it is more reasonable than appears at first glance. For one thing, it accords with the assumptions underlying the estimation of farm output made by Towne and Rasmussen (1964) for the early nineteenth century. Moreover, Gallman has argued that the consumption of perishables, which consisted almost exclusively of food and firewood during this period, did not change much between 1790 and 1840. He concluded that “whatever changes took place in per capita food consumption were probably limited to those arising out of shifts in the structure of the population.”<sup>6</sup> His evidence concerning the consumption standards, or diets, for the period after 1790, came from the ration schedules of the colonial militia, colonial privateers, and the Continental Army from the late seventeenth century through the Revolution. He found that “the basic meat and bread ration varied scarcely at all across time, space and form of military organization.”<sup>7</sup> By using other information about relative levels of consumption, Gallman further inferred the typical consumption patterns of colonial women and children.<sup>8</sup> Evidence concerning the balance of the diet was less complete, although it was sufficient for Gallman to conclude that dietary standards were relatively stable from colonial times to 1840, and any changes that did take place were likely confined to compositional shifts in the population.

Although our assumption of constancy in consumption per person is similar to that underlying the estimates of Towne and Rasmussen, it differs from theirs in two ways. First, their estimates rest on a constant per capita consumption for individual products, whereas we have

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and 1800.

<sup>6</sup> Gallman, “Statistical Approach,” pp.76-78.

<sup>7</sup> Gallman, “Statistical Approach,” p.73.

<sup>8</sup> The information pertained to consumption rations for adult female slaves and children relative to their adult male counterparts. Gallman argued that these relatives could be applied to the evidence from the military schedules to infer typical consumption levels of colonial women and

assumed constancy in the per capita value of all those products combined.<sup>9</sup> Second, they assumed constancy regardless of any changes in the composition of the population, whereas we assume constancy of consumption for each of several components of the population, and allow the national average figure to change as the composition of the population changed.

Evidence on the value of the diet for different population groups provides a direct gauge of changes in the standard of living for each group before 1800. Combining this evidence with data on changes in population composition allows us to use the series to construct estimates of total food consumption at other dates. If we multiply that average per capita consumption figure by the population in each of the earlier years, we obtain the aggregate amount of these products produced in the colonies. Because shifts in the composition of the population were larger before 1800 than after, and there was an additional component of the population, namely Indians, to contend with the relationship between the value of the diet for the different components of the population and the that for the entire population is likely to be more complex than was the case in the first half of the nineteenth century.

### **The Value of the Diet for the Free Population**

Although Gallman concluded that the value of the diet of free adults was constant between 1790 and 1840, there is no reason to assume that this constancy held for earlier periods. Based on the observations of several eighteenth century commentators, the expenditures of colonial governments and the poor relief records of a number of parishes in the Lower South, it is possible to reach relatively firm conclusions about trends in the value of the diet of different components of the free population before 1800. Although there is room for some differences in interpretation, the assorted evidence presented below supports the idea that there was little, if any, change in the values of the underlying diets.<sup>10</sup> By that we mean, there is no clear, strong

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children.

<sup>9</sup> Towne and Rasmussen estimated the output of some agricultural products in more direct fashion, but the combined output of those amounted to only six percent of farm gross product in 1840. The output of corn, wheat, and tobacco, included an estimate of exports

<sup>10</sup> In our earlier estimates of GDP we assumed there was no change in the underlying diet of each free population group, but allowed the slave's diet to rise over time from a value equal to approximately 50 percent of a colonist's in 1700 to 75 percent in 1800 in order to bias upward the rate of growth of agricultural output and GDP. Mancall, Rosenbloom, and Weiss,

trend in the value of the diet for the free population. And although the evidence regarding the slave diet is sparser, we think that too suggests little or no change over the long run. Moreover, this evidence strongly supports the view that the diet of a slave differed from that of a colonist, and that of an adult colonist differed from that for a child.

Contemporary accounts present a rather favorable view of living standards in the colonies of the Lower South, perhaps most clearly for South Carolina. When Governor Glen attempted to estimate the value of South Carolina at mid-century, he offered the view that "...our poor or middling sort of people, if there are any who may be called so, live better than those of Europe..."<sup>11</sup> Governor Glen's assessment was based on more than just opinion. He attempted to estimate the size and value of a number of things, such as the quantity and value of rice exports, the number of cleared acres of land, and the expenses of the colonists for "food, raiment and all other necessarys."<sup>12</sup> For the latter, he provided figures for four classes of colonists -- those who have plenty, those who have some of the conveniences of life, those who have the necessaries, and those who have a bare subsistence. In his summary, the last group made up about one-fourth of the population and spent at a rate of one 'groat' (or four pence) per day. In Table 3, we show his estimates of the number of people and expenditures for each group, and show the annual values converted to US dollars (prices of 1840) so that they can be compared to and linked with the figures for 1800. The average for the colony amounted to £15.7 sterling or a resounding \$87. If the food share were as low as one-third then the value of the diet would have been \$29 (in prices of 1840), equal to the average we estimate for free persons in the Lower South in 1800 (table 2). Since the food share of that budget was likely higher than one-third, Glen's estimates imply that the value of the diet was higher in the middle of the eighteenth century than it was in

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"Conjectural Estimates."

<sup>11</sup> James Glen, "An Attempt Towards an Estimate of the Value of South Carolina for the Right Honourable the Lords Commissioners for Trade and Plantations," *British Public Records Office Relating to South Carolina, 1663-1782*, vol. XXIV. Reprinted in Roy Merrens, ed. 1977, *The Colonial South Carolina Scene*, p. 185.

<sup>12</sup> *Ibid*, p. 184. Glen showed ingenuity in estimating the number of cattle based on the number of hides that were tanned in Charleston *Ibid*, p. 181. The number of hides tanned implied that around 12,000 head of cattle were killed each year. He estimated they weighed 400 lbs., which would make for 4.8 million lbs. of beef. With a population of 65,000 (40,000 slaves and 25,000 whites) this averaged only 74 lbs. per person.

1800.<sup>13</sup>

How accurate is Glen's estimate? Glen felt that his statistics in general were not as precise as he would have liked, claiming “they appear a rude, indigested, incoherent [mass], requiring a more masterly hand than mine to work them up into form and figure, and a head better turned to calculations.” Although his estimate of expenditures on food and clothing may be inaccurate, Glen believed that he was giving a figure that was too low. He concluded his calculation by saying, “...I am persuaded this is greatly under the real expence.”<sup>14</sup>

We cannot say for sure how representative his estimate is. It may very well give a lower bound estimate for South Carolina, but may not represent well North Carolina or Georgia. And, we cannot know for sure how typical was the year he was describing. His depiction is but one snapshot in time, and we are interested in how, if at all, the value of the diet changed over time. Nonetheless, Glen's figures are close to those of several other well-informed contemporaries who reported on food consumption in the 1730s and 1740s. Moreover, the apparent absence of any upward trend in the value of the diet over time implied by these estimates is consistent with evidence drawn from the expenditures of colonial governments for military rations, and the support of convicts.

The Earl of Egmont offers another contemporary view of the cost of provisions in his discussion about the establishment of a community of Saltsburgers (sic) in Georgia in the 1730s. In his correspondence the Earl suggested: “That we should promise them 1/2 year's subsistence, at the rate of 8*d* per day for men, 6*d* for women and 4*d* for children above 12 years.”<sup>15</sup> A simple average of the three would make their daily allowance equal to Glen's estimate for those who already have the necessaries. At about the same time, Johann Martin Bolzius, minister at the Salzburger colony, provided answers to some questions about Carolina, and indicated that white servants, if kept 'in a Christian way,' will need at least £8 sterling per year for food and

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<sup>13</sup> In 1840, crops and livestock accounted for close to one-third of national product. Thus it is difficult to imagine that food could constitute less than one-third of the narrower category of necessaries that Glen sought to estimate.

<sup>14</sup> *Ibid*, p. 178.

<sup>15</sup> This was recorded in march of 1741. Manuscripts of the Earl of Egmont, *Diary of the First Earl of Egmont*, vol. III, p. 207.



clothing.<sup>16</sup> This would have amounted to \$36 in current prices, and \$56 in prices of 1840. Food must have been the predominant component of this, so would easily have amounted to more than \$29 per servant, an amount equal to what we estimate was the average value of the diet in 1800.

In the 1740s, even prisoners were living well. Among the expenditures by the colony of South Carolina was that for provisioning 33 prisoners kept in the work house. It was decided “That there be allowed to each of the Prisoners per diem 1 lb. of Beef, or an equivalent of fish, and 2 lbs. of Small Rice.”<sup>17</sup> Valued in the prices of 1840, this amounted to at least 4.7 cents per day, which if it had been provided for the year would have totaled over \$17.<sup>18</sup> This calculation may be somewhat low. In 1740-41 the House had a discussion about the expenses for the Maintenance of Prisoners, and appears to have settled on five shillings per day rather than six.<sup>19</sup> Converted from South Carolina currency to Sterling, this amounted to around 8 pence per day or £12 per year, or around \$80 in prices of 1840. It may be that part of this was a fee for the services of the Provost Marshall, but in any case it was to provide at least one pound of beef and one pound of bread per day, which in the prices of 1840 would have been valued at \$26 per year.<sup>20</sup> Another bill was submitted to the Committee on Accounts in 1739-41 for £100 (most likely in South Carolina currency) to cover “..10 days diet of 50 white persons” who were involved in a trial in South Carolina (presumably not as criminals).<sup>21</sup> On a per person basis this amounted to 4 shillings per day or £73 annually per white person in South Carolina currency.<sup>22</sup> With the exchange rate running around 7 to 1, this would equal £10.4 Sterling, or around \$70 in

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<sup>16</sup> Johann Martin Bolzius, (1957) “Reliable Answers to Some Submitted Questions Concerning the Land Carolina,” *William and Mary Quarterly*, 3rd ser., vol. 14, p. 237. Because he was writing to those in England, we have assumed these values were in Sterling.

<sup>17</sup> Colonial Records of South Carolina, Commons House Journal, II, p. 338.

<sup>18</sup> If valued by prices reported by Gallman, this diet would be valued at 4.7 cents per day, or \$17.15 per year, whereas prices reported by Towne and Rasmussen would put the value at 8.2 cents per day or \$29.90 per year.

<sup>19</sup> *CRSC, Commons Journal*, November 18, 1740-March 26, 1741, p. 526. The price of beef was 3.8 cents per lb. that for bread was 3.3 cents per lb. (see Tables 5 and 7)

<sup>20</sup> These provisions were made clear when, in February of 1740, prisoners had complained that they were not getting their proper allotment. *CRSC, Commons Journal*, September 12, 1739-May 10, 1740, p. 184.

<sup>21</sup> *CRSC, Commons Journal, 1739-1741*, p. 493

<sup>22</sup> As noted below, a second bill was introduced to provide for negroes involved in a trial, and those figures indicate a slave's subsistence was only one-fifth that of a white's.

prices of 1840.

In the 1760s, the Committee of Public Claims in North Carolina approved an item for feeding and maintaining 7 Spanish prisoners for 45 days. The amount was £30 and 2 shillings, or about 2 shillings per prisoner per day.<sup>23</sup> At this daily rate, the annual feeding and maintenance would be 730 shillings, or £36, 10 shillings. This was no doubt North Carolina currency; in Sterling this would have been. £18, 5 shillings or a phenomenal \$125 per year in prices of 1840. Bernard Romans in describing the operation and expenses of a hypothetical plantation in the southeast near the end of the colonial period, specified an equally high expenditure for provisions for five men on a survey expedition for 12 days.<sup>24</sup> He cited the expense at one shilling Sterling per diem, which would have been an annual rate of £18, 5 shillings. It would seem that these short term allowances were at a level that were not likely to have been sustained on a yearly basis.

Other, more systematic evidence is also available. The records of the Trustees of Georgia contain well-documented evidence on the annual costs of maintaining those persons sent over to the Colony. In each of the annual accounts for the first eight years of the colony the Trustees report the “Monies Applied and Expended for Establishing the Colony” among which was an item “For Refreshments in the Passage, [and] Provisions for three months after their arrival in Georgia,..” The amounts suggest a high estimate of the value of the diet of these earlier settlers. In the first year the amount allotted equaled £3 Sterling per adult male on an annual basis, and rose thereafter.<sup>25</sup> The figures by year are shown in Table 4. The amounts expended after the first or second year are high because some of the provisions were likely destined for settlers who had gone over in earlier years.<sup>26</sup> Thus the figure for the initial year or two may be the better

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<sup>23</sup> The provisions were for the period from Dec. 2, 1762 to January 15, 1763. *Report of the Committee of Public Claims*, Feb. 10, 1764. *North Carolina General Assembly Session Papers*, Box 3.

<sup>24</sup> *A Concise Natural History of East and West Florida*. Facsimile reproduction of the 1775 Edition (Gainesville, FL: University of Florida Press, 1962), p. 200.

