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The German Data Service Center for Business and Organizational Data (DSC-BO)

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1. Background

Beyond organizational studies there is an increasing awareness in economics and social sciences that the level "organizations" must be included for the explanation of various social and economic phenomena such as labor markets, educational systems, individual life-courses and social inequalities. However, despite its substantive relevance, up to now there has been a lack of in-depth organizational data in research. Data that allow the analysis of emerging questions are needed in those areas that treat organizations as important contexts and actors of economic and social processes. In Germany, there are only a few data sets publicly available for secondary research at the organizational level, such as the "IAB Establishment Panel" from the Institute for Employment Research (IAB) and various types of official data from the Federal Statistical Office Germany (Liebig, 2009, 6). All of these data sets include a limited amount of information and typically lack information on issues such as business culture or management styles (Liebig, 2009, 7). Moreover in the vast majority of data produced in empirical organizational research projects financed by public or private research funding, the level of "organizations" is usually not available to secondary users at all. These data are generally characterized by comparatively small sample sizes and a strong orientation towards organization-related research topics such as the description and explanation of organizational strategies, internal processes, industrial relations, etc. (Liebig, 2009, 8).

The lack of data availability for secondary analysis can be seen as a serious obstacle to scientific progress. This is especially so as primary research on organizations nowadays is faced with increasing difficulties: Survey participation rates as low as 5 to 30%, and the fact that the population of organizations is very volatile and hard to reach. Thus, primary data collections are more and more cost- and time-intensive (Ritter/Martens 2008; Liebig/Diewald, 2010).

For these reasons the sustainable use of data is of growing importance in today's scientific world. The German Data Forum (RatSWD) has made recom-

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mendations on this topic (GDF, 2010; KII, 2011; Wissenschaftsrat, 2011), and the German national science foundation "DFG" recently requested concepts for a sustainable use of data (DFG, 2012). The offering of existing data for secondary analysis allows the full exploitation of analysis potential, facilitates the education of new researchers, avoids redundant data collection and enables an amortization and efficient use of research funds.

The new German research data infrastructure now consists of research data centers and data service centers, with the common goal of making existing data accessible for scientific use. Some Data Centers – in most cases located at particular research institutions (e.g., FDZ-IAB¹, BiBB-FDZ²) – provide data sets that are collected at the institution themselves. Others collect data sets that are produced by various researchers within special fields. The International Data Service Center of the Institute for the Study of Labor (IDSC with IZA), the Research Data Center of the Institute for Educational Progress (IQB), PsychData of the Leibniz-Institute for Psychology Information (ZPID) and the DSC-BO – which will be introduced in this article – are to be mentioned here.

When it comes to organizational research, up to now only a few data sets have been archived and shared. Organizational data can be found at several of the data centers in Germany, such as the German Microdata Lab of GESIS³, and more specialized Data Centers such as the Research Data Center at IOB for educational research, the IDSC of IZA for international labor market research, the EBDC⁴ or the RWI-FDZ⁵ for economics, but, there is no way for researchers to get an overview of existing and for reuse available organizational data at a glance. Additionally, the specifics of organizational data and the field of organizational research cannot be addressed sufficiently by the existing data centers with their different scopes. Due to the limited offer of organizational data and the need for special support, the Data Service Center for Business and Organizational Data (DSC-BO) was founded at Bielefeld University in August 2010. For the first three years it is funded by the federal ministry of education and research and headed by Stefan Liebig and Martin Diewald. The DSC-BO specializes in the supply of organizational data and supplementary services such as providing web-based information on existing empirical studies in the

¹ FDZ-IAB: The Research Data Center of the Federal Employment Agency at the Institute for Employment Research.

² BiBB-FDZ: The Research Data Centers at the *Federal Institute* for *Vocational Education* and *Training*.

³ GESIS: German Social Science Infrastructure Services Association.

⁴ EBDC: Economics and Business Data Center of the Institute for Economic Research (ifo).

⁵ RWI-FDZ: Research Data Center Ruhr at the RWI (Rheinisch-Westfälisches Institut für Wirtschaftsforschung).

