



## Growing Jobs and the Economy: What's Climate Got To Do With It?

Jewelry, textiles and food have formed the base of Rhode Island's consumer products manufacturing sector. Although Rhode Island has quite obviously shifted to a service-based economy, the Economic Development Corporation promotes the state as an ideal location for consumer products manufacturing because of its close proximity to "global transportation networks that move products by air, sea, rail and roadway."

When the destruction of Hurricane Sandy put a major kink in the free flow of goods through all means of transportation, economists argued that investing in the Northeast's infrastructure would assist the nation. Essentially, they posit that no economic development is strictly local.

As noted in U.S. News and World Report, November, 2012:

*Natural disasters like hurricanes and earthquakes damage or destroy productive physical assets like factories, stores, housing, and public infrastructure (the capital stock); they interrupt economic activity (the flow of goods and services produced in a quarter, as measured by gross domestic product or GDP). During the disaster and in its immediate aftermath, economic activity will likely be depressed below what it otherwise would have been, and it takes time to repair and replace damaged physical assets.*

Climate change projections concerning sea level, precipitation and extreme weather events indicate that the transportation systems industry could be severely disrupted in the coming years. That disruption is already here. The National Oceanic and Atmospheric Administration (NOAA) tide gauge in Newport Harbor shows an increase in sea level rise since 1930, which threatens the ports on which Rhode Island industry throughout the state depends.

This could have a distinct impact on "short-sea" shipping that is often mentioned as a very good future

opportunity for Quonset Point. But all such transport systems would feel the effects of impacts such as intensified and more frequent storms and/or sea level rise. We need only look at the Hurricane Sandy's damage to New Jersey refineries as one example of climate change impacting traditional coastal industry.

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Data provided by NOAA indicates that the numbers of extreme weather events, which have caused over a billion dollars in damages, have been increasing over the last two decades. Extreme weather events include hurricanes, floods, nor'easters and blizzards, all of which have the potential to disrupt and damage transportation systems. The likelihood of more extreme flooding events in Rhode Island is indicated both by the

increase in extreme weather events and by the steady increase in precipitation rates over the past century ([graph](#)).

### Then and Now: A Little Bit of History

In Pawtucket, RI, just north of Providence, America's Industrial Revolution was born in 1793, when Samuel Slater, an immigrant, built the first successful water-powered, cotton-spinning mill in North America on the banks of the Blackstone River. It is now a designated National Historic Landmark, and the mill and its museum are a major tourist attraction.

But since the mill had to be sited on a river to provide waterpower, it was perfectly positioned to suffer a blow from the flooding of March and April of 2010, when the Blackstone overflowed its banks ([video](#)).

You can't have expected Samuel Slater to have anticipated climate change, but in 2011 any new manufacturer or industry is not just rolling the dice if they decide to site a plant on a riverbank without proper climate control adaptation measures. In reality, they are in a game of chance against Mother Nature, and she's using loaded dice.