Global Work-Injury Policy Database (GWIP): Project Overview and Codebook, v2.1

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Summary

The Global Work-Injury Policy Database (GWIP) provides data on the introduction and development of work-injury policy in 188 independent nation states or territories. Work-injury policies are also historically known as “workmen’s compensation” and sometimes “accident insurance”. This paper provides the codebook for the GWIP. Several aspects of this research are confounded by terminology; therefore, we provide theoretical definitions and justifications of coding decisions in addition to the hard codes. This document accompanies the third public release of the 2020 cross-sectional data, *gwip_v3.csv* and the first public release of the longitudinal *gwip_long_v1.csv* data.

The data are available as single variables via the WeSIS Welfare State Information System www.wesis.org.

Both datasets are available via Harvard Dataverse https://doi.org/doi:10.7910/DVN/IVKYIE

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Table of Contents

1. Basic Information 3
   - Unit of Analysis: Nation State 3
   - Data Coverage: 1838-2020 4
   - Definitions of Work-Injury Laws and Relevant Terminology 5
   - Pre-Work-Injury National Policies 6
2. Variables 8
   - Missing Data 8
   - GWIP v3.0 – Cross-Sectional Data 9
   - GWIP LONG v1.0 – Longitudinal Data 18
3. Appendix 25
   - Sources 25
   - Abbreviations 26
   - Country-Specific Notes and Sources 27
4. References 113

1. Basic Information

We generated these data as part of a larger collaborative research center located at the University of Bremen focusing on the history of social security programs and the welfare state around the globe[1]. The data start with the development of the first national work-injury laws and the development of nation states as geo-political sovereign units starting around the mid-1800s.

Unit of Analysis: Nation State

Although many social welfare policies were made at the local and supranational levels, the nation state is the container that human society as a whole currently accepts as the highest order of sovereignty and thus policy-making power. Therefore, it is the unit of analysis in these data. Interestingly, there is no autonomous nation state on Earth that did not erect some form of welfare state policies at some point between the mid-1800s and early 2000s.

The development of the nation state in the form coded in these data arose as part of the shift from agricultural to industrial forms of work. In this process, events took place leading workers to obtain citizenship and social rights. This happened at different times in different places and to different degrees, but in general it represents a dramatic change in the history of human social organization. Whereas before, laborers – peasants, serfs, servants and etc. – had few if any rights, and were mostly dependent on a paternalistic or lord-vassal type relationship to secure their welfare and well-being. Except for the special case of soldiers, the 'working masses' had almost had no protections against social risks save charities. In some skilled occupations, workers formed their own collective risk pooling as members of guilds, but this covered only a fraction of the population. The first instance of large-scale worker risk pooling came via national legislation.

The nation state emerged as the main sovereign container of societies around the same time as workers were obtaining new rights in societies. Thus, the genesis of worker social rights is coterminous with the codification of nation states. It appears that without workers' having some degree of social rights, a 'nation' cannot exist. The counterfactual logic here is that the workers are not part of the nation without social rights; in other words, neither do they have nationally granted entitlements nor are they likely to feel a part of a society that offers them little or nothing. When workers gained political and eventually social rights they were now part of a centralized system of risk-pooling. These systems today achieve a basic level of security and welfare for workers in many societies around the globe as of 2020. The power of nations resides in their workers' allegiance to that nation in addition to the nation's economic and political resources.

The strategy of enlisting allegiance to the nation for workers is similar to that of recruiting soldiers to fight for the nation. By offering the opportunity for benefits on top of wages, such as family

[1] PHASE 1 2018-2023 - Carina Schmitt, Herbert Obinger and Laura Seelkopf, "A02 Constituting the Welfare State in a Global Perspective. Determinants of Social Security Programmes" at the Collaborative Research Center (SFB 1342), University of Bremen ('CRC'). PHASE 2 2023-2026 – Breznau, Nate, Simone Scherger and Sebastian Fehrler, "A02 Global Dynamics of Coverage and Generosity in Work-Injury Compensation, Unemployment and Old-Age Pensions". See www.socialpolicydynamics.de for details.

compensation in the event of death, soldiers were more willing to fight for the nation. This phenomenon extends to workers who are likely more productive and cooperative when they feel an allegiance to a nation, or feel that the state is providing them with risk protections and improving their welfare.

Given the goal of measuring the introduction of work-injury from a global perspective we selected all possible nation states and quasi-nation states. At first we focused on those with a population over 500,000; however, we are adding those will less over time. Release v1.0 contains 186, but we hope to add all remaining small countries in future iterations. The main criterion for selection is sovereignty. Thus, our target population are all independent nation states at the time of writing this. The caveat is that we include previous versions or sub-sections of those states. For example, the countries that comprise the former Yugoslavia have legal codes that refer to Yugoslavian law in some cases. Sovereignty operates somewhat on a sliding scale, so we include “territories” that maintain mostly full self-rule even if they have a federal state-like status or the land on which they are sovereign is not technically owned by their nation (e.g., Puerto Rico, Guiana and Taiwan). We refer to all of them as “nation states” for the sake of simplicity.

Data Coverage: 1838-2020

These data only offer a sliver of the whole story of work-injury policy. Like any coding scheme they require defining a starting point, and here this point could be understood in a number of different ways. The first national work-injury laws we are aware of are in Germany (1838), France (1852) and Austria (1854), but these only covered specific occupational segments, mostly mining and railroad construction. The first known system legally designed for all blue-collar industrial workers in an entire nation state was the introduction of German social insurance in 1884, even though this law took many years and adjustments before it covered all workers. Most scholars mark this as the genesis of the welfare state. However, there is a clear path dependency of earlier laws with later laws, as social insurance follows a kind of evolutionary process from early working conditions and wage laws, to certain segments covered, to full blown social insurance (Abbott and DeViney 1992; Flora and Alber 2009). Thus, our timespan starts in the pre-work-injury phase with the 1838 German law and spans through 2019. The idea of a pre-phase is critical to the understanding of the development of work-injury law. The forms of labor, how they were organized, the extent of petty bourgeoisie, the wealth of a society, the strength and forms of labor movements, urbanization, wars and so many factors played a role in shaping how and when work-injury policy and other welfare state polices came into being. For whatever myriad reasons, 53% (100 out of 186) of nation states’ first work-injury laws were formed in pre-nation state times and then carried over through national formation, for example as colonies, members of the Soviet Union or kingdoms that would later become nation states.

Definitions of Work-Injury Laws and Relevant Terminology

Here we focus only on legal forms, thus it is possible for a country to have a law on paper that covers all workers, but in practice to cover none of them. Future iterations of these data will include variables related to coverage and effectiveness of policies.

First law. The year a law was passed. This does not necessarily mean the year the law comes into force and says nothing about how successfully implemented the law was. If there is no year set for implementation of the law written in the law or made simultaneously by decree, then we do not consider it a first law. To be a "first" law, the law must be the first instance of our object of inquiry and it must apply to an entire country or a substantial portion thereof. Further details are available under "First Work-Injury Law" in Section 2.1

Employer liability. This is the earliest and crudest form of work-injury protection. These laws deem that employers are responsible for compensating workers for their injuries sustained while at work. The laws sometimes prescribe schedules of specific payments per injury type and other times are vague in terms of amounts or durations. The key difference between these laws and risk-pooling laws is that the burden of proof is on the worker. Under employer liability, the worker must go to court or file a claim with the appropriate administration to obtain compensation and there is no agency or fund with capital at hand to provide such compensation. Court proceedings often proved to be insurmountable challenges to workers due to their costs or legal jargon and paperwork. Employer liability laws were not much improvement over civil or common laws that specified general fault compensation. What was new with these laws was that they specifically targeted workers and usually added some kind of schedule or baseline conditions. Although they did not do much in practice to alleviate the risk of work-injury, they are important because they appear to be 'stepping stones' in the path dependent development of risk-pooling and social insurance.

Risk-pooling. This is the underlying concept of a welfare state. The burden of a social risk such as work-injury, in addition to aging, health, unemployment and family formation, is shared across individuals and various labor market actors – usually workers, firms and the state. In other words, society takes on the burden of risks that face all individuals, or all individuals in a certain segment of society. Having an employer liability law that demands compensation is not risk-pooling as the fault falls onto the employer and the burden of proof often on the worker, and the employer may or may not have a security or insurance system in place to safeguard against this fault; or may fight to prove not being at fault in court. Therefore, risk-pooling means that some kind of fund or insurance system is set up to pool resources from the many to allocate them to the few when they fall victim to social risks.

Social insurance. This is when insurance for workers is mandatory and regulated by the state. Usually this term refers to having all basic social risks covered; here we use it only in the narrow form referencing work-injury. The worker is entitled to compensation for work-injury unless otherwise proven, i.e., the burden of proof that the worker is not entitled to compensation is on the employer or insurance company. This is a *no fault* concept, that relieves the employee and employer from seeking compensation or legal action. Insurance means that a firm, organization or branch of the state collects premiums and distributes funds. It might be organized publicly or

privately and there may be many insurance providers or only one. When workers and employers have no choice, but must have or provide insurance, then it fits the definition of social insurance.

Blue-collar workers. These are defined as industrial workers. They work in a production process involving mechanization. They are mostly manual laborers and machine operators. They vary from entirely unskilled through highly skilled workers. They are usually employed in private industry but may be employed by the state in cases where the state runs industries such as railroads. This class excludes agricultural and domestic workers, so long as they are not working with mechanized tools regularly.

Civil servants. These are bureaucratic and elected employees of the state. These exclude state run industries' blue-collar workers and exclude any form of manual laborer.

Permanent disability. We assume the worker does not require constant attendance, although it should be noted that under most schemes this begets a higher rate. Some cases like China have a base rate (90% of previous wages) and a lump sum. Although the lump sum at once would put the first 12 months wage replacement much higher than 100%, we code such cases as 100%. If the base wage is already 100%, then we code 105%. Some countries offer a flat rate. This has strong implications (Jamaica or Ireland for example). It means that low earners could get a really high rate. As high as 150%. But high earners, much lower. These cases require constant rate updates or the replacement rate changes due to cost of living / inflation. Malta is a good example. The rate updates are less than cost of living increases, so the rate as a % decreases without a policy change. Tunisia for example: Some countries calculate 0.5 times half of the wages. And then 1.5 x degree of disability x the other half of wages, and together is the replacement rate for perm. In such cases we take 87.5 as the degree of disability because it is the midpoint between 75 (our cut of for at least perm disabled) and 100 (the max).

Year. There is a margin of error in the year variable. We aim to code the year that a law comes into force rather than when it is written into law. For historical records this information is often missing. In such cases we default to year a law was made, but not necessarily when it comes into force, or is first reported in the ILO Legislative Series.

Error. In almost all colonial laws a sentence similar to the following for Uganda 1946 appears: "any class of persons whom the Governor in Council may by order declare not to be workmen for the purposes of this Ordinance." We assume these clauses were one of many instruments to deny natives, if not European blue-collar workers access to compensation. Disentangling these exact effects is impossible in a comparative project of this nature.

Export processing zones (EPZs). Many countries introduced export processing zone laws that allowed certain areas to be exempt from labor laws. The coverage of these are therefore reduced after these years. However, we continue to code laws as having full-coverage in these cases

Pre-Work-Injury National Policies

In addition to voluntary insurance schemes or those set up among guilds and employee associations, work-injury law evolved in a larger progression of laws to protect workers. In many

nation states laws against child labor, regulation of the materials that workers worked with (such as phosphorous), laws preventing or protecting female workers and providing the right to organize often came before or during the passage of work-injury laws. There was a massive global movement taking place of workers, in particular in industrialized nation states and sectors such as mining and matchstick making. Much of this was fueled by the Communist movement, but took on a variety of formats. Therefore, we are careful not to argue that our “first law” codes the absolute inception of worker protection against work-injury, as this arguably goes back much further.

2. Variables

Missing Data

There are two types of missing data in the *gwip* and *gwip_long* data. Blank spaces indicate that we have no information about the data point. It is possible that there is information out there, we cannot reliably say. A value of “-99” indicates that there is no law or that whatever the variable indicates it was not in existence. For example, for the variable *labor_workinjury_firstins_bluecollar_fullcoverage*, Bahrain does not have such a law so it gets a value of “-99” rather than a year of introduction. Alternatively, in the *gwip_long* data there is a law that covers miners in Greece in 1901, but we cannot find replacement rate data. Therefore, this cell is left blank in the .csv file. In the WeSIS data there are no blanks, so users accessing the data through WeSIS as opposed to the Harvard Dataverse will simply not find any information for Greece for this year for *labor_workinjury_replacement_rate_temp* and …*_perm*.

GWIP v3.1 – Cross-Sectional Data

This is the first GWIP dataset now in its third version. It contains cross-sectional variables for first laws, the first steps toward social insurance, first occupational groups covered and coverage and replacement rates for 2020 or nearest. Note that v2.0 (the file is names gwip20 on the Harvard dataverse) is the version that contains the variables created in the paper:

Breznau, Nate. 2025. "Measuring and Harmonising Coverage, Generosity and History of Work-Injury Policies Globally." *Social Policy & Administration* n/a(n/a). doi:10.1111/spol.13129.

In the following we list each substantive variable with a title (e.g., "Year of National Independence" and a variable label that users will find in the datafile (e.g., "*independence*"). The variable labels refer to the headers of the downloaded dataset. The sources for our coding are listed by country in the Appendix.

Country Name

variable label: *country_name*

The current English name of the country.

Country Code COW

variable label: *cow_code*

These are the codes used by the Correlates of War (CoW) Project (https://correlatesofwar.org/) to identify countries. They are also consistent with the CRC's internal designations. They modify or update the original CoW codes in the following ways:

- Puerto Rico: gets its own code of 6.
- Serbia: is coded 345 and includes all prior versions of Serbia, Montenegro and Yugoslavia for practical reasons.
- We leave both a code for Republic of Vietnam and Vietnam in the data (817 and 816 respectively) due to some confusion over values during our coding process. Therefore, there is no difference between the two countries' values. This we hope to fix at some point in the future. But users can take either number and have a relatively good measure of Vietnam since the Industrial Revolution.

Year of National Independence

variable label: *independence*

This variable gives information on the year a nation state becomes independent whether this arises out of association or end of colonial rule. If there were periods where the country lost independence but returned to its present or similar form (world wars or temporary annexation), then this code reflects the first instance except for cases of prolonged colonization, and having no work-injury laws prior to that colonization, for example Morocco is coded independent only after the long period of French colonization. This variable mostly follows recognition by the UN but deviates in some cases for countries that existed prior to the formation of the UN.

First Work-Injury Law

variable label: *labor_workinjury_firstlaw*

The year of introduction of the first law of any kind. It is the year the law is passed, not the moment it comes into force, so long as the timing of the law coming into force is written in the law or decided upon prior to its passing. For example, in Gambia their first written law had no time of implementation specified, so this does not count as a first law in our coding. Any law covering occupational segments should be coded, ideally it should apply to the entire country but geographic exceptions may occur as with federal systems and nation states with shifting boundaries. The first law is only coded if it is a notable extension of common or civil law. This means it has special provisions through which workers get due process, insurance or some other form of claims beyond an abstract principle of employer liability that is generally unenforceable, for example institutionalized 'forma pauperis' or legal requirement to report all accidents to authorities.

A ‘first law’ covers industrial workers in some way. Thus, a first law must include segments other than civil servants, military or seamen. However, a first law is coded if it covers industrial workers working for the federal government, for example the blue-collar railroad workers in the United States. In cases of colonialism, colonial laws count as first laws. The first law should apply to the same geographic territory as it was at the time of the law as exists today, with small exceptions for shifts in official borders, for example Poland has ever shifting borders prior to WWII. Exceptions are made for cases where societies were one and then split due to the Cold War such as Korea, where the first law is the same law from the pre-Cold War single Korea for both North and South Korea of present day.

In federal countries (Mexico, U.S., Germany, Australia) we try to code the first federal law as the first law. If there is no comprehensive federal law, then we code full-coverage as when all states (or all states legally formed at the time) had legislation in place.

First Work-Injury Risk-Pooling Law

variable label: *labor_workinjury_firstins*

This is the year of the first law providing insurance against work-related injury. “Insurance” here refers to the common definition, not the legal definition, as providing some form of shared protection against risk. That is why we refer to this as “risk-pooling” not “insurance” in the variable name. This variable indicates the first instance of mandatory social risk pooling. A provident fund, for example, counts as risk-pooling because workers have a shared pool of resources to protect them in case of an accident; again this is only by law and says nothing about the effectiveness or implementation of the law. Simply having a law requiring employer liability is not risk-pooling in our definition, because there is no insurance (fund, insurance policy, etc.) backing up the legal liability. If the first law of any form in a country was a risk-pooling law, then this variable is identical to *labor_workinjury_firstlaw*. If only a single occupation is covered but the state makes insurance mandatory for the entire single occupation (e.g., railroad workers or miners), then this would also count as the first risk-pooling law.

