



### About the Authors

Dagney Faulk, Ph.D., is Director of Research in the Center for Business and Economic Research (CBER). Her research focuses on state and local tax policy and regional economic development issues. She has worked on numerous Indiana-focused policy studies on a variety of topics including the regional distribution of state government taxes and expenditures, senior migration, and local government reform. She is the co-author of *Local Government Consolidation in the United States* (Cambria Press, 2011).

Zekeriya Mizrak, Ph.D., is a native of Konya, Turkey. He graduated from Ankara University with a bachelor's degree in political science. He completed his master's degree in economics at Selçuk University and doctorate in economics at Istanbul University. He has been working at Selçuk University as an assistant professor since 2005.

During this period, Mizrak has also worked as a consultant and as a senior executive in both private and public sectors, including the Office of the Prime Minister and the Konya Chamber of Commerce, as general secretary with the Turkish Standards Institute, and as chairman of the Department of Culture, Health and Sport at Selçuk University. He has published widely on topics related to trade patterns and regional economics.

Mizrak was a visiting scholar in the Miller College of Business at Ball State University during Spring Semester 2011.

### Part Four

## Central Anatolia Region and Indiana Comparison

*The purpose of this business brief is to provide basic information comparing Central Turkey and Central and East Central Indiana. We focus specifically on Central Turkey in this brief since there was a visiting scholar at Ball State University during the spring 2011 semester who could provide information on this area.*

In January 2011 officials from East Central Indiana went on a trade mission to Turkey visiting business and university leaders in Istanbul, Gaziantep, Ankara, Konya and Isparta. Turkish delegations are planning visits to East Central Indiana including a large group from Konya in early June 2011.

### Economy

The World Bank classifies Turkey as an upper-middle income economy. According

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to World Development Indicators, the annual growth rate of real GDP (adjusted for inflation) was over five percent per year from 2002-2007 (compared to 3.5 percent or lower in the U.S. over the same period). The Turkish inflation rate has decreased dramatically over the last decade from 52 percent in 2001 to 5.3 percent in 2009. Turkish exports have also increased dramatically from \$54.8 billion in 2002 to \$144.4 billion in 2007 (not adjusted for inflation).

### Demographics

In the regions considered here, the population in Turkey and its regions is younger than that of the central Indiana regions. The proportion of the population below age 19 is higher in Turkey, and the proportion of the population age 65 and older is lower relative to Indiana. See Table 1.

### Education

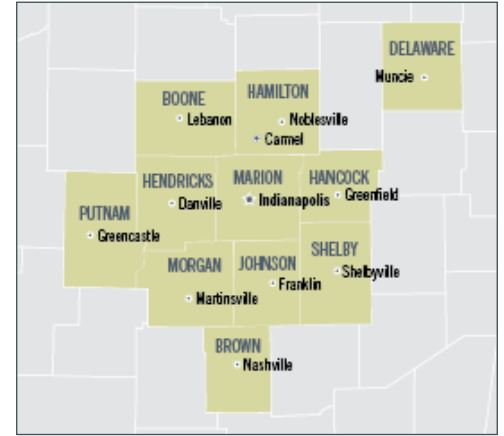
Educational attainment is higher in the Indiana regions considered. In Ankara, Turkey's capital, the percentage of the population with a bachelor's degrees is higher than that of Indiana and the Muncie metro area. See Figure 3.

