

# working paper series n° 002/2022



Joanna Haupt

Swiss wages and earnings, 1918-1993

A critical overview and classification
of available data series

https://hsso.ch

# **Abstract**

This working paper aims to guide users through the data series on wages and earnings available on the <a href="www.hsso.ch">www.hsso.ch</a> website (hereafter: HSSO). It also lists additional data series that are not (yet) included in the database. The main text provides information on the historical context in which public wage statistics emerged and developed in Switzerland as well as on the broad design of several academic research projects mentioned by HSSO. More detailed presentations of sources, categories and methodologies are available in the appendices.

Joanna Haupt, University of Zurich, May 2022

contact: joanna.haupt@uzh.ch

I would like to thank Matthieu Leimgruber (University of Zurich) and Christian Stohr (Canton of Geneva Statistical Office) for their help in the conceptualization and writing of this working paper, as well as Joël Floris (University of Zurich) for his comments on an earlier version of this article.

#### Table of contents

Abstract	
Abbreviations and translations	2
Wage data available on HSSO	4
Public wage statistics in twentieth century Switzerland	4
From injured worker's earnings (1918, SUVA-Wages series)	4
to monthly wage surveys (1943, BIGA-Wages series)	5
From the uneasy cohabitation between two data series (1943-1985)	5
to an overall reform of wage statistics (late 1980s)	5
Historical statistics of Switzerland	6
Further historical data on wages and salary in Switzerland	7
Public statistics and surveys	7
Trade associations and workers' organizations publications	8
Datasets from academic research	8
Appendices	9
A_01: An overview of Chapter G (HSSO.ch version)	9
A_02: Data description. SUVA-Wages: Injured workers wage statistic, 1918-1984	10
A_03: Data Description. BIGA-Wages: Survey on wages and salary, 1939-1990	11
A_04: Data Classification of SUVA and BIGA-Wages	12
Comments	13
A_05: Legacy introduction to the print version of the Historical Statistics of Switzerland (Ritzm 1996)	
Bibliography	18

# Abbreviations and translations

ASM <sup>1</sup>	en de fr	Employers' association of the machinery industry Arbeitgeberverband Schweizerischer Maschinenindustrieller Association patronale suisse de l'industrie des machines
BIGA	en de fr	Federal Office for Industry, Commerce and Labour Bundesamt für Industrie, Gewerbe und Arbeit Office fédéral de l'industrie, des arts et métiers et du travail
BIGA-Wages	en de fr	Survey on wages and salary (BIGA) Allgemeine Lohn- und Gehaltserhebung (BIGA) Enquête sur les salaires et traitements (OFIAMT)
BIGA-Yearbook	de fr	BIGA-Yearbook La vie économique
BFS	en de fr	Federal Statistical Office Bundesamt für Statistik Office fédéral de la statistique
BFS-Yearbook	de fr	Statistisches Jahrbuch der Schweiz Annuaire statistique de la Suisse
EPA	en de fr	Federal Office of Personnel Management Eidgenössisches Personalamt Office fédéral du personnel
FSW	en de	Research Center for Social and Economic History (Zurich) Forschungsstelle für Sozial- und Wirtschaftsgeschichte (Zürich)
GAV-Wages	en de fr	Statistic on wage rates set in large cities by collective labor agreements or public regulations Durch Gesamtarbeitsverträge oder Besoldungsordnungen festgesetzte Lohnsätze in den Grossstädten Statistique des taux de salaires fixés dans les grandes villes par des contrats collectifs de travail ou des règlements publics.
LBK	en de fr	Consultative Commission for Wage Questions Beratende Kommission für Lohnfragen, Lohnbegutachtungskommission Commission consultative pour les questions de salaires
SAZH	en de fr	Statistical office of the City of Zurich Statistisches Amt der Stadt Zürich Office statistique de la ville de Zürich
SAZH-Yearbook	en de fr	Statistical yearbook of Zurich Statistisches Jahrbuch der Stadt Zürich Annuaire statistique de la ville de Zurich

<sup>&</sup>lt;sup>1</sup> All abbreviations are based on the german terminology.

SBV	en de fr	Swiss Farmers' Association Schweizerischer Bauernverband Union suisse des paysans
SBMV	en de fr	Employers' association of the construction sector Schweizerischer Baumeisterverband Société suisse des entrepreneurs
SKA	en de fr	Swiss Employees' Association Schweizerische Kaufmännischer Verband Société suisse des employés de commerce
SNF	en de fr	Swiss National Science Foundation Schweizerischer Nationalfonds Fonds national suisse
SSK	en de fr	Commission for Social Statistics Sozialstatistische Kommission Commission de statistique sociale
SUVA	en de fr	Swiss Institute for Accident Insurance Schweizerische Unfallversicherungsanstalt Caisse nationale suisse d'assurance en cas d'accidents
SUVA-Wages	en de fr	Injured workers wage statistic (SUVA) Statistik der Löhne verunfallter Arbeiter (SUVA) Statistique de salaire des ouvriers accidentés (SUVA)

Variation of wages statistic Veränderung der Lohnsätze

Statistique de la variation des taux de salaire

VL-Wages

en de

fr

# Wage data available on HSSO

HSSO Chapter G contains data originating from public statistics and academic research. Public wage statistics cover most of the twentieth century. Data on earlier periods stems from the research carried out by historians since the late 1960s.

For an overview of the tables and their classification, see **Appendix A\_01**.

# Public wage statistics in twentieth century Switzerland

At the national level, the two public statistics available on HSSO are:

- The SUVA-Wages statistic: for tables G.1, G.7a, G.7b, G.8a, G.8b and G.18
- The BIGA-Wages statistic: for tables G.1, G.8c, G.10b, G.11a to G11c, G.12, G.13, G.14a, G.14b, G.15ab and G.18
- The wage statistic of the City of Zurich: for tables G.6a and G.6b (see below section public statistics and surveys, p. 7)

# From injured worker's earnings (1918, SUVA-Wages series) ...

In 1919, Switzerland published its first national earnings statistic. This series, named *Injured workers wage statistics* (hereafter SUVA-Wages) was one of the first of its kind internationally and resulted from the 1912 foundation of a compulsory accident insurance for industrial workers. Thanks to the **information collected by the newly founded Swiss Accident Insurance Institution** (hereafter SUVA) to pay adequate compensation to accidented workers, the Federal statistical office (BFS) was able compute and publish **average absolute wages of production workers in various industrial sectors** as well as a wage index.

#### For a detailed presentation of this series, see **Appendix A\_02**.

In 1923, the BFS transferred the computing and publishing of these series to the Bureau of Labor (from 1930 onwards: Federal Office of Industry, Commerce and Labor, hereafter BIGA). In response to critics who considered this statistic to be unrepresentative, the BIGA aimed at the development of a more comprehensive survey. To ensure the collaboration of employers' as well as workers' associations, the project was supervised by the Commission of Social Statistics (SSK) from 1926 onwards. This experts' commission had just proven itself a useful negotiation arena as it had successfully launched the first official price index, after lengthy negotiations between employers, trade unions as well as federal experts (Tanner 1995). However, and despite repeated attempts, no significant progress was made towards a more reliable wage statistic during the Interwar period, notably because employers' associations refused to collaborate in a more detailed earnings survey (Haupt 2018).

