Counting the Dead: Estimating the Loss of Life in the Indigenous Holocaust, 1492-Present

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During the past century, researchers have learned a great deal about the nature and scope of what Russell Thornton has called the demographic collapse of the Indigenous population in the Western Hemisphere after 1492. As David Stannard has explained, the almost inconceivable number of deaths caused by the invasion and conquest of these lands by Europeans and their descendants constitute “the worst human holocaust the world had ever witnessed.” Scholars have long had reliable information on the size of the Indigenous population in this hemisphere and this country at its nadir around the turn of the twentieth century. And in recent decades, investigators have developed a range of estimates of the Native population in the Western Hemisphere before 1492. Researchers have also amassed considerable knowledge about the role of diseases, wars, genocidal violence, enslavement, forced relocations, the destruction of food sources, the devastation of ways of life, declining birth rates, and other factors in the Indigenous Holocaust. This paper draws on the work of Russell Thornton, David Stannard, and other scholars in attempting to count the dead—that is, in developing informed and reasonable, if very rough, estimates of the total loss of Indigenous lives caused by colonialism in the Western Hemisphere and in what is today the United States of America. Although this analysis is inevitably grim and saddening, there is much to be gained by understanding the most sustained loss of life in human history—both for people living today and for future generations.

At the turn of the twentieth century, the total number of Native inhabitants living in the entire Western Hemisphere had declined to 4-4.5 million. In 1800, only about 600,000 Indigenous people remained in the coterminous United States. By 1900, the Indigenous population in this country reached its lowest point of about 237,000 people. The size of the Indigenous population in the hemisphere and this country then began to grow again and has increased appreciably during the past century. Today about 70 million Indigenous people live in the Western Hemisphere. There are now approximately 7.25 million American Indians, Alaska Natives, and Native Hawaiians in the U.S. In view of the historically unprecedented and unspeakably tragic depopulation that unfolded after 1492, the survival of Indigenous people is truly extraordinary. However, even today the legacy of invasion, conquest, and colonialism continues to exact a terrible human toll.

Serious scholarly investigations into the size of the Indigenous population in the Western Hemisphere before 1492 began early in the twentieth century. In 1924, Paul Rivet estimated that between 40 and 50 million people lived in the hemisphere before the
Indigenous Holocaust began. That same year, Karl Sapper also estimated the Indigenous population in the hemisphere to be between 40 and 50 million. Both Rivet and Sapper later revised their estimates downward to about 15.5 million and 31 million respectively. In 1939, Alfred Kroeber developed a much lower estimate of only 8.4 million for the entire hemisphere. In 1964, Woodrow Borah announced a much larger estimate of “upwards of 100 million” Native inhabitants. Two years later, Henry Dobyns estimated the Indigenous population of the hemisphere to be between 90 million and 112.5 million. In 1976, William Denevan estimated the Indigenous population at between 43 and 72 million, the mid-point of which is more than 57 million. In 1987, Thornton provided an estimate of about 75 million. The following year, Dobyns revised his estimate significantly upward to 145 million. In 1992, Stannard estimated the original population of the hemisphere at about 100 million.

Researchers have also developed various estimates for the pre-1492 population of the lands that today make up the coterminous United States. In 1910, James Mooney estimated this population at about 846,000. He later revised his estimate to more than 879,000. In 1939, Kroeber suggested that this population was only about 720,000 before the Europeans arrived. In 1976, Douglas Ubelaker estimated that the original population of the coterminous United States was more than 1.85 million. In 1981, Thornton and his co-author Joan Marsh-Thornton developed an estimate of 1.845 million, which was very close to Ubelaker’s. As Thornton later explained, this estimate was based on the assumption that the pattern of depopulation between 1492 in 1800 had been linear, i.e. “in a straight line.” But further research convinced him that the demographic collapse of the Indigenous population in the present-day coterminous U.S. was “a more severe downward curve.” Thornton revised his earlier finding and concluded that this population numbered more than 5 million in 1492. And he estimated that another 2 million Native people lived in what is today Canada, Alaska, and Greenland at that time. In 1992, Stannard estimated that between 8 and 12 million Indigenous people lived in North America north of present-day Mexico. In 2014, Roxanne Dunbar-Ortiz suggested that about 15 million Indigenous people lived in what became the continental U.S.

