BEIGE BOOK IN THE CLASSROOM
Federal Reserve Bank of Kansas City

TEACHER INTRODUCTION
Eight times per year, the Federal Reserve issues The Summary of Commentary on Current Economic Conditions by Federal Reserve District, or the Beige Book, as it is more commonly known. The publication offers a snapshot of business conditions in each of the Fed’s 12 regional Reserve Bank Districts. Students will participate in this project-based learning activity as they collect economic information to write their own Beige Book.

LESSON DESCRIPTION
This lesson will introduce students to the Federal Reserve’s Beige Book and explain to them how the report reflects economic conditions as perceived by local businesses and other contacts. Student groups will survey their community’s businesses within their assigned economic sector, analyze their survey results, and develop their own Beige Book showing the economic conditions of their area.

GRADE LEVEL
9-12; college

CONCEPTS
Beige Book, Federal Reserve System, Board of Governors, Federal Open Market Committee, Fed Funds Rate, Diffusion Index

OBJECTIVES
Students will be able to:
1. Discuss the importance of the Federal Reserve’s Beige Book as an indicator of the economic health of our country.
2. Survey community businesses within an assigned economic sector.
3. Analyze survey results to assess the economic conditions of their sector.
4. Create and use a diffusion index to evaluate the overall condition of their sector.
5. Develop their own Beige Book by summarizing and combining sector results into a class document.

TIME REQUIRED
Two 60-minute class periods (estimated)
Additional work outside class
Presentation (optional)
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MATERIALS
- Visual 1: Intro to Beige Book
- Visual 2: Beige Book Sectors
- Visual 3: Beige Book Word Indicators
- Handout 1: Sample Survey Format
- Handout 2: Beige Book Sector Cards
- Handout 3: Sector Survey Sheet (available online for download)
- Handout 4: Constructing a Diffusion Index
- Handout 5: Mock Data (available online for download)
- Video 1: Creating a Beige Book Survey (5:45 minutes)
- Video 2: Constructing a Diffusion Index (4:03 minutes)
- Copies of a recent Beige Book from your Federal Reserve Bank District for each student
  (http://federalreserve.gov/monetarypolicy/beigebook)

PROCEDURE
Teacher Note - If you would like additional resources related to explaining the Federal Reserve System to students, we suggest these:
- In Plain English - https://bts.stlouisfed.org/in-plain-english/?p=yes

To determine which Federal Reserve District you are in, visit https://federalreserveeducation.org/about-the-fed/structure-and-functions/districts. You can use the map or zip code finder.

CLASS PERIOD 1 - INTRODUCING THE BEIGE BOOK AND CREATING THE SURVEYS
1. Explain to the students that the Federal Reserve is the nation’s central bank. There are three parts to the Federal Reserve System: the Board of Governors, 12 Federal Reserve Bank Districts and the Federal Open Market Committee.
   - The Board of Governors is the central, governmental agency of the Federal Reserve System located in Washington, D.C. Seven members, who are appointed by the U.S. President and confirmed by the Senate, compose the Board of Governors.
   - There are 12 Federal Reserve Banks, located throughout the nation, that together with their 24 branches carry out various System responsibilities. These include operating a nationwide payments system, distributing the nation’s currency and coin, supervising and regulating member banks and bank holding companies, and serving as a banker for the U.S. Treasury.
   - The Federal Open Market Committee (FOMC) is a 12-member committee made up of the seven members of the Board of Governors; the president of the Federal Reserve Bank of New York; and on a rotating basis, the presidents of four other Reserve Banks. The FOMC meets eight times per year to set monetary policy.
2. Discuss that the Fed has three functions: supervising banks, providing financial services and setting monetary policy. The function that affects the economy most directly is setting monetary policy. Monetary policy influences the amount of money and credit in the U.S. economy.
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3. Tell students that one of the most important jobs of the Federal Reserve is to keep the economy healthy. The Federal Reserve wants to promote maximum employment, stable prices and moderate long-term interest rates. Promoting maximum employment as well as stable prices is called the Fed's dual mandate.

