

ECONOMIC CONDITIONS OF THE STATES BEFORE AND AFTER THE AMERICAN CIVIL WAR

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Received 2014-07-30; Revised 2014-10-08; Accepted 2014-10-16

ABSTRACT

Even though, the American Civil War is considered as a seminal event in the history of the United States, there are not many empirical studies examining economic conditions of the Union and the Confederate states. Even though, economic conflict is not considered to be a cause of the Civil War, economic conditions after the war were vastly different in the Union and the Confederate states. The purpose of this study is to analyze the economic outcomes of individuals in the Confederate states and the Union states before and after the American Civil War using census data for 1860 and 1880. Our goal is to analyze the improvements in the occupation income scores. Since the slaves were freed, we also examine whether there was a reduction in the farm households.

Keywords: The American Civil War, Census, Confederate States, Occupational Income Score

1. INTRODUCTION

The American Civil War is an event of significant economic impact in the American history. The war resulted in the abolition of slavery in the Southern states and preservation of the Union. The issues relating to slavery, trade and tariffs and state's rights were causing divisions between the Northern and the Southern states before the Civil War. The economic divisions with the Northern states with growing manufacturing sector and small farms using free labor and the Southern states with large farms using slave labor aggravated the situation. When the Northern states wanted to ban slavery in the Western Territories that would become new states, the Southern states feared that such a move would eventually result in the abolition of slavery and loss of their valuable assets in the form of the slaves. The American Civil War began with the secession of the Southern states, South Carolina, Mississippi, Florida, Alabama, Georgia, Louisiana, Texas, Virginia, Arkansas, Tennessee and North Carolina, in the sequential order, from the Union in 1860-61. The war ended in 1865 with death of more than 750,000 people (Hacker, 2011) and destruction of the South's infrastructure. Even though

there is a vast literature on the economic impact of the civil war, most studies focus at the macroeconomic level. The purpose of this study is to examine the impact at the individual level using census data.

2. LITERATURE REVIEW

The American Civil War has been examined in detail. Therefore, we will only discuss literature relevant to this study. According to Beard and Beard (1927), the defeat of the agricultural South resulted in the "rise of capitalism". Hacker (1940) also comes to the same conclusion. However, his thesis is that the victory of the Northern states provided the industrialist-capitalist class clout to pass legislation that resulted in "the triumph of American capitalism." (Goldin and Lewis, 1975). In short, both Charles and Mary Beard and Hacker conclude that even though the Civil War caused extensive damages, it also generated net benefits because of subsequent high growth. However, Cochran (1961), Salsbury (1967; Engerman, 1966) challenge these views. Cochran, for example, finds that the growth in value added from 1839 to 1859 are similar to those from 1869 to 1889. Engerman (1966) finds that commodity output growth between 1870 and 1900 was similar to that

between 1840 and 1860. Engerman (1966) also finds no basis for the claim that US economic activity took off after the war based on Gallman (1966) GNP estimates. Therefore, we may conclude that the Civil War was not a defining moment as Beards and Hacker have claimed.

Even though, the census data has been an extensive source for micro-level analysis, there are not many studies that analyze the Civil War using census data. Hacker (2011) uses it to estimate the number of Civil War dead. Jaworski (2009) uses linked sample of census data for 1850 and 1870 to examine wealth buildup and concludes that wealth accumulation was significant in the Southern states in the 1850's and sluggish in the 1860's. His findings also include that white-collar professionals and blue-collar workers benefitted enormously between 1850 and 1870 and farmers suffered after the war. Steckel (1989) uses it to examine incomes between 1850 and 1860. According to Ransom and Sutch (2001), even though industrial sector in the Southern states grew after the war, rebound in the agricultural sector was sluggish because of abolition of slavery.

