

**Americas First Wounded Warriors:
The Health and Movements of Civil War Veterans based on the 1890
Veterans Schedules**

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Abstract

The Civil War was a long and brutal conflict that left many dead but even more wounded. By 1890, the government deemed that these men who fought for the Union Army to preserve the Union should receive a pension. Others disagreed, so in 1890 the U.S. added a Veteran Schedule to the census. The people taking the census also interview every living member of the Union Army and their widows to check on the health of their veterans. They found the amount of health problems of the veterans to be numerous and further studies have found that these army veterans had more health problems than the normal population. The Veterans Schedules asked many other questions aside from the health of these veterans. This study takes a thirty percent sample of veterans living in Minneapolis and looks to see where these veterans had fought during the war and if certain groups of men had health problems that were unique to their service.

Contents

List of Tables.....	iv
List of Figures.....	v
Introduction.....	1
Cost & Kahn's and Fogel's Works.....	4
Understanding Why Minneapolis.....	7
The Veterans Schedules.....	11
Veterans and Their Health Problems.....	14
Conclusion.....	28
Appendix.....	30
Works Cited.....	37

Tables

Table A.1. Gastrointestinal Complaints by Rank.....	30
Table A.2. Gastrointestinal Complaints by Branch.....	30
Table A.3. Gastrointestinal Complaints by State.....	31
Table A.4. Joint Complaints by Rank	31
Table A.5. Joint Complaints by Branch.....	32
Table A.6. Joint Complaints by State.....	32
Table A.7. Combat Injuries by Rank.....	33
Table A.8. Combat Injuries by Branch.....	33
Table A.9. Combat Injuries by State.....	34
Table A.10. Non-Combat Injuries by Rank.....	34
Table A.11. Non-Combat Injuries by Branch.....	35
Table A.12. Non-Combat Injuries by State.....	35

Figures

Figure 1. Sample of Men Living in Minneapolis in 1890 and What State They Fought for During The Civil War.....	11
Figure A.1. 1890 Special Census.....	36

1. Introduction

...In fancy, the crashing roll of 30,000 muskets mingled with the thunder of over a hundred pieces of artillery, the sharp bursting of shells and the peculiar whizzing sound of it's dismembered pieces, traveling with a shriek in all directions; the crash and the thud of round shot through trees and buildings and into earth or through columns of human bodies; the "phiz" of the Minie ball; the uproar of thousands of voices in cheers, yells and imprecations; see the smoke from all the engines of war's inventions hanging like a curtain between the combatants; see the hundreds of wounded limping away or bore to the rear on litters; riderless horses rushing widely about; now and then blowing up of a caisson and human frames thrown into the air; the rush of columns to the front; the scattered fugitives of broken regiments and skulkers making for the rear.

-General Alpheus S. Williams, *From The Cannon's Mouth*

Union General Alpheus S. Williams of the Army of the Potomac is trying to describe the horrors of the battlefield to his daughters in the quote above. Not only was the battlefield a dangerous place for a Civil War soldier but so were the camps. These were places where disease was spread easily. One of the people well aware of the problems that came with soldiering was George Myers. George signed up with the 5th New York heavy artillery in 1862 and was shipped out to Harper's Ferry. At the end of the war in 1865 he would be discharged and would face a laundry list of problems that he attributed to his service in the Union Army.¹ George had chronic diarrhea, rheumatism, heart and kidney problems.² In 1890 George was living in

¹Fredrick Phisterer, ed., *New York in the War of The Rebellion: 1861 to 1865*, 2nd ed. (Albany NY: Weed Parson and Company, 1890), 339-340.

² Ancestry.com. *1890 Veterans Schedules* [database on-line]. Provo, UT, USA: Ancestry.com Operations Inc, 2005. Original data: Special Schedules of the Eleventh Census (1890) Enumerating Union Veterans and Widows of Union Veterans of the Civil War; (National Archives Microfilm Publication M123, 118 rolls); Records of the Department of Veterans Affairs, Record Group 15; National Archives, Washington, D.C., accessed February 12, 2015, http://search.ancestrylibrary.com/cgi-bin/sse.dll?db=1890veterans&gss=sfs28_ms_db&new=1&rank=1&msT=1&msrpn_ftp=Minneapolis%2C%20Hennepin%2C%20Minnesota%2C%20USA&msrpn=46194&msrpn_PInfo=8-%7C0%7C1652393%7C0%7C2%7C3247%7C26%7C0%7C1345%7C46194%7C0%7C&MSAV=0&uidh=xf6.

Minneapolis, but no record exists for him on the 1900 census nor does he have a pension record. It seems that George succumbed to his health problems within that ten-year period. Census records are therefore revealing when it comes to the postwar situation for soldiers because it tells us their health and where they fought. The service that these men had provided had aged them prematurely and left them damaged for life and it was now up to the Federal Government to repay the debt that they so grateful owed these men.

After seeing all the health problems that George Myers had there were more questions I had. My questions: what was the impact that this had on a single town? The schedules provide so much information into what happened to these men that I wanted to know who was living in my hometown, Minneapolis, during the 1890 Veterans Schedules? What state they had fought for during the war? What was their current health status in 1890, twenty-five years after the war?

The Civil War was a conflict between two countries: one the United States and the other the newly founded Confederate States of America that was comprised of former states. It was a brutal conflict. Many thought that the war would be over in three months and that all that was needed was one quick decisive victory. What happened over the course of the following four years proved the war was anything but quick and easy.

The Civil War was the largest mobilization of manpower the U.S. has ever seen. By war's end over two million men had served in the Union Army. All soldiers were forced to go through a medical examination prior to their service. In 1861 over

80 percent of the whole male population of the U.S. aged sixteen to nineteen and over 70 percent of males aged twenty to twenty-four were examined.³ This collection of medical knowledge on such a large part of the population is very rare, which is why the pre-war medical examinations are extremely valuable.

