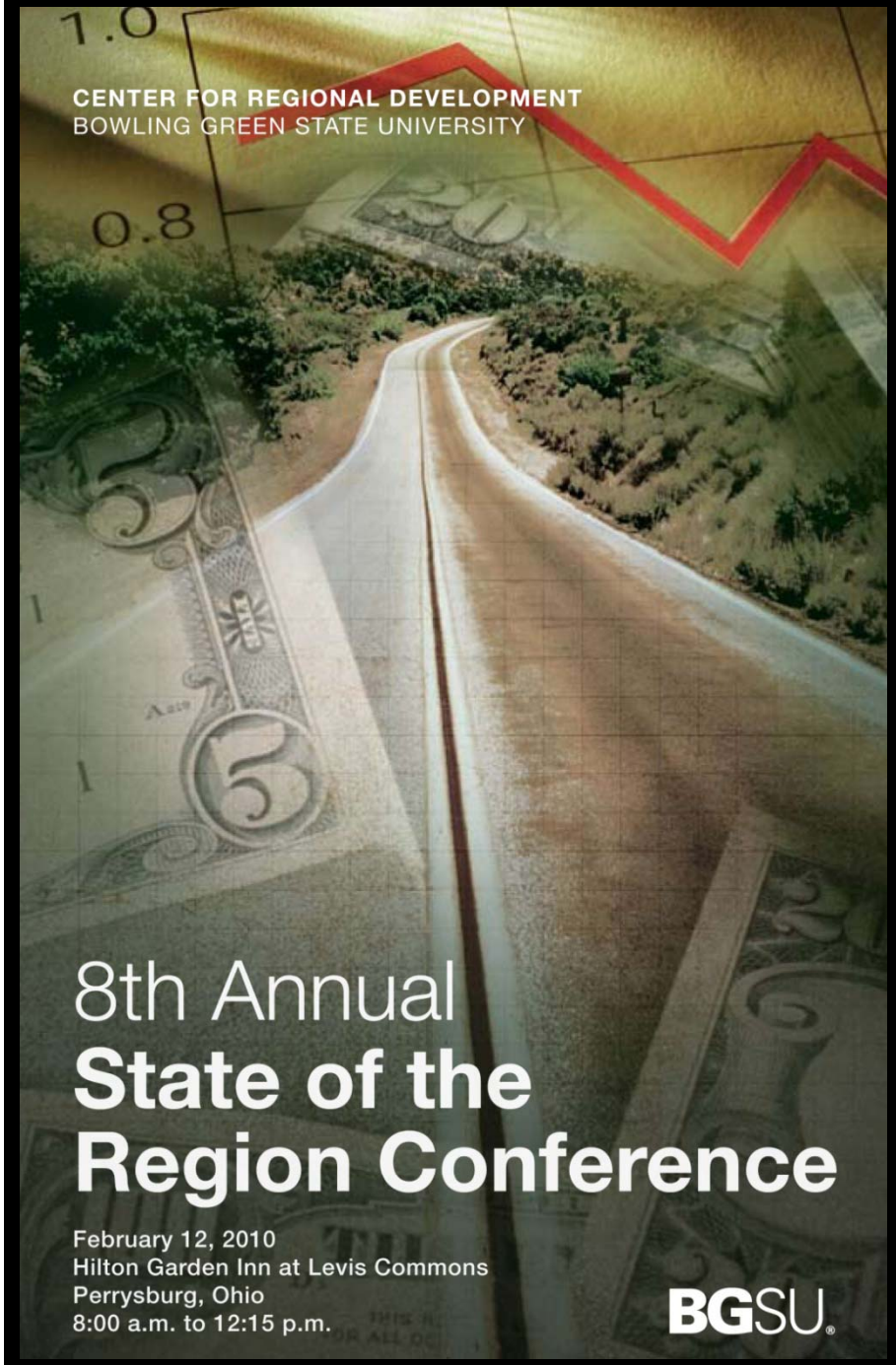


State of the Region 2010

Michael C. Carroll, Ph.D.
Center for Regional Development
Bowling Green State University

Outline

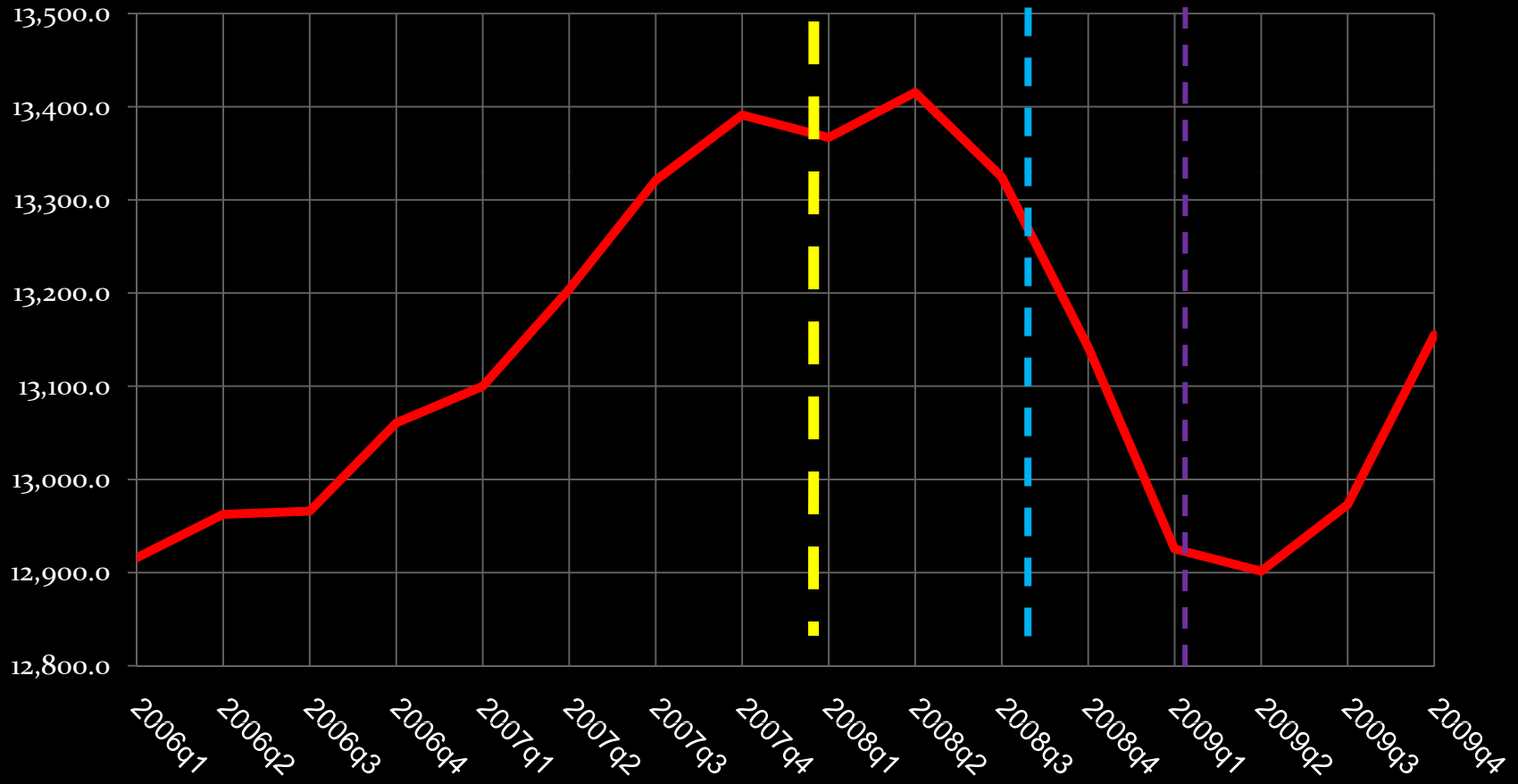
- National Conditions
- Regional Perspective
- Suggestions for the Future