There is also a vast literature on the impact of civil war in other countries. A comprehensive review of the literature on the costs of civil war in various countries can be found in the WB (2003). The literature on the consequences of civil war can be categorized based on economic, health and other impacts. According to Collier and Hoeffler (1998), initial income, ethno-linguistic fractionalization, the amount of natural resources and initial population are four major determinants of the duration and probability of civil wars. Fosu and Collier (2005) examine post conflict situations particularly in Sub-Saharan Africa with the emphasis on policies that either maintain or end peace. According to Murdoch and Sandler (2004), civil wars reduce the economic growth of the neighboring countries and regions. Organski and Kugler (1981), based on an analysis of economic impacts of both world wars on European countries, find that the effect of wars wear out and both winners and losers return to pre-war growth levels in 15-20 years. According to Barro and Sala-i-Martin (1995), based on the analysis of post-war Japan and Germany, assert that when wars adversely impacts one factor of production compared to others, the return on other factors rise resulting in rapid economic growth. Przeworski *et al.* (2000), based on an empirical study, conclude that post-war economic growth was significant. Djankov *et al.* (2005) after examining the impact of U.S. bombing in various districts in Vietnam did not find any lasting negative impact on poverty rates, consumption levels,

infrastructure, literacy, or population density. According to Ghobarah *et al.* (2003), civil wars increase deaths and disability because of contagious diseases. Soares (2006) estimates the consequences of violence in terms of life-expectancy and as a percentage of GDP. Montalvo and Reynal-Querol (2007) examine the impact on the incidence of malaria in countries receiving refugees from civil war countries. Based on a cross-country analysis, Przeworski *et al.* (2000) find that five-year average economic growth following a war is 5.98% per year. According to them, even though damages under dictatorships are more than damages under democracies, recoveries are also faster under dictatorships than under democracies.

3. OBJECTIVES

Even though, an immediate impact of the American civil war has been expansive, the long-term impact is not clear. Our goal is to examine extent of improvement in economic conditions of individuals before and after the civil war. We measure the benefits in terms of the value of personal property. Personal property presents "the contemporary dollar value of all stocks, bonds, mortgages, notes, livestock, plate, jewels and furniture owned by the respondents." We also examine trends in farm households. Since the slaves who typically worked in the farms were freed, we examine the impact of the civil war on the changes in farm workers.

4. METHODOLOGY

We use 1% samples of the decades ending 1850, 1860, 1870 and 1880 of U.S. Census data. (Ruggles *et al.*, 2010). We categorize states into the Confederate, the Slave and the Union states. The Confederate states include South Carolina (SC), Mississippi (MS), Florida (FL), Alabama (AL), Georgia (GA), Louisiana (LA), Texas (TX), Virginia (VA), Arkansas (AR), North Carolina (NC) and Tennessee (TN). The Slave states include Delaware (DE), Missouri (MO), Maryland (MD) and Kentucky (KY). Pennsylvania (PA), New Jersey (NJ), Connecticut (CT), Massachusetts (MA), New Hampshire (NH), New York (NY), Rhode Island (RI), Vermont (VT), Ohio (OH), Indiana (IN), Illinois (IL), Maine (ME), Michigan (MI), Iowa, (IA), Wisconsin (WI), California (CA), Oregon (OR) and Minnesota (MN) are categorized as the Union States. Since the census data of 1850 and 1860 did not count the slaves, we do analysis only for the white population. However, we presented data for the blacks for comparison purposes. We also used linked sample files of censuses.

However, linked file was available for only 1860-1880 period. Since the life expectancy of the whites were 39.5 years and 23 years for the blacks in 1850, the linked file data accounted for only a small proportion of the population (Haines (2000)).

5. ANALYSIS OF RESULTS

The continuing conflict between the Southern and the Northern states several decades before the Civil War made it impossible for the federal government to implement coherent national policy. Secession of the Southern states and resignation of legislators from the Congress provided the Northern states an opportunity to enact legislation favorable to them while fighting the Civil War. In addition, the victory in the Civil War ensured continuous control of the Congress by the Northern states. According to Russell (2001), four legislations enacted during the Civil War impacted the development of the Northern States subsequent to the War. The Morrill Tariff of 1861 substantially increased tariff rates putting an end to the declining rates during more than previous thirty years. The Transcontinental Railroad Act of 1862 made it possible to finance three transcontinental railroads that helped Northern states significantly. The Morrill Land Grant Act of 1862 established agricultural and mechanical colleges in each state that remained in the Union by the allocation of 30,000 acres of land. The National Bank Act of 1863 formulated standards for banking system. The Homestead Act of 1862 encouraged settlement in western territories by providing 160 acres of land to those who move and settle in the western territories for more than 5 year and declare intention to become a citizen. These enactments had far reaching effect on the economies of the Northern states.