The conflict predated any form of motorized transportation and refrigeration, which meant that the armies marched long distances and often the food they had to eat was not of the best quality. Along with these issues, the tactics of war had not caught up to the new technology, meaning that soldiers now faced a greater threat of getting shot. Rifles had undergone a change where the barrel was rifled, meaning that the weapons could now be accurate at 500 yards rather than 150 yards. But men were still lined up in row formations often sent on charges straight into enemy fire, resulting in massive amounts of casualties. Medical practices were still in their infancy and often ineffective in treating sick or wounded soldiers. Pensions at the outbreak of the war were very limited. The Pension Act of 1861 read in part,

...That any volunteer who may be received into the service of the United States under this act, and who may be wounded or otherwise disabled in the service, shall be entitled to the benefits which have been or may be conferred on persons disabled in the regular service, and the widow, if there be one, and if not, the legal heirs of such as die, or may be killed in service, in addition to all arrears of pay and allowances, shall receive the sum of one hundred dollars.⁴

³ Robert W. Fogel, *Explaining Long-Term Trends in Health and Longevity*, (New York: Cambridge University Press, 2012), 107.

⁴ *Reports of the Committees of the House of Representatives for the Third Session of the Fifty Third Congress*, vol. 2, (Washington: Government Printing Office, 1895), 269, accessed February 12, 2015, <https://books.google.com/books?id=Nh42AQAIAAJ&pg=RA1PA2&dqhl=en&sa=X&ei=IwoPVfalPMeggwTugITIBQ&ved=0CB8Q6wEwAA#v=onepage&q&f=false>.

Many veterans who had fought had medical problems that resulted from their service to the Union Army, but they could not receive a pension because their condition was not a result of a battle wound. In 1890, the U.S. set out to find its veterans and find out what health problems they were experiencing. As a result, of what was learned, the government passed the *Dependent and Disability Pension Act* making provisions that allowed anyone who fought for the Union Army for ninety days and was honorably discharged to apply to receive a pension. The impact of this pension change was dramatic. Before the passage of the act, 573,944 veterans were receiving pensions for their service-related disabilities. After the passage of the act, 966,012 veterans were receiving pensions for their ninety plus days of service to the Union Army.⁵

2. *Costa & Kahn's and Fogel's Works*

The 1890 Veterans Schedules are as valuable as the information provided by the medical examinations before the war. The Veterans Schedules allow us to see the health of the veterans that fought during the war and compare them to the rest of the people living at the time. The *Dependent and Disability Pension Act* was likely passed through Congress because the health of veterans was worse than that of the members of society that had not served in the war. Since this is such a rich data set, many people that have come before me have worked with the 1861 Muster Rolls and the 1890 Veterans Schedules. One of the most famous studies is that of Dora Costa and Matthew Kahn. Their book *Heroes & Cowards: The Social Face of War*

⁵ Stuart McConnell, *Glorious Contentment: The Grand Army of the Republic, 1865-1900* (Chapel Hill: The University of North Carolina Press, 1992), 153.

takes a look at who signed up to fight in 1861 and who waited until later to sign up and join the fight. The book focuses on where the people lived when they signed up and what factors would have influenced their decision to fight even though the pay was lousy. They found that people that were from strongly ethnic communities that had strong ties to each other were more likely to fight and less likely to desert. Desertion was something a tight knit community would not stand for, especially when other members of the community had given their lives for the cause of preserving the Union.

Along with looking at why people fought and when they did, Costa and Kahn also looked into the conditions of building an army. They considered things such as who was picked to fight, and why some tried to get out of service. At first, when volunteers were called for, people signed up for service out of a feeling of love for their country. Many men who joined the army at the beginning would hold long-standing resentment against the men who waited to join the army until later. They often wrote home and told their loved ones that they despised the new volunteers and considered them cowards for waiting for extra incentives to join up. Even later on, when the draft was used, men who had enough money could find substitutes, men that they would pay to fight in their place, or they would pay a fee and be removed from service. Some ethnic groups were drafted in higher numbers than others; one of these was the Irish. The Irish did not want to fight during the war because they did not see how it benefited them. Because of this, other ethnic groups looked down upon their communities as cowards for not wanting to fight for the Union.

Costa and Kahn also look into the conditions that Prisoners of War endured and how these conditions affected their health. Prisoner exchanges were used early in the war as a way to avoid feeding and holding the large number of men captured. These armies that were constantly on the move had no way of feeding and holding POWs. Once the Union started using African American troops, the prisoner exchange system stopped. The Confederates did not see African Americans as equals, and when they were captured they were either put back into slavery or they would be executed. White officers in charge of African American troops were treated the same. Confederate troops would bury White officers with their African American troops rather than sending their body back North for burial, a sign of tremendous disrespect.⁶ Once the prisoner exchanges stopped, both sides built camps as quickly as they could to house the POW's. These makeshift camps were plagued with poor living conditions. Problems like overcrowding and disease were rampant in the camps. Near the end of the war the South was desperately low on food and other supplies and feeding the army was the first priority. This often meant that POW's got little to no food. Costa and Kahn paid careful attention to Andersonville, known as the worst POW camp of the Civil War. Conditions at Andersonville were so deplorable that the commander at Andersonville was the only member of the Confederacy to be put on trial for war crimes at the end of the Civil War. Prisoners of the camps were found to have medical conditions that directly stemmed from the

⁶ James McPherson, *Battle Cry of Freedom: The Civil War Era* (New York: Oxford University Press, 2003), 792-96.

poor living conditions.⁷

While Costa and Kahn looked at the soldiers fighting during the war and how the communities they came from shaped the units they fought in, Robert Fogel used the 1890 Veterans Schedules to analyze the veteran's health in the years after their service. Fogel looked at large groups of men, taking data from over two hundred companies, and studied the number of health problems that they reported. He then looked at the general health of the population at the time and compared the health of the veterans to the rest of the people. He discovered that veterans were less healthy on average. A Union army member was considered 58 percent disabled by the time that he was fifty-one years old on average. Fogel, with help from Dora Costa, looked at another source of veteran's health information, the World War II files. Much like the Civil War, World War II's mobilization of manpower was large in size. This provided another rich data set. Comparing the health of soldiers from the two wars twenty-five years after the conflicts, it revealed that Union soldiers were at a much greater risk for chronic diseases than even World War II veterans. World War II veterans not only had fewer chronic diseases, but they experienced a 47 percent lower mortality rate than Civil War veterans.⁸

3. *Understanding Why Minneapolis*

These studies done by Fogel, Costa, and Kahn have one thing in common: they took large samples of men from all around the U.S. and looked at their health in

⁷ Dora L. Costa and Matthew E. Kahn, *Heroes and Cowards: The Social Face of War* (Princeton NJ: Princeton University Press, 2008).

