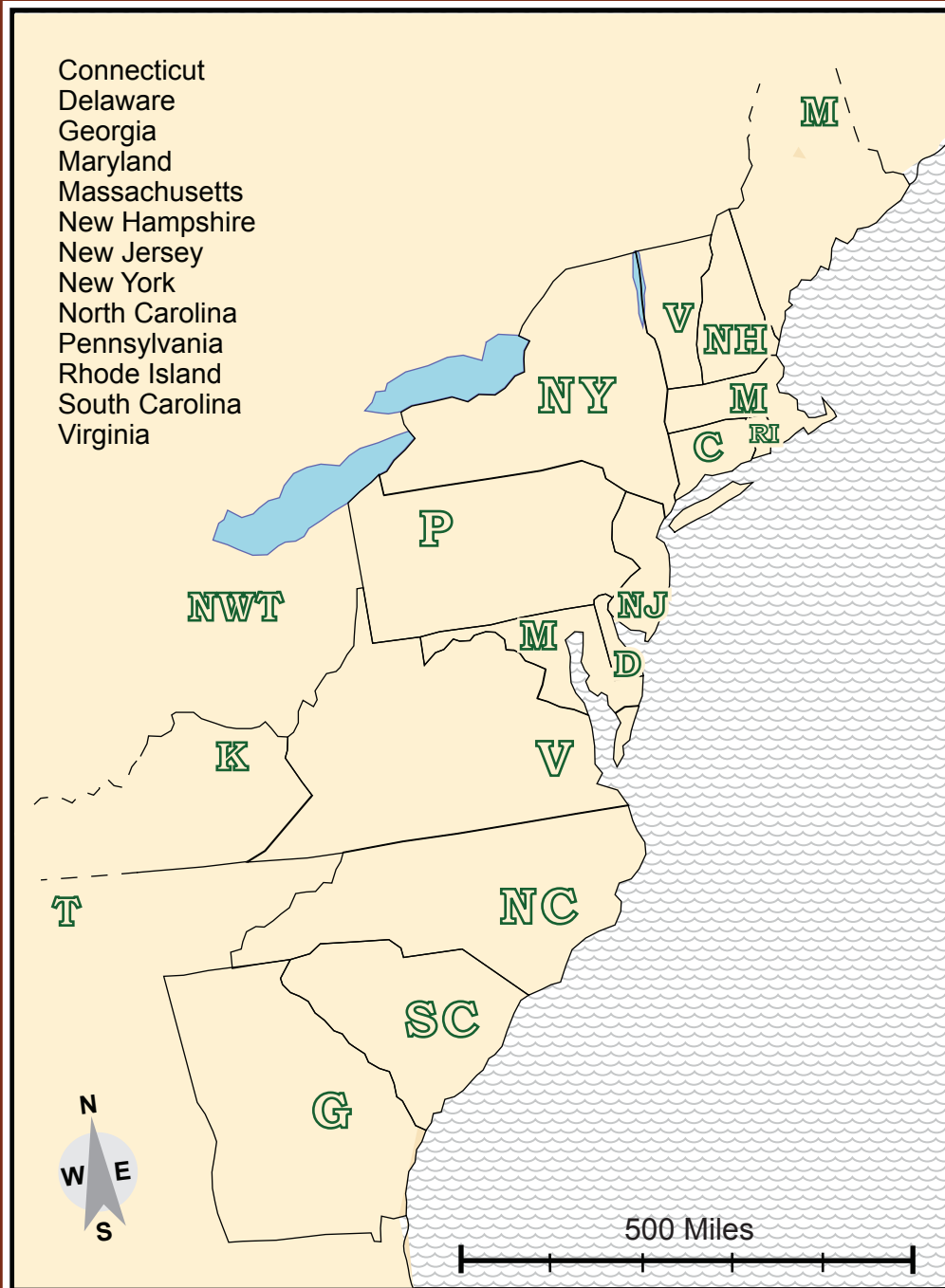


# Making a Capital Decision





### DC-1. Locating the Capital: The Basic Question

By 1790, it had become obvious to nearly everyone that the United States needed a capital, a center of national government. This capital should be put in a place that would be acceptable to people from every state and territory in the country.

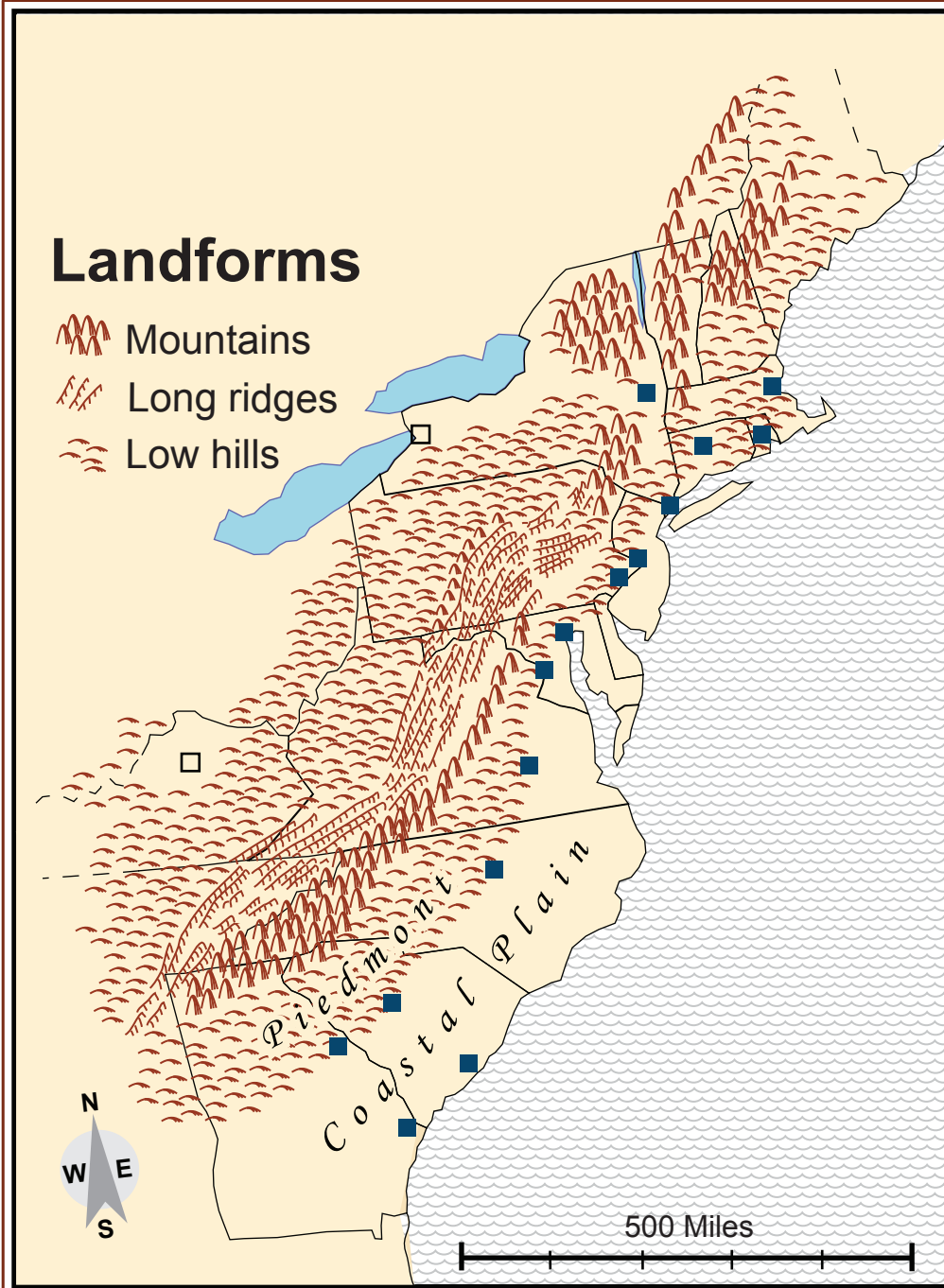
This map shows the states and territories at that time. If you want a quick review of their names and locations, write their names by their abbreviations on this map.

