

## **The State of Our Federal Statistical Union**

### **APDU Version (September 11, 2016)**

As always, it's great to be with you at APDU. Preparing for today, I went to a file folder in a drawer at home (no, not an electronic folder in my laptop ...) – and discovered the “talk” I gave to this group in 1983 (which apparently was my second performance) –

Over the years since then, when I have visited with you I have often discussed “Challenges Confronting the Statistical System.” While some of the “top ten” have dropped from that list (devolution of government programs, deregulation), others have taken their spots (desires for greater access to data, and for more detailed data), and several -- such as limited fiscal resources, declining response rates, desires for international comparability, and obtaining and retaining critical human capital -- seem to be forever with us. Nonetheless, I believe that the State of Our Statistical System, is quite strong—due in

large measure to the patient and persistent contributions of those in this room.

I hardly need to mention to this assembly that our democracy and economy demand that public and private leaders have unbiased, relevant, accurate, and timely information on which to base their decisions. Taken together, official statistics on demographic, economic, and social conditions and trends are essential to inform decisions that are made by virtually every organization and household. If anything we are at the center of growing attention to “Evidence-Based Policymaking” – Statistics are at the heart of Evidence – in a sense we are the “old wine in new bottles.”

Looking ahead, however, I do not think we can count on “business as usual.” We are entering interesting times that have led my colleagues and me to re-think old challenges of providing this pivotal information in light of new pressures.

To put the bottom line right up front, ***it seems that we are entering a “perfect storm” that gives us the opportunity to reinvent, to some degree, what the Federal statistical system does and how it does it.*** Of course, we are, and always will be, in the information business. The guiding principles are timeless and can still serve us well. But how can we leverage what is going on around us to meet information needs in new and perhaps better ways despite a host of challenges? I am reminded of the title of almost every GAO study about us: “Much Progress, but Challenges Remain.” Playing on those words, I suggest “Challenges Continue, but Opportunities Abound.”

Today, I want to talk about the context in which we find ourselves, and the importance of harnessing, rather than resisting, our changing context.

### **A “perfect storm” for Federal statistics.**

While it may sound like a cliché, I believe we have entered a perfect storm for Federal Statistics. What do I mean?

- First, as any casual reader of the newspaper will tell you, the Federal budget process continues to be fraught with uncertainties. But one thing seems certain: the funding constraints affecting many statistical agencies over the past several years are likely just the beginning of what we should expect for the next few years.
  - At the same time, with respondent cooperation at an all-time low, it costs more and more just to maintain historic respondent cooperation in household and establishment surveys.
- Second, with talk of hiring and pay freezes and buyouts becoming common parlance around Washington, and government employment perhaps not at its most respected status, it's harder than ever to hire and retain staff to help us innovatively adapt our infrastructure and squeeze every last drop of usefulness out of the resources devoted to our statistical programs.

- Third, the ever increasing desires for access to our data and more flexibility in how and where the data can be accessed, must be balanced with increasing public concerns about confidentiality and privacy. Witness the strongly supported establishment of the Commission on Evidence-Based Policymaking; but witness as well that it's second meeting, held just last Friday, was devoted in full to issues of privacy and confidentiality inherent in considering the call for a central clearinghouse for data to be used in building evidence. Personally, I find it somewhat perplexing that the public continues to display rather contradictory behavior by putting personal information on Facebook but worrying about private sector data breaches and the intrusiveness of government.
- Fourth, our citizens encounter statistics at every turn in their daily lives. Yet our recent surveys suggest that many are distrustful of the system and unequipped with the statistical literacy required to evaluate the information presented to them.

- Finally, enabled largely by the presence of our arguably staid official statistics as benchmarks, entrepreneurs are releasing statistics that *look* “just as good” but are available much faster and with more easily accessible means of presentation. While they couldn’t do it without us, not everybody knows that!

### **Should we worry?**

Without money or staff even to maintain our current programs, and with a growing cadre of outsiders suggesting to the public that they are mimicking our work for less money, more quickly and in a flashier way, do we just fold up our tents and go home?

Some providers of official statistics may be tempted to resist these pressures, owing to concerns for data quality, confidentiality, and perhaps even fear of competition. My conclusion is that this reaction isn’t an option if we are to meet our mandate and respond to the needs of our broadened user base.

Rather than focusing our energies on trying to point out the fragility of their methodology and the flaws of these pseudo-official statistics, maybe we need to tap into increasing demands for more detailed and timely data in flexible, accessible formats. We need to think differently about the data and our role. Indeed, our entrepreneurial colleagues are the first to tell us that they need us to play a role in order to enable them to do what they do. We need to listen and learn more—and think openly and creatively about how we might collaborate rather than withdraw.