# ... to monthly wage surveys (1943, BIGA-Wages series)

During World War II, inflationary pressure led the Federal Department of Economic Affairs to create the *Consultative Commission for Wage Questions* (hereafter LBK). This second experts' commission was tasked to "establish guidelines on the justifiable level and type of wage adjustment due to changes in the cost of living" (BIGA 1946). These guidelines were meant to avoid the kind of divergence between prices and wages which had spurred social unrest in the aftermath of World War I. For that purpose, it was felt necessary to obtain precise information on wage levels in all sectors. In that particular context, employers' associations finally accepted to deliver data on company-wise average wages. From 1943 onwards, the BIGA published a new statistic on absolute wages for several economic activities including, for the first time, not only blue-collar, but also white-collar workers: the *Survey on wages and salary* (hereafter BIGA-Wages). As for the SUVA-Wages, BIGA produced results on both average wages according to different categories (e.g. industries, skill-levels and gender) and a wage index from this survey.

For a detailed presentation of this series, see **Appendix A\_03**.

# From the uneasy cohabitation between two data series (1943-1985) ...

After 1945, the wage series suffered from two major problems. First, as shown in Appendix A\_03, the BIGA-Wages suffered from lacking granularity. It provided for example no regional-level results until 1979. Hardly a sufficient instrument for the conduct of war-time wage politics, the statistics did not meet the needs of the social partners as it was of little use in the context of decentralized wage bargaining. Second, a lack of transparency on the methodology and quality of the data undermined confidence in the results. Indeed, the statistic was mainly based on employers' own estimates and the BIGA had no control over the data, especially for very important sectors, such as the machine industry.

These deadlocks resulted from the struggle between on the one hand, BIGA experts and some trade unions, which insisted on the need for detailed and accurate results, and employers' association on the other hand, which had a firm grip on the survey and considered precise wage statistics as a dangerous development. In the context of postwar class conciliation and economic growth, the trade unions represented in the SSK accepted the status quo and stopped urging for improvements of the wage statistics (Haupt 2021).

#### ... to an overall reform of wage statistics (late 1980s)

In the context of the general overhaul of Swiss public statistics (Jost 2016: 95): the system of national wage statistics was completely redesigned. The SUVA-Wages was last published in its old format in 1985. Since 1986, it has been converted into the <a href="Swiss Wage Index">Swiss Wage Index</a>. This series still suffers from a number of shortcomings (e.g. no regional results, exclusion of male part-time workers and female full-time workers).

<sup>&</sup>lt;sup>2</sup> www.bfs.admin.ch/bfs/en/home/statistics/work-income/surveys/sli.html [last accessed May 2022].

The BIGA-Wages series was transferred from the BIGA to the BFS and became the current Swiss Earnings Structure Survey.<sup>3</sup> It was thoroughly reformed as it is now based on individual wage data collected from a representative sample of companies (BIGA 1997: 58).

HSSO Tables G.17 and G.18 are partially based on this new survey which includes federal (since 1994) and cantonal civil servants (since 1997) as well as part-time workers (since 1994) (BFS 2016).

# Historical statistics of Switzerland

Most of the data originating from academic research available in HSSO was compiled at the Research Center for Social and Economic History of the University of Zurich (FSW) by Hansjörg Siegenthaler and his team (see Leimgruber 2018)<sup>4</sup>:

- For Tables G.1, G.2, G.4 Data from the Swiss National Science Foundation (SNF) project "Beiträge zur quantitativen Beschreibung wirtschaftlicher Entwicklung der Schweiz im 19. Jahrhundert" collected by Michael Bernegger and Heiner Ritzmann-Blickenstorfer.
- For Tables G.1, G.3c-d, G.4, G.5a-f Data from a SNF project National Fund "Reallöhne schweizerische Industriearbeiter von 1890 to 1921" collected by Thomas Gross.
- For Table G.3d Data from the dissertation of Peter Dudzik written at the FSW and published in 1987 under the title "Innovation und Investition: Technische Entwikclung und Unternehmerentscheide in der schweizerischen Baumwollspinnerei, 1800 bis 1916".

#### For a presentation of these data series, see Appendix A\_05

On the other hand, Tables G.2, G.3a-c and G.16 are based on heterogeneous data:

- Data from earlier research led by historians Erich Gruner, Hans-Rudolf Wiedmer and Hansjörg Siegenthaler.
- Data compiled by statistician Rudolf Schwarzmann and economist Erika Rikli and published in 1939 by the Swiss association for statistics and economics
- Data from an overview book published in 1978 by Hans Brugger, chief statistician of the Swiss farmers' association (SBV).

Finally, in 2012, HSSO data series were partially revised for the publication of the Wirtschaftsgeschichte der Schweiz im 20. Jahrhundert (Halbeisen et al. 2012).

A new version of Table G.1 combining all data was created at that moment.

6

<sup>&</sup>lt;sup>3</sup> https://www.bfs.admin.ch/bfs/en/home/statistics/work-income/surveys/ess.html [last accessed May 2022].

<sup>&</sup>lt;sup>4</sup> https://hsso.ch/de/wp/1 [last accessed July 2022]

# Further historical data on wages and salary in Switzerland

This section provides a non-exhaustive list of data sources that are not (yet) included in HSSO. It distinguishes three types of sources: public statistics and survey, publications of employers' associations and trade unions, and academic research datasets.

# Public statistics and surveys

Some data published by the BIGA is not yet included in HSSO. All these statistics can be found in the corresponding editions of the **BIGA-Yearbook**:

- 1932-1984: Statistics on wage rates set in large cities by collective labor agreements or public regulations (hereafter GAV-wages). This series is based on declarations by employers' associations and trade organizations and informs on the wages agreed and set in collective labor agreements or public regulations. The statistic was published between 1940 (tracing back to 1932) and 1985 in order to correspond to the categories of the International Bureau of Labor wage statistics. It included only 32 mainly masculine professions in the five largest cities. As it is based on collective agreements that vary greatly between occupations and industries, the definition of wages is not uniform (for a detailed account of this statistic see BIGA 1956).
- 1943-1993: **Survey on wages and salary in the hotel industry**. Published every year in July.
- 1957-1977: Wages in military workshops and the workshops of the Swiss Federal Railways, based on a survey led by the BIGA in collaboration with the federal Office of Personnel Management (EPA).
- 1954-1957 (data covering the period 1939-1957): **Wages of agricultural servants and temporary workers** based on the data of the SBV, and published by the BIGA. The data from the SBV are known to be little reliable, at least for the beginning of the 20<sup>th</sup> century (Jost 2016: 47).
- 1924-1977 Statistic on the variation of wages (VL-Wages). Based on the business census.
- For federal civil servants and workers, the Federal Statistical Office published the **Highest and lowest yearly earnings of federal employees** (BFS 1957). These numbers are found in each edition of BFS-Yearbook. Numbers on the cantonal level can also be found. For Zurich, they were published in the SAZH-Yearbook since 1914 (data 1911).
- Cantonal and municipal statistical offices were not charged with collecting wage data (SAZH 1945: 38). To overcome this problem, the Statistical office of the City of Zurich (SAZH) compiled wage data based on three already existing sources in 1928: data from the SUVA, data from various employers' association (first for the construction sector, then for machinery, woodcraft and textile industry) and data from collective agreements on wages. For the construction industry, data goes back to 1907. All these series can be found in the SAZH-Yearbooks. For a detailed account of these series, see SAZH 1928 and 1945. Between 1945 and 1955, the SAZH published also average wage for the construction industry in 5 large cities. These last series are already included in HSSO Tables G.6a-G.6b.

