SENIOR HONORS THESIS

To Mislead and Misrepresent

The Failure of the Ninth Census

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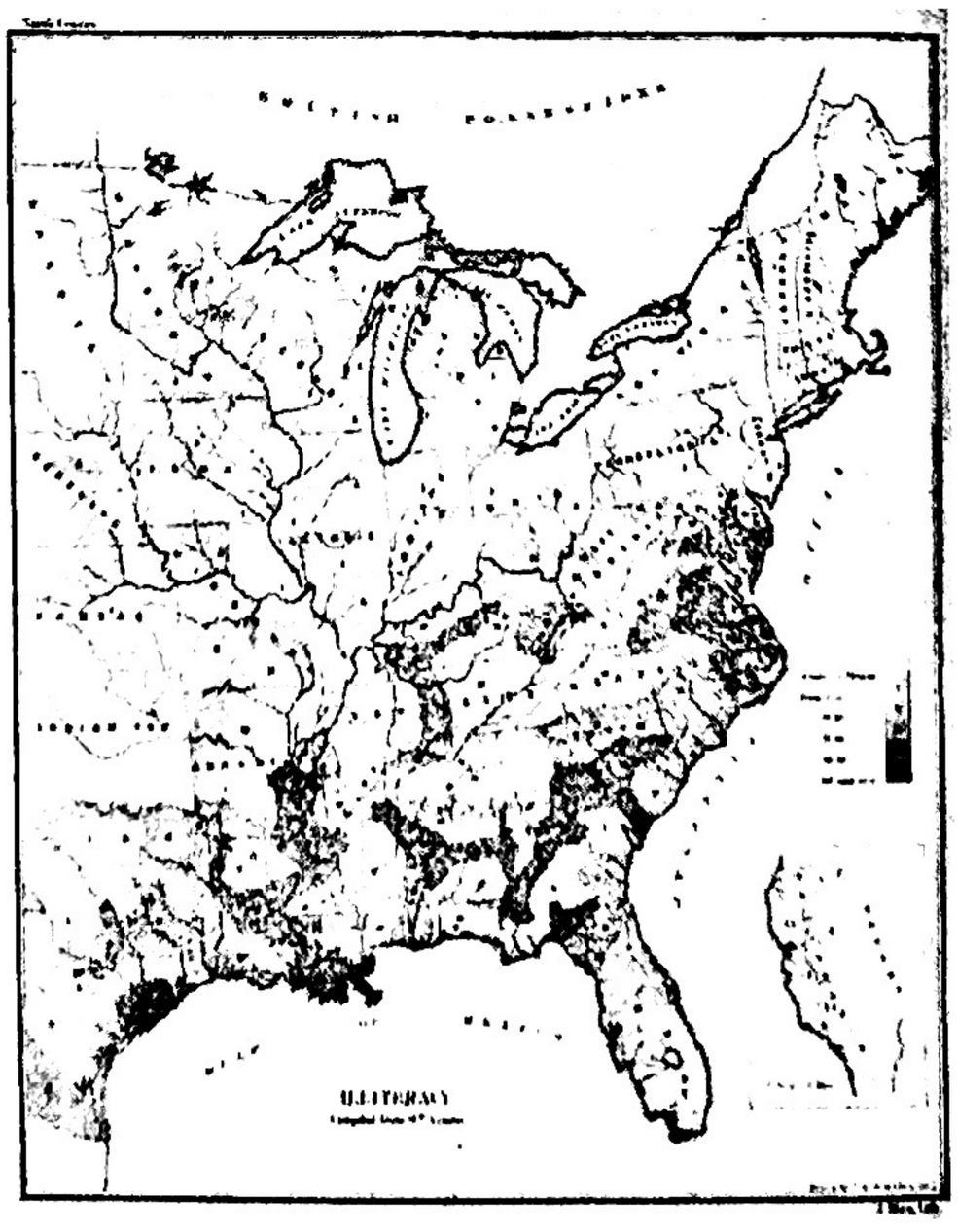

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Cover Image: Map of illiteracy in the eastern United States. US Census Bureau, *Ninth Census: Volume 3*. (Washington, D.C: GPO, 1872)

Contents

Introduction:

Perhaps one of the most fundamental tools of western civilization is the census. From the Romans to modern times the census has provided governments the ability to understand their domain. Just as important in peace as it is in war, the census is the window nations look through in order to make decisions that can affect continents. The United States is no different in that regard. The first American census was conducted during George Washington's first term of office in 1790. It has continued uninterrupted every ten years to the modern day, with the upcoming twenty-fourth census happening in 2020. In theory the census has recorded the presence of almost every American that has ever lived or died.

We now live in a time where information exists in ludicrous excess, and we are only just beginning to understand the implications of technologies that enable digital archiving and tracking. For most of America's history however, the opposite was the case. During the nineteenth century transporting data required a shipping label, not a cable (the rare telegraph excluded). And for the American government, the census represented the most powerful tool they could bring to bear to understand their nation. Every ten years they could craft a set of mandatory questions tailored to answering whatever they considered important enough to investigate. But what happens when the information gathered is wrong?

The 1870 census, ninth of its kind, is known as one of the least successful censuses in American history. Taken only five years after the end of the Civil War, the census was the United States' opportunity to reevaluate the newly reformed union. But, poor administration combined with the chaos immediately following the Civil War resulted in returns that the Superintendent of the Census Francis Amasa Walker stated could only "mislead the reader

and misrepresent the country."[1] This failure catalyzed many changes in the taking of later censuses, and ultimately may have had a positive effect on the gathering of American statistics in the long run.

Fundamentally I am conducting examination of the factors that led to the ninth census being inaccurate, the impacts of that inaccuracy, and how those impacts caused changes that can be observed in the 1880 census. Thus this paper is broken into four sections. First, the events leading up to the 1870 census, with a particular focus on the US marshal service and contemporary statistical practices. Second, understanding the conduct of the 1870 census, and details concerning what failed and why. The third section discusses the ten years between the 1870 and 1880 census, with a focus on the impacts of an inaccurate census. The final section discusses the 1880 census and how it was shaped by the failure of 1870 and the decade between them. So we being with a question fundamental to understanding the subject:

What is the census and how is it made?

Chapter 1: The 1870 Census

Who Conducts the Census?

Every decade since 1790 the Federal Government has conducted a census. The focus of this thesis is centered on the 1870 census, the ninth census conducted by the Federal government. At that time there was no permanent census office, which meant each individual census was independently commissioned and funded by Congress. Each had a unique set of questions it was to ask of the population (adjusted for each decade), referred to as the Schedule.

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[1] US Census Bureau, *Compendium of the tenth census (June 1, 1880)*, (Washington DC: GPO, 1882), 93

The 1870 Census took its organizational structure from a bill passed on May 23, 1850. It placed the duties of the census under the Department of the Interior, with its Superintendent to be chosen by the Secretary of the Interior.[2] For the ninth census Secretary Jacob Cox selected prominent statistician Francis Amasa Walker to act as Superintendent.[3]

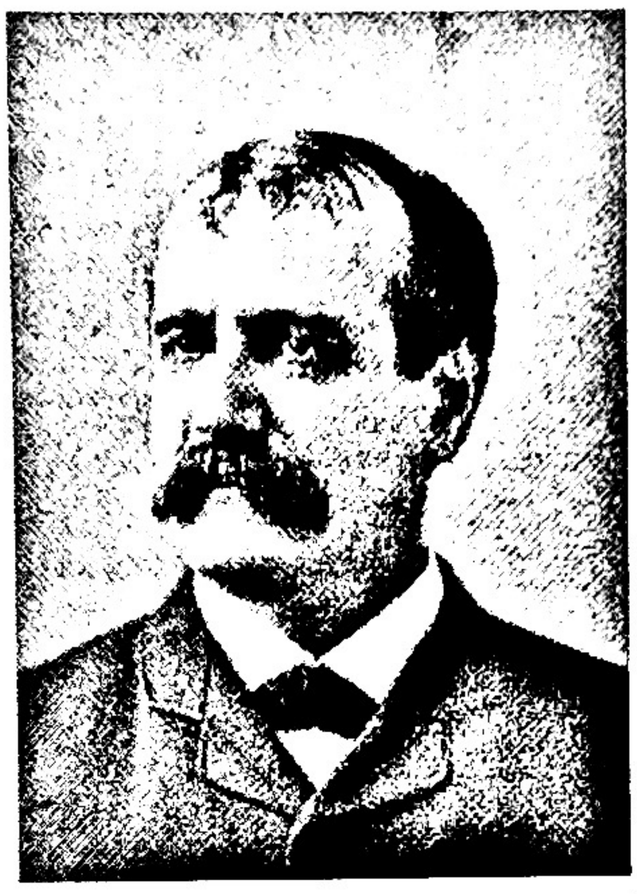

Figure 1. *Francis Amasa Walker*[4]

The people physically conducting the census consisted of assistant marshals, workers hired specifically for this task by local Federal marshals of the US marshal service. These assistant marshals acted as the enumerators of the census. An enumerator simply is the person that gathers the information for a census. Unlike deputy marshals, assistant marshals had no legal authority beyond the census. Typically, the head marshal would give each assistant a set region to enumerate (to question) and give them a deadline to finish the job.

The means by which information was gathered was fairly simple. Each assistant would travel door-to-door to collect the census information personally; there they would ask each household for information about their personal information, and information about their businesses, farms,

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[2]"Providing for the 7th Census," May 23, 1850, S. Doc. 76, Part 2 Section 19, 31st Cong., 1st Sess.
[3]Francis Walker, *Instructions to assistant marshals.* Washington, D.C.: US GPO, May 1, 1870. 4
[4] "Francis Amasa Walker," *MIT History,* https://libraries.mit.edu/mithistory/institute/offices/office-of-the-mit-president/francis-amasa-walker-1840-1897/ (Accessed 11/28/2018)

and health when relevant. Broader social statistics, like the number of churches or libraries in a given region, were to be gathered by using public documentation whenever possible.[5] This information could be gathered either by assistant marshals doing local research, or more powerful deputy marshals making formal requests from towns and cities. Completed information was to be mailed to the central census office where the information would be compiled and tabulated under the supervision of the Superintendent.

Census Schedules and Questions

The five Schedules of the 1870 census indicate what the Federal government wanted to know about the population, a Schedule being a set of questions asked by an enumerator. The 1870 census was broken up into five separate Schedules, asking questions about the nation's Inhabitants, Mortality, Agriculture, Industry, and Social Statistics respectively.[6]

The first Schedule was the one everyone in the nation was meant to fill out, and contained twenty questions that asked about the physical and social characteristics of every individual in the country. An exception to this was from "Indians not Taxed."[7] However, the Superintendent noted that "it [was] highly desirable, for statistical purposes, that the number of such persons [Native Americans] not living upon Reservations should be known"[8] and if possible should have their information recorded on a separate document.

The final question of the first Schedule gives a glimmer of why the ninth census was considered to be a failure. Question twenty of the census asked if an individual, given that they were a male over the age of twenty-one, had their right to vote "denied or abridged on grounds other than "rebellion or crime."[9] This was a clear indication that the Federal government was

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[5] Ibid., 27
[6] Ibid., 3
[7] Ibid., 6
[8] Ibid., 12

concerned about voting rights in the country. Interestingly, Superintendent Walker makes it very clear that this question was not asking about racial discrimination in voting. Walker specified that with the passing of the Fifteenth Amendment, which banned racial discrimination in all voting laws, any active "State laws not repealed" that banned African Americans from voting were to be considered "an act of violence" and "does not come within the view of the Marshals…in respect to the Census."[10] What this means is that if an enumerator discovered that someone was barred from voting because of their race, that fact was *not* to be recorded. While the specific impacts of this questions being worded this way will be discussed later, the results of this question likely resulted in a major undercount of the disenfranchised population in the United States.[11]

Schedule two of the census asked about every death recorded in the year prior to June 1, 1870. Assistant marshals were instructed to be as accurate as they could about the cause of death, specifically noting that 'old age' was not an appropriate response.[12]

Schedules three and four ask about American agricultural and industrial production. Namely, what was each business in America producing, and how much. Enumerators also asked how much land each farm used relative to their production, so as to calculate agricultural yield (how much land was needed to produce the grown products). Also, industrial producers were asked the number of steam engines and waterwheels used, as well as the numbers of men and women over the age of 15 employed.

