

The value of official statistics in Philippine economic teaching and communication

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Abstract

This paper discusses the usefulness of official statistics among economics teachers and communicators in the Philippines. In other countries there is a burgeoning movement to adopt a more empirical approach to the teaching and public communication of economics. The Philippines has yet to catch up to this trend. Much of economics teaching today, in K-12 or even in college, are still too theoretical and not as empirical as they should be. A lot of teachers are also unaware and unable to make use of, much less understand, official data, to the detriment of their teaching. The same goes for much of economics communication in mass media. In general, Filipinos underappreciate official data, and we discuss ways by which this can be reversed.

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I. Introduction

This paper provides an overview of the usefulness of official economic statistics (a.k.a. administrative data) in the teaching and communication of economics in the Philippines.

A natural link exists between government statisticians (who collect, verify, and present economic statistics) and economists (who analyze the data and draw meaningful insights that could inform economic stakeholders and policymakers). The most obvious application is the use of official statistics in government policymaking, and this is reflected in the fact that the Philippine Statistical Act of 2013 assigned the Philippine Statistics Authority (PSA) to be attached to the National Economic and Development Authority (NEDA).

But another important use of official statistics is in the communication of economics, whether in academe, media, or other public settings. Among the most widely used official statistics are macroeconomic data as found in, say, the national income accounts, price statistics, and labor market statistics. Data collated by the Bangko Sentral ng Pilipinas, Department of Finance (DOF), Department of Budget and Management (DBM), are also immensely useful. Microeconomic data as found in, say, the Labor Force Survey (LFS) and Family

Income and Expenditure Survey (FIES) are also crucial, albeit less commonly used, in the understanding of current economic and public policy issues.

Although the delivery of official statistics has greatly improved over the years (especially with the maturity of online databases of, say, the PSA or BSP), a number of challenges prevent economic communicators from tapping into the vast array of official statistics. Among these would be inadequate opportunities for training among data users, non-user-friendly datasets, the absence or inaccessibility of historical archival data, and the difficulty of obtaining data due to the Data Privacy Act, and the Freedom of Information portal. On top of all this, there is also a creeping sense that evidence-based policy-making is under threat. The integrity of official statistics becomes paramount, not just for the benefit of economic communicators but also for data users at large and the policy process itself.

II. Most useful official statistics

First, we document the array of official statistics that are used most commonly and widely by teachers and communicators of economics. Different users, of course, will value official statistics differently; the listing below is based largely on the author's own experience as a teacher and communicator of economics.

A. Macroeconomic data

Among the most widely used official statistics in economics communication are macroeconomic ones. These include GDP and related data found in the PSA's National Income Accounts, inflation and consumer price index data, as well as a host of labor market statistics such as unemployment and underemployment.

Trade statistics from the PSA, NEDA, and BSP are also immensely useful, especially breakdowns of exports and imports by sector or country of origin. Establishment surveys (like the Annual Survey of Philippine Business and Industry or ASPBI) are also used but only by a handful of serious academic researchers.

Economists also rely a lot on BSP data, especially concerning historical interest rates, exchange rates, current account and balance-of-payment data, and foreign direct investments. DOF's tax revenue data, DBM's detailed breakdowns of the national budget, and the Bureau of the Treasury's public sector deficit/surplus data are also commonly accessed.

B. Microeconomic data

Economists, unknown to many, also make great use of the government's array of microeconomic data. Chief among these would be the unit record data of regular surveys such as the LFS (from which various labor market indicators are derived), the FIES (from which poverty statistics are drawn), and the APIS (conducted during non-FIES years). Data specific to certain markets, such as

weekly rice prices or volume of fisheries, are also of great use in the understanding of market forces.

III. Uses of official statistics

We now document the benefits of using official statistics in the teaching and communication of economics.

A. Teaching and instruction

Chief among the pedagogical benefits of using official economic statistics is that they bring to life economic concepts in the classroom. As such, there is a strong case to be made that official statistics should be incorporated as widely frequently as possible in economics classes.