# Trade associations and workers' organizations publications

During the 20<sup>th</sup> century, employers' associations have collected many data on wages for their own means. Most of these series remained unpublished and may be located in their archives. Yet, here are two examples of published data:

- The Employers' Association of the machinery industry (ASM) published data on average wages by qualification and gender at the national level. The data was collected since the creation of the association in 1905 through a questionnaire sent to ASM members (ASM 1911: 46) and was published in ASM annual reports.
- The Employers' Association of the construction sector (SBMV) published data on average wages by qualification at the national level in its annual reports. The data goes back to 1914, but was not published until 1941, year of the creation of the BIGA-Wages. It is a particularly interesting source as the BIGA-Wages does not include any information on the construction industry until 1955.

Trade unions have tried to overcome the scarcity of official publications by conducting their own surveys, but they were never as successful as employers' associations. Most of these studies were never published because of their insufficient quality (Haupt, 2021: 109). Here are two examples of published data:

- The **Swiss Trade Union Federation** (SGB) published in 1915 and 1928 two studies on wages (SGB 1917 and 1928). However, discouraged by the low participation of their affiliate unions, the SGB did not repeat the exercise (Zollinger 1955: 397).
- The Swiss Employees' Association (SKA), a white collars' union, collected and compiled data on wages at least for 1928, 1936, 1942 and 1950 (Zollinger 1955: 397). These series were published by Carl Brüschweiler, director of the BFS between 1931 and 1946 (Brüschweiler 1930, 1938, 1945).

#### Datasets from academic research

Historian Roman Studer (2008) has developed a series on 19<sup>th</sup> century wages in the Zurich construction industry.

Professor Ulrich Woitek (University of Zurich) and his team are currently collecting economic data (including wages) to measure economic growth and welfare in Switzerland between 1750 and 1850 (see: <a href="http://p3.snf.ch/project-182294">http://p3.snf.ch/project-182294</a>). The results of this project will be added to HSSO in the coming years.

<sup>&</sup>lt;sup>5</sup> Many thanks to Florian Müller (University of Zurich) for this information.

# **Appendices**

# A\_01: An overview of Chapter G (HSSO.ch version)

Table	Period covered	Ianie		Wage	types		Geographical level	Sectors covered	Gender	Qualifications	Sources
וו וו יו		I: hourly (h): daily (d): weekly (w): monthly (m) II: nominal (n): real (r) III: index (l): absolute (a) IV: agricultural (ag): production (pr): office (of) - = unspecified			f)	canton (ca) city (cl) region (re) - = unspecified [n] = number of units covered		√ = both -= unspecifi ed		(see below)	
		1	П	Ш	IV						
G.1	1831-1995	h	n, r	i, a	-	-	-	V	-	[1], [2], [3]	
G.2	1821-1890	h	n, r	i	-	ca [3]	8	-	-	[1], [4], [5]	
G.3a	1815-1875	d	n	а	pr	-	1	√	7	[6]	
G.3b	1815-1875	d	n	а	-	ca [3], re [1]	4	-	-	[6]	
G.3c	1881-1914	h, d	n	а	-	re [4], ci [18]	3	-	-	[2], [7], [16]	
G.3d	1821-1913	d	n	а	-	ca [5]	1	-	-	[2], [8]	
G.4	1866-1983	h	n	а	-	-	15	√	-	[1], [2], [9]	
G.5a-b	1881-1914	h	n	а	-	2 re, 1 ci, 3 ca	4	-	-	[2]	
G.5c-d	1890-1921	h	n	а	-	2 re, 5 ci	2	-	-	[2]	
G.5e-f	1890-1921	h	n	а	-	1 re, 11 ci	1	-	-	[2]	
G.6a	1906-1954	h	n	а	-	5 ci	2	-	-	[10]	
G.6b	1906-1954	h	n	а	-	1 ci	2	-	-	[10]	
G.7a	1948-1972	h	n	а	pr	26 ca	-	$\checkmark$	2	[9]	
G.7b	1948-1972	h	n	а	pr	30 ci	-	$\checkmark$	2	[9]	
G.8a	1918-1968	h, d, w	n, r	i	pr	-	-	√	5	[9]	
G.8b	1946-1983	h, w	n, r	i	pr	-	-	$\checkmark$	4	[9]	
G.8c	1942-1983	h, m	n, r	i	pr	-	-	$\checkmark$	5	[11]	
G.10b	1939-1990	h, m	n, r	а	pr	-	-	V	5	[11]	
G.11a	1939-1990	h	n	а	-	-	15	-	-	[11]	
G.11b	1939-1990	h	n	а	pr	-	15	men	1	[11]	
G.11c	1939-1990	h	n	а	pr	-	16	women	-	[11]	
G.12	1939-1990	m	n	а	-	-	23	men	-	[11]	
G.13	1939-1990	m	n	а	of	-	19	women	-	[11]	
G.15ab	1968-1990	m	n	а	of	-	24	men	3	[11]	
G.16	1870-1989	h, d	n	а	of, ag	- (+ 1 ca)	1	√	2	[12], [13]	
G.17	1939-2004	-	n	i	pr, of	-	-	V	2	[14]	
G.18	1890-2005	-	n, r	i	-	-	-	-	-	[14], [15]	

# Sources

[1] Bernegger/Ritzmann (1986) [2] Gross (1982)

[3] Various BIGA estimates

[4] Siegenthaler (1965)

[5] Schwarzmann (1939)

[6] Gruner (1968)

[7] Rikli (1939)

[8] Dudzik (1987)

[9] SUVA-Wages [10] SAZH-Yearbook 1945-1955

[11] BIGA-Wages

[12] Brugger (1978)

[13] SBV

[14] BFS StatWeb

[15] hsso.ch, Table G.1

[16] Gruner/Wiedmer (1987)

# A\_02: Data description. SUVA-Wages: Injured workers wage statistic, 1918-1984

When and where was the data published?

The data was first published in 1919 in the BFS-Yearbook. It was then published in the BIGA-Yearbook between 1923 and 1985.

Why is there also data for 1913 in G.8a?

Data for the period 1913-1918 originated from the files of three large casualty insurers (Winterthur, Zurich and Helvetia): active before the foundation of the SUVA. Data collection started immediately after the introduction of the federal law on industrial accidents in 1912, while the SUVA started its operations in 1918 only.

How was the data collected?

The data came from the accident files of injured workers declared to the SUVA. These files contained information on the injured worker: wages, gender, profession, economic sector, civil status, and place of accident. After the SUVA used the files for its own needs, they were sent to the BIGA. Hence, the data was published with a delay of 6 to 12 month.

What workers were included in the data?

1918-1972: operational staff in the industry and transportation 1973-1983: operational and office staff in industry 1984-1985: all workers, including services

Apprentices and foremen were included in the data but the BIGA did not publish the

Furthermore, the data excluded all wages above a certain daily maximum (a): 14 CHF from 1918 to 1921 - 21 CHF 1921-1945 - 26 CHF 1945-1952 - 30 CHF 1953-1956 - 40 CHF 1957-1960 - 50 CHF 1964-1966 - 70 CHF 1967-1970 - 100 CHF 1971-1973 - 150 CHF 1974->? - 191 CHF in 1986.