<sup>25</sup> This would convert to about \$21 per person in prices of 1840, using an exchange rate of \$4.44 per pound. In constructing these estimates we have used 2 months as the time of passage. See Bernard Bailyn, *Voyagers to the West: A Passage in the Peopling of America on the Eve of the Revolution* (New York: Vintage, 1988), p. 319 and North, “Productivity Change in Shipping,” pp. 962-63.

<sup>26</sup> Kenneth Coleman, *Colonial Georgia*, 1976, p. 118.

estimates. In a separate report, the Trustees described the weekly allowance for victualing passengers going over to the colony. There they specified nine items, including 3.2 lbs. of beef, 2 lbs. of pork, 1 lb. of fish, 7 lbs. of bread, and 10.5 pints of beer per head.<sup>27</sup> When valued in the prices of 1840 the specified diet amounted to 94 cents per week or \$49 per year.

The Trustees also provided a description of the standard provisions for maintenance in the colony. In the Rules for the Year 1735 they specified the working tools and necessities, as well as the diet.<sup>28</sup> The diet included beef or pork, rice, peas, flour, beer, molasses, cheese, butter, spice, sugar, vinegar and salt, and the quantity of each was specified. Furthermore, they specified the amount to be provided to “every man,” to the “Mothers, Wives, Sisters, or Children of such Men,” for “Every Person above the Age of Seven, and under the Age of Twelve,” for “every Person above the Age of Two and under the Age of Seven,” and for “such Servant or Apprentice” that each Freeholder could take over with him.<sup>29</sup> We have priced out the bulk of this diet using prices of 1840 and obtained a figure of \$31 per man (see Table 5). We believe this figure is somewhat low, because the total includes only those items for which we could find prices, and although this includes the bulk of the expenditures, it does not include everything.<sup>30</sup> And it is also low in comparison to the figures presented by Ralph Gray and Betty Wood (1976). They had priced out the male diet at a figure of £7.18 Sterling, which converted to dollars and expressed in prices of 1840 would amount to a \$48.74 for each adult male.

The provisions for adult women and children aged 12 and over were the same, except that

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<sup>27</sup> *Colonial Records of the State of Georgia*, vol. III, p. 411. The other items were flour, suet or plums, butter and peas.

<sup>28</sup> *Colonial Records of the State of Georgia*, vol. III, 407-411. The tools, necessities, and victuals were itemized, specific quantities were specified, and they were “to be delivered in such proportions, and at such times as the Trust shall think proper.”

<sup>29</sup> The diet for women and for children aged 12 and over was specified in detail and was calculated to be 82 percent that of a male head. The provisions for those aged seven to twelve were to be half that for those aged 12 and over; and that for those aged two to seven was one-third. Apparently no provisions were provided for those under two years of age “any Person under the Age of Two Years, is not to be accounted.” *CRG*, III, 408-09.

<sup>30</sup> As can be seen in the table, the total excludes the value of spices, vinegar and salt, for which we could not find prices. Moreover most of our prices were taken from Robert Gallman, “Value Added in Agriculture, Mining and Manufacturing in the United States, 1840-1880, Ph.D. diss., University of Pennsylvania, 1956, to represent prices received by farmers and thus to be consistent with the value of the diet we estimated for 1800. Had we used prices reported by

they were not given any beer. This would put the value of their diet at \$25 (in 1840 prices) or 82 percent of an adult male's. The values for those aged 7 to 12 would be \$13, and for those aged 2 to 7 it would be \$8.<sup>31</sup>

If we combine these different diets by weighting by the respective population shares we obtain an average of \$22.25.<sup>32</sup> When compared to the value of the diet for free persons we derived for 1800 of \$31, this figure would indicate a rise over the period. But we believe this difference exaggerates the rise that might have occurred because the figure for 1735 is likely too low. The diet specified in the Rules for Georgia is for the most part for those going over as charity cases. The diet for such persons is likely to be inferior to the average to be found for colonists residing in the longer established and wealthier colonies of Carolina. Nevertheless, if the diet had increased in value from \$22 in 1730 to \$31 in 1800, it would have risen on average at 0.50 percent per year. About half of this rise would have represented shifts in the composition of the population. The value of the adult diet would have risen from \$31 to \$37, or at an annual average rate of 0.25 percent.<sup>33</sup>

The Trustees appear to have put these rules into practice, as indicated by reports on provisions provided to several different sets of colonists in 1737: those at Frederica and St. Andrews in the southern division of Georgia, and those on the Carolina and Georgia Scout Boats.<sup>34</sup> The evidence for Frederica does not make clear the number of people sharing the

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Towne and Rasmussen (1964) the figure would have been higher.

<sup>31</sup> The allowance for servants and apprentices amounted to only \$14.00, if their diet consisted of only the few items specified: 200 pounds of meat, and 342 pounds of rice, peas or Indian corn (*CRG*, III, 411). We valued the meat using the price of beef, which was lower than pork in 1840, and valued the rice, peas, and corn using the lowest of the three prices in 1840.

<sup>32</sup> We do not have evidence on the age composition of the population that matches the categories specified in the rules for Georgia. Instead we have assumed that the average of the diet for those aged 7 to 12 and that for those aged 2 to 7 was consumed by those under 10 years of age, a group that comprised 35 percent of the population in 1730 and 1740. Adult males comprised 37 percent of the population and adult women 28 percent at that time. The per capita values are \$31 for adult males, \$25.35 for adult females, and \$10.50 for children.

<sup>33</sup> The exact rate depends on whether one assumes that the diet specified in the Rules for Georgia prevailed in 1720 as well as 1730, or whether it had risen over the 1720s. If the diet for an adult male were \$31 in 1720, then the rate of increase up to 1800 would have been 0.22 percent per year.

<sup>34</sup> Colonial Records of Georgia, Trustees' Letter Book, 1732-1738, vol. 29, Kenneth Coleman and Milton Ready, eds. (Athens, ), pp. 220-224.

provisions listed, but for the others we have been able to calculate the value of the provisions listed per person. In St. Andrews the Trustees identified 10 items provided to the colonists (see Table 6), which when valued at prices of 1840 amounted to \$19.49. Those on the Scout boats fared better (see Table 7). Although only four items were listed - meat, rice, beer and bread -- the value in 1840 prices was \$24.05 on the Carolina Scout Boat and \$23.74 on the Georgia Boat. The simple unweighted average of the three figures is \$22.43. These figures are somewhat low for adult males, and probably reflect an incomplete specification of the diet.

Information on the value of the diet was also found in documents relating to Oglethorpe's Expedition against St. Augustine. These are provisions for large numbers of people, not a small, select and unrepresentative group; and although some were military personnel, many were colonists who volunteered or were drafted into service. Information was also provided on the provisions required for the Negroes and Indians who were on the expedition. These allotments are summarized in Table 8. The amounts varied quite a bit from one group to another, but among colonists and soldiers the amount was not less than \$20, and ranged as high as \$29. The average of all these is about \$25, whether weighted or unweighted.

In addition to such special items of expenditure, information about the value of the diet can be found in the military allotments for provisions that were reported on a more regular basis.<sup>35</sup> The colonial records for South Carolina reported such expenditures in almost every year, but in some the details were not sufficient to enable us to calculate a per person figure. In Table 9 we report the figures for nine years running from 1734 to 1756. Those data show that the value declined over time regardless of whether it is valued in South Carolina currency, Pounds Sterling, or Dollars (in prices of 1840). The figure was \$31.52 in 1734, slightly higher in 1736 (\$32.48) and then fell to an average of \$22.40 in 1756.<sup>36</sup> In several years there was more than one entry, but in most of those cases the per person expenditure was identical. In the latter two years for which we found data, there were two entries that differed slightly in the per capita values.

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<sup>35</sup> Gallman ("The Statistical Approach," pp. 71-78) argued that military rations seem like a reasonable proxy for food consumption by the colonists.

<sup>36</sup> In 1756, the reports also show an expenditure of 122.5 pounds (SC currency) to maintain nine Acadians for 5.5 months. At an annual rate, expressed in prices of 1840, this amounts to \$25. *Colonial Records of South Carolina, 1756?*

In Figure 1 we have shown the figures by year, using the average of the observations for each year. As can be seen, the average value declined noticeably over the period. It may be that the soldiers were expected to obtain some of their provisions by hunting and fishing, and perhaps increasingly so over time as suggested by the decline in the allotment after 1736.<sup>37</sup> The more compelling suggestion, however, is that there was no increase in the value of the diet over this period.

### *Meat Consumption*

We can put aside all the myriad details of the various reported diets and avoid all problems of converting to dollars in prices of 1840, by looking at only quantities of selected items, the most prominent of which is meat production and consumption.

According to Gallman's estimates in 1839/40 the nation's output of pork and beef amounted to 407 lbs. per person.<sup>38</sup> This figure may be the maximum amount ever achieved as the figures for subsequent census years were lower -- 366 lbs. in 1849/50 and 353 lbs. in 1859/60. In any case, these are live weights and so must be converted to the net amount available for consumption. The conversion is no simple matter. There is first a conversion from live to slaughter weights, and then a further conversion to account for "evaporation, shrinkage, waste cracklings and offal manure."<sup>39</sup> Cuff puts the first ratio around 80 percent, and indicates that an additional 16 percent of the net weight was lost in evaporation and shrinkage. Combined this would put the final weight at 67 percent of the live weight. Parker, in an earlier and unpublished piece, used the ratio of 0.58 to obtain the carcass weight excluding lard.<sup>40</sup> Rothenberg (1981, pp. 305-10) used a ratio of 0.7 to convert from live weights to net weights. These conversion ratios establish a range of 230 to 280 lbs. of consumable meat per person using

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<sup>37</sup> In 1738, perhaps this was difficult to do and so the men at Ft. Moore and Ft. Frederick were given an extra 3 £s, an increase of about 10 percent. (CRSC, 1738).

<sup>38</sup> Gallman, diss., p. 129. We have ignored the output of veal, mutton and lamb in order to focus on the main meat items for comparison with the colonial diet. In any case, the output of these minor products amounted to only 7 lbs. per person.

<sup>39</sup> Cuff (1992, pp. 70-71) discusses these issues in the context of the debate over the weight of hogs in the antebellum period.

<sup>40</sup> William Parker, "Trends in Food Consumption in the United States, 1840-1910," mimeo (1958), Table 4.

the relatively high value of live weight produced in 1840, and somewhat lower figures if the 1850 or 1860 figures were more typical.<sup>41</sup> In 1840 slaves comprised 36 percent of the population, and those under the age of 10 made up 35 percent of the free population. Assuming that children and slaves consumed one-half the amount of an adult's meat consumption, then the average consumed by a free adult in 1840 ranged from 285 to 350 lbs. (again the figures would be somewhat lower if the calculation were based on the production figures for 1850 or 1860).<sup>42</sup>

The figures cited in the Rules for 1735 indicate an allowance of 300 lbs of beef per year for free adults, somewhat below the midpoint of the amount we have estimated for free adults in 1840, and toward the high end of the range of values implied for 1850 and 1860. Even if we take the highest figure for 1840 these figures imply an increase of only about 16 percent over the course of 105 years. If we assume the entire increase had taken place between 1730 and 1800 the amount consumed would have risen at only 0.22 percent per year. There were no slaves in Georgia as of 1735, but weighting the annual amounts for each age group by their population shares, the average amount of meat consumed would have been 240 lbs. per free colonist, within the likely range of meat consumption for the entire population in 1840. If we assume that these Georgia provisions were consumed by the population elsewhere in the region we can derive a weighted average for the entire population. Assuming that slaves consumed only one-half the amount provided for adult colonists in Georgia, or 150 lbs. per year, and with slaves having comprised about 44 percent of the population, the weighted average for the entire population would have equaled 200 lbs. of meat.

That colonists may have been consuming as much meat per person early in the eighteenth century as did nineteenth century inhabitants accords with the narrative history of the cattle industry. As early as 1674 it was observed that “Cattle... begins to be plentiful, and Hoggs (sic) of a prodigious increase.”<sup>43</sup> This was confirmed early in the eighteenth century in Nairnes' letter from South Carolina, “These creatures have mightily increas'd since the first settling of the

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<sup>41</sup> The figures should be reduced by the amount exported, but this is unlikely to have amounted to more than 1 to 3 percent. (See Parker, 1958, Table 4).

<sup>42</sup> Fogel and Engerman put the slave consumption of meat at only 133 lbs in 1859-60, whereas Sutch put the figure at 179 lbs. We chose a point in between their estimates. If slaves had consumed the amount specified for servants (200 lbs.) then the weighted average for the entire population would have been 222 lbs. of meat.