Center for Regional Development
BGSU

U.S. GDP

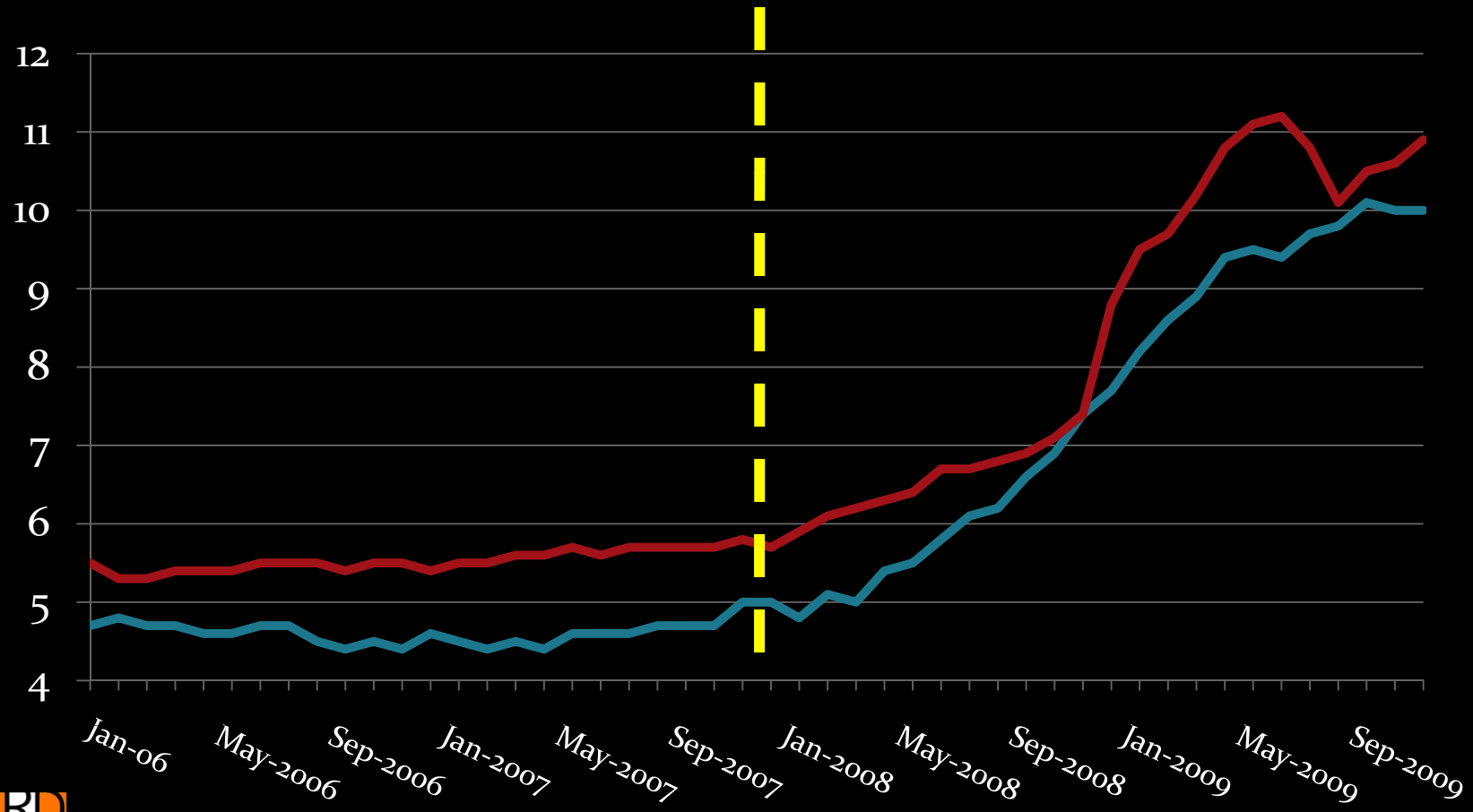
Center for Regional Development
BGSU

U.S. GDP



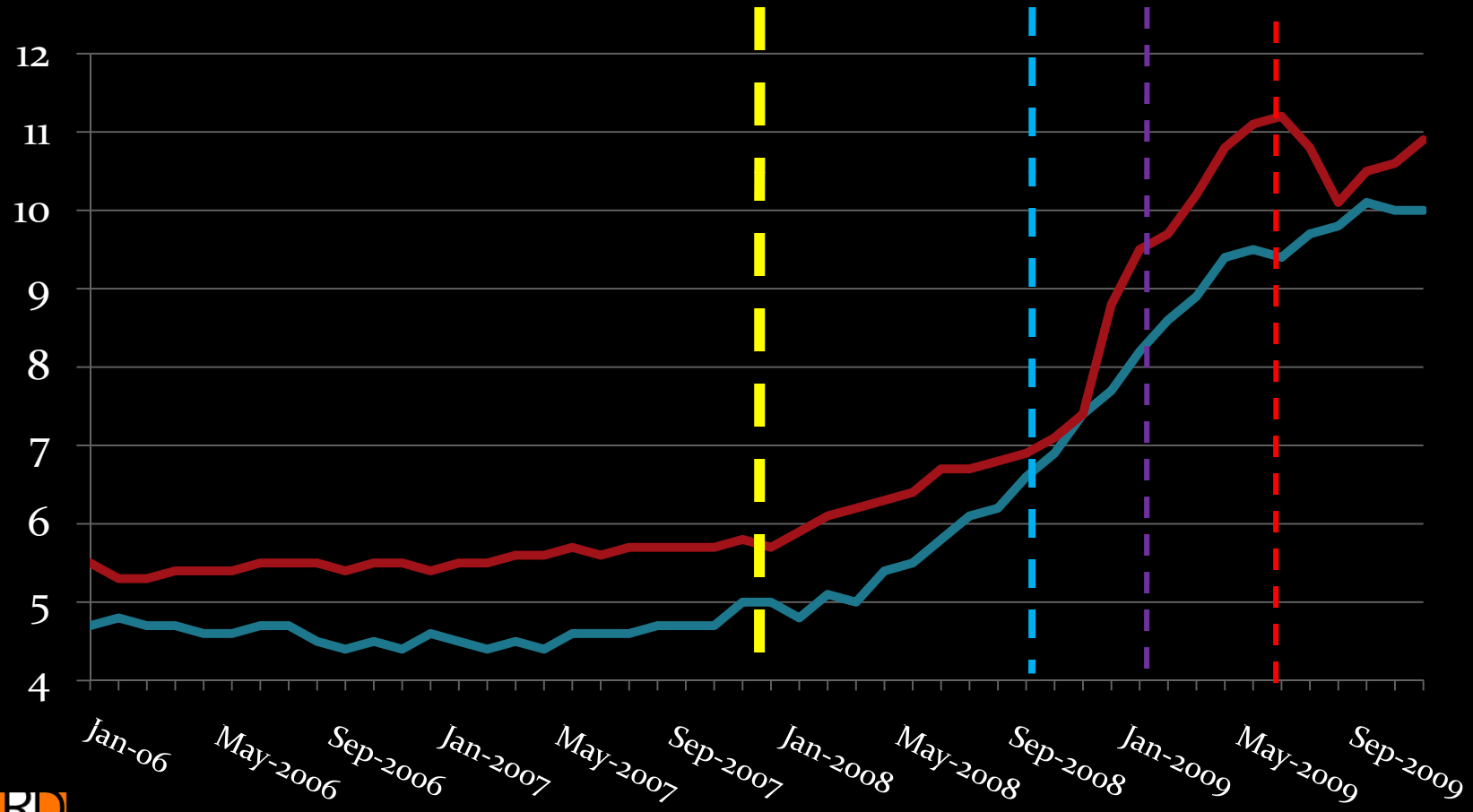
Center for Regional Development
BGSU

U.S. and Ohio Unemployment Rate



Center for Regional Development
BGSU

U.S. and Ohio Unemployment Rate

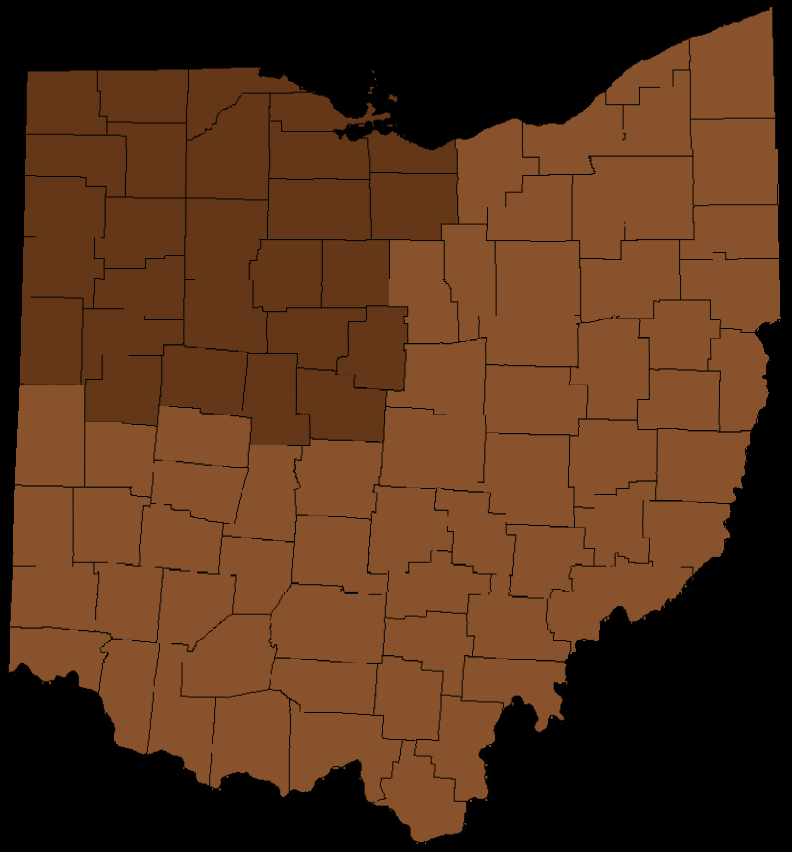


Center for Regional Development
BGSU

Policy Review: Expansionary Options

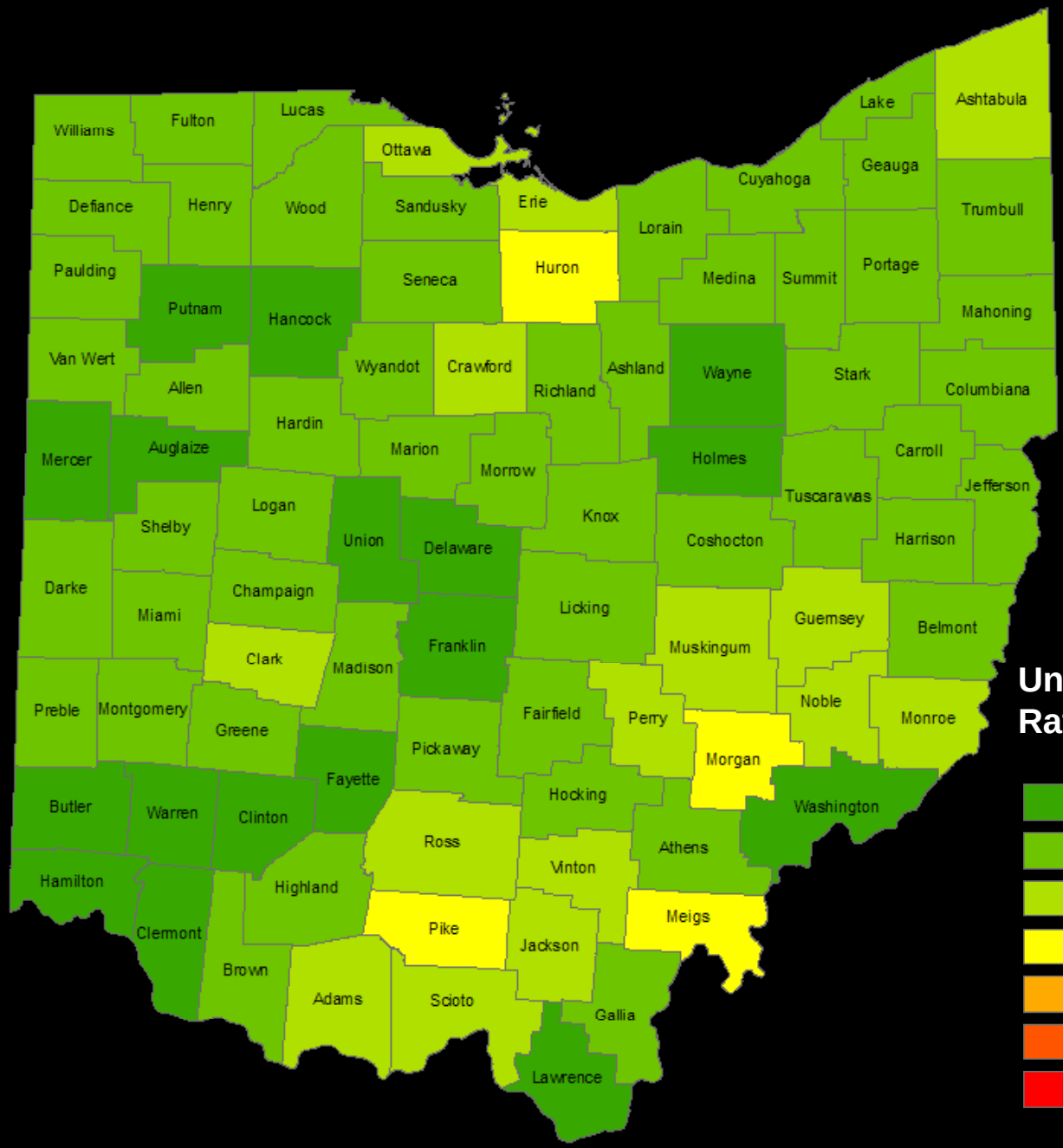
- Monetary Policy (lower interest rates)
  - Monetary policy is not effective with rates near 0%
- Fiscal Policy (tax cuts or government spending)
  - Tax cuts are not realistic given current deficits
    - State and local levels expect tax increases
  - Spending is difficult politically

Regional



Center for Regional Development
BGSU

December
2007

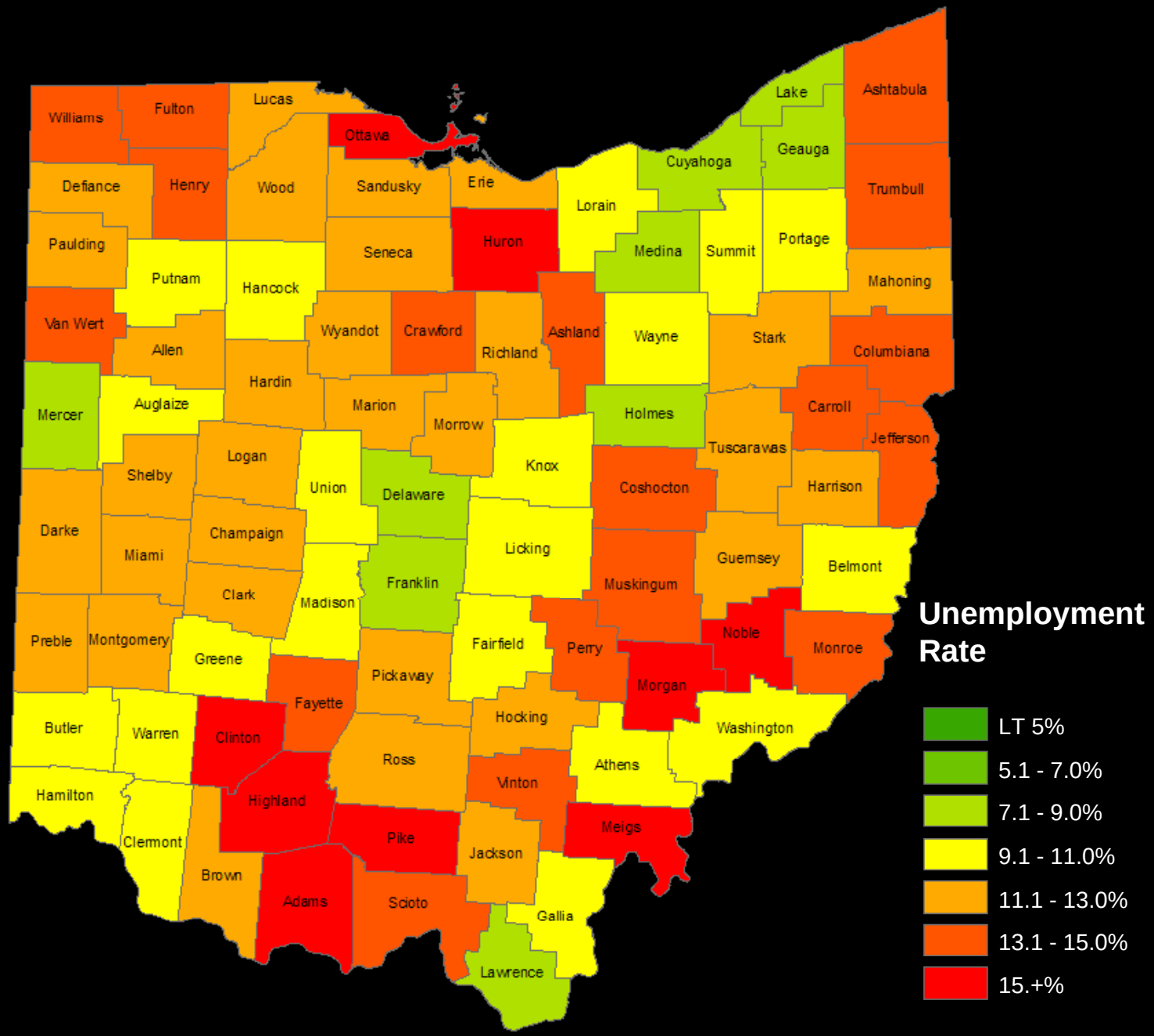


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

December 2009



Unemployment Rate

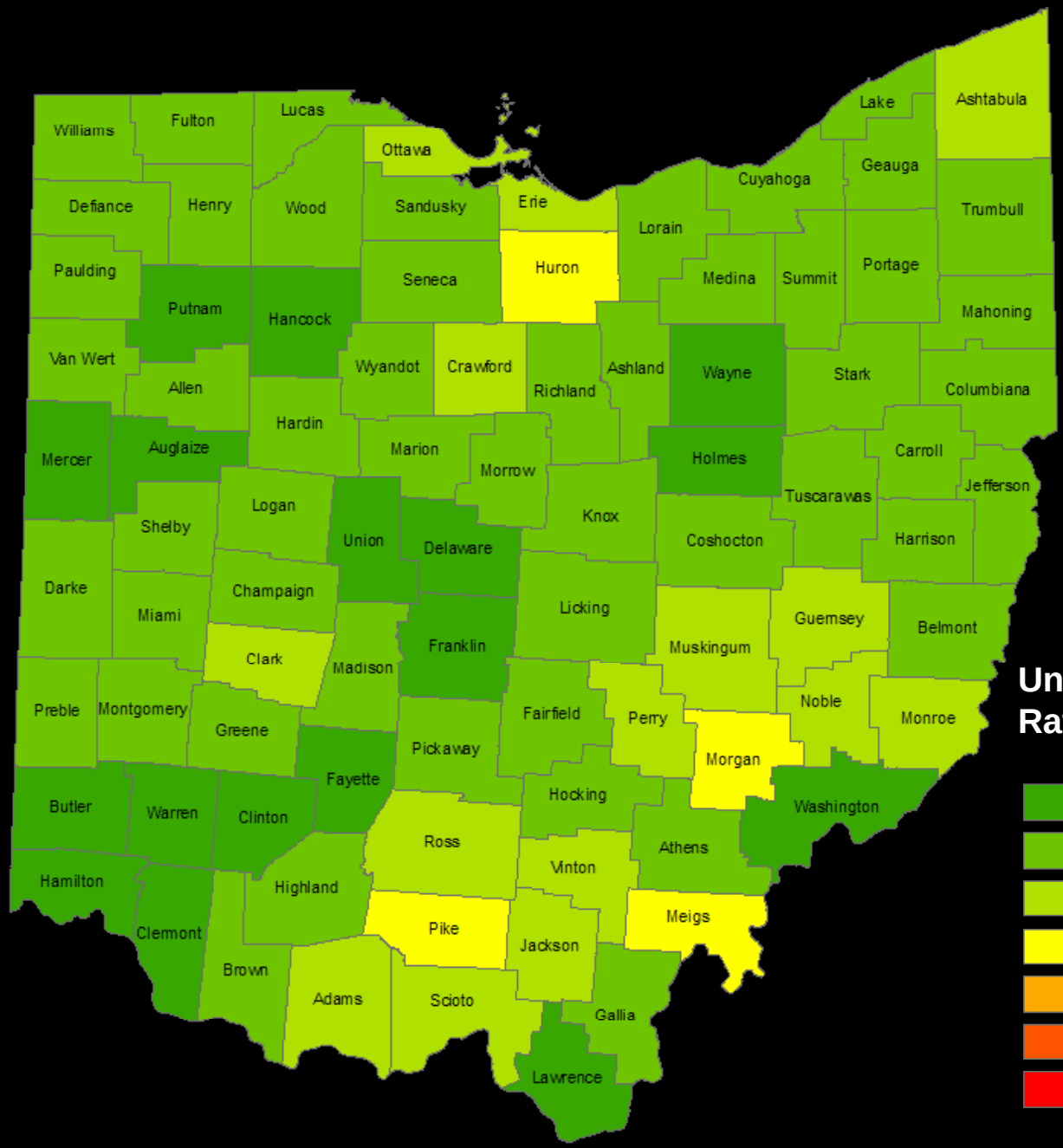
- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

