An Introduction to Unemployment

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Federal Reserve Bank of St. Louis

June 16, 2010
Outline

- Definition
- Types of Unemployment
- Unemployment Behavior
- Causes of Unemployment
- Unemployment Facts
- Measures of Unemployment
- Web Resources
Definition: Unemployment Rate

The unemployment rate is the percentage of the labor force that is unemployed.

Civilian Unemployment Rate: 16 yr+, Seasonally Adjusted, With Recession Shading

Source: BLS
Definition: Unemployment Rate

- Who is included in the labor force?
  - Employed
  - Those actively in search of employment

- Who is excluded from the labor force?
  - People who are not actively seeking civilian employment.
    - Discouraged workers
    - Stay-at-home parents
    - Retirees, students, military, incarcerated
Types of Unemployment

- Frictional
- Structural
- Cyclical
Types of Unemployment: Frictional

- Need time to match jobs with workers.
  - Must match skill, hours, pay, location, attitude, preferences, etc.

- Failing to match well has long-term costs.
  - Do we want physicists flipping burgers or leading tours at museums? Or do we want short-order cooks teaching physics?

- Matching frictions produce a persistent source of unemployment.
  - Examples: recent graduates searching for their first job, stay-at-home parents reentering the labor force, individuals fired for poor performance, individuals laid off by down-sizing firms
Types of Unemployment: Structural

- Workers have specific skill sets and geographic location that are costly to change.
- Needs for workers of a given skill changes over time because of shifting technology and preferences.
- Wage rigidity plays a role.
  - If wages were very flexible, there would be higher demand for workers with “declining” skill sets.
- Examples: Workers from declining industries such as steel.
Types of Unemployment: Structural

Who bears the cost to retrain older workers?
- The worker? Might not be worth the benefit or the worker might be capital constrained.
- The new firm? Another firm might poach the worker if the skills are commonly needed.
- The government?
Types of Unemployment: Cyclical

- Unemployment resulting from a temporary low demand for output.
  - Occurs during a downturn in the business cycle
    - Wages fail to adjust to reflect diminished demand
    - Cyclical unemployment rises during a recession and falls during recovery
  - Example: Unemployment due to the recent financial crisis and corresponding recession.
How do Prices and Quantities Adjust in a Competitive Market?

Supply

Demand

Wage

Glut

Equilibrium

Shortage

W_{h}

W_{e}

W_{l}

Labor
Why is there Unemployment?

- **Matching Frictions**
  - Imperfect information, search costs
  - Geographic Frictions

- **Wage Rigidity**
  - Labor Market Frictions
    - Minimum-wage laws
    - Labor unions
  - Efficiency wages
Why is there Unemployment: Matching Frictions

- Imperfect Information
  - Workers have different preferences and abilities
  - Jobs require different skills and attributes
- Sequential searching is expensive and time consuming
- Geographical immobility
  - Moving involves fixed costs
- Source of frictional unemployment
Why is there Unemployment: Wage Rigidity

- Wages rarely decrease in nominal terms, even when the Q supplied of labor exceeds the Q demanded of labor.
- Source of structural and cyclical unemployment
Wage Rigidity: Labor Market Frictions

What are market frictions?

- Laws or institutional features that prevent prices from adjusting quickly to shortages or gluts.
- Examples: minimum wage laws, labor unions, guilds, cartels, monopsonies (lone buyer of a product).
Labor Market Frictions: Minimum-wage laws

Federal Minimum Hourly Wage

Sources: DOL, BLS and author’s calculations
Labor Market Frictions: Minimum-wage laws

- The Federal minimum wage affects mostly unskilled and inexperienced workers.
  - Largest impact is on teenagers

- Intended to raise the living standards of the working poor
  - Targeted imprecisely? One third of recipients are teenagers.
  - Earned income tax credits (EITC) also increase effective wage without burdening employers
  - Economists are more likely to favor a greater EITC.
Unions act as cartels, restricting supply to obtain a higher price.
- Other non-union organizations pursue similar strategies: e.g., the AMA and OPEC.

Unions are naturally concerned with the welfare of their present members, not the unemployed or non-members.
- “Insiders” and “Outsiders” have conflicting interests.
- Unions’ bargaining power transfers $ from others to their members.