⁶ Bielefeld University committed itself to incorporating the DSC-BO into its permanent structure subject to an evaluation after the external funding period.

field, conducting methodological research and offering training. The DSC-BO complements the existing infrastructure with services for organization research which could not be covered in the past.

As organizational research is a broad field, the DSC-BO domain encompasses various kinds of organizational data. Up to now the services focus primarily on research data related to human resource management, labor and the labor market. In an ongoing process these will be supplemented with data generated in other research contexts (e.g., health or education sciences, economic cyclical analysis, etc.).

Both qualitative and quantitative research is represented in the field of organizational research, and thus the DSC-BO provides both types of data. When it comes to qualitative data there are certain considerations to take into account: Data offered for secondary analysis are mostly quantitative, for which well-established concepts already exist, whereas offering qualitative data for secondary analysis is quite a recent endeavor that still occupies a marginal position within scientific research. Reasons for reservations against qualitative secondary research are: (1) Qualitative data are strongly specialized and focused on the original research question. (2) The personal field contact is missing in secondary analysis of qualitative data, but personal field contact is important for collecting the essential contextual information necessary for analysis of qualitative data (Mey/Mruck, 2008, 8) (3) Ethical concerns, such as threats of the somewhat confidential relationship between a survey subject and researcher, often impede data-sharing of qualitative data (Medjedović, 2007; Parry/Mauthiner, 2004; Richardson/Godfrey, 2003).

However, there are good reasons for conducting qualitative secondary analysis (Medjedović, 2010, 17 ff.; Corti, 2007, 41 ff.). In addition to the advantages linked to data supply for secondary analyses in general, there are several benefits specifically associated with the reuse of qualitative data. In particular qualitative data collections are characterized by small and often sensitive populations. A reason for qualitative secondary analysis is therefore a protection against recurring interviews of these populations. Certain surveys limited to specific entities such as types of organizations or industries can be extended by additional studies with the same research design but a different type of organization or industry.

This paper will outline the different DSC-BO services. In the first part the Data Catalog that acquaints researchers with organizational studies and lists organizational data is presented. The next chapter shows data sets available for reuse at the DSC-BO up to now. And finally an overview is given on further services for data users and producers offered by the DSC-BO, such as training and data management.

2. Data Catalog ("Studienportal")⁷

The web-based Data Catalog is the entry point into organizational data, studies and methods. Two user groups are addressed: re-users of data, and primary researchers, who want to inform themselves about methods and research designs for their own surveys (e.g., use of instruments, questionnaires, data collection methods, sampling plans). Search options allow detailed searches, such as searches for studies with certain keywords and survey periods.

The studies listed in the Data Catalog originate from different sources, such as studies of cooperation agreements with researchers, an ongoing meta-analysis of empirical research publications conducted by the DSC-BO, exchanges with experts, and studies taken from databases at other data centers.

Currently the stock of studies mainly includes studies of establishments, companies and the labor market but we are constantly working to include more organizational studies: As the DSC-BO is not limited in its scope, we are expanding our portfolio of organizational studies to include schools, hospitals or clubs as well.

Within the Data Catalog the studies are described on two different levels of detail: First, to give an overview of a wide array of existing studies in organizational research the Data Catalog contains studies with information on a very basic level. Second, studies with data sets available at the DSC-BO or at some other data center are described on a more extensive level for the purposes of reusing data, planning research designs or replicating existing ones. In the Data Catalog scientists can drill into background topics such as research objects and methodological aspects (e.g., data collection process, use of instruments, questionnaires, data collection methods, sampling plans).

The Data Catalog is based on the standard of the Data Documentation Initiative (DDI)⁸ for metadata (data about data). It seems to be the most popular standard for documenting metadata in the social sciences. DDI is therefore appropriate for allowing the exchange of metadata between data centers⁹.

All data sets in the DSC-BO get a Digital Object Identifier (DOI) as a permanent persistent identifier. Through using DOI names, research data are permanently identified, localized, secured and ultimately reliably quotable¹⁰.

⁷ https://dszbo.uni-bielefeld.de/infoportal.

⁸ www.ddialliance.org.