Colony about 40 years ago. It was then reckon'd a great deal to have three or four cows, but now some People have 1000 Head, ...for one man to have 200 is very common.”<sup>44</sup>

It appears that there was variation in the amount of meat available, and in particular the real possibility that the amount available per person may have declined after the Yamassee War of 1715-16. Native Americans slaughtered thousands of cattle during that war, and Lewis Gray argued that “the herding industry in southeastern South Carolina ... probably never fully recovered.”<sup>45</sup> The declines in southeastern South Carolina, however, were offset in part by increased production in the backcountry and subsequently in Georgia,<sup>46</sup> and furthermore may have affected primarily the export market. As Francis Yonge wrote in 1722, “it must be some years before they can have any quantities of beef and pork to supply.[to the West Indies].”<sup>47</sup>

### *Support of the Poor*

The colonies and eventually the states provided assistance to those in need. The needy included the aged and the sick, orphaned children, widows, and those who were impoverished temporarily.<sup>48</sup> In the colonial period, assistance was provided for the most part through church parishes.<sup>49</sup> On occasion the Colonial Assembly might act as that in Georgia did in 1770 by providing funds to take care of the transient poor, or as they did during the Revolutionary War when conditions were especially bad.<sup>50</sup> After the Revolution the state governments passed legislation for the relief of the needy. Initially these laws were emergency measures, but

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<sup>43</sup> Gascoyne, *True Descriptions*, pp. 2-3 as quoted in Wood, *Black Majority*, p. 29.

<sup>44</sup> Thomas Nairne, “A Letter from South Carolina,” [1710] reprinted in Jack Greene, ed. *Selling a New World*, 1989 (University of South Carolina Press) p. 41.

<sup>45</sup> Lewis C. Gray, *History of agriculture in the southern United States to 1860*, Gloucester, Mass.: Peter Smith, 1958, p. 148.

<sup>46</sup> By 1750 the number of cattle in Georgia was large enough to warrant the registration of brands by individuals. Kenneth Coleman, *Colonial Georgia*, 1976, p. 121.

<sup>47</sup> Francis Yonge, as reprinted in Roy Merrens, *The Colonial South Carolina Scene*, p. 69.

<sup>48</sup> See Myldred Flanigan Hutchins (1985), *The History of Poor Law Legislation in Georgia, 1733-1919*. Atlanta: Cherokee Publishing company, pp. 29-50.

<sup>49</sup> In 1712, South Carolina passed a law directing that the parish vestries raise the necessary taxes and use the funds to provide relief to the indigent. (Nicholas Trott 1736, *The Laws of the Province of South Carolina*, Charlestown: Lewis Timothy, as cited in Waring 1932, p. 283. In Georgia relief was provided by the Trustees until they gave up control of the colony, after which relief was provided primarily by the parishes (Hutchins, 1985, pp. 41-42).



eventually each state established permanent laws.<sup>51</sup>

The vestry minutes, the records of the church parishes, are the major source of information about aid to the poor in the colonial period. In some instances parishes provided aid long after the colonial period. Those records thus contain evidence covering a long time span and can indicate the possibilities for changes over time in the amounts provided for subsistence. Parishes had the primary responsibility for the care of the poor and could levy taxes to finance such activities (Brown, 1928, Hutchins, 1985, and Watson, 1977). These minutes recorded brief descriptions of each expenditure approved by the church wardens or officers, and a number of items contained exactly the sort of information we needed in order to determine the amount spent on provisions for a specified period of time.<sup>52</sup>

Other writers have cited examples of the relief payments provided by the parish vestries. Waring, for example, cites evidence from St. Philip's Vestry showing that in addition to supporting a Hospital, Workhouse and House of Corrections, assistance was provided to many others who needed medical attention and maintenance in their own places of residence. Around 1735, the support for foster children was 20 to 30 shillings per week, and as high as 40 shillings when wet-nursing was included. For adult patients, the amount provided was about 40 shillings a week.<sup>53</sup> In other words, the value of maintenance for children when wet-nursing was not provided was between 50 and 75 percent that provided for adults. The annual rates implied by these figures are 104 Pounds currency for adults and 52 to 78 pounds currency for children, or £14.8 Sterling for adults and between £7.4 and £11.1 Sterling for children. If converted to U.S. dollars, at an exchange rate of \$4.44, and then expressed in prices of 1840, the amounts would be \$100 for an adult and between \$50 and \$75 per child.<sup>54</sup> These amounts are very high in comparison to the value of the average diet we estimate for 1800, and high as well in comparison to the figures Waring cites as the cost of maintaining a pauper in the Workhouse in 1773, namely

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<sup>50</sup> Hutchins (1985), *The History of Poor Law Legislation*, pp. 42-48

<sup>51</sup> See Hutchins (1985), *The History of Poor Law Legislation*, pp. 48-52 for Georgia.

<sup>52</sup> Regrettably all too often the reported item was lacking a key piece of information, such as the length of time that support was provided.

<sup>53</sup> Joseph Ioor Waring, MD. (1932) "St. Philip's Hospital in Charlestown in Carolina," *Annals of Medical History*, New Series, Vol. IV, no.3, p. 285.

<sup>54</sup> With 1840 as the base year, the price index for 1735 was 65.4. McCusker, "How Much is That in Real Money," Table A-1 shifted to a base of 1840.

3 shillings, 6 pence daily. That figure of about 25 shillings per week is well below the figure cited for adults in 1735, and equal to the lower figure for children at that earlier date. Given that prices had risen between 1735 and 1773, the real value of provisions declined over time.<sup>55</sup>

The figures for children in St. Philip's parish were very high compared to the maintenance provided children at the Ebenezer orphanage in Georgia. According to Bolzius, around 1737, children between six and sixteen years of age were maintained at £3 Sterling per year, or about \$21 on average in prices of 1840.<sup>56</sup> This figure is slightly above the value of the diet in 1800 that we have estimated for children aged 10 and under, and thus suggests the value of food consumption may have declined over time.

We have been able to go beyond the individual observations cited by previous writers by examining more fully the vestry minutes for six parishes.<sup>57</sup>

St. Helena's Parish in Columbia, South Carolina: 1726 - 1812

St. David's Parish in Cheraw, South Carolina: 1768 - 1832

St. Paul's Parish in Chowan county, North Carolina: 1701-1776

St. George's Parish in Northampton county, North Carolina: 1771-1795

St. Gabriel's Parish in Duplin county, North Carolina: 1799

St John's Parish in Carteret County, North Carolina: 1743-1794

The accounts appear to be a rich source of evidence that provide good estimates of the value of the diet. The records for some of the parishes are especially useful because they cover a long span of time, but even those that cover a short time period near the end of the century are useful because they show the relative value of provisions provided to adults and children. The expenses reported for maintaining wards of the church reflect the deliberations of those on the scene who

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<sup>55</sup> The price index was 97.1 in 1773, or about 50 percent higher than the index for 1735.

<sup>56</sup> The dollar figure was obtained by converting at an exchange rate of \$4.44 per pound, and deflating by the price index of 63.5 for 1737.

<sup>57</sup> A.S. Salley, Jr. (ed.), *Minutes of the Vestry of St. Helena's Parish, South Carolina, 1726-1812*; Brent H. Holcomb, *Saint David's Parish, South Carolina: Minutes of the Vestry 1768-1832*, Southern Historical Press, 1979; Raymond Parker Fouts, *Vestry Minutes of St. Paul's Parish Chowan County, North Carolina, 1701-1776*, 2nd ed.; *Vestry book, St. John's Parish, Beaufort, Carteret County Records, April 30 1742-April 17, 1843, part 1*; *St. Gabriel's Parish Warden's Records, 1799-1817*, Duplin County Records; *Minutes of the Wardens of the Poor, St. George's Parish, 1773-1814*, Northampton County Records. The last three sources are located in the North Carolina Historical Commission, Office of Archives and History in Raleigh, NC.

would have been familiar with the standard of living in the vicinity and the costs of providing for it. Moreover, the wards are not some outsiders to the parish, but rather appear to have been regular members of the church: friends and neighbors of the vestrymen and in some cases the parents of those who were providing the funds. To be sure there were any number of orphans, indigent, and bastard children provided for at some times, but many entries involve relatives and persons who appear to be well known in the parish. For example, in 1755 Moses Speights was allowed six shillings and eight pence for keeping Rob Alphin, the amount being paid by Joseph Alphin “towards the support of [his] father Robert Alphin.” In 1758, Joseph Parker was allowed six Pounds Proclamation money a year for the maintenance of his Brother Peter Parker. Later that year John Parrish was allowed six pounds for the maintenance of his son. In St. David's, William Davison petitioned successfully, in July of 1770, that support of his wife be provided by the parish.<sup>58</sup> In 1784, the Vestry men of St. David's “Order'd that Thomas Davis a poor man be allow'd £ 5 starling for his maintenance...and that his sons ...be obliged to pay twenty one shillings stg each.”<sup>59</sup> And, in 1773 the vestrymen “ordered that the poor quit the town [and] if they do not they will not be allow'd any maintainance from the Parish.”<sup>60</sup>

Although the records for St. Helena's parish contain over 40 entries regarding expenditures on the maintenance of the poor, only 13 of these provided enough information to allow us to calculate an annual value per person (see figure 2). Eight of the entries describe the provision of aid for children, while five pertain to adults.<sup>61</sup> Although the evidence is sparse, it indicates clearly that the amount provided for children was noticeably less than that provided for adults; the average for the eight children was \$35 per year, while that for the adults was \$83 (all valued in prices of 1840). This large difference may very well reflect factors other than that the diet for children was typically less than that for adults. Two of the entries for children being supported described the allowances for William Sommers “an orphan bound to apprentice” who was to be supported until age 13.<sup>62</sup> He was provided for at \$14 a year in 1754 and a higher rate

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<sup>58</sup> Brent H. Holcomb, *Saint David's Parish*, p. 11.

<sup>59</sup> Brent H. Holcomb, *Saint David's Parish*, p. 26.

<sup>60</sup> *Vestry Minutes of St. Paul's Parish*, pp. 76, 87, 89 and 112).

<sup>61</sup> That the provisions were for children is clearly reported in six of the cases, and was inferred for the other two.

<sup>62</sup> Salley, ed. pp.

of \$17 in 1755, but both of these were well below the amounts provided for “boarding John Sim's little boy” (\$22 in 1748) or Kelly's child (\$44 in 1768). Another factor that may have influenced the amount of assistance was the length of time it would be provided. The allowances for children appear to have been for longer terms, such as the support provided William Sommers until age 13, or that for the maintenance of a poor child “until otherwise provided for.” The shortest time period listed among the entries for children was five months. The duration of support provided to adults was specified in only two instances -- board for Mrs. Reardon was provided for 12 weeks and 4 days, that for Mrs. Small was given for 27 weeks and 3 days. In the other cases, a weekly rate was specified, but the length of time it was given was not listed. Whatever the reasons, the adult maintenance was roughly twice that of children, and the rate does not appear to have changed much between 1748 when \$88 was provided for George Buncle and 1764 when Mrs. Small was supported for 6.4 months at an annual rate of \$84.

The evidence for St. David's Parish in Cheraw, South Carolina, like that for St. Helena's, is abundant but not as detailed as we need it to be in order to calculate annual rates of spending for maintenance. We have eight observations for adults in the period 1770 to 1784, and an observation for children in 1775 and another in 1776. The adult figures averaged \$43 per year (in 1840 prices), but ranged widely between \$19 and \$69, with too little evidence to support any generalization about a trend. The two amounts reported for children were the same in both years in the local currency (42 Pounds of South Carolina currency), but with changes in prices the real dollar amounts in prices of 1840 differed slightly -- \$29 in 1775 and \$25 in 1776. The average of \$27 equaled 63 percent that of the adult average.

The minutes from St. Paul's Parish in Chowan county, North Carolina are replete with information. There were well over 200 entries about the provision of maintenance, many more about expenditures for maintenance and burial, maintenance and medical care, and for a host of other items. A large subset of more than 100 entries provided specific information on the number of persons, whether adult or child, and the length of time maintenance was provided that allowed us to estimate the annual rate of maintenance (see Figures 3, 4 and 5). The allowances for adults appear to have risen towards the middle of the century and then fallen. This is especially evident in the allowances made on a short term basis (periods of less than six months). Over the entire period, there appears to have been very little change in the average allowance. This seems most evident in the allowances made for terms of six months or longer. As seen in

figure 4, the trend value may have risen from around \$21 in 1720 to \$25 in 1776. The evidence also indicates that the allowance for children ran between one-half and two-thirds that of an adult.