Scholarly differences regarding the size of the original Indigenous population in this hemisphere and this country persist today, and it cannot be said that a consensus on this subject has been reached. As Thornton has explained, “We do not know exactly how many American Indians were in the Western Hemisphere, or even parts of it, when Columbus came.” Nonetheless, Thornton has emphasized that, “It is possible, however, to arrive at a reasonable estimate of the American Indian population at that time.” How can this be done? In view of the widely divergent estimates developed by various experts in the field, how can other researchers and concerned individuals know which numbers are most reasonable and most likely to be accurate?

Even the most well-informed and most reasonable estimate of a population separated from contemporary inquiry by more than half a millennium is inevitably a very general approximation at best. Thornton’s own painstaking and evolving demographic research during the past three and one-half decades arguably provides the best example of this kind of inquiry and research. Thornton has challenged Moody’s very low estimate of
the Indigenous population in what is today the continental United States because it assumed no early significant Indigenous-European contact or early catastrophic Indigenous population loss because of European and/or African diseases. In contrast, Thornton has pointed out that there were disastrous epidemics and population losses during the first half of the sixteenth century “resulting from incidental contact, or even without direct contact, as disease spread from one American Indian tribe to another.” Thornton has also challenged Dobyns’ much higher Indigenous population estimates, which are based on the Malthusian assumption that “populations tend to increase to, and beyond, the limits of the food available to them at any particular level of technology.” As Thornton has explained, “human populations do not necessarily expand to the numerical limits their technologies and natural resources allow.” Thornton has also cited contemporary research which “indicates no relationship between population size and carrying capacity of their environments” for Indigenous populations in what is today the United States.

Thornton’s estimate that about 75 million Indigenous people lived in the Western Hemisphere in 1492 and his estimate that more than 5 million lived in what later became the continental U.S. are arguably the most methodologically circumspect and reliable current appraisals for researchers in this field. As James Wilson has suggested, Thornton’s estimate of a total of more than 7 million Indigenous people north of Mexico is probably “the nearest to a generally accepted figure,” and “a figure for the Western Hemisphere as whole of 75 to 100 million” is not unreasonable. Future research may disclose an even larger Indigenous population, but Thornton’s carefully considered, mid-range estimates provide a vital starting point for the development of informed and reasonable, if very rough, estimates of the total loss of life in the Indigenous Holocaust.

The work of Thornton, Stannard, and other scholars has also been very important in fostering greater understanding of the various interrelated specific causes of this demographic collapse. This research provides a powerful refutation of the efforts of Gunter Lowy, Michael Medved, and other commentators to minimize the responsibility of European invaders and their descendants for the Indigenous Holocaust. Such efforts have usually involved narrowly focusing attention on the significance of diseases brought by Europeans and their African slaves in the decimation of the Indigenous people, and denying the invaders’ genocidal intentions. In contrast, Stannard has written,

It is true, in a plainly quantitative sense of body counting, that the barrage of disease unleashed by the Europeans among the so-called “virgin soil” populations of the Americas caused more deaths than any other single force of destruction. However, by focusing almost entirely on disease, by displacing responsibility for the mass killing onto an army of invading microbes, contemporary authors increasingly have created the impression that the eradication of those tens of millions of people was inadvertent—a sad, but both inevitable and “unintended consequence” of human migration and progress… In fact, however, the near-total destruction of the Western Hemisphere’s native people was neither inadvertent nor inevitable.
Stannard has insisted that “microbial pestilence” and “purposeful genocide” at times operated independently after 1492 but more often “disease and genocide were interdependent forces acting dynamically” and it was their interrelated, combined impact that led to the deaths of so many Indigenous people.35

