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**Federal Agency Socioeconomic Monitoring Programs  
Dialogue Session  
Sponsored by the NPS Social Science Program  
February 19, 2009  
Notes**

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The purpose of this session was to engage federal agency staff who conduct socioeconomic monitoring in a dialogue on the current state of and plans for our programs. The NPS sponsored this session because it is in the process of developing its program and would like to learn from the experience of its partners. NPS staff hoped that this dialogue would be helpful to all partners as they continue to manage and refine their socioeconomic monitoring programs.

The topics covered were:

- ❖ Plans for the NPS Socioeconomic Monitoring Program,
- ❖ Scope of each agency's socioeconomic monitoring activities and selected projects,
- ❖ Value of socioeconomic monitoring to federal agencies,
- ❖ Types of information to monitor,
- ❖ How data is collected,
- ❖ How data is analyzed,
- ❖ Ways to partner on socioeconomic monitoring, and
- ❖ Lessons learned in developing, structuring and managing a socioeconomic monitoring program.

Participants in the dialogue session were:

Department of the Interior

- ❖ Bureau of Land Management
  - Hal Hallett, Recreation & Visitor Services
  - Dan Lechefsky, Planning & Environmental Analysis (am)
- ❖ Fish & Wildlife Service
  - Kevin Kilcullen (part of am by phone)

Other Departments

- ❖ Agriculture
  - Don English, Forest Service, Visitor Monitoring Program
  - Ashley Goldhor-Wilcock, Human Dimensions
  - Pat Reed, Forest Service – Alaska
  - Richard Reeder, Economic Research Service (pm)
- ❖ Commerce
  - Susan Abbott-Jamieson, NOAA, National Marine Fisheries Service
  - Mark Brown, Office of Travel and

- ❖ National Park Service
  - Diane Breeding, Social Science Program
  - John Dennis, Natural Resource Stewardship & Science (part of am)
  - Tom Fish, Cooperative Ecosystems Studies Unit
  - Jim Gramann, Social Science Program
- Tourism Industries
  - Theresa Goedeke, NOAA, National Ocean Service, National Centers for Coastal Ocean Service
- ❖ Defense, US Army Corps of Engineers
  - Wen-Huei Chang, Recreation Research

Following are notes of the focus group. Overall, they follow the flow of the discussion. In some cases, the input a participant provided in response to one question grouped more naturally with the input provided in some other part of the discussion. In these cases, it has been moved to the appropriate section.

It was assumed that all participants were speaking as individuals and not representing the official views of their agencies.

### **Plans for NPS Socioeconomic Monitoring Program**

Jim Gramann presented an overview of plans for the development of the NPS Socioeconomic Monitoring Program. Feedback and discussion was:

- ❖ Monitoring trends is different from predictive modeling, but your mission is only about trends.
  - Monitoring is ex post.
  - Predictive modeling is about anticipation.
  - Maybe you could say in your mission that we want to look at trends so we can predict.
- ❖ Being driven from the bottom up seems different from establishing a national program.
  - In the USFS and BLM, the field says that what they get back doesn't seem worth the amount of effort they put in, because they do all the work.
- ❖ The term "usable knowledge" is not strong enough. You're really talking about "actionable knowledge."
- ❖ Federal government agencies should be collaborating. The US Corps of Engineers uses fundamentally the same Money Generation Model, so there's a standardized measure between the Corps and the NPS.

## **Scope of each agency's socioeconomic monitoring activities and selected projects**

Each participant spoke about the purpose and scope of their socioeconomic monitoring activities.