### **Opportunities in every challenge.**

Each challenge I have noted masks an opportunity. And challenging times create a favorable climate for bold new actions. So, really, it's an exciting time for the Federal statistical system!

By embracing these challenges, we can create the kinds of changes that allow us to remain relevant, playing a pivotal role

in meeting the Nation's information needs in concert with a larger set of government and non-government actors.

So what are the specific opportunities?

- An Administration **committed to evidence-based policy**, combined with openness and transparency. For example,
  - Program Evaluation Initiative – Improve performance evaluations within agencies and encourage better use of performance information.
  - Health Care Quality and Cost Effectiveness Initiative – Comparing the benefits and harms of different interventions and strategies to prevent, diagnose, treat and monitor health conditions in “real world” settings.
  - Scientific Integrity Initiative – Ensuring that there is transparency in the preparation, identification, and use of scientific and technological information in policymaking.

- And recently, the Sustainable Development Goals adopted by the United Nations and the attendant delineation and reporting of Indicators at the Global, National, and Sub-national levels.
  
- **Segments of the public want more than a statistic.**
  - In the same way that personal computers opened up a new world to the public, Apps and APIs (that's short for application program interface) are giving the general public the ability to "play with data." They want to use these data to help make personal decisions.
  - Entrepreneurs want the underlying data, in a form that is timely, transparent, and flexible for creating innovative solutions to everyday problems.
  - And constituents and stakeholders want to understand the data from their own perspective in order to inform their role in public policy.

- In recent years, the Executive Branch has developed a number of initiatives designed to meet these demands, including:
  - Open Government Initiative, which focuses on transparency of government operations, and has included access to the data regarding grants and contracts issued by the Executive Branch.
  - Data.gov, which focuses on increasing the public's ability to both find (discover) and analyze data that Executive Branch agencies have collected for a number of purposes.
  - Challenges.gov, in which the public is asked to help the government solve a technical or policy problem; many solutions begin with data made available through Federal agencies.
  - Big Data Research and Development Initiative: similar to Challenges.gov, but from a research perspective – designed to improve our ability to

extract knowledge and insights from large and complex collections of digital data.

- Smart disclosure, in which data are made available to the public in a way that allows them to make better decisions, for example, by comparison shopping (hospitals or colleges) or by having access to their own medical records.
  
- Note that none of these efforts were initiated within the Federal statistical system, and in fact, have at times given us pause as we've tried to **think through how they fit** into the existing Federal information structure.
  - Rather than fighting to “control” the message, we can take advantage of the insatiable appetite for information to extend our reach beyond researchers and policy wonks.

- We have always thought of our role as:
  - developing the most rigorous statistical and scientific methods available, for use in censuses and surveys, with well understood and documented data quality characteristics; and
  - designing data access for trained professionals who offer their interpretations (often) through a peer review process and who are often the translators via the media to a broader public.
- If, instead, data are thought of as a product from and for the general public to use to make personal, business, and public policy decisions, what would that mean for the Federal statistical system in practice?

### **Salience of timeless principles.**

I turn to some tried and true principles enshrined in places like the Paperwork Reduction Act, which introduces the concept of

ensuring that information is useful for its intended purpose and the Information Quality Act, which focuses on maximizing the quality, objectivity, utility, and integrity of information, including statistical information, provided to the public. Additionally, OMB's Statistical Directives and Standards and the National Research Council's *Principles and Practices for a Federal Statistical Agency* form the foundation of the commitment by the Principal Statistical Agencies to maintaining the highest level of scientific integrity in producing official statistics.

We would be here all day if I discussed each in detail. But I do want to emphasize that regardless of the financial, technological, and political pressures, the Federal Statistical System must never lose sight of its steadfast commitment to ensuring the relevance, practical utility, quality, and credibility of the information generated, as well as its widespread dissemination and maintenance of public trust.

We must take advantage of the opportunities that today's challenges bring, while remaining true to these core principles.

**Try new things:**

It is not our principles that need re-examination; it is the way in which we apply them. To me this means that we need to take a step back so that we are in a position to challenge long-held assumptions on how we do what we do. There are likely more configurations of methods, tools, and roles that allow us to streamline our operations while still being true to our underlying principles.