Month by Month

Center for Regional Development
BGSU

December
2007

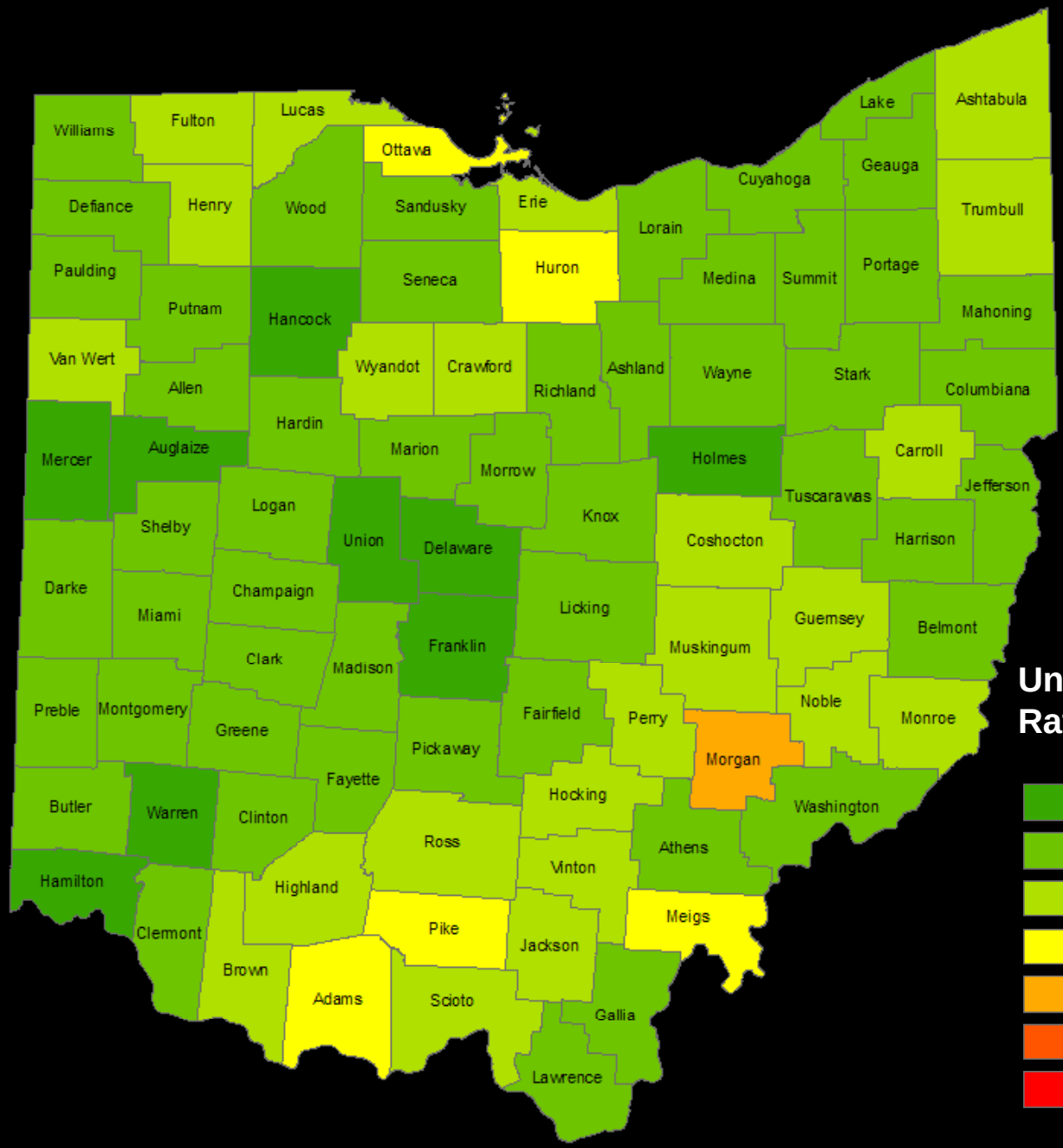


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

January
2008

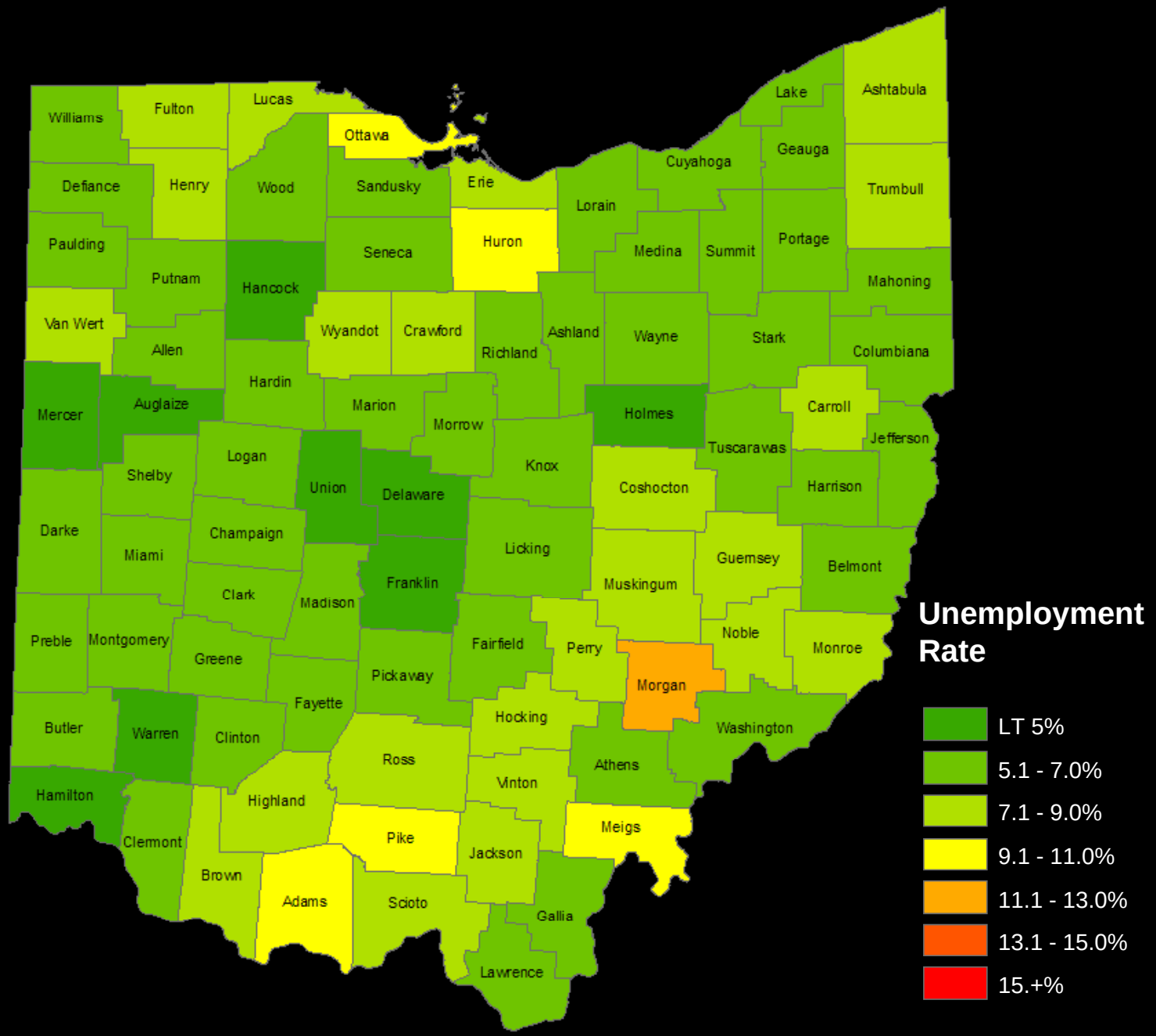


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

February
2008

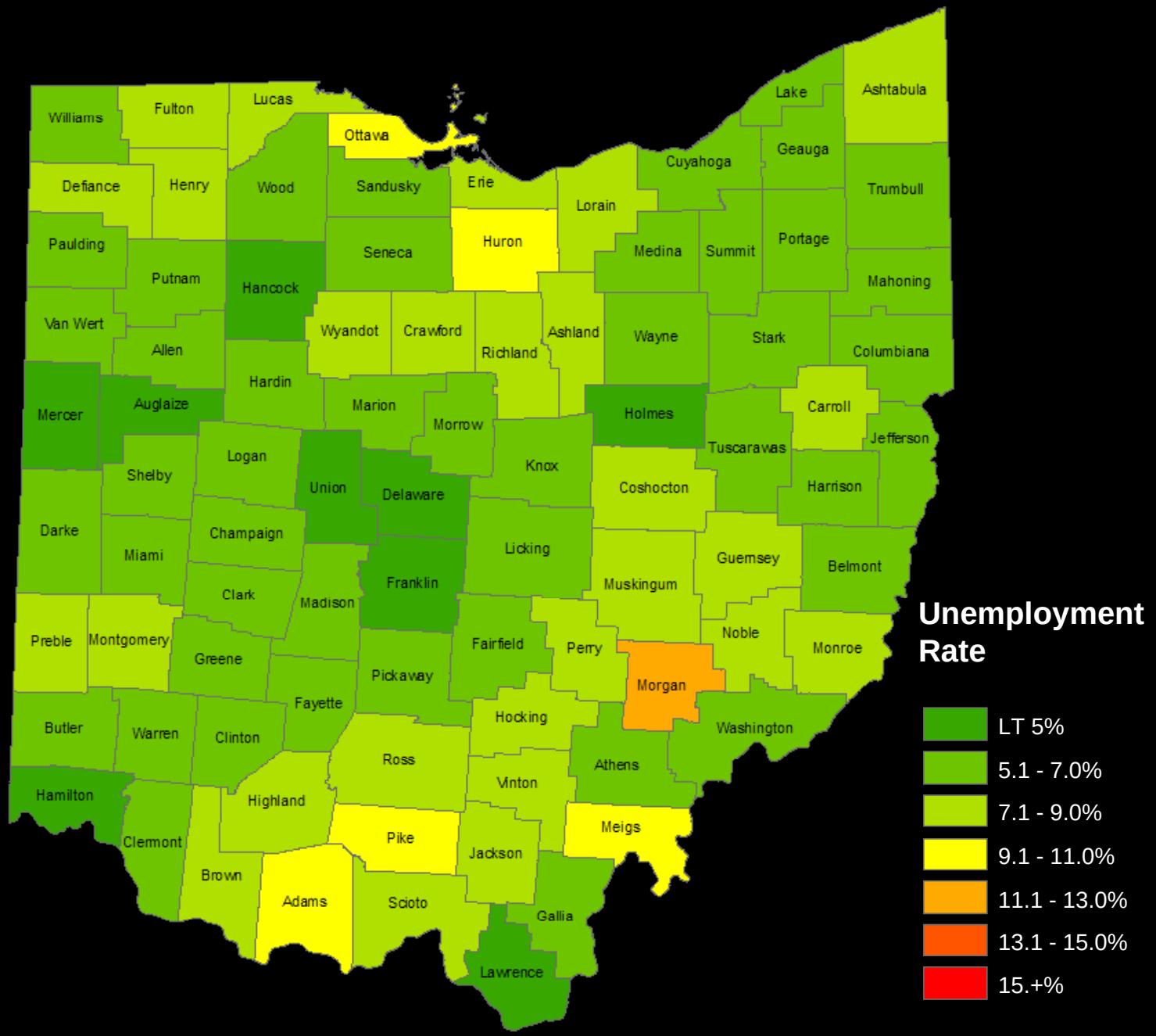


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

March
2008

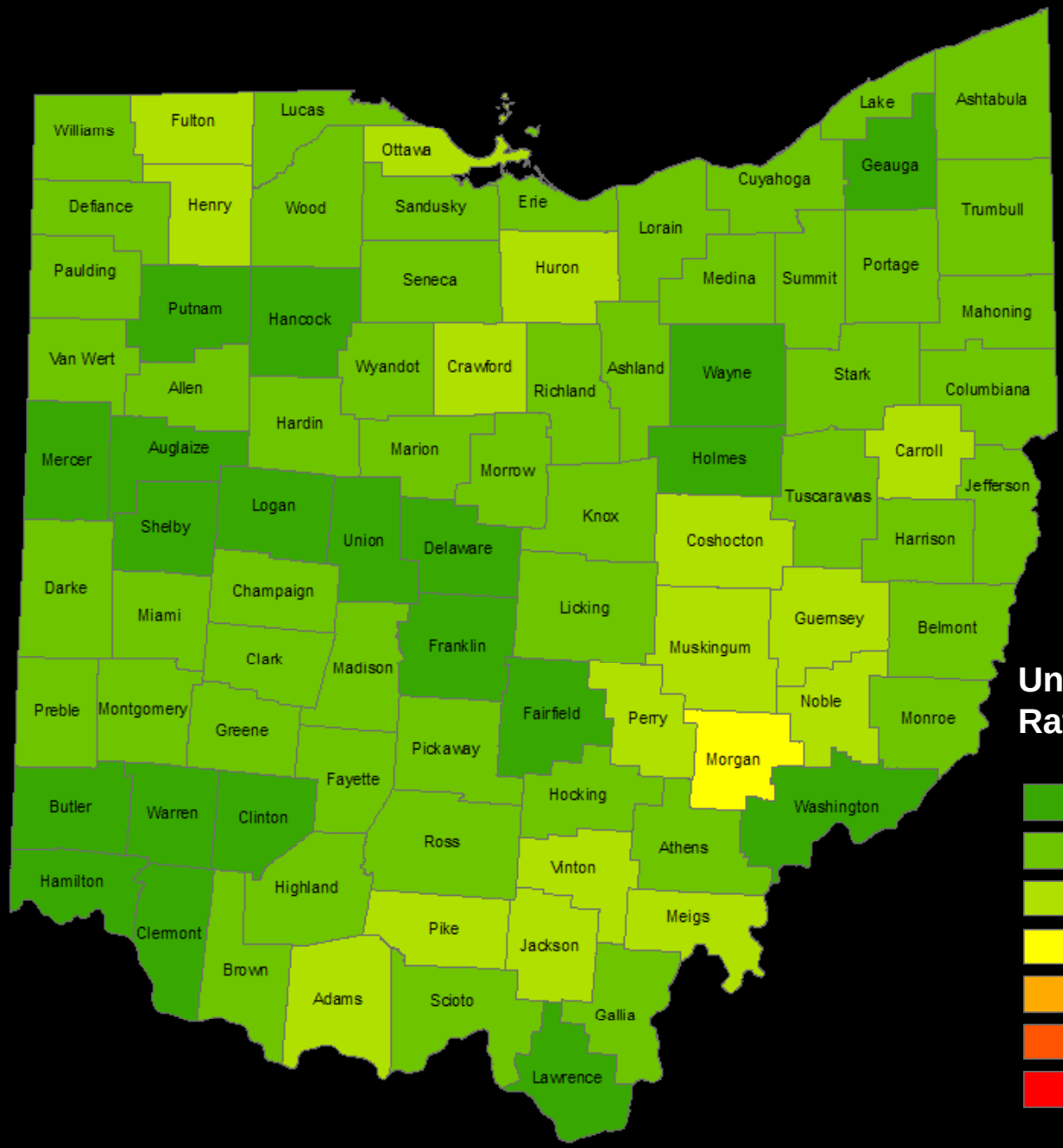


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

April
2008

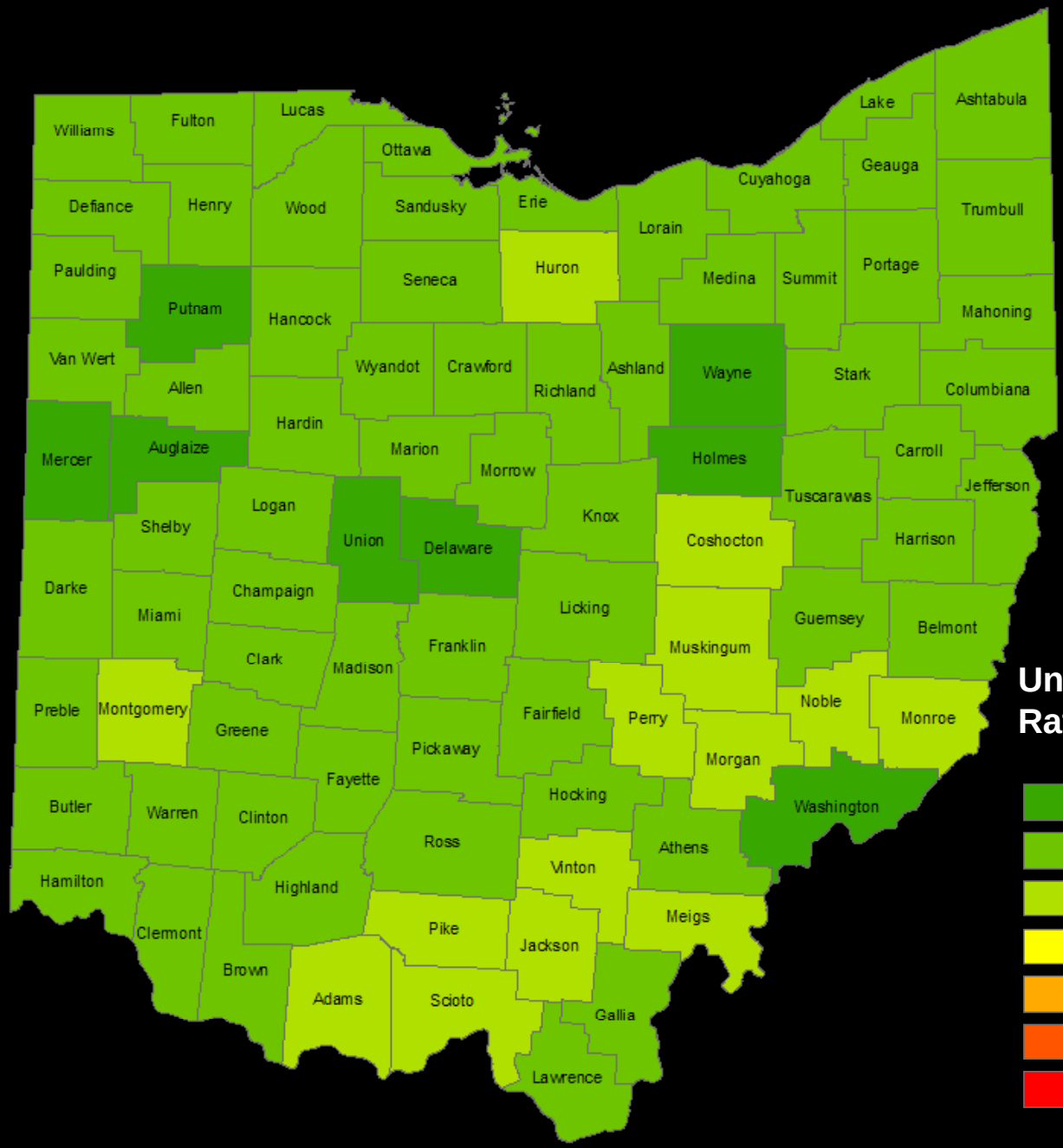


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

May
2008

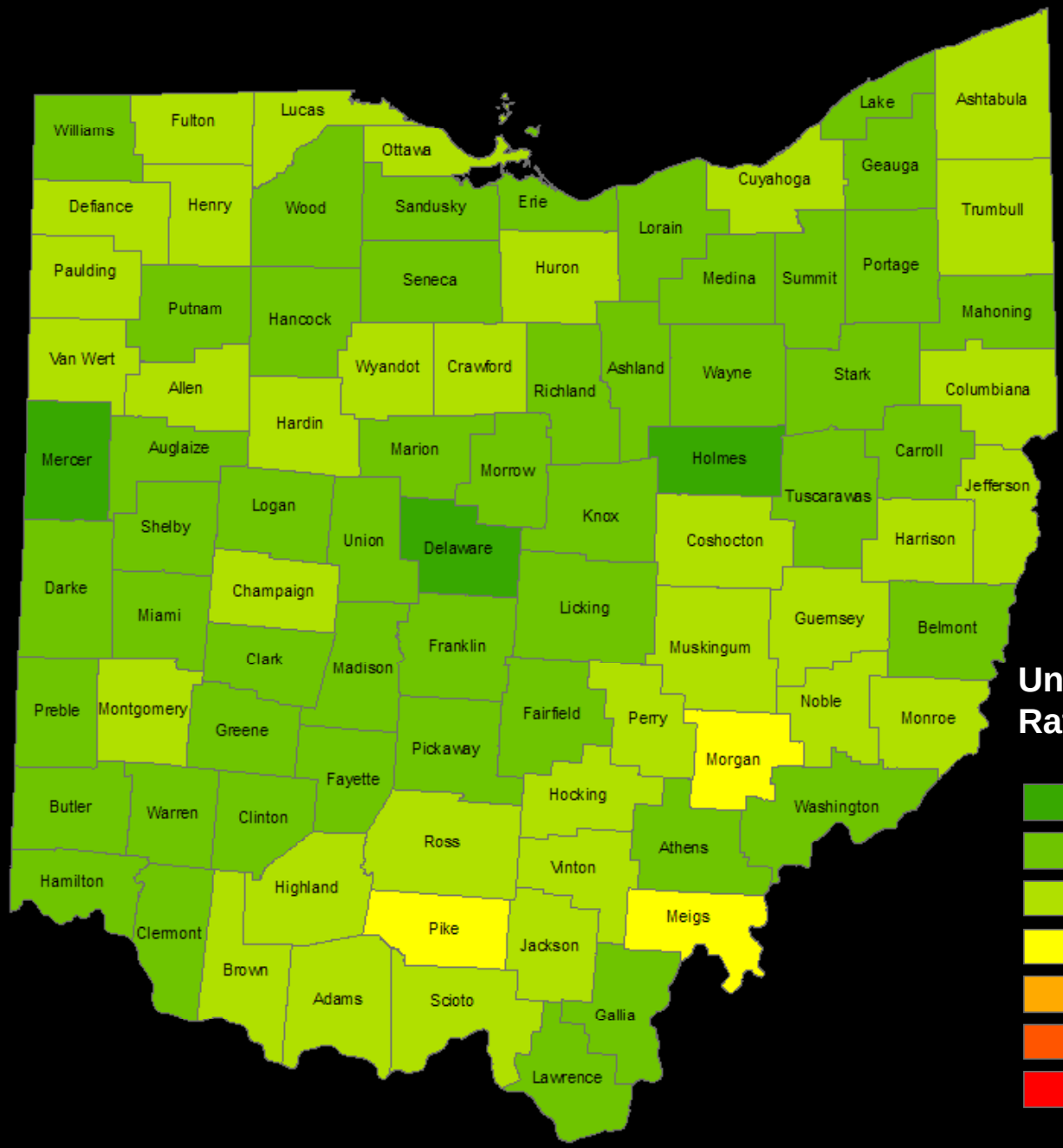


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

June
2008

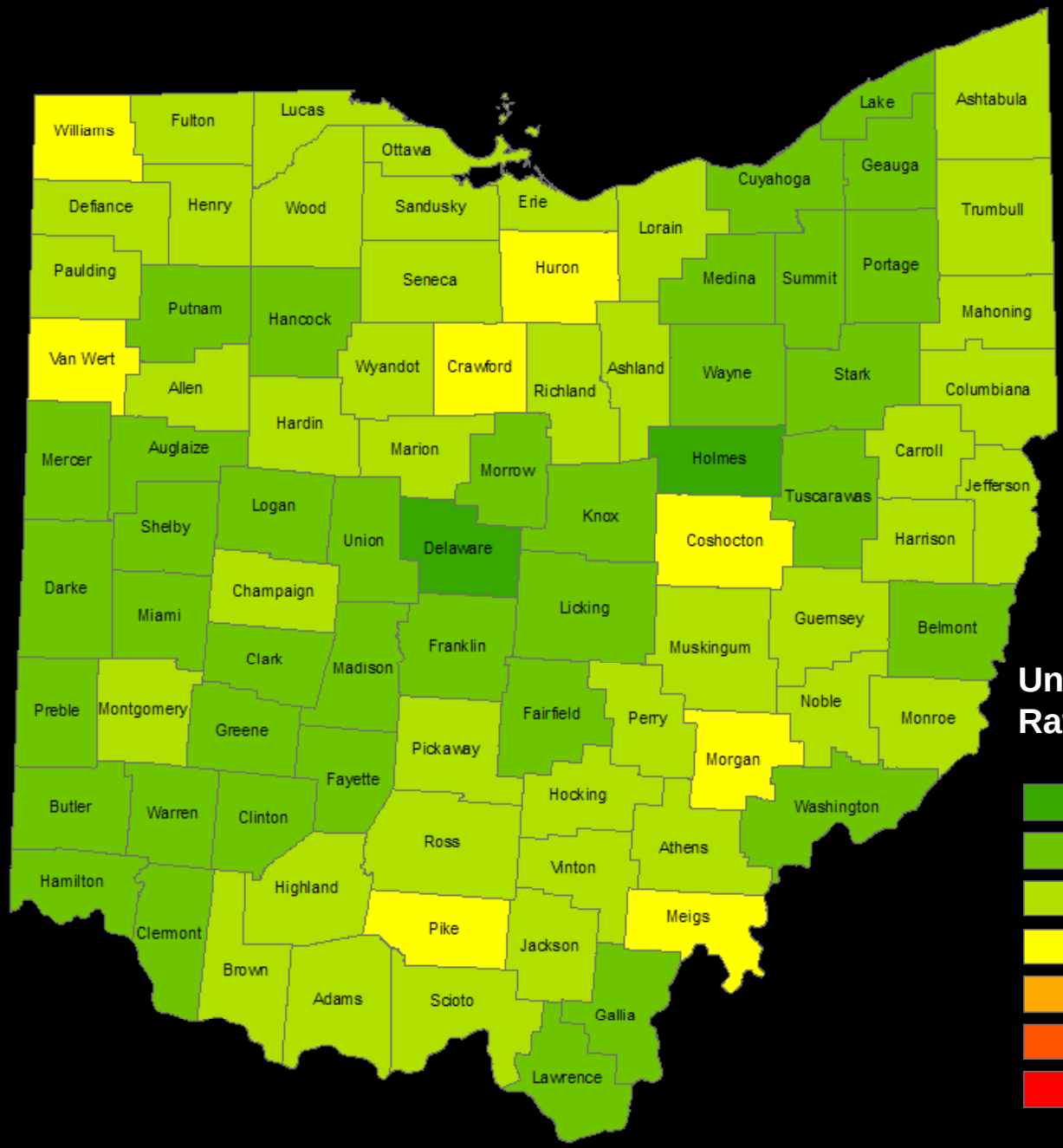


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

July
2008

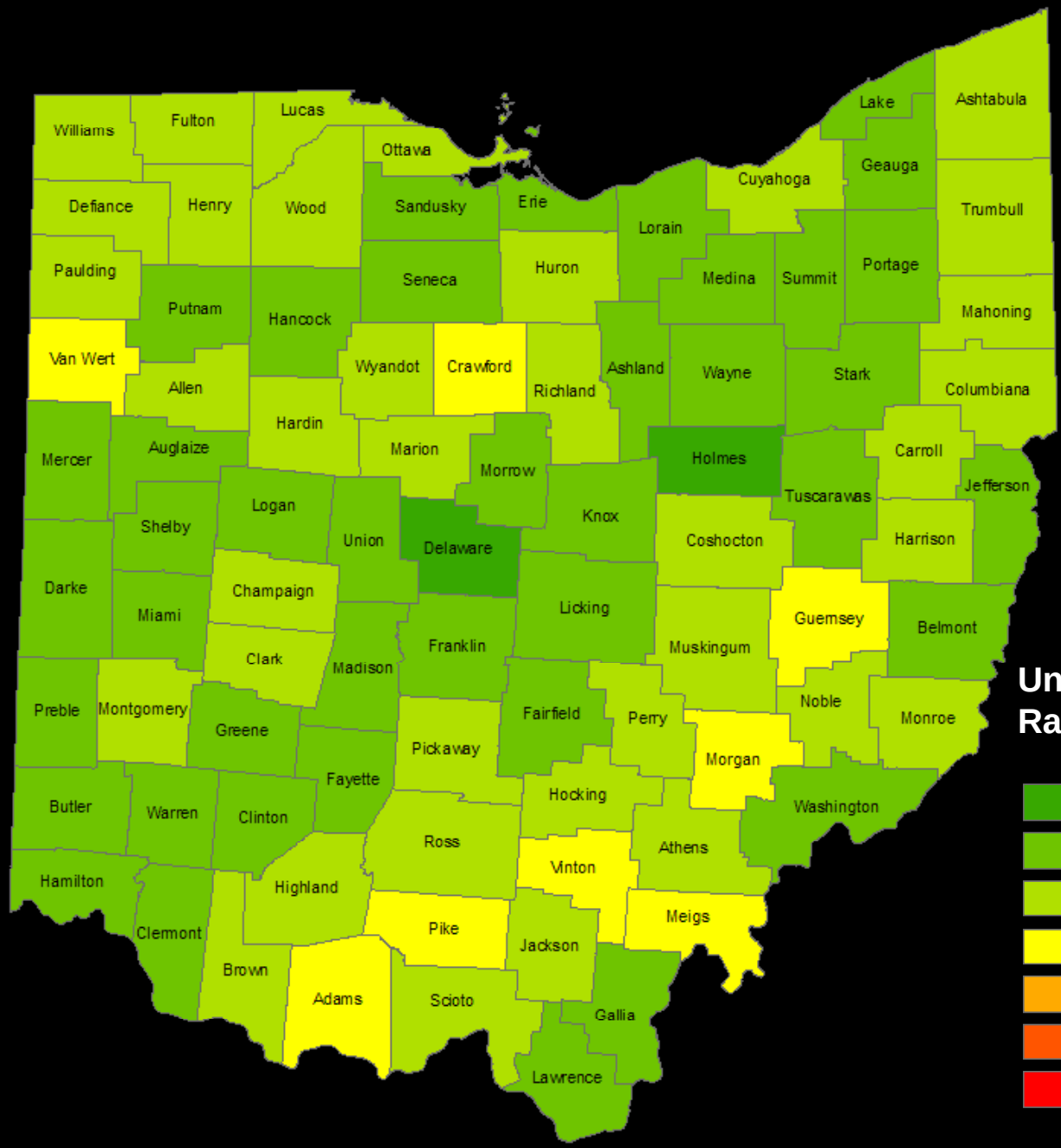


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

August
2008

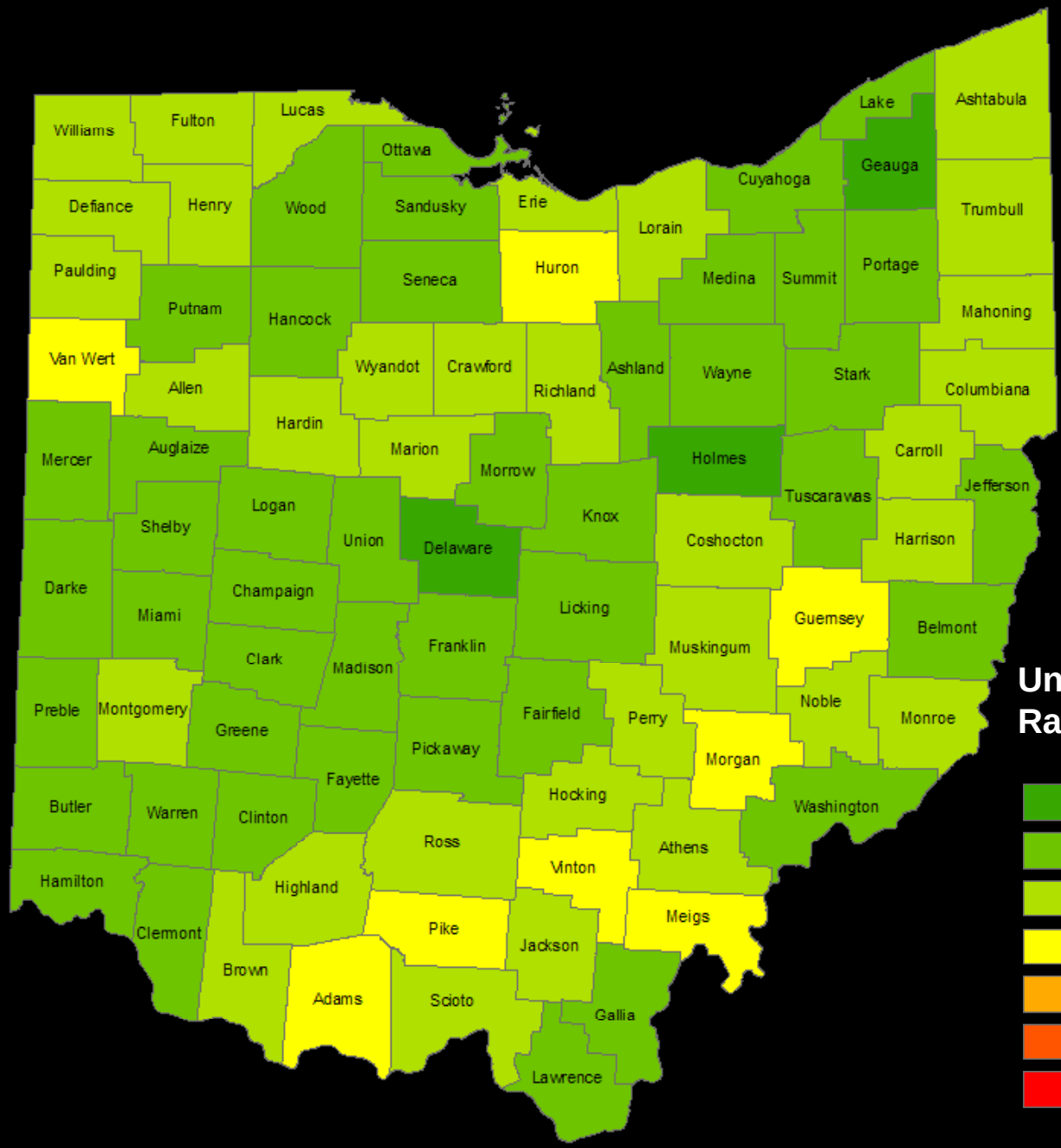


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

