

Nineteenth Century Economic History Topics

1. Textile manufacturing

False start versus real thing

Slater versus Lowell

Industrial Revolution was an evolution.

2. Antebellum Economic Take-Off

Transportation and cotton lead the way

3. Transportation Revolution

Steamboat – cut costs by 90%

Canals – Erie Canal cut costs 90%

Railroad – not really cheaper but more reliable

Became focus of investment & change

4. Cotton and Growth

Slavery fueled cotton-growing expansion in South

After invention of cotton gin

...And cotton textiles expansion in North

5. Economics of the Causes of the Civil War

It was all about slaves and money.

6. Civil War – “The First Modern War”

First after Industrial Revolution

Economies could support huge war effort

North had the advantages

7. Economic Impact of Civil War

War is not good for an economy

Boost to North's industries is a myth

Slater's Mill versus Lowell's Mill

Cost differences between Britain and America:

	<u>G.B.</u>	<u>U.S.</u>
Capital	\$60	\$50
Labor	\$1	\$3

Labor is relatively scarce and more expensive in U.S.

Capital is relatively more scarce and expensive in G.B.

Slater's Mill copies British recipe to produce 100 tons of cloth (priced at \$7.50 a ton) with American factor prices:

	<u>Cost in G.B.</u>	<u>Cost in U.S.</u>
100 workers	\$100	\$300
10 machines	\$600	\$500
Total Cost	\$700	\$800
Total Rev.	\$750	\$750

With at sales price of \$7.50 a ton, Slater's Mill loses money and is not competitive with British mills.

Lowell's Mill uses more labor-saving capital to produce 130 tons of cloth at \$7.50 a ton:

	<u>Cost</u>
40 workers	\$120
15 machines	\$750
Total Cost	\$870
Total Rev.	\$975

Up-front costs are greater, but productivity is higher.

Lowell's Mill is profitable and competitive using American recipe.

U.S. became known for its labor-saving methods to mass-produce consumer goods.

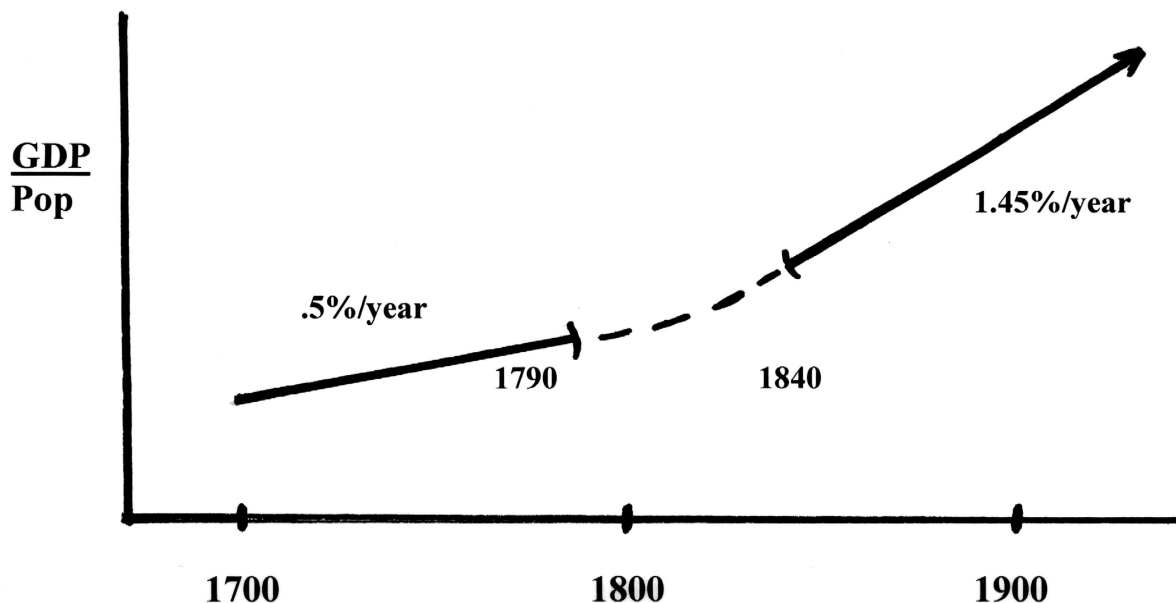
The Antebellum Economic Take-Off

Something happened to the rate of economic growth between 1790 and 1840. Per-capita income growth accelerated.