⁹ The basic idea of DDI is to create a uniform international standard for metadata to describe a data set. DDI also allows the storage of parameter data (data collection process), which is especially relevant to the qualitative research process. The goal of DDI is illustrating the entire life cycle of data, from initial idea to publication of results. The innovative feature of DDI is that not only the result of a research process is documented but already during the development of data and reuses.

If researchers have a particular interest in some of the data collections which are not available for secondary analysis so far, they may contact the DSC-BO. In this case the DSC-BO can specifically contact the data producer of the requested data set to make their data available. This helps the DSC-BO to assess data requested and also to widen the data offered.

3. Data Offered in 2012

For scientific reuse three quantitative data sets and one qualitative study are currently available at the DSC-BO:

- (1) The "Linked employer-employee data set based on the ALLBUS 2008" ("Verknüpfte Personen-Betriebsdaten im Anschluss an den ALLBUS 2008"). This quantitative data set provides information on the individual level of employees (from the General Social Survey ALLBUS) and their workplaces (collected through an establishment survey).
- (2) The linked employee-partner data set "BEATA employment conditions as a social exchange. Interactions between labor supply and labor demand" ("Beschäftigungsverhältnisse als sozialer Tausch. Wechselwirkungen zwischen Arbeitsangebot und Arbeitsnachfrage"), 2008/2009. This quantitative data set provides information on employees and their partners and enables analyses of questions regarding work-life interface.
- (3) The SFB580-B2¹¹ establishment surveys ("B2-Betriebsbefragungen") 2002, 2004, 2006 address issues of employment and labor market structures.
- (4) The qualitative data collection of the SFB580-B8-project "Demographic change and the labour market of the public sector" describes the local labor markets of the public sector and human resource policies in light of aging societies.

The DSC-BO is currently working on expanding its data supply. The data from the projects "InnoKenn" and "workplace atmosphere" will be avail-

¹⁰ The registration is carried out through the Registration Agency for Social Science Data (da|ra), a non-commercial registration agency, which operates in Germany by the Gesis.

¹¹ "Employment Stability, Employment Security and Labour Market Structures in East and West Germany" ("Betrieb und Beschäftigung im Wandel: Betriebliche Beschäftigungssysteme und Beschäftigungssicherheit").

¹² Demographischer Wandel und Arbeitsmarkt des öffentlichen Sektors.

¹³ Development and validation of a diagnostic tool for recording the innovation capacity of companies from a work-oriented perspective including a procedural models (Entwicklung und Validierung eines Diagnosewerkzeugs zur Erfassung der Innovationsfähigkeit von Unternehmen aus arbeitsorientierter Perspektive mit einem dazugehörigen Vorgehensmodell), led by Wenzel Matiaske (Helmut Schmidt University. University of the Federal Armed Forces Hamburg, Department of business administration).

able shortly for secondary use. INNOKENN is a qualitative project which provides information about innovation capacity of establishment. The quantitative data set of "workplace atmosphere" is an employee survey about the perception of the working atmosphere in various establishments.

In the following we will describe the subjects and methodological aspects of these data sets offered by the DSC-BO.

3.1. Quantitative Data Available at the DSC-BO

Linked employer-employee data based on ALLBUS 2008¹⁵

The generation of the linked employer-employee data set based on ALLBUS 2008, is a project funded by the Federal Ministry of Education and Research (BMBF) and led by Stefan Liebig (Bielefeld University) which started in 2007. Its central aim was the generation of a linked data set. The Linked ALLBUS-BB data consist of individual as well as establishment information. As the information at the individual level comes from an omnibus survey - the German General Social Survey (ALLBUS), 2008 - it includes information on sociodemographic and socioeconomic characteristics as well as attitudes and behavior on a wide range of topics (such as religion, politics, and media). The establishment data was gathered in 2009 by a survey encompassing mainly topics on working conditions and employment policies. The basic establishment demographics (industry, turnover, size, etc.) are covered. Additionally, there is a focus on questions on employment policies and practices and working conditions (i.e., working hours, payment or other gratifications). Some questions were asked for different groups of employees separately depending on their status of qualification (low-, medium-, high-skilled). With this information inequalities within establishments can be studied according to topics such as employment and payment structures as well as job requirements, job autonomy, recruiting and layoffs. Linked data are becoming increasingly important for social sciences, because they allow the investigation of multilevel processes, which is especially important for all labor-related phenomena. These have causes and effects on both the employee and employer, i.e., company level.

