From Melissa Kenney’s website:

**Evaluation of Climate Decision Support Tools**  
Effectively supporting decisions with science is an active process that requires co-production of information. This involves using scientific methods that are designed to bring stakeholders into the production of knowledge and to structure information so that it is aligned with stakeholder needs. Our research team is assessing indicator understandability for non-scientific audiences and the usability of decision support tools by multidisciplinary scientists and decision-makers.

**Possible papers**

**Exploring Visual Representations to Support Data Re-Use for Interdisciplinary Science.**

Wiggins, A., A. Young, and **M.A. Kenney**. (2018) Exploring Visual Representations to Support Data Re-Use for Interdisciplinary Science. Association for Information Science & Technology. [[pdf](https://www.umdindicators.org/wp-content/uploads/2018/10/ASIST2018-final.pdf)]

Effective Visual Communication of Climate Indicators and Scientific Information: Synthesis, Design Considerations, and Examples. A Technical Input Report to the 4th National Climate Assessment Report.

Gerst, M.D., **M.A. Kenney**, J.F. Wolfinger et al., A. Baer, et al. (2017). Version [2.0]. [[documents](http://www.umdindicators.org/?page_id=1028)]

### Methods for translating narrative scenarios into quantitative assessments of land use change

Varun Rao Mallampalli, Georgia Mavrommati, Jonathan Thompson, Matthew Duveneck, Spencer Meyer, Arika Ligmann-Zielinska, Caroline Gottschalk Druschke, Kristen Hychka, **Melissa A. Kenney**, Kasper Kok, Mark E. Borsuk. 2016. Environmental Modelling and Software. doi: [10.1016/j.envsoft.2016.04.011](http://resolver.ebscohost.com/openurl?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&__char_set=utf8&rft_id=info:doi/10.1016/j.envsoft.2016.04.011&rfr_id=info:sid/libx%3Avirginiatech&rft.genre=article) [[html]](https://www.researchgate.net/publication/301696179_Methods_for_translating_narrative_scenarios_into_quantitative_assessments_of_land_use_change)

### Partition Dependence and Carryover Biases in Subjective Probability Assessment Surveys for Continuous Variables: Model-Based Estimation and Correction

Venkata R. Prava, Robert T. Clemen, Benjamin F. Hobbs, **Melissa A. Kenney**. 2015. Decision Analysis. doi:[10.1287/deca.2015.0323](http://resolver.ebscohost.com/openurl?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&__char_set=utf8&rft_id=info:doi/10.1287/deca.2015.0323&rfr_id=info:sid/libx%3Avirginiatech&rft.genre=article) [[html]](https://www.researchgate.net/publication/286489054_Partition_Dependence_and_Carryover_Biases_in_Subjective_Probability_Assessment_Surveys_for_Continuous_Variables_Model-Based_Estimation_and_Correction)

### Understandability of Indicators for Non-expert Audiences: Increasing their potential value for decision-making

**Kenney, M.A.**, M.D. Gerst, and J.F. Wolfinger (2016) Extended, reviewed conference abstract for edited volume for workshop on the Socioeconomic Benefits of Geospatial Information.

### From global change science to action with social sciences

Christopher P. Weaver, Siân Mooney, David Allen, Nancy Beller-Simms, Thomas E. Fish, Anne E. Grambsch, William Hohenstein, Kathy Jacobs, **Melissa A. Kenney**, Meredith A. Lane, Linda Langner, Elisabeth Larson, Dave L. McGinnis, Richard H. Moss, L. G. Nichols, Claudia Nierenberg, Emily A. Seyller, Paul C. Stern and Robert Winthrop. 2014. doi:[10.1038/nclimate2319](http://resolver.ebscohost.com/openurl?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&__char_set=utf8&rft_id=info:doi/10.1038/nclimate2319&rfr_id=info:sid/libx%3Avirginiatech&rft.genre=article) [[html]](https://www.researchgate.net/publication/275035247_From_global_change_science_to_action_with_social_sciences)

### Ch. 26: Decision Support: Connecting Science, Risk Perception, and Decisions. Climate Change Impacts in the United States: The Third National Climate Assessment

Richard Moss, P. L. Scarlett, **Melissa A. Kenney**, H. Kunreuther, R. Lempert, J. Manning, B. K. Williams, J. W. Boyd, Emily T. Cloyd, L. Kaatz, and L. Patton. 2014. J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program. 2014. doi:[10.7930/J0H12ZXG](http://resolver.ebscohost.com/openurl?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&__char_set=utf8&rft_id=info:doi/10.7930/J0H12ZXG&rfr_id=info:sid/libx%3Avirginiatech&rft.genre=article) [[pdf](https://data.globalchange.gov/report/nca3/chapter/decision-support)]

FROM Smith Mason, J., Retchless, D., & Klippel, A. (2017). Domains of uncertainty visualization research: a visual summary approach. *Cartography and Geographic Information Science*, *44*(4), 296–309. <https://doi.org/10.1080/15230406.2016.1154804>

In their seminal paper “Why a diagram is (sometimes) worth ten thousand words”, **Larkin and Simon (1987**) detail their observation on information processing in relation to diagrams and why diagrams are in many situations advantageous for human information processing over verbal descriptions.