

Out-of-State Online Shopping Costs Florida Thousands of Jobs

Introduction

Online shopping has significantly accelerated during the past several years. In 2007, the United States Census Bureau reported a combined \$136 billion in e-commerce sales by retailers and service providers.¹ The estimate for the third quarter of 2008 was \$34.4 billion for U.S. retail e-commerce sales and \$1,018.8 billion for U.S. retail total sales. E-commerce retail sales in the third quarter of 2008 accounted for 3.4 percent of total retail sales. According to Census data, rapid growth in online retail sales will continue despite a decline in overall retail sales. However, online shopping costs the state thousands of jobs because of the corresponding fall in the state spending. Using two econometric models, this study estimates the job losses due to the decline in the state spending resulting from e-commerce sales.

Methodology

The study uses both REMI and IMPLAN econometric models to estimate direct, indirect, and induced impacts of reduced consumer spending in Florida due to online shopping. REMI is based on a nationwide input-output model that captures inter-relationships among sectors and measures the impact of changes in economic variables on overall economic activity. The REMI model used for this analysis was specifically developed for the state of Florida and includes 169 sectors. REMI is used by the Florida Legislature's Division of Economic & Demographic Research, the Florida Agency for Workforce Innovation, other state and local government agencies, universities, and private research groups that evaluate economic impacts across the state and nation.

The IMPLAN model is used by more than 500 universities and government agencies to: estimate the economic and fiscal impacts of investments and/or changes in industry; forecast tax revenue and employment generation; and conduct economic comparison studies of two or more geographic locations. IMPLAN is a computer software package that consists of procedures for estimating local input-output models and associated databases. The acronym is for IMPact PLanning and ANalyses. IMPLAN was originally developed by the U.S. Forest Service in cooperation with the Federal Emergency Management Agency and the U.S. Department of the Interior's Bureau of Land Management to assist in land and resource management planning.

¹ U.S. Census Bureau E-Stats data, <http://www.census.gov/eos/www/ebusiness614.htm>, retrieved on January 5, 2009.

Data

There is no state-level data on e-commerce sales. However, using the Census Bureau's e-commerce retail sales fraction of total retail sales (3.4 percent) and Florida's total taxable sales (\$329.2 billion²), we estimate the total annual e-commerce sales for the state as \$11.2 billion for 2008. For the REMI modeling, we distributed the estimated \$11.2 billion decline in the consumer spending among durables and non-durables due to e-commerce sales. For the IMPLAN modeling, we distributed \$11.2 billion reduction in household spending among the nine income levels.

It is important to mention two caveats about the estimated data above. First, it includes both in state and out-of state online sales. By including Florida-based e-commerce, this analysis may overstate the Florida job losses; however, the analysis also does not capture other distance selling by phone, TV, mail order including catalogue shopping, phone or fax, which will offset at least some of that overstatement. Second, the estimate is only a partial count of all e-commerce sales. The estimate by the Census Bureau might be too low. For instance, a recent study by Forrester Research estimated that online sales were 8 percent of all retail sales in 2008,³ which was more than double the comparable Census estimate. Considering these caveats, the data used in this study is a reasonable proxy for the out-of state e-commerce sales.

Findings

Both models estimated over 112,000 job losses for the estimated \$11.2 billion e-commerce sales in 2008, which means a little over 10,000 lost jobs for every \$1 billion worth of online shopping. In other words, every \$100,000 worth of online shopping from other states and countries costs one Floridian to lose his/her full-time job.

Estimated Impact of Annual Internet Sales on Jobs in Florida

	Estimated Annual Internet Sales	Estimated Annual Job Losses
REMI	\$11.2 billion	112,119
IMPLAN	\$11.2 billion	112,855

	Estimated Annual Internet Sales	Estimated Annual Job Losses
REMI	\$1 billion	10,018
IMPLAN	\$1 billion	10,084

	Estimated Annual Internet Sales	Estimated Annual Job Losses
REMI	\$99,820	1
IMPLAN	\$99,169	1

² Florida Legislature, Office of Economic and Demographic Research (EDR), <http://edr.state.fl.us/data/salestax/taxdata.htm>, retrieved on January 5, 2009.

³ Forrester Research website: <http://www.forrester.com/Research/Document/Excerpt/0,7211,45508,00.html>, retrieved on January 5, 2009.

The estimated jobs lost will be in variety of industries with a heavy concentration in the retail industry. To provide some context for these job losses, the table below shows the median annual salary for all occupations in Florida is \$29,960, or \$14.40 per hour. An entry level worker can expect to earn \$18,700 (\$8.99 per hour) while an experienced worker can expect to earn \$48,670 (\$23.40 per hour).

Annual and Hourly Wages for All Occupations in Florida

	Total Jobs	Mean Wage	Entry Wage	Exp. Wage	Median Wage
Annual	7,963,010	\$38,680	\$18,700	\$48,670	\$29,960
Hourly		\$18.59	\$8.99	\$23.40	\$14.40

Source: Florida Agency for Workforce Innovation, Labor Market Statistics

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