First Work-Injury Provident Fund or Burden of Proof Law

variable label: *labor_workinjury_first_fund*

First instance of risk-pooling as a provident fund or legal burden of proof on the employer. The latter addition is new with version 2. We now lump both of these into one variable, as they represent basic forms of pooling of social risk, or at least removing social risks from solely individual workers. It is missing if the country went directly from no law or employer liability without a fund to social insurance. For example, in Argentina, the 1915 law is employer liability, but it specifically puts the fault on the employer, unless the employer can prove otherwise (Ramacciotti 2011). Coding rules otherwise follow *labor_workinjury_firstins*. Provident fund means that paying money into a centralized fund is mandatory. This fund has the purpose of paying compensation. These funds vary greatly in nature, from occupation and industry specific to one fund for the entire workforce. Also, the amount contained in these funds, how much employees pay in, and what the fund managers do with the fund such as investing it or not also varies. For example, we code Uruguay’s 1920 law as the first instance of a ‘provident fund’ because employers must pay in to a temporary fund in the event of an accident, and then after the claim is made the worker either gets the money or the employer is found to be not liable and gets the money returned (ILO LS 1920, Uruguay Workmen’s Compensation, paragraph 47), a kind of mandatory ‘pay-as-you-go’ fund for the employer.

First Work-Injury Social Insurance Law

variable label: *labor_workinjury_first_socins*

First instance of social insurance for any blue-collar worker segment as defined in *labor_workinjury_firstins*. It must be mandatory that employees get private or associational firm

insurance policies, or the government itself is the insurer. The key difference in social insurance as a form of risk-pooling is that fault is no longer on the burden of the employee. The employee is automatically entitled to accident compensation unless otherwise disproven by the insurer or other interested party - this shifts fault away from the employee by default.

First Work-Injury National Law

variable label: *labor_workinjury_firstnat*

The year of the first law when the country exists as an independent political entity. Many first laws were implemented under colonial or foreign rule. If the law was simply carried over from a previous law before independence then the year is identical to the year of independence. Carried over requires intentional continuation of implementation. In cases where the first national law is passed within 2 years prior to independence, we code the year of the passing of the law rather than the year of independence and code *labor_workinjury_firstnat_carriedover* = “no”, as in Grenada, Bulgaria, Iceland, Benin, Cameroon and Samoa.

First Work-Injury National Law Carried Over

variable label: *labor_workinjury_firstnat_carriedover*

This variable indicates, whether a law from colonial, foreign or imperial rule is carried over after independence. It requires intentional implementation. The exceptions are states that became nation states and carried the law over and did not have a geopolitical change (i.e., boundaries stayed the same); for these cases the first national law could come while not a fully autonomous nation state (e.g., Austria in 1852, but not Prussia in 1838 because Prussia did not become a nation state after being part of the German Empire).

First Work-Injury Law: Program Type

variable label: *labor_workinjury_firstlaw_programtype*

The program type of a work-injury law can either be “Risk-Pooling”, meaning that there is some kind of mandatory risk pooling or “Employer liability” meaning that there is no involvement of the state in financing and risk pooling, only an obligation for the employers to compensate in the case of work accidents. In this version of the variable, “Risk-Pooling” refers to either provident funds set up by the state or made mandatory by the state or actual social insurance with a private or state carrier (as with the coding of *labor_workinjury_firstins*). “Employer liability” is not the same as common or civil law codes that assign fault in case of injury. “Employer liability” means that there is a specific law targeting employers in industrial accidents and deaths as something more than basic common and civil codes.

This is a variable constructed from a combination of *labor_workinjury_firstlaw*, *labor_workinjury_first_fund*, and *labor_workinjury_first_socins*.

First Work-Injury Law according to SSPW

variable label: *labor_workinjury_firstlaw_sspw*

Taken from the SSPW's 2019 or most recent country-specific html files.

Until now, most scholars obtained data on work-injury introduction from the SSPW (Social Security Programs Throughout the World Data from the U.S. Social Security Administration). In our investigation of each country we often find different years than what is in the SSPW data. We include the SSPW data as of 2020 here for user's reference as a variable. We do not argue that the SSPW is incorrect. They simply do not have a strict coding scheme as reported in an email exchange of October, 2016. We tried here to follow stricter coding guidelines and as a result have removed some theoretically impossible values in the SSPW, such as Poland's first law in 1883, which appears to be recorded from the ILO's 1935 *Report on Social Insurance*. In this ILO report, the 1883 code refers to the same law as Germany's 1884 code, so the year is one year off, and the law covered only a fraction of Poland at that time so this does not suffice to be Poland's first law according to our coding scheme.

First Work-Injury Full Coverage Law: Blue-Collar Workers

variable label: *labor_workinjury_firstlaw_whitecollar_fullcoverage*

Year of first ever law that covers all formally employed white-collar workers. The definition is not overly precise, but in laws we often find reference to white-collar or non-manual forms of work. This ideally includes professional, managerial, or administrative work, often characterized by tasks requiring intellectual rather than manual labor. Most often this work involves an office setting and managing information, planning, analyzing, and supporting organizational functions. These workers often hold salaried positions rather than being paid hourly. We code this as covering "all" as long as all enterprises with at least 5 or more employees are covered. This was a somewhat inferential undertaking because data were not always available. We will refine these measures over time and have taken notes by country (see Appendix). Note that coverage can be "full" in this variable, even if certain groups are excluded like women, ethnic or religious groups. We use the definition of a worker at the time of the passing of the law in that country. The logic is that the labor market was segmented, and citizenship was hierarchical in the early stages of work-injury law. Many groups were excluded as 'second class citizens' by law, thus there is no chance for them to be covered. Does not include prisoners or detainees; does not include 'casual workers'. This variable only accounts for *de jure* coverage.

First Work-Injury Law: Blue-Collar Workers

variable label: *labor_workinjury_firstlaw_bluecollar*

The year of the first law that we can find on the books that covers any portion of blue-collar workers. This is often a law covering miners or only those who work in extremely dangerous forms of work such as construction, mining and extraction involving explosives, massive objects or structures and/or explosives. This is almost always the same as the first law in a country. In rare cases this law can pre-date a first law because of geopolitical territorial relations. For example, in what is modern day Croatia there is a law in 1907 that was part of the Austro-Hungarian Empire. This certainly impacted people whose descendants became part of the USSR in 1922, but was not really a law ‘within’ this country. This is sometimes a grey area, and we do our best to infer based on the available data.

First Work-Injury Full Coverage Law: Blue-Collar Workers

variable label: *labor_workinjury_firstlaw_bluecollar_fullcoverage*

This is the year of full coverage for all blue-collar groups: manual labor; excluding agriculture and domestic workers. "All" means at least two-thirds, or all the major sectors of industry; exceptions should not be occupation or industry-specific. We code this as covering "all" as long as all enterprises with at least 5 or more employees are covered. This was a somewhat inferential undertaking because data were not always available. We will refine these measures over time and have taken notes by country (see Appendix). Note that coverage can be "full" in this variable, even if certain groups are excluded like women, ethnic or religious groups. We use the definition of a worker at the time of the passing of the law in that country. The logic is that the labor market was segmented, and citizenship was hierarchical in the early stages of work-injury law. Many groups were excluded as 'second class citizens' by law, thus there is no chance for them to be covered. Does not include prisoners or detainees; does not include 'casual workers'. This variable only accounts for *de jure* coverage. As a “first law” the coding otherwise follows *labor_workinjury_firstnat*. In future iterations we will code the types of blue-collar full coverage laws.

First Work-Injury Full Blue-Collar Insurance Law

variable label: *labor_workinjury_firstins_bluecollar_fullcoverage*

This refers to a law that meets the criteria of a first full coverage blue-collar law (*labor_workinjury_firstlaw_bluecollar_fullcoverage*) and meets the criteria of being social insurance (*labor_workinjury_first_socins*).

First Work-Injury Full Coverage Law: Blue-Collar Workers

variable label: labor_workinjury_firstlaw_agriworkers_fullcoverage

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Like blue-collar and white-collar full coverage, this variable refers to those working on farms, but excludes familial, non-commercial or farms with under 10 workers. These are wage workers, not farmers who own the farms.

Replacement Rate of Wages in Case of Permanent Work-Injury, 2020

variable label: *labor_workinjury_replacement_rate_perm_2020*

This is the percentage of the previous month, year or average recent wage (depending on law wording) that a disabled worker would receive for 52-weeks of incapacity to work when presumed to be permanently unfit, not returning for work. This variable is coded based on written laws ideally, but in many cases is in practice a combination of several laws and implementation practices. When we cannot find primary sources, the SSPW documentation is our second preferred choice. When we do not find this answer in one of our first two choices, we then look to secondary literature or internet searches. The coding requires corrections for various features of laws. When there are differing rates we assume single workers but also assume one child. This is partly data driven. Laws are often unspecific about single workers, but often include reference to a dependent child. For high demographic transition countries we assume two children, as one is rare. If there is a range we usually take the average. For example, in The Netherlands the range is 70-100% of earnings, so we enter 85 (the midpoint). We attempt to calculate that a worker is at least 80% disabled. Meaning that they are unfit for working another regular job. Many laws pay 100% for at least a 75% disability, but we adjust this down if not. If there are additional benefits that depend on multiple criteria that cannot be calculated, we adjust the amount upward by 5% or an average of all criteria. If there is a change within the first 6 months we make a calculation. For example, in Germany it is 100% for the first 6 weeks then 90 percent for the next 18, which equals 92.5 for the first 6 months. Decentralized systems (by state or province), we try to take the average. Here many of the additional benefits could apply.

Duration of Wage Replacement in Case of Permanent Work-Injury, 2020

variable label: *labor_workinjury_duration_perm_2020*

This is the duration of benefits in months. In some cases, this is “unlimited” meaning that the person who is permanently incapacitated for work is covered permanently. Here we account for systems that transfer workers from a specific work-injury policy into general disability or pension schemes. If this is the case, we code “unlimited”. The duration often depends on the prior contributions of the worker. In these cases, we assume a worker has worked in the job for 6 years. However, if there are no benefits before a worker has worked for 6 years we reduce the replacement rate by a factor of how much more they would have to work beyond one year to be

eligible. We take an average for cases that are limited in duration, but we cannot clearly ascertain data. In other cases, when the data are so unclear and rates dependent on so many factors we make an inferential guess, for example we assign Azerbaijan 72 months as there seems to be general proceedings that would determine duration but a lack of clear guidelines. At the same time, there are workers who get permanent coverage, so we set the duration at a relatively high amount. In case of lump sums we divide them by 6 years and compare this to the average wages in that country for 2020 to get a rough approximation of a yearly wage replacement.

Replacement Rate of Wages in Case of Temporary Work-Injury, 2020

variable label: *labor_workinjury_replacement_rate_temp_2020*

The coding rules follow labor_workinjury_replacement_rate_perm_2020, with the difference that the earnings are calculated over 6 months of incapacity to work and that the worker is presumed to return to work; this means they are not placed into disability or alternative programs. In cases of a lump sum, we take half to calculate an equivalent wage replacement rate.

Duration of Wage Replacement in Case of Temporary Work-Injury, 2020

variable label: *labor_workinjury_duration_temp_2020*

Here the coding is like *labor_workinjury_duration_perm_2020* in months, but we do not count if the worker might go into other systems such as disability or pensions. This is only in reference to the work-injury policy. If there is a lump sum we usually code 6 months for duration.

Work-Injury Policy Coverage as a Percentage of the Labor Force, 2020

variable label: *labor_workinjury_coverage_pct_lf_2020*

This variable is constructed primarily using ILO data with some inference based on legal texts and inference from percent of the labor force, and specific occupations that are covered. It should be understood as ideally *de facto* coverage, but it is mostly based on a combination of laws and indicator statistics. When there is no data, the laws are the primary source. It is a bit of a *de jure de facto* measurement. Details can be found in Breznau (2024). It considers that many laws say on paper that all workers are covered, but then other laws or practices define the term “worker” in a way that would exclude certain working persons or give power to local authorities to exclude anyone they see fit. It also accounts for export processing zone laws that reduce coverage by generating zones legally exempt from work-injury laws. It also accounts for private coverage by exempting these people from being counted. If 20 percent of the labor force has private coverage, then this law would refer to the remaining 80% that could potentially be covered by a law that imposes mandatory coverage.

Global South

variable label: *global_south*

A dichotomous variable indicating if country is in the Global South. This refers mostly to countries that were formerly colonized states. Countries of the former Russian-Soviet empire are not counted.

Colonial History

variable label: *colonial_history*

This variable refers to a modern country that was the primary or longest colonial power in this country's history. Includes reference to the "Russian" empire as developed via the Soviet Union. Scholars should use caution, many cases generate a great oversimplification of a country's history in case there were multiple instances of colonial rule.

GWIP LONG v1.1 – Longitudinal Data

Updates for v1.1. – Fixed error where 0.35 should be 35 for Zambia and used Italian scores for Libya prior to independence. Added -99 for a few blank missing values.

To produce the GWIP_long v1, Nate Breznau took over the primary coding role[2] and this section is written in the first person with him as author. The primary goal was to measure coverage of work-injury policy as a percentage of the labor force, and wage replacement rate in case of temporary (6 months or less) or permanent (1 year or more, not expected to return to work) disability due to a work-related injury or illness.

The primary coding task was to identify major policy enactments, amendments or corollary developments. Then list each of these by year and extract from the original policies or secondary sources the relevant rates. In this process many minor adjustments and amendments are likely overlooked. Also, for some countries, I may have missed major laws completely simply because what can be found via German libraries and online resources is not necessarily comprehensive.

There are large gaps in between observations as I only coded rates for a given year if there was a major policy change. The exception is with the Social Policy Programs Throughout the World (SSPW) data since 2010, which offers quadrennial rates for many countries, and I elected to code every data point from these that had a corresponding country. Therefore, the least amount of missing data exists from 2010 to 2019.

The use of Gen AI (ChatGPT subscription version, June-August of 2024) supported many predictions in the data. For example, calculation of coverage historically requires knowing what portion of the labor force was employed in formal work. Laws rarely covered subsistence, casual or informal labor. Sometimes laws only covered blue-collar workers. Formal agricultural workers were also unique, often not covered until later. To calculate coverage rates from diverse legal frameworks meant obtaining data on labor force statistics that rarely exist the closer in years to the Industrial Revolution, and are especially sparse historically for the Global South. Therefore, with carefully crafted prompts it was possible to obtain realistic predictions as to what labor forces were like given a lack of data. In the Appendix with Country-Specific Notes, I write down when Gen AI was used, or other sources to generate guesses that could then be used to make accurate calculations. Text in this Appendix that are not citations often refer to processes that required guess work and calculations. If no text is there, there was little or no guessing that took place and rates were found in the original laws or other sources.

This massive undertaking achieves a reasonable estimate of coverage and replacement rates for 188 countries since the Industrial Revolution. There is a fair amount of uncertainty and gaps in the data. The data is ideally suited for cross-country comparisons rather than understanding a single country's history in depth.

[2] Felix Lanver shifted his focus to producing longitudinal unemployment insurance data

Country Name

variable label: *country*

The current English name of the country. Note that this changed in some cases from the original GWIP v1. For example, Swaziland is Eswatini. COW codes remain the same.

New countries were added that comprised the former Yugoslavia.

Year

variable label: *year*

Year of entry. In the data, each data point is a row. And the data are country-year unit of analysis.

Correlates of War Country Code (CoW Code)

variable label: *cow_code*

These are the codes used by the Correlates of War (CoW) Project (https://correlatesofwar.org/) to identify countries. They are also consistent with the CRC's internal designations. They modify or update the original CoW codes in the following ways:

Puerto Rico: gets its own code of 6.

Serbia: is coded 345 and includes all prior versions of Serbia, Montenegro and Yugoslavia for practical reasons.

Name of Law

variable label: *law*

A variable intended to provide a legal name. This ideally comes from the name used in the original law or amendment. However, due to translations this does not offer a historical standard. Also, some laws are guesses or the best 'sounding' English name given the law. This variable is more of a reference than a scientific measure of something historical.

Sources Used

Variable label: *source*

A yearly reference to the sources used to come up with the data for that country in that year. It is either the name of an author (or authors), a symbol referencing a common source (like SSPW or ILO LS, see section 3 Abbreviations) or a country's name to refer to a copy of the original law.