The other maps in this set will not show the state names. Maps without names will be less cluttered, which will help make other geographical patterns easier to see.

Quick quiz:

1. Which state was farthest south? \_\_\_\_\_
2. Which state was farthest north? \_\_\_\_\_
3. Which state was farthest east? \_\_\_\_\_
4. Which state had the largest area? \_\_\_\_\_
5. Which state had the smallest area? \_\_\_\_\_
6. Which state had the most borders with other states? \_\_\_\_\_
7. Which three states had borders with only two other states? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

This map also shows several areas that already had fairly large numbers of European people living in them, even though they were not states yet. Label Kentucky, Maine, Tennessee, and the Northwest Territory - the area north and west of the Ohio River.



## DC-2. Locating the Capital: Landform Associations

Some people say that topography (the shape of the land, the hills, valleys, flat plains, waterfalls, etc.) may have had an influence on the choice of a location for the capital.

At the time of the Revolution, European people lived mainly on the low land east of the Appalachian Mountains. Only a few settlers had crossed the rugged mountains and built houses in the fertile Shenandoah Valley of Virginia and the Bluegrass Basin of Kentucky.

An important feature is the Fall Zone, an area of rapids and waterfalls associated with the geologic boundary that separates the flat Coastal Plain from the hilly Piedmont ("piedmont" is a French word for "foot of the mountain"). The rapids made it hard for boats to go farther west. The waterfalls were a source of power for mills.

To see how town location was associated with topography:

Step 1: Trace the Fall Zone on the map.

Step 2: This list includes important towns located in the Fall Zone. Read the descriptions and write the name of each town next to its square on the map.

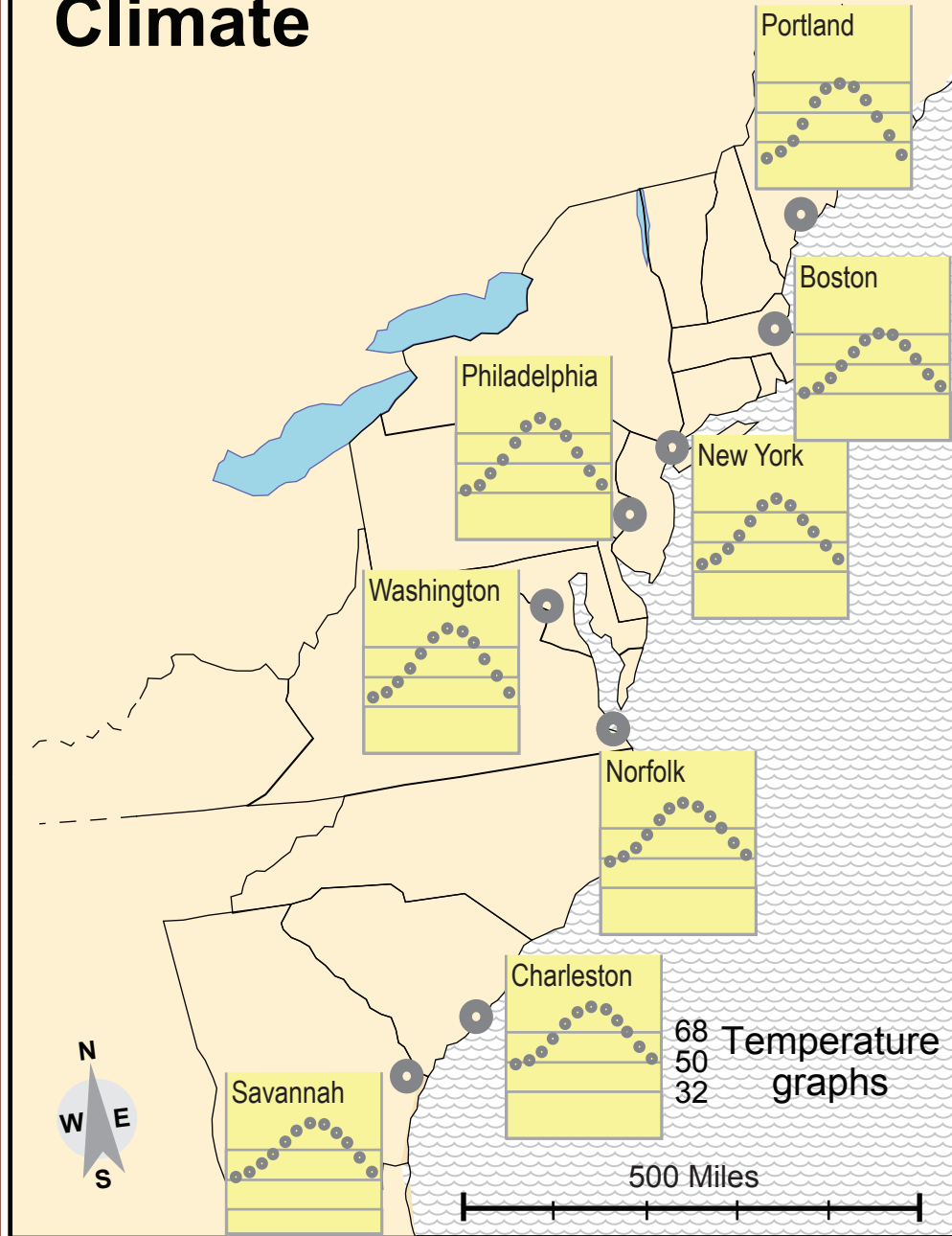
- Augusta - next to the Savannah River in Georgia
- Columbia - near the middle of South Carolina
- Georgetown - near the Little Falls of the Potomac River between Maryland and Virginia
- Pawtucket - near a waterfall in central Rhode Island
- Philadelphia - by the Delaware River in Pennsylvania
- Raleigh - near the middle of North Carolina
- Richmond - by the James River in east-central Virginia
- Trenton - by the Delaware River in New Jersey

Step 3: Bonus. Find the names of the other six towns shown by squares on the map.

Which one is associated with the Fall Zone? \_\_\_\_\_

How would you describe the topographic position of the other five towns?

# Climate



## DC-3. Locating the Capital: Comparing Climates

Some people say that weather conditions may have had an influence on the choice of a location to put the capital. People may have wanted to choose a comfortable location for office work: not too hot, too cold, or too snowy.

The dots on the small graphs on this map show the average temperature in each month of the year. The graphs are easy to read if you focus on the relationship between the dots and the horizontal lines.

