## American Statistical Association Endorses Conclusions of the UN IPCC Fourth Assessment Report on Climate Change

ALEXANDRIA VA (PRWEB) DECEMBER 5, 2007 – The Board of Directors of the American Statistical Association (ASA) today released a statement on climate change, including an endorsement of the conclusions of the Fourth Assessment Report of the UN Intergovernmental Panel on Climate Change (IPCC). Key to the endorsement were the recommendations of prominent statisticians and climatologists who participated in an ASA sponsored workshop in October. In its endorsement, the ASA joins more than 100 countries and numerous scientists in the climate change community.

The IPCC Report finds that "Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising mean sea level. ...Most of the observed increase in globally averaged temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations. ...Discernible human influences now extend to other aspects of climate, including ocean warming, continental-average temperatures, temperature extremes, and wind patterns."

"The importance of the study of global climate change, and the role of statistics and statisticians in this research, cannot be overstated," said Mary Ellen Bock, 2007 ASA President. According to ASA member David Marker, who presented the results of the ASA sponsored workshop on statistics in global climate change, "the Board of the ASA has taken a clear stand on a topic of critical importance."

In a related move, the Board also recommended greater involvement of statisticians in both the IPCC and the US Climate Change Science Program (CCSP), in addition to the "already extensive and healthy collaboration between statisticians and scientists in basic research on climate change." The Board's statement cites several areas, identified by the ASA workshop, in which statistical science can make a contribution to ongoing research.

The specific recommendations of the ASA Board are below:

- The ASA recommends that more statisticians should become part of the IPCC process. Such participation would be mutually beneficial both to the assessment of climate change and its impacts and to the statistical community.
- The ASA recommends that there should be greater involvement by statisticians in future reviews of the state of climate science conducted by the CCSP.
- The ASA strongly urges statisticians to collaborate with other scientists in order to advance our understanding of the nature, causes, and impacts of climate change.

## Statistician Involvement

The ASA statement cites several areas in which statistical science can contribute to climate change research. In addition to the "obvious benefit to the geoscience," the ASA states that these topics "may well push the boundaries of statistics and suggest new methods, algorithms, and theory." The areas identified are:

- Estimating the health effects of climate change, particularly with regard to the impact of extreme events (heat waves, droughts, etc.)
- Translating large-scale global and regional climate models into effects of climate change on smaller areas
- Contributing to improved analytic techniques for interpreting geophysical data to help present information concisely and in a manner that can be understood by decision makers
- Designing and analyzing computer experiments to aid in the assessment and refinement of climate models
- Reducing uncertainty in key observational datasets by advising on how best to combine data from different measurement devices and deal with biases and changes in various measurement systems

The complete statement of the ASA Board may be viewed and/or downloaded from the ASA web site at <a href="http://www.amstat.org/about/pressreleases/climatechange.pdf">http://www.amstat.org/about/pressreleases/climatechange.pdf</a>

## About the American Statistical Association

The American Statistical Association (ASA), a scientific and educational society founded in Boston in 1839, is the second oldest professional society in the United States. For more than 160 years, ASA has been providing its 18,000 members serving in academia, government, and industry and the public with up-to-date, useful information about statistics. The ASA has a proud tradition of service to statisticians, quantitative scientists, and users of statistics across a wealth of academic areas and applications. For additional information about the American Statistical Association, please visit the association's web site at http://www.amstat.org or call 703.684.1221.

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