4. Explain that the FOMC implements monetary policy mainly by targeting a change in the Fed Funds Rate, which is the interest rate at which a bank lends funds held at the Federal Reserve to another bank overnight. By implementing effective monetary policy, the Fed can maintain stable prices, thereby supporting conditions for long-term economic growth and maximum employment. In order to make monetary policy decisions, the Federal Reserve needs to collect information about the economy throughout the country.

5. Ask students to brainstorm ways the Federal Reserve gets information about our economy. (Answers might include: listening to TV news; researching on the Internet; reading the newspaper or magazines; listening to radio reports; talking to others who have information about the economy.)

6. Tell students that the most accurate way the Federal Reserve gathers information is by asking people who have businesses in their regions about local economic conditions.

7. Show Visual 1: Intro to the Beige Book. Tell students that the Beige Book's formal name is The Summary of Commentary on Current Economic Conditions by Federal Reserve District. Ask them if they can guess why it's called the Beige Book. (The cover of the report is beige.) Tell them that the Beige Book provides up-to-date information on economic conditions, which is used with other data gathered by Federal Reserve economists. It also provides anecdotal information that cannot be provided through other data sources. Each District compiles a report based on the economic conditions in their region. The report is one of many briefs that a regional Reserve Bank president will review in advance of the FOMC meeting. The report is published eight times per year before the FOMC meetings.

8. Ask students why they think the Beige Book's information is important to consumers. (Answers may vary. They may include that it highlights trends in the economy, shows current local economic activity, and indicates where the economy may be headed in the near future.)

9. Discuss the different sectors that make up the Beige Book with Visual 2: Beige Book Sectors. Ask students to give examples of local businesses that fit into each sector. Write their responses down.
   a. Consumer Spending and Tourism
      i. Retail stores, car dealers, hotel, attractions, restaurants
   b. Nonfinancial Services
      i. Healthcare, information technology and telecommunications, advertising, legal services, exporting goods
   c. Real Estate and Construction
      i. New homes, existing home sales, home maintenance, commercial land development, leasing
   d. Manufacturing and Other Business Activities
      i. Creating transportation vehicles, computers, clothing and household goods
   e. Banking and Finance
      i. Credit, type of loans, demand for loans
   f. Agriculture and Natural Resources
      i. Growing conditions, livestock, energy and mining
   g. Employment, Wages, and Prices
      i. Labor market conditions, prices of goods and services
10. Explain that each Bank's report might be slightly different, based on the business and industry types in that District. For example, not all Districts report on agriculture.

11. Explain that there are three parts in creating the Beige Book: gathering data, analyzing it and writing the report.

12. Tell the students that they will be participating in each part of the process to create a classroom Beige Book. First, the students will gather their data for each economic sector.

13. Tell students the primary way that Federal Reserve obtains this information is through a survey. Explain that the survey questions don’t ask specific things like numbers or sales, but ask questions about trends in business activity, movements up or down, and business improvement or decline. Tell students the information companies share is confidential and voluntary.

14. Watch Video 1: Creating a Beige Book Survey, which shows a Federal Reserve economist discussing the importance of the survey.

15. Distribute Handout 1: Sample Survey Format. Explain that this is a sample for the consumer spending sector. The left-hand column will vary based on the sector being surveyed. The other three columns reflect different time periods. The first compares the past 30 days to the previous month. The next column is the past 30 days compared to the same month last year. This information helps for sectors that are seasonal, such as consumer spending during the holidays and agriculture during growing seasons. The third column provides expectations for the next three months. Tell students that yes/no questions are the same on every survey to gather information on the Wages and Prices sector. There are also open-ended comments for businesses to write other trends in their sector. For example, a retail store may write they are selling more jeans for back-to-school.