- Information quality cannot be determined in a vacuum. We may not actually need the most robust sampling design or the highest response rate to achieve a given goal – we need to challenge ourselves by asking when the gold standard is appropriate and when the balance of the trade-offs might actually be in favor of alternative methods. We need to ask “what is good enough for a given purpose.” For instance, pushing the boundaries of how we measure and adjust for nonresponse bias can help us make better trade-offs in our survey designs especially in ways that help us manage costs.

We need to be more open to leveraging administrative data in new ways – whether they are resident in a Federal statistical agency, housed in Federal or local program agencies, or collected by the private sector. If such data

can help us generate new and useful statistics, we need to think about how we might best use them.

- Again, we come back to assessing data quality in the context of “fitness for use,” as administrative data rarely meet the same standards for quality as one might design in a collection actually intended for analytic purposes rather than administering programs or benefits. But done thoughtfully, incorporating administrative data can be consistent with our principles, including relevance, without tarnishing our products. Pushing forward on how to measure the quality of administrative records is another important frontier.

Transparency—a very popular theme these days—is not new to us. In fact, at times, we may appear to some to be “over-transparent” as we document, for example, the uncertainty of our estimates. But transparency enhances

the credibility and trust of our data providers and users. We should make datasets more readily accessible to users, even knowing that many will use those data sets differently than we would – “mashing” them with sources that we’d never have considered due to our more narrow view of the world.

Rather than fearing that non-statisticians will use the data incorrectly, we should empower them by ensuring that we provide sufficient metadata so that they can educate themselves regarding the fitness of the data for their use. After all, there is much to be gained by getting many eyes on a dataset.

- Wide dissemination arguably means something much more than it did in years past, given the increasing demand and capacity. It doesn’t diminish our commitment to confidentiality or make the task of releasing detailed microdata any easier. In fact, now we are talking about not only our survey data, but these

administrative datasets--even those from the private sector potentially. But these data can “sit behind” some of the Apps and smart disclosure efforts to repackage data in new ways that have immediate relevance to consumers. For example, the **College Navigator** allows students and their parents to build personalized lists of post-secondary school options on 16 parameters across over 7,000 educational institutions Nationwide. The associated, “College Affordability and Transparency Center,” allows data users to browse lists of institutions by tuition, fees and net price. And a linked BLS data source, the online “Occupational Outlook Handbook,” provides job demand and expected earnings by career field and degree. The **Hospital Compare** tool analyzes data about the quality of care at more than 4,700 hospitals across the country. By simply typing in a zip code or city and State, the user can access a wealth of information, including data on 44 quality measures such as how well local hospitals handle conditions like heart

attacks and diabetes. These examples show the incredible demand for relevant, flexible data for decision-making. Relevance, practical utility, quality, wide dissemination, credibility, and public trust remain top data principles. Determining how we best implement these principles in light of this broadened user base is our opportunity and challenge.

- And finally, we must join them. We can embrace this **new class of stakeholders** – We can take advantage of the energy and enthusiasm of this information age to reinvent how we collect, analyze, store, and disseminate data and, in the process, reach a new, broader audience.
- If the members of the public become data consumers and active members of our user community, they also bring expertise to augment and enhance the talents of those in the Federal statistical system. By

broadening our base, the public may realize the value of our Federal statistical system that they may not have even known about before.

For our part, my office has called upon the Committee on National Statistics at the National Academies of Sciences, Engineering, and Medicine, to convene a series of expert meetings to generate ideas for OMB and the statistical agencies to consider as they navigate this changing environment, where the relevance of traditional statistics is sometimes questioned and policy makers are demanding faster, more flexible approaches to meet their information needs. We hope their ideas will enhance the relevance of Federal statistics; ensure that the Federal statistical system evolves to reflect changes in society and environment, providing the public and private sector with access to the information necessary to inform their decisions; and adapt information generation approaches to take advantage of technological innovations and cultural expectations. Some specific topics the expert group will consider include 1) thinking more broadly about data sources

and using available data in creative ways to provide new types of data products and insights into interpreting existing data; 2) considering ways for agencies to become more policy relevant without crossing the line into policy making; 3); examining the utility of a common platform or mechanism for collaborative and interactive multi-program, multi-agency research to spur innovation and explore alternative methods, approaches, and products 4) examining the possibility of a DARPA like approach to innovation in the production of official statistics; 5) examining the nature of the relationship between data science and official statistics; 6) considering how the federal statistical system can be more proactive in the face of challenges and act as a system; and 7) considering ways to enhance and broaden the skill sets of current and future agency employees to effectively deal with new technologies, data sources, types and volume of information.

Challenges Continue; But Opportunities Abound. Thank you.