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## Article

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## European Data Watch

This section will offer descriptions as well as discussions of data sources that may be of interest to social scientists engaged in empirical research or teaching courses that include empirical investigations performed by students. The purpose is to describe the information in the data source, to give examples of questions tackled with the data and to tell how to access the data for research and teaching. We will start with data from German speaking countries that allow international comparative research. While most of the data will be at the micro level (individuals, households, or firms), more aggregate data and meta data (for regions, industries, or nations) will be included, too. Suggestions for data sources to be described in future columns (or comments on past columns) should be sent to: Joachim Wagner, University of Lueneburg, Institute of Economics, Campus 4.210, 21332 Lueneburg, Germany, or e-mailed to (wagner@uni-lueneburg.de).

## Swiss Unemployment Insurance Micro Data

By Jonathan Gast, Michael Lechner and Heidi Steiger\*

### Abstract

Administrative data of the unemployment insurance system in Switzerland have been made available by the Swiss State Secretariat for Economic Affairs (seco) for specific research purposes. They contain rich information about unemployed and job seekers. The records are linked to social security data. The combination of the two sources leads to a very rich database. This paper describes the data as well as some administrative procedures generating it.

### 1. Introduction – the Swiss Unemployment Insurance System

The *information system for placement and labour market statistics (Arbeitsvermittlung und Arbeitsmarktstatistik, AVAM)* and the *unemployment*

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*offices payment system (Auszahlungssystem der Arbeitslosenkassen, ASAL)* as well as the *social security system (Alters- und Hinterbliebenenversicherung, AHV)* are information systems used for administrative purposes. Hence, to understand the data presented here, some knowledge about the unemployment insurance system in Switzerland is needed.

Unemployment insurance contributions are obligatory for all employees in Switzerland. The total contribution is shared between employees and employers. They are processed together with the contributions to the pension system. The minimum contribution period necessary to be entitled to UI benefits is 6 (from July 2003: 12) months out of the 24 precedent months. Benefits are paid for a maximum of 24 (from July 2003: 18.5) months.

The legislative authority for unemployment insurance is the Swiss confederation. However, the execution and implementation of active labour market policies is mainly a task of the 26 cantons. Regional employment offices provide counselling, administrative services, and access to labour market programmes. They counsel the unemployed and provide information about job openings. Services are free and open to everybody, they are not restricted to persons entitled to benefits only. Even employed persons who are looking for another job get free advice.

To receive benefits an unemployed person has to register at the regional placement office (RAV) in charge of the corresponding community. She is assigned to a caseworker who takes up all her relevant information. The request for benefits has to be made at a branch of the unemployment insurance fund of her own choice that is in charge of benefit approval and payments. Caseworkers of the RAV meet their unemployed clients regularly, i.e. about once a month, to control their endeavours to find a job, assigning them to job openings, working out strategies, and allocating them into training and employment programmes.

## 2. The origin

The AVAM system is the online information database of the regional placement offices. All information about job openings, characteristics of the individual job seeker, services provided, and the interactions between caseworkers and job seekers is contained (and updated, if necessary). A person remains in the information system of AVAM as long as he or she makes use of the services of the UI system, regardless of unemployment status. The AVAM system is not only used for internal administration, but certain information about job seekers can be accessed by employers for recruitment purposes. The part of the database with open positions can be publicly accessed by the internet.

The ASAL system is the database of the unemployment insurance fund. It contains all information about payments and benefit entitlement. Although

AVAM and ASAL are independent systems, they are linked in the sense that certain information is exchanged (or shared). At the end of each month all existing entries in AVAM as well as in ASAL are saved and archived as flat files for statistical needs. The data cover *all* persons who are registered at any time at a regional placement office since 1993.

Until now the statistic section of the seco has supplied a lot of different recipients with data, tables and analyses by submitting host programs. Since computer technology has made big progress in the meantime, a datawarehouse now is under construction. It will contain the (statistical) AVAM and ASAL data preconnected in an entity relationship model. Data will be loaded monthly, later maybe even daily. Users will have direct access via internet and will access existing tables or even exploit the data themselves according to their specific rights. The information about the unemployed persons will no longer be stored in monthly records of stocks and flows. Instead, unemployment spells will be constructed with the AVAM data.

Contributions to unemployment insurance are processed together with the obligatory contributions to the pension system. The social security number serves as primary identification for each person, therefore it is possible to link entries in the two different information systems by that number.

These data as they are obtained from the registrar are not directly suitable for scientific research. They have to be processed carefully. They may contain incorrect or inconsistent entries as well as added (later) corrections of some entries. Hence a profound knowledge about the exact data generating process is needed. But once this very time consuming and demanding task is mastered, a very rich and reliable database is at the researcher's disposal.

### 3. Information contained

Taken together AVAM, ASAL and AHV form a broad information base about the unemployed in Switzerland. Limits of the AVAM and ASAL data is mainly their limitation to the unemployment and job seeking status of a person: there is no compulsory follow-up when a person has exhausted benefits. However, this shortcoming can be partly compensated by the addition of the AHV records which are available for employed as well as for unemployed individuals.