Like Stannard, Thornton has recognized that European and African diseases were the most important cause of the catastrophic “demographic collapse” of the Indigenous population in what is today the United States. Smallpox, typhus, and measles were probably the deadliest diseases for Indigenous people, and Thornton has cited Dobyns’ estimate that a “serious contagious disease causing significant mortality invaded Native American peoples at intervals of four years and two and a half months, on the average, from 1520 to 1900.”36 But Thornton has insisted on the importance of other vital factors, as well.37 In his view,

Native American populations were probably reduced not only by the direct and indirect effects of disease but also by direct and indirect effects of wars and genocide, enslavements, removals and relocations, and changes in American Indian societies, cultures, and subsistence patterns accompanying European colonialism.38

Following Clark Spencer Larsen, Thornton has noted that population relocation, forced labor, dietary change, and other harms done to Indigenous people “were destructive in and of themselves in complex ways and often operated with disease to reduce American Indian populations.”39 And Thornton has pointed to Cary Meister’s conclusion that “later population decline resulting from disease was made possible because Indians have been driven from their land and robbed of their other resources.”40

Thornton, Stannard, and other analysts have emphasized the significance of wars and genocide in the Indigenous Holocaust. Thornton has cited the early Spanish conquistadore- turned-priest Bartolome de Las Casas’ estimate that between three and four million Native people originally lived on the island that came to be known as Hispaniola.41 Within a few decades of the European invasion, most of them had died as the result of wars, genocide, enslavement, disease, and related factors.42 Wars and genocide, combined with “firestorms of disease” and related factors, led to perhaps 40 million deaths in present-day Mexico, Central America, Peru, and Chile by the late 1560s.43 In the centuries that followed, both Spanish colonial authorities and newly independent states throughout the Americas continued to wage war against Indigenous people and engage in genocidal violence. Some of the major conflicts in South America included the Arauco War in present-day Chile; the Guarani War in Brazil, Paraguay, and Argentina; the Rebellion of Tupac Amaru in Peru; the “Pacification” of Araucania in Chile; and the Conquest of the Desert in Argentina.44 Thornton has pointed out that hundreds of thousands of Indigenous people perished during wars with the Europeans and their descendants in what is now the United States.45 He has also noted that when the Indigenous lives lost to “blatant genocide” in California, Texas, and other areas are added to the toll from official wars, the total number of violent deaths is certainly much higher.46
In addition to the deadly impact of diseases, wars, and genocide, Thornton has emphasized that many Indigenous nations in what is today the United States were “removed, relocated, dispersed, concentrated, or forced to migrate at least once after contact with Europeans or Americans.” And he has observed that the forced removal of over 100,000 Indigenous people to areas west of the Mississippi River during the first half of the nineteenth century directly resulted in significant loss of life. Moreover, such removals and relocations destroyed Indigenous people’s ways of life, which resulted in substantial additional loss of life. Other devastating assaults on these ways of life included

the Spanish missions in California, Florida, and Texas; the U.S. government’s attempts to make Plains Indians into cattle ranchers and southern Indians into American farmers…efforts by churches and governments to undermine Indian religious, governmental, and kinship systems… the often-deliberate destructions of flora and fauna that American Indians used for food and other purposes… the near extinction of the buffalo…

Widespread starvation and malnutrition, the deleterious effects of forced labor, alcoholism, demoralization and despair, declining fertility, and other factors also contributed to the Indigenous Holocaust.

As remarked earlier, the demographic collapse of the Indigenous population in the Western Hemisphere and in the United States ended at the beginning of the twentieth century, but the cumulative human costs of invasion, conquest, and colonialism by Europeans and their descendants have continued to grow. Governments in Mexico, Guatemala, Brazil, Peru, and other Latin American countries have continued to murder Indigenous activists and other Indigenous people. In comparison, the level of violence has been lower in the U.S., but the federal government and vigilantes have killed Native people intermittently since 1900. Indigenous people living in the U.S. have also died in wars abroad and continue to be murdered by police at a higher rate than any other demographic group. Moreover, highly disproportionate levels of extreme poverty, unemployment, poor housing, preventable diseases, poor health care, drug abuse, and suicide have continued to plague Indigenous populations throughout the Western Hemisphere, including in the United States. Not surprisingly, research in the past three decades has confirmed significant numbers of excess deaths in the U.S. Indigenous population.