What was the definition of wage?

The wage considered was "the wage that should have been earned if the accident hadn't happened". Beside the basic salary, it included all incidental income such as cost of living and family allowances, tips, gratuities, commissions, salary bonuses and wage supplements for piecework. (b)

Please note that:

- family allowances were excluded since the data of 1984
- overtime pay was included between 1959 and 1973
- the 13th monthly salary was most probably not included (c)

The BIGA collected all types of wages (hourly, daily, weekly, monthly, yearly): but published: daily and hourly wages for 1918-1922 – hourly wages 1927-1928 – daily and hourly wages (d) for 1929-1946 – hourly and weekly wages (e) for 1947-1972 – hourly and monthly wages (f) for 1973-1985.

What was the method used to compile the data?

The BIGA separated the individual information by sector, gender, age and qualification. Then, it added all the information and divided them by the number of indications available. The result was a mean wage by sector, gender, age and qualification. The data was only published when the BIGA had 50 declarations of accident by category.

#### Sources

Arbeitsamt (1923: 2 & 112) and BIGA 1952: 310, 1956: 443-445, 1971: 400, 1973: 156, 1974: 489-493, 1985: 797, 1986: 122.

#### Notes

- (a) Art. 74 of Bundesgesetz über die Kranken- und Unfallversicherung = Loi fédérale sur l'assurance en cas de maladie et d'accidents foresaw 14 CHF as a maximal sum payed by the SUVA. It was constantly adapted since then.
- (b) Here is a complete list of the elements included (in French and German): « Teuerungszulagen, Familienzulagen, Regelmässige Nebenbezüge, jedoch ohne Überzeitzulagen, wie z.B. Lohnzulagen für Stückarbeit, Entschädigungen für Bekleidung, Leistungsprämien, Gewinnanteile, Gratifikationen, Trinkgelder, Taxanteile, Kommissionen oder Provisionen, Ferienentschädigungen und allfällige Naturalbezüge = allocations de vie chère, allocations familiales et allocations supplémentaires telles que pourboires, supplément de salaire pour travail aux pièces, indemnités pour habillement, primes à la production, participation au bénéfice, gratifications, pourboires, participation à des taxes, commissions, ainsi que prestations en nature » (BIGA 1956: 443-444).
- (c) Two arguments for this hypothesis: the first publication that mentions a 13th salary is the completely redesigned statistic in 1989 (See BIGA (1989: 41). Furthermore, 13th salary becomes only a common thing in the late 1970, after the generalization of the monthly payment (Degen 2012).
- (d) Daily, weekly and yearly wages -> daily wages. Hourly wages -> hourly wages.
- (e) Hourly, daily, weekly and yearly wages -> hourly wages. In parallel, weekly wages were calculated based on hourly wages. The BIGA wanted to improve the quality and reliability of the data by "mixing" all those different periods (BIGA 1948: 311).
- (f) Hourly and daily wages -> hourly wages. Weekly, monthly, daily wages -> monthly wages. The changed occurred to "adapt to the trend of monthly wages" (BIGA 1974: 490-491

# A\_03: Data Description. BIGA-Wages: Survey on wages and salary, 1939-1990

When and where was the data published?

The data was first published between 1943 and 1991 (a) in the BIGA-Yearbook. Between 1992 and 1993 the results can only be found online.

Why a second official statistic?

To get a more representative and quicker information on wages during the World War II. The existing statistic was criticized because of its lack of representativeness and its delayed publication.

How was the data collected?

The data was based on the indication of employers' associations. These organizations had three possibilities to collaborate with the BIGA: give their list of members to the BIGA; collect the data and hand it to the BIGA for compiling; collect and process the data themselves. According to the office, most associations chose the first option. (b)

Which workers were included in the data?

All workers in the companies in the industry and service sector that responded to the survey (c), including apprentices. All "senior employees" (such as directors, managers, sales representatives, team leaders, etc.) were excluded from the survey. Furthermore, this statistic gave no insights on agricultural workers and state employees. It also excluded part-time workers, family members, home workers and interns.

Which definition of wages was used?

Officially, the definition was adapted to match the SUVA-Wages' definition: basic salary plus incidental income. In practice, overtime pay was probably included and some parts of the incidental income have been excluded by some sectors at some point. Because of the heterogeneity of these exclusions, listing all of them is unfortunately impossible. Some extensive footnotes in each edition of the *BIGA-Yearbook* give information on that matter. Yet it is important to know that the Office was not always immediately informed of these exclusions and that the footnotes may be sometimes misinformed. (d) BIGA published hourly wages (e) for production workers/operational staff and monthly wages for employees/office staff. (f) For some years, an index of weekly wages was also calculated. (g)

What was the method used to compile the data?

The data is based on two surveys sent to employers, one for operational staff, the other for office staff. The employer indicated the payroll, the hours worked and the number of workers by category of workers. The month under review was October. (h) Because of this method, the survey gave no information on individual wages.

#### Sources

BIGA 1943: 73, 1956: 443, 1970: 547-548, 1974: 264, 1989: 42; Swiss federal archives 1946, 1954, 1956, 1961 and BFS 2009.

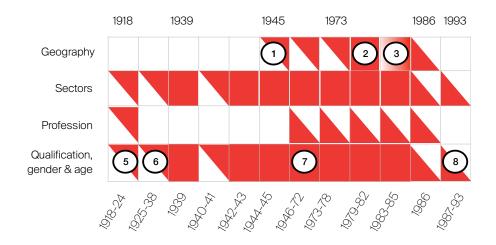
#### Notes

- (a) In this working paper, the year mentioned is the year of the data, not of the publication (between 6 month and 1 year later).
- (b) The data published on hsso.ch is not as detailed as the data initially published by the BIGA. Therefore, the following information may not necessarily reflect the data available online. If a classification or a data mentioned in this working paper does not appear on our website, you can look up the original publication in the BIGA-Journal. A digital version of the detailed results of the BIGA-Wages between 1964 and 1993 is also available on the BFS website (<a href="https://www.bfs.admin.ch/bfs/de/home/dienstleistungen/historische-daten/publikationen.html">https://www.bfs.admin.ch/bfs/de/home/dienstleistungen/historische-daten/publikationen.html</a>)
- (c) In contrast, at the beginning of the enquiry, the BIGA contacted 570 employers' associations and trade unions and only 24 of them delegated the task of collecting the data to the BIGA (Swiss Federal Archives 1946).
- (d) The first results for the construction industry were for example only published in 1955. But the construction industry shaped the survey according to their own needs and not after the BIGA methodology. Services were also not completely included: in 1970, the BIGA underscored that the following branches were underrepresented: sport, theatre, schools, welfare and healthcare (BIGA 1970).
  For example, the BIGA discovered only in 1961 that about 1/3 of all gratuities were excluded in the sample (Swiss Federal Archives 1961).
- (e) The BIGA translated monthly wages in hourly wages for production workers (BIGA 1989: 42).
- (f) Employers decided who is to be considered production worker and who was an employee by choosing which of the two possible forms to fill with the information about their workers. The form for employee and the form for production workers are two separate forms with different classification of qualification (BIGA 1956: 443).
- (g) To my knowledge: the first time in 1963, the last time in 1966.
- (h) During the month of October for employees or during 14 days during the month of October for the workers paid without hourly, daily and weekly wages (BIGA 1970: 548).