### **Bureau of Land Management**

- ❖ The original interest in socioeconomic monitoring came out of work to comply with NEPA.
- ❖ There is not much research, though there is growing interest in answering research questions.
- ❖ In the agency's PART review, it did not do well on inventory and monitoring in general. The agency does a lot of it, but is not pulling it together and making good use of it. Staff are now trying to systematize its I&M work.
- ❖ The BLM doesn't do much socioeconomic monitoring outside of recreation, though there is some focused work in limited areas.
- ❖ Agency staff are surveying the field in land management now to lead to a set of best management practices focused on energy and mineral development.
- ❖ The socioeconomic monitoring work tends to be energy-development driven.
- ❖ Staff works with the US Forest Service staff to fund development of the Economic Profile System (EPS), a data retrieval and report generation system that provides for easy and free access to economic and demographic data for every county and community in the United States. The EPS project was developed originally by the Sonoran Institute and is now managed by Headwaters Economics. The BLM has supported EPS for over a decade to support collaboration with local governments and the public on community development strategies and BLM's planning goals. EPS is also a powerful tool for preparing socio-economic analyses for plans and projects. New developments include detailed reports on environmental justice, timber, energy and minerals, agriculture, and tourism. In addition to use by the BLM, the Forest Service and other federal agencies, EPS has been downloaded by some 12,000 individuals and organizations. The application and its reports are available without charge from [www.headwaterseconomics.org/eps](http://www.headwaterseconomics.org/eps).
- ❖ The focus is on the recreation visitor. The interest is in sustainability, showing how recreation tourism can be the stable part of an economy.
- ❖ Constraints are:
  - Capacity
  - OMB clearance
  - Funding, especially in the face of having a research mandate and being told that that's the role of the USGS, even though they don't do much social science work.
- ❖ NLCS – National Landscape Conservation System

### **Agriculture – US Forest Service**

### Human Dimensions

- ❖ Staff is working on the Economic Profile System, described above, with BLM.
- ❖ Forest Service Issues in the News (Handout available)
  - This is a website for monitoring public discussion about policy and planning issues.
  - It gets at attitudes, values and beliefs without surveys. The research shows that it's accurate.
  - Other agencies interested in setting up a similar monitoring system can work with David Fan.
- ❖ Values Compatibility Analysis (Handout available)
  - This is an internet-based participatory mapping approach to measuring forest landscape values for forest planning.
  - It involves a web-based survey with maps to do GIS overlay.
  - It is used internally and collaboratively.
  - It helps see what values exist and where they are in conflict.
  - The surveying involves working from a list of people who have expressed interest in planning.

### Visitor Monitoring

- ❖ Staff has been working on getting more realistic figures for visitation based on more systematic monitoring in a sample of forests.
  - The original goal was to get a visitation estimate first, but managers want information on characteristics, trends and what to anticipate. So, the staff is using one survey to get at both, which leads to tension.
  - The program deals mostly with recreation use.
  - The data is used by Civil Rights, Law Enforcement, engineers, the Budget Office and others.
  - The main concern is that the program currently does not provide information at the sub-forest level (i.e. the level of a project or campground). That would be actionable.
- ❖ They are working to link with the Human Dimensions Office to get at predictive demand models.
- ❖ The program is not yet able to identify trends. They visit forests every five years and have only done this two times. They are looking at intermediate steps and adjusting their sampling approach. They are using traffic counters.

### Economic Research Service

- ❖ The focus is on environmental and socioeconomic conditions affecting rural Americans.
- ❖ They primarily use secondary sources.
- ❖ Research on the impacts of recreation development in rural America
  - They looked at 20 to 30 economic and social indicators.
  - They looked at how much socioeconomic variables are explained by changes in the extent of recreation development and found that most variables were statistically significant.

- They have also looked at adjacent counties and found that the results are more mixed.
- They've looked at different types of recreation areas.

### Commerce

- ❖ One of their main projects is the Survey of International Air Travelers.
  - It is conducted by airlines as people leave the US.
  - The questions get at travelers' characteristics and behavior.
  - There are also questions specific to the airline administering the survey.
  - There is an issue of managing expectations about appropriate use of the tool
- ❖ Staff does not foresee doing domestic consumer surveys, but are interested in how to look at national data differently. For example, a Federal Reserve survey of consumer finance could provide useful information on income, credit card debt and retirees
- ❖ The office participates in a Tourism Policy Council made up of representatives of federal agencies with anything to do with travel.
- ❖ A challenge is getting the word out with a consistent message and dealing with the industry.
- ❖ They purchase data on Canadian travel from Statistics Canada.