This is not a criticism of unions, just a recognition that people and organizations act in their own interest.
Labor Market Frictions: Labor Unions

Unions play a relatively small role in the U.S. labor market compared to other countries:
- Only 16% of the U.S. labor force is unionized

Potential unionization tends to increase wages beyond a market clearing price even in non-union industries or regions.

The Davis-Bacon Act of 1931 requires that the government pay “prevailing”—i.e., union—wages on public works projects.
- This raises the cost of public works.
- The law is controversial for several reasons that I will not go into.
Wage Rigidity: Efficiency Wages

- Do high wages lead to high productivity?
  - Reduce labor turnover
    - Decreases expenditures on hiring and training
  - Adverse selection
    - Best employees seek highest paying jobs, employees accepting low wages have few alternatives
  - Moral hazard
    - Employers cannot perfectly monitor employees’ effort, higher wages deter shirking by increasing cost of getting caught
  - Promote better nutrition and health
    - Of greater relevance to developing countries
Why is there Unemployment: Wage Rigidity

\[ w_m(w_u, w_e) \]

\[ w_e \]

Equilibrium

Demand

Supply
What does not cause unemployment?
A gradual rise in labor supply

The U.S. unemployment rate 1948-2010.

Source: FRED
Unemployment Facts

- Historical Behavior of Unemployment
  - Cyclical Trends
    - Business Cycle
    - Seasonal
  - Long-term Trends
    - Theories
- Duration of Unemployment
- Variations Across Demographic Groups
- International Comparison
Unemployment Facts

- Unemployment varies over time but the average level of unemployment hasn’t changed too much since WWII.
- The average level of unemployment might be a percentage point higher now than then.
Unemployment Facts: Historical Behavior of Unemployment

Civilian Unemployment Rate: 16 yr+, Seasonally Adjusted

Source: BLS
Unemployment Facts

- Unemployment varies with the business cycle.
- It rises throughout recessions, peaking near the business cycle troughs (the end of recessions).
- Unemployment is a lagging indicator.
Unemployment Facts: Business Cycle

Civilian Unemployment Rate: 16 yr+, Seasonally Adjusted, With Recession Shading

Source: BLS
Unemployment Facts:
Seasonal Patterns

- Demand for labor follows seasonal patterns because of weather, Christmas, school year, etc.
  - You can’t build houses in 2 feet of snow. (Or at least it would be very expensive.)
  - Examples: Accountants in April, lifeguards in the summer, retail help in December.

- How big are seasonal patterns?
  - Very big. Bigger than typical business cycle patterns.

- Why look at seasonally adjusted data?
  - Seasonally adjusted data allows one to see trends more easily.
Unemployment Facts: Seasonal Patterns

Total U.S. Nonfarm Payrolls: January 2007-December 2009

Adjusted versus unadjusted data.

Source: BLS
Unemployment Facts: Seasonal Patterns

Seasonal Deviations from Trend

Look how regular the adjustments are.

Source: BLS
Unemployment Facts: Long-term Trends

The natural rate of unemployment varies over time.

Unemployment:
- Averaged under 5% in the 1950s and 1960s
- Fluctuated around 6% in the 1970s and 1980s
- Returned to around 5% in the 1990s
- Trended upward recently in the 2000s

Economists have attempted to explain these trends with various hypothesis
Long-term Trends:

Theories

Demographics

- The average rate of unemployment varies by age. The size of the baby-boom generation, for example, affects the average rate as the boomers age.

Sectoral Shifts

- Oil price volatility in the 1970s reallocated labor away from energy-intensive sectors.

Productivity

- Productivity is the efficiency with which the economy turns inputs—land, capital and labor—into output.
- Productivity growth slowed in the 1970s and 1980s but rose again in the 1990s.
Unemployment Facts:  
Duration of Unemployment

- The cause of unemployment influences its duration and the proper policy response.
  - Most unemployment spells are short
    - Indicative of frictional unemployment
  - Most unemployment weeks are part of long-term spells.