This linked employer-employee data set is gathered by the so called *employee-first method*. During the ALLBUS 2008 survey participants who were employed in an establishment (sample size of 1101) were asked to name their employer and its address. These addresses constituted the sampling frame of the establishment survey conducted in 2009. 197 establishments (of 719 establishments)

¹⁴ The project is led by Lutz von Rosenstiel (Ludwig Maximilian University of Munich, Department of psychology).

¹⁵ Liebig, Stefan/Gerhards, Christian. ALLBUS-Betriebsbefragung. 2009.

lishments contacted) finally took part in this survey, giving a response rate of over 27%. In each establishment CEOs or human resource managers were interviewed in a face-to-face interview lasting about 45 minutes.

Various issues on data quality are discussed in the methodological report (Gerhards/Liebig 2010). Considering the multiple drop-out stages, the selectivity of the establishment sample should be taken into account by data users when analyzing the sample and interpreting the results.

The research project generating this data was set up primarily with methodological goals testing the employee-first method in composing a linked dataset. Besides the substantive topics of the survey described above, methodological aspects on the respondent, the interviewer and the interview process were also measured. This enables secondary analysts to control for methodically-induced biases or to address methodological research questions themselves.

The linked employee-partner data set of the BEATA study 16

The second data set offered by the DSC-BO was generated in the course of a research project named "BEATA – Employment relationships as social exchange. Interactions between labor demand and supply" initiated by Martin Diewald (Bielefeld University), Hans-Georg Brose and Anne Goedicke (both from the University of Duisburg-Essen) in 2006. It was funded by the DFG.

The BEATA data set comprises information on employees and their partners. Main topics are individual working conditions and challenges in relation to the family situation, so that various facets of work such as type of activity, working hours, working environment, job requirements, expectations of colleagues or supervisors, payment and career opportunities are covered. Employees and their partners were mostly asked the same questions. As the central focus of the study was the reconciliation between work and family life, information about family, partnership status, children's age and childcare, partner expectations, partnership satisfaction, leisure time, sharing housework, future expectations, and emotional support from partner are included in the data set. A methodological benefit is also the interviewer and interview characteristics in the data.

In the study employment relationships are regarded as a social exchange. Accordingly various forms of gratifications and burdens in the working and private sphere are covered and can be analyzed comparatively, such as money, time, status, work performance and prestige.

The linked BEATA data set is a cross-sectional study of employees and their partners, carried out in 2008 and 2009. Employees were sampled within six

¹⁶ Diewald, Matin/Brose, Hanns-Georg/Goedicke, Anne. Beschäftigungsverhältnisse als sozialer Tausch – BEATA. 2006.

companies of three different industries – manufacturing, education, and finance/insurance – in two different regions of Germany with at least 500 employees. The employees within the companies were selected according to the quota criteria (1) skilled labor and more highly-qualified labor, (2) different ways of living, (3) status of employment relationship (e.g., full- vs. part-time) and (4) sex. These quota criteria were chosen as they are seen as fundamental proxies for negotiating power and gaining sufficient variance in family-work-arrangements. Women and men are equally represented in the sample. In total 1780 employees and 531 partners were interviewed. Information about employees and their partners exists in 531 cases. For data collection self-administered questionnaires were used. Employee interviews were carried out on premises close to the workplace; partners were sent a mail questionnaire¹⁷.

SFB580-B2 "Employment Stability, Employment Security and Labor Market Structures in East and West Germany" 18

The data set of the Research Project B2 led by Christoph Köhler, Alexandra Krause and Olaf Struck is part of the SFB 580 "Social Developments in Post-Socialist Societies: Discontinuity, Tradition, Structural Formation" which was established in July 2001 at the Universities of Jena and Halle. It was funded by the DFG. The main purpose of the B2 study "Employment Stability, Employment Security and Labor Market Structures in East and West Germany" is the investigation of the erosion of the internal labor market and the prevalence of instability and risk.