### US Corps of Engineers

- ❖ They use traffic counters to track visitation monthly. They therefore can identify trends in the traffic counts, but not trends in visitation.
- ❖ The last comprehensive survey they conducted was 15 years ago. They are redoing it now.
- ❖ The staff uses Google Earth technology and NRS data to show destinations and origins of campers. The NRS data is a gold mine of information on visitor trends, numbers and characteristics. (Handouts available)

### NOAA

#### Marine Fisheries

- ❖ Sociocultural and Economic Data Collection Program (Handout available)
  - Through this program, staff collect and assemble sociocultural and economic data at the community, state and regional levels and conduct various analyses
  - Primary data on fisheries are collected and reported annually.
  - They do a statistical survey of marine recreational fisheries with some human dimensions questions.
  - They collect a range of economic data and can identify some trends.
  - They collect various types of sociocultural data.
  - They have a customer satisfaction survey that includes a household survey and an on-site customer comment card and survey.
  - They do an economic impact analysis that is updated every other year. OMB will not accept this as justification for the program's existence.

- They do trend analysis using secondary data and publish it in “Fishing Communities of the United States 2006.” (Handout available) They map supply with potential demand, looking at US Census data, and then push the data back to their web site.
- There is also an oral history project funded through Preserve America, and they do high school outreach and education as part of the project.
- ❖ They have done work on a conceptual Model for Fisheries Social Impact Assessment.

### National Ocean Service (NOS)

- ❖ Within NOS, the National Centers for Coastal Ocean Science (NCCOS) is at the ground level of trying to put together a social science program. NCCOS is primarily a service delivery program for resource managers and stakeholder communities and looks to address their priorities.
- ❖ NCCOS is interested in following up with users to assess the impact of products, primarily tools.
- ❖ NCCOS does monitor natural science indicators, especially toxins, and there is an opportunity to connect behavioral indicators as well.
- ❖ Within NOS, the National Estuarine Research Reserves (NERRs), on a site-by-site basis, often do user and visitation surveys and use census data to assess population around reserves.
- ❖ NERRs look at socio-demographic shifts around sites and interpret the possible implications.

### NOEP – National Ocean Economics Program

- ❖ This program also looks at the economic contribution in ocean settings using secondary data.
- ❖ They support the National Survey on Recreation and the Environment.
- ❖ They make tools to look at populations at risk from coastal degradation and hurricanes and help decision makers in those areas.

### Cooperative Ecosystems Studies Unit Network

- ❖ The network supports some social science research, but there’s room to do more.

### **Value of socioeconomic monitoring to federal agencies**

Participants identified the following value that socioeconomic monitoring brings to accomplishing the missions of federal agencies.

- ❖ Really addressing the quality of life (vs. economic impacts?)
  - The economic impact of decisions made on public lands is really small compared to other things.
  - And we’re ten years behind in our thinking.
  - I propose that job and income benefits are less important than the non-use benefits in terms of quality of life.

