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A Reëxamination of Creek Indian Population Trends: 1738—1832

J. ANTHONY PAREDES and KENNETH J. PLANTE

In recent years there has been a resurgence of interest in the historical demography of American Indians.¹ Early attempts at reconstructing Native American demography and estimating population sizes at European contact (e.g., Mooney 1928; Kroeber 1939) were followed by an era "when such studies were not only unfashionable but even a bit unrespectable" (Meister 1980:153). Such a bias against historical reconstruction of American Indian populations may be attributed in large part to the incompleteness and inadequacies of the data available to the researcher in historical demography of the New World. In response, however, Henry Dobyns (1976:7), following Sherburne Cook (1960), succinctly observes, "one either uses such data as may be available and learns something, however inadequate, or abjures such data and learns nothing."

A major concern of most researchers in American Indian historical demography has been that of estimating the aboriginal population of the New World and tracing the effects of European contact on Native populations. In pursuit of these objectives, however, there are strong differences of opinions. Donald Joralemon (1982:108) neatly summarizes the issues:

There are few who would doubt that the indigenous population of the New World suffered a severe decline as a result of the arrival of European conquerors and settlers. How much of a decline, and its causes,

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remain subjects of controversy. In both cases debate arises from the simple fact that in the absence of reliable historical data, researchers must devise methods of retrospective projections

Retrospective projections of Native American population sizes must rest on working back from a reliable data point through multiplication by an assumed "constant," to use Joralemon's term (*Ibid.*). Russell Thornton and Joan Marsh-Thornton (1981) have shown for the area of the present-day adjacent forty-eight United States that the relatively secure American Indian population data of the nineteenth century reveal a linear decline from 1800 to 1890. A simple extension backward of the slope of this line of decline produces an estimate of 1,845,183 for the aboriginal population in 1492. Thornton's estimate falls between Dobyns's (1966) of 5,130,000 (as adjusted by the Thorntons) and James Mooney's (1928) of 849,000, whose estimates rest on very different assumptions about the pattern of American Indian population decline. Dobyns argues for a precipitous early decline; Mooney proposed that there was a delayed decline in Native population following first European contact. In either case the pattern of demographic decline is very different in shape than the straight linear decline that the Thorntons extrapolate from the nineteenth century data. Thus, the term "constant" must be used in a very restricted sense when discussing the historical course of American Indian population decline.

Despite differences in the particulars of demographic reconstructions, there is general agreement that the American Indian population of the United States reached its nadir by about 1900 A.D. with a total of only roughly 250,000 (cf. Thornton and Marsh-Thornton 1981:48-9), recovering afterward to a present total of approximately 1,362,000 (U.S. Bureau of Census 1981:6). Although this broad pattern of population reduction and recovery may hold for the continent as a whole, the demographic history of a particular North American Indian society may vary greatly from the general pattern.

Purpose and Objective

Obviously the post-1900 recovery of the United States Native American population as a whole has little relevance for those many American Indian tribes that became extinct in previous

centuries. Although remnants of some groups may have been politically incorporated into surviving American Indian societies, others simply perished. Conversely, the general trend of demographic decline to 1900 and subsequent recovery may mask important population perturbations and *increases* prior to 1900 in the histories of specific North American Indian groups. Some North American Indian tribes, societies and political groupings may have reached their population nadir and began recovering in numbers long before 1900. Our purpose here is to present evidence that the Southeastern Peoples known collectively as the "Creeks," "Creek Confederacy" or "Creek Nation" experienced just such a population increase during the latter half of the eighteenth century following a low point reached at about 1750. In addition, in the absence of data for the early nineteenth century, a linear regression based upon the best available demographic data for the eighteenth century and the later nineteenth century is used to project the Creek Indian population on the eve of the Creek War of 1813-14. On the basis of the trend evident in the eighteenth century data and our reconstruction of the Creek population of 1800-1812, we suggest that basic demographic factors may have played an important role in precipitating the Creek War.

The Nature of the Data

All the data for this study were assembled and presented decades ago by John Swanton (1922: 434-48; 1946: 114-5, 118-9, 123, 154). Reports of American Indian populations in the eighteenth and early nineteenth centuries must be assayed with great caution. As Cary Meister (1978, 1980) has shown in the case of the Pima and Maricopa tribes, even for the twentieth century there are significant differences in demographic data depending on the sources used—even those from the same government agency. Understandably, then, earlier materials must be treated with even more skepticism regarding the specific accuracy of population sizes.

The principal problem in evaluating estimates, "censuses," and presumed counts of American Indians stems from the questionable or unknown manner in which the observers derived the numbers they presented. For example, early travellers in

"Creek territory" may have had but a vague understanding of the area contained within the boundaries of the "territory," and, other than chance geographic references, it is often difficult to ascertain whether the group recorded was actually part of the "Creek Nation" or was part of a neighboring Indian group. Swanton's footnotes to his Creek population tabulations are particularly instructive in this regard. Further distortions may have resulted from Indians being away from their home villages for extended periods, especially under the unsettled conditions of the era, and thus completely excluded from a count, or, conversely, counted more than once depending on their location at the time a particular village was canvassed. Even the relatively late census of 1832 (Parsons and Abbott 1963) may have included such errors, despite the fact that both the Creeks and the federal government had vested interests in the census for carrying out the conditions of the so-called Removal Treaty of 1832. For example, on September 17, 1834, the Head Chiefs of the Lower Creeks (Creek Chiefs 1959a:0610) wrote to the Secretary of War claiming that there were omissions from the 1832 census explaining,

some of our people are hunting and instead of spending thier [sic] time at a whiskey shop go into the woods and hunt for months at a time— by so doing procure meat for thier [sic] families—their names were not put down.

Other correspondence from the era, both from Indians and government agents, suggests possible irregularities in the Parsons and Abbott census.²

With increasing penetration of Creek territory by White traders, government agents and others, resulting in greater knowledge of Creeks, the possibility that later reports are more accurate than those prior to 1750 cannot be dismissed out of hand. However, recognizing that demographic reporting was often but an ancillary function of White observers, the accuracy of all the early reports may have varied considerably depending upon the personality and interests of individual observers. Martin Glassner (1974:41) has noted in the case of the Mandan tribe that even those early European visitors,

who were interested and recorded some figures found it impossible actually to count. All they could do was accept one figure or another for the number of Mandan villages, add up the presumed or reported number of lodges in each village, and multiply the total by the average number of inhabitants of each lodge. Another method was to obtain from a chief or other presumably reliable informant the approximate

number of warriors the tribe could muster and multiply this by the approximate average family size, allowing for more than one warrior per family.