16. Ask students to consider what types of questions they would want to ask for the different sectors. This will help determine trends and questions to ask in the left-hand column and open-ended comments of the survey, as they will be different for each sector. Suggest that reading past Beige Books will help determine which type of questions have been asked for each sector. Review current and historical Beige Books at www.federalreserve.gov/fomc/beigebook.

17. Divide the class into seven groups to cover the sectors. Distribute Handout 2: Sector Cards to the appropriate groups so they can read a description of possible economic activity in their sector.

18. Have student groups create a survey for their sector by filling out Handout 3: Sector Survey Sheet in the same manner as the sample survey format to complete their questions and prepare to distribute to businesses.

19. Tell student groups to reach out to the different companies they brainstormed to survey them for their sector. Explain that there is no limit on the number of companies to ask. The more businesses they survey, the more data they will have to analyze in order to get a better picture of their sector. (The Wages and Price questions should be the same for each sector survey.)

Teacher Note: Plan for the survey assignment to take at least two weeks. Suggest that students reach out to family, neighbors and friends that may work in their assigned sector. They could visit their sector’s businesses in person, call, or use email to communicate. If the students are not getting a strong response, the mock data (Handout 5) may also be used to assist in the sectors. Some of the data are surveys filled out, others are memos or emails that students need to decipher to complete the information for the survey. The mock data is based on real data that has been received to fill in gaps with few responses so that students have meaningful data.
Class Period 2 - Analyzing Data and Writing the Beige Book

1. Review the purpose of the Beige Book. *(It's a report based on the economic conditions in their region. Its purpose is to highlight meaningful trends in economic activity.)*
2. Tell students that now the information is gathered, it is time to decipher the data and write their own sector report for the class Beige Book.
3. Discuss how the surveys indicate the direction of economic activity by showing the activity either has gone up, has not changed or has gone down. The students may have a mixture of responses for some of their questions.
4. Explain that within the sector, there may be different industries that report a varied amount of activity. For example, in the manufacturing sector, an auto parts business could be up in sales the past 30 days, but an irrigation systems provider could be down in sales for the same time period. Ultimately, the Beige Book should be an overall picture of the sector including the general activity of the different industries within it.
5. Ask students how they would make a decision on the condition of the sector if there is a mixture of activity responses - ups, downs and no changes? *(Answers may vary. Students may suggest going with the majority of responses or combining responses.)* Explain that the Federal Reserve uses a diffusion index. A diffusion index is a method of summarizing the common tendencies in the responses. The diffusion index takes the data and assigns a number to it to figure out the overall direction for the sector. Essentially, the diffusion index takes the responses from different sources, and allows you to report on the overall condition of the sector.
6. Watch Video 2: Constructing a Diffusion Index, which shows a Federal Reserve economist discussing the diffusion index.
7. Distribute Handout 4: Constructing a Diffusion Index. Tell students they will create a diffusion index for every question and time period of their survey by using the following calculations:
   - Tally the number of activity responses for up, no change and down. Add the total number of responses.
   - Determine the percentages that were up, no change and down when they have the total number of responses. For example, to determine the percentage that were up, divide the number of up responses by the total number of responses, then multiply by 100.
   - Take the percentage of up responses and subtract the percentage of down responses. *(The resulting number may be positive or negative.)*
   - Add 100 to the final number. The number 100 is used as a baseline to determine the condition.
   - Determine if the number notes contraction or expansion. If the final number is above 100, it is expansion, or more people said it was growing rather than shrinking; if below 100, it is a contraction.
8. Tell students the diffusion index can be used in the same manner for the Employment, Wages and Price sector. Ask them to tally the number of yes and no responses. Add together to determine the total of responses. Determine the percentage of each and subtract the percentage of yes responses from the percentage of no responses. Add 100 to the final number.
9. Ask students: how they would decide the economic condition of that sector based on how far up or down the index number is? *(Answers will vary.)* Tell students that Fed economists typically view an index number plus or minus 5 from 100 as fairly steady. An index number above 105 will be up. Below 95 will be down. Ultimately, it is a judgment call on how strong that index number is and will be used when writing the Beige Book.
10. Discuss how the diffusion index numbers will help with writing their sections. For example, in the retail sector, you would not say sales increased dramatically when the index number is 105. In addition, if the index numbers indicate that sales are up in the past 30 days and the inventory number is below 100, this would make sense, as they are selling more and the inventory, or the quantity, would go down. However, if inventory levels are up, this might not be a positive thing. Students should look at the relationship between different questions that were asked and the answers they received.

