Regional Snowfall Index

25 – 28 January

29 January – 3 February

8 -10 February

14 – 16 February

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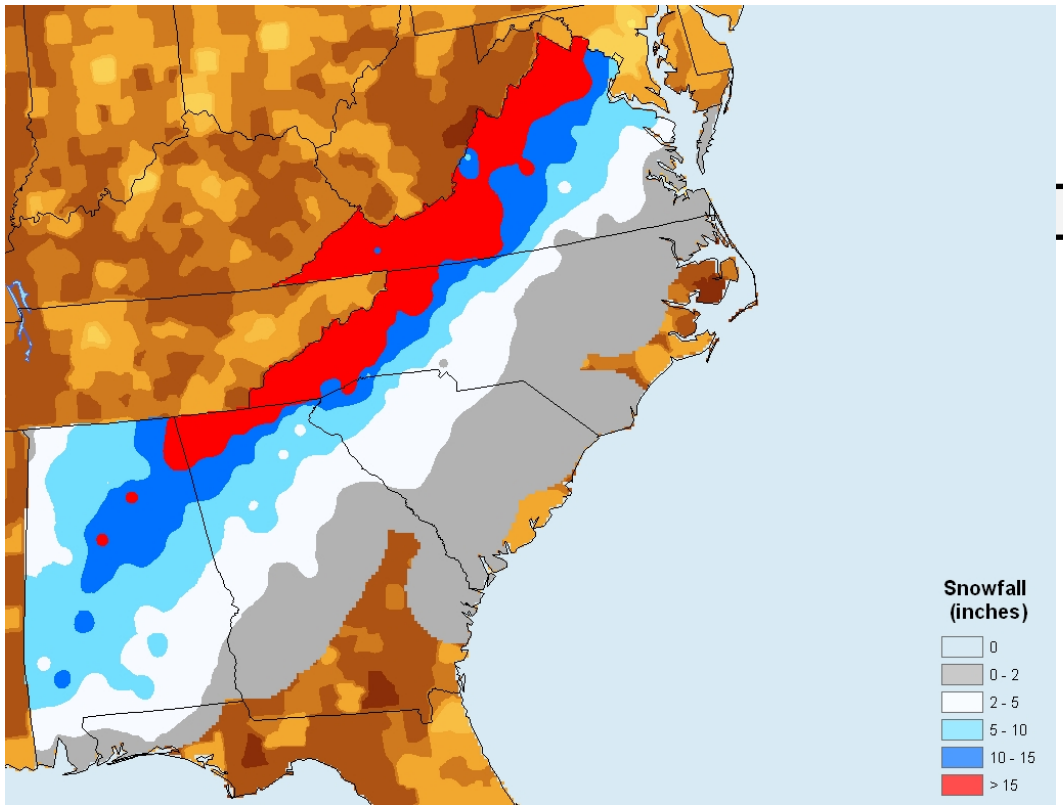
Regional Snowfall Index