Much the same situation obtained for the Creeks. Moreover, as there was no standard method used for enumerating the Indian population (or at least one that was universally followed), there is little basis for an evaluative comparison of the thoroughness of the various reports. This situation is further complicated by the disparities in the numbers and identities of "towns" (*italwa*) actually recorded in the more detailed population reports. Such variations present difficulties in extrapolating from town figures the total population size for the whole Creek Nation, despite the presumably greater accuracy of these local community counts, compared to gross population estimates of the Creek Nation as a whole.

There is a distinct lack of uniformity among the early reporters of Creek population in the categories of individuals for which population figures are presented. Sources differ in whether the stated numbers are for all individuals or for some smaller demographic category of the separate towns or the Nation as a whole. Some observers presented numbers of "gun-men," "warriors," or "fighting men," while others stated the number of "hunters," and yet others reported simply the number of "men" without further specification. In general, though, there are no explanations of the specific age-group that was purportedly enumerated, thus further confounding comparisons between sources over time. The resolutions, even if not solutions, to these several problems in the early population information on the Creek Indians was the first step in our analysis of the data Swanton presented.

Analysis

In resolving the ambiguity surrounding the nomenclature used in the various Creek population reports, a distinction could be made between "men" in general as opposed to "gun-men," "hunters," and "warriors" specifically. Gunmen, hunters and warriors could be considered to be synonymous, whereas "men," without more precise designation, might reasonably be interpreted to include not only the warrior-hunter class but also the

"useless old men" alluded to by Caleb Swan (1855:263) and the younger adolescents. Swanton (1922:442 [ft. nt. 2]) arrived at total population figures by multiplying the reported numbers by a fixed factor of 3.5 without allowing for distinctions among the different categories of men reported in the original sources. Swan (*Ibid.*), however, proposed that the "useless old men, the women, and children may be reckoned as three times the number of gun-men," suggesting a ratio of 4:1 for total population to gun-men.³ Therefore, rather than using a fixed factor of 3.5 to obtain a total population, a more accurate reconstruction might be obtained by using a multiple of either 3.5 or 4.0 depending upon whether the original information was presented as "men" or was given as "gun-men," "warriors," "hunters" or "fighting men." *Initially we intended to discriminate between "men" and "warriors,"* or similar terms, in extrapolating total Creek population sizes. Given, however, that only six of the thirty reports utilized referred to men in general and critics might regard multiplying any of the figures by a factor of 4.0, rather than 3.5, as arbitrarily inflating the numbers, we opted for Swanton's factor of 3.5 for the sake of uniformity and conservatism.

The earliest population information on the Creeks, beginning in 1702, consists of contemporaneous gross estimates of the population, or some age-sex class thereof, of the entire Creek Confederacy. Likewise, many of the later population figures are presented as those for the Creeks as a whole. These data are shown in Table I. Fortunately, there are eight reports for the period 1738-1832 in which counts were given for individual towns, as summarized in Table II. Presumably these accountings of smaller, town units come closer to an actual enumeration than do the general population estimates for all Creeks given by others without specifying the methods by which they arrived at their numbers. Estimates of the total Creek population derived from the counts by individual towns should be more accurate and reliable than the gross population estimates of the times. Nonetheless, there are difficulties encountered in deriving such totals from the counts by towns.

Exactly what each of the eight reporters took to be a "town" during the time each count was prepared is open to some question. Without a clear knowledge of each author's understanding of the minimum criteria of size, population density and degree of political autonomy for defining a "town," there is a certain ambiguity in the term itself. Such problems notwithstanding,

Table I: Creek Population Totals 1702-1832*

Year	Total Population
1702	7000
1708	7000
1715	7292
1725-6	7700
1738	7220
1739	5250
1747-8	8750
1750 (?)	12250
1750 (?)	4403
1753	10500
1758	10500
1760	12792
1761	8750
1761	7560
1764	12600
1764	10325
1768	5600
1771	12250
1778	11000
1780	17280
1786	17280
1789	14000-21000
1791	17500-21000
1792	4882**
1814	17750
1825	20000
1829	20000
1832	21759

*Population reports as presented by Swanton (1922: 442-3). Benjamin Hawkins's report for 1799 was not included in this list, presumably because of the limited number of towns enumerated. Taitt's report for 1772 is also absent from the list.

**Given that, for the same report (1792), Swanton indicates a Seminole population of 3,605 warriors (12,618 total population), it appears that the footnote distinguishing Creek from Seminole may be misplaced and that the figures should be reversed (i.e., a Seminole population of 4,882).

Table II: Comparative Town Population Figures*

	Spanish Census 1738	French Census 1750	Census of 1760	Census of 1761	Taitt 1772	Marbury 1792	Hawkins 1799	U.S. Census of 1832
Number of Towns Enumerated	33	40	44	40	17	40	13	52
"Warriors," "Men," Etc. Reported	2063	1263 ⁺	3605	2160	1185	3605	1541	
Total Population**	7221	4421	12618	7560	4148	12618	5394	21733 ⁺⁺
Adjusted Number of Towns	33	40	45	44	40	49	33	52
Adjusted Total Population	7221	4421	12754	7928	9485	15694	14499	21733

*After Swanton (1922:434-437).

**Based on multiplying "warrior," "gun-men" and "men" figures by 3.5, per Swanton (1922:442, [ft. nt. 2]).

⁺ Given as 1,258 in Swanton's chronological presentation of total populations.

⁺⁺ Given as 21,759 in Swanton's chronological summary.

we based our analysis on Swanton's list of eighty-two named towns which displayed some degree of continuity over the period encompassed by the eight reports. In accepting Swanton's roster as the definitive inventory of Creek towns during 1738-1832, it is necessary also to accept Swanton's treatment of the various appellations of the towns, as rarely was the same spelling used with any consistency and, further, towns sometimes physically relocated but retained the original name. By utilizing Swanton's tabulation a basic point of departure is established for analysis and comparison.

The several reports citing populations by towns vary considerably in number and location of the towns recorded, thereby presenting an appearance of incompleteness in what was potentially a comprehensive survey. Assuming that at the time of each survey there were other towns in existence that went unrecorded, an attempt was made to reconstruct the populations of "missing" towns insofar as possible within the limits of the eight data sets.

Each "census" reported by Swanton (1922:434-7) was screened for the temporal appearance of the eight-two named towns in order to determine the identity of towns missing from any one report. If a town was missing from a particular survey but was included in a preceding and a subsequent report, the town was presumed to have been in existence at the time of the survey in question but for some reason was not included. Once the omitted towns were identified, a regression analysis⁴ using data from previous and following reports was calculated for each town in order to establish an estimated town population size for any year(s) of report(s) for which a town was omitted. These figures were then added to the totals given by Swanton, both of which are shown in Table II. (The population figures for each town, with the exception of the 1832 census, were given as "warriors," "men" or "gun-men," hence, following Swanton, as noted above, these raw figures were multiplied by a factor of 3.5 to yield a total population for the whole Creek Nation.)

