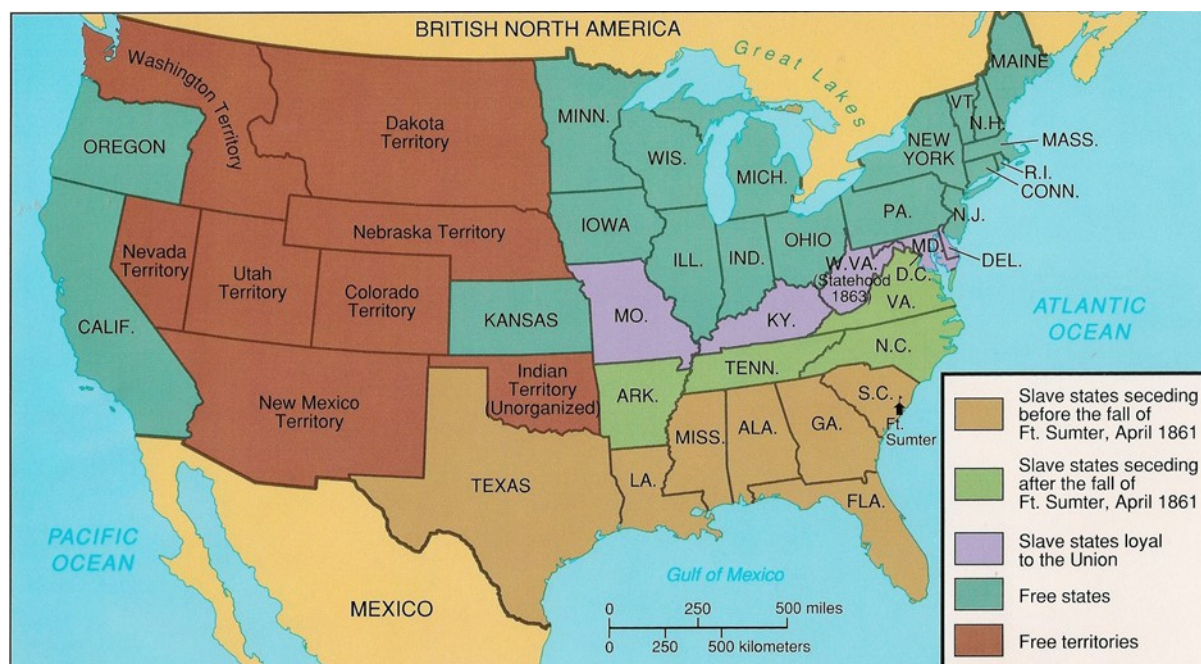


AMERICAN CIVIL WAR

Economics – the North

Size of population, number of states, GDP of those states and what did they produce. Did this have an effect on the North's ability to fight:



The United States Census of 1860 was the eighth Census conducted in the United States starting June 1, 1860, and lasting five months. It determined the population of all of the United States to be **31,443,321**, an increase of 35.4 percent over the 23,191,875 persons enumerated during the 1850 Census.