Schedule five asked about Social Statistics that any given individual may not know. These questions included statistics on schools, newspapers, churches, and libraries of a region. It also

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[9] US Census Bureau, *Ninth Census: Volume 1.* (Washington, D.C: GPO, 1872), 105
[10] Francis Walker, *Instructions to assistant marshals. (*Washington, D.C: US GPO, May 1, 1870). 12
[11] Margo Anderson. *The American Census: A Social History.* 2015. 83
[12] Francis Walker, *Instructions to assistant marshals. (*Washington, D.C., US GPO, May 1, 1870). 17

included questions on the total number of "Pauperism and Crime,"[13] the results of which were broken up by race.

It is important to understand how the census was physically conducted in order to understand what flaws existed within the census, which will be discussed in greater detail later, it also allows for a greater understanding of how the census was experienced by most of the people of the United States, who once a decade had a government agent knock on their door, ask a series of somewhat personal questions, and leave. In a certain light, the census is one of the few things all Americans have in common, like voting and paying taxes. For the ninth census in particular there was one more similarity: every piece of information the census received was filtered through the census office, and that had the potential for problems.

The Federal Marshal Service

The US Federal marshal service was founded with the passing of the Federal Judiciary Act of September 4, 1789 almost one year after the Constitution was signed. Today their primary objectives tend to act as the enforcement mechanism of the Federal courts and are responsible for things like prisoner transfers, fugitive hunting, and witness protection. However, as one of the oldest Federal law enforcement agencies, the marshals have had to wear many hats over its history. Among those now-defunct responsibilities include things like the taking of the census and finding counterfeiters.[14] While the establishment of the Secret Service and the FBI are responsible for the marshal's losing responsibilities in some areas, it was the 1870 census that had them removed from the census.

Issues with the Marshals Conducting the Census

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[13] US Census Bureau, *Ninth Census: Volume 3.* (Washington, D.C: GPO, 1872), 531

[14] David Turk. *Forging the Star: The Official Modern History of the United States Marshals Service.* 2016. 1-3

The ninth census was the final census conducted by the marshals. One of the primary reasons for this was an increasing desire for centralizing control of census operations. Superintendant Walker in particular called for the right to have greater control over his subordinates.[15] The census at the time was a function of the Interior Department, while the marshals were a completely different branch of government. This meant that the marshal's involved in the census were not so much subordinate to Walker as they were doing an extra task for him on top of their other responsibilities. Walker struggled with the fact that there was almost no way to conduct a "proper inspection of the census work during its progress" because the people he relied on for information did not really work for him.[16] In essence, Walker had little to no mechanisms to regulate his own workers during the process of the census itself. But this was not the only concern about the marshals running the census.

The inconsistency between the population and size of Federal districts contributed to the marshal's replacement. For example, the state of Rhode Island has always had only one Federal district, with a single Federal marshal at any given time.[17] In 1870, the Rhode Island marshal was responsible for recording the statistics of approximately 217,353[18] people over a small geographic area. In contrast, the state of Illinois in 1870 had approximately 2,539,891 with only two marshals for the entire state, meaning that each marshal had to count about 1,269,945 each. This means that marshals from Illinois were responsible for more than 5.8 times as many people as the marshal from Rhode Island, and covered far more ground. This issue was further compounded by the Federal government being aware that population growth would only increase the responsibility of each marshal, and almost certainly that that increase would be unevenly

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[15] US Census Bureau, *Ninth Census: Volume 1.* (Washington, D.C: GPO, 1872), IV
[16] Ibid., XIX
[17] "US Marshal Service: History," *US Marshal Service,* https://www.usmarshals.gov/readingroom/us_marshals/index.html (Accessed 11/20/2018)
[18] US Census Bureau, *Ninth Census: Volume 1.* (Washington, D.C: GPO, 1872), X

distributed. For example, if the marshal from Rhode Island were still responsible for taking the census today, he would be responsible for counting almost 4.8 (1,059,639)[19] times as many people as he would in 1870. For the marshals as a whole, the burden of the census was unevenly distributed, and ever-growing.

By the 1880 census the marshal service had had their duties as enumerators of the census replaced by dedicated census workers.

Census Shifts and the US Marshals

The difficulties of the marshals were not only limited to the increasing scale of the census over time, it was also growing in complexity. The development of social science in the nineteenth century led to a greater demand for more nuanced and accurate questioning. This increased the need for specialized census workers. As mentioned earlier, the final question of the first Schedule was a relatively nuanced question about the voting rights of men over the age of twenty-one. Assistant marshals were expected to understand the local laws regarding voting rights in order to assist people in answering the question, noting that just because some people did not vote, did not mean they could not vote.[20] This kind of question represented a much higher standard of expertise of the census enumerators that the original 1790 census, and made the separation between the marshals and the census office that much more onerous.

The Development of Social Science and Changes in the Census

It is important to understand that the demands of the census have changed over time. The only Constitutional requirement of the census is a counting of the representative population for determining congressional apportionment. For example the first 1790 census did not even ask for

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[19] "Census Bureau Quickfacts: Rhode Island," *Census Bureau*. https://www.census.gov/quickfacts/ri. (Accessed 11/20/2018)

[20] Francis Walker, *Instructions to assistant marshals.* (Washington, D.C., US GPO, May 1, 1870). 12

the names of everyone in a family, only the name of the family head and number of family members.[21] However, the ninth census asked questions that went far beyond that original standard. As mentioned earlier, Schedules two through five of the census did nothing to determine representative population, answering questions about American mortality, production, and society. While wanting to know the number of libraries in the nation was not a bad thing, it certainly was not needed to fulfill the Constitutional mandate.

So, to ask a rhetorical question: why did the census change to become more comprehensive, when it was not strictly necessary? This answer lies with the growth of statistics and social science. Social science, to put it simply, is that the application of scientific principles to a population can help understand and aid that population. This means that as the field of social science grew, the value of the census as a demographic tool grew as well. And in the mid-nineteenth century, social science and statistics were growing rapidly.

Political Arithmetic to Modern Statistics

One of the earlier mentions of statistics being used as a tool for politics comes from English economist Sir William Petty's book *Political Arithmetic,* written in 1676. In it, he attempted to describe the state of England entirely in terms of "Number, Weight, and Measure" such that his observations all have "visible Foundations in Nature."[22] From there on the idea that physical understanding of the world can provide greater insight into social issues and solutions persisted and grew into modern social science. Perhaps the greatet expressions of that modern social science were seen in the development of the International Statistical Congress and the metric system.

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[21]"National Archives genealogy worksheet," *National Archives,* https://www.archives.gov/files/research/genealogy/charts-forms/1790-census.pdf (Accessed 11/20/2018)
[22]William Petty, *Political Arithmetic*, 1676

During the mid-nineteenth century, the western world was beginning to call for a more unified global standard for statistics and measures. The first International Statistical Congress (ISC), the progenitor of the modern International Statistical Institute, was first conducted in 1853 Brussels. A summary of the proceedings of the Congress established that international representatives all gave "a summary view of the position occupied by statistics in their respective countries"[23] with hopes of "improving the means of collecting and classifying the facts which bear upon [their nations]."[24] Interestingly, many European nations, including, Austria, Denmark, and Spain had all established central statistical bureaus within the past fifty years, and other nations like England and Switzerland expressed significant interest in establishing something similar. This indicated that there existed a growing international desire for reliable statistics, and the best source of national statistics was the census. Further, this congress established the relative newness of politically applied statistics to the eighteen hundreds, which is part of the reason that the American census began to change around this time. Some of the changes seen in the 1880 census, like a more formalized census bureau, and a stated desire for a much larger staff per-capita can see their origin here.

Another reflection of this desire for standardization in measurements can be seen with the signing of the Treaty of the Meter 1875, which codified the international use of the French metric system. The treaty established International Bureau of Weights and Measures in Paris, which still exists today and holds the original kilogram.[25] The United States actually did sign this treaty, and nine years prior approved the use of the metric system in business dealings,[26] but did

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[23]Samuel Brown. "Report of the Proceedings at the Statistical Congress, Held at Brussels, 19th to 22nd September, 1853 (Concluded)." *The Assurance Magazine, and Journal of the Institute of Actuaries* 5, no. 1 (1855). 2

[24] Ibid., 45

[25]"Metric Convention of 1875," *US Metric Association,* http://www.us-metric.org/metric-convention-of-1875/ (Accessed 11/20/2018)

not make the system compulsory.

These factors placed a greater value of accurate, nuanced results for the American census. What this all meant was that the nineteenth century was the time when the Western intellectual community began seriously refining census practices and increasing the uses for the results of those censuses. An increasing international spirit of universal measurements meant that gaining better data not only meant a better understanding of a single country, but networks of countries, perhaps even the entire world. It also gave the United States something of an opportunity to brag. In one of the opening notes of the 1870 census, Superintendant Walker notes that there may be "popular disappointment" that the national population did not break forty million, as was projected by the 1860 census.[27] This was speculated to largely be the result of the Civil War: a combination of both casualties and babies not born who otherwise would have been if there was no war. This indicates that Walker believed that there was a level of public investment in the result of the census, a national pride of sorts about the prodigious growth of the country. I personally believe that the increasing availability and international nature of censuses, spread through organizations like the American Statistical Association (discussed below), and the International Statistical Congress added an element of international competition to the results of the census. All of these factors contributing for the domestic desire for a good census.

The American Statistical Association

The increasingly important nature of statistics can be seen in the development of the professional organization known as the American Statistical Association. The American Statistical Association (ASA) was founded in 1839 Boston with "for the purpose of collecting,

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[26] "Origin of the Metric System," *US Metric Association,* http://www.us-metric.org/origin-of-the-metric-system/ (Accessed 11/20/2018)

[27] US Census Bureau, *Ninth Census: Volume 1.* (Washington, D.C: GPO, 1872), XVIII

preserving, and diffusing statistical information in the different departments of human knowledge" and to promote the "Science of Statistics."[28] It is important to emphasize how young this organization is relative to the time this thesis discusses, in 1870 the organization would have been a touch over thirty years old. Formal statistics were a relatively young discipline and as the field matured so did the value of the census. The late 19th century seems to have been influenced by the second generation of formal statisticians. So, by 1870 much of the younger statistical community could have been trained or influenced by the older, initial statistical movement that established things like the ASA and Statistical Congress.

It is important to understand organizations like this because it provides insight into American's intellectual structure when it comes to statistics. Francis Walker, whose contributions were vital to the census reforms seen in 1880, was heavily involved in the organization, and interacted with the other members within it. He was president of the organization for almost thirteen years from 1883-96 and was a vice president prior to that.[29] Thus, could be considered to have been a part of the second generation of professional statisticians in the United States, the first generation educated by formal statisticians. Walker was a key factor in the development of the American census, and was certainly influenced by the nascient statistical community, both domestic and international. But the statistical community was not the only pressure on the production of the census.

The Political Nature of the American Census

As the census began to develop into an increasingly useful tool for statesmanship, it also became a greater object of political debate. While the precise politics that drove the 1870 census

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[28]Mason, R. L., J. D. McKenzie, and S. J. Ruberg, "A Brief History of the American Statistical Association, 1839-1989," *The American Statistician* vol. 44, 1990. 1

[29]Ibid., 2

will be discussed, it should be established how the census, which is fundamentally about the creation of facts, could be embroiled in politics in the first place. A concise summary of this comes from French Sociologist Alain Desrosieres, who noted that the American census is almost uniquely political relative to Europe. Desrosieres claimed European censuses go "almost unnoticed in European countries" while in contrast the American census is "extremely visible, and the subject of intense debate."[30] The reasons for this are largely due to the census's responsibilities as given the Constitution, and the rapid demographic shifts of the United States throughout its early history.

America's federal structure makes the census uniquely politically important relative to Europe. The census is used to apportion of Federal congressmen and establish the Federal tax burden on States. Desrosieres applauds the system as ingenious as it discourages political interference on the census as a state embellishing or underestimates their population "would lose on one hand what they would gain on the other."[31] Essentially, a state's population is both rewarded for growth with more representation, but has to pay more taxes and vice versa. In the context of 1870 there were signs this balance is not as effective as it should, encouraging circumstances in which it might have been politically advantageous to manipulate the results of a census. An example of these kinds of circumstances were defined in New York based *Albion* newspaper, which in an article written in 1870 noted that the New York City census results tended to be lower with a Democratic Presidential administration (New York at the time was generally Republican).[32] However, politics was not only driven by political party, especially in times like the Reconstruction era racial demographic information was important.

