

**Invited Paper Session:
Official Statistics in the Changing World of Data Science**

Statistics and Data Science in Official Statistics of Japan: Revolution or Evolution?

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In this presentation, I shall discuss the impact of “Data Science Revolution” on official statistics by giving some examples of official statistics in Japan.

Progress in statistics and data science has been remarkable in recent years, although the boundary between them cannot be drawn too clearly. National statistical offices in Japan and all over the world are taking advantage of such scientific developments, and making use of them in their operations as far as possible.

Data science is often associated with big data, which is rapidly emerging as new data sources. They are used in various fields of official statistics mainly for complementing the conventional data sources such as survey data and administrative data. Hedonic regressions and automatic coding may be good examples.

By adopting innovative methods and new data sources, we can clearly observe improvement. We should, however, take note that changes in improvement in analytical methods and data sources are rather gradual in general. In this sense, it would be more appropriate to call the change as "evolution" rather than "revolution."

Whether the new methods are called “statistics” or “data science”, they are still useful in official statistics, and their roles will be expanding.