September 2008

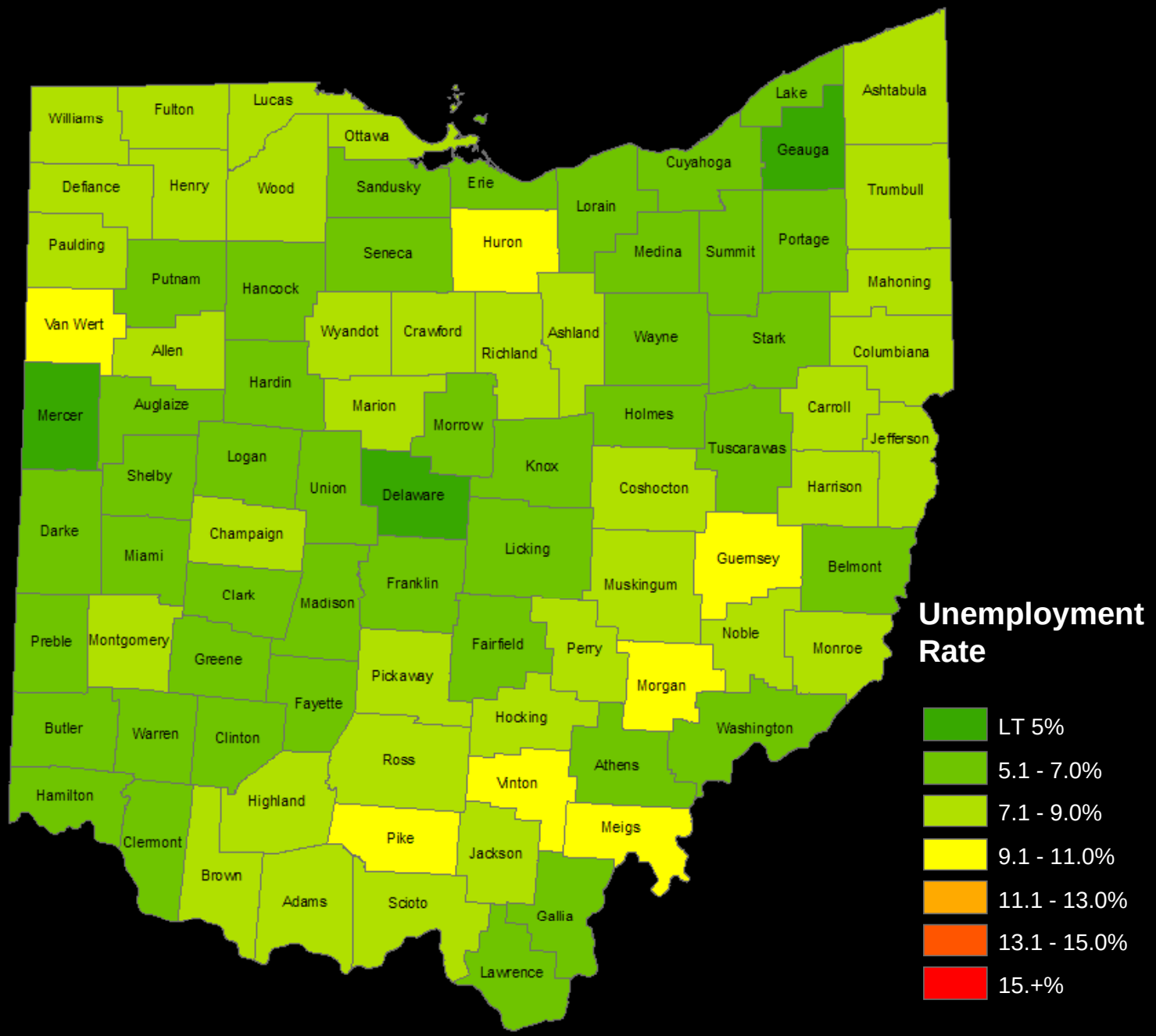


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

October
2008

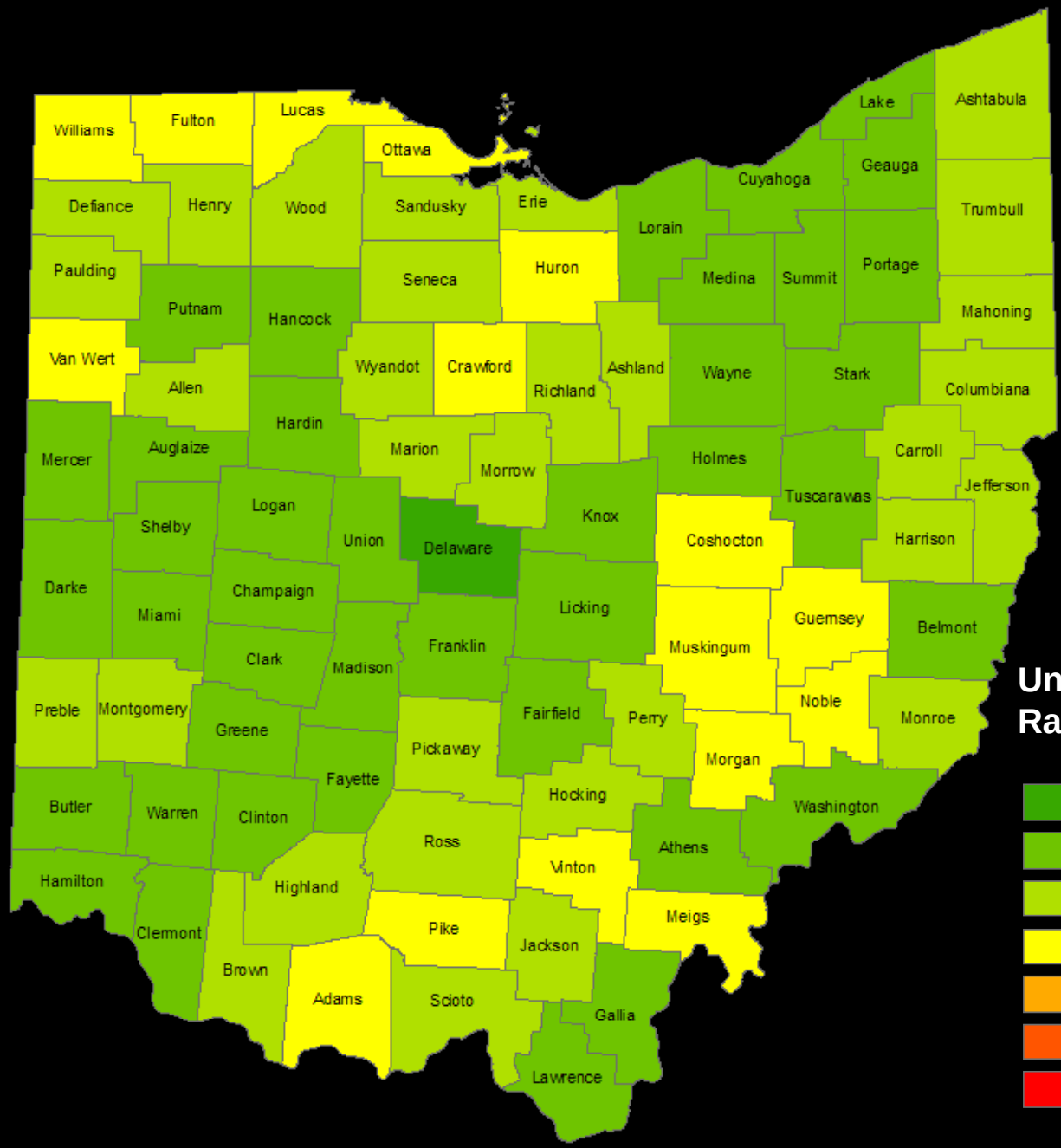


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

November 2008

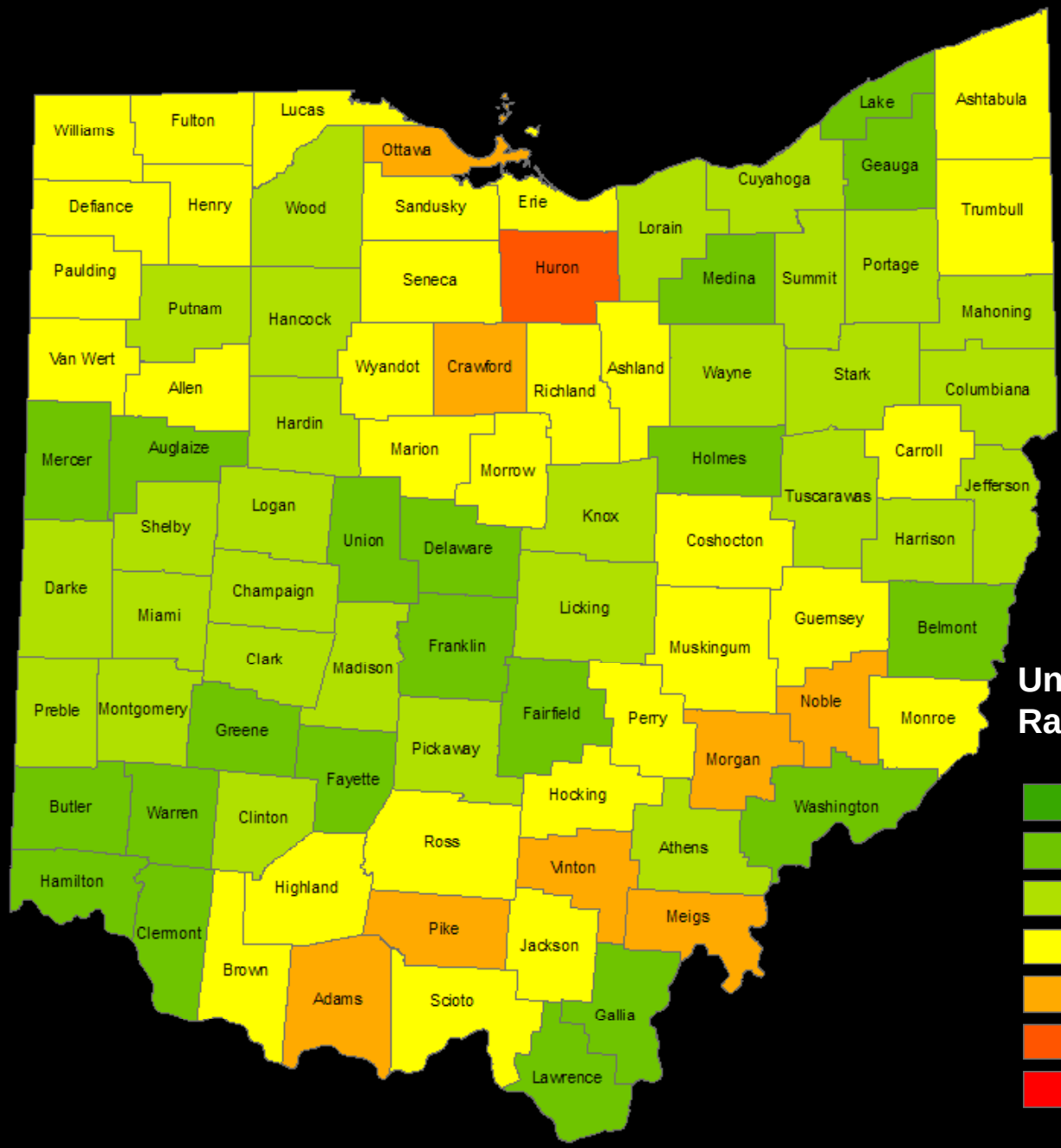


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

December 2008

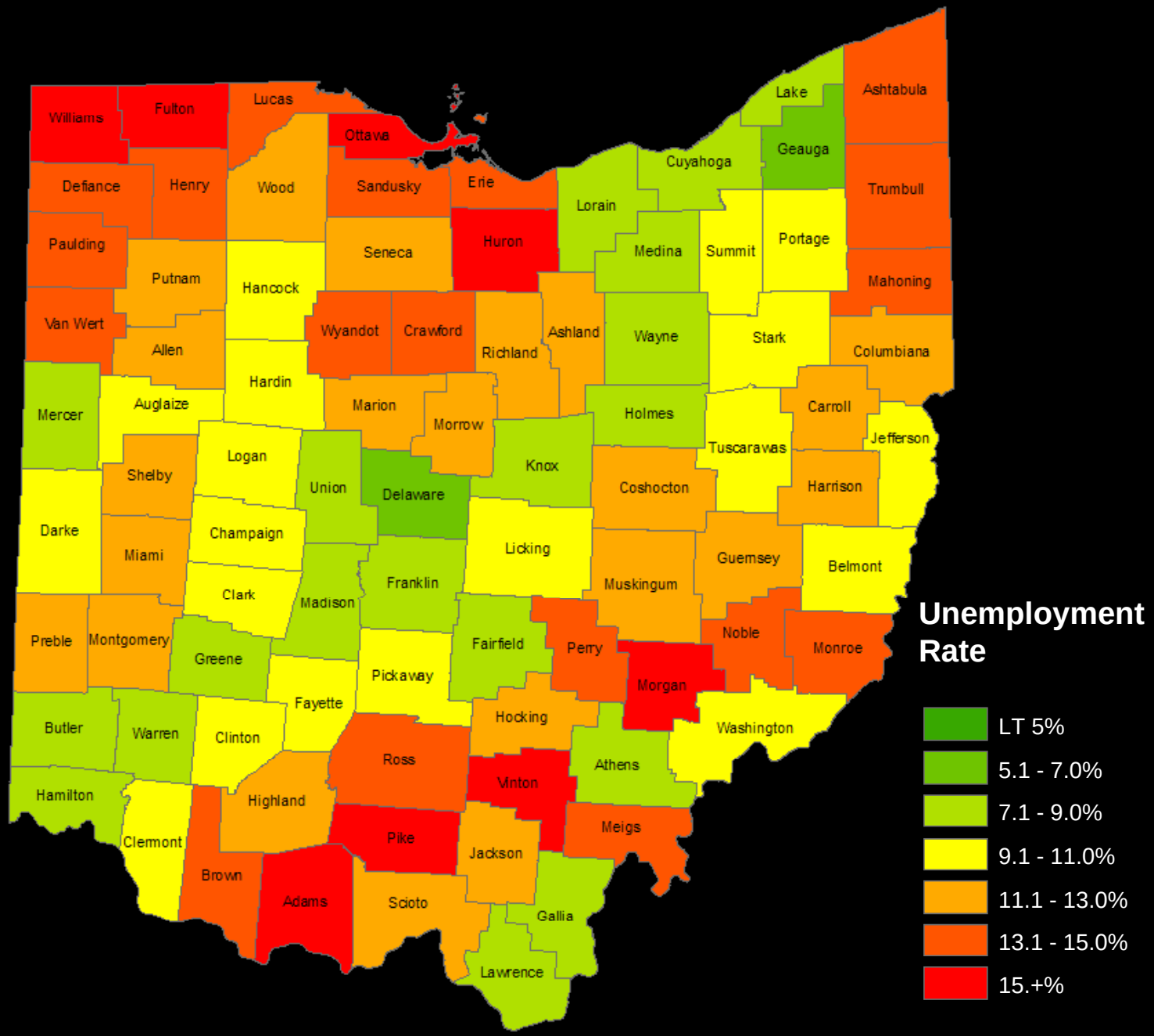


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

January
2009

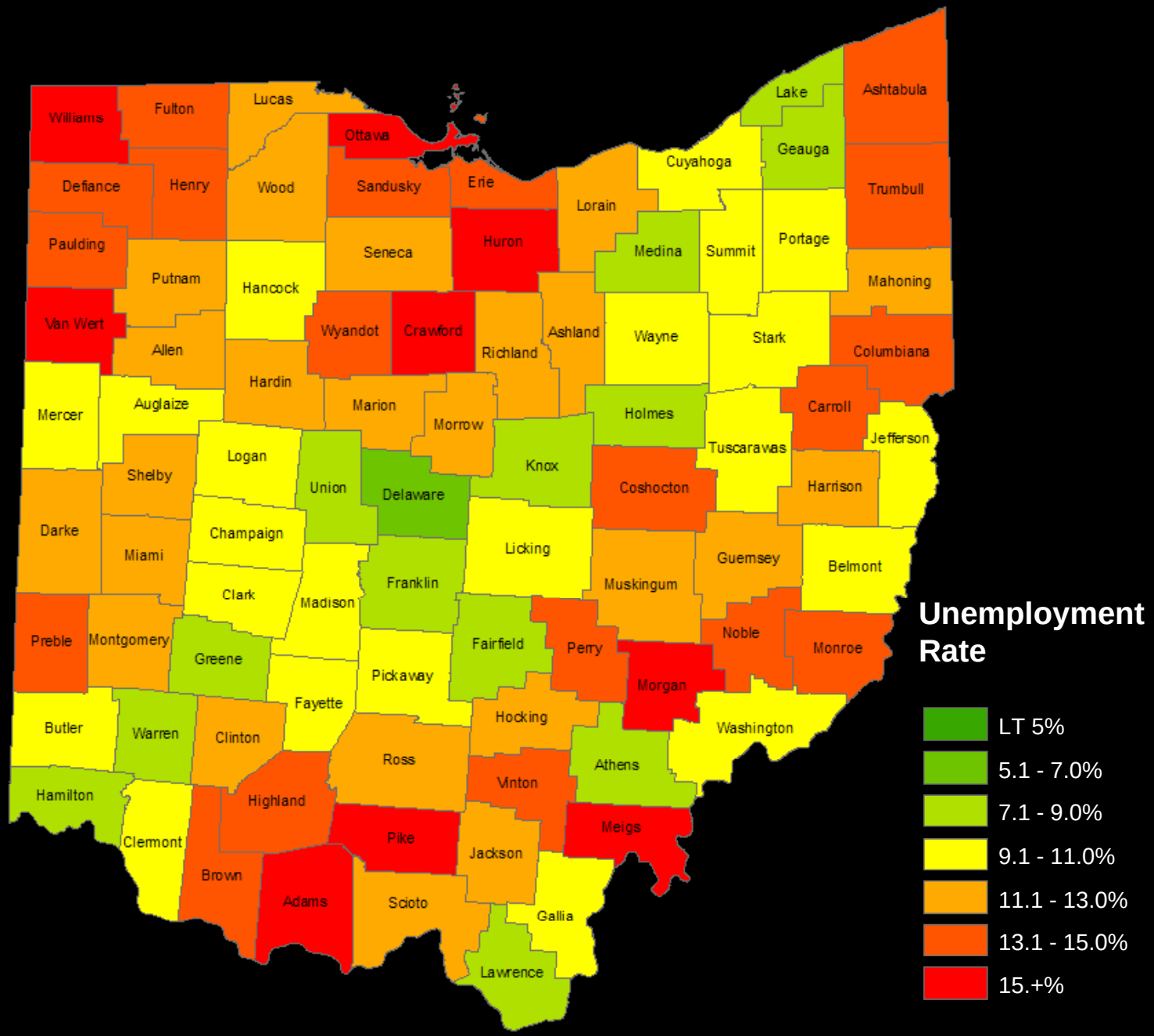


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

February
2009

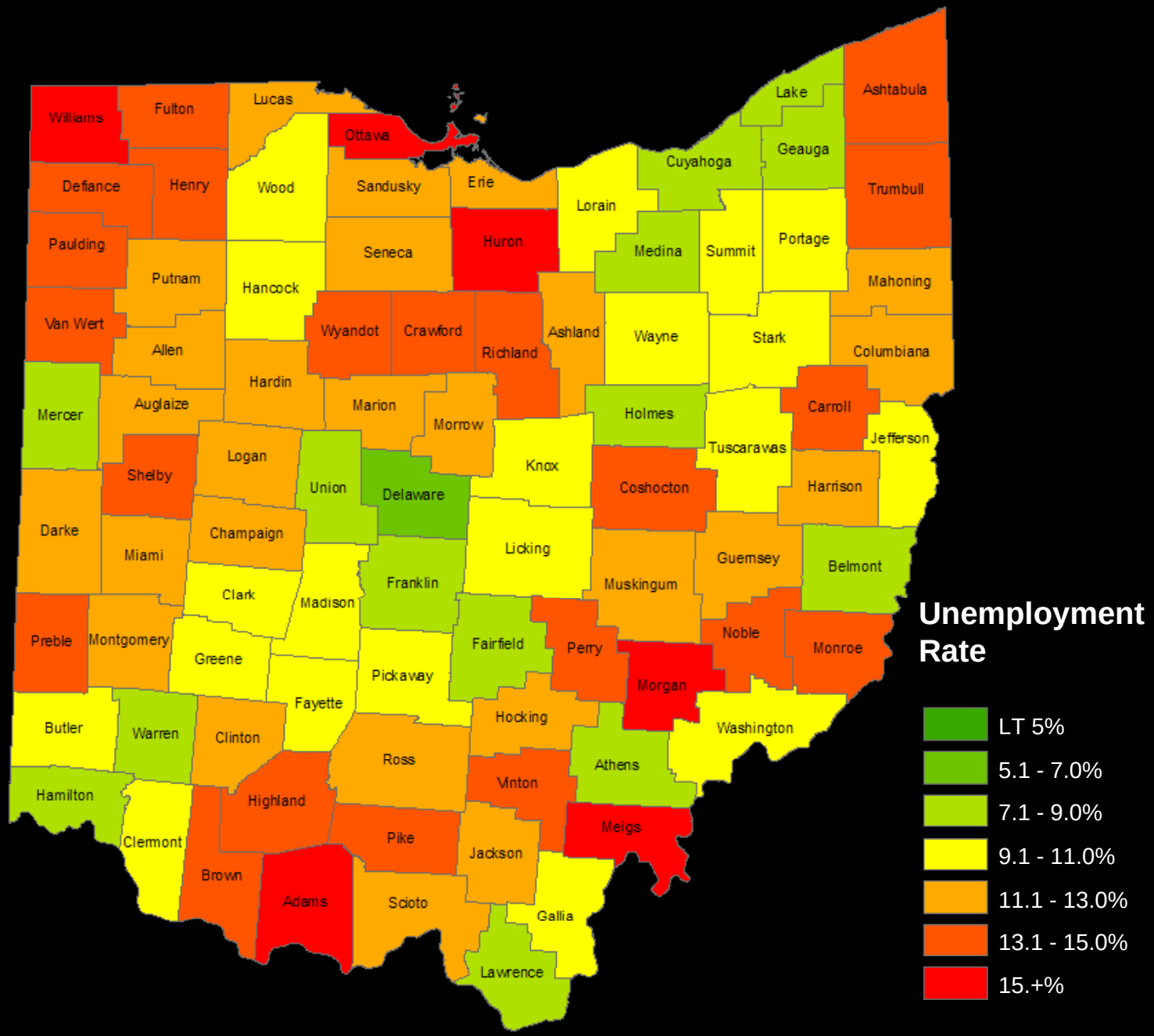


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

March
2009

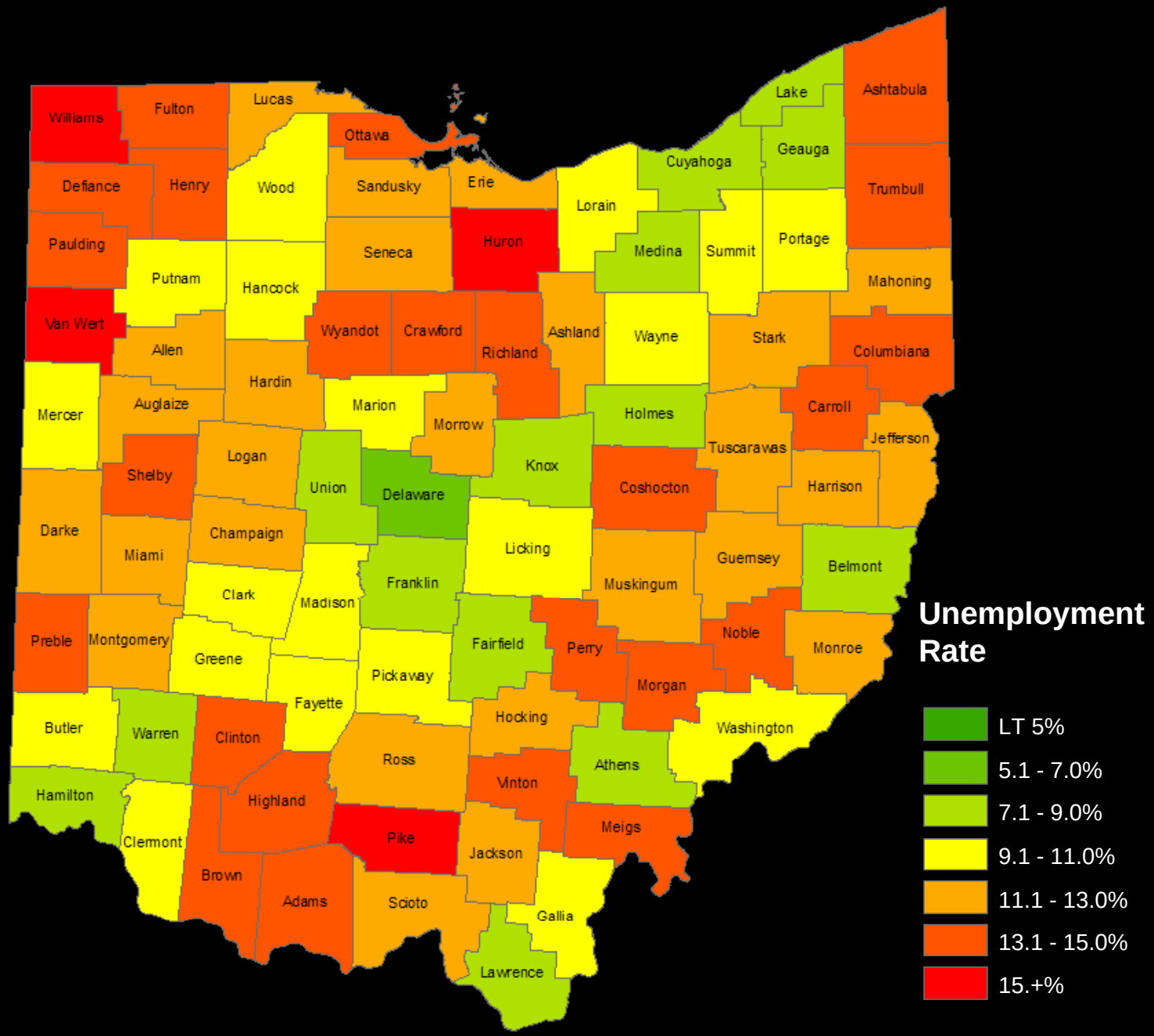


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

April
2009

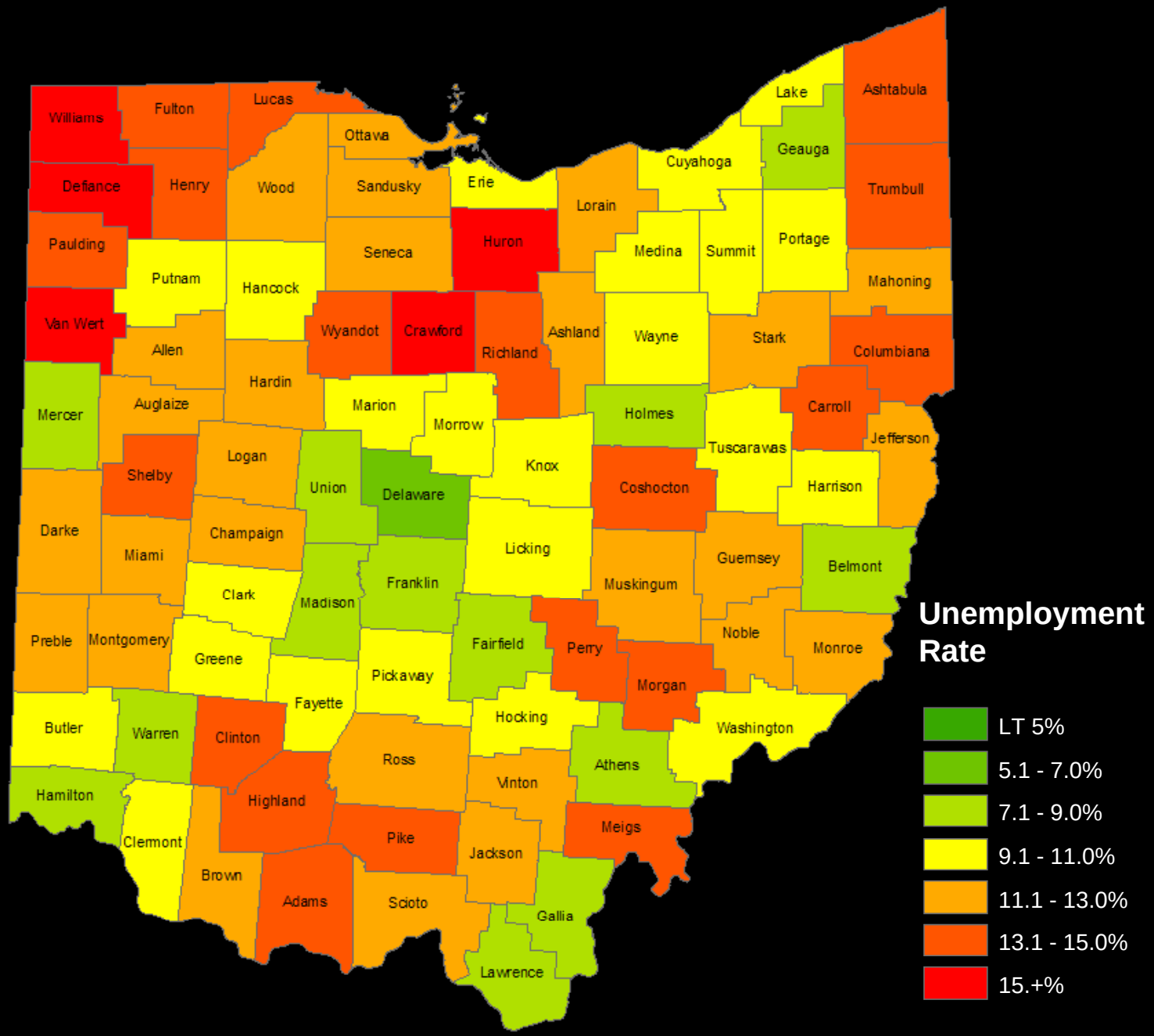


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

May
2009

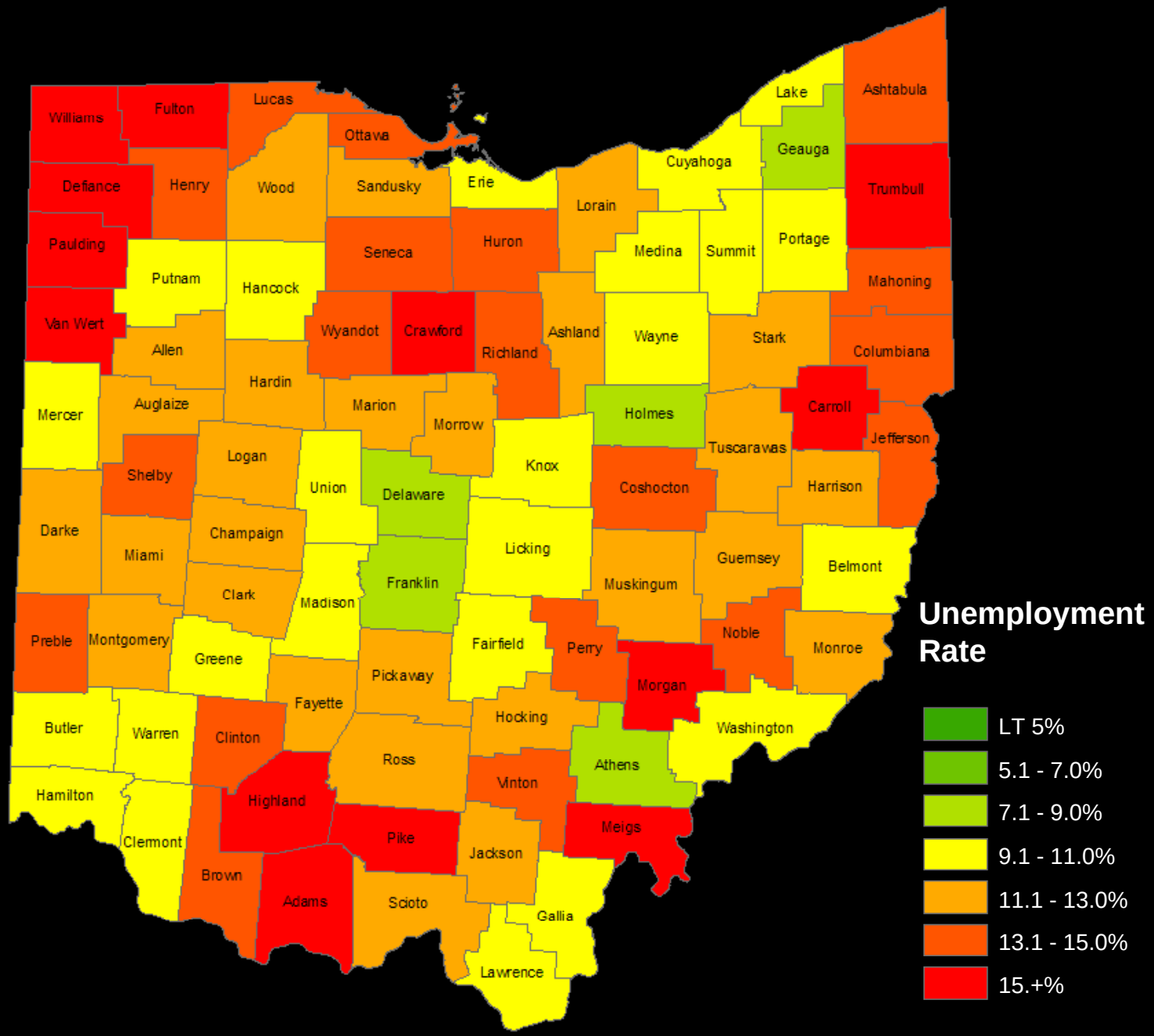


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

June
2009