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[30]Alain Desrosieres, *The Politics of Large Numbers*, Harvard University Press, 1998. 189.
[31]Ibid., 190.
[32]Kinahan Cornwallis, "Politics and the Census," *The Albion*. October 29, 1870

The lack of a formal census department in America's early history naturally encouraged debate and innovation. Until the establishment of a formal Census department in the early twentieth Century, each individual census had to gain direct approval from Congress regarding its scope, leadership, and funding. This means that the questions asked around the country were not necessarily made by relatively impartial academics, but politicians. In essence, the census from the outset of its creation was bound to congressional and thus political oversight and intervention. This is opposed to an independent census department making decisions about Scheduling and apportionment.

The 1870 census in particular was set to be especially political. America has historically experienced rapid growth and demographic shifts caused by "waves of immigrants, the expansion of boundaries westward, urbanization" and racial shifts.[33] America changes so much each decade demographically that the results of any given census could have major political implications. This was especially true of the 1870 census, which for the first time had all African Americans as citizens, with theoretically full representative rights. In addition, following the Civil War the American South was temporarily broken up into Federal military districts until the former Confederacy rewrote their state constitutions to include the Thirteenth Amendment that banned slavery. Depending on one's interpretation of constitutional law this means that the Southern States that existed after the Civil War were completely different states than the ones tho initiated the war, similar to how the United States technically began only when the Constitution was signed, not the Articles of Confederation. That interpretation would mean that the 1870 census was actually the *first* census for the entire South, and that the statistics gathered on this census were vital for introducing fifteen new states into the Union (eleven former Southern

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[33]Alain Desrosieres, *The Politics of Large Numbers*, Harvard University Press, 1998. 189.

states, four Western states). Those fifteen states would represent the single greatest proportional increase of Congress since its founding. Quite literally, the stakes of the 1870 census's importance to politics had never been higher.

Chapter 2: The Failure of the 1870 Census

The Publishing of the Ninth Census:

The definitive version of the ninth census was submitted to the Federal Government on August 23, 1871 in three volumes for population, vital statistics, and industry. It recognized a Constitutional population of 38,115,641 people and a 'True Population' (which included 'Indians Not Taxed' and American Territories) of 38,925,598.[34] As will be important later, it also recorded the Constitutional population as having 33,203,128 white people and 4,835,166 African Americans. At the time of publishing these figures were considered to be the most definitive demographic information possible for the United States, it not only recorded the nation as it was at the time, but was also placed in direct comparison to previous censuses so as to understand the demographic trends of the country. But as will be seen, not everything was sanguine in this report.

Doubts and Hedging about accuracy in the census itself

Within the census itself there were clear signs the Superintendant doubts some of the results. Francis Walker, despite stating that the "census has been as carefully and honestly performed… as at any preceding period" if not better, also stated that "a perfect census cannot be taken in any State with the machinery established by existing laws."[35] The wording of that

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[34]In this paper, the former number will be assumed to be the population of the nation as when used in the context of political representation.

[35] US Census Bureau, *Ninth Census: Volume 1.* (Washington, D.C: GPO, 1872), XIX

statement is important because Walker was not saying a perfect census is impossible, he was saying that the laws that governed the 1870 census are what made the census imperfect.

Walker in the report listed several of the defects he considered to be crippling to his ability to accurately enumerate the population. Firstly, the "absence of legal provision for the proper inspection of the census work during its progress"[36] meant the central Census Office had no formal mechanism for internal review. Considering that the vast majority of the census personnel were temp-hired assistant marshals, hired by non-Census Office US marshals, this made trusting the census enumerators potentially risky. Other issues with the census machinery include the pay structure of assistant marshals, as that structure tended to pay far more money to enumerators in dense urban areas, than to those in rural areas. At the time, traveling in low-density rural areas was significantly more difficult and time consuming for enumeration. Considering that this meant that rural enumerators systematically got paid less for the privilege of more work made enumerating such areas more difficult than it should. The inherent unfairness of the system made Walker wary to trust their returns, especially when there was no internal review process to verify their integrity.[37]

With that being said, Walker did make it clear that in some cases that incomplete information did not mean that that information is useless. When discussing mortality numbers in the US, specifically the number of people who died in the year preceding the census, the census noted that there is no way of "determining exactly the death-rate of States and sections, and of deducing… statistics complete and accurate in every particular.[38]" However, despite being unable to get "every particular" correct, it also assured that "many and important principles may be derived with assurance from [incomplete information], even in their present fragmentary

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[36] Ibid.
[37] US Census Bureau, *Ninth Census: Volume 1.* (Washington, D.C: GPO, 1872), XXVI
[38] US Census Bureau, *Ninth Census: Volume 2.* (Washington, D.C: GPO, 1872), XI

condition."[39] This was a clarification that imperfect information could still be useful if used correctly. But not every imperfect statistic was given such an optimistic review.

Perhaps the most visible example of Walkers distrust in certain parts of the census came from the report of the Fishery Industry. Information on the fishery industry was so poorly recorded that Walker segregated it from the general listings of industrial statistics. He had no control over what industries were recorded in the census, that was Congress's responsibility and he was obliged to report on it. However, he stated that the results were so "distressingly inadequate to the known facts" that he could not in good conscious place it beside other industrial information because it would "disparage… the [other industrial statistics.]"[40] Reading the section makes Walker's worries clear; for example, the entire state of Arkansas (pop. 484,471), which shares a border with the Mississippi River, was recorded as having a single fishery consisting of three men and total capital of $300; it produced $2,200 of unknown (species not-recorded) fish while apparently consuming no fuel or material resources. In essence, for an entire state, there was probably only a single entry for 'fishery;' and that entry was only partially filled out. It was examples like this that explain why Walker was so careful to elaborate his doubts on the census; because while being left in the dark about a niche industry in a single state could be ignored, the idea that this failure extended to more significant information was worrying, and as will be elaborated on, potentially dangerous.

The Origins of the Adjusted Numbers/The estimated magnitude of the undercount

Considering that the premise of this entire thesis is the presumption that the 1870 census was inaccurate, it is important to discuss the estimated magnitude of that inaccuracy. This paper

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[39] Ibid., XI
[40] US Census Bureau, *Ninth Census: Volume 3.* (Washington, D.C: GPO, 1872), 383

uses two main sources for the estimated undercount: a book written by former superintendent Walker on his census, and a modern report.

As discussed, Walker had serious concerns about the mechanical production of the 1870 census, many of which were alleviated under his watch in 1880, which radically changed the organization of the census. He commented on his impressions of the 1870 census in a book published posthumously in 1899. Written after his work with the Census Office was complete, and working as the president of the Massachusetts Institute of Technology, his book contained estimates for the undercount of the African American population in the ninth census. He discussed

> "...corrections to be made in the figures given for the colored population for 1870. The present Census Office has estimated the loss out of this element, at that time, to have been three-quarters of a million. My own estimate has always placed that loss between three and four hundred thousand. Professor Newton, the eminent mathematician of Yale University, has recently computed it as about 550,000."[41]

Let it be noted that Walker did not comment on the undercount of the white population in this book. Further, he mentioned that the Census Office had an estimated number on the undercount, which meant that even beyond his own personal or academic opinion, the federal government was both aware of and acknowledged the undercount.

The second estimate of the undercount this paper uses comes from a labor statistics report published by the modern Census Bureau in 1943. Unlike Walker, it specified that the undercount was specific to the South and includes estimates for the undercount of both the white and black population. It stated that the "Number of persons omitted estimated to have been 1,260,078 - 747,915 white persons and 512,163 Negros."[42] There was no given explanation for why the white

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[41]Francis Walker. *Discussions in Economics and* Statistics, H. Holt and Company, 1899. 129-130

population was given an estimated range of several hundred thousand and the black population was definite. There is also indication that this kind of undercount was unique, because in the 90 years of censuses discussed in this report, none were recorded as having a comparable undercount.[43] If we take the midpoint for the range of white people that leaves a total undercount of 1,516,159.5 persons, about 3.9% of the population missed. Which, with a House of Representatives of 292 members, was about 11 people, who could have also been potentially added. What this means is that if the nation had been enumerated properly there could have been 301 Representatives, which would have been a fair increase in political representation, especially when you confine much of that increase to the South, where the undercount was the most pronounced.

A Note on the Completion Time of the Census

An effective census should be able to act as a 'snapshot' in time. That is to say that the *time* it takes for data to be gathered is important for the data itself. Like a photograph, the longer the subjects are moving in front of the lens, the blurrier the picture. Therefore, the data gathered for any census, no matter how large or small, is best gathered as quickly as possible so that nothing changes while the census itself is being taken. In fact, the eighth International Statistical Congress decided that the optimal census "should be taken in one day," if possible.[44] This presents something of a unique challenge for America, due to the sheer physical size of the nation and its rural population. As discussed earlier, the US marshals taking the census each had varying physical spaces and population densities to cover, so places that were population dense

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[42]US Census Bureau, "Comparative Occupation Statistics 1870-1930" (Washington, D.C: GPO, 1943), 144

[43] There was an undercount of female and child workers in the 1920 census. But that was strictly about not being enumerated as employed workers, not being uncounted outright.

[44] Samuel Brown. "Report on the Eighth International Statistical Congress, Held at St. Petersburg, 22nd to 29th August, 1872." *Journal of the Statistical Society of London Vol. 35, No. 4.* December 1872

like cities could be counted quickly, and more rural areas were more difficult to enumerate in a timely matter.

One particular failure of this census was its extended length. The census began June 1, 1870 and was finished enumerating by August 23, 1871.[45] That meant the census was conducted over a period of a little over seven months. It should be noted that this does not mean that the *rate* of enumeration was constant over that period, in fact, the large majority of the results were gathered by January 5, 1871, but the final results took a much larger time. This was due to the difficulty of reaching the isolated and rural parts of the population, notably in the South. Walker commented on this in his final report, in a section titled "The Essential Viciousness of a Protracted Enumeration" in which he declared that an extended census meant that the census can only be an approximation rather than absolute fact.[46] He goes on to mention that if the Census had more direct control over its enumerators rather than going through the marshals the census could be completed much more quickly, especially in urbanized areas.[47]

Immediate Public Criticisms of the Census

When it came to public distrust of the census Walker made a note to call it "a matter of course,"[48] and that the vast majority of complaints against the census were either completely unfounded or the result of census officials using indirect means of gathering information. He uses an example of an enumerator asking for information from neighbors when someone was out, leaving the census with the information but the individual feeling missed. Walker does acknowledge that using such indirect means was "not a good way to obtain" that information but was "often the only [option] open to an agent of the census."[49]

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[45] "Document 194," August, 23, 1871, S. Doc. 194, 42nd Cong. 1st Sess.

[46] US Census Bureau, *Ninth Census: Volume 1.* (Washington, D.C: GPO, 1872), XXI
[47] US Census Bureau, *Ninth Census: Volume 2.* (Washington, D.C: GPO, 1872), XXII
[48] US Census Bureau, *Ninth Census: Volume 1.* (Washington, D.C: GPO, 1872), XX

Walker reports that "under the stimulus of public criticism"[50] that much of the census was conducted with much greater rigor that could be reasonably expected. This confidence is belayed by a following section titled "Re-Enumeration of New York and Philadelphia," in which both public demand and the "provisions of an executive order"[51] spurred a recount. While the politics involved in those recounts were not discussed, Walker used these cities not as examples of failure, but of success. He stated that the new census in Philadelphia found 16,745 more people (2.5% increase) and New York found 18,648 more people (2% increase). Walkers stated that the extraordinary rigor of these recounts, and the relatively minor population increases prove that the census *can* be accurate. But he also acknowledged that cities like New York, which were extremely dense and had motivated enumerators had the absolute best conditions for this kind of census, and could be seen as the *best* possible result. That is to say, that under optimal conditions, a 2% difference was excellent, but that also implies that in places the census was conducted less rigorously the final tally was may have been off by *more* than 2%.[52]

Interestingly, Walker never explicitly remarked on any kind of Southern undercount within the census report itself. He did mention that enumerating rural and low-density areas was far more difficult that urban areas. He also at one point mentioned a problem in earlier censuses that he corrected in which Southern states enumerated using central city records rather than directly going door-to-door.[53] There was no mention any kind of racial preference or discrimination.