How many Indigenous people have died in the Holocaust in the Western Hemisphere between 1492 and the present? The exact numbers of Native people who died because of invasion, conquest, and colonization during the past five and one-quarter centuries can never be known. But today it is possible to at least approximately count the dead, that is, to develop informed and reasonable, if very rough, estimates of the total loss of Indigenous lives in this hemisphere and this country. We have Thornton’s carefully considered estimate of the size of the Indigenous population before the Europeans arrived. We have considerable information on the interrelated specific causes of the
demographic collapse. We have a reliable estimate of the size of the Indigenous population at its nadir at the beginning of the twentieth century. And, along with this information, we can apply an important demographic insight articulated by Thornton as we work through these inevitably grim and saddening computations.

Stannard has estimated that almost 100 million Indigenous people in the Western Hemisphere have been killed or died prematurely because of the Europeans and their descendants during the past five centuries. Stannard reached this conclusion by estimating the original Native population at approximately 100 million and by noting that this number had fallen about 95% by the beginning of the twentieth century. Ward Churchill has estimated the total of Indigenous deaths to be somewhat greater than 100 million.

As staggering as these numbers are, Thornton’s research provides a compelling reason to believe that the human costs of the Indigenous Holocaust were much greater. As noted above, Thornton developed a smaller estimate of about 75 million Indigenous inhabitants of the Western Hemisphere in 1492, and this population declined to less than 5 million by 1900. These numbers would appear to indicate that the loss of life was around 70 million for the hemisphere. Also, as previously remarked, Thornton estimated that the Indigenous population of the present-day coterminous United States was more than 5 million in 1492 and only about 250,000 in 1900. These numbers would appear to indicate that the loss of life was around 5 million here. However, it is at this point in the computation of Indigenous deaths in the present-day coterminous United States that Thornton has raised a vital issue. He has explained:

Such a population decline implies not only that some 5 million American Indians died during the 400 years but also that, in fact, many times the approximate figure of 5 million died, as new but ever numerically small generations of American Indians were born, lived, and died.

This important demographic insight is essential for developing a more comprehensive and reliable quantitative assessment of the lives lost in the Indigenous Holocaust. However, Thornton’s books and articles have not estimated the total number of Indigenous deaths in this country or in the hemisphere. In 2015, this researcher contacted Thornton to ask about these demographic issues. In the ensuing email exchange, Thornton indicated that his own rough estimate is that about 12 million Indigenous people died in what is today the coterminous United States between 1492 and 1900. This number of deaths is almost 2.5 times the estimated decline in the Indigenous population during this time. Of course, an estimate of the total number of Indigenous people who died in the entire present-day U.S. must also include the loss of life in Hawaii, Alaska, and in Puerto Rico.

The work of David A. Swanson has indicated that the Native population of Hawaii declined from about 683,000 Indigenous people after British explorer James Cook’s arrival in 1778 to about 24,000 in 1920, a loss of approximately 659,000 lives. Swanson believes it is not possible to calculate the total number of lives cut short there since 1778, so the figure of 659,000 must suffice for our computations. Mooney’s estimate of about 72,600 Indigenous people living in Alaska in 1492 may have been very low, but his estimate of
only about 28,300 remaining there around 1900 is arguably fairly accurate. If a multiplier of 2.5 is applied to this decline of about 44,300, the total number of Indigenous deaths in Alaska caused by colonialism since 1492 would appear to be about 110,750. In present-day Puerto Rico, the Taíno (Arawak) population numbered at least 20,000 in 1492 but was almost eliminated within decades, so there is no need to employ a multiplier for this area. In sum, it can be estimated that approximately 790,000 Indigenous deaths occurred because of colonialism in Hawaii, Alaska, in Puerto Rico.