- How can this be so?
Consider 10 people who experience unemployment in a given year
- 8 are unemployed for 1 month
- 2 are unemployed for 12 months
80% of unemployment ends in 1 month
75% of the months of unemployment (24/32) are experienced by the long term unemployed.
The average length of a spell is 3.2 months.
The median length of a spell is 1 month.

Example taken from Mankiw’s *Macroeconomics*, 5th ed.
Unemployment Facts: Duration of Unemployment

- Consider patrons in a bar:
  - If you poll patrons in a bar on how long they have been/are planning on staying at the bar most will report longer-than-average visits.
    - Your poll will capture a disproportionately high fraction of those who stay in the bar all day, and miss the majority of patrons who stop in for one or two drinks.
  - The average unemployment spell is longer than the median unemployment spell.
Unemployment Facts:
Duration of Unemployment

Source: BLS
Unemployment Facts:
Duration of Unemployment

- The length of the typical unemployment spells declines during good business conditions, peaking before or as recessions start.
- When recessions start, the length of the typical unemployment spell rises and stays high until the recession is over.
- Unemployment tends to be a lagging indicator.
Unemployment Facts: Duration of Unemployment

Cross Section of Unemployed

- Less than 5 Weeks
- 5 to 14 Weeks
- 15 to 26 Weeks
- 27 Weeks or More
- Recessions

Source: BLS
Unemployment Facts: Variations Across Demographics

- Teenagers have higher and somewhat more volatile unemployment rates than do adults.
Unemployment Facts:
Variation Across Demographics

Unemployment Rate by Age

![Graph showing unemployment rate by age from Jan:1948 to Jan:2010. The graph compares unemployment rates for age groups 16-19 and 20+.

Source: BLS]
Unemployment rates vary by ethnic group.

- Whites tend to have lower unemployment rates than do Latinos, who tend to have lower unemployment rates than African-Americans.
Unemployment Facts: Variations Across Demographics

Unemployment Rate by Ethnicity

- White
- Black
- Latino

Source: BLS
Unemployment Facts: Variations Across Demographics

- Prior to 1981, average unemployment rates were higher for women. This is no longer true.

- Men have fared much worse in the recent recessions.

- Why? Men and women choose different types of jobs and even different types of jobs within the same profession.
Unemployment Facts: Variations Across Demographics

Unemployment Rate by Gender

Unemployment Rate

Jan:1948
Jan:1950
Jan:1952
Jan:1954
Jan:1956
Jan:1958
Jan:1960
Jan:1962
Jan:1964
Jan:1966
Jan:1968
Jan:1970
Jan:1972
Jan:1974
Jan:1976
Jan:1978
Jan:1980
Jan:1982
Jan:1984
Jan:1986
Jan:1988
Jan:1990
Jan:1992
Jan:1994
Jan:1996
Jan:1998
Jan:2000
Jan:2002
Jan:2004
Jan:2006
Jan:2008
Jan:2010

Source: BLS
Unemployment Facts: International Comparison

G7
Average v. Standard Deviation of Unemployment
1962-1984

Source: OECD Main Economic Indicators
Unemployment Facts: International Comparison


Source: OECD Main Economic Indicators
Measures of Unemployment

Data Collection
- Establishment Survey
- Household Survey
- Local Area Unemployment Statistics

Alternative Reported Measures

Data Releases
Measures of Unemployment: Data Collection

“The Bureau of Labor Statistics (BLS) is the principal fact-finding agency for the Federal Government in the broad field of labor economics and statistics. The BLS is an independent national statistical agency that collects, processes, analyzes, and disseminates essential statistical data to the American public, the U.S. Congress, other Federal agencies, State and local governments, business, and labor. The BLS also serves as a statistical resource to the Department of Labor.”