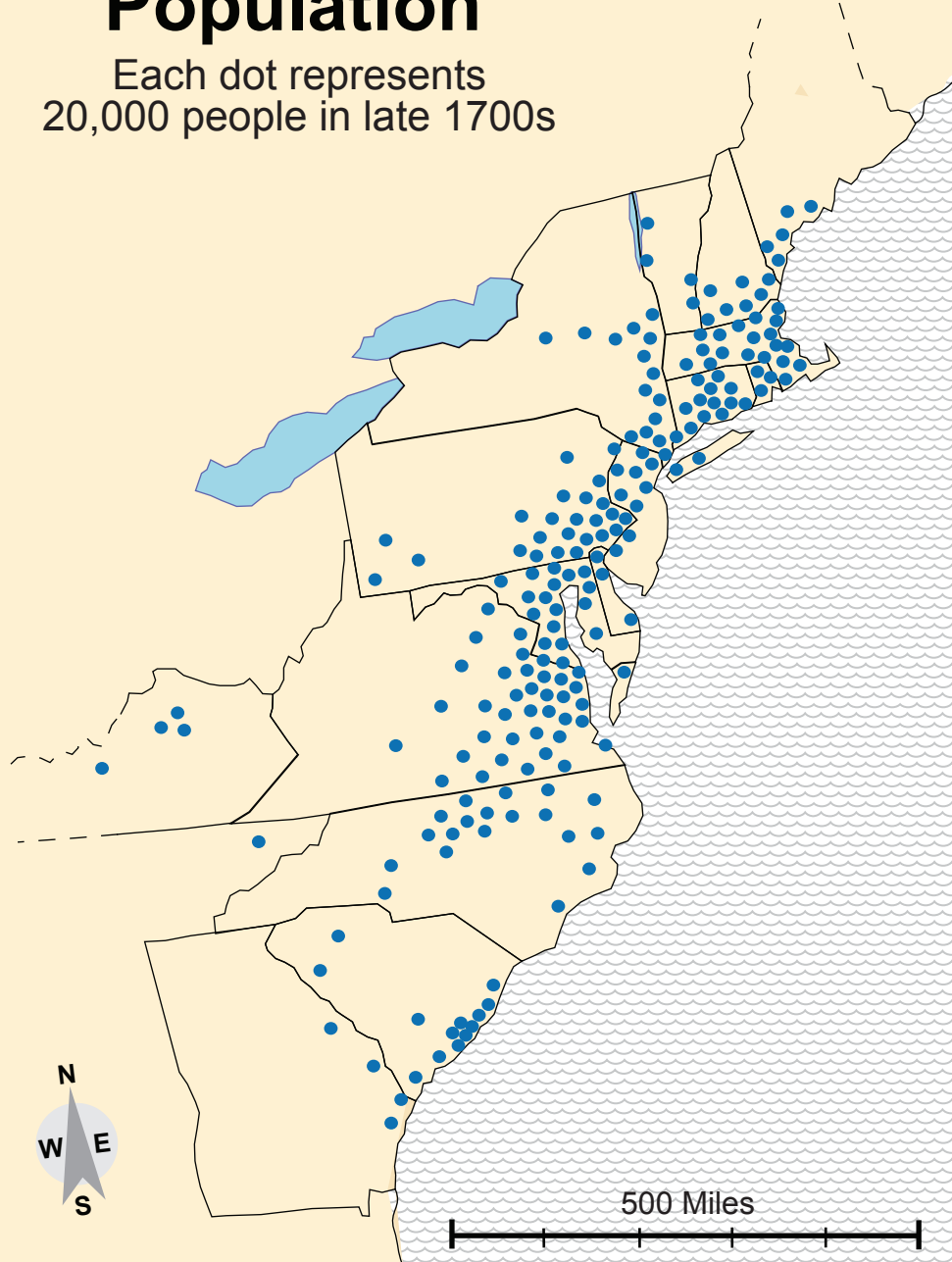
**Step 1:** Count the dots that are on or higher than the top horizontal line on each graph. This line represents 20°C (68°F), a nice room temperature. If a dot showing average temperature for a month is way above that line, most days during that month will probably be uncomfortably warm for working in a government office (remember, they didn't have airconditioners or electric fans in 1790!)

**Step 2:** Count the dots that are on or lower than the lowest of the three horizontal lines on the graph. This line represents 0°C (32°F), the temperature at which water freezes. If a dot is on or lower than that line, there might be a lot of snow and ice in that month, which could interfere with travel.

City	Hot months	Icy months
Portland	0	4
Boston	0	1
New York	—	—
Philadelphia	—	—
Washington	—	—
Norfolk	—	—
Charleston	—	—
Savannah	6	0

# Population

Each dot represents  
20,000 people in late 1700s



## DC-4. Locating the Capital: Patterns of Population

Some people say that the arrangement of population had an influence on the choice of location for the national capital. People would need less time to travel to a capital if it was located near the center of population.

To find a location close to the center of population:

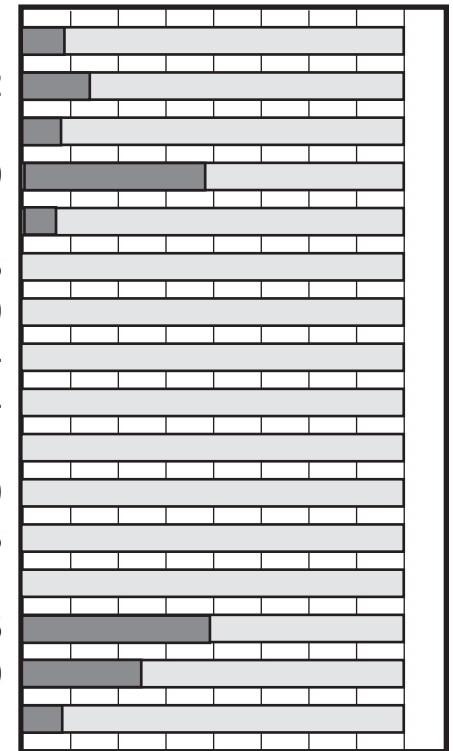
- Step 1: finish the graph by shading each bar according to the number of people who lived in that state.
- Step 2: study the dot map -- 199 dots on it show where nearly 4 million people lived in the country.
- Step 3: draw a horizontal line where about half the dots are north of your line and half south of it.