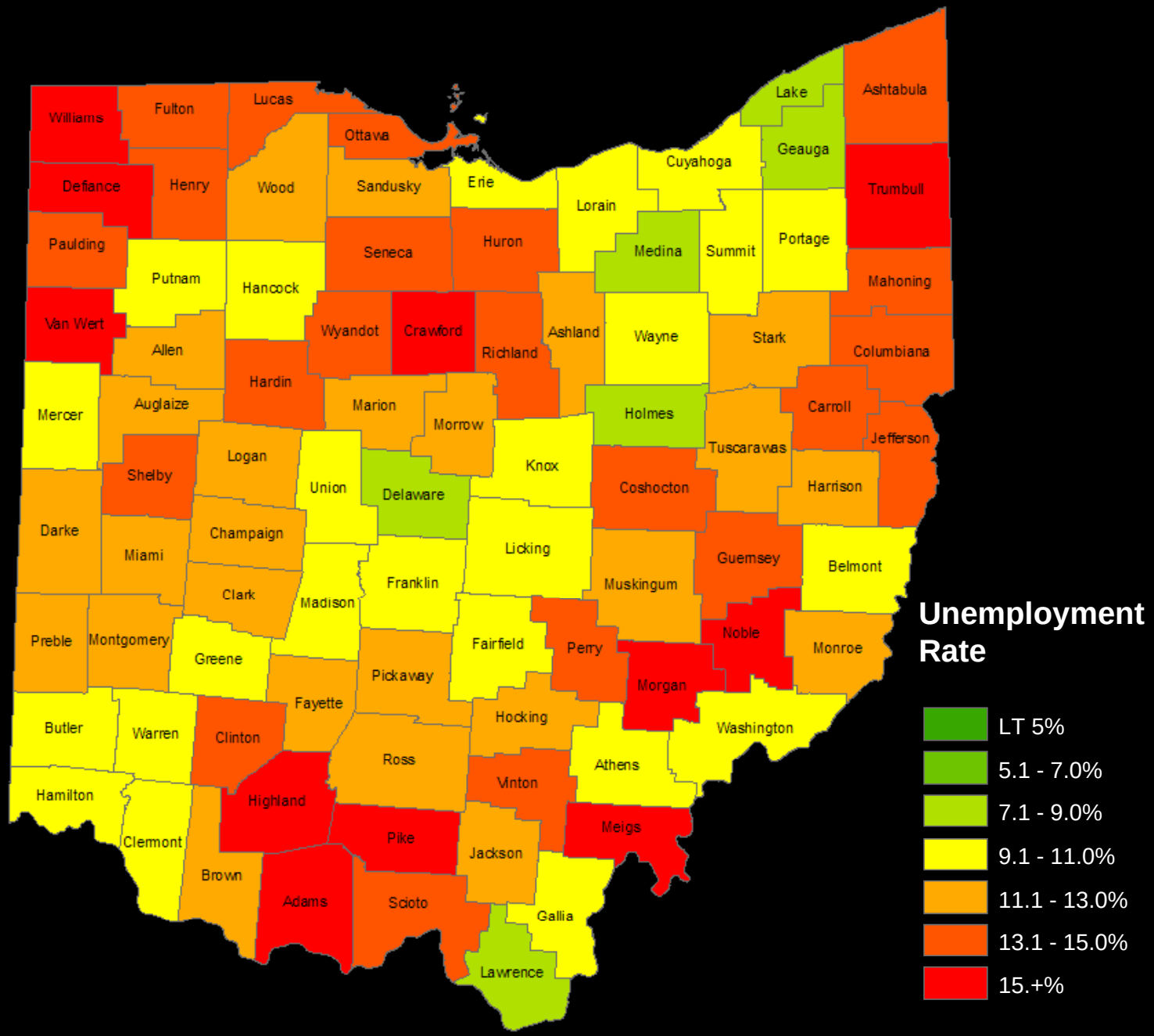


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

July
2009

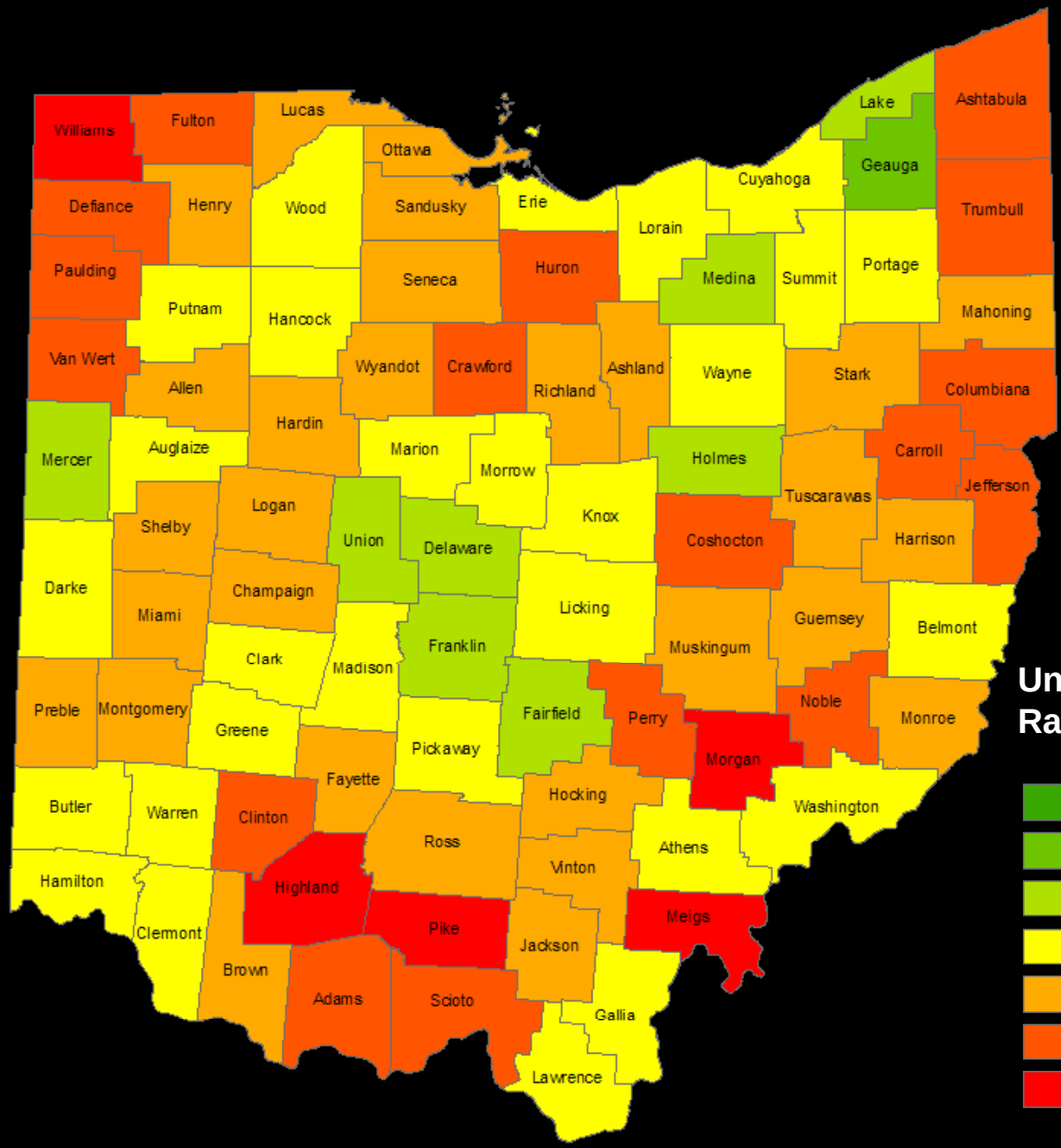


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

August
2009

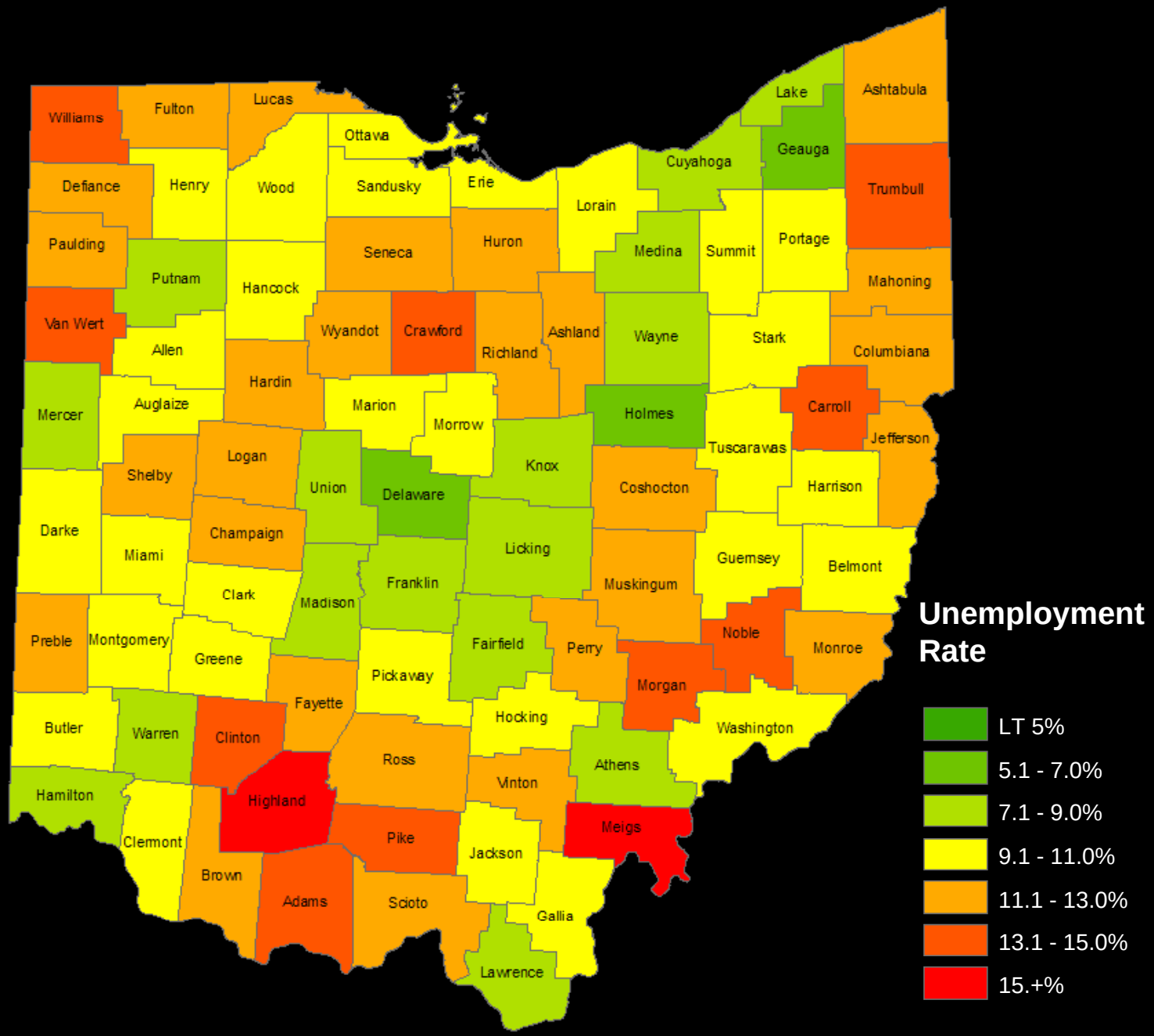


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

September 2009

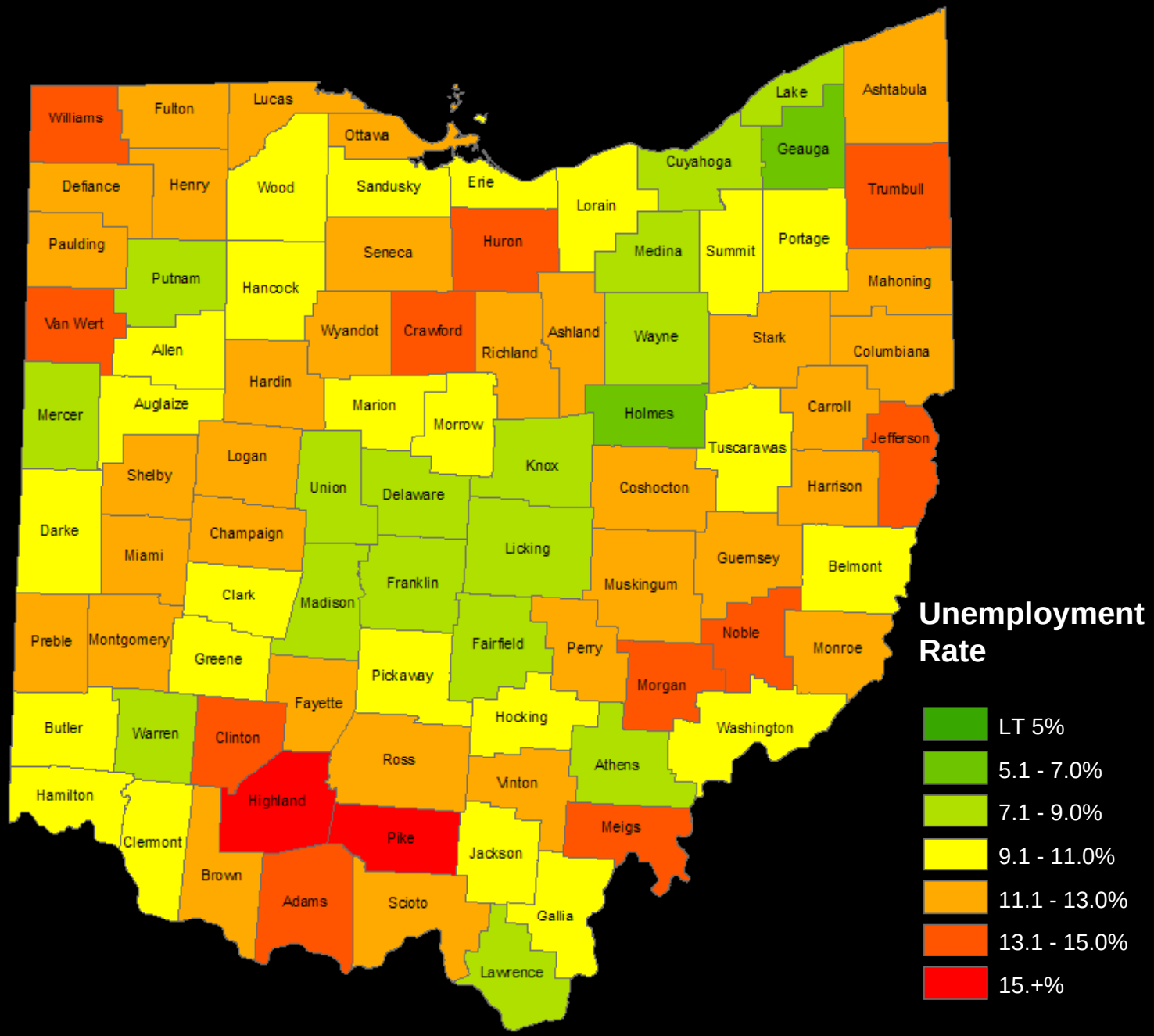


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

October
2009

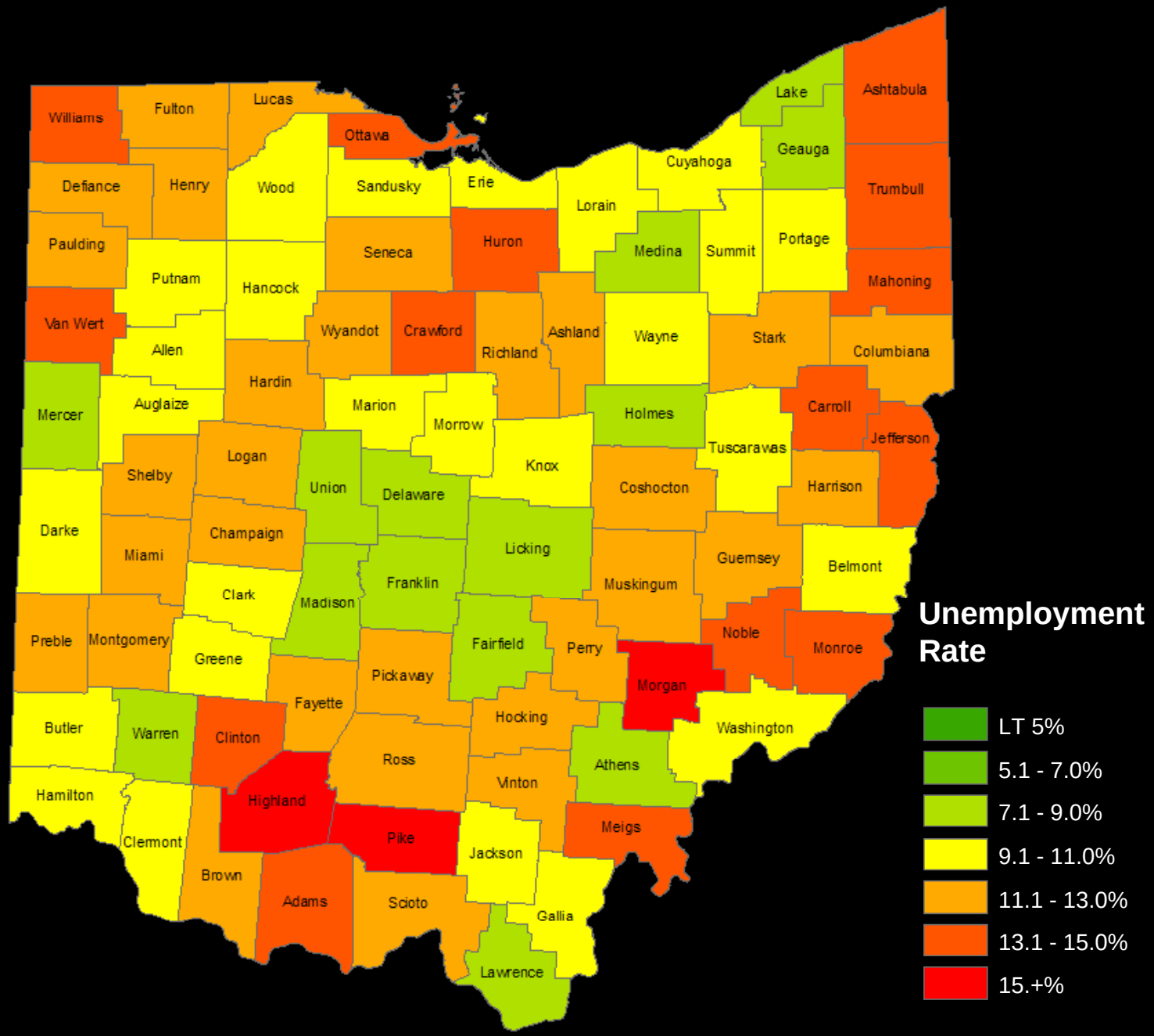


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

November 2009

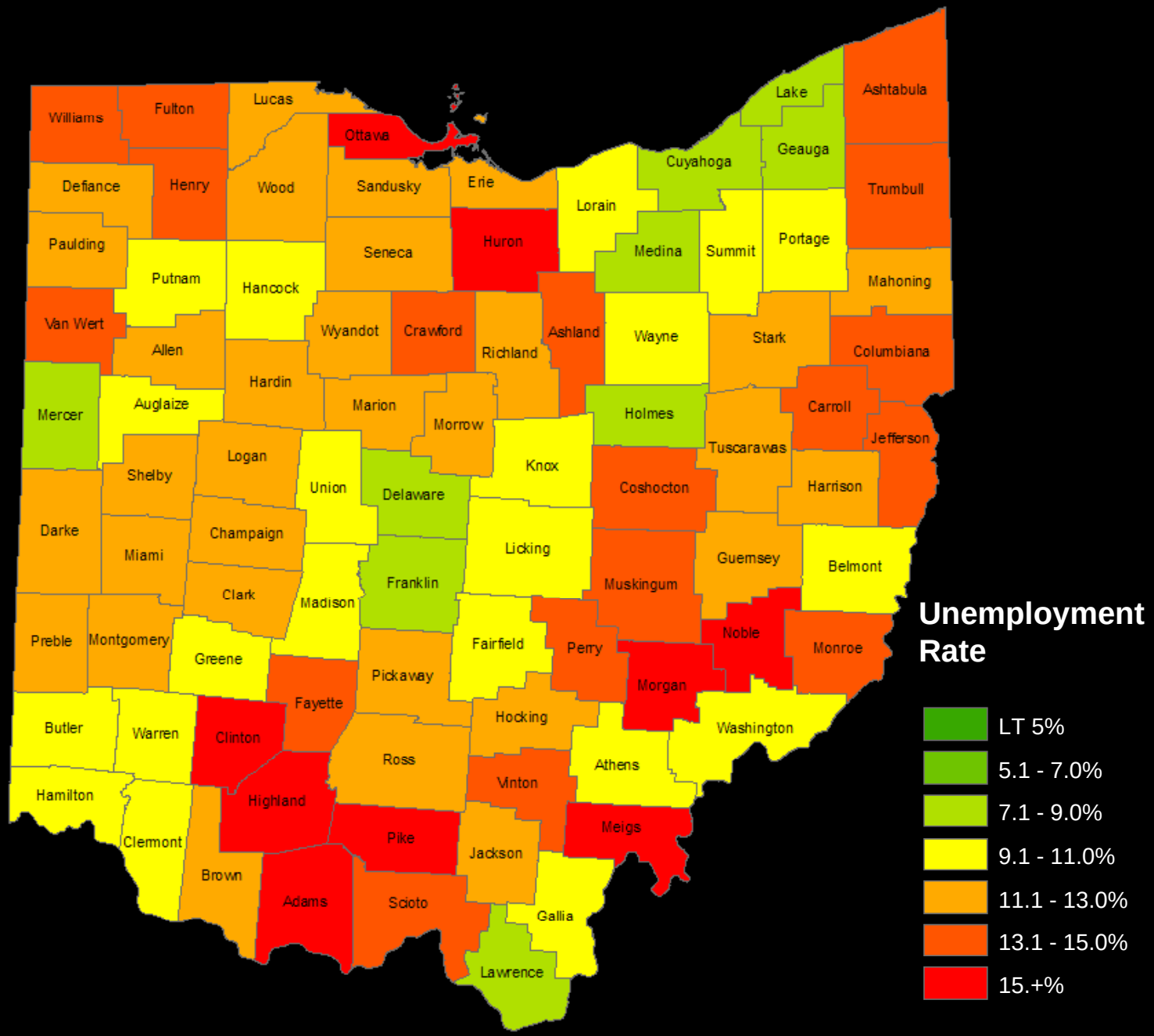


Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

December 2009



Unemployment Rate

- LT 5%
- 5.1 - 7.0%
- 7.1 - 9.0%
- 9.1 - 11.0%
- 11.1 - 13.0%
- 13.1 - 15.0%
- 15.+%

Center for Regional Development
BGSU

Unemployment by the Numbers

- Unemployment rate is the percentage of our labor force that are unemployed

- Unemployment Rate =
  - Number of unemployed / Labor Force

Center for Regional Development
BGSU

Ohio Unemployment