Snowfall Area + Snowfall Amount + Population



RSI Calculation
March 12-13, 1993

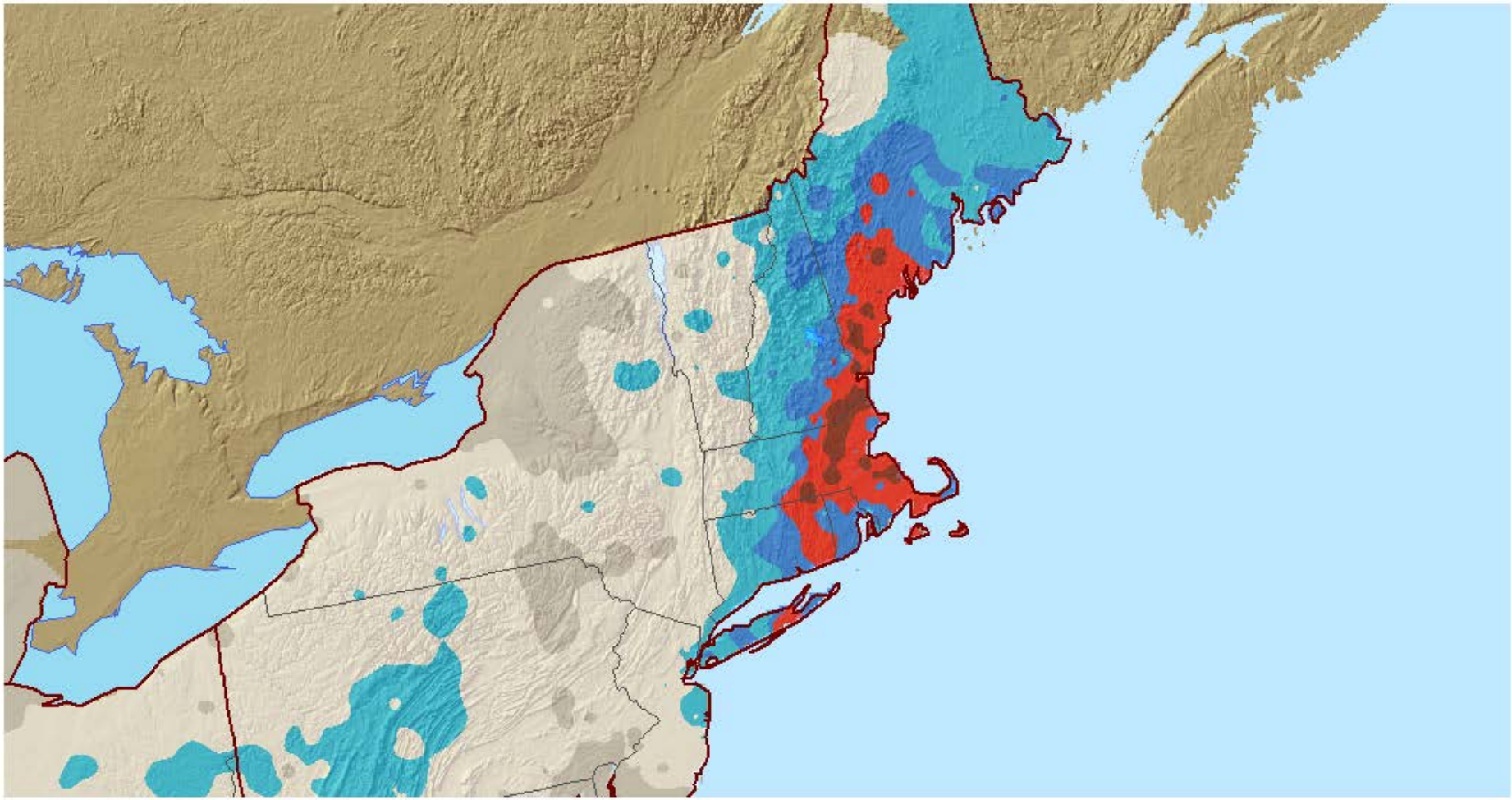
Snowfall	Population	Area (sq mi)
2	6,311,630	46,666
5	8,110,060	41,237
10	4,135,780	22,170
15	3,210,340	29,983

$$RSI = \sum_{T=T_1}^{T_4} \left[\left(\frac{A_T}{\bar{A}_T} + \frac{P_T}{\bar{P}_T} \right) \right]$$

