Remote access to register data: Introduction to the Statistics Netherlands Microdata Services.

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Abstract:

Statistics Netherlands (CBS) operates a secure Microdata Services Facility, through which researchers at authorized institutions can get access to microdata for research purposes. CBS started offering access to pseudonymized microdata in 1994, as a small-scale on-site service to selected researchers. Since 2006, CBS provides access to an extended research community, in the Netherlands but also internationally, through a remote access service. CBS continuously invests much effort into practical and technical procedures to ensure that the remote access service can be used in a secure way. The access to microdata is restricted to distinct types of users who have been authorized in a careful procedure. We will present the conditions and demands that have to be met before authorization and access is granted, as well as the technical measures to preserve a secure environment. Researchers and their managers must sign a non-disclosure agreement and pass a test on security rules before they are gaining access. For each access to the remote environment, they need a physical token, a pin code, and a mobile phone TAN code as well as a username/password. Any other network connections of the user are automatically disconnected during the use of the remote access. When allowed access, researchers have a protected work environment separated from the CBS environment. Only the microdata necessary for the researchers' approved project is available within their work environment. On their website, CBS maintains a list with information reports on available microdata, distinguishing different themes (from 'labour and social security' to 'leisure and culture'). Moreover, researchers are, under strict conditions, allowed to link their own pseudonymized datasets with the CBS microdata in the remote access environment.

The use of the remote access to CBS microdata has been growing rapidly over the past ten years and this is anticipated to continue over the coming years. This necessitates investment in technical advances, for example in providing the use of a supercomputer for big data analyses, as well as in new services such as data stewardship or a meta-data portal. At the same time, it demands a continuous effort to keep up to date with cybersecurity developments. We will present some of this challenges and plans, and highlight some current research based on the use of the microdata remote facility.