Economic development subsequent to the Civil War was impacted significantly by the devastation of infrastructure in the Southern states. The Confederate currency held by the Southerners became worthless as a result of losing the Civil War. The major assets held by the people in the form of slaves were lost as a result of the war. The destruction of banks also reduced the ability to finance businesses. These impoverished most Southern people.

In **Table 1**, population by race is presented for 1850, 1860, 1870 and 1880. The percentage of white population in the Confederate states to the total US white population before the Civil War were 21% in 1850 and 19.2% in 1860. However, in 1870, percent fell to 17.1. In 1880, percent of the Confederate white population to the total white population was 18.6% and did not recover to

pre-civil war level. As a result of poor economies in the South, fewer immigrants moved to the South. Even though total white population grew by 23% in 1860 and 1870, growth in the Confederate states was only 10%. It could be because of war deaths and also because of fewer immigrants. However, during 1870-1880, population grew by 38% compared to 26% for the total population. Since only the blacks were included in the 1850 and 1860 censuses, their numbers were very low in 1850 and 1860. However, they were freed and were included in 1870 and 1880 censuses, their numbers grew substantially based on the 1870 and 1880 censuses. Based on **Table 1**, the blacks constituted about 41% of the population of the Confederate states in 1870 and 1880. In the Slave States, the blacks accounted for only about 13.7 and 13.6% of the total population in 1870 and 1880. On the other hand, the blacks constituted meagre 1.4 and 1.5% of the total population in 1870 and 1880.

5.1. Impact on Farming

According to Hacker (2011), 750,000 died during the Civil War. This represents 1 in 10 white men of military age in 1860. The death rates among the Southern men were higher. According to the Hacker (2011) estimate, 22.6% of white males in the age group 20-24 lost their lives because of the war. This dramatically reduced workforce available for farming. In addition, the slaves who typically worked in the farms were no more freely available. Therefore, we examine the impact of the Civil War on farming. According to **Table 2**, percent of white males involved in farming in 1850 and 1860 were 66.95 and 62.3% respectively. However, in 1870 it fell to 59.2%. In 1880, it went back to 65.4 approximately the same level it was in 1860. On the other hand, in the Slave states, the percent population involved in farming was 59% in 1850, fell to 55% in 1860, further fell to 51% in 1870 and rose very little to 53% in 1880. An examination of percent of total population involved in farming in the Confederate states indicate that the percent in 1850 of 65.9 fell to 61.2% in 1860, then plummeted to 45.1% in 1870 and then rose to 56% in 1880. Clearly, immediately after the Civil War, even though the slaves were freed, they were not able to get into farming. However, during 1870 to 1880 period, the participation of both the whites and the blacks in farming increased substantially in the Confederate states and white male participation reached the same level as in 1850. The number of the blacks involved in farming rose from about 1 million in 1870 to 2.27 million in 1880. The impact of the Civil War in the Slave states and the Union states were not that significant as the slaves constituted only a small portion of the population.