Colonial growth and post-independence growth was inconsistent and slow – near .5% per year.

GDP data show the growth rate after 1840 was much steadier and much faster. Per-capita income grew at close to three times the earlier rate.

Income-per-capita Growth



The economy changed from a struggling one that prospered only when Europe was at war into a dynamic self-sustaining growth machine.

What triggered the acceleration?

Probably transportation and cotton.

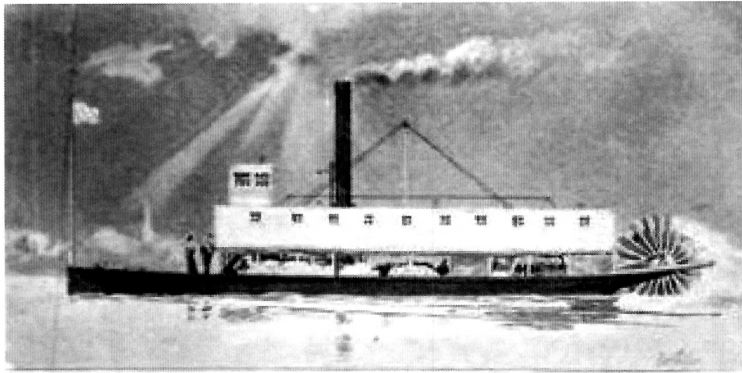
Steamboats, Canals, and Rails

U.S. population was too spread out for market system to work.

“Economies of scale are limited by the size of the market”

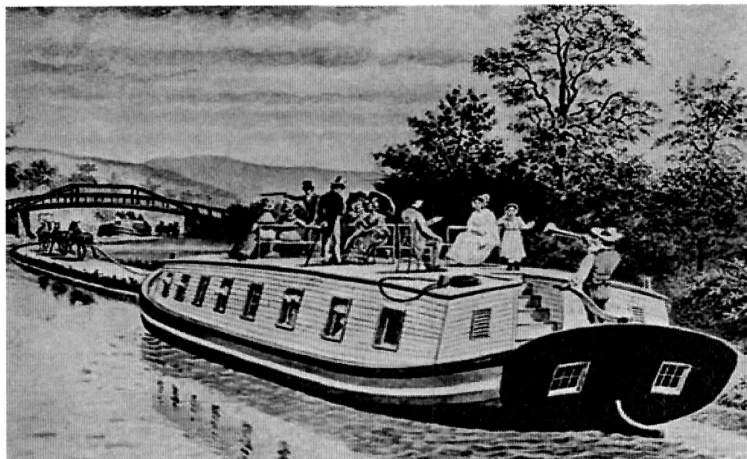
Needed to bring raw materials closer to factories and factories closer to consumers.

**Enterprise boldly went where no one had gone before:
New Orleans to Pittsburgh.**



**Shipping costs fall by
90% on Mississippi.
Boats and shipping
system become more and
more efficient.**

Canals put waterways where Mother Nature did not.