The deaths of Native people that have occurred in the U.S. since 1900 because of the legacy of colonialism and contemporary institutionalized racism must also be counted. The total number of Indigenous deaths resulting from wars, repression, and racist violence since 1900 may exceed 2500. A far greater number of deaths have been caused by the harsh economic and health conditions experienced by many Indigenous people. The dearth of statistical information on Indigenous births, deaths, and mortality for much of the twentieth century makes it impossible to precisely estimate the total number of excess deaths. But an estimate of about 200,000 total Indigenous deaths attributable to the legacy of colonialism and institutionalized racism since 1900 may be conservative.

In sum, for the entire present-day United States from 1492 to the present, the total number of Indigenous deaths includes the 12 million estimated by Thornton; the additional approximately 790,000 deaths that occurred in Hawaii, Alaska, in Puerto Rico; and about 200,000 excess deaths since 1900. Thus, the Indigenous Holocaust in this country appears to have taken around 13 million lives. Signally, this horrific number of deaths was only a very small portion of the mind-numbing Holocaust throughout the Western Hemisphere. When Thornton’s estimated hemispheric population decline of 70 million is multiplied by 2.5, the total number of Indigenous deaths throughout the Western Hemisphere between 1492 and 1900 appears to be about 175 million. And the number of Indigenous people who have died in the hemisphere because of war, repression, racism, and harsh conditions of life since 1900 surely runs into the millions.

By any reckoning, the Indigenous Holocaust in the Western Hemisphere was, as Stannard has pointed out, “the worst human holocaust the world had ever witnessed.” No words or numbers can adequately convey the scale of the horror and tragedy involved in the greatest sustained loss of human life in history. Still, it seems to this researcher that understanding the scope and dimensions of the Indigenous Holocaust is an important first step toward collective political action which addresses the needs, interests, and aspirations of Indigenous people today—and which ensures that such a holocaust will never happen again.

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1 Russell Thornton, *American Indian Holocaust and Survival: A Population History since 1492*, (Norman: University of Oklahoma Press, 1987). Other scholars have used this expression, as well.
3 Although Stannard called this historically unprecedented tragedy the American Holocaust, I prefer to call it the Indigenous Holocaust because it was Indigenous people who were almost wiped out, and they did not call themselves Americans.
4 Thornton, p. 42.
5 Ibid., pp. 43, 90.
8 The Census Bureau reports about 6.7 American Indians and Alaska Natives, of whom 2.7 indicate they have multiracial ancestry. See U.S. Census Bureau, “Facts for Features: American Indian and Alaska Native Heritage Month: November 2017,” (October 6, 2017), https://www.census.gov/newsroom/facts-for-features/2017/aiann-month.html. As Thornton has remarked regarding recent censuses, part of the increase in the number of people identifying as American Indians and Alaska Natives derives from the Census Bureau’s reliance on self-identification since 1960, and part of the increase derives from “changing racial definitions from one census to another.” See Thornton, “Population of Native North Americans,” pp. 31-32. In addition, today there are about 560,000 Native Hawaiians, of whom 62% indicate they have multiracial ancestry. See Sara Kehaulani Goo, “After 200 Years, Native Hawaiians Make a Comeback,” Pew Research Center, Fact Tank, (April 6, 2015), http://www.pewresearch.org/fact-tank/2015/04/06/native-hawaiian-population/.
16 Thornton, American Indian Holocaust and Survival, pp. 25, 42.
18 Stannard, pp. 11, 151, 268.
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23 Thornton, American Indian Holocaust and Survival, pp. 29-32, 43.

24 Ibid., pp. 32, 42.

25 Stannard, p. 11.

26 Thornton, American Indian Holocaust and Survival, p. 15.

27 Ibid.

28 Ibid., p. 28.

29 Ibid., p. 30.

30 Ibid., pp. 30-31.

31 Ibid., p. 31.


34 Stannard, p. xii.

35 Ibid.


41 Thornton, American Indian Holocaust and Survival, p.16.

42 Stannard, p. x. Stannard estimates the population of Hispaniola at about eight million, but even if Las Casas’ lower estimate was correct, the scale of the tragedy is staggering.