11. Print off a recent Beige Book Survey from your District at www.federalreserve.gov/fomc/beigebook. Instruct students to read their sector section. Have students underline the positive indicators of the economic conditions and circle the negative indicators of those conditions. Ask them what they notice about the way the report is written. (Answers will vary. They may notice that an adverb and verb are used in the description. The word used to indicate the level of change is a modifier.) Explain that economists choose words carefully to demonstrate the magnitude and direction of change for that sector. For example, they may say strengthened further or trended down. Ask students what those phrases mean. (Answers will vary.)

12. Using Visual 3: Beige Book Word Indicators, write down students’ responses on the words they found in the three columns titled Positive Indicators, Modifiers, and Negative Indicators. Discuss whether the verb indicated activity was up, showed no change, or was down.

13. Discuss that when index numbers don’t change, the indicators should reflect that lack of activity through words, such as “stable,” “largely unchanged,” or “steady.” Common words for positive index numbers are “spurred further,” “edged up,” or “rose sharply.” Common words for negative index numbers are “remained poor” or “subdued.” Phrases such as “looking ahead” or “looking forward” indicate the results apply to projected activity. Encourage students to use a thesaurus to add colorful words to their writing.

14. Discuss that the comment section can also be helpful in determining the overall activity and conditions of their sector. Situations such as bad weather or seasonal sales should be noted as factors. Using the index number and specific comments can support their sector paragraph. For example, sales of jeans soared further during back-to-school season.

15. Review the fact that the Beige Book is only three pages long. Suggest they read through past Beige Book reports to see length and style of writing before beginning their sector review. Once they begin writing, students should be precise and choose their words carefully to get as much information about economic conditions in the paragraph as they can. Give students time to compose their paragraph in groups.

16. Explain that the first paragraph gives an executive summary, or snapshot, of all the sectors. Have the class collaborate on the introduction by choosing key phrases from their sector to be highlighted. Ask one student to record the informative phrases in an organized paragraph as an introduction to the completed classroom Beige Book.

17. Have students give a presentation on their Beige Book to school administrators or another class. (Teacher note: a grade could be taken from this presentation.)

**Assessment**

Have students compare their Beige Book with the current Federal Reserve’s Beige Book or the Beige Book from their District. Ask them to discuss the similarities and differences of the two reports in a written summary.
CONTENT STANDARDS

Voluntary National Economic Standards
Content Standard 18: Students will understand that a nation’s overall levels of income, employment and prices are determined by the interaction of spending and production decisions made by all households, firms, government agencies, and others in the economy.

Common Core Standards
Key Ideas and Details
CCSS.ELA-Literacy.RH.9-10.1; CCSS.ELA-Literacy.RH.11-12.1
Cite specific textual evidence to support analysis of primary and secondary sources.

CCSS.ELA-Literacy.RH.9-10.2; CCSS.ELA-Literacy.RH.11-12.2
Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among key details and ideas.

Craft and Structure
CCSS.ELA-Literacy.RH.9-10.4; CCSS.ELA-Literacy.RH.11-12.4
Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social or economic aspects of history/social science.

CCSS.ELA-Literacy.RH.9-10.5; CCSS.ELA-Literacy.RH.11-12.5
Analyze in detail how a complex primary source is structured, including how key sentences, paragraphs and larger portions of the text contribute to the whole.

Integration of Knowledge and Ideas
CCSS.ELA-Literacy.RH.9-10.7; CCSS.ELA-Literacy.RH.11-12.7
Integrate quantitative or technical analysis (e.g. charts, research data) with qualitative analysis in print or digital text in order to address a question or solve a problem.