Date	Labor Force	Employed	Unemployed	Unemployment Rate
December 09	5,900,500	5,259,800	640,700	10.9%
December 08	5,979,300	5,534,200	445,100	7.4%
December 07	5,972,200	5,627,300	345,000	5.8%

Source: Ohio Department of Job and Family Services (Seasonally Adjusted)

One percent of Ohio's labor force is 59,005 workers in December 2009

Center for Regional Development
BGSU

Local Unemployment for December 2009

County	Labor Force	Employed	Unemployed	Unemployment Rate
Fulton	23,000	19,700	3,300	14.3%
Lucas	215,100	188,700	26,400	12.3%
Ottawa	22,000	18,200	3,800	17.3%
Wood	66,600	59,300	7,400	11.1%
Toledo MSA	**326,700**	**285,800**	**40,900**	**12.5%**

Source: Ohio Department of Job and Family Services

Center for Regional Development
BGSU

A Goal of Full Employment

"Full employment" is currently defined as an economy with a 5% unemployment rate

County	Labor Force	Currently Unemployed
Fulton	23,000	3,300
Lucas	215,100	26,400
Ottawa	22,000	3,800
Wood	66,600	7,400
Toledo MSA	**326,700**	**40,900**

UR=Unemployed / Labor Force

Center for Regional Development BGSU

A Goal of Full Employment

County	Labor Force	Currently Unemployed	At 5% Unemployed
Fulton	23,000	3,300	1,150
Lucas	215,100	26,400	10,755
Ottawa	22,000	3,800	1,100
Wood	66,600	7,400	3,330
Toledo MSA	**326,700**	40,900	16,335

Center for Regional Development
BGSU

A Goal of Full Employment

County	Labor Force	Currently Unemployed	At 5% Unemployed	Jobs Needed
Fulton	23,000	3,300	1,150	**2,150**
Lucas	215,100	26,400	10,755	**15,645**
Ottawa	22,000	3,800	1,100	**2,700**
Wood	66,600	7,400	3,330	**4,070**
Toledo MSA	**326,700**	40,900	16,335	**24,565**

Center for Regional Development
BGSU

Alternative Energy: Wind Turbine Manufacturing

- *"With a 20 percent market share, and more than 39,000 wind turbines installed, Vestas (Denmark) is the world's leading supplier of wind power solutions."* *(Vestas Website)*

- The global work force of Vestas is approximately 20,000 employees

- Therefore, the global employment in the turbine manufacturing is approximately 100,000 jobs