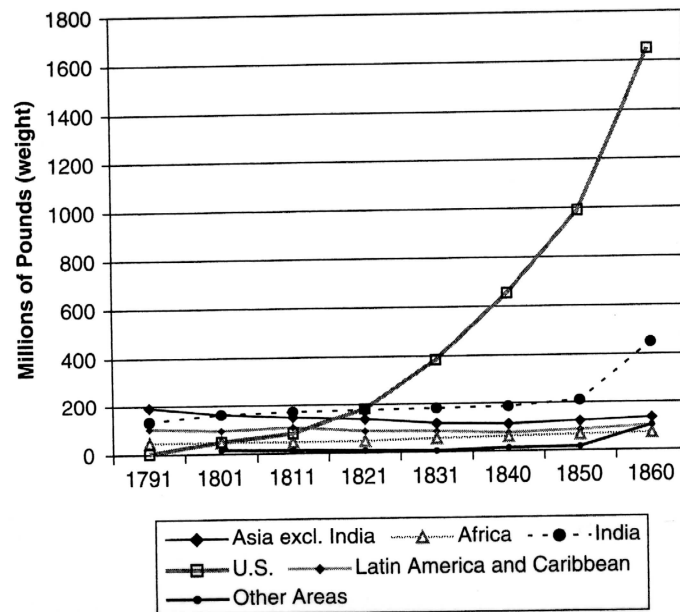
**Erie Canal connects
Great Lake states to
eastern seaboard. States
invest millions of dollars
in canal building boom.**

**Railroads overcame vagaries of season and rainfall. Investments
shift from canals to rails.**

Cotton Leads the Way

Raw cotton production in the South and textile production in the North.