A predominantly empirical approach to economic pedagogy (and economic research in general) took root fairly recently. Before, economics was the predominantly realm of theory and high mathematics, and few surveys datasets were available to validate the growing corpus of economic theories.

Hamermesh [2013] demonstrated that the nature of economic research has substantially evolved in the middle to late 20th century. Back in 1963, about half of all economic journal articles in the top journals were theoretical, while 39% were empirical using secondary data, often official sources. The share of theoretical papers continued to rise for the next two decades but rapidly dropped thereafter. By 2011 only 19% of papers were considered purely theoretical, while 64% or almost two-thirds were empirical. Importantly, economic papers were not just becoming more empirical, but more are using primary rather than secondary or borrowed data. The share of experimental studies has also risen more than tenfold from 1983 to 2011.

Angrist et al. [2017], using machine learning techniques, showed that the spread of empirical economic research in economics has been seen in a wide variety of fields such as microeconomics, macroeconomics, publish finance, international economics, labor economics, financial economics, industrial organization, development economics, etc.

The vast availability of economic statistics these days, especially from official sources, puts pressure on economic educators to teach concepts alongside real-world data. Not doing so is becoming increasingly untenable, especially since most official economic statistics are free to download online.

In the US, there is now a radical rethinking of how basic economics should be taught at the university level. A number of textbooks, like the one by Acemoglu et al. [2015] and the groundbreaking CORE textbook¹, are putting to the fore an empirical approach to economic pedagogy. The economist Raj Chetty is also leading Harvard's own revamping of its basic economics course, Ec 10.²

¹ <https://www.core-econ.org/about/>

² <https://www.vox.com/the-highlight/2019/5/14/18520783/harvard-economics-chetty>

In an interview, he said: “I felt increasingly what we’re doing in our offices and our research is just totally detached from what we’re teaching in the intro classes... I think for many students, it’s like, ‘Why do I want to learn about this? What’s the point?’”

In the Philippines, still not many economics teachers nationwide are able to make use of official statistics in their classes. There’s no supporting data for this yet, but anecdotal evidence abounds. Teachers are interested and willing to use more data to supplement their classes, but most simply do not have enough time to process data themselves in ways that will be meaningful to their students. The task of downloading data, cleaning them up, and generating visualizations is daunting for a great many instructors.

Class instruction suffers as a consequence. Students are forced to stick to what textbooks say, many of which are written by foreign authors speaking to a very different audience. Failure to use Philippine macroeconomic statistics, for example, leaves students wondering about the actual use of concepts like GDP, inflation, or unemployment in the Philippine setting. They are also unable to enrich their classroom discussions by, say, looking at the time series trends for many of these indicators—an exercise that could help them, say, in correlating economic and historical events.

Another important application of official statistics is the teaching of economic history. At the UP School of Economics, for example, the new course called Economics 118 (The Philippine Economy in the 1970s and 1980s) makes use of plentiful time series graphs—many based on official data—to explain the economic events during martial law. Students have intimated that exposure to official statistics greatly enrich their understanding and appreciation of concepts they learn in major courses like intermediate macro- and microeconomics. A common limitation, of course, is that many official data are complete only as far back as, say, the 1960s or 1980s. Prior to that, data have to be triangulated from a host of historical studies or data publications.

B. Journalism and mass communication

Official economic data are also essential to many a journalist, broadcaster, popularizer of economics—or basically to anyone in the business of mass communication.

On a daily basis, people hunger for economic insights. Every one of us participates in the economy in one way or another. Such insights could be in the form of, say, which stocks to buy or sell from the market, when to fill up one’s car’s gas tank, or whether to look for a job abroad. However, economic insights are typically hard to distill from the existing corpus of data, whether from official sources or otherwise. If teachers already find such a task difficult, for many lay persons it could be downright prohibitive.

