

I. Workshop Process

Scenarios and Interpretive Science Coordinating Group

The U.S. Global Change Research Program's (USGCRP) mission is "to build a knowledge base that informs human responses to climate and global change through coordinated and integrated federal programs of research, education, communication, and decision support" (USGCRP, 2014a). Within USGCRP, the goal of the Scenarios and Interpretive Science Coordinating Group (SISCG) is to build a foundation for a science-based scenario enterprise that responds to shared-agency needs for quantitative and qualitative scenarios-related products. In particular, the SISCG aims to:

- Advance collaborative science on critical gaps.
- Enhance methodologies for use-inspired scenario development, risk framing, and contextual interpretation.
- Develop the next generation scenario work products for model inter-comparisons, assessments, and analyses, including coordinated uses such as for the National Climate Assessment (NCA), Intergovernmental Panel on Climate Change (IPCC), and the Coupled Model Inter-comparison Project (CMIP).
- Improve interagency communications, coordination, and accessibility to knowledge, work products, and technical resources (USGCRP, 2014b).

As part of its ongoing efforts, the SISCG is conducting a series of workshops to elicit expert opinion on the state of the science and for further defining long-term needs for the science. In the near term, one of the SISCG's top priorities is to better understand the human dimensions of climate and global change scenarios. To this end, the SISCG organized workshops focusing on land use and land cover change, U.S. demographic change, and is in the process of organizing an additional workshop on regional economics.

Background on the U.S. Demographic Change Workshop

The SISCG convened the *Towards Scenarios of U.S. Demographic Change Workshop* in Rockville, Maryland on June 23 and 24, 2014. The workshop was coordinated and supported by member agencies, including U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA), National Aeronautics and Space Administration (NASA), National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Defense (DOD), U.S. Department of Agriculture Forest Service (USFS), and U.S. Geological Survey (USGS).

Acknowledging the need for a coordinated, multi-disciplinary effort across the fields of climate change and demographics, the SISCG planned the workshop in consultation with researchers and decision makers from these fields. The goal of this workshop was to assess key factors in the

production of long-term population and demographics scenarios for use in interdisciplinary social and environmental applications—with a strong focus on climate change.

The objectives for the Towards Scenarios of U.S. Demographic Change Workshop included:

- Expanding the participants’ knowledge of key user needs for population scenarios;
- Exploring new and existing methodologies and data for population characteristics and geographic scales (including the data limitations); and
- Examining the pros and cons of linking U.S. scenarios to global scenarios (USGCRP, 2014c).

To accomplish these objectives, the workshop brought together 52 experts with backgrounds in climate change scenarios, environmental change, demographics, and human health. These experts from state and federal agencies, non-governmental organizations (NGOs), and research institutions, gathered to discuss the current state of the science and clarify both short-term and long-term goals. (Appendix C: List of Participants contains the full list of workshop participants.) In addition to the workshop events on June 23 and 24, 2014, background information was distributed to workshop participants in advance of the workshop, and two webinars conducted prior to the workshop provided information on U.S. socioeconomic scenarios and land change modeling.¹ This information was available to all workshop participants, and is reflected in this synthesis report.

In the workshop, participants sought to identify:

- **End Uses.** Characterizing end uses for population/migration scenarios, and narrowing the set to high-priority end uses that could inform both discussions at the workshop and post-workshop activities.
- **Drivers.** Identifying key natural, physical, socioeconomic, and policy variables affecting population/migration change.
- **Capacity.** Inventorying existing data, modeling, and methodological capabilities that can be leveraged and serve as foundational resources.
- **Gaps.** Identifying key gaps in data, modeling, and analytical capacity related to population/migration to inform future research needs.
- **Observational Intersects.** Exploring the unique contributions and intersections of both observationally-based and modeling-based methods for evaluating population/migration and projecting future change.
- **Opportunities for Scenario Building.** Constructing preliminary population/migration scenarios to gain insights into framing, contextual variations, methodological approaches, and paths forward for developing U.S. population/demographics-focused scenarios.

¹ Background papers and recordings of the webinars held in advance of the workshop are available on USGCRP’s website for the workshop: <http://www.globalchange.gov/scenarios-workshop>.