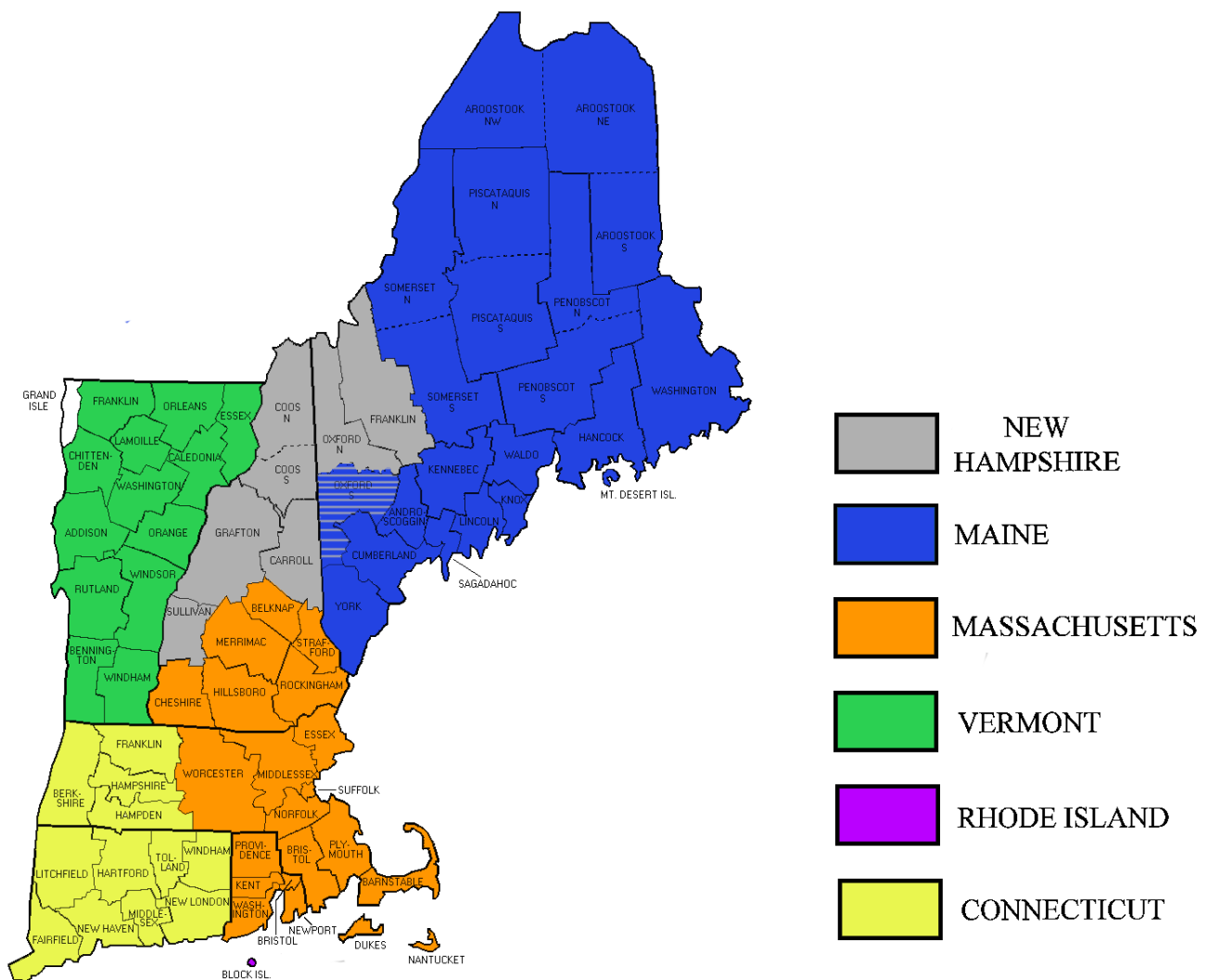
The population of the Northern States was about 22 million while the South had only about nine million persons.

There were 20 Union states and 5 Border States, which were considered Union states because they never seceded from the Union. Altogether, there were technically 25 states included in the Union States of the U.S. Civil War. However, West Virginia didn't become a state until the middle of the war, so the Union started out as 24 states.

- California, Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas

- Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota
- Missouri, Nevada, New Hampshire, New Jersey, New York, Ohio
- Oregon, Pennsylvania, Rhode Island, Vermont, West Virginia
- Wisconsin.

NEW ENGLAND



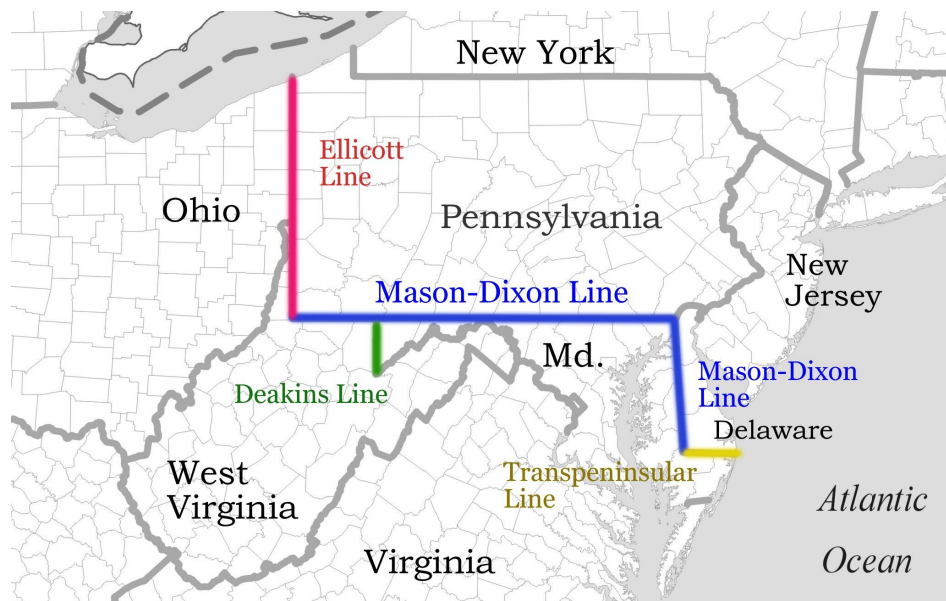
The American Industrial Revolution took place after the end of the War of 1812 (between Britain and the USA over British incursions into American marine jurisdictions and violations over the border with Canada) when the economy was overwhelmingly agricultural.