RSI = 19.648

Regional Snowfall Index

01/25/2015 - 01/28/2015



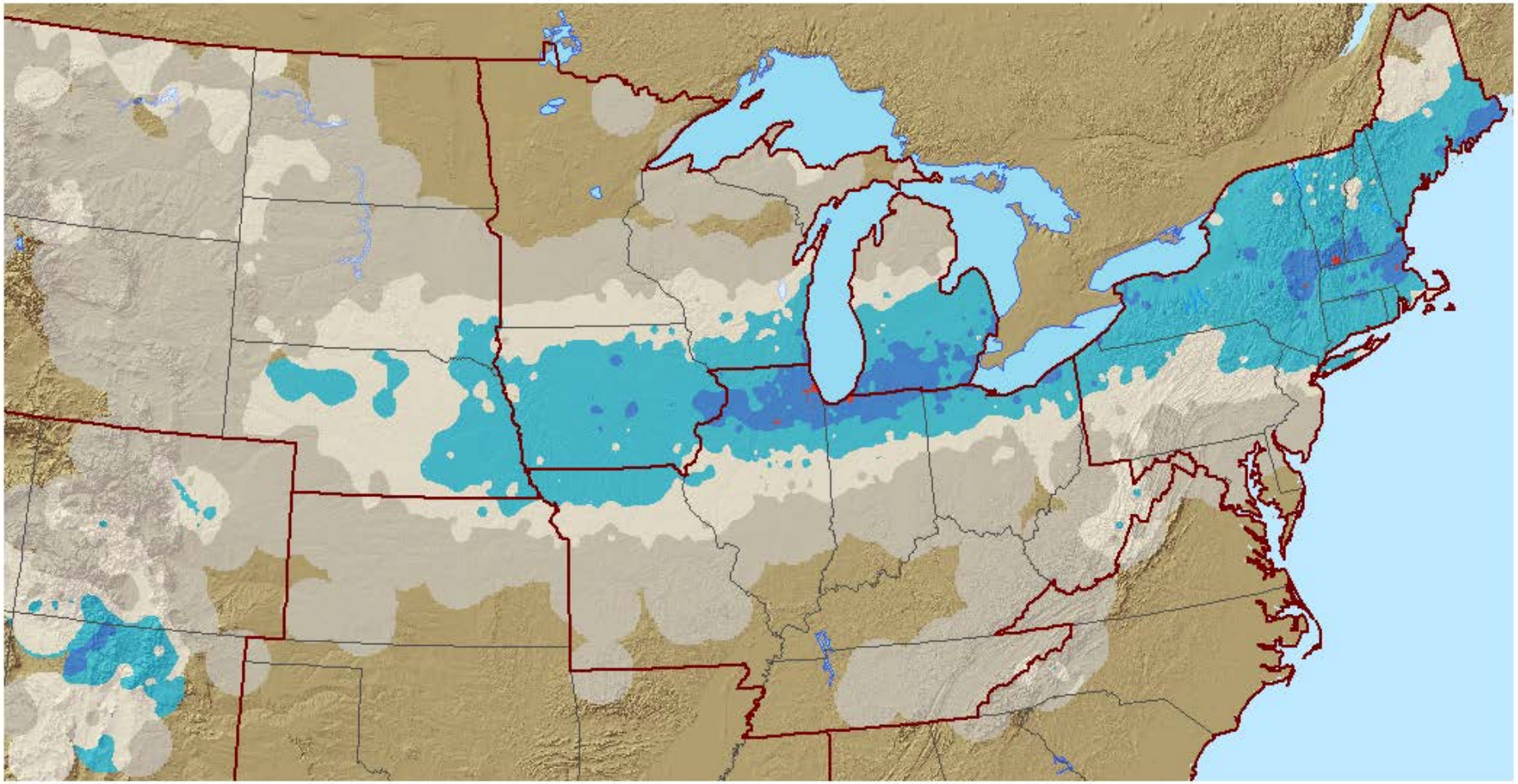
Total Snowfall

- < 2"
- 2"-6"
- 6"-12"
- 12"-18"
- 18"-24"
- > 24"

Region	RSI	Category
National	0.00	0
Northeast	6.16	3
Northern Rockies and Plains	0.00	0
Ohio Valley	0.46	0
Southeast	0.13	0
South	0.00	0
Upper Midwest	0.03	0