The SFB580-B2 establishment surveys were conducted four times, namely in the years 2002, 2004, 2006 and 2008/2009. The establishment surveys encompass several topics in the field of employment stability and flexibility, internal and external labor markets and labor market segmentation.

There are questions relating to (1) basic establishment characteristics (industry, turnover, size, collective agreements), (2) the employment structure with respect to type of contract, sex, age, qualification, job tenure, (3) human resource strategies, policies and practices (such as layoffs or ways of recruiting). In particular information with regard to personnel was gathered on a highly detailed level. A few questions were asked for various groups of employees separately. For some of these questions groups were built according to different functions (leadership, R&D, administration, core production functions and service) and for others according to different job tenures (short, medium, long).

¹⁷ The employee surveys were part of intensive case studies at each of the six companies. Accordingly, a further expansion of company level information is planned.

¹⁸ Struck, Olaf/Köhler, Christoph/Krause, Alexandra. Betrieb und Beschäftigung im Wandel: Betriebliche Beschäftigungssysteme und Beschäftigungssicherheit. 2001–2012.

(4) Part of the questionnaire more specifically refers to certain aspects of flexibility and stability and the companies' coping strategies.

The data was collected every two years and most of the questions were asked repeatedly in each wave. This enables analyses of processes of change within the time period 2002 and 2009. The survey was conducted via computer assisted telephone interviews with human resource managers and managing directors. To obtain sufficient heterogeneity in the sample according to employment stability and flexibility a quota sampling design of contrasting industries and regions was chosen. Industries were stratified with regard to market position, qualification levels and employee turnover. Ten industries in four regions were selected. The sample size in 2002 amounted to 809, in 2004 the number of responding establishments was 651 and in 2006 461 establishments responded¹⁹.

3.2. Qualitative Data Available at the DSC-BO

SFB580-B8 "Demographic change and the labor market of the public sector" ²⁰

The data set "Demographic change and the labor market of the public sector" led by Reinhold Sackmann is also a part of the SFB580 and funded by the DFG. The data collection includes interview material regarding the demographic transition after the fall of the socialist bloc and the consequences and challenges for the labor market in the public sector. The study focuses on the local/regional labor markets of the public sector labor market and human resource policies against the background of societies in transition. Topics of interest are the resulting problems in human resources management in the public sector and local community. The typical problems in this field are changing fertility, mortality, migration and aging.

Examples for using this data are comparative secondary analyses of local municipality structures between East and West Germany as well as Poland. It also allows analyses for more differentiated comparisons of different local human resource policies.

The sample consists of 21 municipalities in 3 different areas, East Germany (Brandenburg, Saxony-Anhalt), West Germany (Rhine-Palatinate) and Poland (Mozowiechie, Slaski). The central criterion for the selection was the local po-

 $^{^{19}}$ Figures for 2008/2009 cannot be presented, as the data set has not yet been archived at the DSC-BO.

 $^{^{20}}$ Sackmann et al., Demographischer Wandel und der Arbeitsmarkt des öffentlichen Sektors, $2006\!-\!2008.$

pulation dynamics between the years 1995 and 2005. Two growing, two shrinking and two stable municipalities for each area were chosen. The regions differ with regard to their transformation process: East Germany was incorporated, Poland remained autonomous and West Germany is a region without any post-socialist transformation. Other distinguishing features are state-building (East Germany and West Germany: federal, Poland: decentralized unitarist), the degree of autonomy of the local communities (East-Germany: high, Poland: balanced, West Germany: low) and welfare-state child care systems (East Germany: institutionalized, Poland, West Germany: semi- institutionalized).