Quoted from the BLS’s FAQ page: http://www.bls.gov/dolfaq/bls_ques26.htm
Data Collection: Establishment Survey

- The BLS collects information from employers as part of the *Current Employment Statistics* (CES)
  - Also called “the establishment survey.”
  - Data collected on a monthly basis.
  - Surveys 140,000 businesses and government agencies, representing 410,000 worksites.
    - Includes roughly 1/3 of nonfarm payroll employees.
  - Source of statistics on the number of employed persons, hours worked, and earnings.
Data Collection: Household Survey

- The *Current Population Survey* (CPS) is conducted by the Bureau of the Census on behalf of the BLS
  - Also called “the household survey.”
  - Monthly survey of approximately 60,000 households.
  - Begun in 1940 as part of the Work Project Administrations Program.
  - Source of the unemployment rate.
Data Collection: Establishment v. Household Surveys

Each captures a complementary perspective:

- **Establishment Survey**
  - Data collected on jobs
    - Collection organized by location of jobs
  - Strength is in relatively large sample size

- **Household Survey**
  - Data collected on individuals
    - Collection organized by location of individuals
  - Strength is in much wider scope:
    - Includes self-employed, unpaid family workers, agricultural workers, private household workers, and unemployed
Data Collection: Local Area Unemployment Statistics (LAUS)

Statistics include:

- Labor force, employment, unemployment, and unemployment rate

Statistics are reported for:

- census regions and divisions, states, metropolitan areas, metropolitan divisions, micropolitan areas, combined areas, small labor market areas, counties and county equivalents, cities with a population of 25,000 and over, and all cities and towns in New England regardless of population.
Data Collection: Local Area Unemployment Statistics (LAUS)

Comparison of Unemployment Rates by Region

Source: BLS and Haver Analytics
Data Collection:
Alternative measures of underemployment

- So you don’t like the unemployment rate and think that we should be trying harder to count discouraged workers?
  - OK. Let’s see what the BLS has for you.
## Unemployment Measures: Alternative Reported Measures

### Table 1. Alternative measures of labor underutilization, seasonally adjusted, selected months

[Percent]

<table>
<thead>
<tr>
<th>Measure</th>
<th>May 2007</th>
<th>May 2008</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force</td>
<td>1.5</td>
<td>1.8</td>
<td>0.3</td>
</tr>
<tr>
<td>U-2 Job losers and persons who completed temporary jobs, as a percent of the civilian labor force</td>
<td>2.2</td>
<td>2.8</td>
<td>0.6</td>
</tr>
<tr>
<td>U-3 Total unemployed persons, as a percent of the civilian labor force (the official unemployment rate)</td>
<td>4.5</td>
<td>5.5</td>
<td>1.0</td>
</tr>
<tr>
<td>U-4 Total unemployed persons plus discouraged workers, as a percent of the civilian labor force plus discouraged workers</td>
<td>4.7</td>
<td>5.7</td>
<td>1.0</td>
</tr>
<tr>
<td>U-5 Total unemployed persons, plus discouraged workers, plus all &quot;marginal attached&quot; workers, as a percent of the civilian labor force plus all &quot;marginal attached&quot; workers</td>
<td>5.4</td>
<td>6.4</td>
<td>1.0</td>
</tr>
<tr>
<td>U-6 Total unemployed persons, plus all &quot;marginal attached&quot; workers, plus all persons employed part time for economic reasons, as a percent of the civilian labor force plus all &quot;marginal attached&quot; workers</td>
<td>8.3</td>
<td>9.7</td>
<td>1.4</td>
</tr>
</tbody>
</table>

**NOTE:** The *civilian labor force* is the sum of the employed plus the unemployed. The employed are all persons who, during the reference week, a) did any work at all as paid employees, worked in their own business, profession, or on their own farm, or worked 15 hours or more as unpaid workers in an enterprise operated by a member of their family, and b) all those who were not working but who had jobs or businesses from which they were temporarily absent. The unemployed are a) persons who had no employment during the reference week, were available for work, except for temporary illness, and had made specific efforts to find work sometime during the 4-week period ending with the reference week, and b) persons who were waiting to be recalled to a job from which they had been laid off, regardless of whether they have been looking for work.