Regrettably the coverage ends in the 1770s at which time the adult allowances (around \$25 for long term periods) were below the average food consumption (\$33.50) for free persons that we established for the base year of 1800. We do not think this means that the value of the colonist's diet rose sharply between the 1770s and 1800. The 1770 figures may be low in part because of the disruptions of the Revolution, but we think this also suggests that the allotments were likely to have been always below the average value of consumption. If true, then the figures reported in earlier years would be lower bound estimates of the value of a colonist's diet. And if the extent to which the allotments understate the average diet remained constant over time, then the changes in the allotments indicate as well the changes in the average diet. The evidence suggest little or no change.<sup>63</sup>

The evidence for both St. George's Parish in Northampton county, NC and that for St. John's Parish in Carteret county suggest some increase in the amount spent of provisions for the poor (see Figures 6, 7 and 8). Although in both cases the pattern could reflect the consequences of converting the values from the currencies in which they were reported to dollars and then deflating to obtain real values expressed in prices of 1840.<sup>64</sup>

In Georgia, the Trustees provided assistance in the period 1733-52. In 1750, for example, they provided Mr. Minis, five shillings per week for twenty weeks to help support his servant Christopher Wyanbacher, who had fractured his leg.<sup>65</sup> This would have been a very generous £13 Sterling per year, or \$58 dollars in current prices and \$72 in prices of 1840. Earlier, in 1742, the Trustees decided that the wages of widow Keeler, which amounted to 5 shillings, 10 pence per week, were insufficient to support her family of four children, so they provided a supplement

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<sup>63</sup> The evidence from St. Helena's parish suggests a slight decline, that from St. Paul's suggests a very slight increase over the entire period.

<sup>64</sup> The records for St. Gabriel's Parish in Duplin county, NC, if taken at face value, indicate an especially generous provision ranging from \$42 to \$68 in 1799.

<sup>65</sup> Hutchins (1985), *The History of Poor Law Legislation*, p.29. It was because Mr. Minis had a large family that the Council thought he deserved help in supporting his servant.

of 30 pence per week.<sup>66</sup> This means that they had carefully considered her situation and decided that £15.2 Sterling per year was not sufficient to support her family, but £21.7 Sterling was. If we assume that each child's support was equal to one-half that of the widow, then this averaged £7.2 Sterling per adult, or \$32 in current prices and \$41 in prices of 1840.<sup>67</sup> Since a woman's allowances were specified at around 80 percent that of a male's, the implied annual rate of subsistence for a male would have been \$51 in prices of 1840.

Although we do not know exactly what portion of these allowances to Mr. Minis or the widow Keeler were for food, it must have been the dominant part. Even if only one half the allowance was spent on food, in both of these cases, the annual value of the diet was quite high. For Mr. Minis the value of the diet would have been \$36 per year, exactly equal to what we estimate was the value of the diet for a free adult (aged 10 and over) in 1840. In the case of the Keeler family, the implied value for a male would have been \$26 per year, below the estimated value of the diet in 1840. But since the diet likely comprised more than 50 percent of the total subsistence, it would appear that the value in the 1740s and 1750s was not less than that in 1840. After the Revolution in Georgia the laws specified the number of rations allowed to those in need.<sup>68</sup>

### *Pooling the Data*

Although the records for each parish give some semblance of evidence about the diet over time, each of them covers only a portion of the period and in most cases provides a small number of observations. We pooled all these vestry data in an attempt to obtain a lengthier and more continuous picture.

By combining the data we had a series in which we could calculate an average allowance for 53 years between 1719 and 1795, with the number of observations ranging from one in some years to over 20 in a number of years, and as high as 32 in 1794. In all we have 430

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<sup>66</sup> Ga.CR, April 13, 1742 as cited in Hutchins, p. 33.

<sup>67</sup> As described above, a woman's allowance and that for children above age 12 was equal to 82 percent of a male's, while that for children aged 7-121 was one half that of a woman's, and that for children aged 2-7 was one-third that of a woman's.

<sup>68</sup> Hutchins (1985), *The History of Poor Law Legislation*, p.48ff.

observations.<sup>69</sup> The annual average figures are shown in Figure 9. They reveal most clearly that there was a lot of variation in the allowances provided by the parish vestries. If one were to put any faith in the trend line that could be fit to such data, the suggestion is that of a very small rise over the period from around \$24 in 1719 to \$28 in 1795. This increase implies an annual average rate of increase of about 0.2 percent per year, close to the rate of 0.22 to 0.25 percent per year implied by the increase between the value of the diet for adults derived from the 'Rules for Georgia' and our 1800 figure.

We have tried a number of regression techniques in an attempt to extract a better estimate of the likely rate of increase, but the results appear to be highly sensitive to the way in which the data are pooled and to how the trend term is specified.

### *Summary*

As the preceding account suggests there is a wealth of information about food consumption and about the aggregate value of the diet of the free population in the eighteenth century Lower South. It would be convenient if all of the evidence were consistent in its implications about trends over time, but it is not. The anecdotal information depicts a diet in the middle of the eighteenth century that was as highly valued as that for 1800, suggesting no increase over time. The evidence on meat consumption and meat availability appears to be consistent with this. On the other hand, the expenditures for military diets and diets of those on expeditions would seem to indicate a decline in the value of the diet, while the evidence from the parish vestry records suggests some modest increase in the allowances provided to the poor. Depending on how one weighs these conflicting pieces of evidence one could reach quite different conclusions. On balance, however, we believe that these data cannot support the view that the value of the diet increased substantially before 1800. Some modest increase is possible, but it appears equally likely that there could have been a modest decline.

### **The Value of Slave Diets**

Information on the slave diet is scarcer, especially as regards changes over time. It is

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<sup>69</sup> We dropped one observation of \$84 per year for 1764 because it seemed to far out of line to be believed.

likely that there was little change in the value of the slave diet. After all, it was not highly varied in the nineteenth century and the quantities of food consumed had to be sufficient to provide for the calories and protein necessary to carry out the arduous work. According to historian Philip Morgan "...the common elements of the slave diet became widely recognized over the course of the century." There were, however, differences in the slave diet across regions. According to Morgan, slaves in the low country produced more food on their own time than did those in the Chesapeake, and this may have encouraged them to introduce a wider variety of vegetables into their diets. Nevertheless overall their nutrition undoubtedly suffered, for "Their diet was high in starch, low in protein, and extremely monotonous in content."<sup>70</sup> In particular it appears that protein rations, at least those provided by the masters, were much stingier in the low country and anywhere from 20 to 90 percent of the low country slaves' animal diet came from hunting and fishing.<sup>71</sup> They appear to have made use of a variety of animals to provide this protein. John Brickell, writing in 1737, "recorded numerous types of wild game and fish the Negroes ate, but which whites disdained. Blacks esteemed possums 'very much' according to Brickell, and also ate bats, turtles, owls, and other fowl which the author found ill-tasting and 'very hard of Digesting.'"<sup>72</sup>

We have found only a few references about the specifics of the slave diet or its value in the eighteenth century. Bolzius, among his answers, described the slave diet as follows. "From September to March their food is commonly potatoes and small unsalable rice, also at time Indian corn; but in summer corn and beans which grow on the plantation. Men, women and children have the same food."<sup>73</sup> And he estimated that the yearly cost of the food ran between 28 and 35 shillings.<sup>74</sup> In 1747, Robert Pringle, a Charleston merchant, paid 20 Pounds Currency to lodge and board a slave girl for a year, or about £ 3 Sterling.<sup>75</sup> The same amount appears to have

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<sup>70</sup> Morgan, *Slave Counterpoint*, p. 103.

<sup>71</sup> Morgan, *Slave Counterpoint*, pp. 135-43. Morgan presents this information as though it typified the entire eighteenth century, and thus suggesting there was no change over time.

<sup>72</sup> Jeffrey Crow, *The Black Experience in Revolutionary North Carolina* (Raleigh, NC: Department of Cultural Resources, Division of History and Archives, 1977), p. 14.

<sup>73</sup> Bolzius, 1957, 256-57.

<sup>74</sup> Bolzius (1957) reported in one answer (p. 236) 8 pence per week (which amounts to 34.7 shillings), and in another (p. 257) 28 shillings.

<sup>75</sup> "Journal of Robert Pringle, 1746-1747," *South Carolina Historical and Genealogical*



been the cost of boarding a slave in rural North Carolina in the mid-eighteenth century.

“Guardians for orphaned children seldom charged more than £ 3 per year to board Negroes belonging to the orphan's estate.<sup>76</sup> The lower figures cited by Bolzius would put the diet's value in the 1730s between \$9.50 and \$12 in prices of 1840, whereas the figure of £ 3 would put it at nearly \$19 in the 1740s.<sup>77</sup>

The common ration appears to have been one quart of corn per day, or a peck per week. In the 1780's, “The keep of a negro here [NC] does not come to a great figure, since the daily ration is but a quart of maize, and rarely a little meat or salt fish.<sup>78</sup> And, according to William Attmore, in the 1780s -- ‘the allowance of provision to working slaves, in a part of this state [North Carolina] and in South Carolina, was one peck of Indian corn per week; this he was to dress or cook as he pleased; they are allowed no meat, they have the privledge sometimes of working a bit of ground for themselves, out of such time as they gain when they are task'd or on Sunday.’” (Crow, 14) Although 'allowed no meat,' apparently they could provide it for themselves. According to Janet Schaw “...The allowance for a Negro is a quart of Indian corn per day, and a little piece of land which they cultivate much better than their master. There they rear hogs and poultry, sow calabashes, etc and are better provided for in every thing than the poorer white people with us.”<sup>79</sup>

Although there is disagreement about the entirety of the slave diet in the antebellum

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*Magazine*, XXVI (1925) 101. She was also to receive instruction in sewing for this fee.

<sup>76</sup> Alan Watson, “Society and Economy in Colonial Edgecombe County,” *North Carolina Historical Review*, L (1973), 247-48. The precise date to which Watson is referring is not specified in the source.

<sup>77</sup> Sterling was converted at \$4.44 per pound. If Watson's figure pertains to the 1730s, then expressed in prices of 1840 the value would be around \$20. The value in 1840 prices for other decades would be \$18.75 in the 1740s, \$16.40 in the 1750s and \$15 in the 1760s.

<sup>78</sup> Schoepf, cited in Crow, 12-13. The ration was likely the same in Georgia as indicated by an observation from East Florida in the 1770's where on sugar plantations slaves “are subsisted at a very easy rate. This is generally by allotting to each family a small portion of land, and allowing them two days in the week, Saturday and Sunday, to cultivate it. Some are subsisted in this manner, but others find their Negroes themselves, with a certain portion of Indian corn, commonly a peck a week for each slave, and of sometimes a salt herring, or a small quantity of bacon, or salt pork a day”. Smyth 2: 33.

<sup>79</sup> Janet Schaw, *Journal of a Lady of Quality*, edited by Evangeline Walker Andrews and Charles M. Andrews (1923) New Haven: Yale University Press, 176-77, cited in Kay and Cary, 1995, p. 38.

period, the ration of a quart of corn a day, or a peck a week, was the cornerstone of the diet at that time. The plantation owner of the antebellum period may have provided more of other items, such as pork, which in colonial times slaves may have had to provide for themselves. Other than the difference in the source of the food, the anecdotal descriptions of the diet in the colonial period resemble closely the description of a typical slave diet in the antebellum period, suggesting there may have been little, if any change, over time.

We had better luck in finding information that compared the slave diet to that of whites. Some comments would place the relative value for the slave diet as low as 20 to 30 percent that of a free person, but more likely it was 50 to 60 percent that of a white diet. The lower relative values would be implied by Bolzius's answers. If the slave diet were valued between 28 and 36 shillings, and a white servant's at £8 or 160 shillings, then the slave's diet equaled only 18 to 22 percent of a white servant's. The slave figure no doubt refers to purchased food, and they surely supplemented their diet with food from their own gardens and from hunting and fishing, so the full value of the diet would have exceeded 22 percent. Waring cited an example from St. James Parish in Goose Creek, where the accommodation for slaves was provided at 15 pound per head, while that for whites was 30 shillings per day, or 10.5 pounds.<sup>80</sup> The former figure was apparently for a week, so the relative value of the slave's diet on a weekly basis would have been 20 percent that of a white's. A similarly low relative value was cited in two bills that were submitted to the Committee on Accounts in South Carolina around 1740 for housing persons involved in a trial: "one for 10 days diet of 50 white persons, the other for as many days' diet of the same number of negroes," the former was for 100 Pounds, the latter for only 20 Pounds.<sup>81</sup> These figures were in South Carolina currency and with the exchange rate running around 7 to 1, would have equaled £10.4 Sterling for whites and £2.1 for slaves, or \$46 and \$9 respectively in prices of 1840. In 1742 slaves fared a bit better, both absolutely and relatively. An official was told that "18 pence per day for negroes and 5 shillings (60 pence) per day for white men will be a

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<sup>80</sup> Waring, 1932, p. 289, fn. 17.

<sup>81</sup> *CRSC, Commons Journal, 1739-1741*, p. 493. On a per person basis these claims indicate a diet valued at one-fifth a Pound per day (4 shillings) for whites, and only 9.6 pence per day for slaves. Annually this would amount to 73 Pounds per white person and 14.6 Pounds per slave in South Carolina currency.

sufficient allowance” for criminals.<sup>82</sup> Although their diet was 30 percent of the white diet in this case, its absolute value was still low at £3.9 Sterling. In both examples, the value seems quite low for slaves considering they were in no position to supplement their diet by hunting, fishing or gardening, and quite high for free persons, thus yielding much too low a relative figure for slaves.