Respondents in each community were local intermediaries (trade union representatives, representatives of local associations), mayors, chief officers, school officials (Poland), and kindergarten officials (Germany). The mode of data collection was the guideline-based interview. The main part of the field phase was conducted in the third quarter of 2006. The available data comprised 87 word-precise and verbatim transcripts, encoded with MAXQDA. Currently 45 anonymized transcripts of interviews with municipal representatives can be used for secondary analysis. Eight of these are from interviews with Polish mayors and have been translated into German. Another 42 transcripts will be anonymized at a later date. In addition 7 transcripts from interviews with local decision-makers are translated from Polish into German (Sackmann et al., 2009).

Taking the limited experience of reuse of qualitative data into account, some additional comments may be helpful: Fundamental for a professional secondary analysis is safe and organized data access to gain insight into the transcripts as well as into the context of data generation. If this is given the first preliminary consideration will be: What was the research interest of the primary survey? Which method was used (Thorne 1994: 269 ff.; Heaton 1998)? These considerations will be made reflecting expected results of secondary analysis. For this purpose further questions must be considered: Who was interviewed by whom and what can be expected on the basis of accessible data (Medjedović, 2010; Medjedović/Witzel, 2010; Medjedović/Witzel, 2005; Heaton, 2004; Hinds et al., 1997)?

To assess the potential for a separate analysis, it is essential to take different context information of the original research into account. Consideration of the following contexts is recommended: (1) Project context (e.g., institutional background, the methodological decisions, the theoretical assumptions, the sampling, publication results of the primary survey, project documents), (2) communicative context (e.g., degree and extent of transcription, kind of anonymization), (3) situational context (interview protocols regarding the individual interviews²¹), (4) context of local culture (e.g., characteristic common practices,

²¹ Also called "Postscript" by Witzel (1982/2000).

field-specific technical language), (5) extra-situational context (e.g., "macro"-information on the institutional, cultural and historical context) (detailed Medjedović, 2010, 310; Medjedović/Witzel, 2010, 57 ff.).

3.3. Data Access

Access to data preserved at the DSC-BO is limited to scientific users only. Interested users must sign an application form that is downloadable via the DSC-BO web site (http://www.uni-bielefeld.de/dsz-bo/). Two types of data access are possible:

The quantitative data can be accessed through on-site use at the DSC-BO premises located at Bielefeld University. During a research visit scientists can run analyses autonomously at a guest workstation. There will be a disclosure control of the results before these will be handed over. A second option for data access is controlled remote execution. In this case data users can send their command syntax and receive the results after a control of anonymization has been completed by members of the DSC-BO.

As scientific use files qualitative data can be accessed at the DSC-BO. The data is sent, de facto anonymized²², by an encrypted CD to the user. With regard to future perspectives, the qualitative data will be made accessible via a secure repository.

4. Complementary Services of the DSC-BO

4.1. Services Offered to Data Users

To introduce potential users to the topics, structure and practical usage of data sets available at the DSC-BO, an annual workshop in cooperation with other data centers is organized by the standing committee of the research data infrastructure of the German Data Forum²³, the Chair of Social Stratification and Social Inequality at the Bielefeld University and the collaborative research project SFB882 – From Heterogeneities to Inequalities. In the first part of this workshop data available at the DSC-BO and other data centers are presented. In order to assess whether certain data are suitable for particular research ques-

²² Micro-data are called de facto anonymized if the deanonymization is not completely ruled out but the information can only be allocated to the respondents or statistical unit with a disproportionately high amount of time, cost and effort (§ 16 (6), According to the Federal Statistics Act de facto anonymized data may be accessible for academic institutions only and solely for conducting scientific projects (Research Data Center of the Federal Statistical Office and the Statistical Offices of the States).

²³ Ständiger Ausschusses Forschungsdateninfrastruktur (FDI) des Rat für Sozial- und Wirtschaftsdaten (RatSWD).

tions methodological information and information on the subjects of several data sets is provided. Furthermore "hands-on" introductions, issues of data protection and conditions of usage to the presented data sets are given. The second part of the workshop deals with advanced methods of data analysis and practical courses in different methods are also offered.