⁸ Fogel, *Explaining Long-Term Trends in Health and Longevity*, 112.

terms of a comparison to the non-military population. The authors covered different regiments and different home cities to give themselves the best possible sample of what life was like in the Union Army and what the soldiers' health was like after the war.

Minnesota was granted statehood in 1858 and, like many states, the major cities are located around the major waterways. In Minnesota, the major waterway is the Mississippi River, and one of the major cities is Minneapolis. Minneapolis already had occupants prior to statehood, but after the Civil War it grew quickly. The first census that was conducted on the city was in 1860. At that time it was claimed that there were fewer than six thousand residents.⁹ In just ten short years later that number had jumped to over thirteen thousand, and by 1890 census the population had jumped to 164,000 residents.¹⁰

Many people in the U.S. lived in rural areas during this time in American history, but that trend was changing. Starting in 1820, people slowly moved from rural areas into cities. This was for a number of different reasons, but the most important reason was jobs. Farming was one of the few ways to make a living in a rural area, but the living that one made was not luxurious. Cities offered new job opportunities, but as the cities grew, they became increasingly dirty. There was little, if any, regulation as to what someone could and could not do with trash and other articles they no longer wanted. This led many cities to have terrible living

⁹ United States Census Bureau "Census and Population of Housing" 1860, accessed January 31, 2015.

¹⁰United States Census Bureau "Census and Population of Housing" 1880, accessed January 31, 2015; United States Census Bureau "Census and Population of Housing" 1890, accessed January 31, 2015.

conditions. Following the end of the Civil War, there was a major push to leave the countryside behind and move to the city. This only added to the problems that were occurring in the cities. Rapid urbanization led to a deterioration in the already poor living conditions. With living conditions declining, the health of people declined. Therefore, the option for many was to move to newer, less well-established cities. For many people, that was Minneapolis, as can be seen from the increase in population according to the census.¹¹

Minneapolis, upon its creation, became a central hub for jobs due to its close proximity to the Mississippi River. The river would provide a means to ship materials to different areas of the country. Minneapolis' geographic location, high on the Mississippi, allowed for its business to serve all of the country. Minneapolis also grew in part due to the large sawmill and flour mill businesses located on the river around Saint Anthony Falls. The Falls of Saint Anthony provided power to the many major industries in the area. In the 1870's the waterfront was home to over twenty different businesses that employed a large number of people. The growth of many of these mills was by reason of the in-migration of Yankee immigrants from the eastern part of the country.¹² As Union soldiers moved into the city to find jobs after the war, they contributed much to the growth of the city's population.

Besides information on population numbers, the 1890 Veterans Schedules hold a wealth of information. For the 1890 Veterans Schedules U.S. census takers

¹¹ Fogel, *Explaining Long-Term Trends in Health and Longevity*, 30.

¹² David B. Danbom, "Flour Power: The Significance of Flour Milling at the Falls," *Minnesota Historical Society* 58, no. 5 (2003): 270–285, accessed March 8, 2015, <http://collections.mnhs.org/MNHistoryMagazine/articles/58/v58i05-06p270-285.pdf>.

went door-to-door and asked to talk to people. In each case, the veteran's name was taken down. If a veteran had passed away prior to 1890, his widow's name was taken down. In many cases where a widow provided information there were gaps in the knowledge. In addition to the Veteran's home, information that pertained to their war service was elicited, details such as what state they fought for during the war. After the state information was taken down, the regiment and company information was taken down. Much like past wars, local towns did the Civil War recruitment and then the recruits were put together into state regiments. This led to many problems with the quality of officers because almost anyone that could afford the fee to organize a regiment could go on to lead that regiment. This meant that men who had no military experience or military training would often be allowed to lead troops. After the Civil War this practice of recruitment and local training of soldiers was changed in favor of having standard army training for any man called into service. The next information gathered was what type of service the man was involved in. This could be infantry, Navy, Marines, cavalry or artillery. The dates and length of service were also recorded; however, the dates of service were often unreliable. Even though many of the men did not know exact dates, they still knew the month and year of their sign-up and discharge. The final aspects recorded by the census person were health problems that the veterans were experiencing and any personal remarks about their service. The veteran's remarks section is often filled with recordings about being taken prisoner or enlisting under a different name. Boys under the recruitment age were forced to acquire a signed letter from their father or mother letting them join up. However, in many cases when their

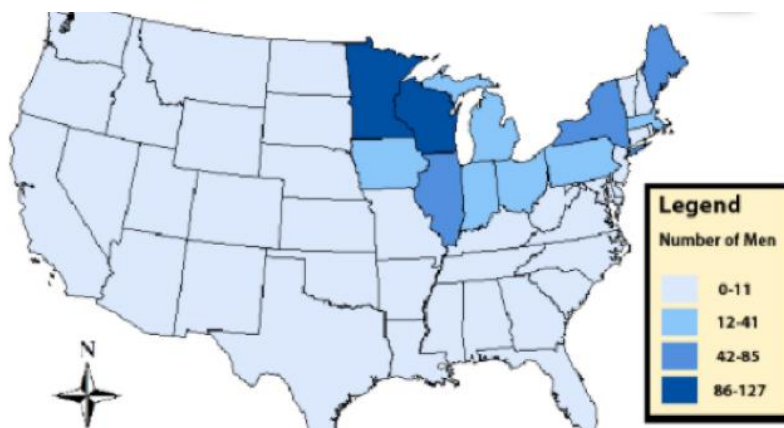
parents said “No”, the recruit went back and signed up under a fake name and lied about his age to get into the service.

4. *The Veterans Schedules*

Minneapolis had three hundred and forty-one pages of Veterans Schedules, so the author took a random sample of one hundred pages. The pages were randomized by using Microsoft Excel and entering in RANDBETWEEN(1-341) for one hundred cells. In cases of duplicate numbers, the following page was used. This provided the author with a sample of people living all across the city in different districts rather than just looking at those living in one part of the city. The pages varied in information. Some of the pages had all twelve veteran spots filled while other pages contained far fewer, and some pages had a single veteran on them. The hundred pages gave me a sample of seven hundred and twenty-nine veterans.

Figure 1 is a map of the one hundred page sample of veterans living in Minneapolis in 1890.

