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Theme Overview: Beer, Policy, and a Changing Global Market

Joshua Berning and Michael P. McCullough

JEL Classification: Q13, Q18, N50

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The connections among beer, agriculture, and society are apparent in the earliest civilizations. While the exact date is not certain, beer is estimated to have been invented by 10,000 BCE at the latest and was an integral part of early Mesopotamian societies. Some theories suggest that beer production was one motivation for adopting early farming practices and moving from hunter/gatherer to agricultural lifestyles. In fact, archaeologists debate whether baking bread led to the brewing of beer or whether bread was actually invented to facilitate beer production (Standage, 2006).

Beer quickly spread throughout the ancient world. Egyptians paid wages in beer. Later, workers during the Industrial Revolution expected beer to be on the premises during work hours, and English colonists made it a priority to establish beer brewing upon first arriving in the Americas (Smith, 1995). In many industrialized cities, boiling water to make beer is likely to have saved lives as well, as it killed harmful pathogens found in city water (Johnson, 2015). Perhaps most importantly, beer plays a significant role in ceremonies and celebrations in cultures all over the world.

Widespread beer production has important and significant economic impacts in the United States and abroad. Global beer production in 2016 was around 1,955.7 million hectoliters, with the United States producing around 225 million. Globally, this quantity of beer requires roughly 20 million tons of malted barley for production. Global hops production in 2016 covered 134 thousand acres, producing 236 million pounds (Hop Growers of America, 2016). The United States produced 39% of total hops, which are exported to over 40 countries. The brewing industry directly creates 49 thousand jobs in the United States and has an economic impact of \$252 billion and 1.7 million jobs indirectly (John Dunham & Associates, 2015).

Naturally, important policy issues surround beer production, distribution, and consumption. The U.S. federal government has established a variety of beer regulations, from the 18th Amendment prohibiting alcoholic beverages to the 21st Amendment repealing prohibition, legalization of brewing at home, and laws regarding distribution. States can also choose the extent to which they regulate beer production, distribution, and taxation.

One of the drivers of such regulations has been a concern for personal and public health, emerging as an interesting mix of paternalistic federalism that seeks to control beer consumption in the United States. This includes determining the age at which people can legally drink, the days on which they can buy beer, where they can buy beer, and how much alcohol beer can contain. It has also spilled over into evaluating how much beer is

Articles in this Theme:

[Beer Consumption and Trade in an Era of Economic Growth and Globalization](#)

Johan Swinnen

[The US Brewing Industry from Farm to Pint](#)

Joshua Berning and Michael P. McCullough

[What Do Beer Laws Mean for Economic Growth?](#)

Trey Malone and Martin Stack

[Can Beer Consumption be Part of a Healthy Diet?](#)

Michael P. McCullough and Richard Volpe

healthful to consume. Taken altogether, beer consumption and production provide relevant and important topics of research for agricultural and applied economists with implications for the public, industry, and government.

This *Choices* theme covers topics related to both the global and domestic beer industry. Swinnen provides a broad overview of global beer consumption over the last 50 years in which he identifies specific trends and drivers affecting traditional beer-drinking countries and countries where per capita consumption is increasing.

Next, Berning and McCullough provide an overview of the U.S. beer industry, focusing on beer production over the past 40 years. They examine changes in industry structure, including the incredible growth of the craft beer industry. They also discuss agricultural inputs to beer production and provide a broad overview of beer regulation.

Malone and Stack explore beer laws as they examine how regulatory barriers affect beer production in the United States. Specifically, they provide a history of regulation, discuss the rationale for and consequences of such policies, and examine the implications for economic growth.

Finally, McCullough and Volpe examine the topic of healthful beer consumption, specifically looking at current federal recommendations regarding beer and alcohol consumption. Then they dive into the health literature, which discusses the benefits and consequences of beer consumption and how beer can be part of a healthful diet.

For More Information

Hop Growers of America. 2016. *2016 Statistical Report*, version 2. Available online:

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