Table 1. Population by race

Race [general version]			Census year			
			1850	1860	1870	1880
White	Confederate states	Count	4,076,227	5,067,682	5,558,124	7,651,219
		% change		24%	10%	38%
		% within Census year	21.00%	19.20%	17.10%	18.60%
	Slave state (exconf)	Count	1,835,748	2,586,057	3,397,993	4,232,080
		% change		41%	31%	25%
		% within Census year	9.40%	9.80%	10.40%	10.30%
	Union states	Count	13,523,370	18,776,542	23,631,821	29,211,647
		% change		39%	26%	24%
		% within Census year	69.60%	71.00%	72.50%	71.10%
		Count	19,435,345	26,430,281	32,587,938	41,094,946
		% change		36%	23%	26%
		% within Census year	100.00%	100.00%	100.00%	100.00%
Black	Confederate state	Count	106,517	129,068	3,902,289	5,331,240
		% change		21%	2923%	37%
		% within Census year	24.90%	28.20%	81.50%	82.80%
	Slave state (exconf)	Count	112,103	112,726	539,568	666,016
		% change		1%	379%	23%
		% within Census year	26.20%	24.60%	11.30%	10.30%
	Union states	Count	209,425	216,291	344,404	442,020
		% change		3%	59%	28%
		% within Census year	48.90%	47.20%	7.20%	6.90%
		Count	428,045	458,085	4,786,261	6,439,276
		% change		7%	945%	35%
		% within Census year	100.00%	100.00%	100.00%	100.00%

Table 2. Population involved in Farming by Census year

State		1850	1860	1870	1880
The Whites					
Confederate state	Count	2728968	3156625	3288645	5002698
	% farming	66.95%	62.29%	59.17%	65.38%
	% change		15.67%	4.18%	52.12%
Slave state (exconf)	Count	1085564	1424365	1747674	2236566
	% farming	59.13%	55.08%	51.43%	52.85%
	% change		31.21%	22.70%	27.97%
Union states	Count	6580097	8151491	9107965	10525505
	% farming	48.66%	43.41%	38.54%	36.03%
	% change		23.88%	11.73%	15.56%
Total	Count	10394629	12732481	14144284	17764769
	% farming	53.48%	48.17%	43.40%	43.23%
	% change		22.49%	11.09%	25.60%
Total					
Confederate state	Count	2754420	3183512	4266463	7269026
	% farming	65.90%	61.20%	45.10%	56.00%
	% change		15.58%	34.02%	70.38%
Slave state (exconf)	Count	1107936	1449173	1884428	2414540
	% farming	56.90%	53.70%	47.90%	49.30%
	% change		30.80%	30.03%	28.13%
Union states	Count	6618895	8193049	9171392	10600140
	% farming	48.20%	43.00%	38.10%	35.60%
	% change		23.78%	11.94%	15.58%
Total	Count	10481251	12825734	15322283	20283706
	% farming	52.80%	47.60%	40.90%	42.60%
	% change		22.37%	19.47%	32.38%

In **Table 3**, we present occupations of the Whites over 15 years of age by census year. More than 53% of the whites were dependent on agriculture for their livelihood in 1860 in the Confederate states and it rose to 65% in 1860. However, in the Union states, the percent of the whites involved in agriculture fell from 41.1% in 1860 to 34.4% in 1880 clearly indicating job opportunities in other sectors including manufacture, trade and transportation.

5.2. Impact on the Personal Property

In **Table 4 and 5**, we present an analysis of personal property. The census data relating to personal wealth were available only for years 1860 and 1870. The data for 1860 included the value of the slaves. Based on the **Table 4**, every age group in the Confederate states and the Slave states lost personal property during 1860 and 1870 and the loss was substantial representing more than 83% of assets held in 1860 for the Confederate states and 27.7% in the Slave states. This is consistent with the observation that the Confederate states had 41% of their population black and the Slave states 13.2%. During the same period, every age group in the Union states increased their personal property by about 62%.

In **Table 5**, we present a Tobit regression analysis of personal properties for 1860 and 1870 separately. Our

goal is to compare the personal estate of the Whites in 1860 and 1870 in the Confederate, the Slave and the the Union states after accounting for age group, occupational industry and occupational score. Based on the positive sign for the occupational score, it is obvious that in both years, people holding higher incomes jobs continue to maintain higher personal estate. In other words, people holding high income jobs were having more assets compared to people holding low paying jobs. Typically, people with age less than 39 years had less personal assets than people over 39 in 1860 as well as 1870. Compared to people not in labor force, people involved in agriculture had more assets. In comparison to the Union States, people in the Slave states and the Confederate states had greater amounts of personal properties in 1860 after accounting for age, occupational sector and occupational income score. On an average, a person in the Confederate states had \$3256.4 and the Slave states \$924.3 more in assets in comparison to a person in the Union States in 1860. However, it all changed in 1870. A person in the Confederate states had \$59.99 less assets compared to a person in the Union states in 1870. A person in the Slave states did not suffer to the same extent. A person in the Slave states had \$13.13 more in assets in comparison to a person in the Union states.