Swanton's totals for Creek towns and our totals adjusted for "missing" towns are plotted in Figure I. The numbers reveal a marked decrease in population between the earliest town census in 1738 and the next in 1750. In this instance there is no "correction" of Swanton since all but four towns reported in the 1738 survey are also present in the 1750 list, and those four towns never appear again, thus precluding population esti-

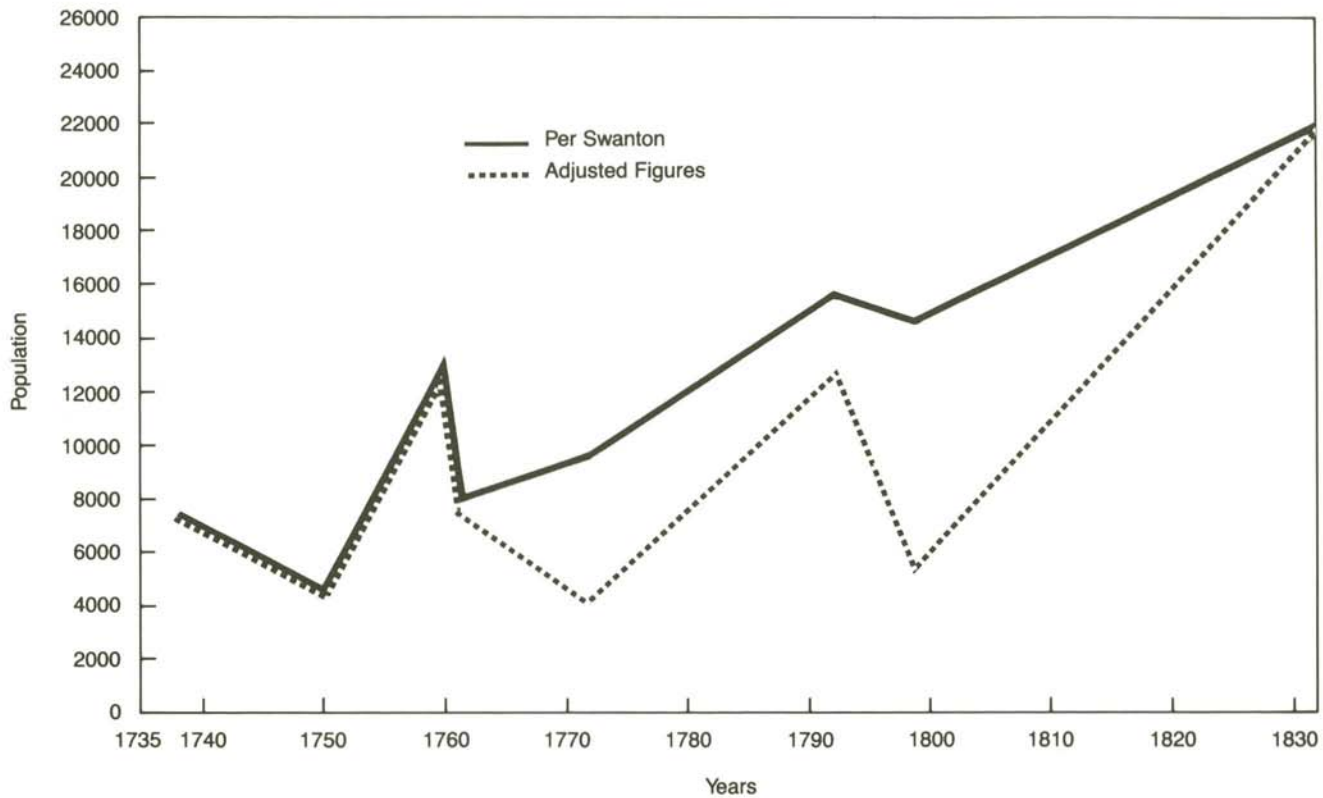


Figure 1: Population Trend: Adjusted vs. Non-Adjusted Populations (See Table II)

mates for 1750. Likewise the 1760 census includes all towns in that of 1750 except three, two of which never appear again. The 1750 population of 4,403 is 38.6 percent less than the average of 7,173 for all total Creek population figures available for the first half of the eighteenth century. In fact, 4,403 is the lowest figure given, or that can be derived, for all of the eighteenth and nineteenth centuries. In making these statements, though, we must acknowledge some uncertainties in the data Swanton presents. First, Swanton's statement that the general figure of 4,403 he presents for 1750 is "evidently incomplete" (1922:442 [ft. nt. 6]) is an enigma since this number is apparently based on the town enumeration of that year (Ibid.:434-7) which included even more towns than the 1738 census. Second, in his general tabulation of overall Creek population totals, Swanton presents for 1750 another number, from James Adair (1775:257), of 12,250 which apparently rests solely on Adair's statement that "this nation [Creeks] is generally computed to consist of about 3,500 men fit to bear arms" (Ibid.). Finally, Swanton indicated, by a question mark, that he was uncertain of the 1750 date for both population figures. We are inclined to believe that Adair's figure refers to a much later period since his book was published in 1775 and internal evidence clearly indicates that his chapter on the "Muskohge," the dominant ethnic component of the Creek Confederacy, had to have been completed after 1768 (cf. Adair 1775:271). Moreover, Adair himself writes of the Muskohge (Ibid.:259)

. . . the men rarely go to war till they have helped the women to plant a sufficient plenty of provisions, contrary to the usual method of warring savages, it is so great a help to propagation, that by this means also, and their artful policy of inviting decaying tribes to incorporate with them, I am assured by a gentleman of distinguished character, who speaks their language as well as their best orators, *they have increased double in number within the space of thirty years past* . . . (emphasis added)

Assigning a post-1768 date to Adair's estimate would make his population information and his statement on Creek population increase much more consistent with the rest of the eighteenth century demographic information on the Creeks, especially in the light of epidemiological history of the Southeast. Joseph Jones (1876:97) avers that "[i]n 1738, smallpox destroyed one-half of the great Cherokee Nation; and the Muskohgees, Uchees, Shawanese, Chactaws, Chickasaws, Natchez and a host of other tribes have suffered to an equal extent."⁵ In Adair's

account, however, he asserts (1775:259) that the traders had taught the Creeks to prevent smallpox "from spreading among their towns by cutting off all communication with those who are infected, till the danger is over," leaving open the strong possibility that earlier the Creeks had not been so adept at public health measures. It appears highly likely, then, that the Creek population reached its nadir sometime during the period 1738 to 1760. Even if a 1750 date is accepted for Adair's estimate, moreover, this does not alter our general thesis that the Creek Nation reached its population low-point long before 1900. None of the population totals shown in Swanton for the period 1800-1900 are nearly so low as the several less-than-10,000 figures recorded for the eighteenth century, accepting all the figures at face value.