# A\_04: Data Classification of SUVA and BIGA-Wages

SUVA-Wages and BIGA-Wages have been classified in different ways through the years. HSSO does not include all these different classifications. These ones enhance the granularity of the data and could give indications both on regional and sectoral differences and on the individual characteristics of the workers: profession, qualification, gender, age, civil status.

In the BIGA-Yearbook, you can also find some "cross-classifications" of the SUVA-Wages series for some years (i.e hourly wages of the operational staff by gender and sector (BIGA 1982: 130).



#### Table caption



BIGA-Wages is classified by this variable

SUVA-Wages is classified by this variable



Both statistics are classified by this variable

- 1 Geo 2 begins only in 1946 for SUVA-wages.
- The only geographical indication for BIGA-wages is geo 2 (1979-1986)
- (3) 1983-1985: geo 1 for SUVA-wages and geo 2 for BIGA-wages
- Additional classification by age groups and civil status for SUVA-wages in 1932, 1936, 1944, 1953, 1960, 1964, 1968, 1973, 1976 and 1979
- (6) Qualification for SUVA-wages only since 1922
- 7 Age is missing for SUVA-wages since 1972
- 8 Age is missing for BIGA-wages since 1987

A\_04 is based on all editions of the BIGA-Yearbook between 1919 and 1994.

#### Comments

The sources to appendix A\_04 are the BIGA-Yearbooks. The year in the timeline corresponds to the year under review, not the date of publication.

One exception is the classification by age and civil status, which was published in the following editions:

- 1946: data for 1932, 1936, 1939 and 1944
- 1955: data for 1953
- 1965: data for 1960 and 1964
- 1969: data for 1968
- 1973: data for 1972
- 1980: data for 1976 and 1979

#### Geographical classification

In Table\_03 the term geography refers to:

- A classification by "municipal sizes" (geo 1)
- A classification by cities and cantons (geo 2)

The concept of "municipal size" is the first geographical classification used by SUVA-Wages. In German, these sizes were first called "Gebieten", then "Ortsklassen", "Ortsgrössenklassen", then finally "Gemeindegrössenklassen" and indicated 3 to 4 categories of municipality by size.

SUVA-Wages considers cities as all municipalities over 10'000 inhabitants at the time of the survey.

BIGA-Wages only gives results classified by geography for the 5 largest cities of Switzerland (Zurich, Bern, Basel, Lausanne, Geneva)

#### Gender

Since the beginning of the official wage statistics, Swiss wage data have always been separated between male and female wages. The care given to this classification was probably less due to a desire to give a clear view of the living conditions of working women in Switzerland rather than to avoid lowering the average wage data. Considering the important wage gap, it would have indeed dramatically changed the average wage levels.

That the preoccupation towards female wages was very secondary can be shown by the fact that part-time work has only been integrated in the surveys in 1994. A large share of working women (especially as part-time work spread over time) was therefore excluded from the official wage statistics during the entire 20<sup>th</sup> century.

#### Sectors

Unfortunately, the sectors considered and their classification vary too much between 1918 and 1990 to keep track of all the changes. This appendix only shows whether the data is classified by sector or not. It gives no indications on what sectors are included. The main message of this working paper on that matter is **that everyone interested in wages of one specific sector should have a look at the original publication** and check for the time consistency of the industry classification.

#### **Professions**

In the same way, it is impossible to take into all professions included in the original publication. Yet the classification by profession was applied to the entire industrial sector only between 1968 and 1988. Before that, only professions in the so-called "Gewerbe" (trades and craft) were included.

#### Qualification levels

The classification by qualification levels also varies over time and is different for each statistic. Most of the time, the qualification levels are as follows:

- For operational staff in the SUVA-Wages: distinction between qualified/semi-qualified and not qualified.
- For operational staff in the BIGA-Wages: distinction between qualified and semi-qualified/not-qualified.
- For office staff in the SUVA-Wages: distinction between senior technical employees, senior administrative employees, technical employees, administrative employees.
- For office staff in the BIGA-Wages: distinction between qualified employees with vocational training or completed studies with great autonomy (accountant, foremen, manager, etc.); employees with vocational training or special knowledge (assistant accountant, saleswomen, etc.); auxiliary employees.

# A\_05: Legacy introduction to the print version of the Historical Statistics of Switzerland (Ritzmann, 1996)

#### Introduction

The chapter consists of two main parts, with the first one covering the period of 1815–1921, and the second the period of 1906–1990. The tables of the first part primarily report the results of two retrospective estimates which were developed some time ago at the Research Institute for Swiss Social and Economic History of the University of Zurich ("Forschungsstelle für schweizerische Sozial- und Wirtschaftsgeschichte der Universität Zürich"). In addition, we also present data compiled earlier by Erich Gruner and Jörg Siegenthaler at the University of Berne.

#### Salary series 1815-1890

Within the framework of the National Fund project "Contributions to the Quantitative Description of the Economic Development of Switzerland in the 19th Century" ("Beiträge zur quantitativen Beschreibung wirtschaftlicher Entwicklung in der Schweiz im 19. Jahrhundert"): Michael Bernegger and Heiner Ritzmann attempted to reconstruct, based on private company recordings, the progression of the salary curve for the second sector and some of its major branches for the years 1851–1890. Since the source material permitted the formation of series going back to the early 19<sup>th</sup> century in certain cases, we can show the final index of industrial salaries even for the 1820s, 30s, and 40s. However, for those early periods, the index should not be viewed as more than a rather rough estimate. The same holds true for the two final series containing absolute values which were only included in table G.1. [G.2 in 2022] for completeness' sake. It must be emphasized that they are merely statistical artifacts and cannot be used to draw any conclusions on the absolute level of nominal and real branch salaries. The computation of those would require a level of knowledge of the branch's internal occupational structure much more precise than we had time to acquire. For example, we would have to know how many carders, knotters, and laborers were employed in the cotton industry in the middle and end of the 19th century. In addition, a troublesome transformation of many series would be inevitable. Daily and weekly salaries would have to be converted into hourly rates, and we'd have to arrive at salary rate levels based on salary sum series and employment data. Since this path was not an option, Bernegger and Ritzmann were forced to limit themselves to the development of branch indices. They used the simplest method when doing so, weighting individual company series at a 1:1 ratio. The recordings of the following firms were

- Cotton mill: Jenny, Ennenda GL (1858–1914); Gattikon, Thalwil ZH (1821–1856); Hürlimann, Rapperswil SG (1835–1880); Lorze, Baar ZG (1857 to 1914); Zangger, Uster ZH (1824–1839 and 1872–1883); Blumer, Schwanden GL (1853 to 1864 and 1869–1898).
- Cotton weaving mill: Jenny, Ennenda GL (1862 to 1899); Oberholzer, Wald ZH (1850-1856); Weber Aarburg AG (1887-1914); Spoerry, Wald ZH (1853 to 1900); Spälthy, Netstal GL (1866-1893); Trümpler, Uster ZH (1868-1876); various weaving mills in the canton of St. Gall (1867-1880, informations of Hermann Wartmann: Industrie und Handel des Kantons St. Gallen 1875-1921).
- Cotton press: Blumer, Schwanden GL (1853 to 1864 and 1869–1898); Jenny, Schwanden GL (1863–1899).
- Silk weaving mill: Schwarzenbach, Thalwil ZH (1852–1911). Silk band weaving mill: Württemberghof BS (1845 to 1913);
   Bachofen BS (1862–1873).
- Foil spinning mill: Alioth BS (1852–1873).
- Dye works and Finishing: Clavel BS (1874–1900).
- Wool spinnery and wool weaving mill: Hefti, Hätzingen GL (1837–1873).
- Linen weaving mill: Schmid & Co., Burgdorf BE (1879–1887).
- Chemistry: Schnorf, Uetikon ZH (1823–1890).
- Metal and machine industry: Rieter, Winterthur ZH (1851–1901).
- Construction industry: Stadtbauamt Zürich (building authorities of Zurich) (1813–1860); Jakob Staub, Zurich (1860– 1887).
- Railroads: Nordostbahn, Zentralbahn and Vereinigte Schweizerbahnen (1853–1900).