**FIGURE 1: LOCATION OF TURKEY STATISTICAL AREAS AND INDIANAPOLIS METRO REGIONS**

**CENTRAL ANATOLIA REGION**



**INDIANAPOLIS STATISTICAL METRO REGIONS**

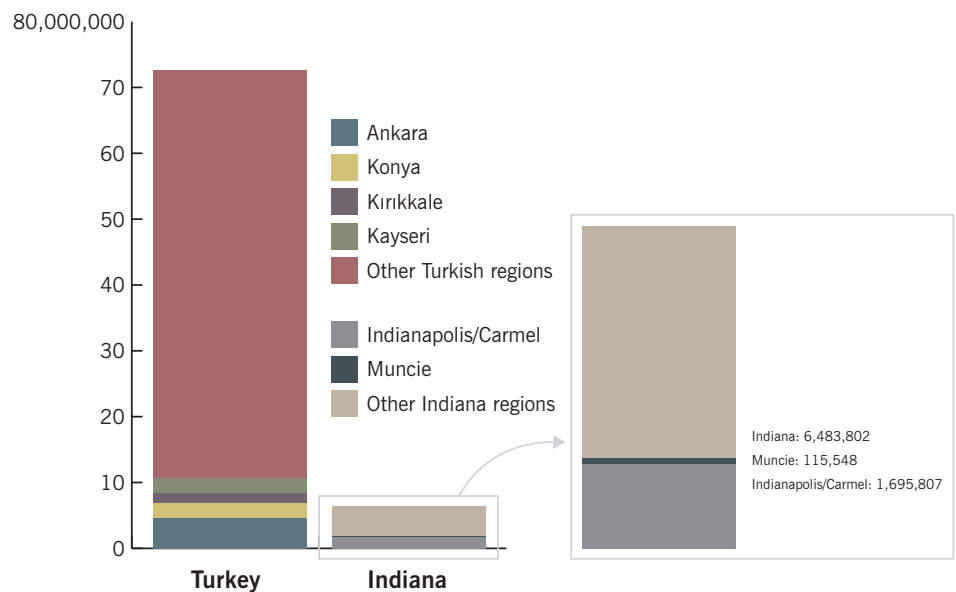


**TABLE 1: DEMOGRAPHIC SIMILARITIES AND STATISTICS, CENTRAL ANATOLIA AND INDIANA**

	Turkey	Ankara	Konya	Kırkkale	Kayseri	Indiana	Indianapolis/ Carmel	Muncie
<b>Population</b>	72,561,312	4,650,802	2,224,547	1,504,789	2,326,584	6,483,802	1,695,807	115,548
<b>Age Distribution 19 and below</b>	34.5%	30.5%	36.1%	34.8%	35.1%	27.5%	25.0%	23.6%
<b>Age Distribution 65 and above</b>	6.9%	6.5%	7.0%	8.0%	7.7%	52.1%	49.7%	50.9%
<b>Female Population</b>	49.7%	50.1%	51.0%	50.3%	49.9%	50.8%	50.9%	52.1%
<b>Urban Population</b>	75.5%	97.1%	72.8%	61.2%	73.8%	70.8%	86.7%	76.6%
<b>Population Density (person/km<sup>2</sup>)</b>	94	190	47	48	39	70	254	114
<b>GDP per person (2006)</b>	\$106,584	\$9,056	\$4,938	\$4,654	\$4,639	\$38,436	\$106,584	\$28,386

Source: U.S. Census Bureau, Bureau of Economic Analysis, Bureau of Labor Statistics

**FIGURE 2: TURKEY AND CENTRAL ANATOLIA, INDIANA POPULATIONS**



**Workforce**

With the exception of Ankara, Turkey's capital, the percentage of the workforce in agriculture is much higher in the Turkish regions compared to Central Indiana. The associated population densities are lower in Central Anatolia regions relative to Central Indiana.

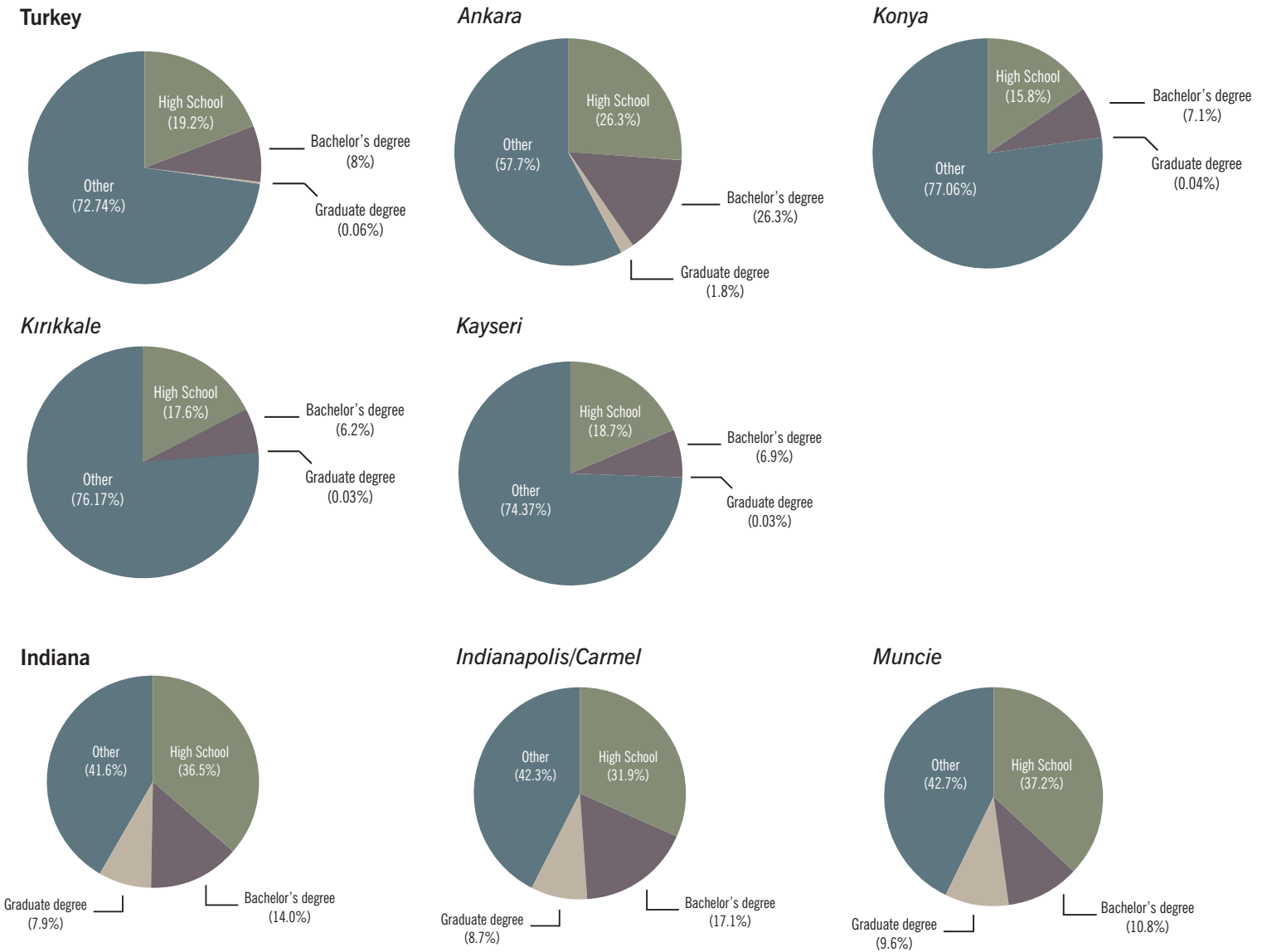
The percentages of the workforce in the industry and trade sectors are similar among the Central Anatolia and Indiana regions considered here, while the percentage of the workforce in services industries is higher in the Indiana MSAs, with the exception of Ankara.