#### AVAM

AVAM contains information about job seekers, interactions with their case-worker, services, job openings, and employers. Data is organised in monthly records based on the last working day of each month. In addition to that, records of entrants and exits from the register are archived in separate files.

Not every caseworker enters information with the same diligence. While certain entries are updated regularly and carefully, others are not, depending on the person responsible for the respective client. Therefore, the quality, timeliness and reliability of information varies. Table 1 gives an overview of variables that may be of interest for labour market research. Note that unfortunately until 2001 no direct information about education or schooling is available.

Table 1  
Variables available in AVAM

Personal characteristics	date of birth, sex, marital status, number of persons in same household, canton and place of residence, nationality, type of work permit, mother tongue, foreign languages, education <sup>1</sup>
Labour market related characteristics	mobility, qualification, caseworker’s rating of chances to find a job, position in last job, occupation and industry of last job, size of town where worked before, looking for part-time / full-time job, occupation and industry of desired job
Information related to current unemployment spell	date of registry and deregistration, reason for deregistration, unemployment status
Services obtained	type of programme or subsidy, start and end date, date of caseworker’s decision about programme

<sup>1</sup> Variable was introduced in 2001; in January 2003 still missing for 20% of all registered persons.

ASAL

ASAL is the payment information system of the unemployment insurance. Data is provided in monthly records saved the last working day each month. Information is directly relevant for payments to benefit recipients and, therefore, can be rated as being much more reliable than AVAM. It contains first and foremost all information about individual job seeker necessary to determine benefits. An ASAL record is available only if a person actually receives benefits. Once she has exhausted her UI benefit entitlement period there is no trace of her in this database though she still can be registered as unemployed at the regional employment office (and thus has an AVAM record).

Table 2  
Variables available in ASAL

Personal information	earnings in last job, relevant duration of contribution to unemployment insurance benefits, begin and end of entitlement period, disability, number of dependent persons
Monthly payments	gross and net benefits, children allowances, sanction days, sickness and accident benefits, subsidies for interim jobs, additional payments for programme participation

AHV

In the social security records earnings from all sources that are subject to contributions to the pension system are archived, i.e. from employment, self-employment, and unemployment. The source of the income can be identified in most cases. The data consists of yearly files with records indicating the months of the beginning and the end of each earnings spell. The nationality of the person and the branch of the pension insurance administration in charge for this record are additional variables provided by this data.

A problem with these records is that they are entered when earnings are reported and contributions are paid. There can be a significant time lag between the declaration and the period the declaration related to. Some entries are indeed delayed for several years. Missing information in very recent data, therefore, can be interpreted either as being out of labour force and thus not subject to contributions, receipt of welfare benefits, or just the delayed declaration of earnings. Therefore, it seems advisable not to rely on the most recent files of this data.

Table 3  
Variables available in AHV

Personal information	nationality
Income	income in CHF, source of income (employment, unemployment, self employment, self contributors without employment), corresponding period in months, year of declaration, corresponding branch of social insurance system

4. Access

All data mentioned here are subject to privacy protection because they contain very sensitive information about people included. Access to all this data

is restricted. Since the social security number codes personal information according to a certain public key, for privacy reasons the number is not given to the researchers directly.

To get AVAM and ASAL data researchers have to sign specific contracts of data protection. Usually one or two years after the project the data has to be deleted. Preferred access to AVAM and ASAL records is given for research studies conducted on behalf of the seco itself. Second priority is assigned to projects of the Swiss National Science Foundation, and third to other Swiss administrative projects or other academic studies.

The federal social insurance office in charge of the AHV data has been very restrictive in providing the data for external studies. Until now, only two research groups have been given access for their microeconomic evaluation studies by order of the seco (cf. section 5).

## 5. Empirical studies based on these data

The data have been used mainly for evaluating the effectiveness of regional employment offices and active labour market policies (ALMP) in Switzerland. Sheldon (2000) investigated the productivity of the public employment service in Switzerland by comparing regional placement offices in terms of different efficiency measures. A study of Ferro-Luzzi, Flückiger, Ramirez, and Vassiliev (2001) tried to find determinants of ineffectiveness of regional employment offices.

Bauer, Baumann, and Künzli (1999) combined AVAM/ASAL extracts with self collected data from interviews with case workers and job seekers to investigate the effects of subsidised interim jobs. Prey (2000) evaluated ALMP measures in the canton of St. Gallen. Combinations of AVAM and ASAL with social security (AHV) data were used by Gerfin and Lechner (2002), Gerfin, Lechner, and Steiger (2003), and Lalive, van Ours and Zweimüller (2002b) for estimating effects of different labour market programmes.

A study of Lalive, van Ours and Zweimüller (2002a) investigated the effect of benefit sanctions on the duration of unemployment on the basis of AVAM and ASAL data. A study of Lechner and Smith (2003) deals with the performance of caseworkers in allocating people into labour market programmes.

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