Table 3. Occupations for the whites over 15 of age by census year

		1850			1860			1870			1880		
		Confederate state	Slave states (exconf)	Union states	Confederate state	Slave state (exconf)	Union states	Confederate state	Slave state (exconf)	Union states	Confederate state	Slave state (exconf)	Union states
Not reported	Count	96910	48780	442068	109067	55045	468986	42418	62525	577920	119973	89608	1028304
	% within	9.4%	9.9%	11.6%	8.3%	7.7%	8.8%	3.0%	6.8%	8.5%	5.9%	7.5%	11.6%
Agriculture	Count	599950	241088	1567405	697759	338928	2116022	925195	461830	2616048	1329122	581144	3060569
	% within	58.0%	49.0%	41.1%	53.1%	47.5%	39.6%	64.8%	50.3%	38.4%	65.0%	48.9%	34.4%
Forestry and fishing	Count	929	382	8608	3945	752	13266	2527	955	16389	6166	1172	23372
	% within	.1%	.1%	.2%	.3%	.1%	.2%	.2%	.1%	.2%	.3%	.1%	.3%
Mining, quarrying, oil extraction	Count	795	2045	80697	1563	5326	97881	3742	5821	116006	4731	14431	154393
	% within	.1%	.4%	2.1%	.1%	.7%	1.8%	.3%	.6%	1.7%	.2%	1.2%	1.7%
Construction	Count	34100	24085	228302	46807	36637	317487	37727	45335	449852	51994	52792	497487
	% within	3.3%	4.9%	6.0%	3.6%	5.1%	5.9%	2.6%	4.9%	6.6%	2.5%	4.4%	5.6%
Manufacture	Count	23827	20682	228967	31087	33977	335746	35230	46626	541697	40519	61841	710881
	% within	2.3%	4.2%	6.0%	2.4%	4.8%	6.3%	2.5%	5.1%	7.9%	2.0%	5.2%	8.0%
Trade	Count	91269	55907	572228	122679	85429	790620	130322	117038	1055308	180437	167144	1553071
	% within	8.8%	11.4%	15.0%	9.3%	12.0%	14.8%	9.1%	12.8%	15.5%	8.8%	14.1%	17.4%
Transportation	Count	13865	15357	121475	28050	21774	193732	29674	37772	336829	42412	47107	468336
	% within	1.3%	3.1%	3.2%	2.1%	3.1%	3.6%	2.1%	4.1%	4.9%	2.1%	4.0%	5.3%
Utilities (water, tgraphetc	Count	0	566	959	206	50	1791	1007	1197	9991	2312	1652	23671
	% within	.0%	.1%	.0%	.0%	.0%	.0%	.1%	.1%	.1%	.1%	.1%	.3%
Services	Count	60958	28091	204189	88305	43235	305089	71957	50858	398350	98992	73746	585330
	% within	5.9%	5.7%	5.4%	6.7%	6.1%	5.7%	5.0%	5.5%	5.8%	4.8%	6.2%	6.6%
Public Admn and Post office	Count	8088	3150	15503	10461	4506	26992	14995	7843	51894	20166	10019	72214
	% within	.8%	.6%	.4%	.8%	.6%	.5%	1.1%	.9%	.8%	1.0%	.8%	.8%
Non-classified	Count	848	197	2381	17409	10099	145692	7498	7160	103317	2427	2153	39439
	% within	.1%	.0%	.1%	1.3%	1.4%	2.7%	.5%	.8%	1.5%	.1%	.2%	.4%
Not in labor force	Count	102462	51333	338093	155989	77718	526646	124728	72304	547548	144270	86085	684993
	% within	9.9%	10.4%	8.9%	11.9%	10.9%	9.9%	8.7%	7.9%	8.0%	7.1%	7.2%	7.7%
Total	Count	1034001	491663	3810875	1313327	713476	5339950	1427020	917264	6821149	2043521	1188894	8902060
	% within	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 4. Personal property in the confederate, the slave and the union states by age in 1860 and 1870