- The creation of an office in USDA on Ecosystem Services and Markets supports this idea. Its mission is to quantify the benefits to people of ecosystem services (health, amenities, recreation). Very little of its work deals with economic benefits.
- I think it depends on who you're talking about. Economic benefit is more important to local economies, though maybe not to the nation as a whole.
- I'm finding it hard to make the case that decisions made on the land really make a difference.
- We need to be tracking indicators of quality of life.
- And environmental amenity values
- Amenity values aren't driving people who are out of work. We need to make our case regarding quality of life.
- Quality of life can be defined in many ways.
- ❖ Socioeconomic monitoring enables us to have this kind of discussion. Without it, we have no idea what the impacts are, what the amenity values are. It provides information you're not going to get any other way.
- ❖ Contingent valuation can be done – what's the value of things that are not traded in the marketplace?
  - We need to figure out some revealed preference monitoring to show that revealed and stated preferences are saying the same thing.
  - That's why you need anthropology – to figure out these things.
- ❖ Socioeconomic monitoring gives us greater credibility than made-up numbers with partners, Congress and others.
- ❖ It helps us identify trade-off values.
- ❖ Do we even ask why we need to do natural resource monitoring? It's assumed that we need to do it.
  - There are laws about species.
  - Humans are part of the ecosystem.
  - We are asked how often we get sued on human issues.
  - NOAA did – that's why I and my program are here.
  - There are a couple Forest Service lawsuits as well.
  - But in general lawsuits on human issues happen rarely, unless it's in relation to a taking.
  - If an agency does a good job of getting public input, you have a better chance of knowing ahead of time whether you're headed for a lawsuit. It's a preventive action.
- ❖ Socioeconomic monitoring has value in terms of social equity.
  - The Appropriations Committee told the NPS that it needed to improve its capacity to provide opportunities to all visitors.
  - Monitoring can tell us how close we're getting to that goal.
- ❖ With socioeconomic monitoring, we can measure the extent to which the population sees us as relevant.
- ❖ We can monitor changes in the culture.
- ❖ It helps shape our management policies.

- The Corps of Engineers is one of the most sued agencies in terms of how we manage water.
- Socioeconomic monitoring helps make the case for how we manage the water level, by knowing how many people depend on the water for recreation and jobs.
- ❖ Socioeconomic monitoring also helps with deciding what investments we make in recreation infrastructure.
- ❖ To what extent does this knowledge drive human resource decisions?
  - It brought a lot of attorneys to NOAA.
  - It drives operational decisions of the agency.
- ❖ It helps drive marketing decisions.
- ❖ We're managing for people. If we don't monitor their changing viewpoints, we don't know about their changing attitudes or how well we're meeting their needs.

### **Types of information to monitor**

#### Information agencies already monitor

- ❖ Number of visits
- ❖ Profile of visitor characteristics (to a lesser degree)
- ❖ Spending and economic impacts
  - We get criticized in the NPS because that's all we monitor. We don't talk about the wider array of economic values.
- ❖ Fees
- ❖ What visitors do and where they go (to some extent)
- ❖ Customer satisfaction
- ❖ Commercial uses (Forest Service, BLM and others)
- ❖ Workforce demographics
- ❖ Attitudes, perceptions and beliefs about work done on the land
  - This is not done systematically.
  - It's usually done for a specific site for a specific purpose.
  - It's often done to inform planning.
- ❖ Economic values of parks (done by the Corps of Engineers for OMB)

#### Additional needs

- ❖ Non-economic values in communities
  - NOAA is supposed to be monitoring cultural and social importance of fishing in communities. By legislation, this is supposed to be more than the economic importance.
  - For BLM, a lot of decisions are driven by trying to preserve traditional lifestyles, but we don't currently monitor for that.
- ❖ Of all the people who say they went to a national park, how does that convert to international visitors?
- ❖ Attitudes, perceptions and beliefs more generally regarding:
  - Nature
  - Uses of the environment