Here journalists, broadcasters, and popularizers of economics play a crucial role. Reports about the movement of the peso-dollar exchange rate, oil prices, and prices of basic commodities like rice and fish are staple in news programs on TV, radio, print, or online. Here journalists rely on official statistics

for the most part, more than alternative data sources from the private sector (e.g., supermarket or consumer groups for price data). Reports on trade, the government's finances, and social indicators such as poverty or demographics also exclusively rely on official data. For this reason reporters have a keen eye on the schedule of data releases from agencies like the PSA, and devote resources for the coverage of press briefings on latest data.

Economic reportage is not always accurate, of course. There tends to be a bias for stories that are expected to be consumed by majority of viewers (e.g., the masses for TV and radio), such as stories on inflation and jobs. Economic journalists are also wont to obsess over day-to-day or month-to-month movements of statistics, overshadowing more long-term trends that may be much more insightful and meaningful.

Economic journalism in the Philippines has generally improved over the past few decades, especially with the near-ubiquity of internet access. Dissemination of reports are far quicker now, especially on social media platforms like Twitter and Facebook. A number of media organizations have now formed data analytics team (such as Rappler and ABS-CBN), mainly as a repository of data and a wellspring of analyses on various economic issues. Economic journalists have also organized as a group, as manifested in groups like the Economic Journalists Association of the Philippines (EJAP).

Beyond journalistic reporting, however, official economic statistics are also the bread and butter of a small community of commentators and popularizers of economics, many of whom are op-ed columnists in print and online media organizations. Not all belong to media organizations, though: some are bloggers and podcasters (notably Usapang Econ Podcast, the Philippines' first economics podcast). Although these analysts typically have a deeper knowledge of economics than economic journalists, they typically rely on economic journalists to learn about the latest data.

IV. Room for improvement

Although use of official statistics has greatly expanded among teachers and communicators of economics, there's still a lot of room for improvement in the way such data can be accessed and appreciated. Here we list a few:

A. Training workshops on the use of official statistics

First and foremost, many teachers and communicators of economics simply do not know how to use official statistics. Either they are unaware of where to access them, unable to process them into meaningful forms, or ignorant of what they mean.

To this end, government agencies in charge of official statistics and tasked to publish them on a regular basis will do well to initiate training workshops, open and free (if not greatly subsidized) for the benefit of anyone interested on how to use and understand their data.

The Philippine Statistical Research and Training Institute (PSRTI), created in 1987 but attached to NEDA only in 1993, is “mandated to conduct high quality, objective and responsive statistical research and training for the improvement of the quality of statistical information generated by the country’s statistical system.” The agency deals primarily with academics, data producers, and data users nationwide. However, not everyone will be able to afford the training programs on offer, and I am yet unaware of any mechanism that allows basic education teachers access to PSRTI’s services with the objective of incorporating official data in their pedagogy.

By contrast, journalists and commentators are more adept at the sourcing and processing of official economic statistics, and are more in need of trainings in economics per se; i.e., in how to piece together, draw relationships in, and make sense of official data.

A more long-term concern would be the incorporation of statistical and data literacy in basic education, which will definitely go a longer way in promoting the use and access of official statistics in people’s daily lives. In the current set-up of the K-12 program, however, students have varying exposure to statistics courses, and I am yet unaware of any quality assessment on statistical/data pedagogy and how extensively that’s being done currently.

B User-friendly datasets

A number of datasets available for download from official sources are also not very user-friendly.

For example, a number of time-series statistics are spread over innumerable Excel files, and data users are burdened with tediously piecing together data before they can make sense of them. Although this problem is no longer present for some statistics (like consumer price index data), several other datasets (like weekly rice prices) are plagued with it still.