ELA-Speaking and Listening

Presentation of Knowledge and Ideas
CCSS.ELA-Literacy.SL.9-10.4; CCSS.ELA-Literacy.SL.11-12.4
Present information, findings and support evidence clearly, concisely and logically such that listeners can follow the line of reasoning and the organization, development, substance and style are appropriate to purpose, audience and task.
**VISUAL 1: INTRO TO THE BEIGE BOOK**

- The Beige Book’s formal name is *The Summary of Commentary on Current Economic Conditions by Federal Reserve District*.

- Why is it called the Beige Book?

- The Beige Book provides up-to-date information on economic conditions, which is used with other data gathered by Federal Reserve economists.

- It provides anecdotal information that cannot be provided through other surveys.

- Each District compiles a report based on the economic conditions in their region. Each Bank uses it to brief their Bank president on economic conditions before he or she goes to Washington, D.C. for the Federal Open Market Committee (FOMC) meeting.

- The report is published eight times per year before the FOMC meetings. (January, March, April, June, July, September, October, December)
**Visual 2: Beige Book Sectors**

1. Consumer Spending and Tourism
   - Retail stores, car dealers, hotels, attractions, restaurants

2. Nonfinancial Services
   - Healthcare, information technology and telecommunications, advertising, legal services, exporting goods

3. Real Estate and Construction
   - New homes, existing home sales, home maintenance, commercial land development, leasing

4. Manufacturing and Other Business Activities
   - Creating transportation vehicles, computers, clothing and household goods

5. Banking and Finance
   - Credit, loans (type, demand, amount)

6. Agriculture and Natural Resources
   - Growing conditions, livestock, energy and mining

7. Employment, Wages and Prices
   - Labor market conditions, prices of goods and services
### Handout 1: Sample Survey Format

Consumer Spending Survey

<table>
<thead>
<tr>
<th></th>
<th>Past 30 days vs. Prior 30 day period</th>
<th>Past 30 days vs. Same period a year ago</th>
<th>Expectations for next three months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>Up  No change  Down</td>
<td>Up  No change  Down</td>
<td>Up  No change  Down</td>
</tr>
<tr>
<td>Store Traffic</td>
<td>Up  No change  Down</td>
<td>Up  No change  Down</td>
<td>Up  No change  Down</td>
</tr>
<tr>
<td>Inventory Levels</td>
<td>Up  No change  Down</td>
<td>Up  No change  Down</td>
<td>Up  No change  Down</td>
</tr>
<tr>
<td>Discounts and Incentives</td>
<td>Up  No change  Down</td>
<td>Up  No change  Down</td>
<td>Up  No change  Down</td>
</tr>
</tbody>
</table>

Will you try to increase your workforce in the next three months? Yes  No
Are you have difficulty finding qualified workers? Yes  No  N/A
Have you reduced permanent staff in the past 30 days? Yes  No
Do you plan to reduce permanent staff in the next three months? Yes  No
Have you had to raise wages more than normal in the last 30 days to keep or attract workers? Yes  No
Do you expect to raise wages more than normal in the next three months to keep or attract workers? Yes  No

What items are selling well?

What types of items are selling poorly?

General comment on business conditions:
HANDOUT 2: BEIGE BOOK SECTOR CARDS

SECTOR 1: CONSUMER SPENDING AND TOURISM

CONSUMER SPENDING

Consumer spending includes all the goods and services that people have purchased during the time period measured. Sales of big ticket items such as cars, electronics and luxury goods are noted in this sector, as well as an increase or decrease in general retail inventories. This area can be affected by higher food and energy prices, which may keep consumers from spending on nonessential items. Supply disruptions, leading to lower product inventories, can also influence spending patterns. For example, when a tsunami in Japan affected car manufacturing, Japan exported fewer cars to the U.S. Because the supply of new vehicles was down, the price of available cars increased, leading to a decreased number of car purchases by consumers. Unfavorable weather, such as flooding, tornados and hurricanes, can also effect spending as consumers tend to forgo purchases of additional goods and services when they are buying weather-related supplies and making repairs.