U.S. Raw Cotton Production Takes Over 1791 – 1860



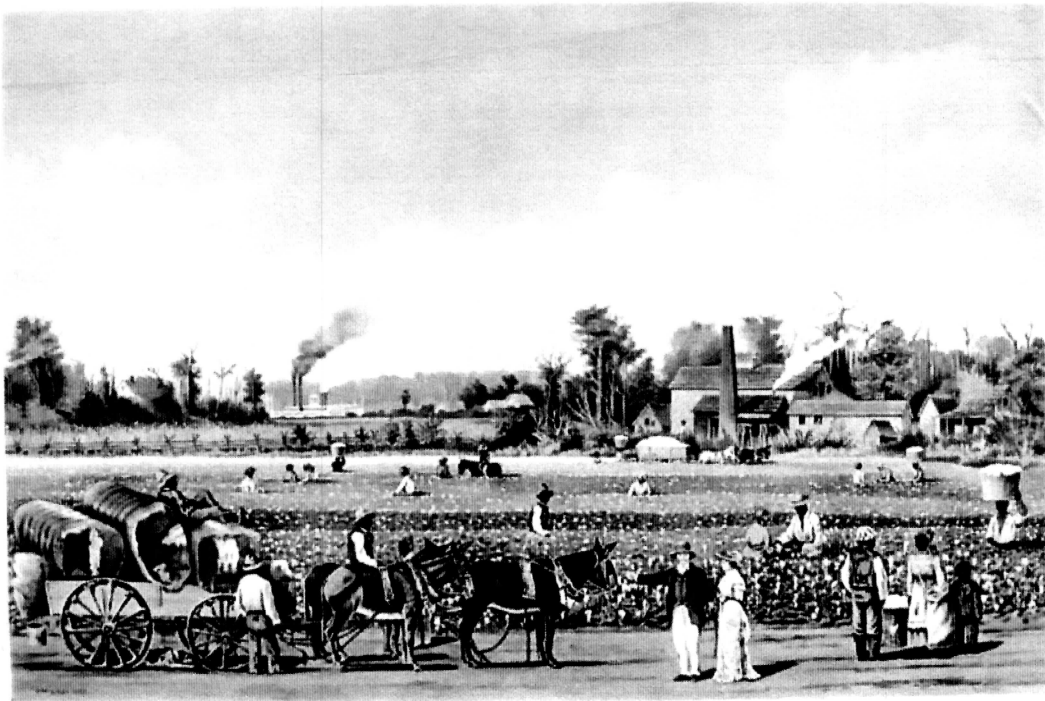
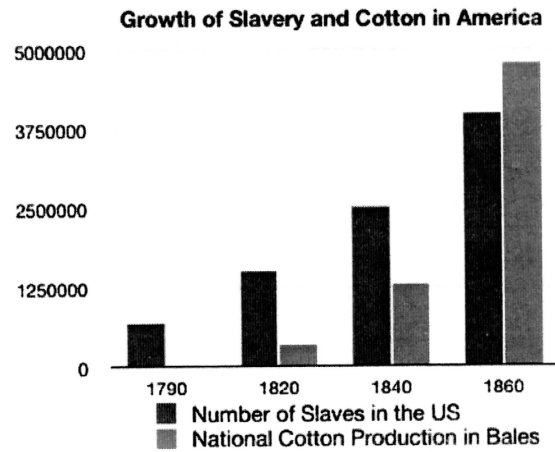
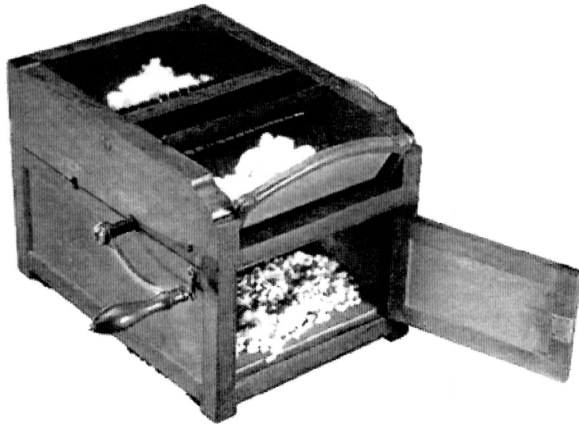
In *The Travels of a T-Shirt in the Global Economy*, the staggering growth of U.S. cotton production in the South is chronicled.

