# Analyzing Data:  Economic, Political, and Social Changes in the 19th Century

The Incredible changes taking place in America, during the period 1820-1860, can be illustrated in a number of ways.  In less than one lifetime, the number of States increased from 13 to 34, the population rose from 4 million to 13 million, and revolutions in transportation and manufacturing (the Market Revolution) transformed the lives of everyone.  Here, we will use numbers to investigate these changes and practice analyzing data, an important skill for exams requiring the analysis of data and change over time.

**Table A**

| Year | Value of all U. S. exports | Value of cotton exports |
|---|---|---|
| 1840 | $112 million | $64 million |
| 1860 | $316 million | $192 million |

**Table B**

| Year | Quantity of cotton exports |
|---|---|
| 1820 | 128 million pounds |
| 1840 | 744 million pounds |
| 1860 | 1,768 million pounds |
| 1861 | 308 million pounds |

**Table C**

*# of slaves on 11 plantations:*
18, 21, 96, 19, 29, 12, 23, 15, 61, 7, 16

**Table E**

*Gross Investement in Railroad Construction and Equipment*
*(millions of 1909 dollars)*

| Years | Track | Equipment | Total |
|---|---|---|---|
| 1828 to 1838 . . . . . . . . . . . . . . . . . . . . . . | 85.3 | 4 | 89.3 |
| 1839 to 1848 . . . . . . . . . . . . . . . . . . . . . . | 158.5 | 13.7 | 172.2 |
| 1849 to 1858 . . . . . . . . . . . . . . . . . . . . | 854.3 | 72.6 | 926.9 |
| 1859 to 1869 . . . . . . . . . . . . . . . . . . . . . . | 793.1 | 126.8 | 919.9 |

**Table F**

*Alien Passengers to the U. S.  Per Year*

| Decade | Annual Average |
|---|---|
| 1820s | 12, 847 |
| 1830s | 53,100 |
| 1840s | 152,760 |
| 1850s | 275,458 |

**Table D**

*Cotton Production of Selected Plantations in 1859*

| Plantation | Cotton production (in bales) | Number of slaves |
|---|---|---|
| 1 | 80 | 24 |
| 2 | 118 | 56 |
| 3 | 21 | 13 |
| 4 | 98 | 45 |
| 5 | 153 | 63 |
| 6 | 8 | 7 |
| 7 | 275 | 91 |
| 8 | 81 | 29 |
| 9 | 274 | 78 |
| 10 | 33 | 18 |
| 11 | 79 | 30 |
| 12 | 106 | 57 |
| 13 | 47 | 26 |
| 14 | 114 | 43 |
| 15 | 54 | 22 |

**Table G**

*Total & Popular Vote in Presidential Elections, 1824-1860*

| Election | Total votes cast |
|---|---|
| 1824 | 356, 038 |
| 1828 | 1,156, 328 |
| 1832 | 1,250,328 |
| 1836 | 1,479,799 |
| 1840 | 2,403,719 |
| 1844 | 2,698,611 |

# Analyzing Data: Economic Changes in the 19th Century

*Questions:*

*Using Percentages*
1. The percentage of all U. S. exports consisting of cotton increased from _____% in 1840 to _____% in 1860. (Table A)

2. What is the percent increase of cotton exports (in pounds) from 1820-1860? (Table B)

3. What is the percent decrease of cotton exports (in pounds) from 1860-1861? (Table B)

4. What would indicate your calculations for question 3 were wrong?

5. Which two consecutive election years saw the greatest percentage increase in voters? (Table G)

*Using Averages*
1. What is the mean number of slaves on the plantations in Table C?

2. What is the median number of slaves on the plantations in Table C?

3. How would you calculate the answer for the above question, if there were an even number of plantations?

4. Determine the mean and median values of cotton production (in bales) on the plantations in Table D.

5. How might calculating the averages in Tables C and D prove deceptive to historians?

6. How might you check to see if the averages you're using are skewed?

*Using Background Knowledge*
1. Why might the total investment in track decrease while the investment in equipment increases in the years 1859 to 1869? (Table E)

2. What might explain the trend in Table G?

3. What might explain the drop in cotton exports from 1860-1861? (Table B)

4. What events might explain the average increase in immigration? (Table F)