



## South Carolina Academic/Career Development Integration Activity (DRAFT)

**Title** Changing Economy (HM-4)

**Subject** Algebra

**Grade Level(s)** 9-12

**SC Content Standard Algebra - Standard IV.** Analyze change in various contexts.

Expectation A. Approximate and interpret rates of change from graphical and numerical data.

IV.A.1. Interpret rates of change as they apply to phenomena such as inflation, spread of disease, population growth, tax brackets, and pollution.

### **National Career Development Guidelines Goal/Indicator**

Career Management GOAL CM5. Integrate changing employment trends, societal needs, and economic conditions into your career plans.

Indicator CM5.K3. Identify employment trends that affect your career plans.

### **Career Development Objectives**

1. The student will interpret rates of employment growth or decline over a period of time for specific occupations in the US economy.
2. The student will be able to locate employment outlook and trend information.

### **Assessment**

1. The student will interpret rates of employment growth or decline for the period 2004-2014 for specified occupations in the US economy.
2. The student will know how to access Bureau of Labor Statistics data about employment outlook and trends.
3. The student will complete the *Changing Economy* worksheet.
4. The student will recognize that employment outlook data projections are useful in making career plans and selecting an occupation to pursue. (Class discussion and Teacher observation.)

### **Preparation**

- Prior Learning—Instruction on interpreting rates of change, experience with Internet websites
- Handouts/Worksheets—*Changing Economy* worksheet
- Resources/Materials—writing materials, Internet access, BLS website, [www.bls.gov](http://www.bls.gov), *Where the Jobs Are* (for teacher reference)
- Time Required—90 minutes plus outside work

## **Procedures**

### **Part One (60 minutes)**

- In this activity, students will practice interpreting rates of change from numerical data. They will recognize that work in the US economy is changing and that employment in some occupations is increasing, in others it is stable, and in others it is declining.
- Review with students how to interpret and represent rates of change from numerical data.
- Give students a copy of the *Changing Economy* worksheet. Review the directions with them.
- Give students time to complete the assignment.
- Have students discuss how they interpreted and displayed the rates of change for the various occupations.

### **Part Two — Career Development Connections (30 minutes)**

- Engage students in a discussion of what they learned about the employment outlook for occupations. What are reasons for the growth in employment in some occupations and decline in others? When an occupation shows high growth, does it mean that there will be lots of jobs available? What other factors might have to be considered (e.g., competition, actual size of the occupation – how many people are employed overall). Would information about employment outlook be helpful in making career decisions? Why or why not?
- Introduce students to the BLS website [www.bls.gov](http://www.bls.gov). Inform students that in the Occupations section (on the home page) students can get information about employment projections, they can access the *Occupational Outlook Handbook* for general information about occupations, and they can also access the *Occupational Outlook Quarterly* for interesting articles about occupations and their outlook.
- Optional: Have students use the O\*Net, SC Careers system, or other career information system to further research an occupation of interest.

## **Crosswalks**

### **SC Career Guidance Standard/Competency**

Learning to Work Standard 5. Students will understand how community awareness relates to work.

Competency 5.3. Identify how occupational and industrial trends relate to training and employment.

### **Key Employability Skills**

Thinking Skills—Decision-making, problem-solving, critical thinking, reasoning

Basic Academics—Arithmetic/Mathematics

\* Adapted from *Career Development Tool Kit*, Linda Kobylarz & Associates, 2001. Used with permission

## Changing Economy

Directions: For each of the occupations listed below, interpret and represent the rate of change in employment from 2004 - 2014. Use a separate piece of paper to display your work.

### Employment Change Chart

Occupation	Total Employment (000,s) In 2004	Total Employment (000,s) In 2014
Office Clerks	3,138	3,401
Truck Drivers, Heavy	1,738	1,962
Carpenters	1,349	1,535
Farmers & Ranchers	1,065	910
Lawyers	735	845
Cooks, Fast Food	662	771
Electricians	656	734
Accountant & Auditors	1,176	1,440
Travel Agents	103	96
Police Patrol Officers	639	738
Sewing Machine Operators	256	163
Chemical Engineers	31	34
Bookbinders	7	7
Sales Managers	337	403
Special Education Teachers (Elementary)	205	253
Production Workers	319	315
Registered Nurses	2,394	3,096
Home Health Aides	624	974
Computer Programmers	455	464
Desktop Publishers	34	41
Broadcast Technicians	34	37

### For More Information

Bureau of Labor Statistics (BLS) website: [www.bls.gov](http://www.bls.gov)

Occupations Section on Home Page

- Employment Projections
- *Occupational Outlook Handbook* for general information about occupations
- *Occupational Outlook Quarterly* for interesting articles about occupations & outlook