A relative value of 50 to 60 percent would appear to be more likely. For example, in the case of support for orphans in Edgecombe county, North Carolina reported by Watson, “The cost of feeding and sheltering the orphans was at least double that sum [spent on slaves].”<sup>83</sup> In 1740, the House Committee “examined two Accounts of Mr. Hall’s, the Provost Marshall, for dieting of Criminals and Negroes in his Custody. “The Committee are of the opinion that 5 shillings is full sufficient to maintain the Whites, he being required to give only 1 lb. of Beef and one Shilling and three Pence in Breadkind per Day, ...And they are certain that three shillings and nine Pence per day for the dieting of Negroes, is rather more than a full Compensation for the same,..”<sup>84</sup> In this case the slave’s diet was set at exactly 75 percent that of a white’s.<sup>85</sup>

An alternative approach to estimating the value of the slave diet is to use Charles Kahn’s least-cost estimate of the slave diet. His estimate was made for the period around 1840-60, but is timeless in the sense that it was calculated to provide the calories and protein necessary to carry out the slave’s tasks. His estimates of the least cost method of providing the necessary calories and protein is approximately 75 percent of the actual cost of the diet in 1840-1860 as estimated by Fogel and Engerman or Sutch.<sup>86</sup> The slave diet that we have estimated for 1800 (\$22.50) is

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<sup>82</sup> *CRSC, Commons Journal, 1742-1744*, p. 377

<sup>83</sup> The amount spent by Robert Pringle in the mid-1740s of around \$19 to board his slave girl equals about two-thirds of the average value we have placed on a colonist’s diet in 1800, and equals that of a free colonist child in 1800.

<sup>84</sup> *CRSC, Commons Journal*, September 12, 1739-May 10, 1740, p. 184.

<sup>85</sup> These would have been substantial provisions if provided on a yearly basis. Five shillings per day, for example, would amount to £91 currency, or £13 Sterling, which would convert to \$58 in current prices, and about \$90 in prices of 1840.

<sup>86</sup> We have used his estimate for the “least-cost diet with minimum fat requirements.” Kahn’s estimates were made in prices of 1860, and this least-cost diet amounted to \$23.43, using the medium price of pork. (Charles Kahn, 1992, table 25.5, p. 532). Although there was much disagreement between Fogel and Engerman and Sutch on the details of the slave diet, the estimated costs of their diets were rather close - 8.2 cents per day (\$29.93) for Fogel and Engerman versus 8.7 (\$31.75) for Sutch (both expressed in prices of 1860).

expressed in prices of 1840 and amounts to 6.2 cents per day. If the slave diet in 1700 was valued at 75 percent of this amount it would imply an expenditure of 4.6 cents per day. Assuming that the value of the slave diet increased at a constant rate between 1700 and 1800 implies a value for the slave diet of around \$19 in the 1730s, 1740s and 1750s. This is about 50 percent of the value of the diet we have estimated for free individuals at this time, and close to that implied by the evidence for Robert Pringle and for Edgecombe county, NC.

### **The Value of the Indian Diet**

There is even less information about Indians' diets than about slaves' diets, but nevertheless we have found some useful pieces of information. Most of it describes the abundance of food available in general terms, but we have found some specific figures cited for expenditures on provisions. Although the diet varied from tribe to tribe, it appears that Indians' diets were more varied and more plentiful than those of slaves.

At least for some Indians, both meat and crops were plentiful. Thomas Nairne, after traveling with some Chickasaw hunters, wrote in 1708 that "the Chicasaws are such excellent forresters, they never mist supplying the Camp with meat enough."<sup>87</sup> In 1761, Timberlake described Cherokee country as "yielding vast quantities of pease, beans, potatoes, cabbages, Indian corn, pumpkins, melons and tobacco,... there are likewise an incredible number of buffaloes, bears, panthers, wolves, foxes, racoons, and opossums [and] a vast number of lesser sort of game, such as rabbits, squirrels of several sorts, and many other animals besides turkey, geese, ducks of several kinds, partridges, pheasants and an infinity of birds."<sup>88</sup> William Bartram describes the cattle he saw near the town of Cuscowilla "as large and fat as those of the rich grazing pastures of Moyomensing in Pennsylvania."<sup>89</sup> He noted too that the land near Fort James was 'exceeding (sic) fertile and productive.'<sup>90</sup>

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<sup>87</sup> Alexander Moore, ed., *Nairne's Muskhogean Journals: The 1708 Expedition to the Mississippi River* (University Press of Mississippi, 1988), p. 51.

<sup>88</sup> As cited in Swanton, (1969), *Indians of the Southeast*, p. 284

<sup>89</sup> Gregory A. Waselkov and Kathryn Holland Braun, eds. (1995) *William Bartram on the Southeastern Indians*, University of Nebraska Press, p. 54.

<sup>90</sup> The Indian mound near Fort James, a conical mound of earth about 40 or 50 feet high with a circumference at its base of 200 or 300 yards, "yielded above one hundred bushels [of Indian corn] in one season." Gregory A. Waselkov and Kathryn Holland Braun, eds. (1995) *William*

Swanton (1969) surveyed a vast literature describing the economies of the Indian tribes in the Southeast and compiled a lengthy listing of descriptions of the variety of foods available to them. He summarized the myriad of detail into two tables, one that identified the vegetable foods available to each of the major tribes in the region, the other listing the animal foods. These summaries are shown in Appendix Tables S1 and S2 (available from the authors by request). As can be readily seen, the lists are long; the variety of vegetables and animal foods was quite wide and for the most part available to the different tribes. Although there were more citations in the literature to indicate which foods were used by the Creeks, the fact that these foods were available in the colonies of the Lower South suggests the other tribes were eating them as well even though there were few citations to that fact. There seems little question that the diet of Native Americans was more varied than that of slaves.

It is also likely, given the greater variety of foods identified, that the diet of Native Americans was more abundant and more highly valued than that of slaves,<sup>91</sup> but there are few specific references to that point. One such is the information provided for the budget of Oglethorpe's Expedition against St. Augustine and shown in Table 8. On the face of it, that evidence suggests that the Indian diet was noticeably less valued than that of the "Pioneer Negroes." The simple average of the five observations for Indians comes to \$8.00 whereas that for the Negroes was almost twice that. We suspect this means the Indians were expected to provide more of their own diet, obtaining it either from fellow tribesmen in the area or by applying their expertise at hunting and fishing. The slaves on the other hand may have been expected to provide some of their own food when working on the plantation, but not under expeditionary circumstances. Thus we think that neither the absolute nor the relative value of the Indian diet is accurately depicted by this evidence.

The annual budgets of the colonial governments that we were able to survey contained over 400 observations about expenses related to Indian matters, ninety of which included information about provisions for Indians. Of those ninety observations, however, only 3 contained the requisite detail about the expenditure, the number of Indians and the length of time

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*Bartram on the Southeastern Indians*, University of Nebraska Press, p. 73.

<sup>91</sup> Because these foods did not pass through a market the value of the Indians' diet is a hypothetical construct. We attempt to estimate this value in order to make comparisons to the

for which provisions were supplied to enable us to estimate an annual value. In 1724, Jacob Wright was reimbursed for keeping Indian prisoners for 266 days at the rate of 5 shillings per day. A decade later Catherine Chicken was paid £58.5 SC currency for 'dieting' Cherokee at the rate of 5 shillings per day per Indian. In both cases, that daily rate would amount to £260 SC currency or £37 Sterling or a whopping \$165 at an exchange rate of \$4.44, and much higher if revalued in prices of 1840.

Two other observations we have found also suggest that the value of their diet may have been high, but not quite as high as indicated by those budgetary items. In 1751 it cost 85 Pounds SC currency per day to feed three hundred Indians (130 men) who made a trip to Schenectady (*DRIA*, vol. 1, p. 92). This would have amounted to 12 Pounds Sterling, or about \$0.18 per Indian per day in the prices of 1840. Perhaps because this trip headed north and into an area with which the Indians were less familiar they were not expected to provide for themselves. Or perhaps because there was such a large number of women and children along that it was not feasible for them to do so. Whatever the case, it appears that on such trips on behalf of the colony Indians were treated well as this would amount to about \$65 per person for a year in current prices, and \$80 in prices of 1840. A decade later, Frances Lynough placed a claim with the Committee of Claims in North Carolina for 19 shillings, 4 pence for providing 5 Indians with breakfast and dinner for two days (North Carolina, *Treasurer and Comptroller's Papers, Indian Affairs*, Box 1, 1764). The total of 232 pence per day, amounts to 116 pence per day, or 23 pence per day per Indian, which converts to about 12 pence or one shilling Sterling per day. If this were maintained for a year, the annual rate would have been about £18 Sterling per year, or about \$80 in current prices, and \$94 per Indian in prices of 1840.

Although these numbers seem much too high to accurately represent the value of the Indian diet, it seems clear that their diet must have been better and more highly valued than that of slaves. It is conceivable that when valued using market prices, the Indian diet was as highly valued as that of colonists.

## **Conclusion**

As this paper makes clear, there is a wealth of information that can be used to draw

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diet of the colonists and slaves.

inferences about the value of the diet of different groups in the Lower South before 1800, and how it changed over time. Not all of this information is consistent; some of the sources suggest that the value of the diet was increasing, others suggest that it may have been falling. Taken in total though, it is our conclusion that the evidence we have presented is consistent with the assumption that the value of the diet of free adults in the region was constant across the eighteenth century. Put another way, even near the beginning of the century, free colonists enjoyed a relatively abundant and diverse diet which compares favorably to that consumed at the end of the century.

The evidence we have reviewed here is useful both as a gauge of changes in the standard of living and as an input into the conjectural estimation framework we have outlined elsewhere for extending aggregate income and income per capita series into the eighteenth century. As our earlier work demonstrates, assuming constancy in the value of the diet for the free population implies negligible growth in per capita income measures for the colonial Lower South, in contrast to the accepted wisdom about this region. This result is consistent with independent evidence on agricultural productivity in this period based on export data, and on slave prices, adding to our confidence that the picture that emerges from our sources is correct.

To the extent that per capita income is treated as a proxy for changes in living standards, this result implies that living standards remained static in the eighteenth century. This is of course consistent with our finding that a major component of consumption—spending on food—did not increase in value over the course of the century. But it should be noted that neither our estimates of the value of the diet, nor the resulting per capita income series take account of possible changes in the quality food consumed, or of changes in the breadth and diversity of items included in the diet.

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Table 1  
**Gross Agricultural Income from Production of Food Products**  
(Millions of dollars)

<i>Food Product</i>	1840	1850	1860
Wheat	59.4	69.2	140.3
Corn	27.2	47.9	85.1
Oats	10.5	13.0	17.8
Barley	1.6	2.0	6.4
Rye	6.8	4.9	10.9
Buckwheat	2.3	2.9	6.6
Irish Potatoes	16.3	22.4	35.9
Sweet Potatoes	15.2	19.3	20.2
Orchard Fruits	7.2	7.7	20.0
Rice	1.0	3.1	3.4
Cane Sugar	4.7	7.3	8.5
Beef	64.3	98.2	176.9
Pork	165.5	170.8	301.8
Veal	2.3	3.5	6.3
Lamb and Mutton	0.6	1.1	3.6
Chickens and Eggs	22.0	30.0	59.9
Dairy Products	53.8	76.7	118.7
Farm and Market Garden Products	8.3	14.7	40.1
Peas and Beans	4.8	4.0	8.6
Hops	0.3	0.3	1.2
Molasses and maple syrup	1.0	1.7	5.8
Maple Sugar	2.2	2.7	4.0
Sum of Food	477.3	603.4	1082.0
Population (1,000s)	17,063	23,261	31,513
Value of Food Produced per Person	\$ 27.97	\$ 25.94	\$ 34.34
Exports of Food -- (\$Millions)	21	28	51
Exports of Food -- Per Capita	\$ 1.23	\$ 1.20	\$ 1.62
Food Produced for Domestic Consumption Per Capita	\$ 26.74	\$ 24.74	\$ 32.72
Imports of Food -- (\$Millions)	30	39	106
Imports of Food -- Per Capita	\$ 1.76	\$ 1.68	\$ 3.36
Food Consumption per Capita in the U.S.	\$ 28.50	\$ 26.41	\$ 36.08
Price Indexes of Agricultural Value Added 1879=100	91.0	84.0	100.0
1839=100	100.0	92.3	109.9
Food Consumption per Person (Prices of 1840)	\$ 28.50	\$ 28.61	\$ 32.83

### Notes and Sources to Table 1:

Robert Gallman (1960) "Commodity Output, 1839-1899," *Studies in Income and Wealth*, vol. 24, *Trends in the American Economy in the Nineteenth Century*, Princeton University Press, Table 5 and Table A-2. Exports equal the sum of the exports of crude and manufactured food. U.S. Bureau of the Census, (1975), *Historical Statistics of the United States*, Series U215, 216. Imports equals the import of crude and manufactured food. *Historical Statistics*. Series U221, 222. Population data for 1850 and 1860 are from *Historical Statistics*, Series A-7. The population data for 1840 are from worksheets underlying Weiss's labor force estimates. They differ slightly from the 17,120 thousand reported in *Historical Statistics*, Series A-7, but contain the necessary detail regarding age, sex and slave status.