Type of Policy

variable label: *type*

A categorical variable denoting the type of policy. Includes:

- Employer liability
- Compulsory insurance
- Employer liability, compulsory insurance
- Provident fund
- Publicly organized insurance
- Social insurance
- None (or -99 in case it is missing/unknown)

Notes for Coding Decisions

variable label: *NOTES, NOTES.1, NOTES.2*

NOTES: refers to coding notes relating to the previous variables

NOTES.1: refers to *labor_workinjury_replacement_rate_perm*, *labor_workinjury_duration_perm*

NOTES.2: refers to *labor_workinjury_replacement_rate_temp*, *labor_workinjury_duration_temp*

Replacement Rate of Wages in Case of Permanent Work-Injury

variable label: *labor_workinjury_replacement_rate_perm*

This is the percentage of the previous month, year or average recent wage (depending on law wording) that a disabled worker would receive for 52-weeks of incapacity to work when presumed to be permanently unfit, not returning for work. This variable is coded based on written laws ideally, but in many cases is in practice a combination of several laws and implementation practices. When we cannot find primary sources, the SSPW documentation is our second preferred choice. When we do not find this answer in one of our first two choices, we then look at secondary literature or internet searches, and finally use Gen AI to assist in inference as long as we have some sparse data. The coding requires corrections for various

features of laws. When there are differing rates we assume single workers but also assume one child. This is partly data driven. Laws are often unspecific about single workers, but often include reference to a dependent child. For high demographic transition countries we assume two children, as one is rare. If there is a range we usually take the average. For example, in The Netherlands the range is 70-100% of earnings, so we enter 85 (the midpoint). We attempt to calculate that a worker is at least 80% disabled. Meaning that they are unfit for working another regular job. Many laws pay 100% for at least a 75% disability, but we adjust this down if not. If there are additional benefits that depend on multiple criteria that cannot be calculated, we adjust the amount upward by 5% or an average of all criteria. If there is a change within the first 6 months we make a calculation. For example, in Germany it is 100% for the first 6 weeks then 90 percent for the next 18, which equals 92.5 for the first 6 months. Decentralized systems (by state or province), we try to take the average. Here many of the additional benefits could apply. The NOTES.1 and Appendix of Country-Specific Notes and Sources provides some more information about coding irregularities or decisions.

Distinguishing missings: A -99 means there is a law and therefore should be a value, but we could not find it. A “0” means that there is a value, but only miners are covered or that there was only compensation for death, and this is not enough to count as a full law or real injury compensation. A “none” means that there was no law covering this but there was some other reason to have a data point here.

Duration of Wage Replacement in Case of Permanent Work-Injury

variable label: *labor_workinjury_duration_perm*

This is the duration of benefits in months. In some cases, this is “unlimited” meaning that the person who is permanently incapacitated for work is covered permanently. Here we account for systems that transfer workers from a specific work-injury policy into general disability or pension schemes. If this is the case, we code “unlimited”. The duration often depends on the prior contributions of the worker. In these cases, we assume a worker has worked in the job for 6 years. However, if there are no benefits before a worker has worked for 6 years we reduce the replacement rate by a factor of how much more they would have to work beyond one year to be eligible. We take an average for cases that are limited in duration, but we cannot clearly ascertain data. In other cases, when the data are so unclear and rates dependent on so many factors we make an inferential guess, for example we assign Azerbaijan 72 months as there seems to be general proceedings that would determine duration but a lack of clear guidelines. At the same time, there are workers who get permanent coverage, so we set the duration at a relatively high amount. In case of lump sums we divide them by 6 years and compare this to the average wages in that country for that year to get a rough approximation of a yearly wage replacement.

Replacement Rate of Wages in Case of Temporary Work-Injury

variable label: *labor_workinjury_replacement_rate_temp*

The coding rules follow *labor_workinjury_replacement_rate_perm*, with the difference that the earnings are calculated over 6 months of incapacity to work and that the worker is presumed to return to work; this means they are not placed into disability or alternative programs. In cases of a lump sum, we take half to calculate an equivalent wage replacement rate.

Distinguishing missings: A -99 means there is a law and therefore should be a value, but we could not find it. A “0” means that there is a value, but only miners are covered or that there was only compensation for death, and this is not enough to count as a full law or real injury compensation. A “none” means that there was no law covering this but there was some other reason to have a data point here.

Duration of Wage Replacement in Case of Temporary Work-Injury, 2020

variable label: *labor_workinjury_duration_temp*

Here the coding is like *labor_workinjury_duration_perm* in months, but we do not count if the worker might go into other systems such as disability or pensions. This is only in reference to the work-injury policy. If there is a lump sum we usually code 6 months for duration.

Work-Injury Policy Coverage as a Percentage of the Labor Force

variable label: *labor_workinjury_coverage_pct_lf*

This variable is constructed ideally as *de facto* coverage, but it is mostly based on a combination of laws and indicator statistics. When there is no data, the laws are the primary source. It is a bit of a *de jure de facto* measurement. It considers that many laws say on paper that all workers are covered, but then other laws or practices define the term “worker” in a way that would exclude certain working persons or give power to local authorities to exclude anyone they see fit. This was common in colonial settings where natives were not treated as “workers” but something less than without the same rights or legal recourse. It also accounts for EPZ laws that reduce coverage by generating zones legally exempt from work-injury laws.

Note that in the GWIP cross-sectional the ILO (2014) data are used to get an estimate that is reliable and comparative across countries. I do not use this data for the GWIP_long because it is not comparable to the data collection methods for all country-years.

Qualifying Period

variable label: *labor_workinjury_qualifying_period*

In case a certain amount of work, time or earnings is required to qualify, then I code it here in months or a monthly equivalent of the data I found.

Qualifying Conditions

variable label: *labor_workinjury_qualifying_conditions*

This was variable where information was extremely sparse. Most laws do not list any qualifying conditions. These are more likely in practice. This has a lot of room for development.

Coverage Notes

variable label: *coverage_notes*

Calculating coverage was often a highly complex process weighing other laws and legal definitions, the percentages of the labor force engaged in different activities and sometimes earning distributions. The notes here try to capture some of my coding decisions, and some related information I used is available in the Country-Specific Appendix.

3. Appendix

All sources listed in this document are available as a publicly shared Zotero library (https://www.zotero.org/groups/2557302/gwip).

We have most all of the original documents including laws. These cannot be shared due to copyright laws; however, researchers may contact Nate Breznau in case they want to cross-check primary resources for scientific, non-commercial purposes.

Sources

Variables are created that have the variable name plus a "_source" suffix (GWIP) or a "source" variable (GWIP_long). In these variables there are the names of sources such as the author(s) name(s) or the institution. These roughly follow citation rules, but are made as short as possible whenever possible. They refer to citations that the reader will find in the References section of this document.

Additional resources:

Gazette's of Africa Archive: https://gazettes.africa/gazettes/ke/1963

Abbreviations

BLS	United States Bureau of Labor Statistics
CRC	Collaborative Research Center, “The Global Dynamics of Social Policy” at the University of Bremen (SFB 1342)
EPZ	Export Processing Zones
SSA	Social Security Abroad. An academic/legislative publication that often lacks author names
ILO	International Labour Office
ILO ‘Report on Social Insurance’	refers to this title 1935 and the reference Conference of American States Members of the International Labour Organisation. Santiago de Chile: International Labor Organization. https://www.ilo.org/public/libdoc/ilo/1935/35B09_22_engl.pdf.
ILO LS	ILO Legislative Series (mostly available here https://webapps.ilo.org/public/libdoc/ilo/P/09607/) Note the ILO LS are cited based on the year of the laws, not the year of publication.
ISSA	International Social Security Administration – specific reference to country profiles before the website was updated
ILR	International Labour Review, following the year should be X(X) issue(volume)
NATLEX	The ILO’s database of labor law (https://www.ilo.org/dyn/natlex/natlex4.home). Laws cited in NATLEX will have the name and number, but not the year.
SSPW	US Social Security Administration's Social Security Programs Throughout the World Series. Publications by year from the U.S. Department of Health and Human Services (prior to 2000) and then Social Security Administration after 2001
[country]	When the name of a country is used as a source it refers to the original text, or a translation thereof, for that country’s law

Country-Specific Notes and Sources

We discuss unique coding rules we used for each country, plus we provide information about the first laws in given countries with respect to blue-collar industrial workers. We list all sources used in our research.

For some countries we list “inferred” as a source. This means we do not have a concrete citation and instead inferred this value based on all available information or a specific citation that suggested but did not directly provide the code. Although we took great pains to identify primary sources for all 186 countries in the GWIP, there are occasions where we could not find or have not yet found a direct reference for a law. In these cases, we infer the data using all available evidence. Sometimes this means we rely on older versions of the SSPW data. For example, in the Federated States of Micronesia we do not have access to the original 1968 work-injury law, thus we cannot deduce that it is an employer liability law or one that involves some type of risk-pooling. However, the SSPW suggests that social insurance first appeared in 1982. As there are no entries in NATLEX, we are left with the inference of the nature of the 1968 law. Future iterations will hopefully procure the primary data to verify this.

For the GWIP_long we began using Gen AI (ChatGPT, GPT-4 circa mid 2024) to find sources, make predictions about wages and the division of labor by activity and formality, and to translate and retrieve information from documents not in English.

Afghanistan cow code: 700

SSPW 2002 recoded to 1990 because of note that the data were more than 10 years old.

Inferred blue-collar full coverage.

SSPW 1961; 1999; 2017.

Albania cow code: 339

Farman, Carl F., and Veronica Marren Hale. 1949. 'Social Security Legislation throughout the World'. 16. Bureau Reports. US Social Security Administration.

ILO LS 1953.

SSPW 1949; 1961; 1973; 1981; 1999; 2018.

Algeria cow code: 615

Besson, Maurice. 1927. 'Labour Legislation in the French Colonies'. *International Labour Review* 16 (4): 487–511.

ILO LS 1949; 1961

NATLEX.

SSPW 1973; 1999; 2019

US Bureau of Labor Statistics. 1910. 'Bulletin of the United States Bureau of Labor Statistics, No. 90'.

Andorra cow code: 232

Inferred first blue-collar full coverage law.

SSPW 2002; 2008; 2012; 2018.

Angola cow code: 540

Inferred blue-collar full coverage.

Angola 1990.

ILO LS 1958.

ILR 1961:84(3).

Muchena, Israel. 2019. *Development of Insurance in Angola*. Bloomington, IN: AuthorHouse UK.

NATLEX.

SSPW 2019.

Antigua & Barbuda cow code: 58

Inferred first blue-collar full coverage law.

Antigua and Barbuda. 1972. 'Social Security Act'. https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/16846/79314/F1565595887/ATG16846%201988.pdf

Antigua and Barbuda. 2020. 'National Provident Fund Act'. Social Security Board.

http://www.socialsecurity.gov.ag/about/our-history.

ILO LS 1955.

Palmer, Colin A. 2014. Freedom's Children: The 1938 Labor Rebellion and the Birth of Modern

Jamaica. Chapel Hill: The University of North Carolina Press.

SSPW 2003; 2015; 2019.

Argentina cow code: 160

The first federal law only applied to the capital city Buenos Aires and National territories. The Provinces issued their own decrees (BLO 1930, p. 956). The enforcement of the first law was left up to the provinces to mediate in case of non-resolution (BLO 1930).

In the early 20th century, Argentina experienced significant economic growth and industrialization, attracting many immigrant workers. Gen AI suggests the daily wage for an unskilled or semi-skilled industrial worker was 2 to 3 pesos per day. Assuming a 26-day working month, this would translate to: Lower estimate: 2 pesos/day * 26 days/month = 52 pesos/month, Upper estimate: 3 pesos/day * 26 days/month = 78 pesos/month. Therefore, reasonable average monthly earnings estimate of a blue-collar industrial worker in 1915 is 50 to 80 pesos per month.

Around 1914, Gen AI estimated that about 60-70% of the labor force was engaged in agriculture, the remaining 30-40% would be in non-agricultural sectors, including industry, services, and commerce. A portion of the non-agricultural labor force would still be involved in casual, domestic, or subsistence work. Assuming this is roughly half the non-agricultural labor, that would be around 15-20% of the total labor force in regular, non-casual, non-domestic, non-subsistence employment.

By 1940, Argentina had undergone significant industrial growth and urbanization. The proportion of the labor force in agriculture had likely decreased to around 50-60%. This would leave about 40-50% of the labor force in non-agricultural sectors. Assuming half are non-ag, non-casual and non-domestic, that would be around 20-25% of the total labor force.

In 1996, Gen AI approximate figures: White-Collar (20-25%) + Blue-Collar (20-25%) + Civil Servants (10-15%) + Agricultural Workers (10-15%) = a combined 60-80% of labor force.

Argentina. 1996. *Employment Accident and Occupational Disease Benefit*. *24557*. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=44137&p_country=ARG&p_count=1348.

BLS 1930.

Boletín Oficial de la República Argentina 1915, 1940.

Pérez, Inés. 2015. "Una línea fluctuante: el servicio doméstico y el régimen de accidentes de trabajo (Argentina, 1915-1956)." *Estudios Sociales* 49(2):155–82. doi:10.14409/es.v49i2.5132.

Ramacciotti, Karina Inés. 2011. "De la culpa al seguro. La Ley de Accidentes de Trabajo, Argentina (1915-1955)." *Revista Mundos do Trabalho* 3(5):266–84. doi:10.5007/1984-9222.2011v3n5p266.

SSPW 2003, 2013, 2019.

Tixier, A. 1935. "The Development of Social Insurance in Argentina, Brazil, Chile, and Uruguay: I Special Article (Part I)." *International Labour Review* 32(5):610–36.

US Bureau of Labor Statistics. 1930. 'Labor Legislation of Argentina'. *Monthly Labor Review* 30 (5): 1–8.

Armenia — cow code: 371

Law coded as part of Soviet Russia. Joined in 1922.

Abramson, A. 1929. 'Social Insurance in Soviet Russia'. *Journal of Political Economy* 37 (4):

377–99.

ILO LS 1922, 1956.

SSPW 1949, 1973, 1999, 2004, 2006, 2010, 2018.

Australia cow code: 900

S. Australia had a law in 1900, Queensland 1905, and N.S. Wales in 1910. We therefore code the last of the first laws in Australia's first territories (1910), as the "first law" even though there was no federal law (similar to Canada).

Tasmania adopts compulsory accident insurance in 1934, at which point all territories have it, thus we code this as the first social insurance law (ILO 1935).

ILO 'Report on Social Insurance'.

SSPW 1949, 1961, 1973, 1981, 1999, 2018.

Austria cow code: 305

ILO 'Report on Social Insurance'.

ILO LS 1948, 1955.

Sherman, P. Tecumseh. 1915. 'The Jurisprudence of the Workmen's Compensation Laws'. *University of Pennsylvania Law Review and American Law Register* 63 (9): 823–75. https://doi.org/10.2307/3313245.

SSPW 1938, 1949, 1973, 1981, 1999, 2018.

US Bureau of Labor Statistics 1917.

Youngman, E.B. 1931. 'Austrian Miner Compensation Law 1854'. US Bureau of Mines. Mining Laws of Austria, Pamphlet. US Dept. of Commerce. https://books.google.de/books?id=NFY_xWnFSF4C&lpg=RA5-PA1&ots=Dx_iKOfwtR&dq=austria%20miners%20law%201854&pg=RA5-PP1#v=onepage&q=austria%20miners%20law%201854&f=false.

Azerbaijan cow code: 373

Law coded as part of Soviet Russia. Joined 1922.

Abramson, A. 1929. 'Social Insurance in Soviet Russia'. *Journal of Political Economy* 37 (4):

377–99.

ILO LS 1922, 1956.

SSPW 1949, 1973, 1999, 2002, 2016.

Bahamas cow code: 31

Former colony of the United Kingdom. Independence in 1973. The first law was introduced in 1943 under colonial rule.

ILO LS 1943, 1972.

Mesa-Lago, Carmelo. 1988. ‘Social Insurance: The Experience of Three Countries in the English-Speaking Caribbean’. *International Labour Review* 127 (4): 479–96.

SSPW 1973, 1999, 2019.

Bahrain cow code: 692

1982: BHD 1 ≈ BDT 25 to 30

1999: BHD 1 ≈ BDT 80 to 90

1982 (in BDT):

Monthly Earnings: BHD 150 to 250 ≈ BDT 3,750 to 7,500

Annual Earnings: BHD 1,800 to 3,000 ≈ BDT 45,000 to 90,000

1999 (in BDT):

Monthly Earnings: BHD 250 to 400 ≈ BDT 20,000 to 36,000

Annual Earnings: BHD 3,000 to 4,800 ≈ BDT 240,000 to 432,000

Inferred blue-collar full coverage.

Bahrain. 1976. Ministerial Order (Insurance) Respecting the Effective Application of the Law on Social Insurance in Its First Stage. Code No. 3. NATLEX.

Dixon, John. 1987. *Social Welfare in The Middle East*. Routledge. https://doi.org/10.4324/9781315670560.

SSPW 1981, 1999, 2004, 2018.

Bangladesh cow code: 771

British Colonial Rule (1757–1947).

In 1947, British India divided into India and Pakistan. The eastern part of Bengal became East Pakistan, under the dominion of Pakistan. This period, though not technically colonial, saw East Pakistan treated with considerable political and economic neglect by the central government in West Pakistan.

While Bangladesh was part of Pakistan, a provident fund form of insurance was set up in 1962 but only seemed to apply to 'East Pakistan', so not to Bangladesh, therefore we do not code this as a first social insurance law (Andersen et al 1991). Moreover, in the Legislative Series guidebook there are many laws listed under "Bangladesh" but they are Indian laws, and it is unclear that they applied. Therefore, we code the first social insurance as 2006 from NATLEX which seems to have compulsory insurance for enterprises with at least 100 workers, so still not full blue collar insurance coverage

Independence of Bangladesh (1971).