- Management processes
- This should be stated as “values, beliefs and attitudes” in hierarchical order.
- We could monitor the trust people have in an agency.
- There are some projects that have been done in some agencies related to trust.
- ❖ Characteristics of adjacent landowners
  - The Forest Service is interested in this, but doesn't know how to monitor it.
  - They'd like to monitor how many adjacent landowners there are, the size of parcels, etc.
  - This is a big issue in some cases.
- ❖ Outcomes and benefit-based management
  - For the BLM, it would be useful to know the desired outcomes of recreation use.
  - For us, it would be of any use.
- ❖ Evaluation of impact of programs
  - In NOAA, I'd like to know the impact of our educational programs over time.
  - Most agencies want to do evaluation of the impacts of what they do.
- ❖ We can distinguish what happens on the land from what's around the land. Do we want to focus on one or the other?
- ❖ Environmental amenity values -- If you have a coal-fired plant next to a park, what does that do to clean air? To the scenery?
- ❖ What about risk management?
  - NOAA is doing assessment of community vulnerability to natural disasters.
  - If I cut your funding by \$100 million, what risk will people have?
  - If we invest \$X in this program, what will be the outcome in terms of risk?
  - If you have fluctuation in type of use or new populations of users, what will be the risk?
  - This is a serious issue.

## **Data collection**

### **Primary data collection methods used in agencies**

- ❖ Surveys
- ❖ Interviews
- ❖ Observations
  - One agency does survey of license plates.
  - Some observations are done systematically at NOAA.
  - BLM used to use recall, which is not systematic.
- ❖ Traffic counters
- ❖ Remote sensing
  - This is used to monitor land use change and to assess camping dispersion in wilderness.
  - It's also used for vote counts.
  - And for estimating attendance at events on the National Mall.
- ❖ Geo-spatially derived trip records are used by NOAA

- ❖ Simulation modelers are done by cooperators
- ❖ Trail counters
- ❖ Building use counters
- ❖ Data agencies collect through routine business (which is all pretty accurate), including:
  - Fee data
  - Reservations, including the National Recreation Reservation Service
  - Reports from concessionaires
  - Permits
  - Law enforcement data
- ❖ Customer comment cards
- ❖ Visitor counts
- ❖ Pass data
  - They're expensive.
  - We have a mandate or incentive to collect this data.
  - A lot of it is underutilized.
  - These people choose to have contact with a government official.
- ❖ Face-to-face visitor contact
- ❖ Trail registers
- ❖ Guest books in visitor centers

#### Secondary data sources used or available

We use now:

- ❖ The Forest Service media tool is a secondary data source.
- ❖ Census
- ❖ BEA
- ❖ Regional Economic Information Service
- ❖ County data
- ❖ Bureau of Labor Statistics
- ❖ Woods & Poole
- ❖ Travel Industry Association data (Isn't used much because it's expensive to buy.)
- ❖ Outdoor Industry Association
- ❖ National Survey of Recreation and the Environment
- ❖ Boat registration data
- ❖ Hunting and fishing licenses
- ❖ Fish & Wildlife Service fishing and hunting survey
- ❖ Forest Service Economic Research Service
  - Most of the data the ERS makes available is from other organizations at this table.
- ❖ Real estate data at the local level

Other sources available are:

- ❖ Credit card data

- VisaVue is available now from Visa. They've realized they have a gold mine of information. They currently make information available for international visitors on numbers of transactions, numbers of unique cards, and spending in 128 commodity categories.
- The Bureau of Economic Analysis is looking at credit card information. They are interested only in income accounts.
- Credit card data for socioeconomic monitoring is still in its infancy, but is developing fast.
- ❖ Prism data from things like Safeway cards can be purchased now.
- ❖ Could we use Coast Guard boat registration information?
- ❖ BLS Consumer Expenditure Survey
- ❖ General Social Survey, University of Chicago
- ❖ Integrated Public Use Microdata Series -- free database of population statistics