### State or Territory

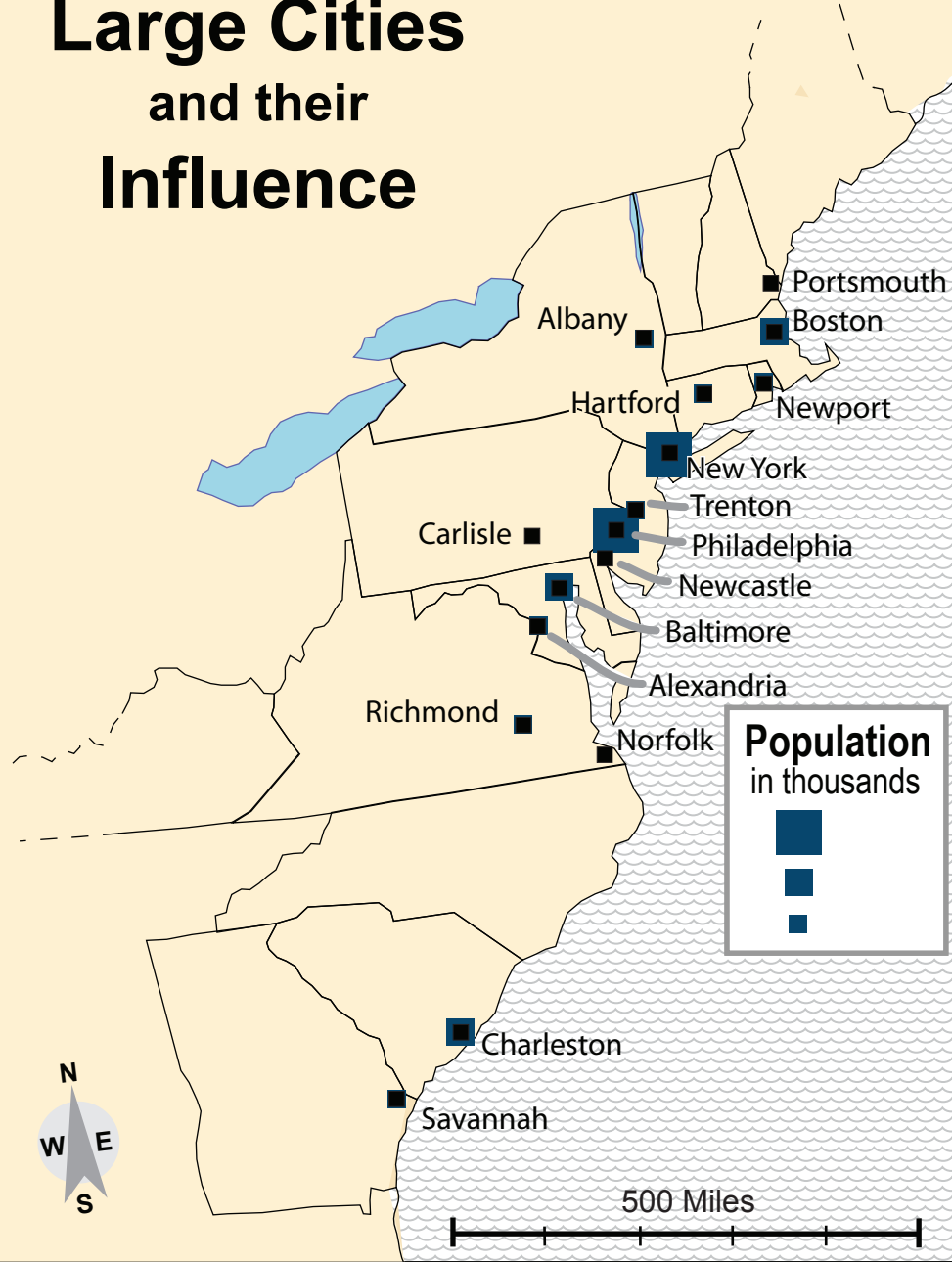
### Hundreds of Thousands

0 200 400 600 800

Maine territory	97
New Hampshire	142
Vermont territory	85
Massachusetts	379
Rhode Island	69
Connecticut	238
New York	340
New Jersey	184
Pennsylvania	434
Delaware	59
Maryland	320
Virginia	748
Kentucky territory	74
North Carolina	395
South Carolina	249
Georgia	83



# Large Cities and their Influence



## DC-5. Locating the Capital: The Aura of a Big City

Some people said the capital should be in a large city. A city location would help people focus on governing, rather than trying to build new houses and stores. Others wanted the capital in a new place, away from the influence of existing economic and political forces.

To make a map that shows the sizes of towns in 1790:

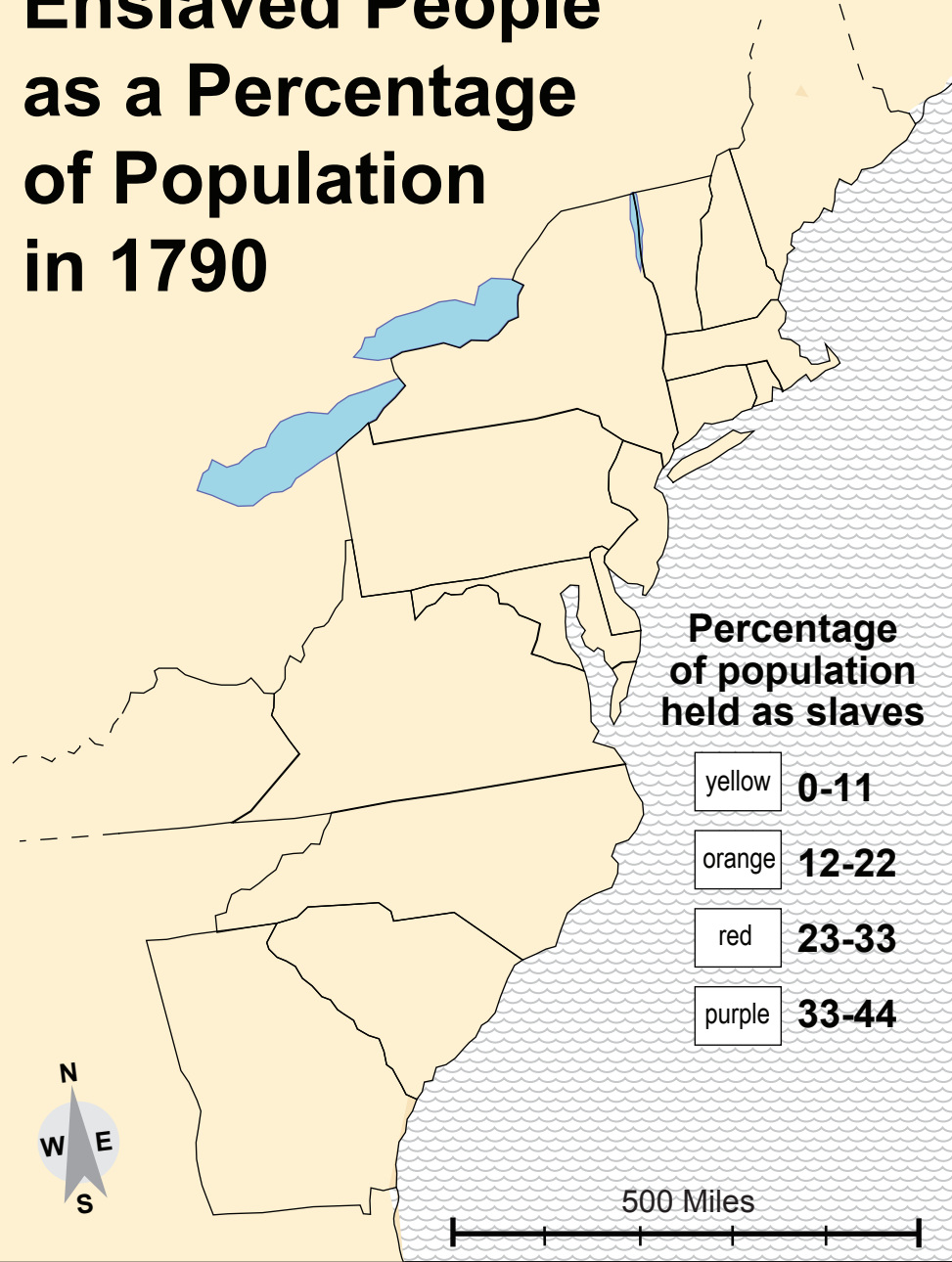
- Step 1: Look at the table of town populations. Decide how you would divide the list into groups. Towns in each group should be similar to each other in size and different from the other groups.
- Step 2: Put an L, M, or S on the line by each town to show whether you put it in the group of large, medium-sized, or small towns.
- Step 3: Make the map squares for your big and middle-sized towns match the sizes on the map key.
- Step 4: Write numbers on the map key to show sizes.