There was a small industrial base concentrated in the Blackstone and Merrimac river valleys of New England and the Delaware River valley between Philadelphia and Wilmington, Delaware. The largest manufacturing industry was flour milling, followed by the production of leather goods, and then other food processing, including distilling. The iron, chemical, paper, and textile industries were very small.

During this period most industry was still carried out by the putting out system (in which craftsmen and their families did work in their homes). In 1810 ninety percent of the textile production in the nation was still done in homes, even though the textile industry was among the most industrialized in the nation at the time. The total value of manufacturing production was approximately \$200 million.

By 1860, however, there were over 140,000 manufacturing establishments employing more than 1.3 million people to produce just under \$2 billion in products. Very little of this output was produced by the putting out system, except in the shoe industry. Nearly all of this industrial growth took place north of Chesapeake Bay (northern border of Virginia). By this time the United States was second in the world in manufacturing production behind only Great Britain. Between 1810 and 1860 the nation's population increased over four-fold, from 7.2 million to 31.5 million, with most of the growth occurring in the industrializing areas.

The beginnings of the industrial revolution in the pre-war years was almost exclusively limited to the regions north of the Mason-Dixon line, (the boundary between Maryland, Pennsylvania, Ohio and West Virginia). In the pre- Civil War period it was regarded, together with the Ohio River, as the dividing line between slave states south of it and free-soil states north of it.



Industry in the Northeast began to develop in several areas, initially using waterpower. For generations northerners had ground grain into flour, fulled cloth, and cut lumber using water-powered mills. There was an extensive community of millwrights familiar with water-powered machinery and who had worked on ways to mechanize work in those mills. For years northern merchants had travelled all over the world carrying world commerce and accumulating capital.

After the War of 1812 capital in the United States began to shift away from trade to domestic manufacturing. The Tariff of 1816 was the first truly protective tariff; introducing levies on imported goods. It provided a secure environment for investment in factories. As a result, the textile industry, especially cotton textiles, began to expand rapidly. Cotton textile production increased from 600,000 yards in 1810 to over 857 million yards in 1860.

The scale of textile factories changed during this period. The small mills with a few dozen spindles and looms that characterized the initial period of the industry gave way to larger complexes. This pattern began with the Boston Associates complex at Waltham, Massachusetts but was soon superseded when they developed Lowell on the Merrimac River. The population of Lowell increased from 2,500 in 1826 to 35,000 in 1850. The Lowell Machine Shop became a centre for innovation not only in textile machinery but waterpower technology as well. It also trained a generation of industrial engineers that spread throughout the economy. Lowell attracted further international attention because of its labour system that employed young women housed in corporate boarding houses with an extensive corporate welfare and cultural program.

The expansion of textile manufacturing was not only important in its own terms but also as a stimulus to the machine tool industry. This industry began developing machinery for a wide range of industrial activities, as well as iron and steel production. A key element of the machine tool industry was its emphasis on interchangeable parts for machinery. Known as the American system of manufacturing, it entailed an increasing range of products manufactured by machines that turned out identical objects and could be operated by a minimally skilled operator. The skill needed was built into the machine.

The increased demand for iron led to the expansion of what had been a small industry making iron with charcoal at a large number of small-scale furnaces and forges spread across the country. The new furnaces and forges were much larger in scale and capitalization, and they increasingly used coal to produce higher quality iron and steel. They used the Bessemer Process (removes impurities from pig iron during molten stage to produce steel) discovered by William Kelly (1811–1888), a west Kentucky iron master. The discovery of extensive deposits of rich iron and copper in the Upper Peninsula of Michigan further contributed to the rapid development of the iron and steel industry. The completion of locks at Sault Sainte Marie (Ontario) in 1855 removed a major obstacle in the shipping of iron ore and copper to Cleveland and to the emerging iron and steel centre at Pittsburgh.