After 1750, until Removal in the 1830s, even the unadjusted town totals given in Swanton indicate that Creek population was generally on the increase. Though there were some apparent reversals, Creek population never again dropped to the low point indicated by the town count for 1750. Our corrections for omitted towns tend to mitigate the apparent reversals in Creek demographic recovery during the last half of the eighteenth century, moving the data closer to a straight line of population increase from 1750 to 1832. The 1772 drop in population yielded by Swanton's sums is flattened out appreciably by our corrections, even though the earlier, inexplicable decline in 1761 is rendered only slightly less drastic by our reconstruction. Likewise, the rather large dip in population for 1799, based on information from the famous Creek Indian agent Benjamin Hawkins, is reduced considerably by our adjustment of the raw data. This modification is especially important in assessing the validity of our population reconstructions. Populations are given for only thirteen towns in 1799. With our method we were able to estimate the populations of an additional twenty towns presumed to exist in 1799 for a total of thirty-three towns. Hawkins himself stated (1848:24-5) that there were thirty-seven towns at the time, even though demographic data are provided for only thirteen. The remaining four towns do not appear in the next enumeration by towns, thirty-three years later, thus reconstructing their populations in 1799 was not possible; presumably these towns "disappeared" between 1799 and 1832.

In order to estimate Creek population for the critical years immediately preceding the Creek War, a linear regression was

calculated using the revised data from the town enumerations of 1738, 1750, 1760, 1761, 1772, 1791, 1799, and 1832; as shown in Figure 2. For comparative purposes linear regressions were also calculated from the unadjusted data presented in Swanton. In addition, to answer any critics who might argue that we have illegitimately skewed projections by including data from the pre-1750 population decline and the rather high count from the 1832 census, regressions excluding the 1738 and 1832 data were also calculated and shown in Figure 2. Again, the validity of our adjustments of the data is indicated in that our projection to 1832 falls much closer, at approximately 21,200, to the official tally of 21,733 than does the projection from the unadjusted town counts.

Data used in modeling Creek population trends for the years 1738-1832 were initially restricted purposefully to the demographic data derived from the eight enumerations by towns because of the more uncertain accuracy of gross, total population estimates of the time. Nonetheless, these total population estimates show the same general trend as the adjusted population totals derived from the more detailed data as shown in Figure 3. Even so, the 1832 total projected from all general population figures given in Swanton (see Table I) falls farther from the actual 1832 tally, by over a thousand people, than does that projected from the eight town data sets alone. Of all the pre-Removal population figures presented in Swanton, the Parsons and Abbott census of 1832 must be considered most nearly accurate since it entailed systematic enumeration of household members under named family heads, criticisms of the census noted earlier notwithstanding. Thus, the 1832 census can reasonably be taken as a benchmark against which to evaluate earlier population data.

A final corroboration of the validity of our projections is provided by a data point near the middle of the long gap between Hawkins's partial list of town populations in 1799 and the 1832 census by towns. Schermerhorn (1814 *in* Swanton 1922:443) estimated the number of warriors at the time of the Creek War as approximately 5,000. According to our projection based on the town data, there would have been 5,174 "gun-men" in 1813, the number being obtained through reconverting our total population estimate by dividing by a factor of 3.5. Curiously, in this case, a projection from the gross population estimates permits deriving a number of warriors, 5,075, even closer to Schermer-

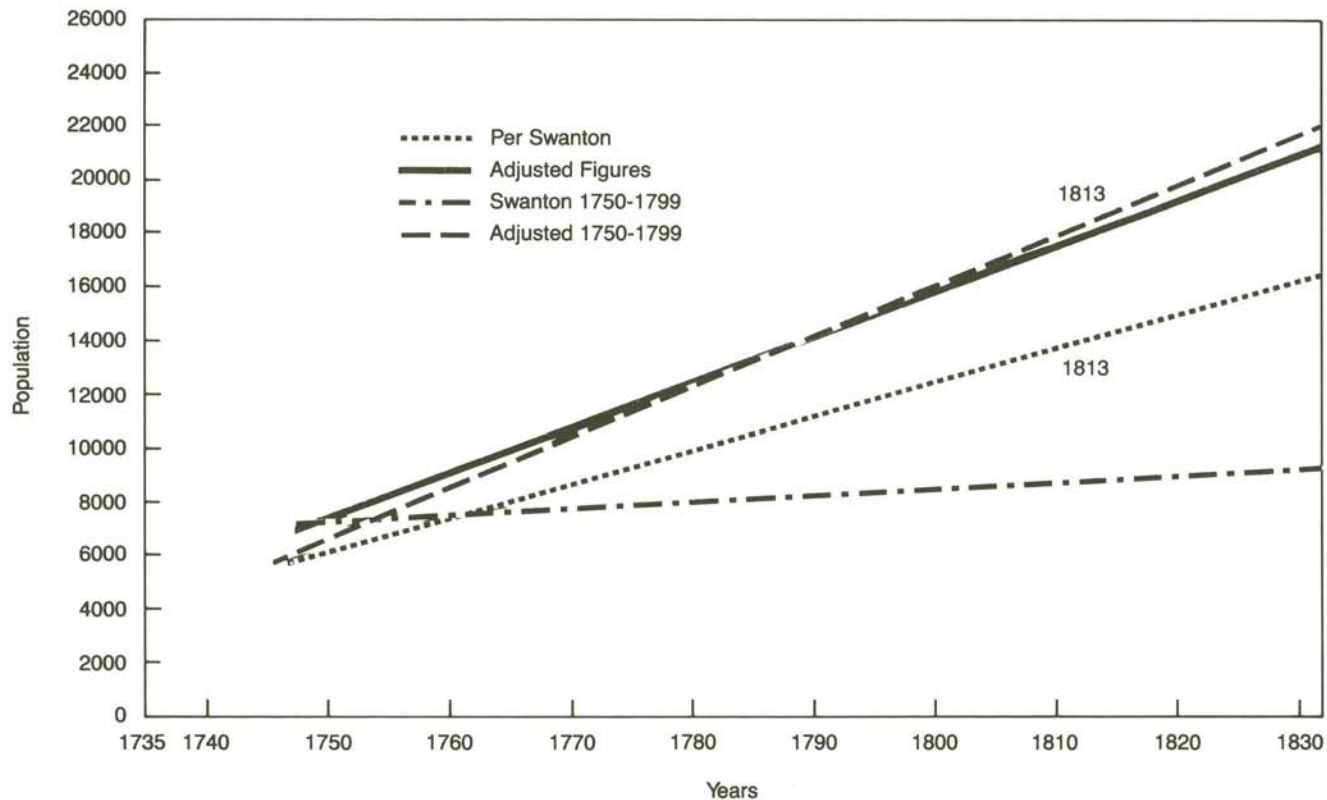


Figure 2: Population Trend for Adjusted vs. Non-Adjusted Population Reports Calculated by Linear Regression