RSI

20150129-20150203

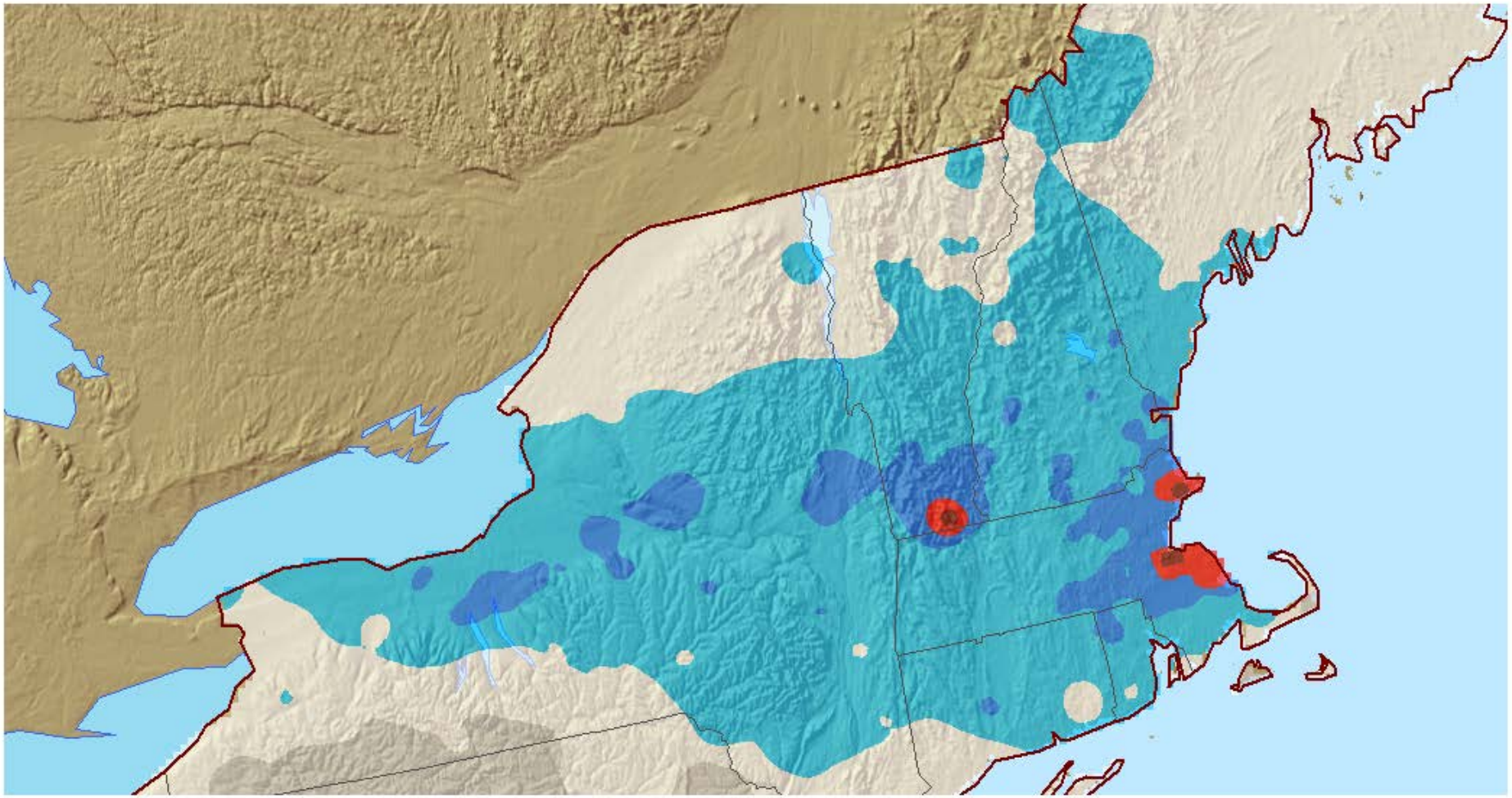


Total Snowfall

- < 2"
- 2"-6"
- 6"-12"
- 12"-18"
- 18"-24"
- > 24"

Region	RSI	Category
National	0.00	0
Northeast	2.61	1
Northern Rockies and Plains	2.37	1
Ohio Valley	8.40	3
Southeast	0.10	0
South	0.12	0
Upper Midwest	4.75	2