Ritzmann weighted the estimated branch indices according to the schema printed below, which contains data from official publications as well as retrospective estimates (see chapter F.: Commentary to the table section and table F.1.) and used them to build an overall industrial salary index which, however, is representative for the German speaking part of Switzerland only. The major flaw of this aggregate series of indices is that it ignores the conditions in the embroidery and watchmaking industry. A reconstruction of the salary curves in those two trades failed because in both cases production conditions were far too complex to even consider drawing conclusions on branchwide salary progression based on the few recorded salary series.

Still, we feel that the overall index we built reflects the actual progression of industrial pay for the period 1821/40–1890 somewhat better than the estimates of Schwarzmann, J. Siegenthaler, and Gruner which were consulted for comparison purposes. The partially drastic deviations between their estimates and ours, but also between Gruner's estimates and those of J. Siegenthaler, can be attributed to the use of different sources, different weighting of branch series, and also different methods of arriving at a deflation factor for the cost of living, i. e. the consumer price index. Unfortunately, this is not the place for a detailed review and critique of the methods used.

#### Salary series 1890-1921

Economy historians participating in the national fund project "Real salaries of Swiss industrial workers from 1890 to 1921" ("Reallöhne schweizerischer Industriearbeiter von 1890 bis 1921") were charged to estimate hourly salaries paid to employees in the second sector and in the transportation field. It was the authors' goal to present actual pay levels, which meant they had to determine piecework wages as well as the regularly paid cost of living increases, which played a substantial role in all branches except construction after 1917. Not included are extraordinary salary supplements and bonuses given to part of the workers, and tips which represented a substantial part of the income of drivers and carriers. Participants in this project were confronted with very uneven sources, both at the regional and the branch specific levels. When processing the primary data material, it seemed prudent to concentrate on homogenous series of maximum range. These criteria were fulfilled best by the accident statistics recorded by canton governments, some of which also carried the salaries of accident victims. Such recordings are available for the cantons of Zurich (1890-1918): Berne (1899, 1906 to 1918): and Solothurn (1897-1902). Salary compilations from individual employer associations and trade unions as well as salary logs of companies were used to fill gaps and provide missing data. The research area was confined to the major cities, Zurich, Berne, and Basle, the midsize cities, Winterthur and Biel/Bienne, as well as the Zurich upland "Oberland" and the northern part of the canton of Berne, i. e. two industrialized rural regions. The regionally aggregated data therefore represented the general salary progression in the industrial communities - communities generally with a population above 2500 - of the nine cantons Zurich, Berne (without Jura and "Oberland"): Lucerne, Zoug, Solothurn, Basle Country, Basle City, Argovia, and Schaffhausen. Thus, this project again neglected to include two of the nation's most important trade industries, embroidering and watchmaking, in the construction of an overall salary index.

Due to the heterogeneity of the source material it was impossible to use the same methodology for the development of all local branch pay indices. For the City of Zurich, it was possible to develop salary series for a total of 22 professions: beer brewer, baker; tailor; three construction trades, carpenter; six textile trades, four manufacturing trades; typographers and type setters; railroad workers, drivers, and beer wagoners. In all other cases, the authors relied on much smaller samples when estimating the progression of trade pay series. Most of the time, they had to content themselves with one single set of data covering one or several professions in the beverage, construction, metalworking, transportation, or graphical arts industry. The spectrum of included professions could only be expanded where the working population of a region was certain concentrated in trades (textile, As much as possible, it was attempted to determine an absolute average hourly wage for each region, profession, and year. Since the salary information provided in sources pertained to uneven periods of time, a general conversion into hourly wages was inevitable. This required the determination of the average annual working hours for each profession and each year. These numbers are printed in chapter F. ("Employment").

Using the 1910 employment statistic's weighting factor, the trade salary series were then compiled into weighted branch salary series. Finally, the interregional branch salary series were used to compute a national index of workers salaries, again applying weighting according to the 1910 employment statistics. At the branch level, the quality of the estimate series varies: the two indices documenting salary increases in the metal and manufacturing industry and in the construction and lumber industry seem the most reliable, whereas, on the other hand, the index orienting on the salary development in the chemical industry is marred by the fact that it is based on the data of one single firm. It is noticeable that in years where the retrospective estimate overlaps contemporary salary statistics, the estimated values almost always significantly exceed those presented by the Swiss Workers Compensation (Swiss Accident Insurance Company SUVA/CNA). The authors of the study "Real salaries of the Swiss industrial workers from 1890 to 1921" ("Reallöhne schweizerischer Industriearbeiter von 1890 bis 1921") suspect that cost of living increases were not included in the accident salary statistics. This thesis is supported by the fact that the two series deviate only minimally in the construction field which did not pay cost of living increases.

# Index of industrial salaries 1821-1890: weighting of individual branches (working population)

Textilindustrie: Subbranchen der Baumwollindustrie Industrie textile: branches de l'industrie du coton Textile industry: subbranches of the cotton industry

Jahr Année	Spinnerei Filature	Handweberei Tissage à la main	Weberei Tissage	Druckerei Impression	Total Total	
Year	Spinning	Hand weaving	Weaving	Printing	Total	
1821	8000	47000	0	5000	60000	
1840	11000	51800	1200	6000	70000	
1850	12000	58500	2500	7000	80000	
1860	15000	55000	5000	10000	85000	
1865	15000	50000	10000	15000	90000	
1870	15000	48000	12000	10000	85000	
1875	15000	39000	16000	10000	80000	
1880	15000	30000	20000	10000	75000	
1885	15000	15000	25000	10000	65000	
1890	15000	5000	20000	10000	50000	

Textilindustrie: Subbranchen der Seidenindustrie Industrie textile: branches de l'industrie de la soie Textile industry: sub branches of the silk industry

Jahr	Spinnerei	Stoffweberei	Bandweberei	Färberei	Total	
Année	Filature	Tissage	Rubanerie	Teinture	Total	
Year	Spinning	Weaving	Band weaving	Dying	Total	
1821	4000	8000	8000		20000	
1840	5000	14500	14500	1000	35000	
1850	6000	21000	21000	2000	50000	
1860	7000	23000	23000	2000	55000	
1865	8000	25000	25000	2000	60000	
1870	8000	30000	25000	2000	65000	
1875	8000	35000	25000	2000	70000	
1880	8000	35000	20000	2000	65000	
1885	8000	34000	18500	2000	62500	
1890	10000	30000	18000	2000	60000	