Figure 1. Sample of Men Living in Minneapolis in 1890 and What State They Fought for During The Civil War



Source: One Hundred Page Sample of Minneapolis Veterans, 1890

Much like today, some people chose to join a specific branch of the military and they were listed in the U.S. Army or Navy. Otherwise, recruitment was done at the state level. When recruitment was done by states, the older states in the Union had a greater obligation to fill the ranks of men than the newer states. The states out east that were part of the original thirteen colonies and had large populations were able to raise large numbers of regiments for the war. New York alone raised one hundred and ninety-four infantry regiments. Pennsylvania was able to muster a total of two hundred and fifteen regiments in all branches of the service. In comparison, Minnesota, which was in its infancy at the outbreak of war, mustered thirteen infantry regiments for the Union Army. This was by no means looked down upon, and some were surprised that the state could find the number of men it did to muster into service. One might expect that states like New York and Pennsylvania with the many soldiers they recruited would be major contributors of the veterans living in Minneapolis in the 1890 Schedules. However, Minnesota and Wisconsin were the states that provided the most veterans in the Schedules, making up close to 33 percent of all the men. New York does, however, have a strong representation with eighty-six veterans making it the third largest contributor. There were veterans that came from other locations; even Vermont, a state that does not get much attention when it comes to the Civil War's representation.

The 1890 Veterans Schedules were supposed to be for members of the Union Army only, but that did not stop some Confederates from being interviewed. Four men are listed as Confederates, but we know from the remarks section that an additional veteran, a soldier from Kentucky, was also a Confederate. In addition,

soldiers from Virginia and Tennessee also fought for the Confederacy during the war. In fact, some states were split on which side to fight for during the war. In a few cases, states had regiments fighting for both sides. Kentucky, Missouri and Arkansas were the states which provided men for both armies, in large part due to their geographic location between North and South.¹³

In addition to data on where these men were from, the Veterans Schedules provided the ranks of the men upon discharge. The lowest rank that a soldier could be was a private; interestingly enough, privates and musicians were considered the same rank. Ranks after that were corporal, sergeant, 2nd lieutenant, 1st lieutenant, captain, major, lieutenant colonel, colonel and general. Of the ranks, one would expect that the lowest, private, would have the most men and that was found to be correct, since over 65 percent of the veterans had been privates.¹⁴ Surprisingly enough, the second highest number of men had been sergeants. It is notable that the second largest group is from higher up in the ranking system than the corporals, which they narrowly edge out. In the Veterans Schedules there are also a few members of the Navy. In the Navy, seaman is the lowest rank followed by mate and then master mate. Of the Navy men to answer the census, four referred to themselves as privates, which would be the lowest rank, meaning in the Navy they would have been seaman. As to why they identified themselves as privates, one cannot say.

¹³ McPherson, *Battle Cry of Freedom*, 284-297.

¹⁴ *Uniform and Insignia: Guide to the Wear and Appearance of Army Uniform and Insignia* (Washington D.C., Department of the Army, 2014), 167, accessed March 10, 2015, http://www.apd.army.mil/pdffiles/p670_1.pdf.

5. *Veterans and Their Health Problems*

The men who fought during the conflict were left with a host of different health problems at the end of their service. Some you might expect of a soldier, for example, gunshot wounds or wounds from cannon balls. But the list went far beyond just gunshot and cannon ball wounds; the list of health problems includes forty-eight different health problems that veterans were experiencing. Many of the different health problems fall under broader categories. There were quite a few different lung problems and different types of gastrointestinal problems. We often think that the health of people have increased over time, the average age that people live to has been increasing but that is not the case for this group of veterans. For males that would have been 20 to 29 in 1861, which is the large bulk of the fighting force, had higher chronic disease rate than population of people 20 years older than them.¹⁵

The biggest category of different health problems was lung diseases. The veterans complained of numerous lung problems. Most reported general lung problems, but some had actual diseases that they were able to list. Tuberculosis was one that veterans listed. Tuberculosis attacks the lungs and was often fatal in the 1890s. Pneumonia was another lung disease that was reported, and it would also have been fatal to people in 1890. Other lung problems that were reported were asthma, pleurisy, and catarrh. Asthma is a disease that causes shortness of breath.

¹⁵ Dora L. Costa, "The Health of Older Men in the Past," in *Health at Older Ages: The Causes and Consequences of Declining Disability Among the Elderly*, ed. David M. Culter and David A. Wise (Chicago: University of Chicago Press, 2008), 22.

Pleurisy is an inflammation of the lungs that can lead to a host of other issues such as lung cancer and can lead to heart problems. Catarrh, another complaint, is an excessive build up of mucus in the nose or throat from an inflammation of the mucus membrane in the lungs, which leads to a deep chest cough. Although catarrh is not fatal by itself it can cause extreme discomfort. These lung diseases were just a few of the many problems that the veterans mentioned.

Gastrointestinal problems were also quite numerous among the Civil War veterans. One complaint was that of chronic diarrhea. Chronic diarrhea is defined by American physicians as loose stools that occur at least three times a day and last for a minimum of at least a month.¹⁶ Diarrhea is a serious medical condition because it can lead to severe dehydration, which in some cases can lead to death. Another gastrointestinal problem that veterans reported was piles. Piles is the 1890 word for hemorrhoids, and hemorrhoids, while not fatal, do cause a lot of pain. Another complaint, Typhoid Fever, is a gastrointestinal disease that up until the twentieth century was often fatal. Typhoid hit soldiers especially hard. It is estimated that 81,630 Union soldiers died during the war from Typhoid.¹⁷

With all the different health problems listed on the Veterans Schedules, it was best to put them together into groups. Men who indicated they suffered no health complaints received a rating of 0; men who complained of lung conditions

¹⁶ Gregory Juckett, MD, MPH, and Rupal Trivedi, MD, "Evaluation of Chronic Diarrhea," *American Family Physician* (November 15, 2011), accessed January 31, 2015, <http://www.aafp.org/afp/2011/1115/p1119.html>.

¹⁷R. S. Bray, *Armies of Pestilence: The Impact of Disease on History* (Cambridge England: James Clarke & Co., 2004), 191.

were given a rating of 1; and men who complained of gastrointestinal problems received a 2. Fever sufferers were given a rating of 3, which included Malaria. Rating 4 was for veterans with joint problems such as rheumatism, also known as arthritis today. Disabilities related to combat had the number 5, and signs of Post Traumatic Stress Disorder (PTSD) were given a rating of 6. Non-combat injuries were given a rating of 7, and they included such things as mule kicks, being thrown off a horse and any other type of accident that could have occurred. Category 8 is arteriosclerosis, which is heart problems and other related issues such as stroke, memory loss and paralysis. Category 9 is Army-related, non-battle disabilities, which are complaints that occurred because of a man's service, and comprised things such as sore feet from marching or sunstroke. Category 10 was for anyone who was discharged by a surgeon. This is often for soldiers who received severe wounds in battle. Category 11 was for veterans with liver and kidney problems. Fifty-four of the men reported that they suffered from multiple health problems.