In this regard, managers of official data will do well to publish their data in more user-friendly formats, replete with drag-and-drop tables or instant data visualizations (graphs). A number of major multilateral agencies such as the World Bank, International Monetary Fund, and World Trade Organization already make use of easy-to-use data portals that can generate graphs and tables in but a few, simple steps, tailor-fit for data users, and even exportable in a host of data formats. The PSA and other sources of official data will do well to move into this direction.

C. Historical archival data

Researchers are also hard put to piece together data that are wholly unavailable online. Data as far back as the 1940s, for example, are only available online for a handful of key datasets (such as the national income accounts), but for many others researchers must scour libraries which do not necessarily keep such data. A handful of repositories, such as the UP School of Economics in Quezon City and the National Library in Manila, maintain a collection of old data handbooks

and yearbooks. But researchers in the regions virtually have no access to these or even are unaware of the existence of such data.

The PSA, to its credit, is already moving to digitize many of its old statistical records. But publishing them freely online, or incorporating them in data clearinghouses, has yet to happen.

D. Data Privacy Act and Freedom of Information

Finally, researchers find great value in microeconomic data such as those in established household or establishment surveys. But a number of laws restricting the flow of official data hinder economics teachers and communicators' use of such data.

Most notable of these would be the Data Privacy Act of 2012. Although it does make allowances for data users engaged in research, many agencies strictly withhold information to the detriment of researchers. The intent, of course, is perfectly understandable. Yet there are ways of sharing sensitive information to researchers without compromising the identity of respondents (e.g., anonymization of data, withholding of personal information such as addresses, and restriction of access to data at select offices under the supervision of data handlers). Many researchers also use the Freedom of Information portal to request data from specific agencies. But response rates are highly variable, and some are downright non-responsive. Government agencies will do well to harmonize their policies with respect to the promptness and responsiveness of data sharing.

V. Conclusion: A word on evidence-based policymaking

Official data are of great use in the teaching and communication of economics. However, the movement toward a more empirical understanding and appreciation of economics is under threat.

Globally—and presently in the Philippines as well—evidence-based policy-making is being undermined by political leaders to suit their own interests. In India, for example, top government economists have declared that India's GDP figures may have been overstated for the longest time³, and the Modi government allegedly suppressed the release of unpalatable unemployment figures by their National Sample Survey Office (NSSO). China's GDP figures have also been overstated based: Chen et al. [2019] found that, "Relative to the official numbers, we estimate that [Chinese] GDP growth from 2010-2016 is 1.8 percentage points lower and the investment and savings rate in 2016 is 7 percentage points lower." Most recently, Vietnam has revised its latest GDP figure upward by a considerable 25.4%.⁴

³ <https://qz.com/india/1640510/india-gdp-growth-overestimated-says-ex-cea-arvind-subramanian/>

⁴ <https://asia.nikkei.com/Opinion/Vietnam-s-surprise-GDP-revision-risks-damaging-economic-credibility>

In the Philippines, the integrity of official statistics are wholly intact, thankfully. But high-level government officials occasionally deny official statistics especially in unflattering (e.g., when the Palace decried “mathematically impossible” the job creation figures cited by IBON Foundation, which were ultimately based on PSA data⁵). More insidiously, official statistics are being ignored on a number of rash policy decisions of late, including the war on drugs and the abrupt closure of Boracay Island for rehabilitation.

To this end, it is paramount to ensure the continued credibility of official statistics, not just for data users in academe or media, but also for key policymakers and the public at large.

References

- Acemoglu, D. et al. [2015] *Economics*. New York: Pearson.
- Angrist, J. et al. [2017] “Economic research evolves: fields and styles,” *American Economic Review* **107**(5): 293-297.
- Chen, W. et al. [2019] “A forensic examination of China’s national accounts,” NBER Working Paper No. 25754.
- Hamermesh, D. [2013] “Six decades of top economics publishing: Who and how?” *Journal of Economic Literature* **51**(1): 162-172.

⁵ <https://newsinfo.inquirer.net/1077641/palace-ibons-data-on-unemployment-mathematically-impossible>