TOURISM

Tourism includes all areas related to travel, such as accommodations, recreation and entertainment, transportation and travel services industries. Consumer travel is often seasonal with summer being the peak travel time. Increases and decreases in tourism are noted by looking at hotel bookings, attendance at amusement parks, zoos and museums, and use of air, rail and water transportation. Tourism can be slowed by adverse weather conditions and fewer spending dollars available.
Sector 2: Nonfinancial Services

Nonfinancial services include employment agencies, information technology firms, telecommunication industries, and business and professional services. Demand for a variety of these business services, such as accounting, marketing, healthcare and legal services can lead to an increase of activity in this sector. For example, more demand for healthcare services can lead to expansion of doctors' offices and clinics. Trading and shipping of goods is also part of this sector. International problems, due to political unrest or natural disasters, can slow the exporting of goods to the affected countries.
Handout 2: Beige Book Sector Cards

Sector 3: Manufacturing

Manufacturing is defined as transforming raw materials into new products through mechanical, physical or chemical processes. Manufacturing can include many separate industries, such as automobiles, aircraft, computers, clothing, construction materials and household goods. Production of goods in these businesses depends on the availability of the raw materials needed and the demand for the finished product. A decline in this sector may mean there is a supply disruption or a delay in the start of the projects that will need the manufactured materials. For example, a decrease in available car parts can lead to a slowdown in automobile manufacturing. An increase in manufacturing occurs when factory orders increase due to higher demand for the finished product.
HANDOUT 2: BEIGE BOOK SECTOR CARDS

SECTOR 4: REAL ESTATE AND CONSTRUCTION

REAL ESTATE

Real estate sales for both residential and commercial properties are measured in this sector. When selling prices for these properties increase, sales generally decline. The housing market is sometimes seasonal and can be affected by the supply and demand for housing in a particular area. The rental or leasing of properties can also have a detrimental effect on real estate sales.

CONSTRUCTION

Construction refers to all businesses that contribute to the development of land, buildings and structures, such as bridges and dams. Included in this sector are firms that build new projects and those that provide maintenance and repairs to these structures, such as siding and roofing companies. These businesses depend on consumer demand and may decline if there is a surplus of buildings for sale in an area, making additional building unnecessary.
HANDOUT 2: BEIGE BOOK SECTOR CARDS

SECTOR 5: BANKING AND FINANCE

The banking and finance sector measures increases and decreases in loan demand for consumer and commercial loans. This sector also covers residential mortgage demand for buying and refinancing homes. It gives a picture of the lending environment, or the willingness of banks to lend within the area. If lending standards tighten, fewer banks are willing to give loans to consumers or businesses. If there is an improvement in the lending environment, more banks agree to process loans for a variety of purposes.

This sector also looks at credit standards, such as credit access, credit quality and delinquency rates. An easing of these standards allows more credit to become available, either in a specific category such as car loans, or in general to consumers, businesses and industries. A rise in delinquency rates means an increase in borrowers who are not making their payments on time. This rise can result in a change in the lending environment making banks less willing to lend.
HANDOUT 2: BEIGE BOOK SECTOR CARDS

SECTOR 6: AGRICULTURE AND NATURAL RESOURCES

AGRICULTURE

The agriculture sector looks at raising and selling crops (such as corn, wheat, cotton and rice) as well as livestock (such as cattle, poultry and hogs). This sector can report increases in activity due to good crop quality and higher yields. Demand for specific crops can lead to stronger prices. In addition, international demand for grains or meat can boost overall export activity as well as farmland values. Decreases in activity are often due to weather-related difficulties. Excess precipitation and cool temperatures can delay planting or harvesting of crops. Extreme weather conditions, such as flooding, drought and wildfires, can lead to wide crop losses. Crop and livestock diseases can cause a decline in this sector’s activity. Rising prices for crop fertilizer and livestock feed can put a damper on price gains in this sector.