Turkish GDP has grown substantially over the last decade but GDP per capita is still substantially lower relative to the U.S.

With the exception of Konya, where the 2009 unemployment rate was similar to that of Central Indiana, the unemployment rate is higher in the Central Anatolia regions.

Most of the differences between Central Anatolia and Indiana are expected. Relative to industrialized countries, developing countries typically have younger populations, lower levels of educational attainment, higher unemployment rates, a larger portion of the workforce in agriculture and fewer people working in formal service industries. What is striking about this comparison are the similarities, particularly in the percentage of the workforce in the industry and trade sectors. Like Indiana, auto and energy related industries are a large part of the economy in Central Anatolia, particularly Konya.

**FIGURE 3: EDUCATION LEVELS, TURKEY AND INDIANA**



**TABLE 2: WORKFORCE AND UNEMPLOYMENT, BY SECTOR**

	Turkey	Ankara	Konya	Kırıkkale	Kayseri	Indiana	Indianapolis/ Carmel	Muncie
<b>Agriculture</b>	75.3%	1.8%	32.3%	34.9%	26.7%	2.2%	0.5%	0.7%
<b>Industry</b>	25.3%	23.1%	24.2%	15.0%	25.4%	24.0%	24.5%	24.3%
<b>Trade</b>	21.3%	22.9%	18.8%	20.9%	19.3%	24.2%	23.2%	24.4%
<b>Service industry</b>	28.7%	52.2%	24.7%	29.2%	28.6%	49.7%	51.7%	50.6%
<b>Unemployment rate (2009)</b>	14.0	13.6	10.1	14.9	13.2	10.4	9.1	10.5

Note: Agriculture is agriculture, forestry, hunting and fishing. Industry is mining, manufacturing, utilities and construction. Trade is wholesale, retail, hotels and restaurants. Services are transportation, communication, storage, finance, insurance, real estate, business services, community, social and personal services.

**About the Translator**

Zeynep Karaca is a native of Istanbul, Turkey. She is an accounting graduate student in the Miller College of Business, Ball State University. She is interested in international financial reporting standards, accounting practices in public sector and international organizations, and sustainability reporting. She earned her bachelor's degree in business administration at the Istanbul University School of Business and is a graduate of Arnhem Business School, Hogeschool van Arnhem en Nijmegen.

# CENTER FOR BUSINESS AND ECONOMIC RESEARCH **BUSINESS BRIEF**



## About the Center

The Center for Business and Economic Research (CBER) is an award-winning economic policy and forecasting research center housed within Ball State University's Miller College of Business. CBER research encompasses health care, public finance, regional economics, transportation, and energy sector studies.

The center produces the CBER Data Center—a one-stop shop for economic data, policy analysis, and regional demographics—and the Indiana Business Bulletin—a weekly newsletter with commentary on current issues and regularly updated data on housing, wages, employment, and dozens of other economic indicators.

In addition to research and data delivery, the center serves as the business forecasting authority in the Muncie area—holding the annual Indiana Economic Outlook luncheon and quarterly meetings of the Ball State University Business Roundtable.

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