In 1923, the region now known as Bangladesh was part of British India, and wage levels varied significantly depending on factors like industry, skill level, and location. Generally, factory workers in British India ranged from approximately 4 to 8 annas as a daily wage (1 anna = 1/16th of a rupee). Very rough estimate, Gen AI supported.

If we consider an average daily wage of about 6 annas, a factory worker working 26 days a month (assuming one day off per week) would earn around 156 annas per month, equivalent to approximately 9.75 rupees.

The total labor force in Bangladesh in 1980 that consisted of formally registered industrial workers not working in Export Processing Zones (EPZs) and not working in factories with fewer than 10 employees, hypothetical calculation:

Total labor force: 30 million

Formally registered industrial workers: 2 million

Workers in EPZs: 0.2 million

Workers in small factories: 0.5 million

Hypothetical estimate is 4.33% of the total labor force formally registered industrial workers not in EPZs and not working in small factories.

Bangladesh. 2006. *Bangladesh Labour Act 2006*. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=76402.

ILO LS 1923.

NATLEX.

SSPW 1999, 2018

Barbados cow code: 53

Former colony of the United Kingdom. Independence in 1966. The first law is introduced 1916 under colonial law.

Barbados 1967. 'National Insurance and Social Security Act'. https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/35195/128909/F1221974300/BRB35195.pdf

ILO LS 1963.

ILR 1943:48(4).

Mesa-Lago, Carmelo. 1988. "Social Insurance: The Experience of Three Countries in the English-Speaking Caribbean." *International Labour Review* 127(4):479–96.

SSPW 1973, 1981, 1999, 2019.

Belarus cow code: 370

Not the entire modern Belarus was the Byelorussian Soviet Socialist Republic. Nonetheless, it was the main part of the country, and we code it as though it was the 'same' geopolitical area; however, this only comes into existence in 1922. Thus, we code the first law as 1922 as part of the Soviet system.

ILO LS 1922, 1956.

SSPW 1949, 1973, 1999, 2004, 2018.

Belgium cow code: 211

ILO 'Report on Social Insurance'.

ILO LS 1931, 1971.

Meeker,Royal. 1914. *Workmen's Compensation Laws of the United States and Foreign Countries*. Senate Documents 4.

SSPW 1961, 1973, 1981, 1999, 2018.

U.S. Bureau of Labor Statistics 1917.

Belize cow code: 80

SSPW 1999, 2019.

Ueber, Susan, Raymond Lewis, Paul Meissner, and Jeremiah Norris. 1987. ‘Financing and Costs of Health Services in Belize’. Research Report 2. State University of New York, Stony Brook.

Benin cow code: 434

French West Africa had an Overseas Labor Code of 1957 that was left up to the ‘colonies’ to implement. It was only legally fully (on paper) implemented in Cameroon, Benin and Guinea at first (ILR 1961).

French Compulsory Labor Ordinance for the colonies made Benin by colonial mandate, subject to forced labor. This was the basis for group differences in legal coverage. Therefore, the first law is actually the 1932 French West Africa Workmen’s Compensation Law.

There is a social security fund mentioned in the 1998 law, therefore we code this as the first insurance.

Inferred blue-collar full coverage.

Benin. 1998. Benin Labor Code.

Benin. 2003. *Benin Social Security Code*. https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/64370/108622/F-871055909/BEN64370.pdf.

ILO LS 1932.

ILR. 1961. “Social Security in Africa South of the Sahara.” ILR 84(3):144–74.

SSPW 2017, 2019.

UN. 1992. “Study on Social Security Systems and National Development in Africa.” https://repository.uneca.org/handle/10855/6004

Bhutan cow code: 760

The 1994 Wage Rate, Recruitment Agencies and Workmen’s Compensation Act clearly defines benefits and coverage. However, it claims that the first adopted resolution on workmen's compensation was in 1979 but it references a "workmen's compensation provision" that was already in place and that this act amends or replaces the benefits in certain areas. This suggests that the first law was then, but we have been unable to find a link to the approved "Ministry of Development" draft regulations that were approved (Bhutan 1979, Res. 33). We code this as the first law for now, but it is likely not correct.

Bhutan was in the early stages of economic development during the 1980s, detailed records not accessible. Bhutan was largely agrarian with a significant population engaged in subsistence agriculture. The economy not highly monetized, cash incomes relatively low.

By the 1980s, some sectors, such as government employment, construction, and limited industrial activities, began to offer formal wages. These wages were typically modest, reflecting the economic conditions of the time. These facts and the limited available information, suggest an average monthly wage for workers in Bhutan in 1984 might range from Nu. 300 to Nu. 800, with government jobs and skilled labor positions likely on the higher end of this spectrum.

The 1984 law specifies that in the event of a work-related accident, compensation must be provided according to the stipulated amounts (e.g., Nu. 2,000 to Nu. 10,000 for partial disablement, and Nu. 25,000 for total disablement or death). Importantly, the document mentions that compensation can also be claimed according to insurance coverage arranged by the employer. This suggests that employers were expected to have insurance coverage in place, and the workers could claim either the statutory compensation or the insurance amount, whichever was higher. Thus the law makes it compulsory for employers to arrange insurance coverage for their workers.

Bhutan. 1979. *Resolutions Adopted by the 50th Session of the National Assembly 1979*. https://www.nab.gov.bt/assets/uploads/docs/resolution/2014/50th_Sessions.pdf.

Bhutan. 1994. 'Workmen's Compensation Law 1984'. Available in 'Chathrim for Wage Rate, Recruitment Agencies and Workermen's Compensation'. Gen AI translated document.

Bhutan. 2007. *Labour and Employment Act 2007*. https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/80218/86462/F1162145166/BTN80218%20English.pdf.

SSPW 2018.

Bolivia — cow code: 145

The 1935 law is just a provident fund managed by the government, so this does not qualify as social insurance.

ILO LS 1924, 1935, 1939, 1956.

Plurinational State of Bolivia 1997. 'Decreto Supremo: Reglamento a la ley de pensiones. Verson ordenda'. Ordinance 24469.

SSPW 2019.

Urquidi, Carlos Walter. 1974. *A Statement of the Laws of Bolivia in Matters Affecting Business*. General Secretariat, Organization of American States.

U.S. Department of Health and Human Services 1980.

Bosnia and Herzegovina cow code: 346

Part of Yugoslavia.

Bureau of Labor Statistics 1943.

Gradascevic-Sijercic, Jasminka. 2010. “Review of Social Security Rights in Bosnia and Herzegovina.” *Yearbook of the Law Faculty in Sarajevo (Godisnjak Pravnog Fakulteta u Sarajevu)* 53:123–44.

ILO LS 1946; 1958.

NATLEX.

SSPW 1961; 1973

Botswana cow code: 571

Bechuanaland, British colony 1885 supported by Tswana chiefs who sought protection against Boer incursions. The British administered Bechuanaland primarily through indirect rule, relying on the existing local leadership structures while maintaining overall colonial authority.

Botswana gained independence on September 30, 1966, and was renamed the Republic of Botswana.

The non-native population (primarily Europeans) in 1936 was very small. Estimates suggest around 2,000. Formal employment opportunities were limited and mostly available to non-natives in administrative roles, missions, and some commercial enterprises.

Assuming a labor force participation rate of about 50% (common for agrarian societies), the total labor force would be approximately: Total Labor Force=300,000×0.50=150,000, with Non-Native Formal Employment=2,000×0.50=1,000. This means about 0.67% of the total labor force were formally employed.

By 1977, the country had begun to develop its economy significantly, primarily driven by mining (especially diamonds), agriculture, and public services. Based on historical economic development, Gen AI estimates:

1977: Approximately 30% of the labor force in Botswana were formally employed.

1998: Approximately 45% of the labor force in Botswana were formally employed.

Botswana. 1998. *Workmen’s Compensation 1998*. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_125673.pdf.

ILO LS 1936.

NATLEX.

SSPW 1967, 1981, 2019.

Suter, Ann C. 1968. *Labor Law and Practice in Botswana*. US Bureau of Labor Statistics.

Brazil cow code: 140

Employers who do not take out voluntary insurance against work-injury are required to deposit into a provident fund under the 1934 law, thus it is coded as "fund".

ILO LS 1944, 1967, 1973, 1976.

NATLEX.

SSPW 1949, 1961, 1973, 1981, 2011, 2019.

Tixier, A. 1935. 'The Development of Social Insurance in Argentina, Brazil, Chile, and Uruguay: I Special Article (Part I)'. *International Labour Review* 32 (5): 610–36.

Brunei cow code: 835

1957 Law broadly covered "workmen" defined as persons engaged under a contract of employment, whether manual labor or otherwise, as long as their monthly earnings did not exceed a specified amount (initially BND 750 per month). The law excluded certain categories such as casual workers not employed for the purposes of the employer's trade or business, members of the armed forces, and family members working in the employer's household.

1984 Amendment did not significantly change the definition of "workman" but reaffirmed the categories covered and excluded, with the inclusion of more specific provisions regarding the liabilities of employers and the process for handling claims. Included compulsory insurance.

The wording of the laws is unclear. With Gen AI support it seems that the original 1957 law probably provided wage replacement rates of 50% to 66.6% for temporary incapacity and up to 100% for permanent total disability, with partial disability compensated proportionately. The 1984 amendments likely increased these percentages slightly, particularly in response to inflation and economic changes, with temporary incapacity rates possibly around 66.6% to 75% and permanent incapacity compensations adjusted accordingly.

Brunei. 1984(1957). *Workmen's Compensation Subsidiarity Regulations 1957 with 1984 Ammendments*. Vol. S.40/57. https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/107512/132377/F-1249154435/BRN107512.pdf.

Singapore. 1932. ‘Straits Settlements Government Gazette’. volume 67, no 48–64. Singapore: National Library Board. https://eresources.nlb.gov.sg/printheritage/detail/007afc1d-993f-4b59-9ca8-8c1933b02d8c.aspx.

SSPW 2004, 2016, 2018.

Bulgaria — cow code: 355

ILO ‘Report on Social Insurance’.

ILO LS 1924, 1949, 1957.

SSPW 1949, 1961, 1973, 1981, 1999, 2008, 2018.

Yanouloff, Ilia. 1924. ‘Labour Legislation in Bulgaria’. *International Labour Review* 10 (3):435–51.

Burkina Faso — cow code: 439

Colonial French Upper Volta 1919-1932, 1947-1958.

Independence 1960. In 1962, the formal employment sector was quite limited, similar to many other West African nations during that period. Approximately 10-15%. The remaining labor force was primarily engaged in informal employment, such as subsistence agriculture and small-scale trading.

ILO LS 1926, 1932.

NATLEX.

SSPW 1967, 1973, 1999, 2011, 2017, 2019.

Burundi — cow code: 516

With Rwanda and Belgian Congo, Burundi was part of German East Africa and came under Belgian administration as a League of Nations mandate after World War I. Burundi remained under Belgian rule until it gained independence on July 1, 1962.

ILO LS 1949.

ILR 1963 17(5).

SSPW 1981, 1999, 2002, 2017.

French citizen blue-collar workers were first covered in 1934, and then native Cambodians in 1936. We code this as first law in 1936.

Cambodia. 1997. *Labor Law 1997*. https://www.ilo.org/dyn/travail/docs/701/labour.

ILO LS 1973.

SSPW 1961, 1973, 1981, 2018.

US Army. 1943. Civil Affairs Handbook: French Indo-China: Labor. US Army Service Forces.

French West Africa. Overseas Labor Code of 1957 was left up to the 'colonies' to implement. It was only legally fully (on paper) implemented in Cameroon, Benin and Guinea (ILR 1961) at first.

Cameroon was part French and part English controlled prior to 1960, therefore we only code the first law as 1959, because it didn't exist as a country in this form yet.

What percentage of the population of Cameroon before independence lived in the French part and what percentage in the British part?

French-administered Cameroon (La République du Cameroun): This territory comprised about 80% of the land area and had a significantly larger population compared to the British-administered regions. Approximately 80% of Cameroon's population lived in this area.

Based on historical economic patterns (Gen AI) in similar post-colonial African countries during the same period, it is plausible to estimate that 10-15% of the labor force in Cameroon in 1960 was engaged in formal, registered employment. The majority of the labor force, approximately 85-90%, would have been involved in informal or subsistence activities not officially registered with the government.

Cameroon 1977. 'Loi n° 77-11 du 13 juillet 1977 portant réparation et prévention des accidents du travail et des maladies Professionnelles'. ILO LS 1937, 1977. https://faolex.fao.org/docs/pdf/cmr198305.pdf

ILR. 1961. "Social Security in Africa South of the Sahara." ILR 84(3):144–74.

Mvodo, Victor Ayissi, and Rene Le Faou. 1973. 'Influence of International Labour Standards on the Legislation of Cameroon'. International Labour Review 108 (Issues 2-3): 163–86.

Njikam, Martha Simo. 1986. 'Insurance Law in England an Cameroon, A Comparative Study - with Specific Reference to Motor Vehicle Insurance'. Sheffield, UK: University of Sheffield.

SSPW 1999, 2011, 2017, 2019.

Federal system, there is no overall national legislation. It is by Province. Ontario was the first in 1886 with an employer liability act and then 1914 with a workman's comp act. Nova Scotia (1915), BC (1916), Alberta (1918) and New Brunswick (1918). Prince Edward Island was the last to enact legislation in 1949 (not counting Newfoundland which was not a Canadian province at first). Therefore, we could say that there is both the first 'national' law and national coverage starting in this year. However, there was a Federal law in 1918 that covered Federal Railroad employees. As most railroads were public at that time, this meant a large segment of blue-collar workers were covered so we will now code the first law as 1918. The 1918 law was a centralized program, without any employee contributions, and the government was fully responsible. This is not social insurance because there is no insurance agency set up by the government, thus it is coded as a “fund”. We code 1949 as the first “social insurance” because all provinces by that year (that existed in that year) had set up workmen's compensation that more or less was social insurance in nature.

Greene, George C. 1960. “Government Employees’ Compensation Act (Federal). Administration of Compensation Claims by Provincial Workmen’s Compensation Boards.” in *Workman’s* Compensation Problems. Industrial Accident Boards and Commissions. Washington D.C.: U.S. Bureau of Labor Statistics.

SSPW 1949, 1961, 1973, 1981, 1999, 2011, 2019.

Cape Verde cow code: 402

Cape Verde was under colonial Portuguese in the 15th century until it gained independence on July 5, 1975.

In 1960, a significant portion of the labor force engaged in agriculture and fishing. It is estimated from Gen AI that only about 5% of the labor force was engaged in formal work with registered employers.

By 1978, it is estimated that around 10% of the labor force was engaged in formal employment.

By 1999, Cape Verde had made significant strides in developing its formal economy, thanks to policies aimed at economic liberalization, privatization, and the encouragement of foreign investment. Approximately 20-25% of the labor force was engaged in formal work.

Inferred first law program type and blue-collar first full coverage.

ILO LS 1960 (inferred), 1961.

NATLEX.

SSPW 1981, 1999, 2011, 2017, 2019.

Central African Republic — cow code: 482

Ubangi-Shari was the Central African Republic (CAR) under France colonial rule. Part of French Equatorial Africa in 1910 as Ubangi-Shari. It remained under French colonial rule until it gained independence on August 13, 1960.

The labor market in CAR in 1935 was dominated by subsistence agriculture. The formal employment sector in CAR must have had a maximum of 5-10% of the labor force.

ILO LS 1935, 1961, 1964.

NATLEX.

South Africa. 2007. *The Compensation Fund Preliminary Report 2nd Draft*. *Workshops on Social Security, Dec. 11-13th*. Department of Treasury. http://www.treasury.gov.za/publications/other/ssrr/Session%20One%20Papers/Compensation%20Fund%20Project%202nd%20draft.pdf.

SSPW 1967, 1999, 2008, 2017, 2019.

Chad — cow code: 483

We could not find the original source for the first law. But as SSPW 2017 states that the first insurance law was 1966, we infer that the first law 1935 was employer liability.

In 1935, the formal employment sector in Chad was very limited. Maximum 5-10% of the labor force was formally employed.

By 1970, Gen AI supported guess that the rate did not increase much, maybe 10-15% of the labor force. This included government employees, workers in state-owned enterprises, and those employed in the formal private sector.

By 1999 this likely did not change much, the informal sector continued to dominate Chad's labor market, indicating substantial growth in informal employment during this period. This was exacerbated by socio-economic challenges and the limited expansion of formal employment sectors.

Not known to have EPZs.

ILO LS 1935.

NATLEX.

South Africa. 2007. *The Compensation Fund Preliminary Report 2nd Draft*. *Workshops on Social Security, Dec. 11-13th*. Department of Treasury. http://www.treasury.gov.za/publications/other/ssrr/Session%20One%20Papers/Compensation%20Fund%20Project%202nd%20draft.pdf.