Town	Thousands	Group	Town	Thousands	Group
New York	33	L	Richmond	4	—
Philadelphia	29	—	Albany	3	—
Boston	18	—	Norfolk	3	—
Charleston	16	—	Alexandria	3	—
Baltimore	14	—	Hartford	2	—
Newport	7	—	Newcastle	2	S
Trenton	6	—	Savannah	2	S
Portsmouth	5	—	Carlisle	2	S

Complication: Some towns were already under the influence of larger towns. Close to Boston, for example, 19 thousand people lived in Marblehead, Salem, and Gloucester. The "Boston area," therefore, had 37 thousand people.

That would make it the largest "urban area" in the country, except that about 7 thousand people lived in towns close to New York, and Philadelphia had more than 16 thousand people near it. Decide if you want to show this information on your map, and make an appropriate key.

# Enslaved People as a Percentage of Population in 1790



## DC-6. Locating the Capital: The Region of Slavery

Some people say that the institution of slavery had an influence on the choice of location for the national capital. They say that slave-owners would not want the capital located in a region where people were opposed to slavery.

To make a map of regions based on slavery:

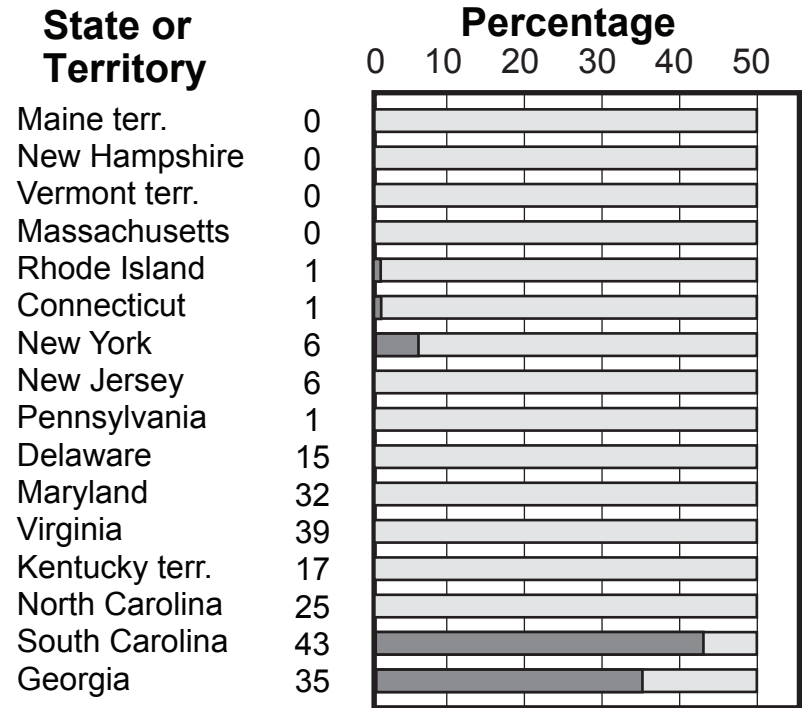
Step 1: finish the graph by shading the unfinished bars.

Step 2: make a map by coloring each state according to the percentage of its population held in slavery.

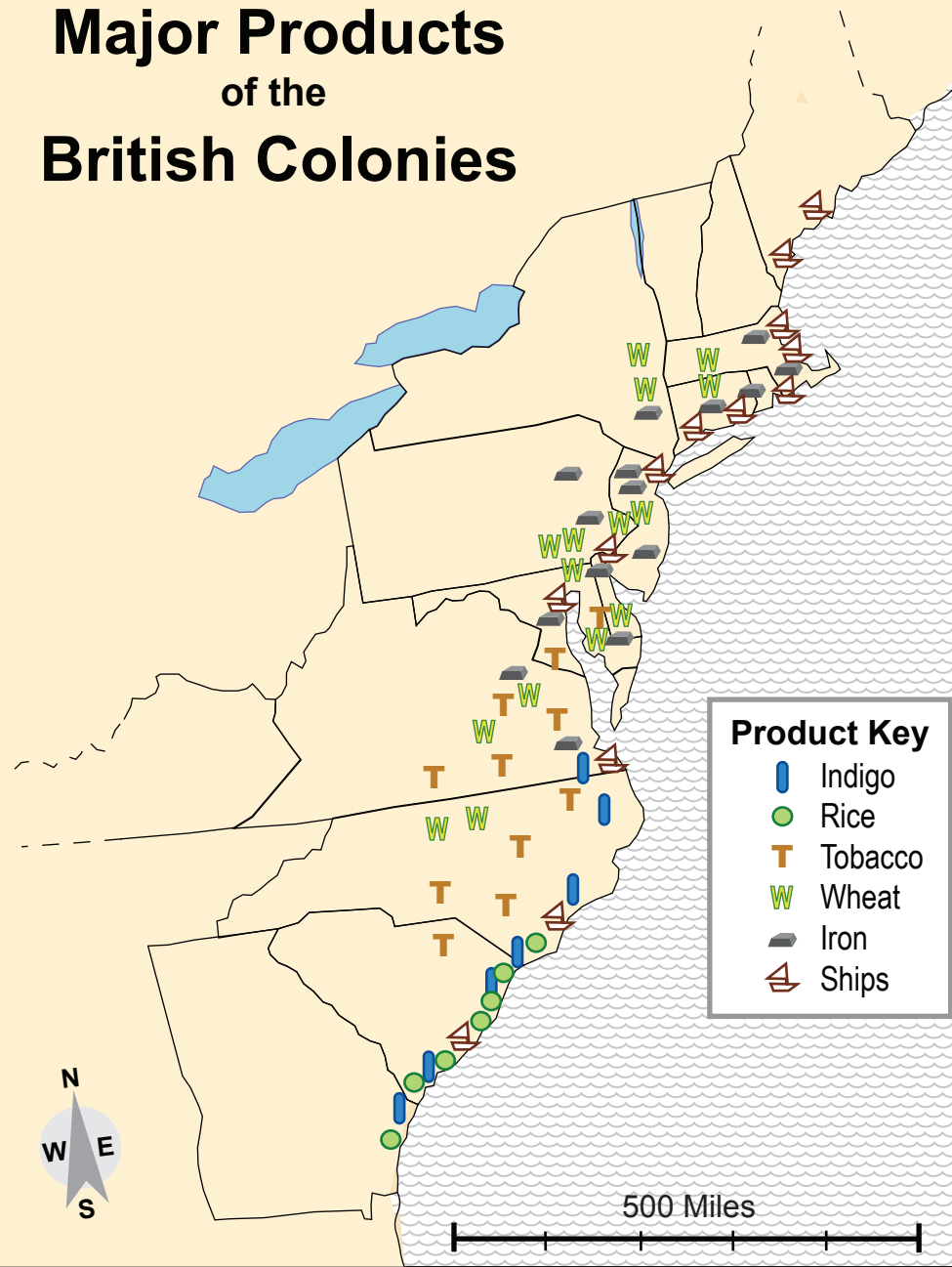
Step 3: the states on the graph are arranged in order from north to south. Draw a single horizontal line on the graph to make two groups of states:

- "many-slaves" group (over 10% of the people)
- "few-slaves" group (less than 10%)

Step 4: draw a line across the map to separate the states into the same two groups.