Confed	Age category	1860		1870		% change
		N	Mean	N	Mean	
Confederate state	<=20	259233	161.12	298414	13.68	-91.51
	>20 and <= 30	483774	1009.78	459982	246.02	-75.64
	>30 and <= 40	292450	2790.89	283511	559.55	-79.95
	>40	377881	5940.63	453182	790.35	-86.70
	Total	1413338	2541.02	1495089	424.09	-83.31
Slave state (exconf)	<= 20	141009	16.82	171425	29.06	72.77
	>20 and <= 30	249093	337.96	304748	300.81	-10.99
	>30 and <= 40	170114	1116.71	204681	764.94	-31.50
	>40	194462	2048.24	291763	1287.36	-37.15
	Total	754679	894.19	972618	646.53	-27.70
Union states	<= 20	966652	9.85	1137909	11.19	13.60
	>20 and <= 30	1798901	243.28	2056538	264.60	8.76
	>30 and <= 40	1277552	583.47	1543787	838.65	43.73
	>40	1674836	988.01	2452532	1607.09	62.66
	Total	5717941	497.97	7190767	805.62	61.78
Total	<=20	1366895	39.26	1607748	13.56	-65.46
	>20 and <= 30	2531769	399.06	2821269	265.48	-33.47
	>30 and <= 40	1740117	1006.59	2031980	792.29	-21.29
	>40	2247179	1912.58	3197477	1462.16	-23.55
	Total	7885959	902.04	9658474	730.54	-19.01

Table 5. Tobit regression parameters with value of personal property of the whites over 15 years of age as a dependent variable

Parameter	1860		1870	
	Estimate	t Value	Estimate	t Value
Intercept	-5365.0	-352.22	-4922.9	-281.73
Confederate states	3256.4	376.15	-623.9	-59.99
Slave states (exconfsta)	924.3	81.42	159.2	13.13
Union	0.0	0.00	0.0	0.00
Age <20	-13107.0	-653.73	-16492.0	-660.17
Age 20-29	-4250.3	-523.83	-5124.6	-572.36
Age 30-39	-1384.7	-165.45	-1481.8	-163.81
Over 39	0.0	0.00	0.0	0.00
Not reported	-545.4	-25.76	-4265.2	-171.28
Agriculture	4148.6	257.22	2715.7	144.38
Forestry & fishing	1209.1	17.16	-1616.5	-19.06
Mining, quarrying, oil extraction	-2021.0	-55.83	-3617.5	-91
Construction	427.7	18.69	-2342.1	-90.72
Manufacture	655.7	28.03	-2027.2	-78.57
Trade	1054.3	48.93	-853.0	-34.59
Transportation	-423.4	-15.79	-3316.9	-116.13
Utilities (water, telegraph etc)	-1580.3	-7.35	-2193.9	-20.26
Services	-38.5	-1.48*	-2145.0	-73.27
Public Admn& Post office	293.5	6.32	-2280.8	-49.46
Non-classified	450.3	16.21	-3012.7	-76.22
Not in labor force	0.0	0.00	0.0	0.00
Occupational income score	155.2	339.01	191.0	374.96
_Sigma	7761.9	2857.64	9167.8	2968.14
Number of observations	74542.0		94888.0	

*Not statistically significant at the 0.05 level. All other variables statistically significant at the 0.01 level

6. CONCLUSION

This study provides an analysis of pre and post economic conditions of people at the individual level using census data for the decades ending 1850 to 1880. Our analysis indicates that involvement in farming by white males went down between 1860 and 1870 and it reached the 1850 level by 1880 in the Confederate states. This is in spite of the fact that white males in the South lost ownership of slaves who were used in the farms. There was a devastation of personal property between 1860 and 1870 for all white males in the Confederate and Slave states whereas they grew modestly for the Union states.

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