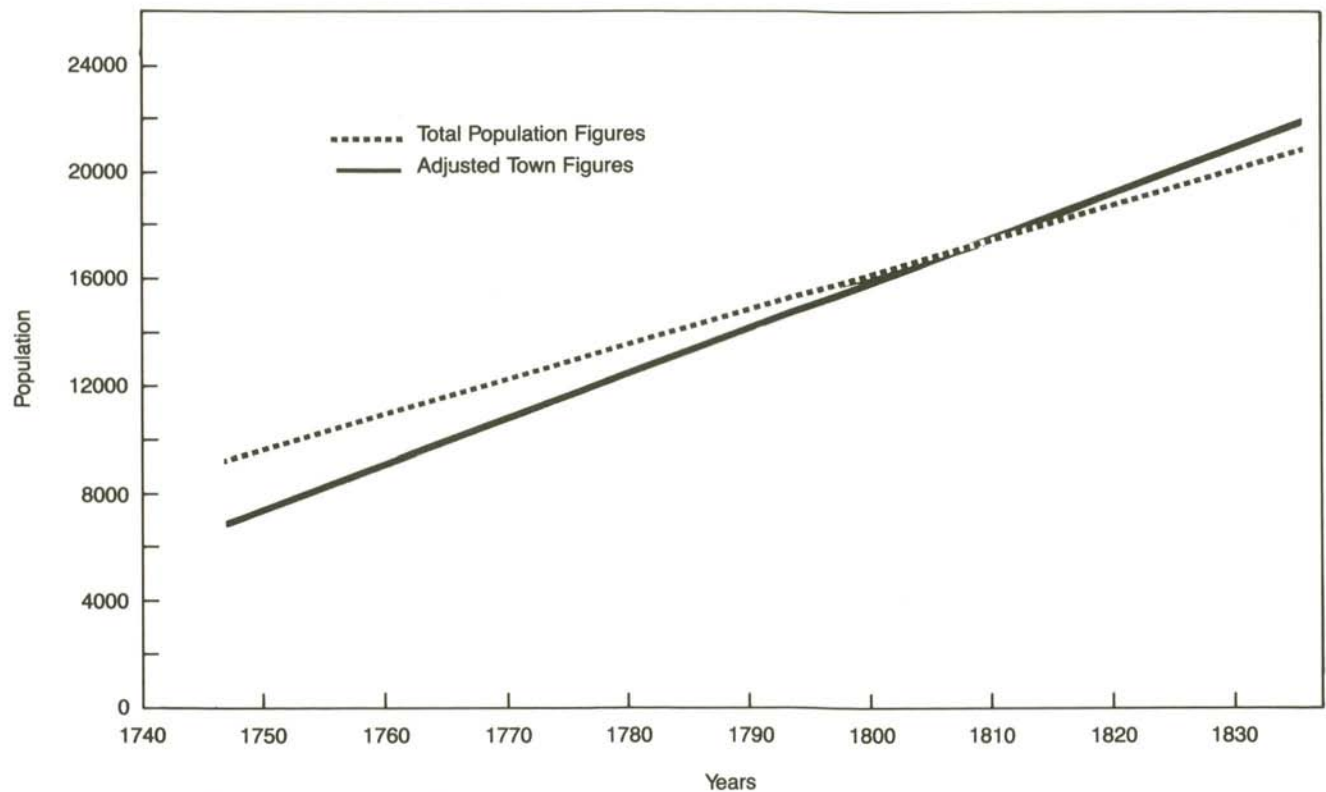


Figure 3: Total Population Figures (Swanton) vs. Reconstructed Town Figures

horn's estimate than that developed from the town-based data. Nevertheless, the difference between the two projections' relationships to the 1832 count, suggests that Schermerhorn underestimated the military strength of the Creek Nation or that his estimate reflects the situation after the War had already begun to take its toll.

Not all the Creeks fought against the Americans. Some tried to remain aloof from the hostilities and yet others actively aided the Americans; indeed, the Creek War has been described as a "civil war" by some historians (e.g., Debo 1941:79). Therefore, the estimated numbers of warriors is presumably greater than those who joined the "Red Stick" nativistic movement (cf. Nuñez 1958) inspired by Tecumseh of the Shawnees. In the end, the hostile Creeks were defeated by American troops with their Cherokee and "Friendly Creek" allies under the leadership of Andrew Jackson.

The Creek War itself appears to have had but a negligible effect on the overall population growth of the Creeks. As a matter of fact, the 1832 census total is greater than even our linear regression predicts. Likewise, despite the traumas and loss of life occasioned by the Removal (cf. Holátte Cypvkke 1975), during the two decades immediately following relocation to Indian Territory (Oklahoma) Creek population was even higher than in the 1832 census, according to official U.S. information (see Swanton 1922:443-45), discrepancies between various government sources notwithstanding. By the 1860s, however, the reported Creek population had fallen to less than 15,000 and never seems to have risen much above that number until well after the beginning of the twentieth century. In the U.S. census of 1970 there were an estimated 17,004 Creeks, including Alabama and Coushatta tribes (U.S. Bureau of the Census 1973:188),⁶ making the Creeks the tenth most populous tribal group in the contemporary United States—following the Iroquois at 21,473, and just ahead of the Papago/Pima at 16,690.

Even though the reported Creek population sizes for the later nineteenth and early twentieth centuries are considerably lower than that of the 1832 census, none are nearly so low as the nadir reached in the eighteenth century. The smallest post-Removal Creek population reported in Swanton is 6,945 in the U.S. Census of 1910, but Swanton (*Ibid.*:447) suspects this figure is for "full bloods" only;⁷ all of the other totals are 3,000 to 8,000 greater. Moreover, we suspect that Creeks were undercounted

after the Removal since some managed to remain east of the Mississippi River and their tribal affiliations may have gone unreported, even though individuals were recorded as "Indian" in later decennial United States censuses and other government documents, right up to the present. By the mid-twentieth century there were several thousand descendants of unre-moved Creeks in Alabama, Georgia and Florida who proved eligible to share with the Oklahoma Creeks in a land claim against the United States dating to grievances stemming from the Creek War (Paredes 1979:125-9, 1980:184-191).

In summary, our analysis of the available data indicates that the Creek Indian population reached a nadir of about 4,500 people between 1738 and 1760, followed by a two stage recovery to the present-day total of approximately 17,000 Creek Indians in the United States. First, there was a rapid increase between 1750 and 1832 with the Creek population reaching its apogee some time prior to 1860, followed by a secondary decline and leveling off in the later nineteenth century, then another period of population growth beginning in the early 1900s and continuing to the present. We can only guess, of course, at the details of what was happening between first European contact in the sixteenth century and the earliest years for which we have useable demographic data on the Creeks at the beginning of the eighteenth century.