Source: BLS
Unemployment Measures: Alternative Reported Measures

**Chart 1. Alternative measures of labor underutilization, seasonally adjusted, 1994-2008**

- **U-6**
- **U-5**
- **U-4**
- **U-3 Unemployment rate**
- **U-2**
- **U-1**

**NOTE:** Shaded area denotes recession.

Unemployment Measures:
Data Releases

- BLS releases the following on a monthly basis:
  - Employment Situations Report
  - Job Openings and Labor Turnover
  - Mass Layoffs
  - Metropolitan Area Employment and Unemployment
  - Real Earnings
  - Regional and State Employment and Unemployment
Can we see a typical BLS release calendar that tells us when all this information is coming out?
- Sure you can. Let’s look at June 2010.
# BLS June 2010 Release Calendar

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memorial Day Holiday</td>
<td>Metropolitan Area Employment and Unemployment (Monthly) April 2010 10:00 AM</td>
<td>Productivity and Costs (R) First Quarter 2010 08:30 AM</td>
<td>Employment Situation May 2010 08:30 AM</td>
<td></td>
</tr>
<tr>
<td>Job Openings and Labor Turnover Survey April 2010 10:00 AM</td>
<td>Employer Costs for Employee Compensation March 2010 10:00 AM</td>
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</tr>
<tr>
<td>U.S. Import and Export Price Indexes May 2010 08:30 AM</td>
<td>Producer Price Index May 2010 08:30 AM</td>
<td>Consumer Price Index May 2010 08:30 AM Real Earnings May 2010 08:30 AM</td>
<td>Regional and State Employment and Unemployment (Monthly) May 2010 10:00 AM</td>
<td></td>
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<tr>
<td></td>
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<tr>
<td>Mass Layoffs (Monthly) May 2010 10:00 AM</td>
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<td></td>
</tr>
<tr>
<td>Metropolitan Area Employment and Unemployment (Monthly) May 2010 10:00 AM</td>
<td></td>
<td></td>
<td>Employment Situation June 2010 08:30 AM</td>
<td></td>
</tr>
</tbody>
</table>

Source: BLS
Data Releases:
Employment Situation

- From household data:
  - Employment status by race, sex and age
  - Employed persons by class of worker and part-time status
  - Unemployed persons by reason and duration
  - Alternative measures of labor underutilization
  - Persons not in the labor force and multiple jobholders

- From establishment data:
  - Employees on nonfarm payrolls by industry sector
  - Average weekly hours and overtime
  - Average weekly and hourly earnings
  - Employment of women
  - Employment of production and nonsupervisory employees
Unemployment Measures: Data Releases

Can we see a typical BLS release?

- Sure you can. Let’s look at April 2010.
Data Releases:
Employment Situation

Transmission of material in this release is embargoed until
8:30 a.m. (EDT) Friday, May 7, 2010

Technical information:
Household data:  (202) 691-6378 • cpsinfo@bls.gov • www.bls.gov/cps
Establishment data:  (202) 691-6555 • cesinfo@bls.gov • www.bls.gov/ces

Media contact:  (202) 691-5902 • PressOffice@bls.gov

THE EMPLOYMENT SITUATION – APRIL 2010

Nonfarm payroll employment rose by 290,000 in April, the unemployment rate edged up to 9.9 percent, and the labor force increased sharply, the U.S. Bureau of Labor Statistics reported today. Job gains occurred in manufacturing, professional and business services, health care, and leisure and hospitality. Federal government employment also rose, reflecting continued hiring of temporary workers for Census 2010.
## Household Data
### Summary Table A. Household Data, Seasonally Adjusted