Table 2  
 Implied Consumption per Person by Population Group  
 United States and the Lower South, 1840 and 1800

	United States 1840	Lower South 1840	United States 1800	Lower South 1800
All Persons	\$ 29.98	\$ 27.67	\$ 29.33	\$ 27.67
Free Persons.	31.12	30.42	30.62	30.10
Slaves	23.34	22.81	22.96	22.57
Free Adults 10+	36.94	36.94	36.94	36.94
Free Children	18.47	18.47	18.47	18.47

**Notes and Sources for Table 2:**

The 1840 figure for "All Persons" is the average of the estimates for 1840, 50 and 60 shown in Table 1. The Lower South includes Tennessee. The figures for each of the other groups were obtained by solving for the values implied by the total given the known population shares and an assumed relative values. See text for further discussion.

Table 3  
 Governor Glen's Estimates of  
 Per Capita Expenditures for Food, Raiment and All Other Necessaries  
 in South Carolina around 1750

Population Group	Estimated Number of Persons	Expenditure per Day (Sterling)	Annual Expenditure (£ Sterling)	Annual Expenditure (US\$\$s, prices of 1840)
People who have plenty	5,000	2 shillings	£ 36.5	\$ 200
people who have some conveniences	5,000	1 shilling	18.25	100
people who have the necessaries	10,000	6 pence	9.1	50
people who have bare subsistence	5,500	4 pence	6.1	33
Total	25,500	10 pence	£ 15.7	\$ 87

Source: Report of Governor Glen, reprinted in Merrens, ed. 1977, p. 184. Glen gave the population in the lowest category as five or six thousand; we used the average. We converted sterling to dollars at the rate of \$4.44 per Pound, and deflated by the McCusker Price Index.

Table 4 -  
Estimate of Annual Cost of provisions (Diet) in Georgia, 1733-1740

FY Year Ending in	Annual Value per FTE (\$s, 1840 prices)	Price Index	Annual Amount spent per FTE (£s Sterling)	Amount spent on provisions in "Establishing the Colony"	Number of Full-time equivalents	Number of People	Men	Women	Boys	Girls
1733	21.19	63.5	3.03	158.4	125.5	152	60	39	32	21
1734	32.86	64.4	4.77	546.4	275.0	341	135	74	70	62
1735	66.30	65.4	9.76	297.0	73.0	81	43	22	11	5
1736	71.37	62.5	10.05	1666.1	398.0	470	224	102	100	44
1737	159.11	63.5	22.74	279.5	29.5	32	19	8	3	2.0
1738	71.36	68.3	10.97	1213.7	265.5	298	152	81	33	32
1739	343.22	60.6	46.83	175.6	9.0	9	4	5	0	0
1740	6.83	63.5	0.98	48.4	119.0	138	49	51	23	15

Source: *Colonial Records of the State of Georgia*, vol. III, pp. 52-195. The deflator is from John McCusker, We used an exchange rate of \$4.44 per Pound

The provisions were for three months after arrival and refreshments on the voyage. We have assumed the voyage lasted two months. According to Bernard Bailyn, ( p. 319) "the voyages, [averaged] a week or two in port and seven or eight weeks at sea (they sometimes lasted three months). If we increased the voyage by one-half month, the 1733 figure would fall to about \$20.

Table 5

The Rules for the Colony of Georgia:  
Maintenance in the Colony for One Year

Item	Cost per Man (1840 prices)	Quantities to be Provided for the following				units	price in 1840
		Every Man	Mothers, Wives, Sisters, or Children 12 and over	Children aged 7 to 12	Children aged 2 to 7		
Beef <sup>A</sup>	11.50	300	300	150.00	99.90	lbs.	0.038
Rice	2.20	114	114	57.00	37.96	lbs.	0.019
Pease	2.28	114	114	57.00	37.96	lbs.	0.020
Flour	3.89	114	114	57.00	37.96	lbs.	0.034
Strong Beer <sup>B</sup>	5.75	44	0	0.00	0.00	gallons	0.239
Molasses	2.48	64	64	32.00	21.31	quarts	0.039
Cheese	1.62	18	18	9.00	5.99	lbs.	0.090
Butter	1.05	9	9	4.50	3.00	lbs.	0.117
Spice		9	9	4.50	3.00	ounces	
Sugar	0.33	9	9	4.50	3.00	lbs.	0.036
Vinegar		5	5	2.50	1.67	gallons	
Salt		30	30	15.00	9.99	lbs.	
Lamp Oil		12	6	3.00	2.00	quarts	
Spun Cotton		1	0.5	0.25	0.17	lbs.	
Soap		12	12	6.00	4.00	lbs.	
Total Cost	31.10						

Source: *Colonial Records of Georgia, vol. III, 407-11*

The dollar figures equal the quantities times the 1840 prices. Most of the prices were taken from Gallman, 1956 (diss.) Tables 17 and 18. The exceptions were for rice, flour and beer. Gallman's rice price was for 1850, so we used the 1840 figure reported by Towne and Rasmussen, 1964, p. 295. for flour we used a price of 10 shillings per 100 lbs. for 1737 (*CRG, Trustees' Letter Book*, p. 220) converted to dollars and shifted to an 1840 price base. The prices of flour reported for 1840 by Cole were much higher than this converted value. Had we used them instead, the cost per man would have been at least \$6.60 and possible as high as \$11.50. Had we calculated the cost of beer per man using the estimated 1840 price (24 cents per gal.), the expenditure on beer would have amounted to \$10.52, which seemed much too high. Instead, we estimated the expenditure on beer by calculating its value as being equal to one-half the value of the expenditure on meat, a ratio taken from the *CRG, Trustees' Letter Book*, p. 220

The price of beef obtained from Gallman was per pound "live weight." Because each pound of live weight yields a smaller amount of consumable meat, we have adjusted the 'live weight' price to one representing carcass weight. We used the ratio of live/carcass weight of 1.67 taken from Holmes to adjust the price.



**Table 6-**  
**Annual Expenses for Provisions for St. Andrews, 1737**  
(Nos. of Persons = 33)

Item	Quantity for 1.25 yrs.	Quantity per Year	Per Year	Per Day	<i>Quantities Per Person</i>		Value (Dollars, 1840 prices)	share
					Units	1840 Prices		
Meat	10296	8,236.8	249.6	0.68	lbs.	0.038	\$ 9.57	49%
Rice	5148	4,118.4	124.8	0.34	lbs.	0.019	2.41	12%
Corn	103	82.4	2.5	0.01	bush	0.386	0.96	5%
Flour	400	320.0	9.7	0.03	lbs.	0.034	0.33	2%
Beer	1600	1,280.0	38.8	0.11	pints	0.239	4.78	25%
Molasses	320	256.0	7.8	0.02	quarts	0.039	0.30	2%
Cheese	200	160.0	4.8	0.01	lbs.	0.090	0.44	2%
Spice	64	51.2	1.6	0.00	oz.		-	0%
Sugar	150	120.0	3.6	0.01	lbs.	0.036	0.13	1%
Butter	200	160.0	4.8	0.01	lbs.	0.117	0.57	3%
Bread								
Total							\$ 19.49	100 %

Table 7  
Annual Expenses for Provisions for the Carolina and Georgia Scout Boats, 1737

Item	Quantity for 1.25 yrs.	Quantity per Year	<i>Quantities Per Person</i>				Value (Dollars, 1840 prices)	share
			Per Year	Per Day	Units	1840 Prices		
Panel A: the Carolina Scout Boat (Nos. of Persons = 13)								
Meat	4644	3,715.2	285.8	0.78	lbs.	0.038	10.96	46%
Rice	2372	1,897.6	146.0	0.40	lbs.	0.019	2.82	12%
Beer	2500	2,000.0	153.8	0.42	pints	0.239	5.48	23%
Bread	2372	1,897.6	146.0	0.40	lbs.	0.033	4.80	20%
Total							24.05	100 %
Panel B: The Georgia Scout Boat (Nos. of Persons =11)								
Meat	3936	3,148.8	286.3	0.78	lbs.	0.038	10.97	46%
Rice	1918	1,534.4	139.5	0.38	lbs.	0.019	2.69	11%
Beer	2500	2,000.0	181.8	0.50	pints	0.239	5.49	23%
Bread	1918	1,534.4	139.5	0.38	lbs.	0.033	4.59	19%
Total							23.74	100 %

Source: CRG, Trustees' Letter Book, 1732-1738, vol. 29, pp. 222-24

Table 8:  
Proposed Budget Relating to Provisions for those on  
Ogelthorpe's Siege of St. Augustine

	Number of Men	Value of Provisions £s SC	Period of Time in months	Monthly Value per Man £s SC	Annual Value per Man \$ 1840 prices
Foot Soldiers	1000	16323	6	2.72	28.53
Men with the Negroes	160	2595	6	2.70	28.35
Pioneers					
Three Troops	1160	13572	6	1.95	20.45
Officers for the Indians	58	678.5	6	1.95	20.45
Foot soldiers, Rangers and Volunteers	500	5263.5	4	2.63	27.60
Pioneer Negroes	800	5785	6	1.21	12.64
Pioneer Negroes	800	7980	6	1.66	17.44
Cherokee	1100	2568	3	0.78	8.16
Creek	900	2578	3	0.95	10.01
Indians	2000	7400	6	0.62	6.47
Indians	1000	1885	4	0.47	4.94
Indians	500	1575	3	1.05	11.01

Source: *Colonial Records of South Carolina, Commons Journal*, September 12, 1739-May 10, 1740, pp. 175-299. We converted the values from South Carolina currency to Sterling at a rate of eight to one. (*ibid*, p. 176), converted Sterling to dollars at an exchange rate of \$4.44 per Pound Sterling, and then shifted to a price base of 1840 using the price index series prepared by John McCusker, 1999.

Table 9  
Expenditures by South Carolina for Military Purposes, 1734-1756

FY beginning	Purpose of Expenditure	Number of People	Number of Months	Reported Expenditure <i>Pounds of SC Currency</i>	Annual Cost of Diet	Exchange Rate	Pounds Sterling	Price Index	U.S. dollars (prices of 1840)
1734	Provisions Ft. Moore	27.0	12.0	864.0	32	7.0	4.57	64.4	31.52
1734	Provisions Ft. Prince George	14.0	12.0	448.0	32	7.0	4.57	64.4	31.52
1734	Provisions Ft. Johnson	7.0	12.0	224.0	32	7.0	4.57	64.4	31.52
1734	Provisions Scout Boat	11.0	12.0	352.0	32	7.0	4.57	64.4	31.52
1736	Ft. Moore Victualling	16.0	12.0	512.0	32	7.0	4.57	62.5	32.48
1736	Victualling Scout Boat	11.0	6.0	176.0	32	7.0	4.57	62.5	32.48
1736	Victualling men at Ft. Johnson	7.0	12.0	224.0	32	7.0	4.57	62.5	32.48
1738	Provisions for Ft. Moore	17.0	12.0	544.0	32	7.9	4.08	68.3	26.50
1738	Provisions for Ft. Frederick	5.0	6.0	80.0	32	7.9	4.08	68.3	26.50
1738	Provisions for Ft. Johnson	8.0	12.0	256.0	32	7.9	4.08	68.3	26.50
1739	Provisions Ft. Moore	10.0	12.0	320.0	32	7.9	4.06	60.6	29.72
1739	Provisions Ft. Johnson	8.0	12.0	256.0	32	7.9	4.06	60.6	29.72
1739	Provisions Ft. Johnson	6.0	3.0	48.0	32	7.9	4.06	60.6	29.72
1740	Men in Scout Boats	23.0	12.0	736.0	32	8.0	4.02	63.5	28.07
1740	Provisions Ft. Moore	14.0	12.0	448.0	32	8.0	4.02	63.5	28.07
1740	Provisions Ft. Johnson	14.0	12.0	448.0	32	8.0	4.02	63.5	28.07
1745	Provisions	24.0	6.0	300.0	25	7.0	3.57	61.5	25.78
1745	Provisions	10.0	6.0	125.0	25	7.0	3.57	61.5	25.78
1745	Provisions	26.0	12.0	650.0	25	7.0	3.57	61.5	25.78
1745	Provisions	32.0	12.0	800.0	25	7.0	3.57	61.5	25.78
1746	Provisions for Ft. Johnson	3.0	12.0	75.0	25	7.3	3.42	62.5	24.33
1746	Provisions for Beaufort Galley	32.0	12.0	800.0	25	7.3	3.42	62.5	24.33
1748	Provisions for Ft. Johnson	4.0	12.0	100.0	25	7.7	3.26	78.8	18.37
1755	Provisions for 4 Men	4.0	12.0	100.0	25	7.0	3.57	76.0	20.86
1755	Provisions for 22 men	22.0	12.0	616.0	28	7.0	4.00	76.0	23.37
1756	Provisions Ft. Johnson	4.0		206.7	25	7.1	3.52	74.0	21.13
1756	Provisions Men on Scout Boats	22.0	12.0	616.0	28	7.1	3.94	74.0	23.66