After giving all the different health problems numbers, making it easier to identify, the author was able to run tests against different variables to see what was most likely to affect the health of the veterans. Health problems became the dependent variable, and the other variables that the author looked at were rank, length of service, state fought for, and branch of service. The author then chose the four categories with the highest health complaints: Gastrointestinal, Joint Problems, Combat related disabilities, and Non-combat injuries. With these variables assigned, means tests could be created to see if any of the variables had an above average mean and if there were any positive correlations with any of the health problems.

Gastrointestinal health problems were predominant among many of the groups of men. Corporals, lieutenants, and sergeants were all above the mean for gastrointestinal health problems. Privates were close to the mean. For the branch of service, heavy artillery, infantry and cavalry were all above the average. When broken down by states, it appears that gastrointestinal problems were a problem for veterans in all states as many states are above the mean, but the State of Illinois stood out as well above the mean. Length of service did not provide a positive correlation, meaning that the length that one served did not have an effect on gastrointestinal problems. Gastrointestinal problems can be linked to eating bad food or drinking contaminated water. During the war, transportation was not great and both armies often relied on wagon trains to deliver supplies from the nearest railhead. This was an issue because, in many cases, these wagon trains were high-value targets for the other army, meaning that supplies were often stolen before they made it to their intended destination. The wagon trains carried supplies, but more importantly they carried food for the army. Due to the lack of refrigeration, a typical soldier's diet consisted of salted pork or another kind of salted meat, cornmeal and sometimes hardtack, a simple cracker made of flour. Meat could very easily spoil, and in many cases the hardtack could get infested with insects. Soldiers were often forced to drop the ration into their coffee so the insects would float to the top to be skimmed off. The average male in 1861 in his thirties who was about 69.7 inches tall and weighed 172 pounds, required 2,279 calories for baseline maintenance.¹⁸ This requirement was rarely met and the lack of food required

¹⁸ Fogel, *Explaining Long-Term Trends in Health and Longevity*, 92.

soldiers to scavenge for food, and in many cases, the food that they found was not good quality. One war account spoke of this situation regarding one soldier in particular: "With a big piece of rancid cheese you may see them sitting at the foot of a big tree, and gorging themselves to an awful extent... and the next day he was sick and has been sick for the last two weeks."¹⁹ This scrounging of food would explain why the men constantly on the move and in the field, like the men of the infantry and cavalry, had higher incidences of gastrointestinal problems than other branches of the service. (See tables in appendix for a full breakdown of Gastrointestinal Complaints by Rank, Branch and State.)

Soldiers spent most of their time in camps rather than fighting battles. This led to a lot of downtime and time spent on picket duty. All this came with sleeping outside at night; if it was rainy, the troops were offered little cover from the elements as they often slept on the ground under small tents in the summer months. During the winter months, where there was usually a break in the fighting, the men would take to barracks in winter camps. The conditions in these camps often were just as bad if not worse than camping outside during the summer months. Nearby streams were used for latrines and they were places where gastrointestinal tract diseases thrived.²⁰

One group that was well below the mean for gastrointestinal health

¹⁹ John Zimm, ed., *This Wicked Rebellion: Wisconsin Civil War Soldiers Write Home* (Madison WI: Wisconsin Historical Press, 2012), 65.

²⁰ Gary Helm, "Life of a Civil War Soldier in Camp," *Hallowed Ground*, Winter 2013, accessed January 30, 2015, <http://www.civilwar.org/hallowed-ground-magazine/winter-2013/life-of-the-civil-war-soldier-camp.html>.

complaints were members of the artillery. Many artillery units were placed around Washington D.C. for the protection of the capital and others were stationed around major armories in the North. The members of these units had regular barracks that provided them with a stable roof over their head and they avoided sleeping on the ground. These areas also had a permanent waste system so men were less likely to catch an infection from poor sanitation. Along with both those improvements, the men in these areas received regular shipments of food and had access to clean water. Members of the artillery were better because, in some cases, it allowed them to escape some of the gastrointestinal problems that plagued the rest of the army units.²¹

Joint problems were another issue that many veterans complained about. Running the same set of tests as before revealed privates were above the mean when it came to joint issues. Compared to other White males in 1890 Union Army Veterans had on average prematurely aged ten to twenty years.²² When broken down by branch of service, heavy artillery, artillery, and cavalry were above the mean and infantrymen were close to the mean. Wisconsin, Ohio and Minnesota were all states that were above the mean when it came to joint problems. When a correlation test was run considering length of service and joint problems, it came up with a .059 correlation, which means that it meets the minimum requirement for a correlation. Two of the large groups that complained about gastrointestinal

²¹Sarah Richardson, "A Day in the Life of a Solider," *American History* 49, no. 1 (April 2014): 44-49; Benjamin Franklin Cooling III and Walton H. Owen II, *Mr. Lincoln's Forts: A Civil War Defenses Guide to Washington* (Lanham MD: Scarecrow Press, 2009), 1-3; Zimm, *This Wicked Rebellion*, 61-63.

²² Costa, "The Health of Older Men in the Past," in *Health at Older Ages*, 34.

problems, infantry and cavalry were also two that had joint complaint issues. Not only would eating spoiled food lead to many of the gastrointestinal problems in the health of veterans that we see such as chronic diarrhea, but the lack of food could lead to some of the other health problems. Malnutrition at a constant rate can cause the degradation of body's tissue and joints; it also has an effect on vital organs such as the heart, lungs and gastrointestinal tract. A decrease in the amount of nutrients the body takes in results in a poorer immune system and leads to people catching chronic diseases such as rheumatism, which was often reported.²³ These effects were long lasting for the members of the army. "At ages fifty-five to sixty-four, Union Army Veterans looked like seventy-five to eighty-four-year-old men in 1988-1994."²⁴ (See tables in appendix for a full breakdown of Joint Complaints by Rank, Branch and State.)