# Major Products of the British Colonies



## DC-7. Locating the Capital: Product Hierarchies

Some people say that state products may have had an influence on the choice of location for the capital. They say the capital should be located in a region that was economically successful. That way, the government would not have to deal with local issues of poverty and unemployment.

Unfortunately, there are different ways to define "economically successful." Here are three categories:

**Self-sufficiency** - producing most of what you need. The basic food crops at the time were corn, wheat, and rice, and the animals that produced meat. At this time, there was no technology to ship these products long distances without spoiling.

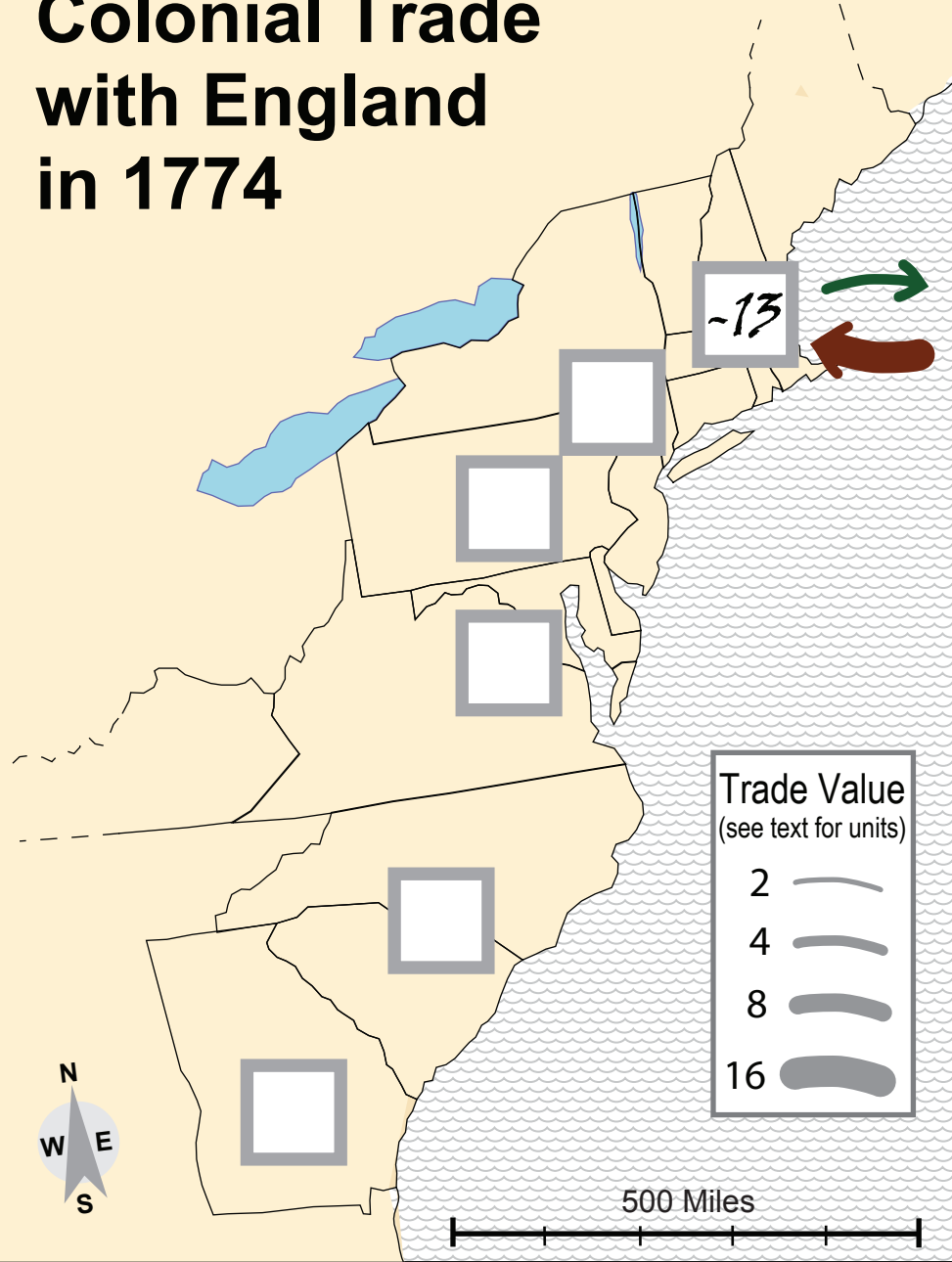
**Import substitution** - producing things for yourself to replace things you had to buy from other countries in the past. Iron furnaces and shipbuilding yards are examples of this process. These products were durable enough to be sold to people in other parts of the country.

**Production for export** - producing things you can sell to people in other countries. In colonial America, furs and lumber had been important exports, but many of the animals and best trees were gone. Indigo (for dye) and tobacco were export goods, and cotton was becoming more important.

- Step 1: look at each state, and decide what products seemed to be most important in that state.
- Step 2: Lightly shade the states that gained income from the export of products to other countries.
- Step 3: Draw thin parallel lines through states that had significant numbers of factories engaged in import substitution and sale to other states.
- Step 4: Draw a big circle in each state that seemed self-sufficient.
- Step 5. Decide what kind of state(s) the capital should be near.



# Colonial Trade with England in 1774



## DC-8. Locating the Capital: Trade Connections

Some people say that trade connections may have had an influence on the choice of location for the capital. They say that politicians living in a part of the country where imports from England were larger than exports might be more likely to tax exports (and vice versa).

That way, they would not be taxing the jobs of people who might be their neighbors!