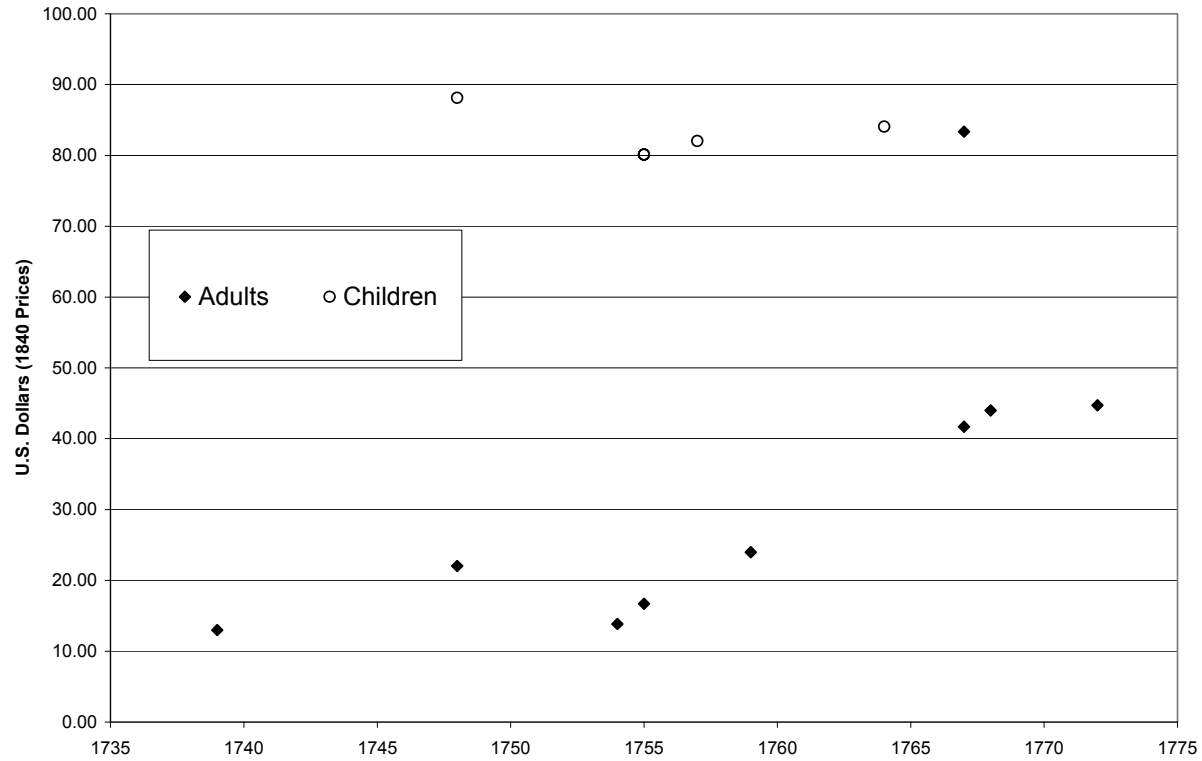
Source *Colonial Records of South Carolina*, :

Figure 1: Annual Cost of Provisions for Military Personnel in South Carolina, 1734-1756



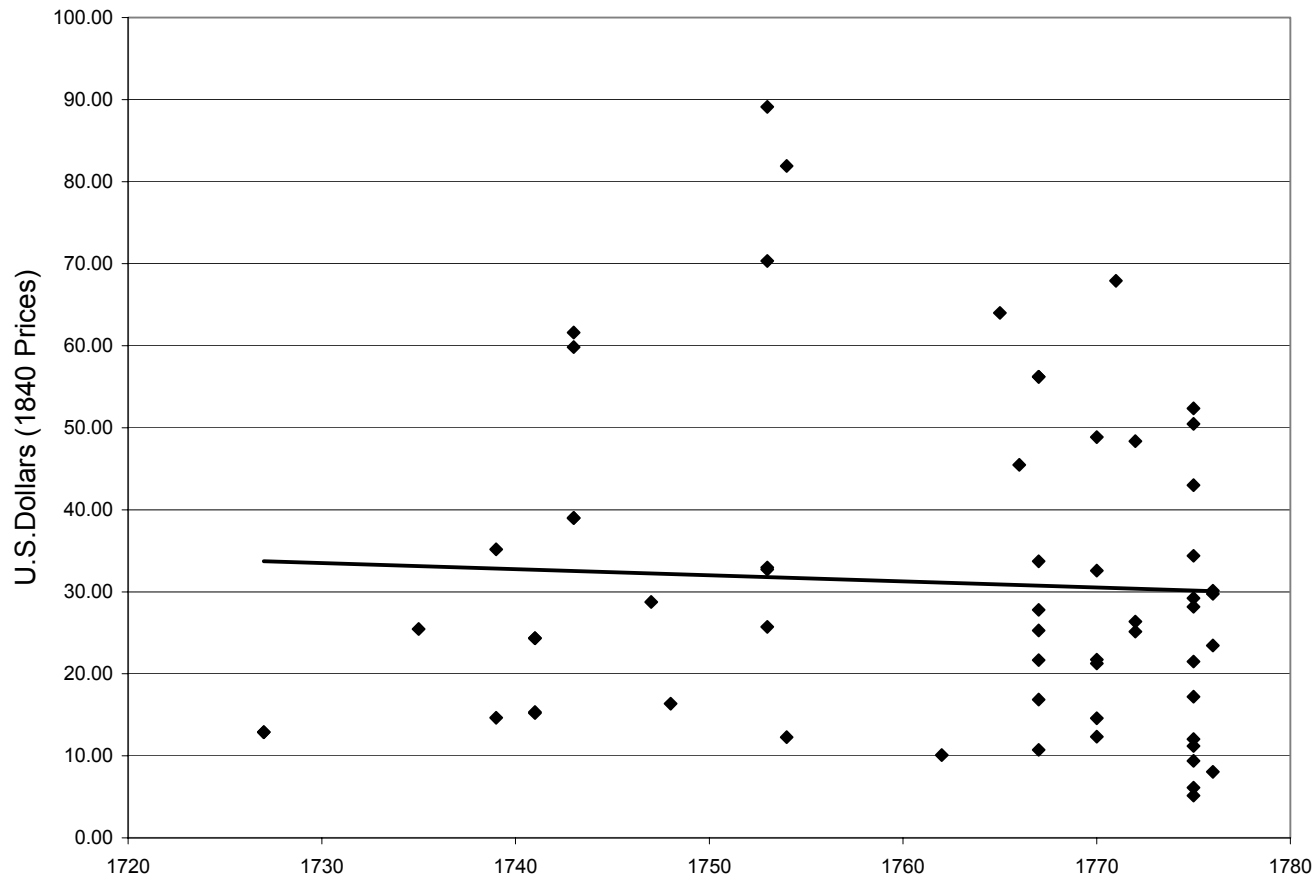
Source: *Colonial Records of South Carolina*

Figure 2: Annual Value of Maintenance for Wards of St. Helena's Parish, South Carolina, 1739-1772



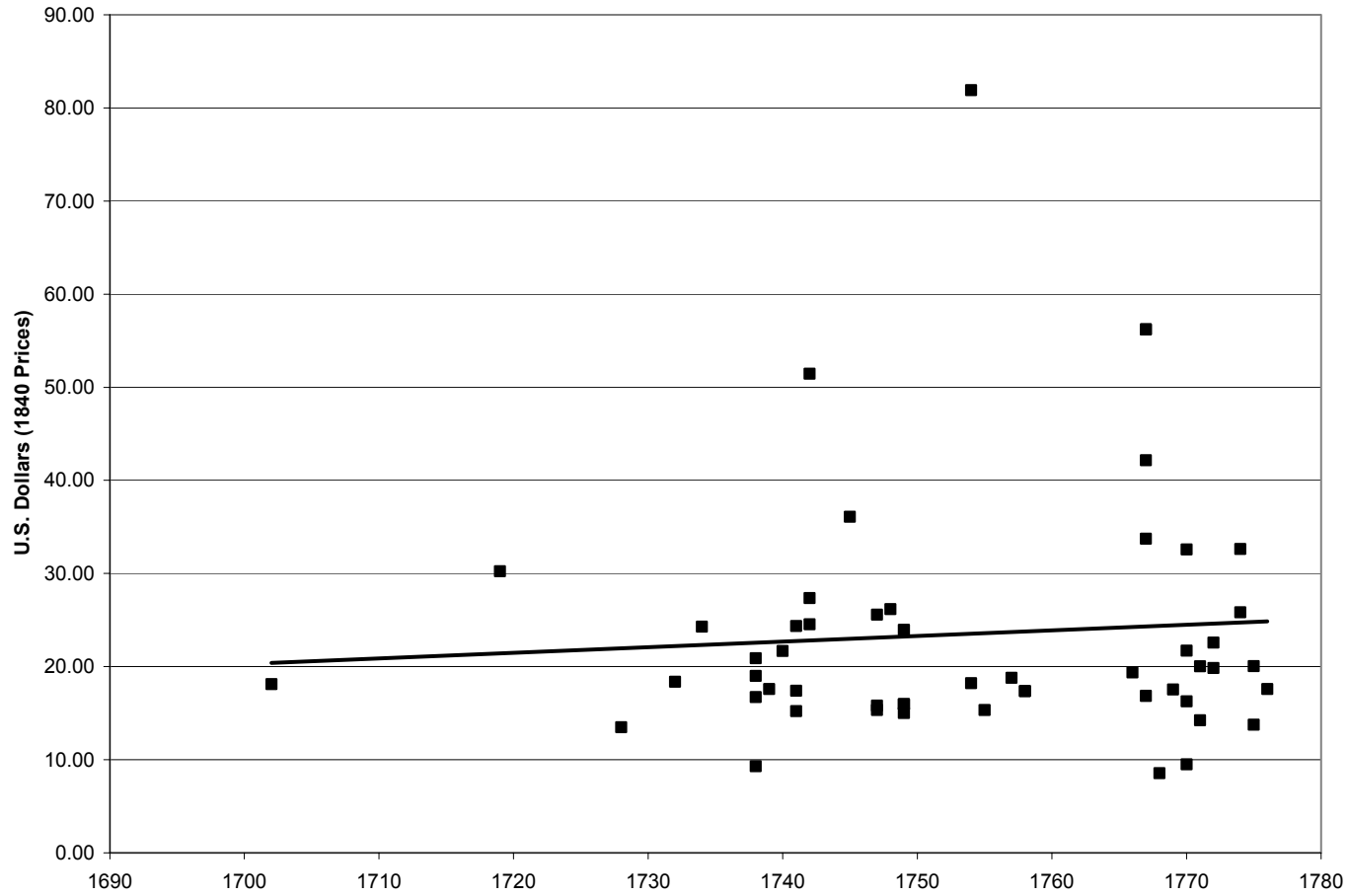
Source: Salley (1979)

Figure 3: Implied Annual Value of Maintenance for Adults Based on Short Term Allowances in St. Paul's Parish, Chowan County, North Carolina, 1727-1776



Source: Fouts (????)