It is clear that there was some level of immediate distrust in the census. This distrucst was emphasized both by the explicit doubth of Walker and the public outcry of two very large cities

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[49] Ibid., XX
[50] Ibid., XX
[51] Ibid., XX
[52] Ibid.
[53] Ibid., XIX

with an executive order to spur a recount. The fact that the original enumeration was relatively accurate only stands to emphasize the trust element of these events, because that means that even if the results were fairly gathered, they were still distrusted.

Confused Publishing

What may have been a contributing factor to this perception of distrust was the confusing way the results of the census were published. There was a preliminary report of the census released on January 5, 1872 and the final report was released on August 23, 1872. So, in theory there should only ever be two numbers recorded for a population. This is not the case in New York, one of the cities that demanded a recount. At different times local newspapers reported population numbers that are often *close* to the census reports but are not actually right. For example a New York Times article stated that the recount of New York resulted in a final count of 944,129 people, but the actual count was 942,229 people (1,837 fewer).[54] The Albion newspaper claimed that the preliminary results of the census were 926,910 people, the census report states that it was 925,485 (1,425 fewer).[55] The New York Times, several months later, claimed the preliminary results of the census were 927,439 in one article, which was also wrong.[56] The information was displayed in tables and charts, so it does not seem like the information was deliberately skewed or misinformed. After all, if that was the case it would just be proven wrong when the official results were published, and the numbers were not massively different anyway. As best I can tell, what was happening was that these newspaper reporters did not just have access to the final published results of the census, but also had the in-progress results that had not been fully tabulated. This meant that they published results that possibly contained recounts, undercounts and other such obfuscating information before the census could

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[54] "The New Census Complete," *New York Times,* February 2, 1871
[55] "Politics and the Census," *The Albion (New York),* October 29, 1870
[56] "The City Census," *New York Times,* October 25, 1871

be finished. Remember, it was determined that the census was off by about 2% in total, but with the newspapers giving inconsistent returns that fact may have been obfuscated. Further, consider that Walker specifically noted New York as having been both the optimal setting for accurate census taking, and complements the works of the enumerators there, if this was the best case scenario in many ways, perhaps elsewhere it was much worse.

The African American Undercount

The 1870 census had a proportionally lower count of the African American population relative to the white population. For example, the 1870 census states the African American population consists of 12.55% of the population. Francis Walker's 1899 book estimated the African American population as 13.8% of the total US population in 1870. A census report from 1942 estimates the African American population made up about 13.5% of the total US population in 1870. This leads to a proportional undercount of the African American population by about 1.1% of the population (averaging the difference between the two estimations. With a Congress of 292 members that is a proportion of 3.2 congressmen. Now let's explain why all of these numbers were important. What this means is that if the total undercount of the population was about 11 representatives in magnitude, three of them would have been solely from the African American population, which was disproportionately large relative to the total population.

The 1870 census limited African American representation in a time when that representation was most important. In the period immediately following the Civil War, many African Americans had for the first time the opportunity to vote and be represented in government. With the passing of the Fifteenth amendment in early 1870 their right to that political representation was enshrined in the Constitution itself. The 1870s thus were a time of

unprecedented African American participation in the Federal government, and a peak of that participation was under the auspices of the Congresses that used the 1870 census apportionment.

The 43rd and 44th Congressional sessions of the United States were the first two sessions to use the apportionment set by the ninth census. They also had the largest number of African American representatives in Congress for the entirety of the nineteenth century (seven and eight representatives respectively). That number of African American representatives would not be matched until the 90th Congress of 1967. That proportion of African American representation would only be surpassed in 1973 with 93rd Congress. This is quite literally the peak of direct Federal African American political power for over 100 years. This time was an extraordinarily important period in racial politics in the United States, and one of the factors that led to its end was underrepresentation. The census and its proportional undercount may not have been direct in its impacts, or even deliberate in its execution, but all the same it perpetuated racial injustice.

The Relationship between Enumeration nd Representation

With only a cursory glance on the subject, one may be confused about the precise relationship between being counted in the census and their representation in Congress. After all, even if one doesn't show up on a census they still have the right to vote for their local representative and senator. However, being underrepresented in a census often means that one's vote counts for less, and is less likely to have political representation actually representative of one's community.

The reason for this comes from the number and distribution of Congressional Districts. According to the Constitution, the number of congressmen a state has is based on the population, with each congressman in theory representing a similar number of people. Using the ninth census as a guide for the 43rd Congress in 1873, each of the 292 congressmen should have represented about 132,049 citizens. In practice, this was not the case for a few reasons. One, states with

fewer than 132 thousand people were still entitled to one congressman, like the newly formed state of Nevada (pop. 42,491).[57] Two, sometimes for political reasons a state would be apportioned a non-standard number of congressional seats, like in the 43rd Congress in which

> "Florida… gained a seat, though it did not deserve one; New York gained 1 seat, though it deserved 2. Illinois deserved an additional seat under an apportionment of 292. It did not get one."[58]

And finally, if a state was not counted properly it would not receive the proper amount of representatives. A state cannot get proportional representation when those proportions are unknown. An individual in a state that is undercounted has less voting power for congressional representatives, and is thus less likely to have a representative that cares about that individual.

In the context of race this gets a little more complicated. In theory, a congressional district is simply the zone in which the voting population for a particular congressman comes from. But of course, it is known that the location of residences is often correlated to things like wealth, race, and even politics. This makes manipulating the distribution of these districts to promote specific political advantages, a process called Gerrymandering, a serious issue. So in theory if a population was unaccounted for, Congressional districts would be formed without actually knowing the real demographic makeup of a region. This is bad in the context that an elected Congressman may not actually know who their electorate consists of, and thus cannot perform their job to the best of their abilities. In theory if a congressman was unaware that the African American population was a lot higher than he thought it was, he could not appropriate aid funding appropriately, or organize resources effectively to do well by them.

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[57] US Census Bureau, *Ninth Census: Volume 1.* (Washington, D.C: GPO, 1872), XIV
[58] Margo Anderson, *The American Census: A Social History,* Yale University Press, 2015. 83

On a personal aside, I do want to clarify that the race of a Congressional representative does not necessarily have any bearing on their personal political stances or actions. Nor do I presume that people of color would or should vote along racial lines. However, I believe it is safe to assume there is a relationship between African American voting power and the number of African Americans in Congress. Seen in Figure 1, there was a brief spike and then rapid decline of the number of African Americans in Congress following the Civil War. I am doing this with the assumption that this does have a correlation with the voting power of African Americans in the United States.

On the Subject of Numbers and Emotion

I think there is something lost when being very technical about this subject. That, in describing people in terms of numbers, percentages, and relative proportions there is a barrier between what is observed and what is understood. The results of this undercount were not just the Federal government having an empty spreadsheet for a decade. It meant that in the eyes of the government, which were comprised of elected officials whose job it was to represent and support the nation, about a million and a half people did not exist. People who were unaccounted for when representatives set budgets, cast votes, or made assumptions about the nation. There were ordinary people who probably did not know that through bureaucratic error their existence was inconsequential when it came to the decision making of the land of the free. The ninth census's failure to count the American people made it so American people could not count on the American government.

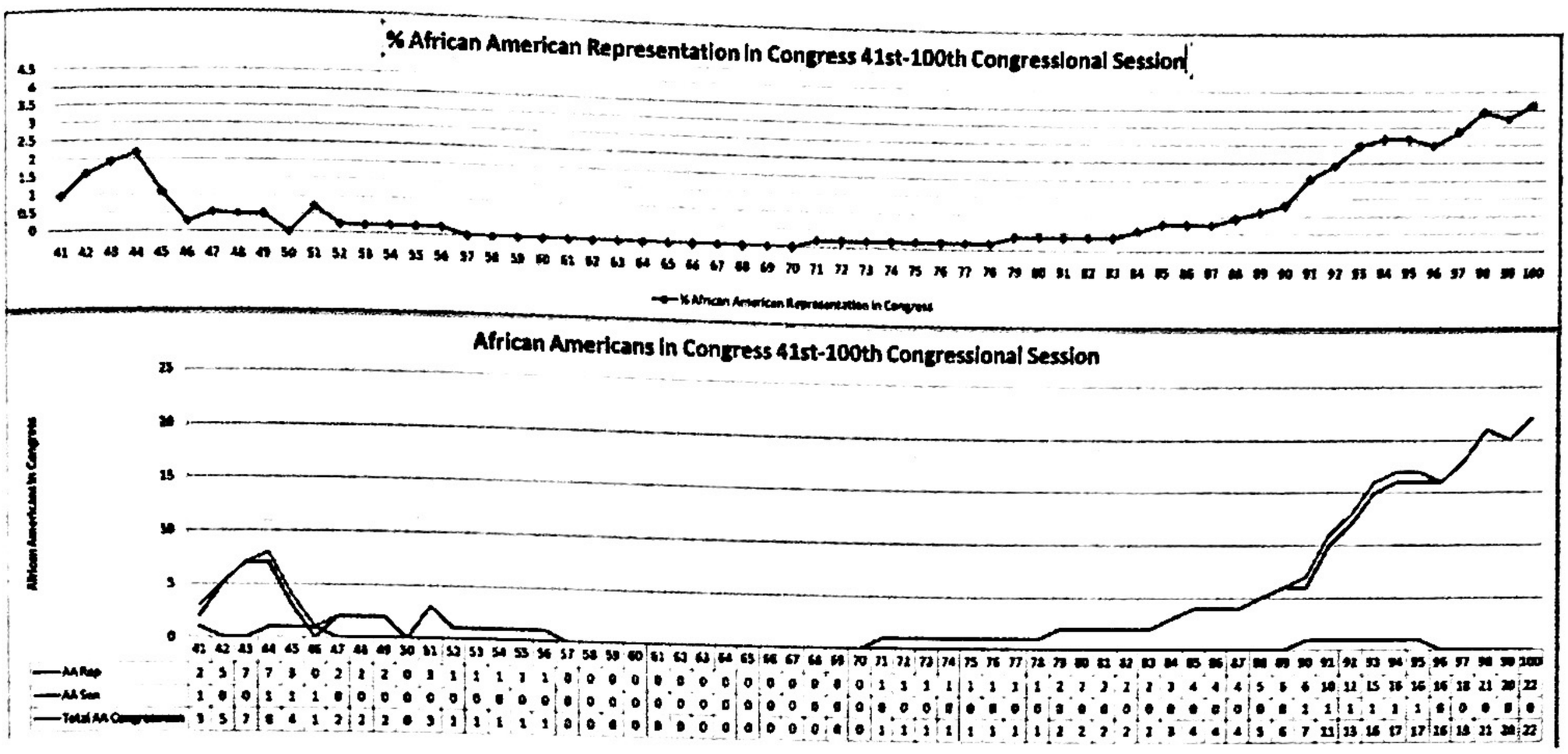

Figure 2. African American Representation in Congress from 1869-2002[59]

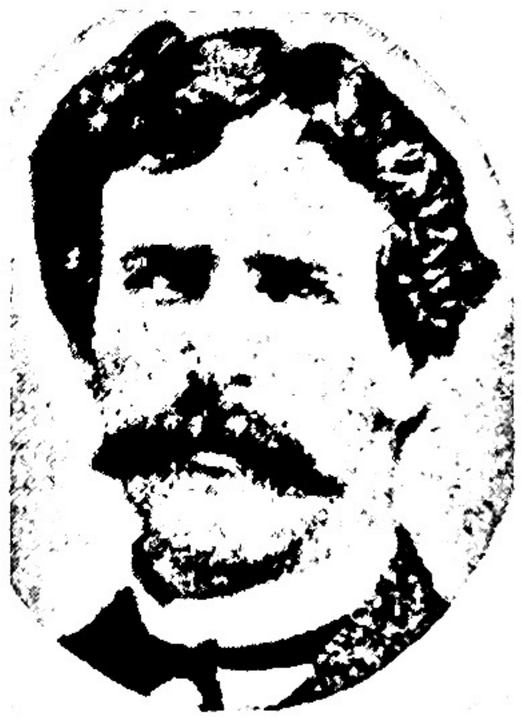

Figure 3. Franklin Moses Jr.[60]

Perhaps the greatest influence enumeration has on representation is as an enticement for politicians to act in accordance with the will of their constituency. That is to say, elected officials will generally try to appease the people that vote for them so as to be reelected. This means that accurate demographic and social information is a vital tool of any politician who wants to win an election, as it provides insight into the potential desires of any region. For example in 1872

[59]The proportion (first graph) of African American representation is (AA Congressmen + AA Senators)/(Total Number of Senators and Congressmen).