Discussion and Interpretation

It might be argued that the apparent increase in Creek population shown in our analysis is simply an artifact of increasing accuracy of the demographic data up to the 1832 census. That is, the earlier the report, the more the population size was underestimated or undercounted. Conversely, it could be suggested that for political and military reasons there was a tendency for later observers to inflate population figures. As we noted earlier, however, there is documentary evidence that Creek Indians themselves complained of undercounting in the 1832 census. Moreover, there is a rather close convergence among the numbers given by several, presumably independent observers in the various decades of the eighteenth century. Finally, our projections to the relatively secure data-point provided by the 1832 census prove to be remarkably accurate, thus tending to

validated the general demographic trend we describe. Therefore, while freely admitting that the absolute validity of all these data is open to question to some degree or another, in the absence of evidence to the contrary we maintain that errors in reporting Creek population sizes are randomly distributed throughout the time period with which we are primarily concerned, rather than temporally biased. If we are correct, then the trend of an increasing Creek population during 1750 to 1832 is real rather than only apparent. In short, despite the monumental economic and political forces buffeting the Creek Indians during the late eighteenth and early nineteenth centuries, their numbers were actually increasing.

Given a predisposition to think of North American Indian population trends on a continental basis, evidence for a rapidly growing tribal population two hundred years ago may be difficult to accept. Discovery of such a divergence from the general pattern of depopulation is not without precedent. Both Charles Bishop (1978:225) and Louis Marano (1981:92-5) have found that at least some Northern Ojibwa bands in Canada showed dramatic population increases during the nineteenth century despite the harsh subarctic environment and the introduction of European diseases. To explain this counter-intuitive contradiction, Marano argues (*Ibid.*, 1982:397) that an economic shift from big game hunting to trapping of small fur-bearing animals increased the value of child labor and, hence, there was an increase in population. We are not prepared to proffer here an analogous economic argument for the increase in Creek population; nonetheless, given the changing character of Creek economic, military and political conditions prior to Removal, Marano's analysis offers a tantalizing lead to be pursued in further research.

For now we suggest that the most immediate possible explanations for the increase in Creek population were: (1) greater resistance and immunity to Old World diseases amongst the progeny of those who survived pre-1750 epidemics; (2) expansion of the Creek subsistence base brought about through the introduction of firearms, metal tools, exotic cultigens and livestock in the eighteenth century and earlier; and (3), for a while at least, growing strength of the Creek Confederacy as a peace-keeping body resulting from mutual self-interests in pursuit of the hide trade with the Whites. Not to be overlooked either is Creek demographic increase from "immigration" and incorporation rather than natural increase, as some formerly indepen-

dent groups of Alabama, Yuchi and others (cf. Swanton 1946:86-88, 214) became politically integrated into the Creek Nation and were counted in its population. Offsetting these incorporations, however, were the losses of Creek population through emigration as various elements of the Creek Nation moved into Florida. As early as the 1750s some Creeks were moving into Florida eventually to become the Seminoles, a politically independent group by about 1804 but continuing to receive emigrants from the Creek Nation proper well into the nineteenth century, especially after the Creek War when some of the defeated conservatives hostile to the United States fled into Spanish-held Florida to join the Seminoles (Sturtevant 1971:102-5).

In our interpretation of the data, it should be recognized that the significance of this study lies not so much with individual population figures but in the overall trends they described when examined *in toto* (cf. Glassner 1974:41). In the years immediately preceding the Creek War, the Creek Nation was one of the largest (perhaps *the* largest) and the most nearly truly autonomous political grouping of American Indians in the Southeast. As such, the Creeks were experiencing severe pressure for land cessions. White settlers surrounded them on three sides, and a large population of Choctaws blocked any further westward movement by the Creeks (Debo 1941:72-3). Elsewhere (Paredes and Plante 1975), we have suggested that in combination with increased environmental pressures resulting from disruptions of aboriginal subsistence patterns, a shift to "commercial hunting" for White trade, and the steady loss of lands occasioned by economic and political forces; a rather dramatic growth in Creek population exacerbated the other changes and served as an important catalyst for the Creek War and, thus, ultimately, the subjugation of the Creeks as a Nation.

In suggesting that a rapid increase in Native population may have been an important cause of the Creek War, our interpretation complements Thornton's (1981) analysis of the spread of the Ghost Dance among western tribes during the 1890s. Thornton presents evidence to show that population *decline* was an important factor related to whether or not a particular group participated in this nativistic revitalization movement of the late nineteenth century. It should be recalled that the Creek War was in part the outgrowth of Tecumseh's nativistic movement, further drawing the parallel with Thornton's analysis. Unlike the Ghost Dance in which for most tribes revitalization was to be

effected by mystical means alone, the Creek Red Stick movement had a strong militaristic focus. Interestingly, it was some of the *larger* Plains tribes, such as the Dakota ("Sioux"), that added an element of militarism to the spiritual message of the Ghost Dance of 1890. We might hypothesize in general, then, that if demographic variables are implicated in the spread of nativistic movements among aboriginal Peoples under stresses of White contact, militaristic movements will have more appeal for large and expanding populations whereas small groups undergoing population decline will be the most likely to embrace wholly mystical movements.

Returning to the case of the Creeks specifically, our proposal that population increase was a cause of the Creek War is supported by an inter-tribal comparison. Using comparable summary population data from Swanton's general work on Southeastern Indians (1946:114-5, 118-9, 123, 154), we modeled by linear regressions demographic trends of the four major Southeastern tribes between 1750 and 1835, as shown in Figure 4. Questions of the absolute accuracy of the original population data aside, this analysis shows that all these tribes were increasing in size during the period. The Cherokee, Choctaw and Creek were much larger than the Chickasaw and by 1830 closely matched in total population size. More important, of all the tribes the Creeks showed the sharpest rise in population, and only they made war on the Americans in the nineteenth century. Apart from the Cherokee's alliance with the British against the Americans during the late 1700s, the tribes other than the Creeks were rather peaceful in their eighteenth and nineteenth century dealings with the Americans, and none others suffered internal armed conflicts of the magnitude of the "civil war" among the Creeks. Critics might propose that the Seminoles were a small population, numbering only about 1,500 in the early 1800s (Swanton 1946:182), yet they fought bitterly against the Americans over several decades in the first half of the nineteenth century. In a very real sense, though, the Seminoles were the "spill-over" of an expanding Creek population, especially from some of the most militantly anti-American components of the Creek Nation; thus, the Seminole Wars strengthen rather than weaken our argument. In closing, however, we must be careful to acknowledge that we recognize that there might be no simple, direct causal link between general increase in the Creek population and some Creeks making armed attacks on the Americans. Fur-