4.2 Services Offered to Data Producers - Data Management

In order to provide data for secondary use certain requirements must be met. These include sufficient data documentation, data preparation, secure data storage, appropriate anonymization. Up to now standards as well as tools accounting for the specifics of organizational data are rare or do not exist. The necessary knowledge of data management does not form part of academic education programs, resources for applying data management are often limited within research projects and not funded appropriately. Thus, the DSC-BO actively supports data producers in managing and documenting their data (Meyermann, 2012).

The concept of data management includes a wide array of different topics, each referring to the work with and processing of scientific data throughout a research project, i.e., before, during and after initial data collections. Topics that belong to data management are for example legal and ethical issues with regard to research participants (consent, anonymization) or all interested parties. Other aspects are related to the comprehensibility of the data sets (microdata) and data collection processes. This is relevant for long term usability of the data sets either by the original data producers or by third parties. The comprehensibility of data sets can be assured through certain standards of documentation.

Compared to individual or household data the management of organizational data must deal with special characteristics of research designs, data collections and data complexities. For example the linkage of data and gaining informed consent of businesses, a different legal situation and different requirements of data anonymization, can be mentioned here. The lack of data management planning in certain research projects might lead to problems which cannot be (or can only partly be) solved after completion of data collection, and which will almost always be accompanied by additional workload. Examples are:

- Data management prevents searching for or losing files and folders. To avoid long and unsuccessful searches proper file naming and organizing standards are needed. Documentation is needed not only with regard to the micro-data itself but also with regard to the working processes related to the creation and processing of data.
- Regular backups and secure data storage prevent files from getting lost due to technical problems.

- In order to use the data as required and desired by researchers (for all research purposes) legal standards must be considered in time, e.g., getting the consent of research participants during data collection. This can be ensured by sufficient and early data management planning.
- Collaborative work environments often require higher standards of documenting and managing files and data sets.

The largest research funding organization in Germany, DFG, requires data management plans²⁴. According to recent national and international developments and discussions in the field, we expect the need for data management to grow. Thus, the DSC-BO is planning on expanding its support services²⁵.

5. Conclusion

With its services the DSC-BO addresses both data producers and data users. Data producers will receive support not only in sharing and archiving data, but also in managing data during the whole research process. This is especially relevant as data management plans are required by funders as part of the application. Additionally, by using the existing methodological information that is listed in the data catalog and studying existing research designs, instruments and so on, researchers might find best practices to copy or research to connect to. Thus, the data catalog can be used to optimize primary data collections and research designs. Research gaps can be identified and specified more accurately. Adjacent research findings will be more strongly connected to existing research, which fosters scientific progress. Other innovative options are the replication of studies validating existing research findings or studying changes over time.

As well as data producers data users may use the data catalog to gain an overview of the state of organizational research data and methods in a centralized manner. Data users can access certain data sets via the DSC-BO and use it for their own research purposes, thereby saving the time and effort that would be needed to conduct their own data collections. The additional data sets that

²⁴ See for example "If research data will be systematically produced using DFG project funds, describe what measures will be implemented to ensure their management, curation and long-term preservation for future reuse." www.dfg.de/formulare/54_01/54_01_en.pdf, accessed on 2012/09/05 or "Long-term social-science research projects should demonstrate what practical measures are planned for maintaining a panel and for continuous data management. These include statements about what institutional arrangements have been made to ensure continuation of the studies by persons other than the primary investigators. The data documentation plans must allow for the long-term use of the data." www.dfg.de/formulare/1_01e/1_01e.pdf, accessed on 2012/09/05.

²⁵ For more information on Data Management see for example Jensen (2011), ICPSR n.y., van den Eyden et al. (2011).

are available at the DSC-BO offer more empirical research options. Furthermore, workshops in certain statistical analysis methods are also offered.

All in all, a central portal and institution with the focus on organizational data helps fostering scientific discourse and communication between different researchers and encourages scientific enquiry and debate. Sharing data might enhance data producers' citation rates, visibility and reputation as archived data has to be cited in case of reuse.

The DSC-BO will offer a quarterly newsletter to report on broader activities. It informs on new studies and data sets that have been gathered and publications as well as providing general information around the DSC-BO.

The newsletter is available in PDF format; if you are interested please send an email to dsz-bo@uni-bielefeld.de.

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