While cavalry members were afforded the luxury of not having to march from place to place, which saved wear and tear on their feet, there are problems that come from spending a lot of time riding a horse. Riding a horse for an extended period of time leads to back soreness that can be caused by the compression of the disks in the back. Cavalry charges usually resulted in enemy soldiers being on either side of the person on the horse, which meant that a lot of twisting movement was involved. There is also a considerable amount of leverage put on different body parts when a person's sword makes contact with an object. The horse keeps moving when the blade does not, often causing torque on the rotator cuff resulting in arm

²³ Fogel, *Explaining Long-Term Trends in Health and Longevity*, 94.

²⁴ Costa, "The Health of Older Men in the Past," in *Health at Older Ages*, 34-36.

and shoulder injuries. This is why we see high rates of joint problems among the cavalry.

The next set of tests was run on combat injuries. The Civil War is known for having notoriously brutal battles. The tactics that were being used in the field had become outdated due to new technologies, but both sides were stuck in their ways and this led to high casualty and injury rates. Officers were all above the mean for being wounded in combat, and privates were right at the mean. When looking at the branches of service, it is clear that the infantrymen bore the brunt of the combat injuries, as the soldiers in that branch are well above the mean. When looking at states, men from Ohio and New York were more likely to be wounded in service. There was also a high correlation of .086 with the length of service, meaning that the longer one served, the more likely he was to suffer a combat injury. Some men that suffered combat wounds died, and their widows listed things like "Died from cannon shell explosion." Other men were left lame or paralyzed from their wounds. One man, Louis Bodine of the 149th Pennsylvania infantry, was shot and wounded in the leg three different times during his two years of fighting. On the Veterans Schedules he complains that he has trouble walking due to the wounds in his leg.²⁵ (See tables in appendix for a full breakdown of Combat Injuries by Rank, Branch and State.)

The last of the major health complaint groups were veterans who suffered non-combat injuries. Non-combat injuries are common in every war whether they happen in training, or, some sort of equipment breaks and causes injury. This was

²⁵ 1890 Veterans Schedules, Minneapolis: accessed at http://interactive.ancestrylibrary.com/1890VeteransSchedules_139.

just as common in the Civil War as it is today, although the factors at play were quite different. Instead of having a truck run over your foot, you might be kicked by a mule. When looking at the mean for non-combat injuries, two groups stand above the mean, corporals and privates. Privates' being above the mean makes sense because they would have been the ones most likely doing the heavy grunt work and would be at risk of accidents. There is no explanation as for why the corporals have a high non-combat injury occurrence. When broken down by states, New York, Michigan and Minnesota all fall above the mean for non-combat injuries. There is also no explanation for why these states had higher non-combat injuries reported. (See tables in appendix for a full breakdown of non-combat by Rank, Branch and State.)

There are two groups above the mean when the data is broken down by branch: artillery and infantry. For non-combat injuries it is not surprising to see the artillerymen above the mean. During the Civil War, artillery pieces were dragged to the battlefield by horses and mules. These animals could kick and hit someone or the straps of the artillery piece could break and the whole cannon might roll over anyone in its path. Artillery commanders were often on horseback riding up and down the lines calling out orders directing the men where to direct fire and what type of cannon shot should be used. Horses can often become spooked when an explosion or any other loud noise is created. A few of the artillerymen on the census listed their health complaints as stemming from falling off a horse. Some of the complaints were as simple as broken bones that did not heal properly and still continued to cause the men pain; others were more serious. These included parts of

their bodies that were lame or paralyzed from accidents. Other members of the artillery claimed rupture or hernias from lifting the heavy cannon balls, or, trying to move the cannons. Non-combat injuries could often be just as severe as combat injuries, leaving a Civil War soldier with no safety anywhere. When looking for a correlation between length of service and a non-combat injury, there was found to be no correlation found.

Besides the Navy, every branch had groups of men that were more likely to suffer a health problem. Even though the Navy's sample size, of ten men, was rather small, only one man made health complaints. This could be for a number of different reasons, such as the limited conflict that some ships saw because of the use of many of the navy's vessels for blockade purposes. John Morrison's diary gives us a better insight into why Navy men could have been healthier. He explains that when members of the Navy got sick or were wounded, they were sent to a hospital boat as quickly as they could be transferred, which meant that men who came down with a sickness were taken care of quicker than those in the field. That extra time could have been the difference between someone surviving the disease or injury and someone dying from it.²⁶

There are two special groups of veterans that had health problems that stood out. These two were men who were POW's and men that made a claim of a health issue similar to PTSD. Both these groups were of special interest due to the differing natures of their experiences. The POW's are interesting because, depending on

²⁶Library of Congress, *The Civil War Diary of John G. Morrison: 1861-1865* (Damascus MD: Penny Hill Press, 2013), 68-9.

when someone was taken prisoner, they might have had a different experience than had they been taken prisoner at a different date. The PTSD group is an interesting group because it has not been until recent that the public has started to understand the traumas that come with combat.

The Civil War was supposed to be a war that was fought with honor. At the outbreak of the conflict, neither side imagined that the war would stretch out into four long years and leave the brutal trail of destruction that it did. Since this was a war of honor like most wars previously, when enemies were taken prisoner they were often only held for a few days until an exchange could be made. These prisoner exchanges often took a little time to work out, but more often than not, the exchange took place in a quick manner. The speed of the exchange was important because the armies did not want to spend precious resources, such as manpower and material, to guard these men. Unlike conflicts today, where there are more soldiers in the rear setting up communication and working on logistics to keep the men on the front lines fighting, the armies of the Civil War were always on the move. They did not leave soldiers in the rear to cover things unless it was a major city or a site of military interest.

This honor based prisoner exchange system worked until 1862 when Lincoln called for Black soldiers to fight for the Union. Though the recruitment of Black soldiers did not become official until January 1863, with the passing of the Emancipation Proclamation, President Lincoln claimed that Black soldiers must be treated and exchanged in the same way as White soldiers. At this point the President of the Confederacy, Jefferson Davis, said that the South would not exchange Black

soldiers or their White officers as part of the exchange system, so President Lincoln was forced to issue General Order 252 and stop the prisoner exchange system.²⁷ This meant that both sides now had to build facilities to house the prisoners that they captured. Three men on the Veterans Schedules were taken prisoner prior to the suspension of the exchange system. None of the three men served more than three months in captivity, and none had health complaints. However, ten men were taken prisoner after the end of the exchange system and their lives were far different.

