



Social Science in NOAA Weather Research

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History and Background

Establishing the Societal Impacts Program

- 🌐 Adopted by the interagency USWRP in 2003
- 🌐 Established soon after subsequent to the acceptance of a peer-review proposal from NCAR's RAP (now RAL) and ESIG (now ISSE)
- 🌐 Funded by NOAA's USWRP funds
- 🌐 Aligned to NOAA's social science mission as documented in its strategic and research plans
- 🌐 Extension of Office of the Chief Economist in NOAA's Program, Planning, and Integration Line Office
- 🌐 Established an advisory board of prominent users,

Collaborative Program on the Societal and Economic Benefits of Weather Information a.k.a. **Societal Impacts Program (SIP)**

Vision

a society that maximizes the net social benefit of weather information

Mission

improve the societal benefits of weather forecasting

Goal

national and international focal point of social science research and information on weather and weather forecast impacts and benefits



Current SIP Activities I

Conduct and facilitate research

- 🌐 **Overall US Sector Sensitivity Assessment**
 - 🌐 empirically evaluate the impact of weather variability on the US economy
- 🌐 **Quantitative Precipitation Forecast (QPF)**
 - 🌐 review and synthesize information on the value of QPF
- 🌐 **Probabilistic Weather Forecasts**
 - 🌐 begin assessing methods for the communication of probabilistic weather information to users
- 🌐 **STORM III**
 - 🌐 estimate households' values for current and improved daily ("ordinary weather") weather forecasts
- 🌐 **Hurricane**
 - 🌐 develop methods to study households' value for current and improved hurricane forecasts and warnings



Current SIP Activities II

Create and support the community & provide outreach and education

- 🌐 **Weather and Society * Integrated Studies Workshops (WAS*IS)**
 - 🌐 develop social science awareness and capabilities in the weather community
- 🌐 **Hurricane Forecast Socio-Economic Working Group**
 - 🌐 develop social science research agenda on hurricane forecasts and warnings to encourage funding
- 🌐 **THORPEX – Societal and Economic Research and Applications**
 - 🌐 guide and undertake societal impacts research within THORPEX research program
- 🌐 **Information Resources**
 - 🌐 create central resources for information on society, weather impacts, and weather forecasts
 - Digital Library on Societal Impacts (DLSI)
 - Extreme Weather Sourcebook
 - Societal Aspects Webpage
 - WeatherZine



Prioritization of SIP Research

	Hurricanes	Precipitation	High-Impact Weather Forecasts
Valuation	●	⊙	●
Communicating Uncertainty	●	●	○
Characterization Sources, Perceptions, and Uses of Weather Information	⊙	○	⊙
Developing or Facilitating Use of Forecasts and Forecast Products	○	○	⊙
Legend: ● highest priority; ⊙ medium priority; ○ lower priority			

Future Plans for SIP

Hurricanes

- 🌐 Joint NOAA-NSF AO on social science
 - 🌐 Economic evaluation
 - 🌐 Communication of uncertainty
 - 🌐 Characterizing sources and use of forecast information
 - 🌐 Assist development of decision support tools

Refine sector economic sensitivity and increase value of weather information

Assist in providing human dimension information for capacity building in developing nations (THORPEX)

Developing tools for disseminating probabilistic weather information to users

User verification of weather information with emphasis on probabilistic information

Assessing costs and benefits of weather research