Textilindustrie: Hauptbranchen Industrie textile: branches principales  $Textile\ industry:\ major\ branches$ 

Jahr	Baumwolle	Baumwolle Seide	Wolle	Leinen	Übrige	Total
Année	Coton	Soie	Laine	Lin	Autres	Total
Year Cotton	Silk	Wool	Linen	Others	Total	
1821	60000	21000	1000	100000		
1840	70000	35000	2000	130000		
1850	80000	50000	2000	10000	18000	160000
1860	85000	55000	2000	10000	28000	180000
1865	90000	60000	2000	10000	38000	180000
1870	85000	65000	2000	10000	38000	200000
1875	80000	70000	2500	10000	37500	200000
1880	75000	65000	3000	10000	42000	195000
1885	65000	62500	3500	9000	45000	185000
1890	50000	60000	4000	8000	48000	170000

 $Total\ Industrie:\ Hauptbranchen$  $Industrie\ au\ total:\ branches\ principales$ Total industrial: major branches

Jahr Année	Textilindustrie Industrie textile	Chemie Chimie	Metall, Maschinen Métaux, machines	Bau Bâtiment	Eisenbahnen Chemins de fer	Total* Total*	Total** Total**	%*** %***
Year	Textile industry	Chemical	Manufacturing	Construction	Railroad	Total*	Total**	%***
1821	100000	500	1000	25000	0	126500	250000	51
1840	130000	600	8000	30000	0	168600	300000	56
1850	160000	700	10000	35000	0	205700	350000	59
1855	170000	800	15000	40000	2000	227000	400000	57
1860	180000	1000	20000	45000	6000	252000	450000	56
1865	180000	1500	24000	50000	10000	265500	475000	56
1870	200000	2000	28000	55000	15000	300000	500000	60
1875	200000	2500	32000	60000	25000	319500	520000	61
1880	195000	3000	36000	65000	25900	309000	535000	58
1885	185000	3500	38000	65000	25000	316500	535000	59
1890	170000	4000	40000	70000	25000	309000	535000	58

- Total der erfassten Branchen.
- \*\* Total aller Branchen.
  \*\*\* Total der erfassten Branchen in Prozent des Totals aller Industriebranchen.
- Total des branches considérées.
- Ensemble des branches. Total des branches considérées en pour cent de l'ensemble des branches.
- Total of covered branches.
- \*\* Total of all branches.
  \*\*\* Total of covered branches as percent of total of all industrial branches.

#### Salary series 1906-1990

The second half of the table section contains almost exclusively official figures, namely the salary statistics of the Swiss Workers Compensation (SUVA/CNA) and the so called General Wages and Salary Survey of the Federal Office for Industry, Trade, and Labor (BIGA/OFIAMT): which is performed on real salaries each October. The data on salaries of accident victims covers the period of 1918–1983, while the BIGA/OFIAMT General Wages and Salary Survey does not commence until 1939 and 1943, respectively, but extends closer to the present. Both statistics are not only divided by branch, but also differentiate between different categories of salary recipients. However, we decided to limit the presentation of branch specific salary development by category of salary recipients to only one statistic, the BIGA/OFIAMT General Wages and Salary Survey. With regard to the accident statistics, it seemed more appropriate to include figures presented in the magazine "The Economy" ("BIGA-Yearbook" / "La Vie économique") on the evolution of salaries in the cantons and several large cities to this publication.

The accidence insurance law of January 1, 1984 made insurance coverage mandatory for all employees for the first time. This change made it possible for the BIGA/OFIAMT to develop an improved salary statistic which was more representative than the old statistic. However, since this statistical series currently only covers a few years, and since the evolution of branch salaries between 1984 and 1990 can also be followed in the General Wages and Salary Survey, we chose not to reprint it. The figures were published in the Statistical Yearbook of Switzerland and in the magazine "The Economy" but it should be mentioned that the branch subdivisions in the Statistical Yearbook for the years 1968–1986 are only partially identical with those in "The Economy". Our tables are based on the substantially more detailed data of the latter source.

# Bibliography

# Original sources

Protokoll der Sitzung der Sozialstatistischen Kommission vom 26. September 1961, in: Swiss Federal Archives E9500.118#1992/126#2\* (1948-1966): *Protokolle der Plenarsitzungen*.

Protokoll der Sitzung der Sozialstatistischen Kommission vom 8. Dezember 1956, in: Swiss Federal Archives E9500.118#1992/126#2\* (1948-1966): *Protokolle der Plenarsitzungen*.

Protokoll der Sitzung der Sozialstatistischen Kommission vom 7. April 1954, in: Swiss Federal Archives E9500.118#1992/126#2\* (1948-1966): *Protokolle der Plenarsitzungen*.

Stand der Enquête über die Lohn- und Gehaltsanpassung zu Mitte Februar 1942, in: Swiss Federal Archives E7181A#1978/80#492\* (1946): Schlussbericht über die kriegsbedingte Tätigkeit der Lohnbegutachtungskommission des EVD während der Jahre 1941-1946.

#### Published sources

Arbeitgeberverband schweizerischer Maschinenindustrieller, Jahresberichte an die Mitglieder, 1914-1945.

Arbeitsamt (1923): Die Arbeitslöhne verunfallter Arbeiter in der Metall- und Maschinenindustrie. 1913 und 1918, bis 1923, in: Sozialstatistische Mitteilungen = Informations de statistique sociale, p. 112.

BFS-Yearbooks 1919 - 1998.

BFS (1957): Niedrigste und höchste Jahresverdienste des Bundespersonals, in: Statistisches Jahrbuch der Schweiz, p. 386.

BFS (2009): Encyclopédie statistique de la Suisse. Collection « Statistique historique ». 3, Vie active et rémunération du travail. Enquête sur les salaires et traitements versés en octobre 1991 – Résultats globaux.

BFS (2016): Enquête suisse sur la structure des salaires. Fiche signalétique – Enquêtes, sources, online: https://www.bfs.admin.ch/bfs/fr/home/statistiques/travail-remuneration/enquetes/ess.assetdetail.13967844.html [last accessed July 2022]

BIGA-Yearbooks 1923-1994.

BIGA (1943): Die Lohn- und Gehaltserhebung vom November 1942. 1. Teil, in BIGA-Yearbook, p. 73

BIGA (1946) Schlussbericht über die Kriegsbedingte Tätigkeit der Lohnbegutachtungskommission des eidgenössischen Volkswirtschaftsdepartements während der Jahre 1941 bis 1946, in *BIGA-Yearbook*, 1946, p. 392-413.

BIGA (1948): Löhne verunfallter Arbeiter im Jahre 1947, in BIGA-Yearbook, p. 311.

BIGA (1952): Löhne verunfallter Arbeiter 1951, in BIGA-Yearbook, p. 310.

BIGA (1956): Grundlagen der amtlichen Lohnstatistik. Vom Bundesamt für Industrie, Gewerbe und Arbeit, in *BIGA-Yearbook*, p. 443-445.

BIGA (1970): Die revidierten Grundlagen der allgemeinen Lohn- und Gehaltserhebung, in BIGA-Yearbook, p. 547.

BIGA (1971): Löhne verunfallter Arbeiter im Jahre 1970 nach Ortsgrössenklassen, Kantonen und einzelnen Städten, in *BIGA-Yearbook*, p. 400.