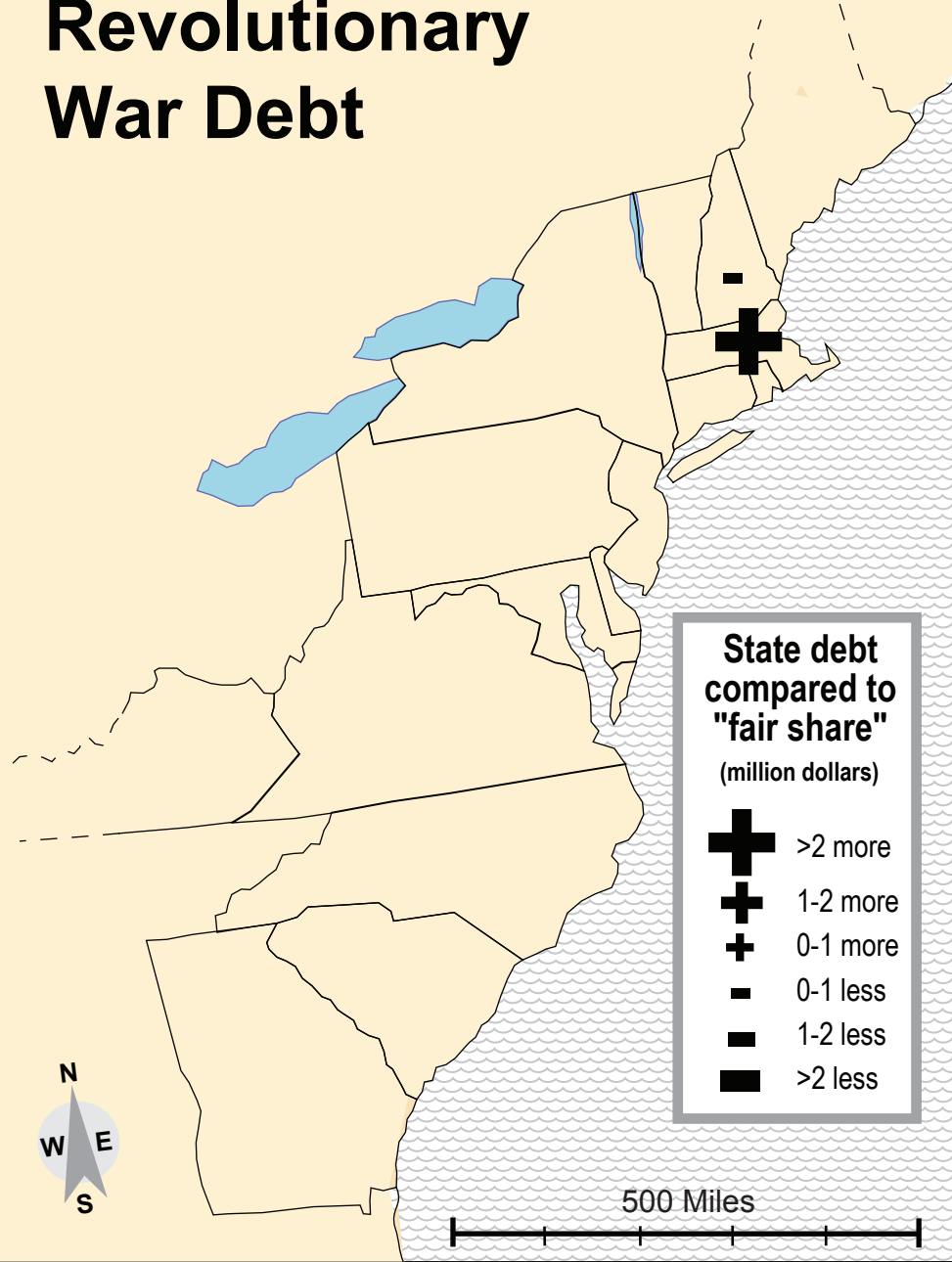
To make a map that shows the balance of trade:

- Step 1: finish the table by subtracting the value of imports from the value of exports in each region (the numbers show labor hours to compensate for currency differences).
- Step 2: write the balance of trade in the box for each major region of the country (don't forget a minus or plus sign).
- Step 3: draw arrows into and out of each region to show the amount of imports and exports. New England is already done as an example.

Region	Trade with England		
	Exports	Imports	Difference
New England	4	17	-13
New York	3	14	—
Pennsylvania	2	19	—
Maryland & Virginia	19	16	—
N&S Carolina	13	12	+1
Georgia	2	2	0

(hundreds of thousands of hours of labor)

# Revolutionary War Debt



## DC-9. Locating the Capital: Patterns of Debt

Some people say that debt had an influence on the choice of location for the nation's capital. Some states had begun to pay back the money they borrowed to pay for the war. Others still owed a lot of money.

This was an important "bargaining chip" in the negotiations about where to put the capital. People from some states proposed to have the national government "assume" all of the remaining debts, in exchange for having the capital located in or near their state.

To see who might be interested in supporting this proposal:

Step 1: Calculate the difference between the actual debt and the fair share\* for each state.

Step 2: Put a minus or plus sign in each state to show the difference: the actual debt minus the fair share for that state. Scale the symbols according to the size of the difference, as shown in the map key.

State	debt (M\$)	people (thousand)	fair share*	difference
New Hampshire	2.7	142	3.0	-0.3
Massachusetts	11.5	379	8.0	+3.5
Rhode Island	1.7	69	1.5	+0.2
Connecticut	6.8	238	5.0	+1.8
New York	9.6	340	7.2	—
New Jersey	4.3	184	3.9	—
Pennsylvania	10.5	434	9.2	—
Delaware	1.2	59	1.2	—
Maryland	7.2	320	6.8	—
Virginia	13.2	748	15.8	—
North Carolina	5.6	395	8.4	—
South Carolina	4.9	249	5.3	-0.4
Georgia	0.8	83	1.7	-0.9

\* "Fair share" is the amount each state should pay if the total debt for the entire country were assigned to each state on the basis of its population. For example, New York had about 9 percent of the country's population. New York's fair share of the total debt was therefore 9 percent of 80 million dollars, or a bit over 7 million.

DC-0

## TEACHER NOTES – CHOOSING A SITE FOR THE CAPITAL

One controversy that threatened to tear the young United States apart was about the choice of a location for the capital of the new country. These nine map lessons show how several different kinds of spatial and mathematical thinking can “cooperate” to help students understand the controversy (and how the solution still has an influence on people today).

The lessons involve making and/or analyzing maps about a number of separate topics that were part of the debates in the late 1780s. A teacher can choose among the following:

1. **Background** reference map, with a few questions. This lesson is primarily for those who do not know the locations of the states (or at least need a review before going on). The questions focus on basic relationships of distance and direction.

### 2. **Climate Conditions**

Setup: ask a simple question about **conditions**. What kind of weather would be desirable for a capital city? What conditions would be good for meetings, parades, speeches?

Look for: realization that people might want a place that was not too hot, or too cold, or too snowy, and so forth. Remember, there were no airconditioners or electric fans in 1790, and streets were rarely paved. People also worried about diseases such as malaria and yellow fever, which they thought occurred mostly in hot, swampy places (especially in crowded towns that were built in hot, swampy places).

Skill: these simple climographs (graphs of climate) are easy to read and analyze, if students do what is described in the instructions: count the number of months that have average temperatures above room temperature or below freezing (the top and bottom lines of the three on the graph).

Followup: would Americans decide to locate their capital in a different place today, when the country is larger and people have airconditioners and snowplows?

Spatial thinking skill: describing **conditions**; DC math standards 4D3, 4P3, 5P4

### 3. **Associations with Topography** (the shape of the land)

Setup: What kind of landform seems to be best for cities in the late 1700s? hills, plains, or mountains? Or would it be better to locate in a “border zone,” like where the land meets the ocean, plains meet the hills, hills meet mountains, etc.

Look for: realization that two landscape features were very important for city success in 1790: access to the ocean for shipping, and proximity to waterfalls for power.

Skill: seeing the **association** of cities with specific kinds of landforms on a map.