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Employment Status</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Civilian noninstitutional population</td>
<td>235,271</td>
<td>236,998</td>
<td>237,159</td>
<td>237,329</td>
<td>170</td>
</tr>
<tr>
<td>Civilian labor force</td>
<td>154,718</td>
<td>153,512</td>
<td>153,910</td>
<td>154,715</td>
<td>805</td>
</tr>
<tr>
<td>Participation rate</td>
<td>65.8</td>
<td>64.8</td>
<td>64.9</td>
<td>65.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Employed</td>
<td>140,902</td>
<td>138,641</td>
<td>138,905</td>
<td>139,455</td>
<td>550</td>
</tr>
<tr>
<td>Employment-population ratio</td>
<td>59.9</td>
<td>58.5</td>
<td>58.6</td>
<td>58.8</td>
<td>0.2</td>
</tr>
<tr>
<td>Unemployed</td>
<td>13,816</td>
<td>14,871</td>
<td>15,005</td>
<td>15,260</td>
<td>255</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>8.9</td>
<td>9.7</td>
<td>9.7</td>
<td>9.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Not in labor force</td>
<td>80,554</td>
<td>83,487</td>
<td>83,249</td>
<td>82,614</td>
<td>-635</td>
</tr>
<tr>
<td><strong>Unemployment Rates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total, 16 years and over</td>
<td>8.9</td>
<td>9.7</td>
<td>9.7</td>
<td>9.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Adult men (20 years and over)</td>
<td>9.4</td>
<td>10.0</td>
<td>10.0</td>
<td>10.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Adult women (20 years and over)</td>
<td>7.2</td>
<td>8.0</td>
<td>8.0</td>
<td>8.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Teenagers (16 to 19 years)</td>
<td>21.8</td>
<td>25.0</td>
<td>26.1</td>
<td>25.4</td>
<td>-0.7</td>
</tr>
<tr>
<td>White</td>
<td>8.1</td>
<td>8.8</td>
<td>8.8</td>
<td>9.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Black or African American</td>
<td>15.0</td>
<td>15.8</td>
<td>16.5</td>
<td>16.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Asian (not seasonally adjusted)</td>
<td>6.6</td>
<td>8.4</td>
<td>7.5</td>
<td>6.8</td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino ethnicity</td>
<td>11.4</td>
<td>12.4</td>
<td>12.6</td>
<td>12.5</td>
<td>-0.1</td>
</tr>
<tr>
<td>Total, 25 years and over</td>
<td>7.6</td>
<td>8.3</td>
<td>8.3</td>
<td>8.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Less than a high school diploma</td>
<td>14.9</td>
<td>15.6</td>
<td>14.5</td>
<td>14.7</td>
<td>0.2</td>
</tr>
<tr>
<td>High school graduates, no college</td>
<td>9.4</td>
<td>10.5</td>
<td>10.6</td>
<td>10.6</td>
<td>-0.2</td>
</tr>
<tr>
<td>Some college or associate degree</td>
<td>7.5</td>
<td>8.0</td>
<td>8.2</td>
<td>8.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Bachelor's degree and higher</td>
<td>4.4</td>
<td>5.0</td>
<td>4.9</td>
<td>4.9</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Reason for Unemployment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job losers and persons who completed temporary jobs</td>
<td>8,867</td>
<td>9,550</td>
<td>9,354</td>
<td>9,246</td>
<td>-108</td>
</tr>
<tr>
<td>Job leavers</td>
<td>887</td>
<td>866</td>
<td>894</td>
<td>938</td>
<td>44</td>
</tr>
<tr>
<td>Reentrants</td>
<td>3,127</td>
<td>3,451</td>
<td>3,544</td>
<td>3,739</td>
<td>195</td>
</tr>
<tr>
<td>New entrants</td>
<td>919</td>
<td>1,238</td>
<td>1,197</td>
<td>1,231</td>
<td>34</td>
</tr>
<tr>
<td><strong>Duration of Unemployment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5 weeks</td>
<td>3,284</td>
<td>2,748</td>
<td>2,646</td>
<td>2,682</td>
<td>36</td>
</tr>
<tr>
<td>5 to 14 weeks</td>
<td>3,962</td>
<td>3,412</td>
<td>3,228</td>
<td>2,991</td>
<td>-237</td>
</tr>
<tr>
<td>15 to 26 weeks</td>
<td>2,571</td>
<td>2,696</td>
<td>2,436</td>
<td>2,253</td>
<td>-183</td>
</tr>
<tr>
<td>27 weeks and over</td>
<td>3,725</td>
<td>6,133</td>
<td>6,547</td>
<td>6,716</td>
<td>169</td>
</tr>
<tr>
<td><strong>Employed Persons at Work Part Time</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part time for economic reasons</td>
<td>8,888</td>
<td>8,791</td>
<td>9,054</td>
<td>9,152</td>
<td>98</td>
</tr>
<tr>
<td>Slack work or business conditions</td>
<td>6,699</td>
<td>6,185</td>
<td>6,177</td>
<td>6,266</td>
<td>91</td>
</tr>
<tr>
<td>Could only find part-time work</td>
<td>1,819</td>
<td>2,212</td>
<td>2,388</td>
<td>2,489</td>
<td>101</td>
</tr>
<tr>
<td>Part time for noneconomic reasons</td>
<td>18,976</td>
<td>18,360</td>
<td>18,379</td>
<td>18,140</td>
<td>-239</td>
</tr>
<tr>
<td>Persons not in the labor force (not seasonally adjusted)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marginally attached to the labor force</td>
<td>2,089</td>
<td>2,527</td>
<td>2,255</td>
<td>2,432</td>
<td></td>
</tr>
<tr>
<td>Discouraged workers</td>
<td>740</td>
<td>1,204</td>
<td>994</td>
<td>1,197</td>
<td></td>
</tr>
</tbody>
</table>