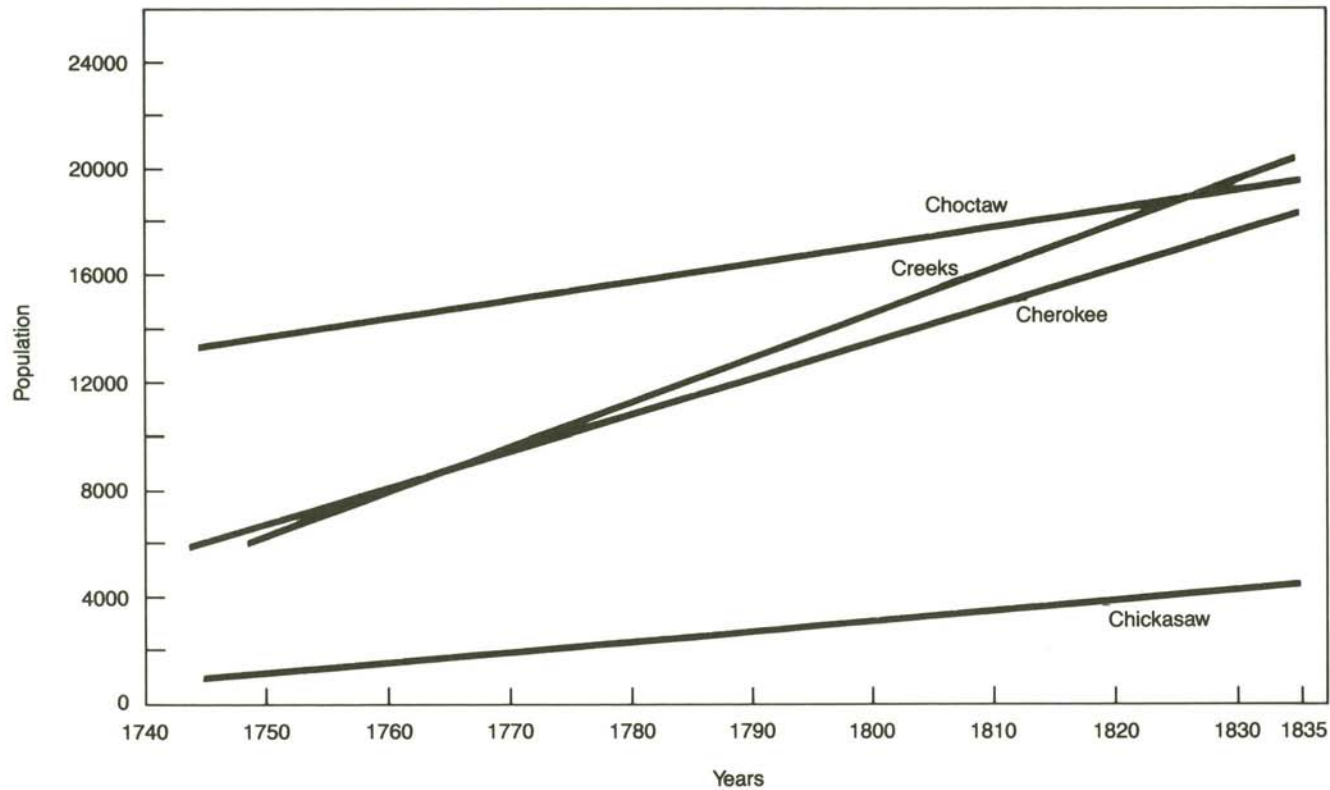


Figure 4: Population Trends of Major South Eastern Tribes, 1750-1835

ther detailed research is needed to determine what demographic variables, if any, might distinguish the "Red Sticks" from those Creek towns that on the whole sided with the Americans.

Conclusion

Problems in the absolute accuracy of any Creek population figure taken in isolation notwithstanding, the analysis presented here indicates clearly that far from being a "vanishing race" the Creek Indians of the latter eighteenth and early nineteenth centuries were rapidly increasing in numbers. Using rather simple statistical techniques it has been possible to delineate, with some precision, trends in historic Creek Indian population. The results underscore the importance of distinguishing between the demographic histories of particular North American tribes and Native population trends for the continent as a whole. Finally, as a general problem for ethnohistorical research, the Creek materials suggest that in some cases historic conflicts between Indians and Whites may have been the consequence not only of the territorial expansion of the White frontier but also the demographic expansion of the Indians themselves.

NOTES

1. We wish to acknowledge the Southeast Archeological Center of the National Park Service (located on the campus of Florida State University, Tallahassee, Florida) for support (NPS Contract CX500041689) of research upon which this article is based.

2. See, for example, J. J. Abert (1959), *Creek Chiefs* (1959b), and F. W. Pugh (1959).

3. Support for Swan's implied ratio of 4:1, for total population to warriors, is found in a 1780 population report on the neighboring Chickasaw Indians, as presented in Swanton (1946:119). Unlike most of the population reports given in Swanton, this Chickasaw report presents both warrior and total population numbers from the same observer. Purcell estimated the number of warriors as 575 and the total population as 2,290; the product of 4×575 is 2,300, whereas 3.5×575 is only 2,013.

4. Simple linear regression was used in this paper to estimate the Creek Indian population (variable y) at different points in time (variable x). Based on census figures for certain years, the population was estimated for other years. From these points a trend based on a straight line with an equation in the form of $y = a + bx$ was determined. Here a is the y intercept (that is, the

point where the regression line crosses the y axis) and b is the line's slope (that is, the change in x for any given change in y). The x intercept (the point where the regression line crosses the x axis) is determined by the formula $X = \frac{-a}{b}$. The line was drawn based on knowledge of these two points (the x and y intercepts).

5. Unfortunately, Jones provides no direct information on his sources for this assertion made nearly 140 years later. Swanton (1946:114, 118, 123), however, assembled population information on the major tribes, in addition to the Creeks, named by Jones, that tends to provide independent corroboration of Jones's statement. After multiplying "warriors" by 3.5, where necessary, and averaging estimates for years in which there are two or more numbers given, these data are as follows:

Tribe	Population	Year
Cherokee	10000-11500	1720
	20000	1729
	9065	1755
	8050	1761
	12395	1808-9
Chickasaw	1900	1715
	2800	1722-23
	1750	1739
	875	1747
	1977	ca. 1764
Choctaw	26250	1704
	28000	1725-26
	10500	1730
	56000 (?)	1738
	17500	1739
	14192	1750
	11375	1758
	15750	1764
	9100	1771
14493	1780	

6. We suspect that the number of Creeks in 1970 was probably actually greater, since in the same report the number for whom the tribal affiliation was "not reported" is given as 161,543, and, moreover, the information was developed from twenty percent sample data.

7. We think Swanton is correct in his suspicion, since the Indian Office figure for the same year is a total of 11,911, and in the preceding year (1909) the Indian Office tallied 6,816 "full bloods" and 5,091 "mixed bloods" (Swanton 1946:446-7). Although separate counts for "full bloods" and "mixed bloods" begin to be given only in the latter nineteenth century, since as early as the late eighteenth century mixed bloods were an important component of the Creek Nation. Indeed, during the Creek War some of the most famous leaders on *both* sides were of mixed Creek and White ancestry (cf. Debo 1941:79).