Of the ten men taken prisoner after the suspension of the prisoner exchange rule, five of those men were sent to Andersonville and five were sent to other prisons. Andersonville was the worst prison camp that a POW could be sent to. The camp was originally set up to house 10,000 men, but at one point in the war, it held 32,899.²⁸ Along with the overcrowding, there were no main structures in the camp aside from a fence to keep POW's inside. Men had to build their own shelters out of the blankets or tents they possessed upon capture. Some men were able to pay guards to bring them small trees they could cut apart to help support any form of protection from the elements that they could build. The camp contained a stream that ran through it. This stream was used as a latrine and also the camp's source of water; therefore, diarrhea and dysentery were common in the camp. The lack of adequate food was also a problem at Andersonville where food was scarce and

²⁷ McPherson, *Battle Cry of Freedom*, 567.

²⁸ Lonnie R. Speer, *Portals to Hell: Military Prisons of the Civil War* (Mechanicsburg PA: Stackpole Pole Books, 1997), 332.

meals did not contain Vitamin C. This meant that it could take as little as three months before a prisoner would start to suffer from Scurvy.²⁹ Of the five men that spent time in the Andersonville prison camp, two suffered from scurvy and all of them suffered chronic diarrhea. Three of the five men sent to the other prison camps suffered similar health problems. It appears that being captured as a POW after the end of the prisoner exchange severely increased your chances of having major health problems.

As noted above, there was another group whose health problems stood out: soldiers with PTSD-like complaints. One of the growing problems that people have had to address recently is a military member that returns home with PTSD. PTSD was given many names before it became officially recognized. It was called things such as shell shock and the thousand-yard stare. People in the 1860's did not know what the soldiers were going through upon their return to civilian life, and many of the men that suffered PTSD would have been deemed crazy. We have learned that the more violent the conflict, the more likely someone is to suffer from PTSD. There are a number of factors that contribute to someone suffering PTSD, but we know from studying members of the Army and the Marines in Iraq that being shot at, seeing dead bodies, being attacked and knowing someone who is killed or seriously injured all carry over an 85 percent risk of creating PTSD in a veteran.³⁰

²⁹ William Marvel, *Andersonville: The Last Depot* (Chapel Hill: University of North Carolina Press, 1994), 79.

³⁰Brett T. Litz and William E. Schenger, "PTSD in Service Members and New Veterans of the Iraq and Afghanistan Wars," *PTSD Research Quarterly* 20, no. 1 (Winter 2009): 1-3, accessed March 6, 2015, <http://www.ptsd.va.gov/public/PTSD-overview/reintegration/overview-mental-health-effects.asp>.

Recent studies of veterans coming back from war zones show that it is people that see action on the front lines that are most likely to suffer from PTSD. During the Vietnam War it is estimated that about 30 percent of returning service members suffered PTSD. For the Gulf War that number decreases to 12 percent and for Operation Iraqi Freedom, it is estimated to be between 12-20 percent.³¹ All of these conflicts had fewer people who saw action than the Civil War when comparing the population size of the country at the time of the conflict.

There are three people of the Veterans Schedules that had health problems that resemble PTSD. The first one is a man from the 1st Minnesota Infantry; he is listed as having “Traumatic fear of explosions.” He only served six months in the service, and he would have seen action at the First Battle of Bull Run. Another man with symptoms resembling PTSD fought for Pennsylvania during the war and then reenlisted for three more years after the war. He is listed as his “Mind not right” under the health problems column. The third and final veteran was a member of the 2nd Minnesota Cavalry who is listed as having “Nerve damage of battle.” The men who suffered PTSD symptoms do not even make up 1 percent of the Veteran Schedules. We can guess that the number of Veterans suffering from some sort of PTSD was probably between 20 and 30 percent, if not higher, based on estimates of other past conflicts. One reason that we might see such a disparity in the numbers is many of the men that had PTSD were thought of as mentally weak if they admitted

³¹ Richard A. Kulka et al., *Trauma and the Vietnam War generation: Report of findings from the National Vietnam Veterans Readjustment Study* (New York: Brunner Mazel Publishers, 1990), 5-6; Jamie L. Gradus, *Epidemiology of PTSD*, in US Department for Veteran Affairs, accessed March 6, 2015, <http://www.ptsd.va.gov/public/PTSD-overview/basics/how-common-is-ptsd.asp>.

to PTSD and in many cases were it effected men noticeable they were sent off to insane asylums. Here they would often be locked up until they died.³² In this case they were not on the Veterans Schedules because they were not living in a place that was surveyed, meaning we are missing groups of men with specific health issues.

6. Conclusion

There were a number of different factors at play in the health of Union Army veterans. One was new battlefield technology like the new rifles that were still paired with old shoulder-to-shoulder marching and charges. The lack of proper food storage and transportation lead to a number of chronic diseases that would follow these men the rest of there lives and cut their lives short in many instances. These Veterans Schedules were not the end of suffering for men, ten percent of the Union Army Veterans on the Veteran Schedules would be dead of a stroke by 1917. Of which the leading factors are diets high in salt and stress.³³ Poor medical care of the time meant that many of these problems that the men had became fatal when nowadays it would take just a visit to the doctor. These men put their lives on the line on the battlefield but unbeknownst to them army life gave them health problems that they would not find out until further down the road. Meaning that the government did not fully understand the sacrifices that these men made.

In conclusion, it is clear that a large number of veterans of the Union army moved to the city of Minneapolis looking to create a new life after the war and to

³² Tony Horwitz, "PTSD: The Civil War's Hidden Legacy," *Smithsonian* 45, no. 9 (January 2015): 44-49.

³³ Costa, "The Health of Older Men in the Past," in *Health at Older Ages*, 29.

find work in any number of the city's booming industries. The sample of Minneapolis Veterans found much the same information that Costa, Kahn, and Fogel found in their research. The men who fought in the Civil War came home a battered group of men with numerous health problems that would follow them for the rest of their lives. The service that they had given to the country had truly made them worse off than when they left for battle, and they were affected more than any group who would fight in later conflicts. One thing that is certain, the members of the Union Army paid a high price for reuniting the nation.

Appendix A Sampling of Minneapolis Veterans, 1890

Table A.1. Gastrointestinal Complaints by Rank

Rank	Mean Percent Affected In %	Number of Men
Other		23
Captain	0	19
Corporal	24.19	62
Lieutenant	18.75	48
Major	28.57	7
Musician	0	16
Private	11.69	479
Sergeant	13.43	67
Surgeon	2	10
Total	12.76	729

Source: See Figure 1.