The growth of large cities in the industrial northeast created a tremendous demand for food. The Erie Canal allowed the relatively inexpensive transport of bulky foodstuffs from western New York, Ohio, Indiana, and Illinois. Feeder canals and eventually railroads within those states expanded the transportation network, moving larger and larger amounts of food to the growing industrial cities. Agriculture in the Midwest was a large-scale commercial activity raising crops and livestock for sale to the east. The transportation system involving railroads, canals, and the Great Lakes linked the east and the Midwest, binding them together into a single economic unit. As commercial agriculture expanded in the Midwest farming declined in the northeast and the scale of farms increased. While 70 percent of the North's population lived on farms in 1820, by 1860 this figure was down to only 41 percent.

An important element in the development of the north-eastern manufacturing economy was the large number of immigrants who arrived in the country during the 1820s. With the exception of a few southern seaports like Savannah most immigrants came to the North because of the greater economic opportunities there. Between 1820 and

1860 some five million people came to the United States, the vast majority of them derived from western Europe: as much as 85 percent came from Ireland, Germany, and Great Britain. Immigrants provided labour for expanding industries and for the construction of canals and railroads. The rapid expansion of population in the emerging industrial cities was a further stimulus to the economy, creating a tremendous demand for housing and other infrastructure.

During this period there were two largely separate economies north and south of the Ohio River. There were some connections between the two—northern textile mills used southern cotton and the South imported some manufactured goods from the North. But otherwise, the two economies were almost entirely independent of one another. This can be seen clearly in their transportation systems, each built to facilitate the operation of its economy. The two systems connected at only one point in 1860: Bowling Green, Kentucky.

The economy in 1860 was not only much larger than it had been in 1810, it also produced a much wider range of products than ever before. The industrialization of the economy changed the material lives of people living in the United States. This involved new products and improved everyday items, as well as lower prices due to the increasing efficiency of industrial production.

By 1860, 90 percent of the nation's manufacturing output came from northern states. The North produced 17 times more cotton and woollen textiles than the South, 30 times more leather goods, 20 times more pig iron, and 32 times more firearms. The North produced 3,200 firearms to every 100 produced in the South.

Even in the agricultural sector, Northern farmers were out-producing their southern counterparts in several important areas. Southern agriculture remained labour intensive while northern agriculture became increasingly mechanized. By 1860, the free states had nearly twice the value of farm machinery per acre and per farm worker as did the slave states, leading to increased productivity. As a result, in 1860, the Northern states produced half of the nation's corn, four-fifths of its wheat, and seven-eighths of its oats.

The industrialization of the northern states had an impact upon urbanization and immigration. By 1860, 26 percent of the Northern population lived in urban areas, led by the remarkable growth of cities such as Chicago, Cincinnati, Cleveland, and Detroit, with their farm-

machinery, food-processing, machine-tool, and railroad equipment factories.

Free states attracted the vast majority of the waves of European immigration through the mid-19th century. Fully seven-eighths of foreign immigrants settled in free states. As a consequence, the population of the states that stayed in the Union was approximately 23 million as compared to a population of 9 million in the states of the Confederacy. This translated directly into the Union having 3.5 million males of military age - 18 to 45 - as compared to 1 million for the South. About 75 percent of Southern males fought the war, as compared to about half of Northern men.

Nearly every sector of the Union economy witnessed increased production. Mechanization of farming allowed a single farmer growing crops such as corn or wheat to plant, harvest, and process much more than was possible when hand and animal power were the only available tools. (By 1860, a threshing machine could thresh 12 times as much grain per hour as could six men.) This mechanization became even more important as many farmers left home to enlist in the Union military. Those remaining behind could continue to manage the farm through the use of labour-saving devices like reapers and horse-drawn planters.

Northern transportation industries boomed during the conflict as well-- particularly railroads. The North's larger number of tracks and better ability to construct and move parts gave it a distinct advantage over the South. Union forces moving south or west to fight often rode to battle on trains traveling on freshly laid tracks. In fact, as Northern forces travelled further south to fight and occupy the Confederacy, the War Department created the United States Military Railroads, designed to build rails to carry troops and supplies as well as operating captured Southern rail lines and equipment. By war's end, it was the world's largest railroad system.