## **Data analysis**

### **How primary data gets aggregated and analyzed**

- ❖ At NOAA Marine Fisheries, data is processed both in the National Marine Fisheries Service and in Sustainable Fisheries. Regional offices have data management units.
  - The work is done both by contractors and in-house.
  - There is an effort to develop a massive Fisheries Information Service.
  - Some offices keep historic data and some don't.
- ❖ BLM contracts it out.
- ❖ In the Corps of Engineers, the field manager is responsible for getting reports into the management system every month, including traffic counts and load factors.
  - They get monthly business reports from the contractor who runs the NRRS.
  - The data submitted by field managers is aggregated into the database by one person in Vicksburg, with a three to four-month lag.
- ❖ The Commerce Office of Travel and Tourism Industries contracts out collection and staff does the analysis. In the past, they had to ask the contractor for reports. Now, the office will have all the data.
- ❖ Forest Service Visitor Monitoring
  - Staff does it primarily.
  - They do some contracting and use some grad students.
- ❖ Forest Service Human Dimensions
  - They contract it out.
  - There are Regional Social Scientists and Economists, who do some of it as needed.
- ❖ Forest Service ERS does developmental or basic research. They develop the tools to hand off to Regional Social Scientists.
- ❖ In the NPS, analysis done by the staff and cooperator.
- ❖ At NOAA NOS, some analysis is done through contractors.

### How secondary data gets aggregated and analyzed

- ❖ In pretty much the same way as primary data for most agencies
- ❖ In Commerce, secondary data is not systematically analyzed. We do it when we get to it.
- ❖ The Forest Service, NOAA, Corps of Engineers and NPS subscribe to IMPLAN.

### Whether and how they use models to understand and predict changes

- ❖ In NOAA, economists use them and the socioeconomic model described above is being tested.
- ❖ The Corps of Engineers uses a model like the NPS Money Generation Model to predict economic impact.
- ❖ Commerce purchases forecasts of international arrivals by country ahead five years from a vendor. This is exchange rate and GDP-driven.
- ❖ The Forest Service Visitor Monitoring Program does recreation demand projection driven by population changes and is working on visitation projection driven by population change.
- ❖ A potential tool is the US Travel Association National Attractions Barometer launched last year and currently covering 150 sites.

### **Partnering on socioeconomic monitoring**

#### Ways federal agencies might partner on socioeconomic monitoring

- ❖ Collaborating, common language and interchangeable data among agencies would be good.
- ❖ We could work together on a version of the “Forest Service Issues in the News” website to track public opinion about stimulus package work. If all of us got together, we could have the system track suites of issue areas.
- ❖ We should be thinking across all these agencies about contingent valuation. Together, we can explore the value of things that are not traded in the marketplace.
- ❖ We could work on the OMB process.
- ❖ We could look at how we can collect similar and standardized data. Fees is an example.
- ❖ We could include each other in projects like the Values Mapping project.
- ❖ We could meet quarterly to coordinate, compare data and benefit from each other’s work.
  - We could have different people at the table, depending on the issue.
  - We could have a core group.
  - We could have a couple people present on what they’re doing.

#### Agencies / offices that might be involved, other than those in this meeting

- ❖ USGS
- ❖ Parks Canada
- ❖ MMS
- ❖ BOR

- ❖ Fish
- ❖ CSREES (Fen Hunt)
- ❖ FHWA
- ❖ EPA
- ❖ Weather Service
- ❖ Census
- ❖ USDA Ecosystem Services Office
- ❖ HHS – CDC
- ❖ NRCS
- ❖ OMB?
- ❖ FEMA?

### **Closing remarks**

- ❖ I had no idea that a lot of this was going on.
- ❖ It's very interesting to hear about different projects and tools.
- ❖ I've been interested to hear what others are working on.
- ❖ As a new person to my job, it's great to hear perspectives and have others here as resources.
- ❖ I'm intrigued that the issues we struggle with are common. I'm interested in some of the specific projects that other agencies are doing.
- ❖ It's helpful to see the depth of the programs in the US.
- ❖ It's been good to exchange knowledge and issues. What frustrates me is my agency being left out of things like the America the Beautiful Pass.
- ❖ The set of folks who do this kind of work is relatively small. We cover a lot of territory. I learned a number of things, got some ideas and got some new contacts for things to benefit my program.
- ❖ I see a lot of possibilities for collaboration.
- ❖ I would love to do this on a quarterly basis to help me be effective and efficient.
- ❖ I've been impressed by the diversity of activities.