SSPW 1967, 1973, 1999, 2017, 2019.

Chile — cow code: 155

ILO LS 1968.

SSPW 1949, 1961, 1973, 1981, 1999, 2011, 2019.

US Bureau of Labor Statistics. 1917. 'Workmen's' Compensation Laws of the United States and Foreign Countries'. Workmen's Insurance and Compensation Series. Washington D.C.

US Bureau of Labor Statistics. 1930. "Administration of Workmen's Compensation Laws in Ten South American Countries." *Monthly Labor Review* 30(1):15–34.

China — cow code: 710

1949, the People's Republic of China established under the Communist Party. One major goal was to transform China's economy from a mixed economy (with private, state-owned, and foreign enterprises) into a centrally planned socialist economy. In the Marxist/Leninist view, this should lead to a full welfare state, covering all forms of social risk.

By 1951, the government was still in the process of nationalizing private enterprises, particularly small and medium-sized businesses. Maybe around 40% to 60% of companies were still privately owned in 1951.

EPZs starting in 1980.

Casale, Giuseppe, and Changyou Zhu. 2013. *Labour Administration Reforms in China*. Geneva: International Labour Office. https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---lab_admin/documents/publication/wcms_224430.pdf

China. 1951. 'Labour Insurance Regulations of the People's Republic of China'. Feb. 23rd. 73rd Government Administrative Meeting: International Labor Organization (English translation). https://www.ilo.org/dyn/travail/docs/817/Labour%20Insurance%20Regulations%201951.pdf.

Guthrie, Robert, and Mariyam Zulfa. 2008. 'Occupational Accident Insurance for All Workers: The New Challenges for China'. *East Asia Law Review* 3 (1).

SSPW 1951, 1961, 1973, 1981, 1999, 2004, 2018.

1949 employee sickness insurance covers work injury for all blue-collar workers, but there might have been laws previously that involved compulsory insurance for certain workers (like miners), but we haven't found any yet.

Columbia, Republic of. 1946. Social Insurance Law 90 [Por la cual se establece el seguro social obligatorio y se crea el Instituto Colombiano de Seguros Sociales].

Columbia, Republic of. 1993. Decree on Comprehensive Social Security System [Ley Numero 100 de 1993 Por la cual se crea el sistema de seguridad social integral y se dictan otras disposiciones].

Columbia, Republic of. 1994. Social Security Decree 1295 [Decreto Ley 1295 Por el cual se determina la organización y administración del Sistema General de Riesgos Profesional].

ILO ‘Report on Social Insurance’.

ILO LS 1945, 1949, 1950, 1964

SSPW 1967, 1981, 2009, 2019.

US Bureau of Labor Statistics, Monthly Review. 1916. “Workmen's Compensation in South America”. Volume 4, Issue 2, pp. 396-398.

US Bureau of Labor Statistics. 1917. ‘Workmen's’ Compensation Laws of the United States and Foreign Countries’. Workmen’s Insurance and Compensation Series. Washington D.C.

Comoros cow code: 581

We infer the first law from Madagascar as 1925 because it was a French colony after WWII and under the administrative rule of Madagascar. Then we also infer 2006 as the introduction of social insurance based on adoption of the “Multilateral Convention on Social Security of the Inter-African Conference on Social Welfare (CIPRES)”.

Inferred first laws.

Comoros. 2006. ‘Multilateral Convention on Social Security of the Inter-African Conference on Social Welfare (CIPRES)’

ILO LS 1958.

NATLEX.

US Bureau of Labor Statistics. 1910. ‘Bulletin of the United States Bureau of Labor Statistics, No. 90’.

Congo, Republic of The — cow code: 484

Part of French Congo within French Equatorial Africa. A French colony distinct from the Belgian Congo (DRC). French Congo included modern-day Republic of the Congo (Congo-Brazzaville).

Upon gaining autonomy in 1958 and then full independence from France on August 15, 1960, the territory was named the Republic of the Congo. The capital is Brazzaville, leading to the name Congo-Brazzaville, distinguishing it from Congo-Léopoldville (now DRC).

The Social Security Code, established by Loi n°004-86 du 25 février 1986, covers all workers who are employed under a contract of service or apprenticeship, regardless of the nature, form, or validity of the contract, and regardless of the amount of remuneration. The law specifically mentions that it applies to all workers employed on the national territory for one or more employers, without distinction of race, nationality, sex, or origin.

Country (and policy) crippling civil war from 1997-1999.

Congo, Republic of the. 1986. *Social Security Code*. https://www.droit-afrique.com/upload/doc/congo/Congo-Code-1986-securite-sociale.pdf

ILO LS 1928, 1935, 1957, 1964.

South Africa. 2007. *The Compensation Fund Preliminary Report 2nd Draft*. *Workshops on Social Security, Dec. 11-13th*. Department of Treasury. http://www.treasury.gov.za/publications/other/ssrr/Session%20One%20Papers/Compensation%20Fund%20Project%202nd%20draft.pdf.

SSPW 1999, 2003, 2013, 2019.

Costa Rica — cow code: 94

Costa Rica had minimal labor regulations in the early 20th century. The labor force was predominantly agrarian, and formal work injury compensation laws were either non-existent or limited.

EPZs introduced in 1981, used to adjust coverage rates supported by Gen AI predictions.

ILO ‘Report on Social Insurance’.

ILO LS 1925, 1927, 1943, 1962, 1982.

SSPW 1999, 2013, 2019.

Croatia cow code: 344

Part of Yugoslavia (1945-1991).

Farman, Carl F., and Veronica Marren Hale. 1949. *Social Security Legislation throughout the World*. Edited by United States. Social Security Administration. Vol. 16. Bureau Reports. U.S. Government Printing Office.

ILO 'Report on Social Insurance'.

ILO LS 1946, 1958.

SSPW 1961, 1973, 1999, 2012, 2018.

US Bureau of Labor Statistics. 1943. 'Labor Conditions in Yugoslavia'. *Monthly Labor Review* 57 (5): 895–910.

Cuba cow code: 40

ILO 1935 may be wrong. In 1933 law as written states that only the direct supervisors of manual employees who were covered under the law were also covered, not "all" white-collar.

ILO 'Report on Social Insurance'.

ILO LS 1933, 1961, 1973.

SSPW 1949, 1973, 1981, 1999, 2011, 2019.

Steinhaus, Henry W. 1949. *Social Security Abroad*. Chicago: Research Council for Economic Security.

US Bureau of Labor Statistics. 1917. *Workmen's Compensation Laws of the United States and Foreign Countries*. 8. Workmen's Insurance and Compensation Series. Washington D.C.

Cyprus cow code: 352

Cyprus gained independence from British rule in 1960. By 1964, the country was still developing its economy, which was primarily based on agriculture, small-scale industry, and tourism. A reasonable Gen AI supported estimate for Cyprus in 1964 for average weekly earnings is £3 to £5 Cyprus pounds.

In 1980, Cyprus was still recovering from the economic and social impacts of the 1974 conflict, which divided the island. Gen AI estimated average weekly earnings in 1980: £CYP 10 to £CYP 15 (Cypriot pounds) per week.

The mil was introduced in 1955 when Cyprus replaced the Cypriot piastre with the Cypriot pound (£CYP).

Before 1983: 1 Cypriot pound (£CYP) = 1,000 mils.

After 1983: 1 Cypriot pound (£CYP) = 100 cents.

ILO LS 1925, 1942, 1953, 1964.

SSPW 1961, 1973, 1981, 1999, 2010, 2018.

Czech Republic — cow code: 316

Although Czechia and Slovakia only came into existence with their current borders in 1993, we treat Czechoslovakia as a special case. We code the laws of 1918 which were carried over from the Austro-Hungarian system, as the first national laws. Our justification for this is that we are trying to trace the global development of work-injury law and this was a central area for its development. If we only code 1993 as the first 'national law' it presents the data in a way that is terribly misleading. As we do not expect to have both Czechosloviakia and Czechia and Slovakia as separate entities in our database, we make reference to the shared Czech history via this coding.

Czechoslovakia Interwar Period (1918-1939): Czechoslovakia was one of the most stable and prosperous countries in Central Europe.

In 2002, the average gross monthly earnings in the Czech Republic were approximately CZK 15,000 to CZK 16,000 (Czech Koruna).

European Union, joined in 2004.

ILO ‘Report on Social Insurance’.

ILO LS 1956, 1964.

ILR 1962: 85(5).

SSPW 1949, 1961, 1973, 1981, 1999, 2002, 2006, 2016, 2018.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

Democratic Republic of the Congo — cow code: 490

The territory was originally the personal property of King Leopold II of Belgium from 1885 to 1908, known as the Congo Free State, before becoming a Belgian colony as Belgian Congo (1908-1960), it was the Republic of the Congo (Léopoldville) after independence in 1960 to

distinguish it from the French Congo, then Democratic Republic of the Congo in 1964, then Zaire from 1971 until 1997, then back to the Democratic Republic of the Congo.

During the period from 1962 to 1999, experienced significant political instability and conflict, which likely impacted social security law implementations. The First Congo War (1996-1997) and the Second Congo War (1998-2003) were particularly disruptive.

Inferred values from 1996 to 2011.

ILO LS 1949.

ILR 1963 87(5).

SSPW 1999, 2003, 2019.

Denmark — cow code: 390

Estimated Average Monthly Earnings in 1989: 15,000 to 17,000 DKK (Danish Kroner).

ILO ‘Report on Social Insurance’.

ILO LS 1933, 1948, 1971, 1978.

NATLEX.

SSPW 1949, 1961, 1981, 1999, 2014, 2018.

US Bureau of Labor Statistics. 1910. ‘Bulletin of the United States Bureau of Labor Statistics, No. 90’.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

Djibouti — cow code: 522

French Somaliland. Very little information found.

Inferred first law program type and blue-collar full coverage.

NATLEX.

SSPW 2013, 2014, 2017, 2019

Dominica cow code: 54

French colony in 17th Century. Then colony of the United Kingdom (1763). Independence in 1967. The first law was introduced in 1938 under colonial rule. In the 1961 Wages Act, payments into a provident fund or insurance are not compulsory, therefore we infer that there is no compulsory risk-pooling at this point.

Dominica. 1938. *Workmen's Compensation Ordinance*. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=&p_isn=55293.

Dominica. 1985. Social Security (Employment Injury and Occupational Diseases Appointed Day) Order. Vol. 3. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=55253&p_country=DMA&p_count=223.

Dominica. 1995. *Social Security Acts and Amendments*. https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/55256/134920/F171897703/DMA55256.pdf.

ILO LS 1975.

SSPW 1981, 1999, 2009, 2011, 2019.

Dominican Republic cow code: 42

Santo Domingo included Dominican Republic and Haiti. It was the first permanent European settlement in the Americas and served as the base for further Spanish conquests in the New World. Brief French control (1795-1808). Independence in 1844 (after brief Haitian annexation).

EPZs starting in 1969.

Dominica. 1985. Social Security (Employment Injury and Occupational Diseases Appointed Day) Order. Vol. 3.

ILO LS 1932, 1948.

SSPW 1949, 1961, 1973, 1981, 1999, 2001, 2011, 2019.

Steinhaus, Henry W. 1949. *Social Security Abroad*. Chicago: Research Council for Economic Security.

Ecuador cow code: 130

ILO LS 1921, 1938, 1942, 1954.

SSPW 1949, 1961, 1964, 1981, 1999, 2011, 2019.

Egypt cow code: 651

IN 1936: Agricultural workers had only subsistence wages. Gen AI supported prediction of 10-20 piastres, equating to approximately 3-6 Egyptian Pounds per month. Urban workers both skilled and unskilled might range from 15-30 Egyptian Pounds per month. Thus, a 'typical' worker might be 10-20 Pounds per month.

The proportion of the labor force in formal employment in 1936 is likely around 5-10% of the total non-agricultural labor force. Including formal agricultural employment, a revised estimate could be 15-20% of the total labor force.

1942 estimate is 20-25%, 1959 around 25-30%, 1975 around 30-35%, 1999 around 35-40%. These estimates approximations from general historical economic trends.

United Arab Republic 1958-1971.

Egypt, the Ministry of Social Insurance (Arab Republic of.) 1984. "Social Insurance in the Arab Republic of Egypt." *International Social Security Review* 37(4):424–40. doi:10.1111/j.1468-246X.1984.tb00841.x.

Farman, Carl F., and Veronica Marren Hale. 1949. 'Social Security Legislation throughout the World'. 16. Bureau Reports. US Social Security Administration.

ILO LS 1936, 1942, 1959.

SSPW 1999, 2011, 2019.

El Salvador cow code: 92

Although some sources suggest 1996 was the first "social insurance", in the case of work-injury, according to Franzoni (2013), the 1996 law was only pensions; the disability/worker compensation component was optional.

EPZs starting in 1974.

Franzoni, Juliana Martínez. 2013. Social Protection Systems in Latin America and the Caribbean: El Salvador. United Nations.

ILO 'Report on Social Insurance'.

ILO LS 1953

SSPW 1949, 1961, 1973, 1981, 1999, 2011, 2019.

US Bureau of Labor Statistics. 1917. 'Workmen's' Compensation Laws of the United States and Foreign Countries'. Workmen's Insurance and Compensation Series. Washington D.C.

Equatorial Guinea — cow code: 411

Formerly Spanish Guinea, consisted of two main regions. Bioko (formerly Fernando Pó) and surrounding islands, and Río Muni on the mainland, plus some smaller islands.

Equatorial Guinea gained independence from Spain in 1968.

Indigenous people faced significant barriers to formal employment under Spanish colonial rule.

In 2014, roughly 14.5% of the labor force was formally employed, this is a reference point for earlier estimates. Using Gen AI predictions: 1947 2-3% formally employed, 1954 3-4%, 1965 4-6%, 1984 8-10%, 1990 6-8% after neoliberal reforms, 2003 10-12%.

Inferred blue-collar full coverage.

Ballester Otero, Carmen Libertad, María Goretti Morón-Nozaleda, Daniel Cobos Muñoz, and Florentino Abaga Ondo Ndoho. 2023. “The Health Care System in Equatorial Guinea.” doi:10.26092/elib/2646.

ILO LS 1947, 1965.

NATLEX.

Spain. 1955. “Revista Iberoamericana La Seguridad Social.” https://ingesa.sanidad.gob.es/dam/jcr:2e0e84ff-fef3-4f56-87f5-323202fd846a/RISS_numero1_1955.pdf

SSPW 1999, 2003, 2010, 2018

Estonia — cow code: 366

ILO 1935 data suggests that in Estonia (as well as in Latvia) the first accident insurance was 1912. However, Pihlamägi (2008) states that russian legislation has been adopted in Estonia (in 1903). Also, Norkus et al. (2020, p. 7) state that in the case of Lithuania, Latvia and Estonia " all three Baltic countries were parts of Russian empire before the First World War, inheriting its social legislation and building their national welfare institutions on this received ground".

Annexed by Russian Communist Party in 1940, became subject to 1922 USSR laws.

In 1996, Estonia was in the midst of transitioning from a Soviet-controlled economy to a market economy. This period was marked by significant economic reforms and changes, but wages were still relatively low compared to Western European standards. Gen AI estimated average monthly income in 1996: approximately 2,000 to 2,500 Estonian Kroons (EEK).

ILO LS 1922, 1956.

Norkus, Zenonas, Vaidas Morkevičius, and Jurgita Markevičiūtė. 2020. ‘From Warfare to Welfare States? Social and Military Spending in the Baltic States 1918–1940’. *Scandinavian Economic History Review* 0 (0): 1–21. https://doi.org/10.1080/03585522.2020.1716060.

Pihlamägi, Maie. 2008. ‘Estonian Industrial Workers’ Demands in The 1905 Revolution’. *Acta Historica Tallinnensia* 12 (1): 3. https://doi.org/10.3176/hist.2008.1.01.

SSPW 1949, 1973, 1999, 2002, 2010, 2018.

US Bureau of Labor Statistics. 1910. ‘Bulletin of the United States Bureau of Labor Statistics’. 90.

Eswatini — cow code: 572

Formerly Swaziland (also named so in GWIP v1).

What was the average earnings of a blue-collar worker in Swaziland in 1963. Please calculate for 54 months (in emalangeni)

To estimate the average earnings of a blue-collar worker in Swaziland in 1963, use data from a similar economy in South Africa. In the 1960s, the average blue-collar wage in South Africa was about R20 per month.

Monthly earnings: R20 (approximate)

Total for 54 months: 54 months * R20 = R1080

The South African Rand was equivalent to the Swazi Lilangeni (SZL or E) at that time. Thus, the estimated total earnings for 54 months would be approximately 1080 emalangeni (E).

In 1939, the labor force in Swaziland's mining sector consisted predominantly of migrant laborers from neighboring countries, with very few native Swazis employed in formal, registered mining firms.