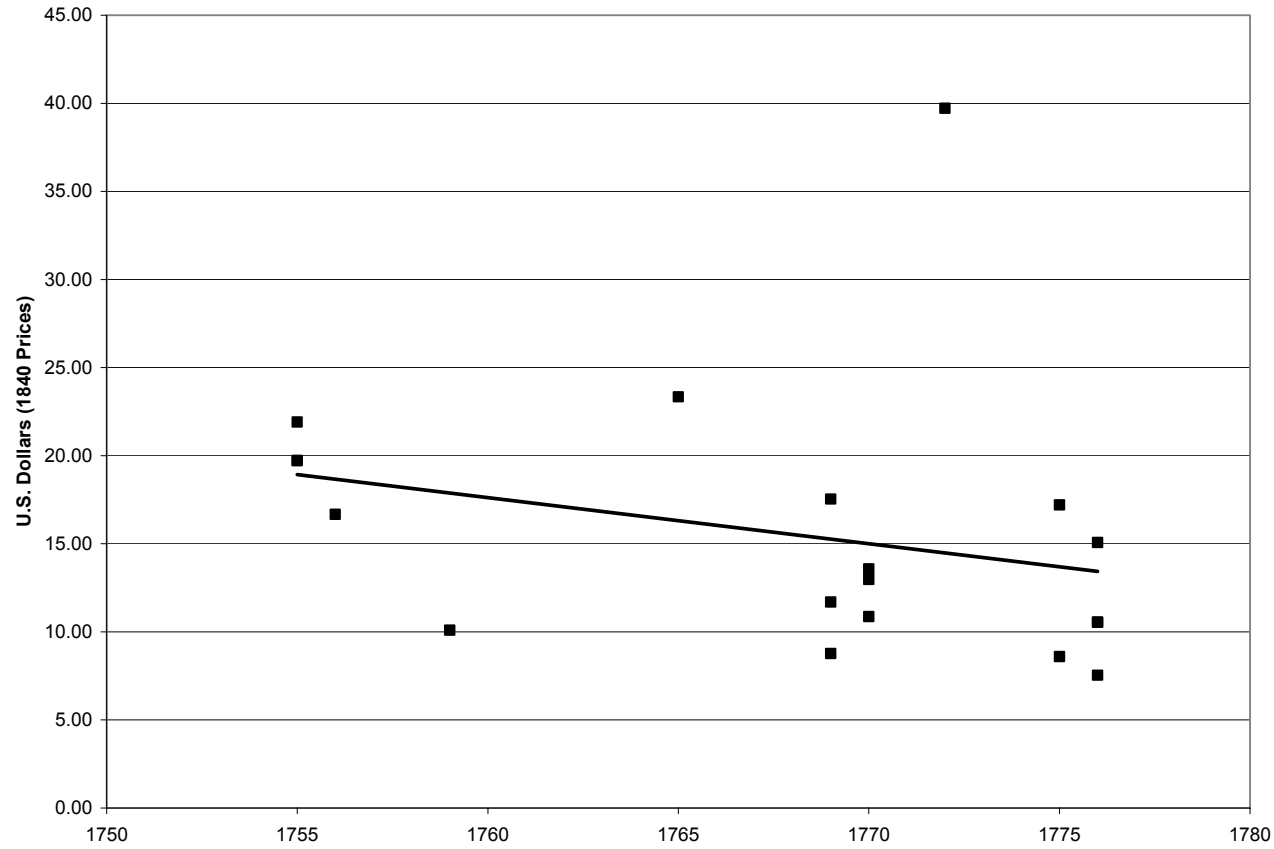
Figure 4: Implied Annual Value of Maintenance for Adults Based on Long Term Allowances in St. Paul's Parish, Chowan County, North Carolina, 1719-1776



Source: Fouts (????)

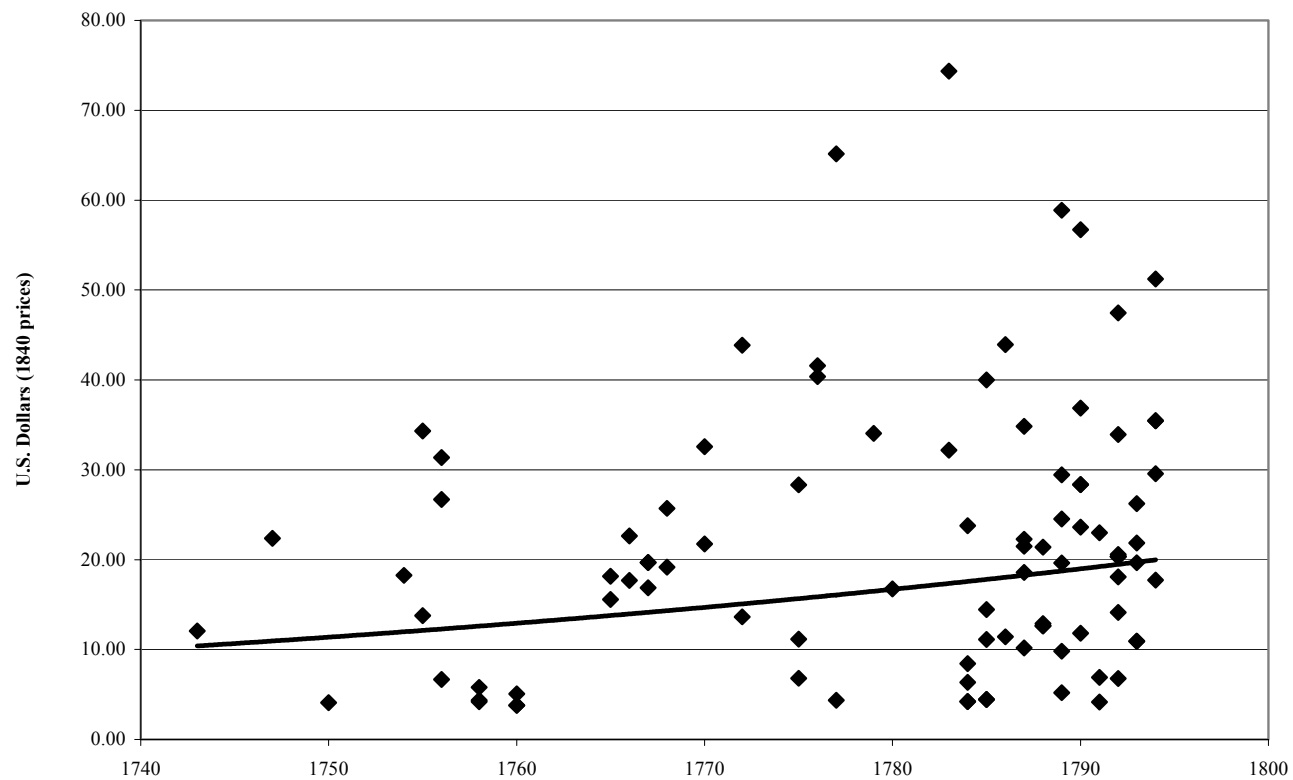


Figure 5: Annual Maintenance Allowances for Children, St. Paul's Parish, Chowan County, North Carolina, 1755-1776



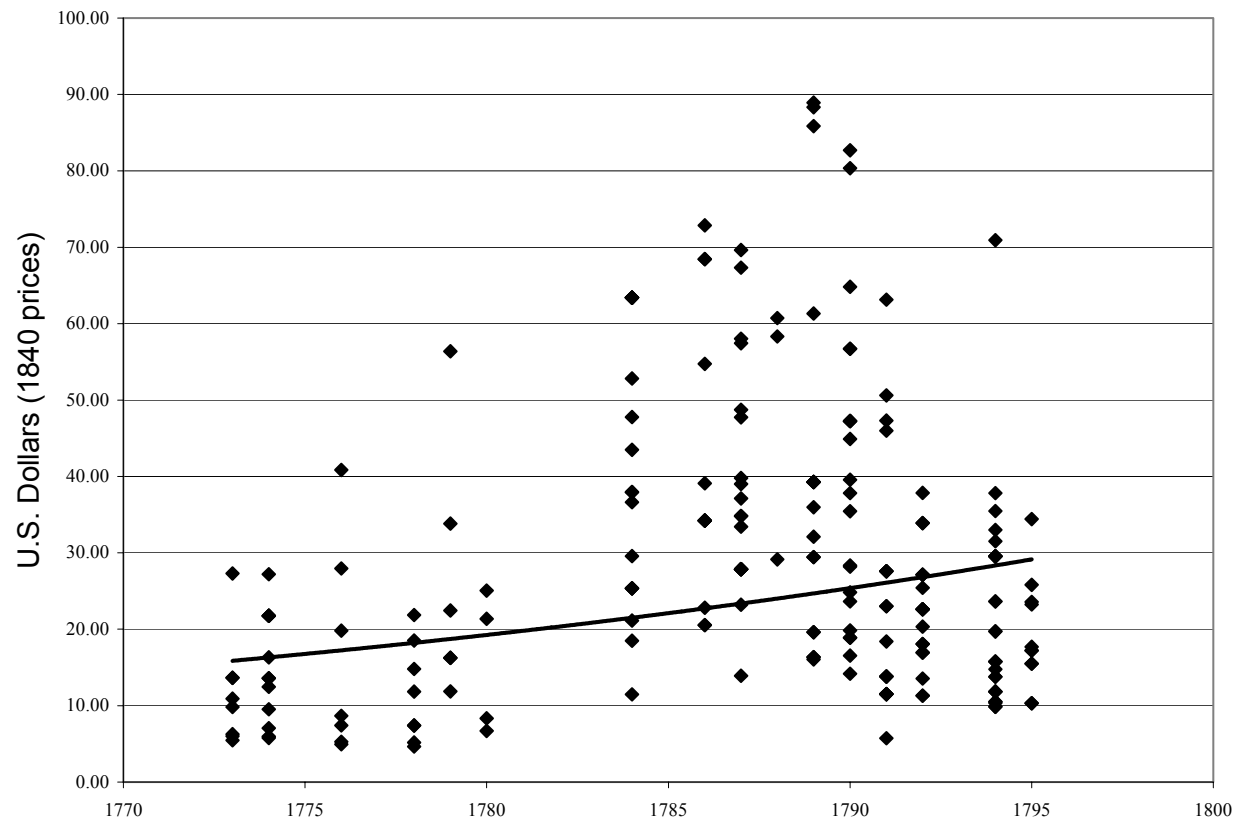
Source: Fouts (????)

Figure 6: Adult Allowances in Carteret County, North Carolina, 1743-1794



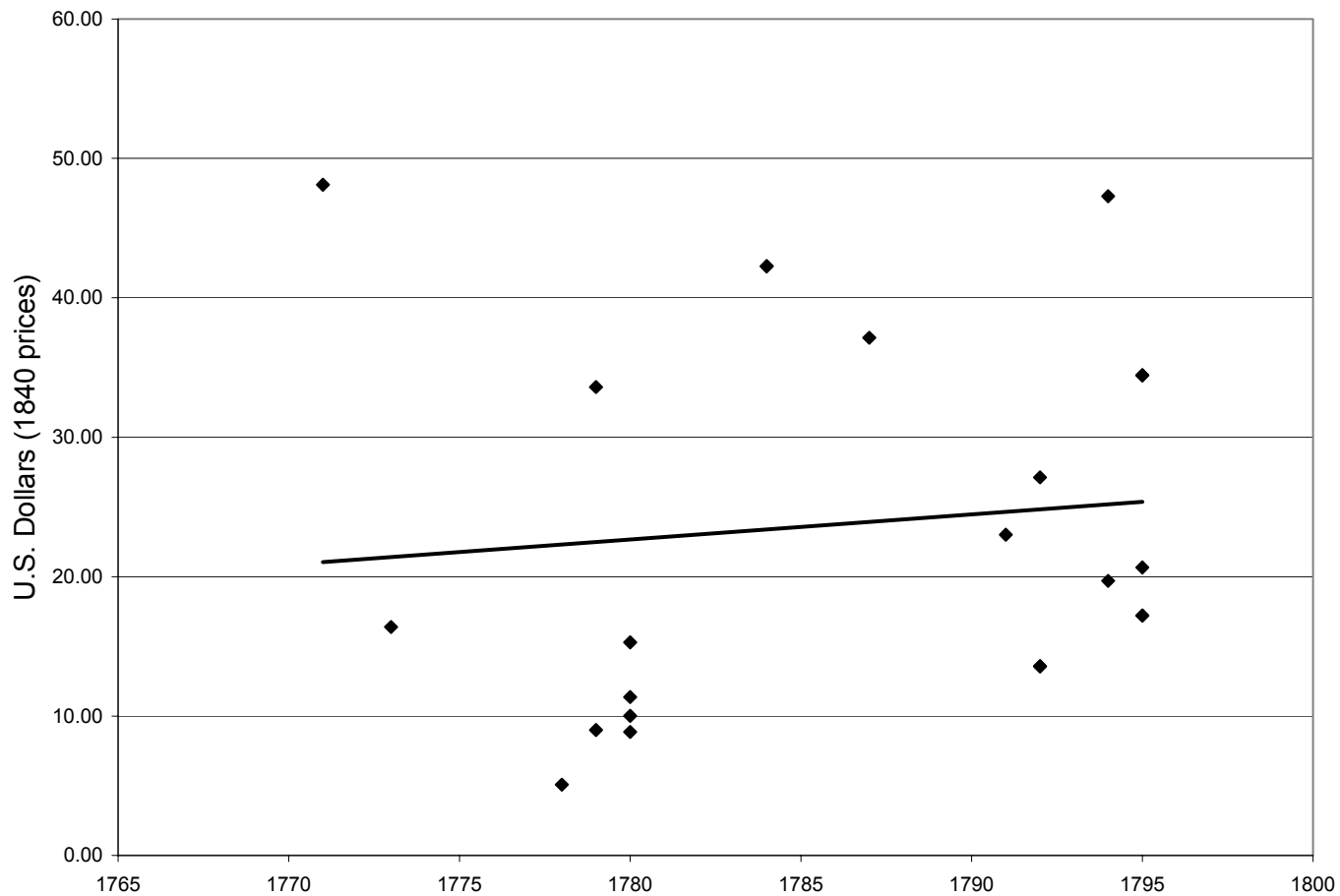
Source:

Figure 7: Expenditure on Maintenance Provisions for Adults, St. George's Parish, Northampton, County, North Carolina, 1771-1795



Source:

Figure 8: Expenditure on Maintenance Provisions for Children, St. George's Parish, Northampton, County, North Carolina, 1771-1795



Source:

Figure 9: Average of Estimated Annual Allowances for Adults, Various Parishes, North Carolina and South Carolina, 1719-1795