43 This was the estimate of Las Casas. William Denevan, “The Pristine Myth: The Landscape of the Americas in 1492,” Canadian Environmental History: Essential Readings, ed. David Freeland Duke, (Toronto: Canadian Scholars Press, 2006), p.94. See also Stannard, pp. 81-87.


45 Thornton, American Indian Holocaust and Survival, p. 49.

46 Ibid.

47 Ibid., pp. 50-51. See also pp. 51, 113-122.

48 Ibid.

49 Ibid., pp. 51-54, 123-131.

50 Ibid., p. 51.

The concept of excess deaths was popularized by the U.S. Health and Human Services Department, Report of the Secretary’s Task Force on Black and Minority Health, Vol. 1, (Washington, D.C.: Government Printing Office, 1985), pp. 62-85. The Report defined excess deaths as “the difference between the number of deaths actually observed in a minority group and the number of deaths that would have occurred in that group if it experienced the same death rates for each age and sex as the white population.” p. 63. The Report found that 25% of the annual Native American and Alaska Native deaths before the age of 70 in the U.S. were excess deaths in 1979-1981. This equated to 1653 excess Indigenous deaths during each of those years, pp. 79-80. This rate of excess deaths was likely much lower than before the 1950s and 1960s, when some improvement in Indigenous people’s health began. However, some of this improvement has been reversed in recent decades, and in 1999-2009 almost 50% of Indigenous deaths were excess deaths. See “American Indian and Alaska Native Death Rates Nearly 50% Greater Than Those of Non-Hispanic Whites,” Centers for Disease Control and Prevention, (April 22, 2014), http://www.cdc.gov/media/releases/2014/p0422/cdc-hispanicwhites.html.

Stannard, p. 151.


Thornton, American Indian Holocaust and Survival, p. 43.

Russell Thornton, Personal Communication with the Author, (December 4, 2015).


David A. Swanson, Personal Communication with the Author, (March 27, 2016).

Thornton has confirmed that a 2.5 multiplier can be used for calculating the total number of Indigenous deaths attributable to colonialism. Thornton, Personal Communication with the Author, (December 6, 2015).


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Stannard, p. 151.
Scores more died in the murders of the Osage people in Oklahoma in the 1920s and the political repression of the 1970s. See Grann; and Parenti, p. 127. Hansen notes that about 22 Indigenous people were killed by police in 2016. A conservative “ballpark” estimate of ten Indigenous deaths at the hands of police each year since 1900 suggests about 1200 deaths. The total number of Indigenous deaths from war, racist violence, and repression appears to be more than 2500.  

66 The limited statistical information on Indigenous births, deaths, and mortality for much of the twentieth century is discussed in Nancy Shoemaker, *America Indian Population Recovery in the Twentieth Century*, (Albuquerque: University of New Mexico Press, 1999), p. 8. However, even a conservative “ballpark” estimate of approximately 1600 annual excess deaths, a smaller number than reported in 1979-1981, would indicate a loss of approximately 189,000 lives since 1900. In addition, the U.S. Census Bureau reported a decline of about 21,000 in the Indigenous population between 1910 and 1920, likely in part the result of the 1918-1919 influenza pandemic. See Shoemaker, p. 4. If half of this 21,000 population decline and the more than 2500 violent deaths noted above are added to the estimate of excess deaths, a rough total estimate of Indigenous deaths attributable to the legacy of colonialism and institutionalized racism since 1900 exceeds 200,000.  

67 Thornton has confirmed that a 2.5 multiplier is appropriate for estimating the total loss of Indigenous life in the Western Hemisphere between 1492 and 1900. Personal Communication with the Author, (December 6, 2015).  

68 At least several hundred thousand Indigenous people have suffered violent deaths in countries south of the U.S. since 1900. See Stannard, pp. xiii-xiv; Barbara; Saenz; and Green and Branford, p. 164. In addition, the number of excess Indigenous deaths in Central America and South America since 1900 is likely significantly larger than in the U.S.