Gen AI hypothesizes that a very small percentage of Swaziland's total labor force were formal mining workers in 1939. If we assume Swaziland's total labor force in the 1930s was approximately 50,000 people, and considering the minor role of mining, we might estimate that around 1-2% of the labor force were formal, regular mining workers, which would be around 500-1,000 individuals.

In 1963, 10% of the labor force were formal workers.

In 1983, 26.67% of the labor force were formal workers.

In 1999, 40% of the labor force were formal workers.

These estimates reflect the growth in formal employment over these decades.

Ratified ILO Convention to Cover Agricultural Workers in 1978.

Inferred blue-collar full coverage.

ILO LS 1939, 1948

SSPW 1981, 1999, 2011, 2017, 2019

Swaziland. 1983. *Workmen's Compensation Act, 1983*. Vol. 7. https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/27203/127269/F-1634665203/SWZ27203.pdf.

Ethiopia cow code: 530

Ethiopia was never fully colonized, making it unique in Africa. However, it was briefly occupied by Italy from 1936 to 1941.

What was the average income per month in Ethiopia in 1962

1962 Gen AI estimates that skilled workers and public sector employees earned an average monthly income in the range of 40 to 80 Ethiopian birr. Unskilled laborers and workers in informal sectors potentially around 10 to 30 Ethiopian birr per month.

The majority of the population lived in rural areas and engaged in subsistence farming. Monetary income in these regions was often minimal, as many transactions were in-kind or bartered. For those who earned money, incomes were generally very low, often less than what was typical in urban areas.

Using 2014 when the coverage rate was 17.4% Gen AI supported inference is possible. 1962 approximately 5-7% were covered. 1974 10-12%,1999 12-15%, 2003 15-17%

Inferred blue-collar full coverage.

ILO LS 1962.

Shiferaw, Admasu, Arjun S. Bedi, Mans Söderbom, and Getnet Alemu. 2017. 'Social Insurance Reform and Labor Market Outcomes in Sub-Saharan Africa: Evidence from Ethiopia'. https://www.iza.org/publications/dp/10903/social-insurance-reform-and-labor-market-outcomes-in-sub-saharan-africa-evidence-from-ethiopia.

SSPW 1961, 1973, 1999, 2011, 2019.

Federated States of Micronesia cow code: 987

by the United States after World War II under a United Nations mandate. Independence in 1978.

Original documents not found, thus we take internet and Gen AI supported inference.

The Workers' Compensation Act of 1968 covers all formal employees in both the public and private sectors. For temporary disability, workers are entitled to wage replacement benefits that

typically cover a percentage of their regular salary during the recovery period. For permanent disability, compensation is based on the degree of disability, with total disability often resulting in 100% wage replacement.

The 1982 Social Security Law in the Federated States of Micronesia replaced the 1968 Workmen's Compensation Law with a broader social insurance system. The 1982 law, implemented in 1983, extended coverage to all gainfully employed and self-employed persons, including some government employees. It provided disability pensions, old-age pensions, and survivor benefits, with replacement rates starting at 16.5% of the first $10,000 in earnings.

Inferred first law type and blue-collar full coverage.

SSPW 2018

Fiji cow code: 950

Chand, Ganesh. 2016. ‘Labour Market Deregulation in Fiji’. In *Confronting Fiji Futures*, by A. Haroon Akram-Lodhi. Acton, A.C.T.: ANU eView.

ILO LS 1940

ILR. 1940. ‘Social Insurance and Assistance Industrial and Labour Information’. *International Labour Review* 42(6): 408–12.

SSPW 1973, 1981, 1999, 2010, 2018.

Finland cow code: 375

ILO ‘Report on Social Insurance’.

ILO LS 1948.

NATLEX.

SSPW 1961, 1973, 1981, 1999, 2010, 2018.

Meeker,Royal. 1914. Workmen’s Compensation Laws of the United States and Foreign *Countries*. Senate Documents 4.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

France cow code: 220

Total labor force in 1948 estimated at around 20 million workers (reflecting historical labor force size for France), likely around 70-80% of the labor force formally employed.

The 1898 French law on workers' compensation is the "Loi du 9 avril 1898 relative aux responsabilités des accidents dont les ouvriers sont victimes dans leur travail".

ILO ‘Report on Social Insurance’.

ILO LS 1935.

NATLEX.

SSPW 1958, 1961, 1973, 1981, 1999, 2010, 2018.

US Bureau of Labor Statistics. 1910. ‘Bulletin of the United States Bureau of Labor Statistics, No. 90’.

Gabon cow code: 481

French colonial legacy. Gabon had a relatively more developed economy in 1935 than others, primarily due to its timber and mineral resources. Gen AI estimated that 15-20% of the labor force in Gabon was formally employed. 1958 this is around 10%.

Independence in 1960.

1975, potentially around 20-30% of the labor force.

Gerig, Daniel S. 1966. “Social Security in the New African Countries.” *Social Security Bulletin* 29(1):29–41.

ILO LS 1935, 1975.

South Africa. 2007. *The Compensation Fund Preliminary Report 2nd Draft*. *Workshops on Social Security, Dec. 11-13th*. Department of Treasury. http://www.treasury.gov.za/publications/other/ssrr/Session%20One%20Papers/Compensation%20Fund%20Project%202nd%20draft.pdf.

SSPW 1981, 1999, 2011, 2017, 2019.

Gambia cow code: 420

Workmen's Compensation law was written and passed in written form in 1940, but in the law was a stipulation that it would not come into force and that only another directive would bring the law into force at a later date. So we do not code this year as the first law, even though our 'rule' is to code a year a law is passed.

In 1940, European workers in Gambia earned significantly higher wages compared to local workers. Gen AI estimated that a European blue-collar worker in Gambia earned an average of approximately £6 to £8 per week during that period. Therefore, the average blue-collar wage for a European worker in Gambia in 1940 for 42 months of work would be between £1,092 and £1,456. It is reasonable to estimate that the percentage of the Gambian labor force in 1940 that was European and employed in blue-collar, industrial, or agricultural work involving machines or explosives was very low, likely less than 1%. The vast majority of such labor would have been performed by the native African population.

In 1956, it is likely that less than 1% of the total labor force was European and employed in the specified roles. Including native Africans who were formally registered as workers, the combined percentage of the labor force in 1956 engaged in blue-collar, industrial, or agricultural work involving machines or explosives is estimated to be around 5-10%.

In British West African colonies, including Gambia, blue-collar wages for native African workers were generally low. In the 1940s, a common wage for unskilled labor was about £1 to £2 per month. This translates to 12 to 24 pounds per year.

In 1971, when the Dalasi was introduced, it was pegged at £1 = 5 Dalasi. Using this historical exchange rate for a rough estimate. Thus, the average blue-collar wage in Gambia in 1940 for 48 months of work would be approximately 360 Dalasi.

Gambia. 1990. *Injuries Compensation, 1990*. https://www.ilo.org/dyn/natlex/docs/SERIAL/55934/49432/F1913400804/GMB55934.pdf.

ILO LS 1956.

ILR 1941:44(6).

ILR 1941:43(3).

SSPW 1973, 2003, 2011, 2019.

Georgia cow code: 372

USSR 1922.

In 1991, Georgia was going through a period of significant turmoil and economic instability. The country declared independence from the Soviet Union in April 1991, leading to a period of severe economic disruption, hyperinflation, and political conflict. As a result, determining the "average income" during this time is challenging due to the lack of reliable economic data and

the rapidly changing economic situation. Estimated Average Monthly Income in 1991: 200 to 400 Soviet rubles before hyperinflation severely devalued the currency.

Estimated Average Monthly Income in 1999: 70 to 100 Georgian lari (GEL).

In 2004, the average monthly earnings of a worker in Georgia were relatively low, reflecting the country's economic challenges during the post-Soviet transition period. Gen AI prediction is 100 to 150 Georgian lari (GEL).

Abramson, A. 1929. 'Social Insurance in Soviet Russia'. *Journal of Political Economy* 37 (4): 377–99.

ILO LS 1922, 1956.

SSPW 1949, 1973, 1999, 2004, 2011, 2019.

Germany cow code: 255

During the separation into East and West, there were differences in policies, but given that East ceased to exist we code Germany as it was in the 1800s and then into present day as the same 'entity'.

ILO 'Report on Social Insurance'.

Sherman, P. Tecumseh. 1915. 'The Jurisprudence of the Workmen's Compensation Laws'. *University of Pennsylvania Law Review and American Law Register* 63 (9): 823–75. https://doi.org/10.2307/3313245.

SSPW 1949, 1961, 1973, 1981, 1999, 2010, 2018.

US Bureau of Labor Statistics. 1910. 'Bulletin of the United States Bureau of Labor Statistics, No. 90'.

Ghana cow code: 452

British Togoland and Gold Coast joined to form Ghana which gained independence in 1957.

Gen AI supported inference of coverage rates using existing documentation and considering EPZs introduced in 1995. law in 1995 might have reduced coverage.

Akurang-Parry, Kwabena Opare. 2000. "Colonial Forced Labor Policies for Road-Building in Southern Ghana and International Anti-Forced Labor Pressures, 1900-1940." *African Economic History* (28):1–25. doi:10.2307/3601647.

ILO LS 1987.

ILR 1941:43(3).

ILR 1964:89(3).

Ishmael, Norman D, Leslie London, Moses Aikins, and Fred N Binka. 2014. 'The Delaying of Workmen's Compensation in Ghana: Review Article'. *Occupational Medicine & Health Affairs* 2 (2). https://doi.org/10.4172/2329-6879.1000155.

SSPW 2003, 2011, 2019.

Greece — cow code: 350

Estimated average annual income in 1999: 7,000 to 10,000 Greek drachmas (GRD) per month.

Greece. 1951. *Social Insurance*. *Law No. 1846*. https://www.ilo.org/public/libdoc/ilo/P/09607/09607(1951).pdf.

ILO 'Report on Social Insurance'.

ILO LS 1920, 1934, 1951.

Meeker, Royal. 1914. Workmen's Compensation Laws of the United States and Foreign *Countries*. Senate Documents 4.

SSPW 1949, 1961, 1973, 1981, 1999, 2010, 2018.

Venieris, Dimitrios N. 1994. 'The Development of Social Security in Greece, 1920-1990: Postponed Decisions'. London: London School of Economics and Political Science.

Grenada — cow code: 55

Grenada was part of the British West Indies. Grenada was colonized by the French in the 17th century but was ceded to Britain in 1763 under the Treaty of Paris. From then on, Grenada remained under British control, except for a brief period of French rule during the Napoleonic Wars. From 1958 to 1962, Grenada was part of the West Indies Federation, a short-lived political union of British Caribbean colonies that dissolved after just four years. Then Grenada became an Associated State of the United Kingdom in 1967, meaning it had full internal self-government but was not yet fully independent. Grenada gained full independence from Britain on February 7, 1974.

Inferred blue-collar first full coverage law.

Grenada. 1885. *Compensation for Injuries Act*. Act 59. https://laws.gov.gd/

Grenada. 1983(1969). *National Insurance Act with Amendments*. Code 205. https://wwwex.ilo.org/dyn/natlex2/natlex2/files/download/62035/GRD62035%202011.pdf

Mesa-Lago, Carmelo. 1988. ‘Social Insurance: The Experience of Three Countries in the English-Speaking Caribbean’. *International Labour Review* 127 (4): 479–96.

SSPW 1999, 2011, 2019.

Guatemala cow code: 90

Average earnings per year for a blue-collar industrial worker in Guatemala in 1946 in Quetzales around 1.5 to 2 Quetzales per day – Gen AI supported. Assuming a 6-day work week and no significant holidays, the annual earnings might be around 400 to 600 Quetzales.

Farman, Carl H. 1957. “Social Security in Central America.” 9.

ILO ‘Report on Social Insurance’.

ILO LS 1926, 1946.

SSPW 1961, 1973, 1981, 1999, 2011, 2019.

Guinea cow code: 438

French West Africa. There was an Overseas Labor Code of 1957 that was left up to the ‘colonies’ to implement. It was only legally fully (on paper) implemented in Cameroon, Benin and Guinea (ILR 1961) at first. In French West Africa, the 1952 decree on social insurance covered various risks, including work injuries, and provided benefits such as medical care, disability pensions, and death benefits for workers and their families, but it was to be implemented locally and it does not appear to have become effective in Guinea until 1957.

The 1960 NATLEX entry does not have original source material, so we infer first social insurance using the title and metadata.

In 1994, Gen AI supported prediction is that the percentage of the labor force in Guinea that was formally employed, was about 10-15% of the labor.

ILO LS 1926, 1932.

ILO LS 1929

ILR. 1961. “Social Security in Africa South of the Sahara.” ILR 84(3):144–74.

NATLEX.

SSPW 1999, 2003, 2011, 2019.

Guinea-Bissau cow code: 404

Portuguese colony, but mostly off-shore. The interior was run by natives. Therefore, no foothold established. One of the few colonies that did not have a colonial workmen's compensation act introduced. Independence 1974.

In 1947, the Portuguese colonial government of Guinea-Bissau, then known as Portuguese Guinea, reported that the total number of formal workers with registered employers was 6,000. Given that the total labor force at that time was estimated to be around 400,000, the percentage of formal workers was approximately 1.5%.

Percentages of formal workers in the labor force for Guinea-Bissau in the years 1960, 1980, and 1999: 5%, 20%, 40%.

Inferred blue-collar full coverage.

Portugal 1947. Decreto-Lei n 35.618 de 1947 (Workmen's Compensation).

Portugal 1960. Decreto n 44.874 de 1960 (Workmen's Compensation Amendment).

Vanilton, Carlos. 2023. "Direito Do Trabalho Na Guine-Bissau." https://repositorio.ufba.br/bitstream/ri/38969/1/Disserta%C3%A7%C3%A3o%20de%20VANILTON%20CARLOS%20S%C3%81.pdf

SSPW 1999, 2003, 2011, 2017, 2019.

Guyana cow code: 110

The region now known as Guyana was originally colonized by the Dutch in the 17th century. They established several colonies along the coast, including Essequibo, Demerara, and Berbice.

In the late 18th century, during the Napoleonic Wars, the British captured these Dutch colonies. Although there were periods of brief Dutch control afterward, the British eventually solidified their control in 1814, the Treaty of London officially transferred the colonies of Essequibo, Demerara, and Berbice to the British, marking the beginning of British Guiana.

British Guiana remained a British colony until it gained independence in 1966, after which it became the independent nation of Guyana.

Inferred some rates from Trinidad and Tobago

Goolsarran, Samuel J. 2005. *The System of Industrial Relations in Guyana*. Port of Spain, Trinidad and Tobago: International Labour Office - Caribbean.

ILO LS 1952.

SSA. 1969. “British Commonwealth Areas of the Caribbean Social Security Abroad.” *Social Security Bulletin* 32(4):37–43. https://heinonline.org/HOL/P?h=hein.journals/ssbul32&i=233

SSPW 1981, 1999, 2003, 2011, 2017, 2019.

Haiti — cow code: 41

The first work injury law is part of a broader social insurance program covering sickness, maternity and employment injury. Coverage of this insurance scheme implies State employees, domestic workers as well as “wage and salary earners employed by agricultural, industrial and commercial undertakings, and all manual and nonmanual employees giving their services to an employer for remuneration under an express or implied contract of employment;”. This law therefore legally covers all blue-collar workers and is coded as such.

ILO LS 1943, 1951, 1961, 1967.

Mesa-Lago, Carmelo. 1988. “Social Insurance: The Experience of Three Countries in the English-Speaking Caribbean.” *International Labour Review* 127(4):479–96.

SSPW 1981, 1999, 2011, 2019.

Honduras — cow code: 91

First law program type and blue-collar full coverage inferred.

Coverage rates partially interpolated with Gen AI support to fit with the known 2014 coverage estimate of 16.3% and to account for EPZs starting in 1976.

Honduras 1950. *Mining Code Reform, Decree 119*.

Honduras 2005. *Social Security Act*.

Honduras 2015. *Social Protection System Framework Law*.

ILO LS 1952, 1959.

NATLEX.

SSPW 1997, 2017, 2019.

U.S. Department of Health, Education, and Welfare. 1972. *Honduras*. U.S. Department of Health, Education, and Welfare, Office of International Health, Division of Planning and Evaluation.

Hungary cow code: 310

Hungary was a kingdom with far more territory than it has today. Laws from this time period still count because they applied to the geographic space of modern-day Hungary.

ILO ‘Report on Social Insurance’.

ILO LS 1927, 1951, 1975, 1981.

Kovrig, B. 1929. “Reform of Social Insurance in Hungary, The Special Article.” *International Labour Review* 20(5):641–65.

Oliver, Thomas. 1911. ‘The National Sickness And Accident Insurance Law Of Hungary’. *The British Medical Journal* 2 (2642): 394–96.

SSPW 1949, 1973, 1999, 2002, 2011, 2019

US Bureau of Labor Statistics. 1910. ‘Bulletin of the United States Bureau of Labor Statistics, No. 90’.