Center for Regional Development
BGSU

Alternative Energy: Wind Turbine Manufacturing

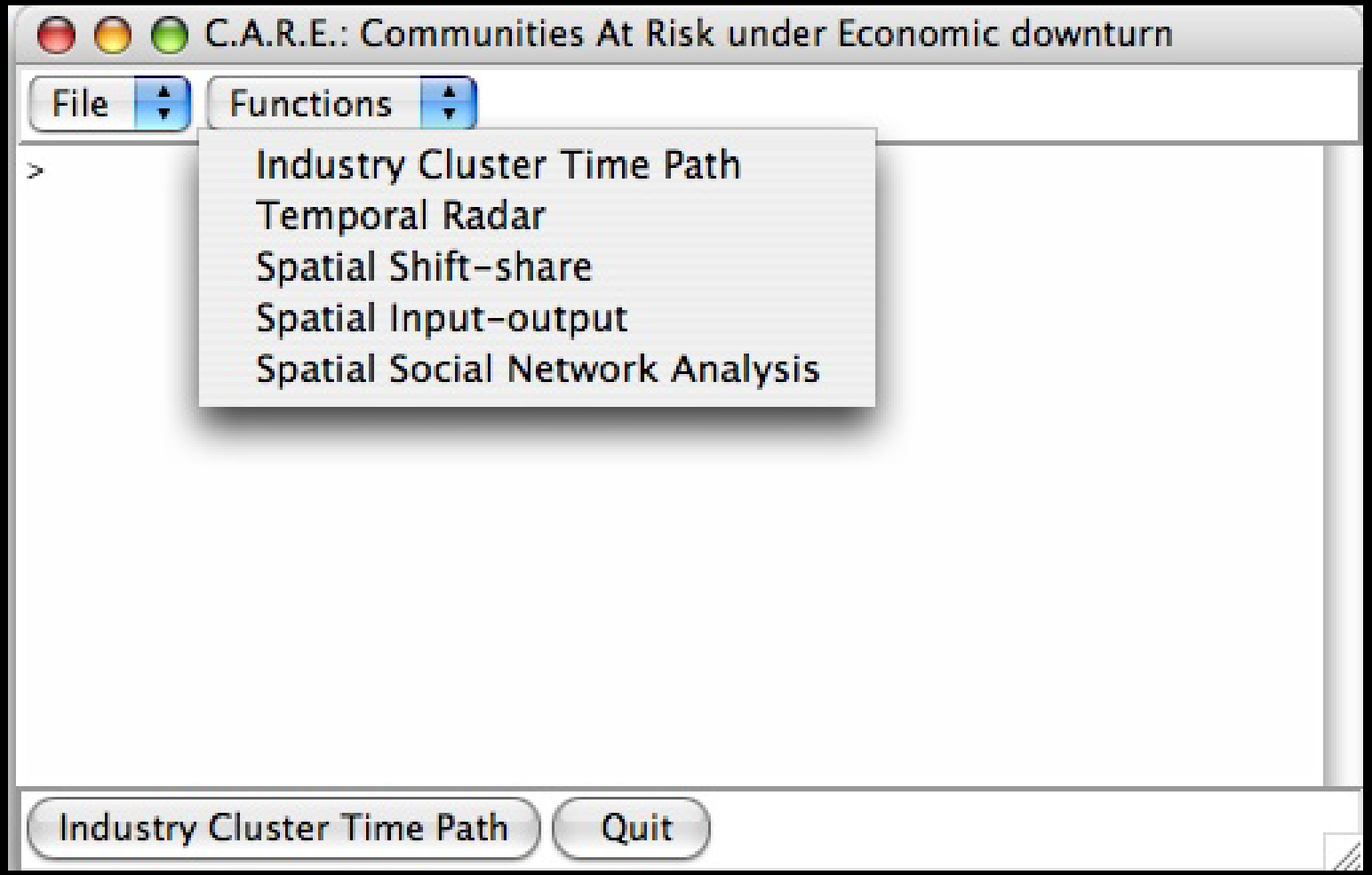
- 100,000 jobs will reduce Ohio's unemployment by 1.7%
- Ohio unemployment rate would go to 9.2%
  - (640,700 – 100,000) / 5,900,500 = 9.2%
  - The unemployment in January 2009 was 8.8%

CRD Center for Regional Development BGSU

Policy Prescriptions

- We will not recover is we continue to focus on specific industries
- The focus must be on the interconnections of the business process (network of suppliers and customers)
- The key is speed or reaction time
- Need very significant data analysis

CRD Time-Space Toolbox Software



Center for Regional Development
BGSU

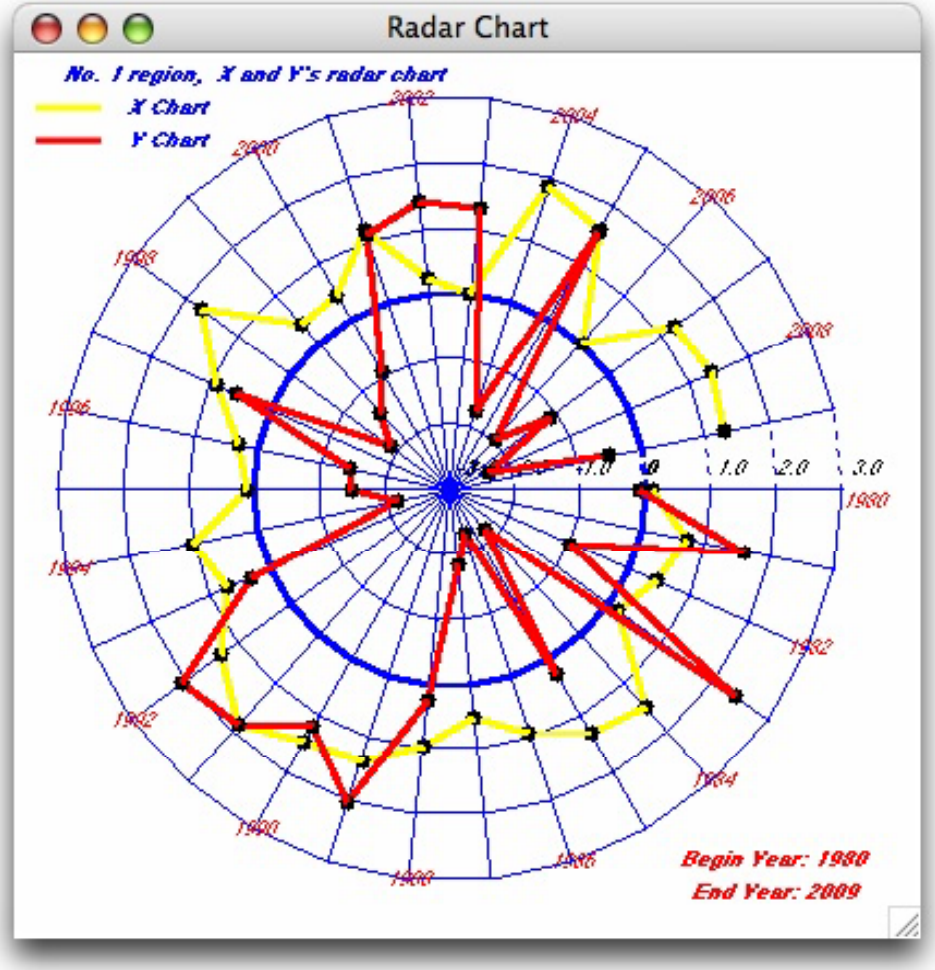
CRD *C.A.R.E.* Model

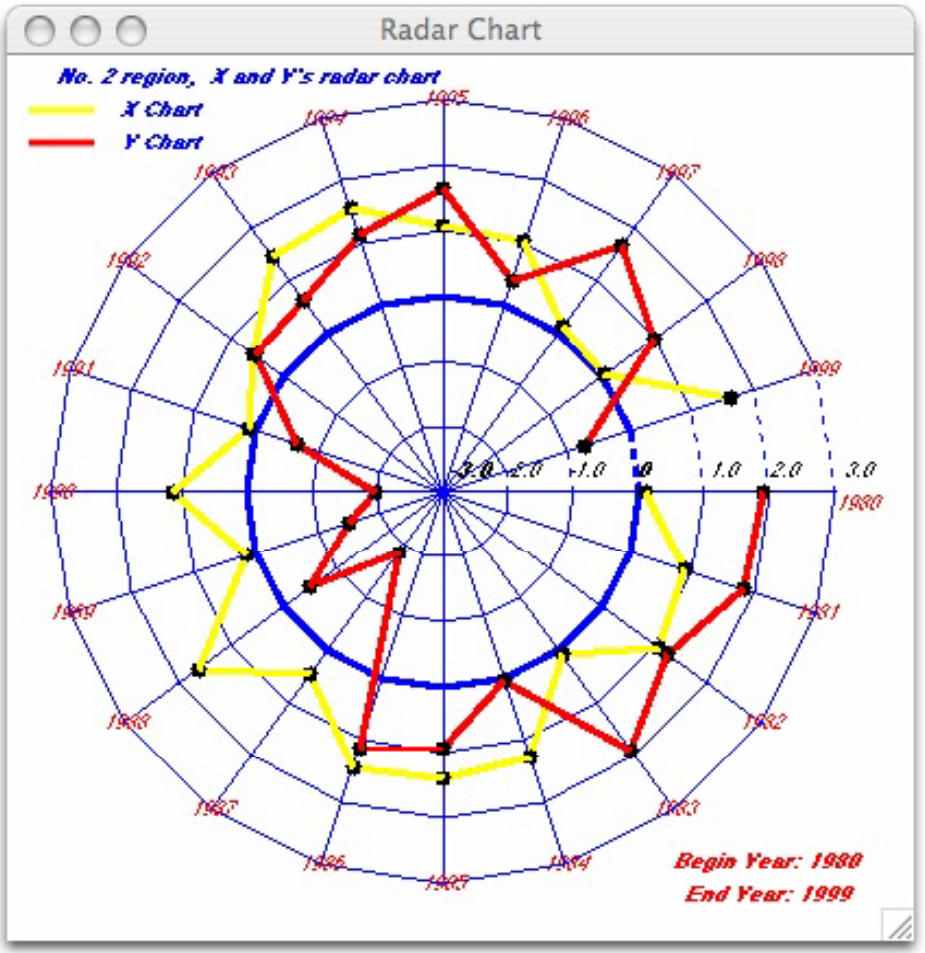
- Choose an individual firm or industry and location
- CRD *C.A.R.E.* model returns the typical "supply-chain" including company names and locations (spatial input-output model)
- CRD *C.A.R.E.* model performs a temporal analysis (how did the industries perform over time)
- CRD *C.A.R.E.* compares this analysis to another region of your choosing

Center for Regional Development
BGSU

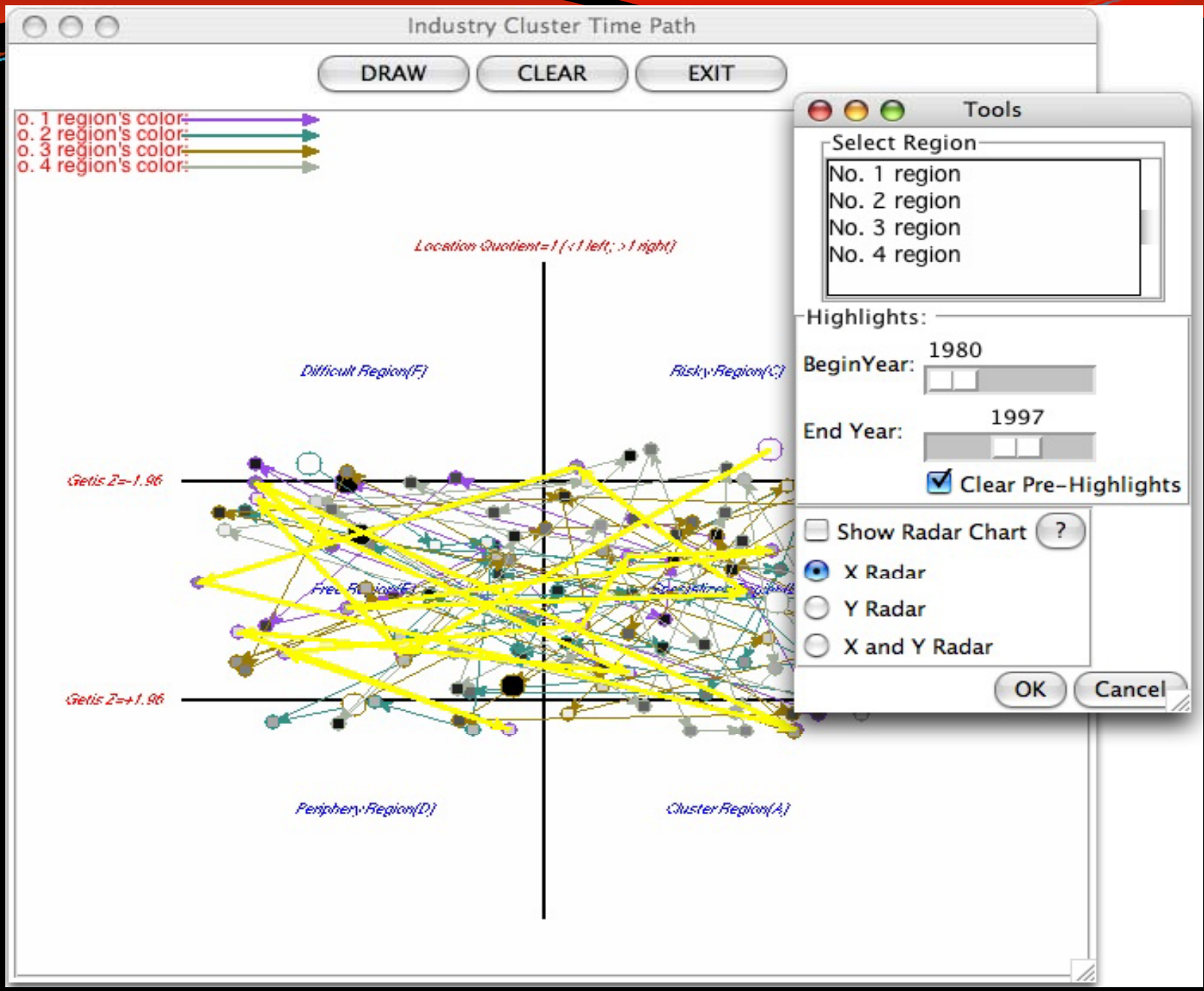
C.A.R.E.: Communities At Risk under Economic downturn

Functions

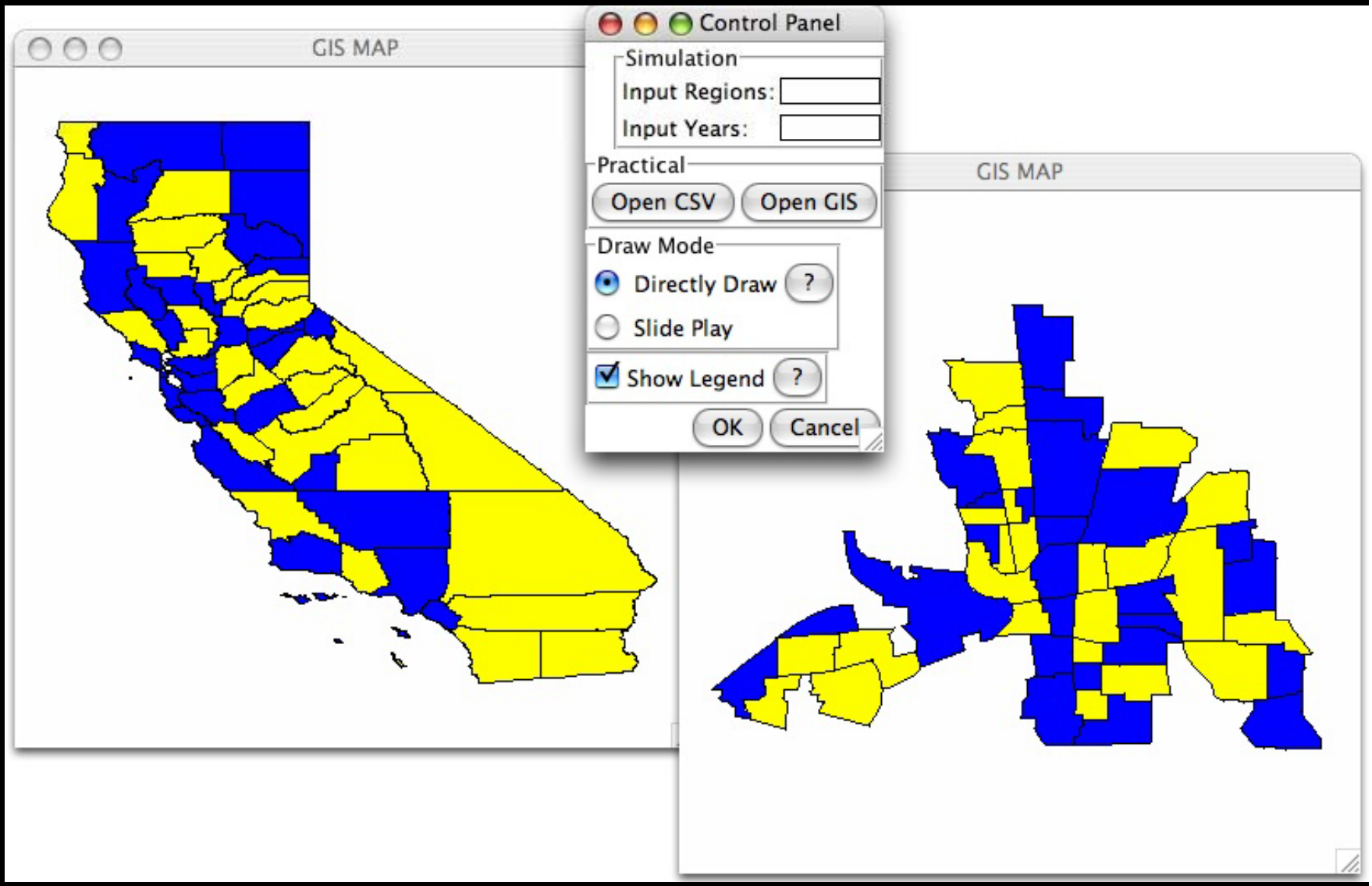




Center for Regional Development
BGSU



Center for Regional Development
BGSU



Center for Regional Development
BGSU

CRD Strategic Partnerships

Ruren Li, Ph.D
Professor and Director
Center for Space-Time Analysis and Modeling
Liaoning Technical University

Center for Regional Development
BGSU

CRD Local Strategic Partnerships

Donald T. Iannone & Associates

Don will be a Research Fellow for CRD in 2010

Previous Projects:

NASA Plum Brook Project

Center for Regional Development
BGSU

Thank You

- Michael C. Carroll, Ph.D.
- Center for Regional Development
- Bowling Green State University

mcarrol@bgsu.edu
419-372-8710
www.bgsu.edu/crd

CRD
Center for Regional Development
BGSU