- Over-the-month changes are not displayed for not seasonally adjusted data.

**NOTE:** Persons whose ethnicity is identified as Hispanic or Latino may be of any race. Detail for the seasonally adjusted data shown in this table will not necessarily add to totals because of the independent seasonal adjustment of the various series. Updated population controls are introduced annually with the release of January data.
### Employment by Selected Industry

(Over-the-month change, in thousands)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total nonfarm</td>
<td>-628</td>
<td>29</td>
<td>230</td>
<td>290</td>
</tr>
<tr>
<td>Total private</td>
<td>-649</td>
<td>62</td>
<td>174</td>
<td>231</td>
</tr>
<tr>
<td>Goods-producing</td>
<td>-277</td>
<td>-28</td>
<td>55</td>
<td>65</td>
</tr>
<tr>
<td>Mining and logging</td>
<td>-14</td>
<td>7</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Construction</td>
<td>-114</td>
<td>-51</td>
<td>28</td>
<td>14</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-149</td>
<td>16</td>
<td>19</td>
<td>44</td>
</tr>
<tr>
<td>Durable goods</td>
<td>-130</td>
<td>9</td>
<td>23</td>
<td>90</td>
</tr>
<tr>
<td>Motor vehicles and parts</td>
<td>-23.9</td>
<td>-0.1</td>
<td>3.0</td>
<td>-4.4</td>
</tr>
<tr>
<td>Nondurable goods</td>
<td>-19</td>
<td>7</td>
<td>-4</td>
<td>14</td>
</tr>
<tr>
<td>Private service-providing</td>
<td>-372</td>
<td>90</td>
<td>119</td>
<td>166</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>-30.2</td>
<td>3.2</td>
<td>9.5</td>
<td>4.0</td>
</tr>
<tr>
<td>Retail trade</td>
<td>-42.6</td>
<td>7.1</td>
<td>15.1</td>
<td>12.4</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>-47.8</td>
<td>-9.0</td>
<td>7.9</td>
<td>-19.5</td>
</tr>
<tr>
<td>Information</td>
<td>-24</td>
<td>-6</td>
<td>-12</td>
<td>-3</td>
</tr>
<tr>
<td>Financial and business services</td>
<td>-47</td>
<td>-7</td>
<td>-20</td>
<td>3</td>
</tr>
<tr>
<td>Professional and business services</td>
<td>-138</td>
<td>15</td>
<td>13</td>
<td>80</td>
</tr>
<tr>
<td>Temporary help services</td>
<td>-35.9</td>
<td>35.9</td>
<td>32.4</td>
<td>26.2</td>
</tr>
<tr>
<td>Education and health services</td>
<td>4</td>
<td>30</td>
<td>54</td>
<td>35</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>9.1</td>
<td>21.0</td>
<td>42.4</td>
<td>26.4</td>
</tr>
<tr>
<td>Leisure and hospitality</td>
<td>-34</td>
<td>23</td>
<td>41</td>
<td>46</td>
</tr>
<tr>
<td>Other services</td>
<td>-11</td>
<td>-7</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Government</td>
<td>121</td>
<td>-23</td>
<td>56</td>
<td>59</td>
</tr>
</tbody>
</table>