BIGA (1973): Manuel de statistique sociale suisse. 1932-1971, p. 156.

BIGA (1974a): Grundlagen der Statistik der Verdienste verunfallter Arbeitnehmer (Unfalllohnstatistik): in BIGA-Yearbook, p. 489-492

BIGA (1974b): Lohn- und Gehaltserhebung vom Oktober 1973, in BIGA-Yearbook, p. 264.

BIGA (1974c): Verdienste verunfallter Arbeitnehmer im Jahre 1973, in BIGA-Yearbook, pp. 490-493.

BIGA (1985a): Verdienste verunfallter Arbeitnehmer im 3. Quartal 1985, in *BIGA-Yearbook*, p. 797.

BIGA (1985b): Verdienste verunfallter Arbeitnehmer im 3. Quartal 1985, in BIGA-Yearbook, p. 797.

BIGA (1986): Verdienste verunfallter Arbeitnehmer im 4. Quartal 1985, in *BIGA-Yearbook*, p. 122

BIGA (1989/9): Lohnentwicklungen. Grundlagen der Statistik und Ergebnisse 1984-1989, in *BIGA-Yearbook*, pp. 41-42.

BIGA (1991/12): Piloterhebung zur Lohnstruktur im Kanton Genf, in BIGA-Yearbook, p. 59.

BIGA (1992/9): Modernisierung der Lohn- und Gehaltserhebung vom Oktober (LOK): in BIGA-Yearbook, p. 58

Brugger, Hans (1978): Die schweizerische Landwirtschaft 1850-1914. Frauenfeld: Huber.

Brüschweiler, Carl (1930): Einkommensverhältnisse kaufmännischer Angestellte in der Schweiz, 1928, Zurich: Schweizerischer Kaufmännischer Verband.

Brüschweiler, Carl (1939): Les conditions de salaires et de travail du personnel commercial en Suisse 1936 : résultats d'une enquête organisée par la Société suisse des commerçants, Zurich: Schweizerischer Kaufmännischer Verband.

Brüschweiler, Carl (1945): Les conditions de salaires du personnel commercial en Suisse, 1928-1942 : résultats d'une enquête organisée par la Société suisse des commerçants, Zurich: Service d'édition de la Société suisse des Commerçants.

Rikli, Erika (1939): Löhne in der Privatwirtschaft, in: Schweizerische Gesellschaft für Statistik und Volkswirtschaft (Eds.): *Handbuch der schweizerischen Volkswirtschaft*, II, Berne: Benteli A.G., p. 132–136.

SAZH (1928): Arbeitslöhne in der Zürcherischen Privatwirtschaft, in: SAZH (Eds.): Statistisches Buch der Stadt Zürich, p. 59-85.

SAZH (1945): Arbeitslöhne in Zürich, in: SAZH (Eds.): Zürcher statistische Nachrichten, p. 37-98.

Schwarzmann, Rudolf (1939): Verbrauch, in: Schweizerische Gesellschaft für Statistik und Volkswirtschaft (Eds.): *Handbuch der schweizerischen Volkswirtschaft*, II, Berne: Benteli A.G., p. 456–460.

Schweizerische Gesellschaft für Statistik und Volkswirtschaft (1955): *Handbuch der schweizerischen Volkswirtschaft*, II, Berne: Benteli A.G., p. 397-398.

Swiss Trade Union Federation (1917): Rapport sur la statistique des salaires de l'Union suisse des fédérales syndicales 1914/15, in: Revue syndicale suisse : organe de l'Union syndicale Suisse, 9, p. 11-16.

Swiss Trade Union Federation (1928): L'enquête de l'Union syndicale suisse sur les salaires, in: *Revue syndicale suisse : organe de l'Union syndicale suisse*, 21, p. 181–202.

Zollinger Richard (1955): Löhne und Arbeitszeit, Statistik, in: Schweizerische Gesellschaft für Statistik und Volkswirtschaft (Eds.): Handbuch der schweizerischen Volkswirtschaft, II., Berne: Benteli A.G., p. 397.

#### Literature

Bernegger, Michael and Ritzmann-Blickenstorfer, Heiner (1986): Beiträge zur quantitativen Beschreibung wirtschaftlicher Entwicklung der Schweiz im 19. Jahrhundert. Auswertung von Firmenarchiven, Swiss National Science Foundation project, University of Zurich (FSW).

Degen, Bernard (2012): Löhne = Salaires, in: *Historisches Lexikon der Schweiz = Dictionnaire historique de la Suisse*, online: https://hls-dhs-dss.ch/fr/articles/013919/2012-11-12/. [last accessed May 2022]

Dudzik, Peter (1987): Innovation und Investition. Technische Entwicklung und Unternehmensentscheide in der schweizerischen Baumwollspinnerei 1800 bis 1916, Unpublished Dissertation, University of Zurich (FSW).

Gross, Thomas (1982): Reallöhne schweizerischer Industriearbeiter von 1890 bis 1921, Swiss National Science Foundation project, University of Zurich (FSW).

Gruner, Erich and Wiedmer, Hans-Rudolf (1987): Arbeiterschaft und Wirtschaft in der Schweiz 1880–1914. Soziale Lage, Organisation und Kämpfe von Arbeitern und Unternehmern, politische Organisation und Sozialpolitik, I, Zurich: Chronos.

Halbeisen, Patrick; Müller, Margrit; Veyrassat, Béatrice (2012): Wirtschaftsgeschichte der Schweiz im 20. Jahrhundert, Zurich: Chronos.

Haupt, Joanna (2018): Faire des statistiques de salaire en Suisse. Une histoire de la commission de statistique sociale de l'Office fédéral de l'industrie, des arts et métier et du travail, 1925–1980, Unpublished Master Thesis, University of Geneva.

Haupt, Joanna (2021): Histoire d'un chiffre sensible : luttes politiques autour des statistiques de salaire en Suisse, 1918-1994, in: Schweizerisches Jahrbuch für Wirtschafts- und Sozialgeschichte = Annuaire suisse d'histoire économique et sociale, 35, pp. 103-114.

Leimgruber, Matthieu (2018): *The Historical Statistics of Switzerland, 1978-2018. A short history*, HSSO working paper 001, online: https://hsso.ch/de/wp/1. [last accessed June 2022]

Ritzmann-Blickenstorfer, Heiner (1996): G. Löhne = Salaires = Salaires, in: Siegenthaler, Hansjörg and Ritzmann-Blickenstorfer (Eds.): *Historische Statistik der Schweiz*, Zurich: Chronos, pp. 437-442.

Siegenthaler, Jürg (1965): Zum Lebensstandard schweizerischer Arbeiter im 19. Jahrhundert, in: Schweizerische Zeitschrift für Volkswirtschaft und Statistik, pp. 423–444.

Studer, Roman (2008): When did the Swiss Get so Rich? Comparing Living Standards in Switzerland and Europe, 1800-1913, in: *Journal of European Economic History*, 37(2): pp. 405-451.

Tanner, Jakob (1995): Der Tatsachenblick auf die «reale Wirklichkeit». Zur Entwicklung der Sozial- und Konsumstatistik in der Schweiz, in: *Schweizerische Zeitschrift für Geschichte = Revue suisse d'histoire*, 45(1), p. 94-108.