Iceland cow code: 395

In 1926, the average wage for an industrial worker in Iceland was approximately 1,200 Icelandic krónur (Kr.) per year.

1917 original law not found, inferred from various sources.

ILO ‘Report on Social Insurance’.

ILO LS 1925, 1956.

SSPW 1949, 1973, 1981, 1999, 2011, 2019.

India cow code: 750

Bangladesh and Pakistan together with India were British India until 1947.

Highly decentralized and stratified. Although the 1948 law is technically a full-coverage law, there seems to be decentralized application of laws and different exclusions. We use 1999 as a guess for a full social insurance policy. It is still the 1948 law, but its implementation seems to legally reach most/all of India. Goa was also only integrated into India from the Portuguese in 1961.

EPZs starting in 1965.

ILO ‘Report on Social Insurance’.

ILO LS 1923

India 1923. *Workmen's Compensation Act*.

India 1948. *Employee's State Insurance Act.*

ILO LS 1948.

SSPW 1949, 1967, 1999, 2010, 2018.

Indonesia cow code: 850

Dutch colonial rule primarily until 1939 (Dutch East Indies).

EPZs starting in 1986.

ILO LS 1940 (Accidents Ordinance, Dutch), 1951.

NATLEX.

SSPW 1958, 1999, 2010, 2018.

Iran cow code: 630

Algorithmic interpretation of the 1986 law without access to the original text guesses a 75% wage replacement rate.

Farman, Carl F., and Veronica Marren Hale. 1949. 'Social Security Legislation throughout the World'. 16. Bureau Reports. US Social Security Administration.

ILO LS 1936, 1960, 1963, 1975.

Iran, Islamic Republic of. 1986. Social Security Law. [Original text not found, only 2010 unofficial translation].

SSPW 1999

Iraq cow code: 645

ILO LS 1936, 1964.

Republic of Iraq. 2015. *Labour Law 2015, (Unofficial Translation by the ILO)*. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=96652

NATLEX 2020.

SSPW 1975, 1981, 1983, 1999

U.S. Bureau of Labor Statistics. 1961. *Labor Developments Abroad*. U.S. Bureau of Labor Statistics. Google-Books-ID: FEuI3IviOI8C

Ireland — cow code: 205

Gen AI gives an approximate average annual income of £676 in 1966. Estimated average weekly earnings in 1981: £100 to £120 Irish pounds. In 2002, approximately €500 to €600 per week.

ILO 'Report on Social Insurance'.

ILO LS 1966, 1973.

Ireland. 1934. *Workmen's Compensation*.

Lambiotte, Joann. 1983. "The Human Element: Birth and Development of Workmen's Compensation in Great Britain; 1880-1906." University of Illinois.

Packer, Launcelot. 1912. 'History and Operation of Workmen's Compensation in Great Britain'. 618. Washington D.C.: US Senate. https://phw03.newsbank.com/cache/serial2/display_bitonal_pdf/ra_117675C6332E99A0_1_71.pdf.

SSPW 1949, 1961, 1981, 1999, 2006, 2018.

United Kingdom. 1880. *Employer's Liability Act*.

Israel — cow code: 666

Created where British Palestine was in 1948.

ILO LS 1953.

SSPW 1949, 1973, 1981, 1999, 2010, 2018.

Italy — cow code: 325

In 1898, Gen AI predicts the average daily wage for a blue-collar manual worker in was approximately 2 to 3 Italian lire per day.

ILO 'Report on Social Insurance'.

ILO LS 1935, 1965.

Quine, Maria Sophia. 2002. Italy's Social Revolution: Charity and Welfare from Liberalism to *Fascism*. Houndmills, Basingstoke, Hampshire ; New York: Palgrave.

Simons, Thomas. 1983. "Italien Als Sozialstaat — Ein Abriß Des Italienischen Systems Der Sozialen Sicherheit —." *Sozialer Fortschritt* 32(9):202–10.

SSPW 1949, 1961, 1973, 1981, 1999, 2002, 2010, 2018.

Ivory Coast — cow code: 437

In 1964, Ivory Coast was undergoing significant economic and social transformations following its independence in 1960. Gen AI predicts that in 1964, approximately 10-15% of the labor force in Ivory Coast was formal, registered with the government, and included blue-collar, civil servant, or salaried workers. This excludes subsistence farmers, family labor, casual workers, and domestic workers.

Inferred blue-collar full coverage.

Buell, Raymond Leslie. 1928. *The Native Problem in Africa*. Vol. II. Bureau of International Research of Harvard University and Radcliffe College. New York: Macmillan. //catalog.hathitrust.org/Record/001606896.

Gerig, Daniel S. 1966. "Social Security in the New African Countries." *Social Security Bulletin* 29(1):29–41. https://heinonline.org/HOL/P?h=hein.journals/ssbul29&i=31

ILR 1964 90(6).

ILO LS 1932.

SSPW 1997, 1999, 205, 2011, 2019.

Jamaica — cow code: 51

EPZs starting 1976.

ILO LS 1965.

Jamaica. 1947. *The Provident Fund Act*. https://moj.gov.jm/sites/default/files/laws/Provident%20Fund%20Act.pdf.

Mesa-Lago, Carmelo. 1988. 'Social Insurance: The Experience of Three Countries in the English-Speaking Caribbean'. *International Labour Review* 127(4):479–96.

SSPW 1965, 1981, 2011, 2017, 2019.

ILO ‘Report on Social Insurance’.

ILO LS 1924.

ILR 1932:35(2).

Japan. 1947. *Industrial Accident Compensation Act*. https://wwwex.ilo.org/dyn/natlex2/natlex2/files/download/27790/JPN27790.pdf

Reubens, Beatrice G. 1949. ‘Social Legislation in Japan’. *Far Eastern Survey* 18 (23): 269–75. https://doi.org/10.2307/3024229.

SSPW 1961, 1973, 1981, 1999, 2010, 2018.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

Jordan cow code: 663

Because of contested/changing borders, some of what is now Jordan was governed by British Palestine after Jordanian independence in 1946. We exclude this part of Jordan from our coding.

There is a new Labor Code Law in 1996 that repeals the 1960 Labor Code Law. This seems to apply to those not covered by the 1978 Social Security Law (smaller firms, home businesses, agriculture and self-employed).

There is a law from 1955 enacted March 30th. Law number 17. It pertains to workmen's compensation. This law was designed to provide compensation to workers who sustained injuries while performing their job duties. It outlined the employer's liability for work-related injuries, ensuring that workers received medical care and financial compensation for their injuries. The law aimed to protect the rights of workers and ensure their well-being in the case of workplace accidents.

Dixon, John. 1987 & 2016. *Social Welfare in The Middle East*. Routledge. https://doi.org/10.4324/9781315670560.

ILO LS 1960.

Jordan, Hashemite Kingdom of. 1996. *Labour Code, Law No. 8 of 1996*. https://www.ilo.org/dyn/natlex/docs/WEBTEXT/45676/65048/E96JOR01.htm

Hashemite Kingdom of Jordan. 2001. *The Social Security Law No.(19) for the Year 2001*. http://oit.org/dyn/natlex/docs/ELECTRONIC/59599/95324/F24774165/JOR59599.pdf

SSPW 1958; 1981; 2010; 2018.

USSR in 1936.

Inferred first law type and blue-collar full coverage.

ILO LS 1956.

SSPW 1949, 1973, 1999, 2010, 2018

Kenya cow code: 501

Based on Gen AI calculations and historical context, approximately 0.2% to 0.33% of the total labor force in Kenya were employed in the mining sector in 1940..

1940s Gen AI predictions. Agricultural Workers: around 10-20 shillings per month.

Urban Blue-Collar Workers: ranging from 30 to 60 shillings per month.

For this calculation, let's assume an average blue-collar wage of 40 shillings per month in 1949, which seems reasonable given the range provided, 540 shillings would then represent approximately 112.5% of an estimated average annual blue-collar wage in Kenya in 1949.

In 1949, Kenya was still a British colony, and its labor force was predominantly engaged in agriculture, particularly subsistence farming. Approximately 5-7% of the total labor force in Kenya in 1949 were in formal employment.

EPZs starting in 1990.

ILO LS 1963.

ILR 1941:43(3).

Kenya. 1949. *Workmen's Compensation Act, Cap 236 1949*. http://kenyalaw.org/kl/fileadmin/pdfdownloads/RepealedStatutes/WorkmensCompensationCap236.doc

Kenya. 1974. *The Workmen's Compensation (Compulsory Insurance) Order, 1974*. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=14920.

NATLEX.

SSPW 1999, 2011, 2019

Kiribati cow code: 946

Inferred blue-collar full coverage.

Gilbert Islands 1977. *Workmen's Compensation 1977*. *Kiribati*. Vol. 102. http://www.paclii.org/ki/legis/consol_act/wco316.pdf.

ILO LS 1949.

SSPW 1981, 1999, 2002, 2010, 2018.

Kuwait cow code: 690

Inferred blue-collar full coverage.

Dixon, John. 1987. *Social Welfare in The Middle East*. Routledge. https://doi.org/10.4324/9781315670560.

ILO LS 1976.

SSPW 1981, 1999, 2010, 2018.

Kyrgyzstan cow code: 703

USSR in 1936.

Goldberg, Arthur J. 1962. *Principal Current Soviet Labor Legislation*. Edited by US Bureau of Labor Statistics. Washington, D.C. https://play.google.com/store/books/details?id=tNc0r687VigC&rdid=book-tNc0r687VigC&rdot=1.

ILO LS 1956.

SSPW 1949, 1973, 1999, 2010, 2018.

Laos cow code: 812

Like all French-Indochina colonies, 1936 labor law covered native workers and technically all of them. But in practice very few received anything. Nonetheless we code 1936 as the year of blue-collar full coverage. The 1994 law is sufficiently vague, it seems that workers must contribute to social security but employers have optional contributions to a fund or insurance, thus we only code 1999 as first insurance

Laos. 1999. Decree No. 207/PM Regarding the Social Security Regime for Employees in *Enterprises*. Vol. 207

https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=57823&p_country=LAO&p_count=60.

SSPW 1973, 1981, 2002, 2014, 2018.

US Army. 1943. *Civil Affairs Handbook: French Indo-China: Labor*. US Army Service Forces.

Latvia — cow code: 367

Annexed by Russian Communist Party in 1940.

See Estonia for further information.

NATLEX.

Norkus, Zenonas, Vaidas Morkevičius, and Jurgita Markevičiūtė. 2020. 'From Warfare to Welfare States? Social and Military Spending in the Baltic States 1918–1940'. *Scandinavian Economic History Review* 0 (0): 1–21. https://doi.org/10.1080/03585522.2020.1716060.

ILO LS 1956.

SSPW 1949, 1973, 1999, 2010, 2018.

US Bureau of Labor Statistics. 1910. 'Bulletin of the United States Bureau of Labor Statistics'. 90.

Lebanon — cow code: 660

Ottoman Empire then Greater Lebanon as French Colony (parts). Independence in 1943.

Clarke, Joan. 1966. *Labor Law and Practice in Lebanon*. US Bureau of Labor Statistics.

SSPW 1961, 1981, 1999, 2008, 2018.

Lesotho — cow code: 570

Basutoland as British colony 1868. Independence in 1966.

The average blue-collar wage in Lesotho in 1999 was approximately 9,000 Maloti per year. This estimation is based on available economic data from that period, reflecting typical earnings for workers in industrial and manufacturing sectors (Gen AI).

Gen AI predicted percentages of the labor force engaged in formal work in Lesotho are 1977: Approximately 12.5%, and 1993: Approximately 16.67%

In 2002, the average monthly earnings in Lesotho were around LSL 300 to LSL 500 (Lesotho Loti), equivalent to about USD 30 to 50 at the time.

significant portion of formal employment in Lesotho during this period was in the textile and garment industry, which generally offered low wages, though these jobs were crucial for the country's economy.

Fultz, Elaine, and Bodhi Pieris. 1999. 'Compensation for Employment Injuries in Southern Africa: An Overview of Schemes and Proposals for Reform'. *International Labour Review* 138 (2): 171–94.

ILO LS 1948.

Lesotho. 1977. *Workmen's Compensation Act*.

Lesotho. 1993. *Workmen's Compensation Amendment*.

Pratt, Cranford. 1960. "'Multi-Racialism' and Local Government in Tanganyika." *Race* 2(1):33–49. doi:10.1177/030639686000200103.

SSPW 2013, 2017, 2019.

Liberia — cow code: 450

In 1949, Liberia was predominantly an agrarian economy with a significant portion of its labor force engaged in agriculture approximately 70-80% of the labor force. Industrial (blue-collar) sectors such as mining, chemical processing, and production likely around 10-15% of the labor force. A rough estimate could be that 40-50% of industrial workers earned less than 100 Liberian dollars per year.

In 1980, Liberia's economy was still heavily based on agriculture. In 1980, it is estimated that approximately 70-75% of the Liberian labor force was engaged in agricultural work. Approximately 20-25% of agricultural workers might have been employed regularly for wages on plantations or other commercial agricultural enterprises.

In 1980 and probably still in 1990, a significant portion of Liberia's labor force was self-employed. Estimates suggest that about 70% of the labor force was engaged in self-employment.

Non-formal likely constituted around 50-60% of the self-employed labor force. Non-Subsistence Commercial Activities: Likely constituted around 10-20% of the self-employed labor force.

ILO LS 1943

ILR 1963:87(2)

Liberia 1956. Labor Law as Enacted by the National Legislature. Ministry of Labor Reproduction. Available via ILO NATLEX.

https://www.ilo.org/dyn/natlex/docs/MONOGRAPH/70656/70521/F86662015/LBR70656.pdf.

Liberia 2017. ‘An Act to Repeal Decree No. 14 of the People's Redemption Council of the Armed Forces of Liberia and to Create a New Chapter 89 of the Executive Law Establishing the National Social Security and Welfare Corporation of the Republic of Liberia’. Ministry of Foreign Affairs.

SSPW 1983; 1999; 2003.

Webster, Donald George. 1958. ‘A Historical Study of the Republic of Liberia with Special Emphasis on Its Economic Growth Potentials’. Atlanta, Georgia, USA: Atlanta University. https://core.ac.uk/download/pdf/17046422.pdf.

Libya — cow code: 620

Italy introduced work-injury law in 1923 but only for the northern provinces of Tripoli and Cyrenaica. These were not all of modern Libya but the most populous parts, so we still code this as a first law (see Moses 2018 and ILO LS 1923).

During the Italian colonial occupation of Libya (1911-1943), the Libyan population experienced significant repression and limited rights. The Italian regime implemented harsh measures, including land confiscations, forced labor, and internment camps, particularly during the resistance led by Omar Mukhtar. During the Italian colonial occupation of Libya, particularly in Tripoli, there was a significant presence of Italian settlers. By 1939, the Italian population in Libya had grown substantially, with approximately 119,139 Italians living in the region, constituting around 13.33% of the total population of Libya.

By 1934, the colonized territories of Tripolitania, Cyrenaica, and Fezzan were unified under the name "Libya," and the Italian government began extensive infrastructure projects, including the construction of roads and railways, which facilitated the movement and settlement of Italians in

In the 1950s, Libya's economy was predominantly based on agriculture, with a significant portion of the labor force engaged in farming and related activities. Estimates suggest that around 70-80% of the Libyan labor force was employed in agriculture during this period. Industry, including early oil exploration and production, accounted for a much smaller percentage, likely around 10-15%.

250 Libyan Piastres from 1968 would be approximately worth 68.74 USD today.

In the 1970s, the Libyan Dinar was a strong currency, often pegged to the US dollar. Historical data indicates that 1 Libyan Dinar (LYD) was approximately equivalent to 3.28 USD in the early 1970s.

108 Libyan Dinars from 1973 would be approximately worth 1828.75 USD today.

Prior to independence Libya was legally under the Italian social insurance law. Based on repression and forced labor of natives, we infer that only Italian immigrants/workers were covered this means replacement rate should be zero (like with miners) because not enough of

the population is covered. 13% might have been Italian origin, this sets the maximum coverage at 13%, and if we adjust for what is common in other countries we might guess 3% here.

ILO LS 1923; 1957; 1980

Moses, Julia. 2018. The First Modern Risk: Workplace Accidents and the Origins of European *Social States*. Studies in Legal History. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781108657853.

SSPW 1958; 1973; 2003; 2011; 2017; 2019

Wasfy, Mohamed. 1967. "Social Insurance in the Kingdom of Libya." *International Social Security Review* 20(4):463–85. doi: 10.1111/j.1468-246X.1967.tb00013.x.

Liechtenstein — cow code: 223

Liechtenstein. 1931. *Accident Insurance*. https://www.gesetze.li/chrono/pdf/1931002000.US Bureau of Labor Statistics. 1917. 'Workmen's Compensation Laws of the United States and Foreign Countries'. 8. Workmen's Insurance and Compensation Series. Washington D.C.

ILO LS 1931.

NATLEX.

SSPW 1999, 2002, 2010, 2018.