At the same time, in the North, textile production experienced its own growth boom with growth rates of 15% per year from 1820-1860.

The factory and power loom took over.

Cost per yard fell 18 cents per year in 1820 to 2 cents per yard in 1860.

Slavery and Cotton Expand Together



Economics of the Cause of the Civil War

Values of Slaves
\$4.2 billion

Cost of Emancipation to Owners
\$4.2 billion

Expected cost of a war?

American Revolution cost \$100 million

Surely a war between the states would not cost much more.

Reduction in Income of Free Citizens due to emancipation

Alabama 42%

South Carolina 35%

Florida 34%

Georgia 29%

Mississippi 29%

Louisiana 24%

Texas 24%

“Gulf Squadron”

Seceded First

Most to lose with abolition

North Carolina 19%

Tennessee 18%

Arkansas 17%

Virginia 17%

**These states seceded
soon after**

Kentucky 10%

Maryland 6%

Missouri 5%

**Border states did
not secede**

Actual total cost of the war to both sides: \$6.6 billion

Civil War – “The First Modern War”

First war after Industrial Revolution

North had the advantage in production

South hoped to trade cotton for guns

Both economies able to support vast armies – up to 1 million

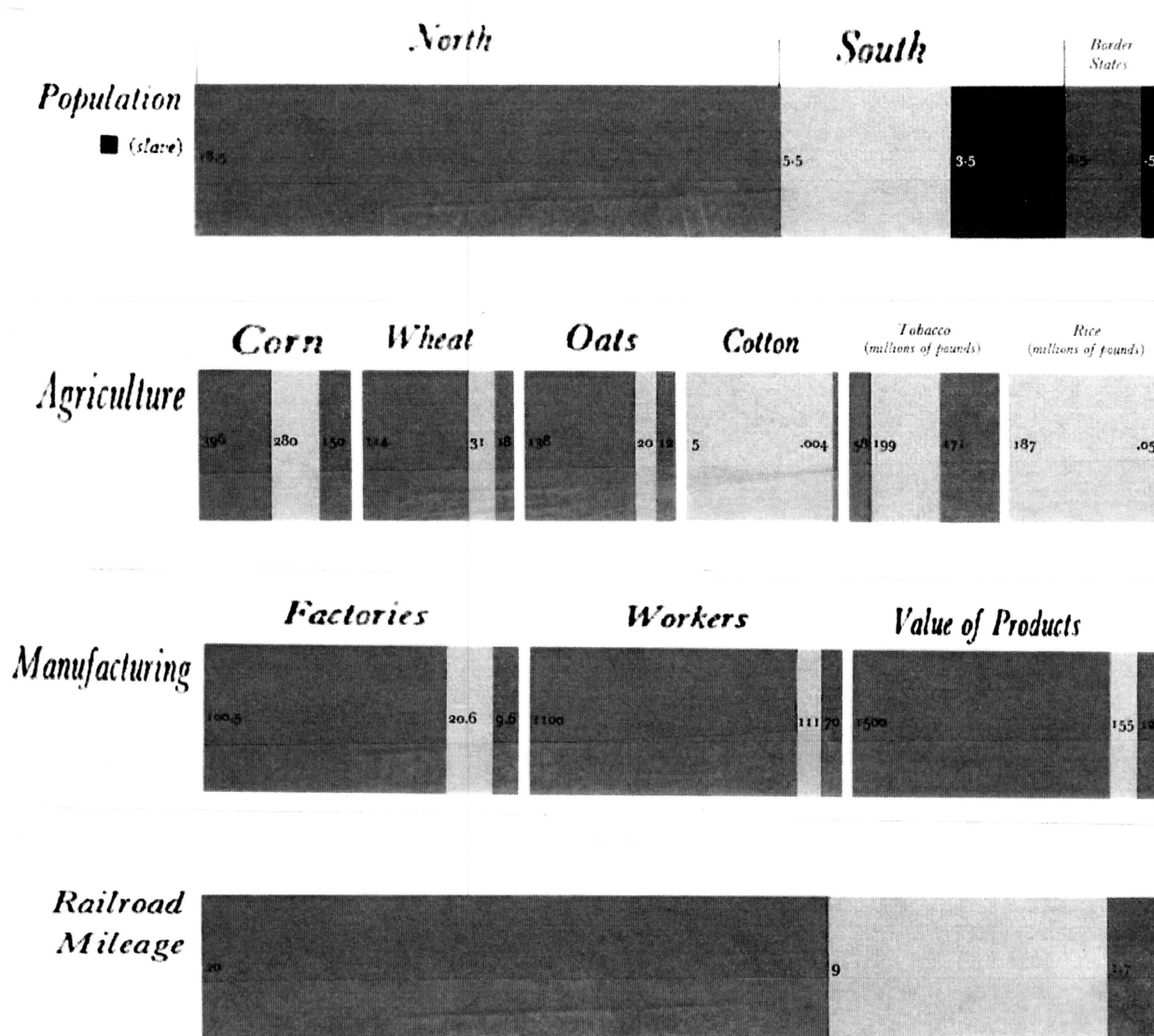
Economies kept them fed, armed, and clothed

North did a better job in all three areas

Railroads used to transport troops and supplies

North had decisive advantage

Over twice the miles of rails



Economic Impact of the Civil War

How to pay for it?

Taxes, borrowing, and printing money

Taxes and borrowing fall short.

Both governments print money.

Inflation in North

Hyper-inflation in South

Good or bad for the economy?

Bad! War is bad for an economy.

Loss of labor was huge.

Capital destroyed.

Resources wasted.

Trade disrupted.

Civil War boosted Northern industries: Myth or Real? Myth!

Industrial growth slowed.

During and after war

GDP per capita growth catches up by 1890.

Iron for arms = 1% of total production

Reduction in iron going to rails 7X that

Boot production down – no Southern market

Cotton textile production way down

Those woolen uniforms were hot.