Table A.2. Gastrointestinal Complaints by Branch

Branch	Mean Percent Affected In %	Number of Men
Other		39
Artillery	4.88	41
Cavalry	13.85	65
Heavy Artillery	14.29	28
Infantry	14.1	546
Navy	0	10
Total	12.76	729

Source: See Figure 1.

Table A.3. Gastrointestinal Complaints by State

State	Mean Percent Affected in %	Number of Men
Other		47
IL	5	60
IN	6.06	33
IA	15.38	26
MA	13.33	30
ME	9.86	71
MI	9.52	21
MN	7.38	122
NH	9.09	11
NY	17.44	86
OH	3	40
PA	9.52	42
US	0	15
VT	10	10
WI	6.09	115
Total	10.7	729

Source: See Figure 1.

Table A.4. Joint Complaints by Rank

Rank	Mean Percent Affected in %	Number of Men
Other		23
Captain	5.26	19
Corporal	0	62
Lieutenant	4.17	48
Major	0	7
Musician	0	16
Private	6.05	479
Sergeant	5.97	67
Surgeon	0	10
Total	5.21	729

Source: See Figure 1.

Table A.5. Joint Complaints by Branch

Branch	Mean Percent Affected In %	Number of Men
Other		39
Artillery	2.44	41
Cavalry	12.31	65
Heavy Artillery	7.14	28
Infantry	4.76	546
Navy	0	10
Total	5.21	729

Source: See Figure 1.

Table A.6. Joint Complaints by State

State	Mean Percent Affected In %	Number of Men
Other		47
IL	5	60
IN	3.03	33
IA	3.85	26
MA	0	30
ME	2.82	71
MI	0	21
MN	9.84	122
NH	0	11
NY	5.81	86
OH	7.5	40
PA	0	42
US	0	15
VT	0	10
WI	9.57	115
Total	5.21	729

Source: See Figure 1.

Table A.7. Combat Injuries by Rank

Rank	Mean Percent Affected in %	Number of Men
Other		23
Captain	31.58	19
Corporal	12.9	62
Lieutenant	10.42	48
Major	14.29	7
Musician	0	16
Private	10.65	479
Sergeant	10.45	67
Surgeon	0	10
Total	10.7	729

Source: See Figure 1.

Table A.8. Combat Injuries by Branch

Branch	Mean Percent Affected in %	Number of Men
Other		39
Artillery	4.88	41
Cavalry	4.62	65
Heavy Artillery	7.14	28
Infantry	12.64	546
Navy	10	10
Total	10.7	729

Source: See Figure 1.

Table A.9. Combat Injuries by State

State	Mean Percent Affected In %	Number of Men
Other		47
IL	5	60
IN	6.06	33
IA	15.38	26
MA	13.33	30
ME	9.86	71
MI	9.52	21
MN	7.38	122
NH	9.09	11
NY	17.44	86
OH	3	40
PA	9.52	42
US	0	15
VT	10	10
WI	6.09	115
Total	10.7	729

Source: See Figure 1.

Table A.10. Non-Combat Injuries by Rank

Rank	Mean Percent Affected In %	Number of Men
Other		23
Captain	0	19
Corporal	11.29	62
Lieutenant	8.33	48
Major	0	7
Musician	0	16
Private	10.23	479
Sergeant	7.64	67
Surgeon	0	10
Total	9.19	729

Source: See Figure 1.

Table A.11. Non-Combat Injuries by Branch

Branch	Mean Percent Affected in %	Number of Men
Other		39
Artillery	12.2	41
Cavalry	9.23	65
Heavy Artillery	3.57	28
Infantry	9.71	546
Navy	0	10
Total	9.19	729

Source: See Figure 1.

Table A.12. Non-Combat Injuries by State

State	Mean Percent Affected in %	Number of Men
Other		47
IL	8.33	60
IN	9.09	33
IA	3.85	26
MA	10	30
ME	9.86	71
MI	14.29	21
MN	11.48	122
NH	9.09	11
NY	11.63	86
OH	0	40
PA	16.67	42
US	6.67	15
VT	10	10
WI	7.83	115
Total	9.19	729

Source: See Figure 1.

Figure A.1. 1890 Special Census

Age		Name of Person or Persons, Soldier, with Rank, and Where.	Rank	Company	Date of Enlistment or Term	Date of Discharge	Date of Discharge	Length of Service		
1	2							3	4	5
2	4	Widow of Carrington, David D.	Private	B	Chicago Ill 25 Dec 1861	July 1865		1	7	24
10	20	Frank Anderson	Private	A	11 Dec 1861	25 Jan 1865		2	9	0
11	36	Michael J Kennedy	Private	A	2 Wash DC 2 July 1861	2 July 1865		4	3	0
22	35	Thomas S. G. Gough alias Kearney, Thomas B.	Private	D	20 Dec 1861	18 July 1865		3	1	4
15	56	Samuel Scherthorne	Private	D	18 Dec 1861	11 Aug 1865		2	11	12
8	71	John Miller	Private		27 Dec 1861	4 July 1865		0	11	24
10		Do	Private		17 Aug 1861	1 Feb 1865		2	7	8
12	10	Harrison Thompson	Private	B	21 Dec 1861	11 July 1865		2	11	26
15	56	Helen D. Prince	Private	B	112 Dec 1861	1 Aug 1865		0	9	4
12	12	A. C. P. Bruce	Private	A	12 Dec 1861	17 Apr 1865		2	4	1
15	146	Thomas H. Gallagher	Private	B	1 Dec 1861	12 July 1865		1	7	7
16	149	John C. Maloney	Private	B	7 Jan 1862	1 July 1865		0	4	21
10		11		12						
2109	22 Dec. So.									
2112	22 Dec. So.	Amputated								
2013	22 Dec. So.									
2219	22 Dec. So.									
2222	22 Dec. So.	Shot through right lung								
2223	22 Dec. So.									
2210	21 Dec. So.	Amputated in left hip								
2227	22 Dec. So.	Shot through left shoulder								
2222	22 Dec. So.	Shot through jaw, left arm and wounded in both shoulders								
2217	21 Dec. So.	Wounded in left hip								
2121	24 Dec. So.	Right hand shot through								

Source: See footnote 2.

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