[60] "Franklin Moses Jr.," Wikipedia, https://en.wikipedia.org/wiki/Franklin_J._Moses_Jr.#/media/File:Franklin_J._Moses,_Jr.jpg, (Accessed January 4. 2019)

Franklin Moses Jr. (a pale, mustachioed Republican) was elected as the Governor of South Carolina "by the midlands and black majority low country."[61] So it is reasonable to assume he would take action to properly represent and tend to his constituency. Thus, when that demographic information is either skewed, non-existent, or even untrustworthy it means that representatives are less able to represent their actual population. Of course, that is with the presumption that the voting population is congruent with the actual population. However, Reconstruction in the South made such a prospect more fantasy than reality. With the progression of time, scholars like Eric Foner have observed, there was a large period of political shifting in the Reconstruction South, a time in which knowing the demographics of certain populations, or sometimes even what *is not the* demographic breakdown became vitally important.[62]

Chapter 3: The Interim Years: 1872-1880

Consequences of Ignorance: Voter Fraud Investigations of the South

Perhaps the most recognizable legacy of the Reconstruction era was the "undeniable setbacks" to African American prospects and representation following emancipation.[63] Through violence, intimidation, fraud, and other nefarious means white supremacists took active steps to restrict African American political influence and representation. These practices were not something contemporary Americans were unaware of, much of it happened in the light of day to the dismay of many.

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[61] W. Poole, *Religion, Gender, and the Lost Cause in South Carolina's 1876 Governor's Race*, Journal of Southern History, August 2002

[62] Eric Foner, *Reconstruction: America's Unfinished Revolution*, New York: Harper Perennial, 2014. 31

[63] Ibid., 31

In the mid-1870s there were several controversial elections in which there were accusations of voter fraud and ballot stuffing. This prompted the federal senate to open several concurrent investigations to see if there was endemic voter fraud in several states, including South Carolina, Georgia, Florida, Alabama, Louisiana, and Mississippi.[64]

The main purpose of these investigations was to determine if the "right of any portion of such inhabitants and citizens to vote as aforesaid has been in anywise denied or abridged."[65] Note that this question is almost identical to the twentieth question the 1870 census asked in its first Schedule. But, due to the results of that question being poorly gathered, this separate investigation was conducted years later. An investigation does not imply that the concept of Southern voter suppression is accepted; rather it proves that elements of the Federal government felt that it needed to be proved. The issue of voter suppression was considered in 1870, but due to its failure, it placed the establishment of that fact to these senate investigators.

New York reporter James Redpath, who accompanied Senate investigators in Mississippi, decried "the most barbarous means" of the Southern Democrats to secure political supremacy. In fact, "so complete was this terrorism" that Redpath had difficulty understanding the magnitude or comprehensiveness of that misconduct.[66]

So, how did the census play into this? A commonality between these investigations was that they all used population information to try and understand what was happening. Thus, when that information was incorrect it potentially put the results of those investigations in jeopardy.

South Carolina Investigation of 1877

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[64] Voters in Certain States-Eligibility of Electors" Congressional Record-Senate, December 5, 1876, 44th Cong., 1st sess. 18.
[65] Ibid.
[66] James Redpath, "The Lesson of Mississippi," *The Independent (New York)*, August 3,1876

One of the most vital events in America during the 1870s was the 1876 South Carolina gubernatorial election. The census had the potential to be a major piece of evidence, but its influence was marginalized, and at one point directly questioned. This marginalization was in part possible due to distrust of the census.

Only eleven years after the Civil War, South Carolina found itself divided along political lines. Former Confederate general Wade Hampton (D) had beaten the incumbent Daniel Chamberlain (R) by a total of 1,100 votes. However, Chamberlain refused to cede his position, citing that Hampton had rallied the white population to unleash a campaign of intimidation and fraud to turn the election in the Democrat's favor. Hampton responded by declaring himself the legitimate Governor of the state, and founding a 'legitimate' state government of his own outside the state capitol.

From December 1876 to April 1877 the state of South Carolina had two governments running concurrently, each declaring the other illegitimate. One was a Republican that the white population had railed against as a Northern infiltrator, and the other an openly aggressive former Confederate. The Federal government reluctantly sent in Federal troops to try and stabilize the situation, which only galvanized white Democratic support of Hampton. The situation was quickly becoming something that not only threatened the stability of the state, but the entire federal union.

It is in this context that a Senate investigation was conducted into the accusations of the "denial of elective franchise" in the state. It was their job to determine if there was any presence of voting malfeasance though fraud, violence, coercion, or otherwise. Further, if there was malfeasance found, to what degree and effectiveness was it accomplished, and to whose benefit

or detriment. In essence, figure out if anyone cheated the election and if that cheating was enough to swing the vote.[67]

The investigators promptly began to question South Carolina residents as to the nature of the election in their state, but quickly encountered difficulties. The nature of voter fraud made state officials unreliable witnesses, because they all had a stake in the results regardless of the outcome. And broader witness testimonies contradicted each other on claims of violence and intimidation. A good example of this division can be seen in the local testimony regarding 'rifle clubs,' informal social organizations of well armed individuals ostensibly for self defense, without becoming a formal militia force. Modern scholar Richard Zuczek described these clubs as functioning as an organized "Democratic army" that surrounded Republican gatherings and voting booths without escalating to violence, terrorizing voters and aiding Hampton.[68] The investigators received a similar testimony from the Mayor of Charleston George Cunningham (R) who was "very bitter in his denunciation of these clubs."[69] But that testimony was contrasted with many contradictory statements, like the testimony of local resident Mr. Barker who claimed that the gun clubs existed "purely for purposes of defense" to protect white men from African American aggression.[70] Lacking any empirical way to divine the truth of these statements, the testimony was largely unreliable when it came to making a final decision on the issue.

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[67] U.S. Senate Subcommittee on Privileges and Elections. *South Carolina in 1876: Report on the Denial of the Elective Franchise in South Carolina at the State and National Election of 1876, to Accompany Senate Miscellaneous Document 48, Forty-Fourth Congress, Second Session.* Washington, D.C., 1877

[68] Richard Zuczek, *The Last Campaign: South Carolina and the Revolution of 1876,*Civil War History, VOl. 42, Number 1, March 1996. 23

[69] U.S. Senate Subcommittee on Privileges and Elections. *South Carolina in 1876: Report on the Denial of the Elective Franchise in South Carolina at the State and National Election of 1876, to Accompany Senate Miscellaneous Document 48, Forty-Fourth Congress, Second Session.* Washington, D.C., 1877

[70] Ibid.

This issue was compounded by the fact that there was an abundance of circumstantial, but not damming, evidence that the election was compromised. Modern scholar W. Poole summarized this evidence as such:

> "The initial tally gave Hampton 92,261 votes to Chamberlain's 91,127. The extent that fraud produced this outcome becomes clear when we consider that South Carolina had 74,199 eligible white voters and 110,744 eligible black voters in 1876. This result would have required that every white male voted (and voted Democratic), with an additional 18,062 black voters, whether through free will or intimidation, casting their ballots for Hampton. Notoriously, Edgefield, Aiken, and Laurens Counties had more votes cast for Hampton than eligible voters."[71]

Thus the investigators were faced with a dilemma: how do you prove that the results of an election were false or verify that they were true when witness testimony is untrustworthy?

One of the tools the investigators used was the 1870 census, but it was insufficient to prove decisively that fraud had occurred. Theodore Barker[72], a close friend of Hampton, directly challenged the accuracy of the census stating that there has not been an "accurate census has ever been taken since the war."[73] Of course, a more accurate or trustworthy may have been able to provide evidence that the population that voted in the 1876 election was not accurate relative to the actual population. However, this was not the case. The investigation concluded with a statement that there was no provable link between the well documented intimidation and voting malfeasance. The report would be submitted to Congress on February 21, 1877. Hampton would

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[71] W. Poole. *Religion, Gender, and the Lost Cause in South Carolina's 1876 Governor's Race".* Journal of Southern History. August 2002.
[72] Rod Andrew. *Wade Hampton: Confederate Warrior to Southern Redeemer. Volume 2. 81*
[73]U.S. Senate Subcommittee on Privileges and Elections. *South Carolina in 1876: Report on the Denial of the Elective Franchise in South Carolina at the State and National Election of 1876, to Accompany Senate Miscellaneous Document 48, Forty-Fourth Congress, Second Session* . Washington, D.C., 1877

be confirmed as the rightful governor of South Carolina on April 11, 1877. The state would not have another Republican governor until 1975.

So what does this all mean? It is clear that the investigation had access to census data in to compare to witness testimony, it is also clear that people who would benefit from the census being mistrusted tried to cast aspersions on it. Furthermore the conclusions the investigation drew are contradictory to what modern scholars believe. The census was only a piece of this, but even a fraction of something massively important is still important. Mistrust in the census directly impacted an event with the potential to pull the country apart again, which stands to emphasize why people like Walker and, as will be discussed, James Garfield were so dedicated to make the census better.

Mississippi Investigation

Unlike the South Carolina investigation, the investigators in Mississippi made extensive use of the 1870 census. Only a few months after the South Carolina report was published, a similar report was released containing testimony concerning voting misconduct in Mississippi. On December 5, 1876, the Senate commissioned this investigation to look into claims of voter fraud in the state of Mississippi. The stated intention of the investigation was to determine if voting impropriety occurred, and if so by whom, to what parties, for what means, and for what motivations.[74] The investigation ran from January 13 to March 3, 1877.[75]

The 1870 census is cited often by the investigator when trying to judge the 1876 populations of suspect state counties. One stating that "according to the census of 1870 and a calculation based on" deduction one could ascertain a "pretty near"[76] estimate of the actual voting

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[74] "Voters in Certain States-Eligibility of Electors" Congressional Record-Senate, December 5, 1876, 44th Cong., 1st sess. 18

[75]U.S. Senate Subcommittee on Privileges and Elections. *Mississippi: Testimony as to denial of elective franchise in Mississippi at the elections of 1875 and 1876, taken under the resolution of the Senate of December 5, 1876.* Washington D.C 1877

population. There is no noted hesitance in the testimony that there is anything suspect about the results of the ninth census.

Unlike the South Carolina report, this report was simply a compilation of testimony and evidence, and provided no conclusions as to the nature of Mississippi voting practices. This may explain why the census was used more often, besides perhaps the personal temperament of the investigator; the need to be exactingly accurate was lower, meaning that being 'pretty near' was acceptable. After all, the political stakes for the investigation were much lower than in South Carolina; there was no immediate succession crisis that demanded an emergency response. Far less of a chance a botched investigation would lead to another domestic war.

Of course, there were situational benefits for casting doubt on the census. If one could not say decisively that the voting numbers exceed the voting population it weakens the entire premise that fraud was occurring in the first place. Considering that this investigation was one of many federal investigations into Southern states, commissioned by the same bill, it would be reasonable to assume that the census was a similarly useful tool in those cases. This means that the potential issues of the census being inaccurate, especially with regards to the Southern population, was multiplied over the entire region.

An Example of the 1870 Census Being Used in the North

Another example of census data being used to identify fraud can be seen in a New York Times article provocatively titled 'Fraud Fully Exposed.' A front page report, the article used census data to compare with the number of votes being received. The author noted that not only were there more votes in Southern state elections than should be reasonable given the apparent population, but also that of these votes they were all Democrat votes. This article was a

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[76]U.S. Senate Subcommittee on Privileges and Elections. *Mississippi: Testimony as to denial of elective franchise in Mississippi at the elections of 1875 and 1876, taken under the resolution of the Senate of December 5, 1876.* Washington D.C 1877. 34, 382

declaration that a significant portion of the Southern government was likely illegitimate and committed, or was party to, crimes to get into office. This was not an opinion piece hidden in the back pages; this was front page news, implying editorial support of these claims. The author states that "The statistics used in the foregoing review have been wholly drawn from official sources and all calculations have been based on figures furnished by Federal and State authority."[77] This again stands as an example of the power and influence the census can have, as well as the dangers of it being wrong. A reputable newspaper made massive claims of the legitimacy of government on the basis of information gained from the census. Now as it happened modern scholarship does agree that there was a significant amount of fraud at this time, but also there *was* an undercount of the Southern population that the author of the article may have been unaware of. In essence, an important paper made a really provocative claim based on information they did not know was wrong, which had the potential to jeopardize their claims.