NATURAL RESOURCES

Natural resources, such as oil, natural gas and coal, are also part of this sector. Activity in the energy industry can include oil exportation, drilling and extraction. Global demand for oil is a big driver of expansion for this sector. Seasonal demand for natural gas to be used for heating purposes can also increase activity. Coal and iron ore mining are monitored for increases and decreases in production. Decreases in this area can be caused by shortages of equipment or labor. A decrease in oil prices can also lead to a decline in drilling and extraction.
Handout 2: Beige Book Sector Cards

Sector 7: Employment, Wages and Prices

Employment

The employment sector looks at current labor market conditions and job growth or loss. A general pickup in hiring can lead to increased activity in this sector. A demand for workers in a particular area, such as education or technology, can also increase activity. Positive reports from staffing agencies can include adding more temporary-to-permanent placements and increased recruiting action. Decreases in this sector can lead to layoffs and limited or delayed hiring. This often happens during a recession, which is a general decline in the economy’s gross domestic product (GDP) for two consecutive quarters.

Wages

This area of the sector measures upward pressures on wages (or pressure to increase pay). If there are many people unemployed, people looking for work generally focus on obtaining employment without focusing on increasing their wages. Wages are often increased in occupations that call for highly-specialized skills, in order to draw workers possessing these skills. If there are specific shortages of workers in certain occupations, wage pressures will also grow in order to fill these positions. Sometimes businesses offer merit pay increases to employees based on their productivity and achievement. Wage pressure decreases when the supply of workers hoping to be hired exceeds the number of jobs available, such as during a recession.

Prices

The prices section evaluates changes in prices of goods and services and why these changes may occur. One change might be that input prices (the price of labor and materials to produce a good or service) of an item have increased, causing production of the item to decrease. This can lead to a higher retail (selling) price for consumers. For example, the price of a video game may increase if the factory that produces the game raises wages for employees. Sometimes these price increases are not passed on to the consumer due to competition with other factories for the same customers. Another increase in prices may be due to fuel surcharges (fees) to transport goods to market. Demand for a good, along with a low inventory level for that good, may also lead to a price increase. Frequent price fluctuations have been noted in food products, energy sources, and metals, such as copper, aluminum, zinc and gold.
# Handout 3: Survey Format

[Sector] Survey

<table>
<thead>
<tr>
<th>[Insert Activity]</th>
<th>Past 30 days vs. Prior 30 day period</th>
<th>Past 30 days vs. Same period a year ago</th>
<th>Expectations for next three months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Up  No change  Down</td>
<td>Up  No change  Down</td>
<td>Up  No change  Down</td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>Up  No change  Down</td>
<td>Up  No change  Down</td>
<td>Up  No change  Down</td>
</tr>
</tbody>
</table>

Employment, Wages and Prices Section

[Insert yes/no survey questions]

Open-Ended Comments

[Insert open-ended questions]
Handout 4: Constructing a Diffusion Index

Number of Survey Responses Added

- Up: 9
- No Changes: 12
- Down: 5
- Total: 26

Percentage Up: 35% \(\left(\frac{9}{26} \times 100\right)\)
Percentage No Change: 46% \(\left(\frac{12}{26} \times 100\right)\)
Percentage Down: 19% \(\left(\frac{5}{26} \times 100\right)\)

Diffusion Index - take the percentage that responded up and subtract the percentage that responded down and add 100.

\[
35\% - 19\% = 16 \\
16 + 100 = 116
\]

116 is the diffusion index.

Index numbers greater than 100 indicate expansion.
Index numbers less than 100 indicate contraction.
# VISUAL 3 - BEIGE BOOK WORD INDICATORS

<table>
<thead>
<tr>
<th>Positive Indicators</th>
<th>Modifiers</th>
<th>Negative Indicators</th>
</tr>
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<tbody>
<tr>
<td></td>
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