### Women and Production and Nonsupervisory Employees

As a percent of all employees

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total nonfarm women employees</td>
<td>49.6</td>
<td>49.9</td>
<td>49.6</td>
<td>49.8</td>
</tr>
<tr>
<td>Total private women employees</td>
<td>48.3</td>
<td>48.4</td>
<td>48.4</td>
<td>48.3</td>
</tr>
<tr>
<td>Total private production and nonsupervisory employees</td>
<td>82.4</td>
<td>82.4</td>
<td>82.4</td>
<td>82.5</td>
</tr>
</tbody>
</table>

### Hours and Earnings

**All Employees**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average weekly hours</td>
<td>33.9</td>
<td>33.9</td>
<td>34.0</td>
<td>34.1</td>
</tr>
<tr>
<td>Average hourly earnings</td>
<td>$22.11</td>
<td>$22.48</td>
<td>$22.46</td>
<td>$22.47</td>
</tr>
<tr>
<td>Average weekly earnings</td>
<td>$749.53</td>
<td>$762.07</td>
<td>$763.64</td>
<td>$766.23</td>
</tr>
<tr>
<td>Index of aggregate weekly hours (2007=100)</td>
<td>92.5</td>
<td>91.1</td>
<td>91.5</td>
<td>91.9</td>
</tr>
<tr>
<td>Over-the-month percent change</td>
<td>-0.9</td>
<td>-0.2</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Index of aggregate weekly payoffs (2007=100)</td>
<td>97.5</td>
<td>97.8</td>
<td>98.0</td>
<td>98.5</td>
</tr>
<tr>
<td>Over-the-month percent change</td>
<td>-0.7</td>
<td>-0.1</td>
<td>0.4</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Production and Nonsupervisory Employees**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Average weekly hours</td>
<td>33.1</td>
<td>33.2</td>
<td>33.3</td>
<td>33.4</td>
</tr>
<tr>
<td>Average hourly earnings</td>
<td>$18.53</td>
<td>$18.92</td>
<td>$18.91</td>
<td>$18.98</td>
</tr>
<tr>
<td>Average weekly earnings</td>
<td>$613.84</td>
<td>$628.14</td>
<td>$629.70</td>
<td>$633.26</td>
</tr>
<tr>
<td>Index of aggregate weekly hours (2002=100)</td>
<td>99.2</td>
<td>98.5</td>
<td>98.5</td>
<td>98.0</td>
</tr>
<tr>
<td>Over-the-month percent change</td>
<td>-0.6</td>
<td>-0.2</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Index of aggregate weekly payoffs (2002=100)</td>
<td>122.8</td>
<td>123.9</td>
<td>124.4</td>
<td>125.5</td>
</tr>
<tr>
<td>Over-the-month percent change</td>
<td>-0.8</td>
<td>-0.2</td>
<td>0.4</td>
<td>0.9</td>
</tr>
</tbody>
</table>

### Diffusion Index

(Over 1-month span)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total private</td>
<td>20.6</td>
<td>57.4</td>
<td>57.8</td>
<td>64.3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>16.5</td>
<td>67.1</td>
<td>56.7</td>
<td>65.9</td>
</tr>
</tbody>
</table>
Data Releases:
Initial Unemployment Claims

- Released every Thursday at 8:30 AM ET
- “This is a term used to define the initial notice of unemployment a person files with the State Unemployment Insurance agency to initiate a request either for a determination of entitlement to and eligibility for compensation, or for a subsequent period of unemployment within a benefit year or period of eligibility.” -BLS
Summary

- Types of Unemployment
  - Frictional, cyclical, structural

- Causes of Unemployment
  - Matching and labor market frictions

- Unemployment Facts
  - Varies over time, by season, by age, by sex, by ethnicity, etc.

- Measures of Unemployment
  - BLS household, establishment surveys.

- Web Resources
The End
Web Resources

Data used in this presentation come from:

- BLS (national): http://www.bls.gov/data
- OECD (international): http://www.oecd.org

For further resources please visit:

- BLS: http://www.bls.gov
- DOL: http://www.dol.gov
Appendix: Definition of Natural Unemployment Rate

- The natural unemployment rate is the unemployment rate around which the economy is observed to fluctuate
  - The economy gravitates towards this rate in the long run
  - Labor market imperfections and search frictions prevent keep this rate above zero