

CENTER FOR BUSINESS AND ECONOMIC RESEARCH MILLER COLLEGE OF BUSINESS

Phone: 765-285-5926 Fax: 765-285-8024

February 1, 2010, 1:30pm

Statement: A preliminary discussion of storm damages

The ice and snowstorm currently happening throughout much of Indiana has the potential for widespread economic disruption and damages to infrastructure. While it is too early to assess the magnitude of its effects, an idea of the scope and geography of storm's damages may be detailed. This statement addresses these issues.

Background: Ice and snowstorms are common occurrences, typically resulting in temporary disruptions in retail trade and many services, modest disruptions to supply chains and costs to state and local governments and utilities for maintenance of roadways, power lines and other infrastructure. This storm is far larger than most winter storms, and by our estimate will affect more than 75 million Americans, with severe ice and snow affecting areas that are home to more than 40 million residents. Potential disruptions to commerce and damages to infrastructure are therefore likely to be lengthier and more widespread than in earlier storms. We discuss them in turn.

Temporary or Transient Disruptions to Trade:

Travel: Severe storms affect the routing of commerce by road, rail and water. The length of this storm will significantly disrupt the movement of bulk commerce by all three major types of transportation. Commerce on the Mississippi River waterways, the Ohio River and the Great lakes will suspend the transport of roughly 5 million tons of bulk commodities for the week of the storm. This will in turn reduce transshipping by rail and road as available connections are disrupted. This may impose some difficulties on producers whose inventories have been significantly reduced during the recession. However, the robustness of U.S. supply chains and transportation networks suggests this will be a transient event, with minimal negative economic consequences. The movement of persons will experience a more significant disruption as air service essentially stops from Texas to Wisconsin, and Colorado to Washington, D.C. This will result in significant economic losses to domestic air carriers and reduced 1st Quarter profits. This will also inconvenience perhaps 13 million air travelers during the week of disruptions.

Trade: Retail and wholesale trade will experience a temporary loss of commerce, both from the interruption of the supply of goods as well as the loss of customers unable to travel to retail outlets. The most significant effect will be on the sale of clothing, consumer durables and other goods considered infrequent consumer purchases. The



CENTER FOR BUSINESS AND ECONOMIC RESEARCH MILLER COLLEGE OF BUSINESS

Phone: 765-285-5926 Fax: 765-285-8024

consumption of food and fuel may well be higher in some places do to power outages. Indeed, long-term power outages may cause significant increases in expenditures on eating and drinking places and accommodations. A short-term increase in unemployment is almost inevitable as a consequence of this storm.

Government: Non-essential state and local government services may be disrupted for a brief period, with little consequence. More significantly are the costs associated with preservation of safety and maintenance of roadways. These costs may be significant and may include deployment of National Guard forces to provide key supply, engineering and command, control and communications assistance to state and local public safety and maintenance officials throughout the state. It is likely the costs of National Guard deployments will be largely borne by the Federal Government in the wake of an emergency declaration. The costs for salt, fuel and overtime pay for police, fire and maintenance workers will be borne by local and state government.

State tax revenues, most particularly sales taxes, will experience a short-term decline as consumers purchase goods at a more convenient time. The annual aggregate collections should not be disrupted.

Infrastructure: Damages to telecommunications and electric power infrastructure may be extensive. The magnitude of these damages depends almost entirely on storm effects. The largest effect involves non-equipment costs, primarily the labor costs associated with replacing downed lines and restoring power, internet connection and cable access TV.

Other Effects: Damages to residences are common, and may include direct damages due to ice and falling trees as well as secondary damages due to long periods without power. Broken pipes, spoilage of foodstuffs and other residential damages can be caused by these types of service disruptions. Most storms also have deaths attributed to a variety of effects. These range from highway accidents attributable to weather, to deaths resulting from exposure to the elements, delay in emergency response or even through heart attack deaths caused by the exertion of shoveling snow. There is also anecdotal evidence of a birth spike nine months following long storm events. That should provide a lagged burst of economic activity to the health care sector in October.

Contact: Michael J. Hicks, Ph.D., mhicks@bsu.edu