Part of what makes the 1870 failure disturbing is not only its direct impacts, but also its potential impacts. These were issues that struck at the very heart of our American democracy, and they were effected, not matter how slightly, by the census being wrong. This, I believe is what Walker was emphasizing when calling for changes to be made to the census process. It probably was not about a particular amount of concern about the prospects of African Americans in the United States, but rather as an object example of how something politically contentious and legally important can be impacted by the census, which makes the need for an accurate one all the more dire.

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[77] "Fraud Fully Exposed," *New York Times*, July 21, 1879

Chapter 4: The 1880 Census

The 1880 Census

On June 1, 1880 the Tenth Census began. In many ways it was a similar affair to the previous one, in that the information was gathered by enumerators going door-to-door recording the answers to lists of standardized questions. Yet in some ways the process was different.

Notably, the Census Bureau had increased latitude on its training and selection capability for enumerators. The Federal marshal service was relieved of its responsibilities for the conducting of the census. Instead, the system was entirely under the auspices of the Census Bureau in the Department of the Interior. Executive appointed 'Supervisors' replaced the roll taken by the local marshals and were responsible for organizing and hiring street-level enumerators. Similar to the marshal system, the lowest level enumerators were regional hires under the auspices of the supervisor as opposed to a central office. However, the training and testing of these individuals was the responsibility of the central Census Bureau, which previously was administered by local marshals.[78]

On the Subject of Scale and Scope

The tenth census was a significantly larger endeavor than the ninth. The total number of enumerators hired was 31,382, almost five times the 6,530 hired in 1870. The raw number of pages of information produced in the 1880 census is about 6.2 times larger. And the 1880 budget was 1.69 times larger than the previous for a total sum of 5.791 million[79]

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[78] "An act to provide for taking the tenth and subsequent censuses," Congressional Globe Ch .195, March 3, 1879, 45th Cong., 3rd Sess.

[79] "Through the Decades: 1880" *US Census* https://www.census.gov/history/www/through_the_decades/fast_facts/1880_fast_facts.html. (Accessed March 1, 2019)

To understand why the census grew so rapidly it is important to consider that due to the way the census was structured, hiring a massively increased staff did not increase the price of the census overmuch as long as there was a proportional decrease in census length time-wise. Census enumerators were compensated for the number of results they returned.[80] So in theory, the total cost of enumeration was more dependent on the size of the country than the number of enumerators.[81]

The scope of the census increased as well. The ninth census produced three volumes of information, the tenth produced seventeen. This was largely achieved by expanding the examination of American production. For example, in 1870 the cotton industry was recorded as a single industry among many in Volume 3 of the ninth census. In the tenth census, the cotton industry takes up two volumes, five and six. The ninth census described cotton production on a brief grid that among other things recorded the capital investment, total amount of land used, and tonnage of produce. The tenth census is far more comprehensive; each state is shown with maps indicating production sites (a feature not in the ninth census), alongside fairly detailed written report of each state county, including features like the color of the landscape, and speculation on the fertility of the land. These written portions are not noted as having a particular author, but considering each one is used to describe locations on the county scale these are most likely the report of the local census supervisors.[82] This can be seen in the images above, during the 1870 census the record of cotton production for a state country was confined to a single entry on a single column among many. In contrast, the entry for Coosa County in the 1880 census contains a full page of text describing the region including information like topography and nuanced

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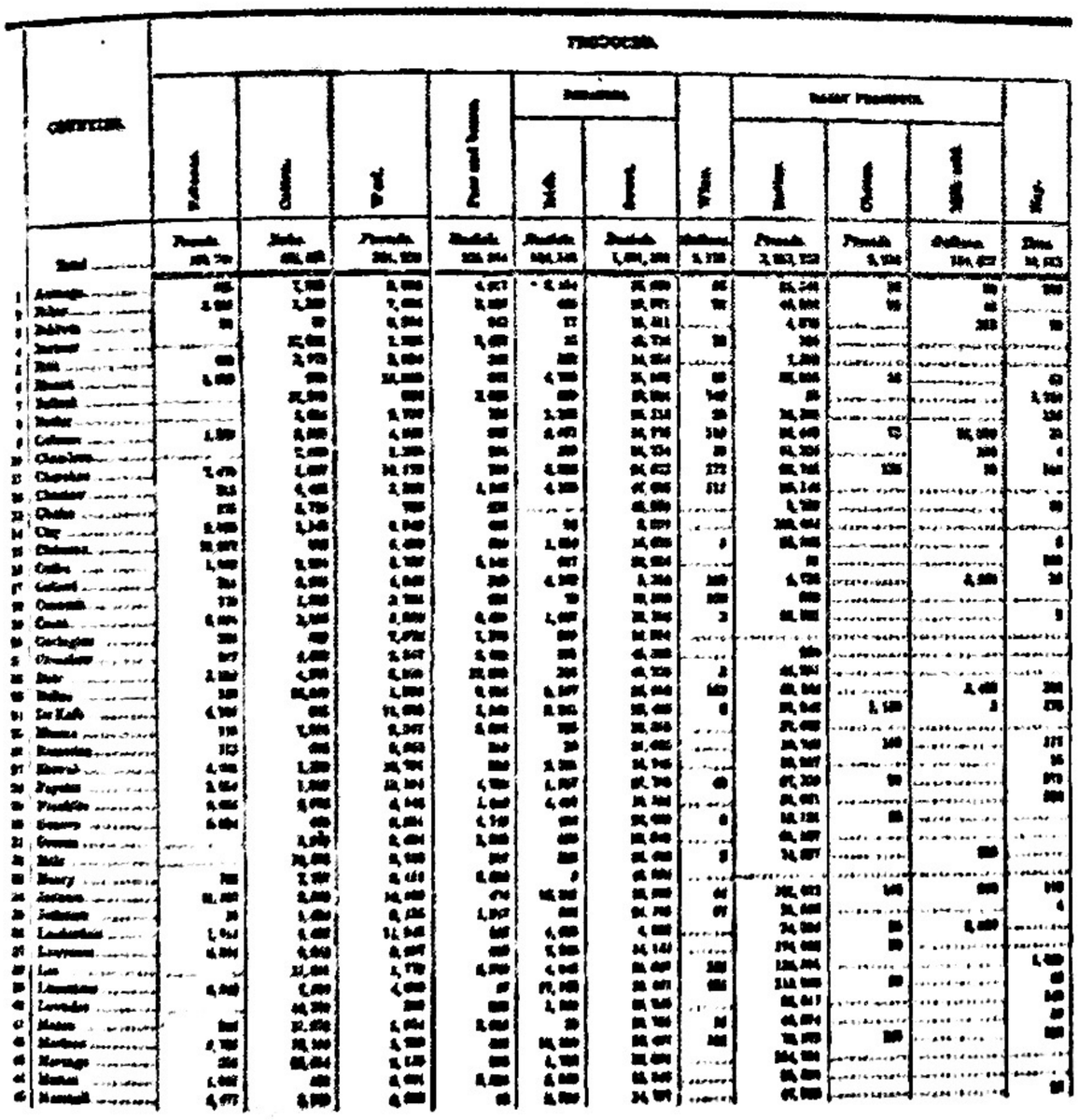
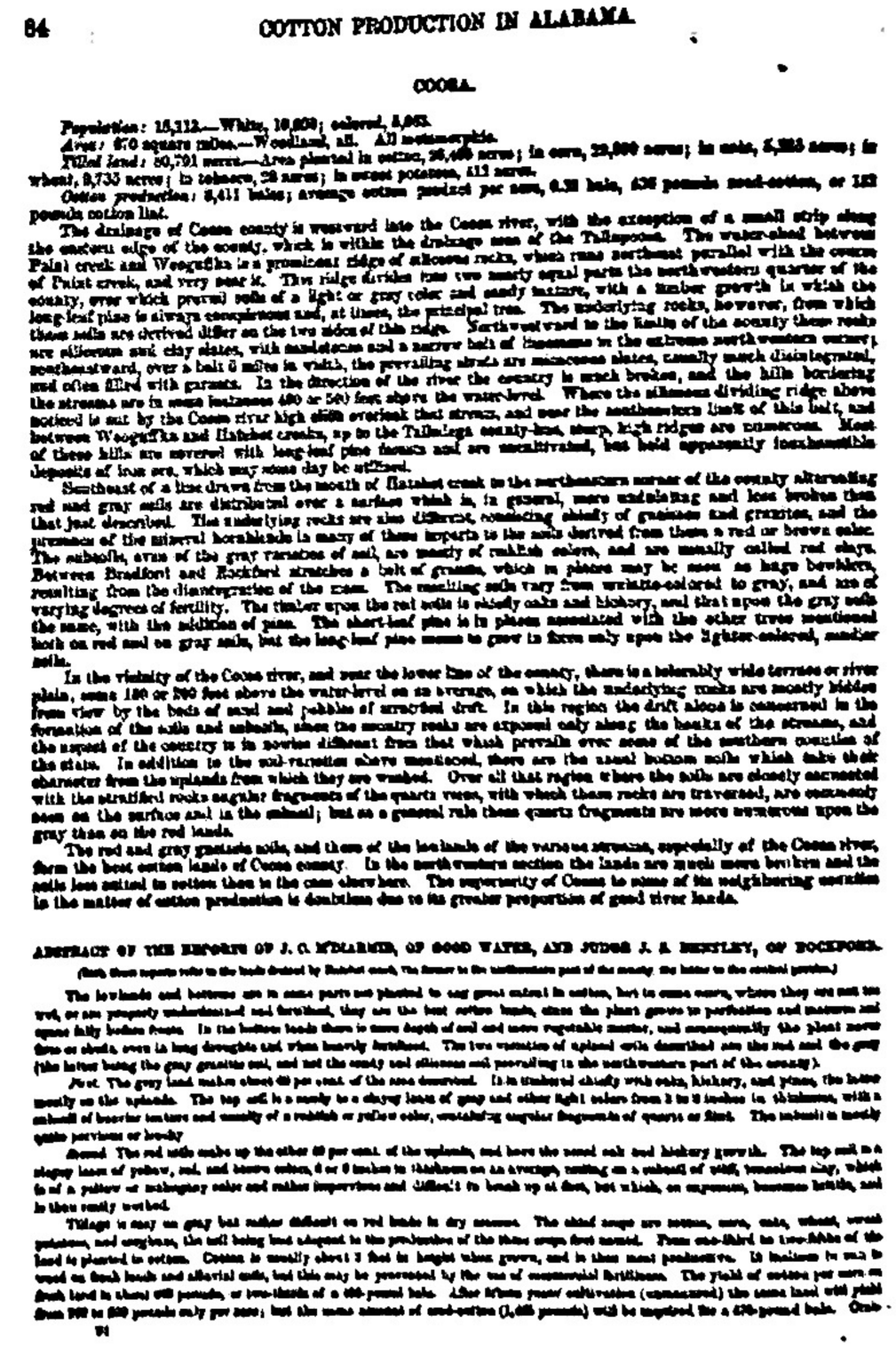
[80] 2¢ for the status of any individual living or dead. 15¢ for a business

[81] This is only the case for door-to-door enumerators, Supervisors and central office Census employees had a different pay structure

[82] US Census Bureau, *Tenth Census: Volume 5*. (Washington, D.C: GPO, 1882), , 92

details of production in the region. In the 1870 census Coosa County is represented by a single number with its total cotton output (See figures below). Naturally, the 1880 census allowed for a significantly more nuanced understanding of the region with regards to cotton production, and perhaps agricultural production in general. This level of specificity was extended to every county of every cotton producing state in the country, which gave a much better picture of America's total cotton industry than a handful of charts could ever do.





84 COTTON PRODUCTION IN ALABAMA.

COOSA.

Population: 15,112.—White, 10,659; colored, 4,453.

Area: 670 square miles.—Woodland, all. All metamorphic.

Tilled land: 80,791 acres.—Area planted in cotton, 26,406 acres; in corn, 23,000 acres; in oats, 5,355 acres; in wheat, 3,735 acres; in tobacco, 28 acres; in sweet potatoes, 413 acres.

Cotton production: 8,411 bales; average cotton planted per acre, 0.32 bale, 436 pounds seed-cotton, or 152 pounds cotton lint.