REFERENCES

- Abert, J. J.
 1959 Letter of March 4, 1834. Letters Received by the Office of Indian Affairs, 1824-81. National Archives Microfilm Publications, Microcopy No. 234. Roll 248:0725-0737. Washington, DC: The National Archives.
- Adair, James
 1775 *The History of the American Indians*. London: Edward and Charles Dilly.
- Bishop, Charles A.
 1978 "Cultural and Biological Adaptations to Deprivation: The Northern Ojibwa Case." In *Extinction and Survival in Human Populations*. C. D. Laughlin, Jr., and I. A. Brady, eds., pp. 208-230. New York: Columbia University Press.
- Cook, Sherburne F.
 1960 "Reconstruction of Extinct Populations." *Revista Mexicana de Estudios Antropológicos* 16:173-82.
- Creek Chiefs
 1959a Letter of September 17, 1834. Letters Received by the Office of Indian Affairs, 1824-81. National Archives Microfilm Publications, Microcopy No. 234. Roll 241:0609-0612. Washington, DC: The National Archives.
 1959b Letter of September 4, 1835. Letters Received by the Office of Indian Affairs, 1824-81. National Archives Microfilm Publications, Microcopy No. 234. Roll 242:0091-0098. Washington, DC: The National Archives.
- Debo, Angie
 1941 *The Road to Disappearance: A History of the Creek Indians*. Norman: University of Oklahoma Press.
- Dobyns, Henry F.
 1966 "Estimating Aboriginal American Population: An Appraisal of Techniques and a New Hemispheric Estimate." *Current Anthropology* 7:395-416.
 1976 *Native American Historical Demography: A Critical Bibliography*. Bloomington and London: Indiana University Press.
- Glassner, Martin I.
 1974 "Population Figures for Mandan Indians." *The Indian Historian* 7 (2):41-46.
- Hawkins, Benjamin
 1848 *A Sketch of the Creek Country, in the Years 1798 and 99*. Collections of the Georgia Historical Society, Vol. III, part 1. (Reprint Americus, Ga.: Americus Book Company, 1938.)
- Holátte Cypvkke (C. B. Clark)
 1975 "'Drove Off Like Dogs'—Creek Removal." In *Indians of the Lower South: Past and Present*. J. K. Mahon, ed., pp. 118-124. Proceedings of the Fifth Gulf Coast History and Humanities Conference. Pensacola, Florida: Pensacola Historic Preservation Board.
- Jones, Joseph
 1876 "Exploration of the Aboriginal Remains of Tennessee." *Smithsonian*

Contributions to Knowledge 22:1-145. Washington, DC: Smithsonian Institution.

Joralemon, Donald

1982 "New World Population and the Case of Disease." *Journal of Anthropological Research* 38:108-126.

Kroeber, A. L.

1939 *Cultural and Natural Areas of Native North America*. University of California Publications in American Archaeology and Ethnology 38:1-242.

Marano, Louis

1981 *Windigo Psychosis: The Anatomy of an Emic-Etic Confusion*. Ph.D. Dissertation. Department of Anthropology, University of Florida, Gainesville, Florida.

1982 *Windigo Psychosis: The Anatomy of an Emic-Etic Confusion*. *Current Anthropology* 23:385-397.

Meister, Cary W.

1978 "The Misleading Nature of Data in the Bureau of the Census Subject Report on 1970 American Indian Population." *The Indian Historian* 11 (4):12-19

1980 "Methods for Evaluating the Accuracy of Ethnohistorical Demographic Data on North American Indians: A Brief Assessment." *Ethnohistory* 27:153-168.

Mooney, James

1928 "The Aboriginal Population of America North of Mexico." Smithsonian Institution. *Miscellaneous Collection* 80:1-40.

Nuñez, Theron A., Jr.

1958 "Creek Nativism in the Creek War 1813-1814." *Ethnohistory* 5:1-47.

Paredes, J. Anthony

1979 "Back from Disappearance: The Alabama Creek Indian Community." In *Southeastern Indians Since the Removal Era*. W. Williams, ed., pp. 123-141. Athens: University of Georgia Press.

1980 "Kinship and Descent in the Ethnic Reassertion of the Eastern Creek Indians." In *The Versatility of Kinship*. L. S. Cordell and S. Beckerman, eds., pp. 165-194. New York: Academic Press.

Paredes, J. Anthony, and Kenneth J. Plante

1975 *Economics, Politics, and the Subjugation of the Creek Indians*. Final Report for National Park Service Contract CX500041689. Tallahassee, Florida: Southeast Archeological Center, National Park Service.

Parsons and Abbott

1963 *Census of Creek Indians, 1832*. National Archives Microfilm Publication T275. Washington, DC: The National Archives.

Pugh, F. W.

1959 Letter of January 24, 1834. Letters Received by the Office of Indian Affairs, 1824-81. National Archives Microfilm Publications, Microcopy No. 234. Roll 241:1025-1028. Washington, DC: The National Archives.

Sturtevant, William C.

1971 "Creek into Seminole." In *North American Indians in Historical Perspective*. E. B. Leacock and N. O. Lurie, eds., pp. 92-128. New York: Random House.

Swan, Caleb

- 1855 "Position and State of Manners and Arts in the Creek Nation, or Muscogee Nation in 1791." In *Information Respecting the History, Condition, and Prospects of the Indian Tribes of the United States, Part 5*. Henry R. Schoolcraft, ed., pp. 251-283. Philadelphia: J. B. Lippincott and Co.

Swanton, John R.

- 1922 "Early History of the Creek Indians and Their Neighbors." *Bureau of American Ethnology, Bulletin 73*. Washington, DC: Smithsonian Institution.
- 1946 "The Indians of the Southeastern United States." *Bureau of American Ethnology, Bulletin 137*. Washington, DC: Smithsonian Institution.

Thornton, Russell

- 1981 "Demographic Antecedents of a Revitalization Movement: Population Change, Population Size, and the 1890 Ghost Dance," *American Sociological Review* 46:88-96.

Thornton, Russell and Joan Marsh-Thornton

- 1981 "Estimating Prehistoric American Indian Population Size for United States Area: Implications of the Nineteenth Century Population Decline and Nadir." *American Journal of Physical Anthropology* 55:47-53.

U.S. Bureau of the Census

- 1973 *Census of Population: 1970, Subject Reports, Final Report PC(2)-1F: American Indians*. Washington, DC: U.S. Government Printing Office.
- 1981 *Census of Population: 1980, Supplementary Reports, PC80-S1-3, Race of the Population by States: 1980*. Washington, DC: Superintendent of Documents.