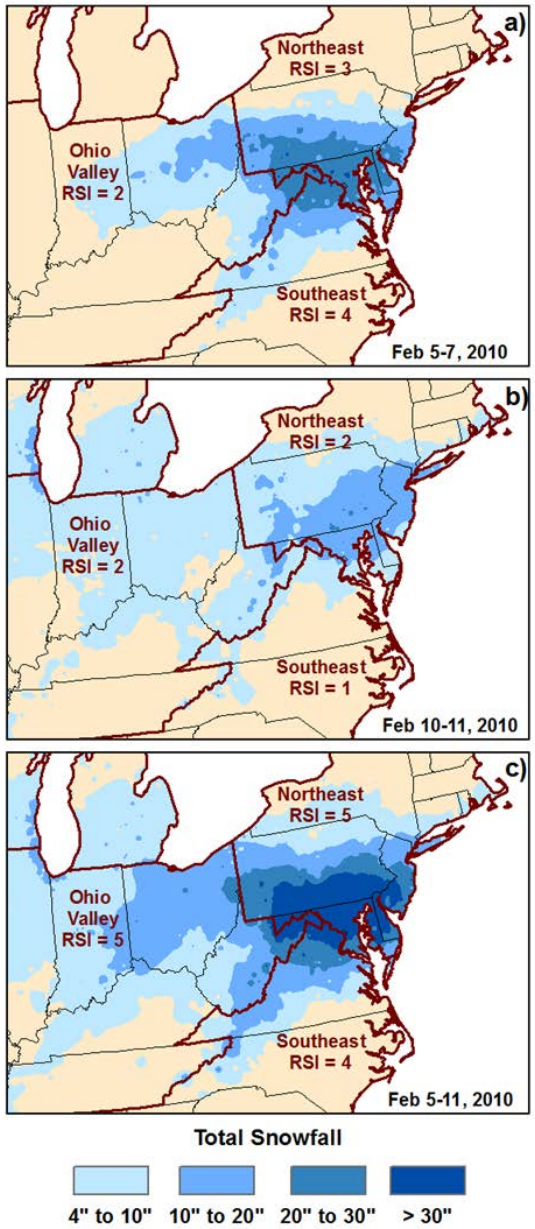
RSI 20150208-20150210



< 2"
2"-6"
6"-12"
12"-18"
18"-24"
> 24"

Region	RSI	Category
National	0.00	0
Northeast	1.90	1
Northern Rockies and Plains	0.00	0
Ohio Valley	0.00	0
Southeast	0.00	0
South	0.00	0
Upper Midwest	0.02	0

The Effect of Multiple Back to Back Snow Storms



ARTICLES

THE REGIONAL SNOWFALL INDEX

BY MICHAEL F. SQUIRES, JAY H. LAWRIMORE, RICHARD R. HEIM JR., DAVID A. ROBINSON, MATHIEU R. GERBUSH, AND THOMAS W. ESTILOW

A new snowfall index quantifies the societal impact of snowstorms in the eastern United States from 1900 to the present.

Large snowstorms have a major impact on society in terms of human life, economic loss, and disruption. Examples include the Chicago blizzard of 1967 that caused the deaths of 45 people and economic losses to local business estimated to be $150 million (1967 U.S. dollars) (Doesken and Judson 1996). The 1993 "Superstorm" was responsible for 270 deaths and $1.8 billion in damages from the Deep South to New England (Kocin et al. 1995). Three large snowstorms struck the northeast in 1996, causing $1.1 billion in insured losses (Kocin and Uccellini 2005). Smith and Katz (2013) have identified 10 snowstorms occurring since 1980 whose damages have totaled over $29 billion. Changnon (2007) reports that monetary losses resulting from snowstorms are increasing. These examples highlight the need to better understand the impacts of snowstorms.

There have been several indices developed to characterize winter storms. Rooney (1967) used newspaper accounts and interviews to estimate the societal impact of snowfall on seven cities in the Midwest and Great Plains. He characterized these impacts as "disruptions" and, in addition to snowfall, included events such as traffic accidents, road closings, school closings, and canceled flights, as well as other negative effects. Call (2005) extended this work by describing disruptions of snowstorms for several locations in New York.

Cerruti and Decker (2011) developed the local winter storm scale (LWSS) and used a nomenclature in terms of disruptions to characterize winter weather indices. "Intrinsic disruption" is based on meteorological variables that have the potential to impact society while "societal susceptibility" is based on sociological variables. "Realized disruption" results from the interaction of intrinsic disruption and societal susceptibility. LWSS is based on measures of intrinsic disruption: snowfall, freezing rain, sustained wind, wind gusts, and visibility. LWSS is reported as a categorical value between 0 and 5 and is used to infer societal susceptibility. By definition it is a local index since it is calculated for a specific location using hourly data.

Kocin and Uccellini (2004) developed the Northeast snowfall impact scale (NESIS), which uses snowfall and population density to characterize the impact of snowstorms that affect the northeastern United States.

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The abstract for this article can be found in this issue, following the table of contents.
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http://www.ncdc.noaa.gov/snow-and-ice/rsi/