The drainage of Coosa county is westward into the Coosa river, with the exception of a small strip along the eastern edge of the county, which is within the drainage area of the Tallapoosa. The water-shed between Paint creek and Weogufka is a prominent ridge of siliceous rocks, which runs northeast parallel with the course of Paint creek, and very near it. This ridge divides into two nearly equal parts the northwestern quarter of the county, over which prevail soils of a light or gray color and sandy nature, with a timber growth in which the long-leaf pine is always conspicuous and, at times, the principal tree. The underlying rocks, however, from which these soils are derived differ on the two sides of this ridge. Northwestward to the limits of the county these rocks are siliceous and clay slates, with sandstone and a narrow belt of limestone in the extreme northwestern corner; southeastward, over a belt 6 miles in width, the prevailing strata are micaceous slates, usually much disintegrated, and often filled with garnets. In the direction of the river the country is much broken, and the hills bordering the streams are in some instances 400 or 500 feet above the water-level. Where the siliceous dividing ridge above noticed is cut by the Coosa river high cliffs overlook that stream, and near the southeastern limit of this belt, and between Weogufka and Hatchet creeks, up to the Talladega county-line, sharp, high ridges are numerous. Most of these hills are covered with long-leaf pine forests and are uncultivated, but hold apparently inexhaustible deposits of iron ore, which may some day be utilized.

Southeast of a line drawn from the mouth of Hatchet creek to the northeastern corner of the county alternating red and gray soils are distributed over a surface which is, in general, more undulating and less broken than that just described. The underlying rocks are also different, consisting chiefly of gneisses and granites, and the presence of the mineral hornblende in many of these imparts to the soils derived from them a red or brown color. The subsoils, even of the gray varieties of soil, are mostly of reddish colors, and are usually called red clays. Between Bradford and Rockford stretches a belt of granite, which in places may be seen as huge bowlders, resulting from the disintegration of the mass. The resulting soils vary from sterile-colored to gray, and are of varying degrees of fertility. The timber upon the red soils is chiefly oaks and hickory, and that upon the gray soils the same, with the addition of pine. The short-leaf pine is in places associated with the other trees mentioned both on red soil on gray soils, but the long-leaf pine seems to grow in favor only upon the lighter-colored, sandier soils.

In the vicinity of the Coosa river, and near the lower line of the county, there is a tolerably wide terrace or river plain, some 150 or 200 feet above the water-level on an average, on which the underlying rocks are mostly hidden from view by the beds of sand and pebbles of stratified drift. In this region the drift alone is concerned in the formation of the soils and subsoils, where the country rocks are exposed only along the banks of the streams, and the aspect of the country is in marked different from that which prevails over some of the southern counties of the state. In addition to the soil-varieties above mentioned, there are the usual bottom soils which take their character from the uplands from which they are washed. Over all that region where the soils are closely connected with the stratified rocks angular fragments of the quartz vein, with which these rocks are traversed, are commonly seen on the surface and in the subsoil; but as a general rule these quartz fragments are more numerous upon the gray than on the red lands.

The red and gray granitic soils, and those of the low lands of the various streams, especially of the Coosa river, form the best cotton lands of Coosa county. In the northwestern section the lands are much more broken and the soils less suited to cotton than in the case elsewhere. The superiority of Coosa to some of its neighboring counties in the matter of cotton production is doubtless due to its greater proportion of good river lands.

ABSTRACT OF THE REPORTS OF J. C. M'CLARNEY, OF GOOD WATER, AND JUDGE J. A. BENTLEY, OF ROCKFORD.

(Each these reports refer to the lands drained by Hatchet creek, the former to the northeastern part of the county, the latter to the central portion.)

The low lands and bottoms are in some parts not planted to any great extent in cotton, but in some cases, where they are not too wet, or are properly underdrained and fertilized, they are the best cotton lands, since the plant grows to perfection and matures and opens fully before frosts. In the bottom lands there is more depth of soil and more vegetable matter, and consequently the plant never fires or sheds, even in long droughts and when heavily fertilized. The two varieties of upland soils described are the red and the gray (the latter being the gray granitic soil, and not the sandy soil siliceous soil prevailing in the northwestern part of the county).

First. The gray land makes about 60 per cent. of the area described. It is timbered chiefly with oaks, hickory, and pines, the latter mostly on the uplands. The top soil is a sandy to a clayey loam of gray and other light colors from 2 to 8 inches in thickness, with a subsoil of heavier texture and usually of a reddish or yellow color, containing angular fragments of quartz or flint. The subsoil is mostly quite pervious or leachy.

Second. The red soils make up the other 40 per cent. of the uplands, and have the usual oak and hickory growth. The top soil is a clayey loam of yellow, red, and brown colors, 6 or 8 inches in thickness on an average, resting on a subsoil of stiff, tenacious clay, which is of a yellow or mahogany color and makes impervious and difficult to break up at first, but which, on exposure, becomes friable, and is then easily worked.

Tillage is easy on gray but rather difficult on red lands in dry seasons. The chief crops are cotton, corn, oats, wheat, sweet potatoes, and sorghum, the soil being best adapted to the production of the three crops first named. From one-third to two-fifths of the land is planted to cotton. Cotton is usually about 3 feet in height when grown, and is then most productive. It matures in part in good seasons on fresh lands and alluvial soils, but this may be prevented by the use of commercial fertilizers. The yield of cotton per acre on fresh land in these soils is about 600 pounds, or two-thirds of a 900-pound bale. After fifteen years' cultivation (unmanured) the same land will yield from 300 to 350 pounds only per acre; but the same amount of seed-cotton (1,050 pounds) will be required for a 350-pound bale. Corn

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Figures 4 & 5. **(Left)** *1870 Census: Alabama Cotton Production (Coosa County #19)*[83] & **(Right)** *1880 Census: Coosa, Alabama Cotton Production (#19 on the 1870 figure)*[84]

[83] US Census Bureau, *Ninth Census: Volume 3*. (Washington, D.C: GPO, 1872), 96
[84] US Census Bureau, *Tenth Census: Volume 5*. (Washington, D.C: GPO, 1882), 84

Earlier Proposals for the Changes Seen in 1880

To understand what changes were directly inspired by the 1870 census, we must first establish what proposals were already being considered by the Federal government. Prior to 1870, there was a push to reform the census. These proposed reforms culminated in a bill that was ultimately rejected in senate prior to 1870 and the ninth census proceeded as it did. What this means is that the issues that were observed in the 1870 census were somewhat anticipated, and many of the changes seen in the 1880 census were actually initially being considered prior to the failure of 1870.

The most comprehensive example of the reasoning and intent behind the failed reforms of the 1870 census comes from Federal Congressman and president-to-be James Garfield. In 1869 Garfield was the head of the Committee of the Ninth Census, and was responsible for writing a recommendation to Congress on changes to the census.

Garfield was a strong proponent of centralizing the Census Bureau. In a paper titled *The American Census,* Garfield laid out his reasoning for the need for census reform, and how those reforms would manifest.

Garfield's paper consists of three sections: An appeal for the need for social science in government, a description of flaws considered in the American Census was it was in 1869, and a series of proposed solutions or adjustments to resolve these flaws.[85]

The paper begins with a broad statement that sciences will improve the man's condition; making "him the master, rather than the slave, of nature." Garfield goes on to state that just as physical sciences, like chemistry and medicine, have improved lives, the growing science of statistics can help further still.

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[85] James Garfield, "The American Census: A paper read before the American Social Science Association" *National Press,* October 27, 1869

Garfield proposed, first, changes to both the mechanics of taking the census, and the Scheduling of the census. Similar to the complaints Walker would have, Garfield stated that the "taking of the census should no longer be committed to the charge of the United States marshals".[86] When Garfield was considering these changes in 1869 there were sixty-two federal marshals, one for each federal district. Garfield argued that the marshals have too many responsibilities and covered too large an area to properly conduct the census. Thus, a new independent census organization should be formed. Furthermore, Garfield claimed that the census in its current state took too long, had questionable privacy considerations and has poorly defined payment structures. All of these problems would presumably also be fixed with the replacement of the marshals.[87]

The following section detailed changes to the Schedule (the questions asked) of the census. The most important change was a proposal to add the question considering the voting right of Americans, which would end up manifesting itself as the failed twentieth question in Schedule 1. Other changes were designed to provide more nuanced information about agricultural and industrial production. Examples of this include stating acreage of land used relative to the agricultural product (to aid in the determination of average land yield), noting if cheese was made on a farm or in a factory, and specifying if machines are powered by "steam, water, or horse". It is here that Garfield's desire for statistical information is apparent, as this information can be utilized in a statistical fashion.

Now, Garfield did not come to these conclusions alone. Much of this paper was made with the assistance of Edward Jarvis, president of the American Statistical Association who had long been outspoken on census reform.[88] His association with Garfield indicates that these

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[86] Ibid.
[87] Ibid.

proposed changes were made with the implicit backing of the intellectual elite, who were well suited to know the needs of the census and the best way to extract that information.

Garfield's final Report on the Ninth Census, which contained his formal recommendations for changes to the census, copied his earlier work almost verbatim. While the official document did not change any of the conclusions and recommendations he reached earlier, he did add clarification to certain minutia of Scheduling questions. The most notable of these was a clarification that the question on voting rights did *not* considered violence or intimidation legitimate means of being denied the right to vote, it instead provided an index of every state law that could theoretically deny the right to vote aside from treason or imprisonment. These were things like poll taxes and literacy tests, and are ultimately why the question was useless because the issue was more social than legal. This clarification was not present in the earlier paper.[89] Many of these changes actually were implemented in 1880, even though they were initially recommended for the ninth census. The reason that these recommendations were not implemented was because of broader political resistance to those changes.

However, while most of the changes to the census system considered prior to 1870 were contingent on that centralization, some less invasive changes were implemented. Some changes to the Schedule of the census Garfield proposed, which required no changing to census machinery, were implemented. One such development was a clarification to the Industry Schedule covering service workers that added value to objects but technically do not produce products, like plumbers and repairmen.[90] Such an act aids in gathering data, but did little to solve

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[88] Gerald Grob. "Edward Jarvis and the Federal Census," *Bulletin of the History of Medicine.* Spring 1976. 9
[89] Committee on the Ninth Census, 41st Cong. 2nd Sess. "Report on the Ninth Census." January 18, 1870
[90] James Garfield, "The American Census: A paper read before the American Social Science Association" *National Press,* October 27, 1869. 21

issues fundamental to the census being decentralized as it was prior to 1880. Many of the changes seen in 1880 needed the motivation provided by the failure of 1870 to be implemented alongside improvements learned from that failure.

Resistance to Change in the Census prior to 1870

While figures like Garfield and Jarvis do indicate that some of the changes seen in the 1880 census were considered prior to even the 1870 census, there are several factors that are involved for them only being implemented in 1880. While its objective was to gather dispassionate facts, the census was and still is a massive endeavor that costs a significant amount of time, money, and manpower; and like everything else the government does, is subject to politics.

Beyond simply the gears of government turning slowly, there were several political factors encouraging the census system to remain unchanged. The largest of these was tied to the use of federal marshals, Margo Anderson comments that the Federal marshal and the assistant marshal positions were sometimes given as a form of political patronage, thus making the establishing and funding of a centralized census office less desirable to the senators who appointed these positions.[91] In essence, by centralizing the administration of the census it removed that power from the federal senate and the US marshals which both resisted. That political will manifested itself in the rejection of the census reform bill in the senate prior to the ninth census. Furthermore, an expanded census would require more personnel, more expert statisticians to process the data, and more pay for supervision. Using pre-existing marshals to do the census with no additional pay defrayed some of the costs of hiring supervisors. So, there were reasons to avoid the centralization and expansion of the census in 1870. But, not every

[91] Margo Anderson, *The American Census: A Social History,* Yale University Press, 2015. 82

change in the 1880 census was considered prior to 1870. The failure of the ninth census, and the ten years that followed also inspired many changes in the tenth census.

Direct Legacies of the 1870 Census

The largest impact of the failure 1870 census was that it enabled the mustering of political will to change the census in the first place. Of course the first part of changing any project must address the bottom line, the budget. Fundamentally, almost all of the changes seen in 1880 are the result of the Census Bureau being able to successfully gather the proper funding from congress. It took money to take on the administrative burden organizing street-level enumerators that was once under the purview of the US marshals. It took money to gain the experts required to produce accurate data maps and graphics that eclipsed the number in the 1870 census. But that money had to come from somewhere.

