

Designing multi-chart visualizations for statistical institutes

Statistical institutes are fully aware that communicating their data is an essential part of their work, but they struggle to find the right tone, mostly because they need to communicate with a very heterogeneous audience.

In a previous presentation, at NTTS2017, I framed the way statistical institutes use data visualization as “illustration”, something that you can do when tables are the main characters and charts and graphs have a supporting role only. I argued that statistical offices need to move to a “communication” perspective where more effective charts and graphs take the leading role, because there are too many data points and people are less and less interested in reading large tables. This must be done within the current tools and core skill set, and respecting the production process.

To communicate better using charts and graphs, we must make them both effective and efficient. Data visualization practitioners tend to focus on effectiveness because the goal is to make sure the message is received by the audience. Smartphones are forcing us to pay more attention to efficiency: how to improve our communication using a very small screen real estate. This will also impact other media, like the page in a statistical publication (yearbooks and similar).

So, the first step for a better visual communication is to make sure that the basic unit (the chart) is handled effectively and efficiently. But this is just the first step in moving from illustration to communication.

The second step is to go from the individual chart to a more integrated, multi-chart communication. This is something akin to corporate dashboards or media infographics, but without the monitoring dimension of the former and the aesthetics emphasis of the latter. This is a work in progress, and the presentation will discuss a very preliminary framework on how to design these multi-chart visualizations.