Followup: Isn't it strange that most of the main cities of the eastern United States are located where they are for reasons that have been obsolete for centuries (who needs waterfalls for power once we have electricity)? What are some consequences of that?

Spatial thinking skill: feature **association**; DC math standards 4P3, SP7

#### 4. Patterns of Population

Setup: ask a simple question about access: Should the new capital be close to the people, or far away? What would be some advantages and drawbacks of each?

Look for: realization that a location near the center of population would keep the total travel time low if people from all parts of the country wanted to come to the capital.

Skill: reading a dot map. If the dot ratio on a map (a mathematical idea!) is 1:20,000, that does NOT mean 20,000 people are right under each dot; it DOES mean 20,000 people are somewhere in the area around that dot. The center of a dot map can be determined by counting dots or just by “eyeballing” the pattern, to find a place where roughly half of the dots are north of the place and half are south of it. (Computers can count dots very fast; it’s one of the advantages of a GIS). The graph provides another way to visualize the pattern and seek the central point.

Followup: Why would Boston or Charleston have been poor choices for the capital?

Spatial thinking skill: **pattern analysis**; DC math standards KD2, 4P3, 5P4, 6P9

#### 5. The Aura of Big Cities

Setup: ask a question about **influence**. Would it be good for the capital to be in an existing town (so that officials could focus on starting the new government, rather than building a town at the same time)? Or would it be better to be farther away from the influence of existing political and economic powers?

Look for: realization that the spatial aura of a city (its area of influence) is roughly proportional to its size – bigger cities have bigger auras around them.

Skill: making and interpreting a scaled-symbol map. The idea is to make the size of the symbol proportional to some measure of importance, such as the population of a city.

Followup: Why was Philadelphia chosen for the Continental Congress?

Spatial thinking skill: **spatial aura**; DC math standards KD2, 2D2, 4P3, 5P6, 6P8, 8P8

#### 6. Regions Based on Slavery

Setup: This issue was political dynamite in 1790, and it continued to be controversial right up to when it tore the country apart in the Civil War. The question was simple: should the capital be located in a state such as Virginia, where many people accepted the idea of slavery, or a state such as Pennsylvania, where many people opposed it?

Complication: states like New York and Rhode Island profited from the slave trade.

Look for: realization that having the capital in a **region** where the majority of people disagreed with your position could eventually cause problems.

Skill: making and interpreting a choropleth map. In making this kind of map, we shade or color a state according to the percentage of its population held in slavery.

Followup: Why was any compromise involving slavery doomed to eventual failure?

Spatial thinking skill: **region**; DC math standards 1D2, 4D2, 4P3, 7M3, 8D5

## 7. Product Hierarchies

Setup: Should the capital be located where people produced things for their own needs, for sale to other people within the country, or for sale to people in other countries?

Look for: realization that people who live in state where the economy is based on self-sufficiency, on manufacturing for domestic markets, or on overseas trade will have different ideas about the role of government.

Skill: ignoring clutter to focus on the symbols that show the major products of each state.

Followup: what are the bases for the economies of states in the Midwest or West. How does that influence their voting?

Spatial thinking skill: **hierarchies** (locations within larger areas like states)

## 8. Trade connections

Setup: Should the capital be located in a part of the country where people produced things that could be sold to other countries or where many people made a living by trading?

Look for: realization that locating a capital in a state where exports were an important part of the economy might make government officials more likely to tax imports, and vice versa. This is an abstract and complex concept, which was summarized in a famous quotation from this time period: “the power to tax is the power to destroy.”

Skill: making and interpreting a flowline map. The idea is to make the width of arrows proportional to the volume of trade going into (imports) or out of (exports) a state.

Followup: Are there examples of legislators voting to tax activities that are not important in their home territory but might be important in other places? Absolutely! One of the things that make the United States tax code so complicated is that legislators have filled it with special taxes, deductions, or credits for particular activities.

Spatial thinking skill: **connections**; DC math standards 4D4, 5P4, 6P8, 7D2

## 8. The Geographic Pattern of Debt

Setup: Should the capital be in a state that has already repaid the money they borrowed to finance the war? Or where they still owed countries like France or the Netherlands?

Look for: realization that something as abstract as debt transfer to the Federal government (“assumption”) could be the key to a compromise that allowed George Washington to proceed with choosing a site for the capital. Basically, representatives from northern states agreed to allow the capital to be located between two southern states (Maryland and Virginia), in exchange for a legal provision that erased their debt obligations.

Skill: making and interpreting a scaled-symbol map. The idea is to give the map reader a quick way of assessing which parts of the country had more debt than their “fair share” (plus signs of various sizes) and which ones had less (minus signs).

Followup: Are there other examples of compromises that involve tradeoffs between principles (opposition to slavery) and pragmatics (elimination of debt)? Yes, history books are full of examples. The goal here is to use maps to make the tradeoffs obvious.

# Choosing a Location for the National Capital

## Teacher's Guide

### Big question

What geographic factors influenced the location of the capital in Washington, DC?

### Focus questions

What were the geographic roots of the Great Compromise?

How were they related to patterns of trade among Europe, Africa, Caribbean colonies, and North America?

How did the Compromise postpone some difficult issues about economy, politics, and slavery?

In this Activity, groups of students examine maps that provide different kinds of information that might be relevant to the selection of a national capital. In the ensuing discussion, students see the geographic patterns that led to the Great Compromise (and eventually to the Civil War).

### Learner outcomes and curricular links

After doing this Activity, a student should be able to:

- 1) read and interpret a variety of thematic maps that use different “map vocabularies”;
- 2) apply mathematical skills to information derived from maps or geographic data tables;
- 3) recognize that some fundamental geographic differences led to the agreement (the Great Compromise, or Assumption) that helped preserve the Union by postponing difficult decisions about trade balances, national debt, and slavery.

This Activity can fit in a geography or history unit on the United States. Each separate map activity also meets one of the standards of mathematical reasoning.

### Requirements and resources

One to three class periods, depending on how many maps each student does, individually or in small groups, and how the teacher chooses to have students share the results of their work.

Powerpoint unit that shows all the maps as an overview

Nine activity pages, each with a map, instructions for a math activity, and data

Overhead transparencies or powerpoint slides to help explain individual map/math skills

Overhead transparencies or powerpoint slides with the “correct” answers

### Progress check (a non-intrusive way to see whether students are on the right track)

Each activity page has a large graph or table that is partially done as a model. This gives you an easy way to see if students “get it,” since their work can be seen and evaluated from quite a distance.

### Evaluation

It is important to focus on students’ understanding of geographic patterns and their consequences, not just on whether they “did each map” correctly. Focus on these points, each with an important effect:

- 1) A variety of considerations favored a location for the capital in Pennsylvania, Maryland, or Virginia, but people also had strong reasons for opposing each of those locations.
- 2) Southern states agreed to assume northern debts, in exchange for locating the capital in the south.

### Extension and enrichment

The folder also has a clickable .pdf file, a mini-GIS with a set of thematic maps that can be turned on or off. The basic idea of gathering different kinds of geographic information from a variety of sources can be applied to the location of any other important city (e.g., London, Timbuktu, Shanghai) as well as other features (e.g., a stadium, mall, fort, etc.; see the activity of Locating a Fort in Europe).