Now, money does not grow on trees and the American government did not shell out millions of dollars extra to improve the census out of high-minded desires to improve the accuracy of statistical data gathered in the country by a couple percentage points. Among other things, the public nature of the failure of the 1870 census allowed for the 1880 census the funds required to improve itself. In essence, it failed badly enough that it would be embarrassing for the census to continue under the system it had operated under for the last thirty years, and that meant the budget was justified. In fact, this embarrassment was so pervasive in the nineteenth century if followed some politicians beyond the grave.

The obituary of New York senator Roscoe Conkling described him as being "hopelessly wrong"[92] when it came to census reform, which is quite harsh language for talking about someone who died. The 1881 entry described the senator as "instrumental in defeating a new law for taking the census, thereby compelling the census of 1870 to be taken under the old law,

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[92] Frederic Whitridge, "Roscoe Conkling". *The International Review*. October 1881. 5

and he opposed the new one when it finally did pass."[93] Interestingly, the author of the obituary Frederick W. Whitridge from the New York-based *International Review* newspaper described the actions among his political *failures*, born of an ill-conceived desire to save money. In the same paper he was praised for his objections to "petty raids on the Treasury."[94] This implies that to the author of the obituary census reform was anything but 'petty,' and that treating it as such was worthy of bringing it up as a feature of a man's life story. This is combined with the fact that the section of failures was about a paragraph in length relative to about ten pages of praise. This indicates either an incredibly successful career or stands to emphasize the perceived magnitude of the failure of the 1870 census even as early as 1881. The broad implication of all this is that there was a correlation between the failure of the ninth census, and support for the funding of the tenth census.

The 1880 census at several points clearly criticized the 1870 census, quite possibly with a mind towards justifying its own budget. In the compendium of the 1880 census, which summarizes the production of the census, cites that Walker needed to ask for money several times. In a letter sent May 27, 1881 from Walker to the current Secretary of the Interior Alonzo Bell, he noted that he had underestimated the budget and needed more funds to continue the census without firing critical staff. Walker asked for expediency in receiving the funds due to "public interest in the results of the enumeration"[95] generating desire for quick results and that firing staff may permanently reduce the census's capacity to do the census well. The compendium went on to note that Walker ended up spending several thousand dollars out of pocket to keep some staff, and fired more, but kept the census from experiencing any delays. A later section was titled "Comparisons of the censuses 1870 and 1880," and largely contained

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[93] Ibid., 6
[94] Ibid., 6
[95] US Census Bureau, *Compendium of the tenth census (June 1, 1880)*, (Washington DC: GPO, 1882), XLIV

reasoning for why the 1870 changed, citing the inability to generate accurate results using the old administrative machinery.[96] The 1880 census was only compared to the 1870 census, no earlier censuses were mentioned. In essence, in the official Census summary of the 1880 census notes that it did have budget problems, and recorded that the reason for this increase was to fix the issues seen in 1870.

The most directly inspired portion of the 1880 census following the ninth census was the creation and implementation of Special Investigations, which seems to have been created to directly solve some of the issues seen in 1870. A Special Investigation used enumerators were specifically sent to learn the information of a particular industry or field. Unlike ordinary enumerators, these investigators were not tied to a specific region and worked directly under the Superintendent as opposed to a regional supervisor. There was no provision for such a task mentioned in the 1870 census meaning that the people who went door-to-door to ask families questions were the same people who went to local mines and industries to gather information. The tenth census notes that this practice resulted in returns that "were sometimes discreditable and even disgraceful to the census,"[97] and thus needed dedicated enumerators for certain statistics. Among these selected statistics were also chosen to rectify some of the most glaring failures of the ninth census: the mining and fishery industry, which were the first two subjects mentioned as needing special investigation. These were parts of the 1870 census that was so poorly gathered so as to be separated from the rest of the census listings. That meant by 1880 the country had no accurate Federal statistics on these industries for nearly 20 years. Thus, provisions for dedicated resources to seek out difficult-to-gather information were made.

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[96] Ibid., LXII
[97] Ibid.,XXXXVI

Another development in the 1880 census can be seen in the rejection of a difficult question. As discussed earlier, the 1870 census was unable to gather accurate information on the twentieth question in Schedule 1: whether or not voting rights had been denied to certain Americans. In 1880 the census officials specifically asked to remove "the interrogatory relating to the ownership of public debt" a question they considered "not an inconsiderable obstacle,"[98] to answering expediently. Public debt is basically government bonds, in which people or businesses loan money to the government for a specific amount of time at a fixed rate of interest. Census officials noted that asking about such ownership was "unlikely to secure trustworthy answers."[99] They go on to explain that people are generally uncomfortable about talking about their finances, and often do not know the details off-the-cuff, which would bog down the enumeration process. Further, the fact many bonds were owned by businesses and banks made the process too complicated for a normal enumerator to do, and a special investigation would take money they did not have. This awareness and acknowledgment of the limited capabilities of enumerators was lacking in 1870, and its presence here indicates a significant progression in how the census chose its schedule. The investigation into public debt was struck from the 1880 Schedules.

Maps, Infographics and Descriptions: How the 1880 Census Changed Data Visualization from 1870

[98] Ibid., XXXV
[99] Ibid.

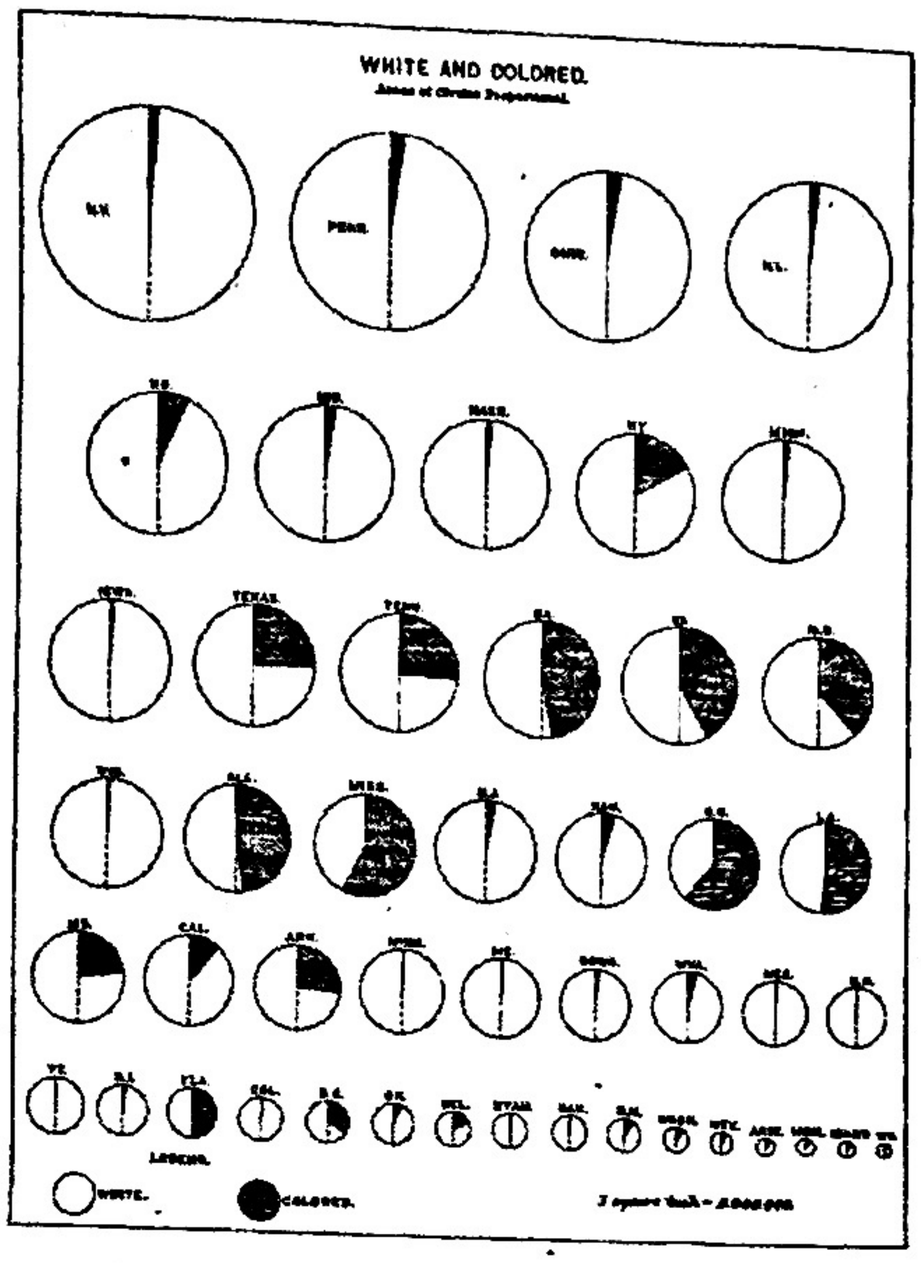

Figure 6. "Whites and Colored" Infographic[100]

The 1880 census displayed the data it receives in several ways: it had many tables and graphs that were collated from all the data gathered, it used maps and overlays to display how those numbers were correlated over the geographic region of the United States, and descriptive graphics were implemented to make some data easier to visualize. However, the increased size of the 1880 census allowed for an increase in the number of visual representations of the data it gathered, relative to the 1870 census there were far more maps to go alongside the tables as well as a new feature, infographics.

The addition of infographics was a wholly new addition to the census. An infographic is a way to compile data in a visual form to make it easier to understand. Many of these contain information that could be gleaned relatively easily from looking at the raw data. An example of

[100] US Census Bureau, *Tenth Census: Volume 5*. (Washington, D.C: GPO, 1882)

this would be the graphic displayed above, which displays the proportions of white and black population of each state, with each circle's size representing the total population of the state. Information like this could just as easily have been displayed in the 1870 census, for minimal expense. In fact, the information shown here is similar to the data Francis Walker uses in his 1899 book when talking about the proportional undercount of African Americans during the ninth census.[101] Considering that there were no real obstacles to these being implemented in 1870, the desire or demand for the addition of infographics likely came from the time between the 1870 and 1880 census. In fact, the 1880 census specifically notes that the 1870 census was lacking in "public interest in the result,"[102] another way of phrasing that is that there was significantly increased interest in the results of the 1880 census. This means that the Census Office officials responded to that public interest by making the census more accessible with graphics.

The 1870 census faced widespread criticism, from the public, politicians, and census officials themselves. Some of the motivations for this criticism may have been due to outside factors, like justifying a budget or nullifying a potential source of evidence. But despite this criticism, the 1870 census was used as a source of information in a time of critical political and demographic change. The law establishing the 1880 Census was created in the context, with the known failure of its predecessor contrasted with its clear need to exist .Thus, in some ways, the 1880 census reflects that, not only adopting traits that were considered prior to 1870 but also trying to fix the issues highlighted in 1870. Therefore, in a very real way, the failure of the 1870 census created the 1880 census as it was written.

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[101] Francis Walker. *Discussions in Economics and* Statistics, H. Holt and Company, 1899. *131*
[102] US Census Bureau, *Compendium of the tenth census (June 1, 1880)*, (Washington DC: GPO, 1882),. LXI

Conclusion

Fundamentally, the failure of the 1870 census tells us something of America's relationship to information. How charts and tables interact with the outside world and both impacts it and is impacted by it. The failure of 1870 shows how the creation of fact, or at least information that was designed to be treated as fact, can be subject to the eddies and currents of politics, and how that can affect the final product. In essence, that the census was imperfect not because the method of data gathering was wrong, it was because people were (and still are) imperfect and the census machinery did not have enough safeguards to protect it against them. We observed how intertwined the census was in national politics and society, and speculated on the impacts of the census being false, as well as the impacts of being perceived false.

Of course, today much has changed in our means of accessing and synthesizing data. The internet, GPS, and advanced computing have allowed for demographic information gathering in a breadth and depth unimaginable in the nineteenth century. But for all the technology, one thing has remained constant for every census since the first one conducted in 1790: that they are created and run by people.

With the rapidly approaching 2020 census there is a controversy remarkably reminiscent of an issue with the 1870 census. There is currently a discussion to add a question to the 2020 census that asks about the citizenship status of the participant. There are worries that, as one New York Times reported states, that it could discourage undocumented immigrants from participating in the census and causing an "undercount in areas of the country most heavily populated by new immigrants."[103] As observed, undercounts have the potential to cause great

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[103] Miriam Jordan, "If Census Asks About Citizenship, Some Already Have an Answer: No Comment," *New York Times*. March 27, 2018

harm to the nation, and special steps must be taken to ensure that does not happen, either by dedicating resources towards getting an accurate answer or removing the question entirely.

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