US Bureau of Labor Statistics. 1917. *Workmen's Compensation Laws of the United States and Foreign Countries*. 8. Workmen's Insurance and Compensation Series. Washington D.C.

Lithuania — cow code: 368

Part of the Russian Empire until 1918.

Annexed by Russian Communist Party in 1940.

See Estonia for further information.

ILO LS 1956.

Norkus, Zenonas, Vaidas Morkevičius, and Jurgita Markevičiūtė. 2020. 'From Warfare to Welfare States? Social and Military Spending in the Baltic States 1918–1940'. *Scandinavian Economic History Review* 0 (0): 1–21. https://doi.org/10.1080/03585522.2020.1716060.

SSPW 1949, 1973, 1999, 2002, 2010, 2018.

US Bureau of Labor Statistics. 1910. ‘Bulletin of the United States Bureau of Labor Statistics’. 90.

Luxembourg cow code: 212

ILO ‘Report on Social Insurance’.

Meeker,Royal. 1914. Workmen’s Compensation Laws of the United States and Foreign *Countries*. Senate Documents 4.

SSPW 1949, 1961, 1973, 1981, 1999, 2010, 2018.

US Bureau of Labor Statistics. 1910. ‘Bulletin of the United States Bureau of Labor Statistics, No. 90’.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

Macedonia (North) cow code: 343

Bureau of Labor Statistics. 1943.

ILO LS 1946, 1958

SSPW 1961, 1973

Madagascar cow code: 580

Malagasy people. French colonial legacy.

Gen AI predicts approximately 5% of the labor force in Madagascar in 1925 were native Africans engaged in formal labor.

Approximately 15% of the labor force in Madagascar in 1958 were formal workers, working for formal employers recognized by the government, paying taxes, and not engaged in casual, subsistence, domestic, self-employed, or familial work.

Inferred blue-collar full coverage.

Goudal, Jean. 1939. ‘Agricultural Development and Indigenous Labour in the French Colonies of Tropical Africa Special Article’. *International Labour Review* 40 (2): 209–32.Madagascar. 1968. Loi N° 68-23 Du 17 Décembre 1968 Instituant Un Régime de Retraites et *Créant La Caisse Nationale de Prévoyance Sociale.* https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=18316&p_country=MDG&p_count=537.

ILO LS 1925, 1958.

Madagascar. 1968. *Loi N° 68-23 Du 17 Décembre 1968 Instituant Un Régime de Retraites et Créant La Caisse Nationale de Prévoyance Sociale.* https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=18316&p_country=MDG&p_count=537

SSPW 1999, 2011, 2017, 2019.

Malawi cow code: 553

Nyasaland merged with Rhodesia in 1953, thus as one protectorate the laws of Rhodesia would apply, meaning the 1946 British social insurance for work-injury law becomes the first social insurance law of 1953, including full coverage. The ordinances excluded workers who earned more than £500 per year, casual workers, household workers, and family labor.

Given these legal specifications, a majority of the labor force engaged in agriculture, mining, and public works would have been covered by the ordinances. This could represent roughly 60-70% of the labor force, considering the high employment in agriculture and lower incomes prevalent at the time.

Europeans were tried in European courts with better legal protections, while Africans were often tried in Native Courts which had limited jurisdiction and were subject to indirect rule by colonial authorities. Africans to access legal assistance or to challenge their detention, as their movements were tightly controlled.

In 1946, the labor force in Nyasaland was predominantly in agriculture. Historical records indicate approximately 80-90%. Nearly all of the agricultural labor force comprised native Africans, who were racialized as 'black' under the colonial system. Much of the industrial workers were also ‘black’. Estimates suggest that the percentage of white workers in industrial roles was likely around 5-10% of the industrial labor force. Given the economic structure of Nyasaland at the time, it is plausible to estimate that around overall about 5-10% of the total labor force was engaged in industrial work in 1946.

In 1990, Malawi's economy was still predominantly agrarian. According to various reports and studies from the period, around 80% of the labor force was engaged in agriculture. Maybe 20-25% of this was engaged in formal employment on large commercial farms and estates. Maybe 5-7% of the overall labor force was employed in industry during this period. The majority were involved in subsistence and casual labor. However, within the agricultural sector, a smaller portion was engaged in more formal, structured employment, about 20-25% of the agricultural workforce, translating to roughly 16-20% of the overall labor force.

In the year 2000, approximately 80.72% of Malawi's labor force was engaged in agriculture. It is estimated that around 20-25% of those in agriculture were involved in more structured employment. This would translate to roughly 16-20% of the total labor force being engaged in formal agricultural work. About 4.1% of the labor force was in industry. Therefore, combining these estimates, around 20-24% of the labor force in Malawi in 2000 was engaged in agriculture and industry, excluding subsistence, casual, and domestic work.

ILO LS 1946, 1954

SSPW 1967, 1999, 2011, 2019

ILR 1944:50(4)

Lowry, Donal. 1997. "'White Woman's Country': Ethel Tawse Jollie and the Making of White Rhodesia." *Journal of Southern African Studies* 23(2):259–81.

Malawi, Republic of. 2000. Worker's Compensation Act. Act 7/2000.

Malema, Kalani. 2014. "Social Protection: The State Regulation of the Employment Relationship in Malawi-Achievements and Challenges." https://www.researchgate.net/publication/324006461

Radipati, BD, Margaret Beukes, Kandako Mhone, Roshana Kelbrick, Delize Delport, PKA Amoah, RY Phillips, and G. Feltoe. 1990. "Current Legal Developments." *The Comparative and International Law Journal of Southern Africa* 23(3):374–411.

Malaysia — cow code: 820

Complicated history. Only the British Federated Malaya was covered by the early laws. 1963-196 a brief union of Singapore, Sabah and Sarawak. After independence it took time for all laws to apply to all Federate States. Immigrants were no longer covered by social security in 1993 because of a large influx, they were defaulted to the 1952 law. Very different systems evolved over time. But they seem to have been somewhat consolidated with the 2017 law. However, this means we are making guesses that somehow land in the middle of these various systems.

In 1952, Gen AI historical accounts suggest that rubber plantation workers earned an average of RM 50-100 per month. For skilled workers, including those in mining and urban occupations, earnings could be higher, possibly averaging RM 150-200 per month. The average annual income for a worker in Malaya in 1952 can be estimated roughly around RM 600-1,200 per year.

In 1969, the average monthly income in Malaysia was estimated to be around RM 160.

EPZs starting in 1971.

Amin, Noor Shuhadawati Mohamad, Norjihan Abdul Aziz, and Zuraini Ab Hamid. 2017. "Limitations of Social Security Laws and Policies Vis-a-Vis Migrant Workers in Malaysia." *Journal of Malaysian and Comparative Law* 44(2):21–38.

ILO LS 1929, 1951, 1969, 1976.

Karto, Dom, and Teh Kok Peng. 1986. "Social Security in Malaysia [with Comment]." ASEAN Economic Bulletin 3(1):70–91.

Malaysia. 1947. *Workmen's Compensation Act* (British Malaya).

Malaysia. 1952. *Workmen's Compensation Act 1952*. NATLEX. English translation. https://asean.org/storage/2016/06/MA4_Workmes-Compensation-Act-1952-Act-273.pdf .

NATLEX.

Singapore. 1932. ‘Straits Settlements Government Gazette’. volume 67, no 48–64. Singapore: National Library Board. https://eresources.nlb.gov.sg/printheritage/detail/007afc1d-993f-4b59-9ca8-8c1933b02d8c.aspx.

SSPW 1958, 1999, 2011.

Mali cow code: 432

In 1962, the formal employment sector in Mali was quite limited. The majority engaged in subsistence agriculture. It is Gen AI estimated that approximately 10-15% of the labor force was formally employed.

Buell, Raymond Leslie. 1928. *The Native Problem in Africa*. Vol. II. Bureau of International Research of Harvard University and Radcliffe College. New York: Macmillan.

ILO LS 1926, 1932, 1963.

NATLEX.

SSPW 1973, 2011, 2019.

Malta cow code: 338

The historical average wage for a blue-collar worker in Malta in 1929, is around 20 to 30 shillings per week. Then in 1956 35 to 50 shillings per week. Then iIn 2006, the average annual income in Malta was approximately €13,000 to €14,000.

ILO LS 1929, 1956.

Malta. 2019. ‘National Insurance Act - History from Malta Social Security Administration’. Malta: Social Security Administration. https://socialsecurity.gov.mt/en/Documents/The%20History%20of%20Social%20Security%20in%20MaltaEN.pdf.

SSPW 1973, 1981, 1999, 2002, 2010.

Marshall Islands cow code: 983

Spanish, German, Japanese and U.S. colony and/or administration.

Inferred blue-collar full coverage.

SSPW 1999, 2018.

Mauritania cow code: 435

French West Africa.

In 1967, the formal employment sector in Mauritania was relatively small, similar to other West African nations. Gen AI prediction that about 10-15% of the labor force was formally employed, including government employees, workers in state-owned enterprises, and those in the formal private sector. However, this did not change much and was about the same in 1999.

Data for this country are very sparse.

ILO LS 1926, 1928, 1967

Mauritius cow code: 590

An exceptional country of Africa because it was almost entirely constructed as sugar plantations in the early colonial years. French and later British colony. Social insurance only came in the form of pensions. Workmen's compensation does not appear to even have a provident fund until after independence in 1993.

In 1931, Mauritius was a British colony, and its economy was primarily based on sugar production, daily wage Gen AI prediction between 0.5 and 1 rupee per day, depending on the specific job and skill level.

EPZs starting in 1970.

Mauritius. 1931. *Workmen's Compensation Act 1931*. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=45338.

Mauritius. 1976. *National Pensions Act 1976*. https://www.mra.mu/download/TheNationalPensionsAct1976.pdf.

Mootoosamy, Sandrasegaram. 1981. "Developing the Social Security System: The Experience of Mauritius." *International Social Security Review* 34(4):446–61. doi:10.1111/j.1468-246X.1981.tb00719.x.

NATLEX.

SSPW 1981, 2003, 2011.

Mexico cow code: 70

EPZs starting in 1965. Federal system.

ILO 'Report on Social Insurance'.

ILO LS 1931, 1969.

SSPW 1949, 1961, 1973, 1981, 1999, 2010, 2018.

US Bureau of Labor Statistics. 1932. ‘Labour Legislation of Mexico’. 569. Bulletin of the US Bureau of Labour Statistics Foreign Labour Law Series. Washington D.C.

Moldova (Republic of) cow code: 359

Annexed by the Russian Communisty Party in 1940. We code 1973 as a "fund" because it was the Soviet Labor Law where the state centralized everything and then (ideally) provided for work-injuries and other forms of social welfare. Without a specific institution or protocol, this better resembles a "fund" for all parts of the Soviet Union other than Russia itself. (1973 law translated from Romanian using Google Translate).

ILO LS 1956.

Moldova. 1993. Labor Code of 1973 with 1993 Amendment. Translated from Romanian w/ *Google Translate*. http://www.law-moldova.com/eng/legislation_republic_moldova.html.

SSPW 1949, 1961, 1973, 1999, 2002, 2010, 2018.

Monaco cow code: 221

ILO LS 1930.

Monaco 1958. *Employment Accident Insurance Consolidation, 5234-1958*.

SSPW 1999, 2006, 2018.

Mongolia cow code: 712

Gained independence from China in 1911. The former Mongolian territory includes "Inner Mongolia" which is part of China. The country of Mongolia today is what was formerly "Outer Mongolia" and was a satellite Soviet republic 1924-1992. Repeated searches have not produced any information about Mongolia's socialist period in terms of worker protections. The economy was 'centrally planned' but most of it was pastoral and informal. Unless we encounter more information we can only code labor laws in the post-socialist era. The 1977 book Social Security Programs throughout the World states that Mongolia has either no social security program or data are lacking. Thus, we find the first law in 1994. It has compulsory insurance but there are no minimums so it seems like the choice of insurance company would determine the benefits.

Mongolia. 1994. *Law of Mongolia on Social Insurance*. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=79733.

Mongolia 2024. Mongolian Ministry of Labor and Social Protection website (algorithmically translated and extracted).

SSPW 1977.

Montenegro — cow code: 341

Yugoslavia. Little data available.

ILO LS1946, 1958.

Montenegro 2023. Montenegro Ministry of Labor website (algorithmically translated and extracted).

SPW 1961, 1973.

US Bureau of Labor Statistics. 1943. “Labor Conditions in Yugoslavia.” *Monthly Labor Review* 57(5):895–910.

Morocco — cow code: 600

Complex colonial history. Western Sahara disputed. In 1927, the legal framework in Morocco under the French Protectorate included significant disparities in the treatment of native Moroccan workers compared to European settlers, especially concerning labor laws and compensation for work injuries. Approximately 2.4% of the total labor force in Morocco in 1927 was engaged in formal labor involving machinery and explosives, specifically non-native workers – legally covered, unclear in practice.

Approximately 30% of the labor force in Morocco in 1957 were engaged in formal labor, 35% in 1973, 30% in 1999.

EPZs starting in 1982.

ILO LS 1927, 1959.

NATLEX.

SSPW 1967, 1981, 1999, 2017, 2019.

Mozambique cow code: 541

Gen AI translations of Portuguese laws. Gen AI supported inference of coverage.

Inferred blue-collar full coverage.

ILO LS 1957.

ILR 1961:84(3)

Mozambique. 2007. *Social Security Law*. https://wwwex.ilo.org/dyn/natlex2/natlex2/files/download/77171/MOZ77171.pdf

Mozambique. 2017. *Legal Regime of Workplace Accidents and Occupational Diseases*. https://wwwex.ilo.org/dyn/natlex2/natlex2/files/download/98911/MOZ%20-%20Dec%2062_2013_BR.%2097.pdf

SSPW 2017, 2019.

Myanmar cow code: 775

Formerly Burma, British colony until 1989.

ILO LS 1923.

India. 1923. *Workmen's Compensation Act*.

Myanmar. 1954. Social Security Act 1954. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=88686&p_country=MMR&p_count=86&p_classification=15&p_classcount=3.

SSPW 1949, 1961, 1973, 1981, 1999, 2014, 2018.

Namibia cow code: 565

In 1994, the percentage of the labor force in Namibia earning more than N$3,000 per month was relatively low. According to the 1993/1994 Namibia Household Income and Expenditure Survey Gen AI extracted, income distribution was significantly skewed, with a large proportion of the population earning below this threshold. Best guess is that less than 10% of the labor force earned more than N$3,000 per month.

Inferred blue-collar full coverage.

Fultz, Elaine, and Bodhi Pieris. 1999. “Compensation for Employment Injuries in Southern Africa: An Overview of Schemes and Proposals for Reform.” *International Labour Review* 138(2):171–94.

ILO LS 1924.

ILR 1925:12(3)

Namibia. 1941. *Employee’s Compensation Act of 1941*. Vol. 30. https://www.lac.org.na/laws/annoSTAT/Employees'%20Compensation%20Act%2030%20of%201941.pdf.

Namibia. 1994. *Social Security Act, 1994*. Vol. 34. http://www.oit.org/dyn/natlex/docs/ELECTRONIC/40040/96187/F924649808/NAM40040.pdf.

SSPW 2011, 2019.

Nepal cow code: 790

Harris, George Lawrence. 1973. Area Handbook for Nepal, Bhutan, and Sikkim. U.S. Government Printing Office.

Maharjan, Uttam. 2017. ‘An Overview Of Social Security Act’. *The Rising Nepal*, 14 August 2017, Online edition. http://therisingnepal.org.np/news/20573.

SSPW 1981, 1999, 2010, 2019.

Netherlands cow code: 210

ILO ‘Report on Social Insurance’.

ILO LS 1922, 1956, 1966.

SSPW 1949, 1961, 1973, 1981, 1999, 2002, 2010, 2018.

US Bureau of Labor Statistics. 1901. ‘July 1901: Bulletin of the United States Bureau of Labor, No. 35’. Bulletin of the United States Bureau of Labor. https://fraser.stlouisfed.org/title/3943/item/477591.

US Bureau of Labor Statistics. 1910. ‘Bulletin of the United States Bureau of Labor Statistics’. 90.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

New Zealand cow code: 920

ILO ‘Report on Social Insurance’.

ILO LS 1956.

SSPW 1949, 1973, 1999, 2010, 2018.

US Bureau of Labor Statistics. 1910. ‘Bulletin of the United States Bureau of Labor Statistics, No. 90’.

Nicaragua cow code: 93

Nicaragua in 1930, access to legal protections and rights varied significantly across different ethnic groups. This disparity was a reflection of broader social, economic, and political inequalities that were prevalent in many Latin American countries during that period.

In 1930 a reasonable Gen AI inference is 70-80% of the total labor force in agriculture. Thus, 20-30% in the remaining industries and services. Maybe 10-15% of these remaining were working in firms with at least 15 employees. 1955 approximately 30-35% of Nicaragua’s labor force in 1955 might have been engaged in formal, non-casual, non-subsistence, and non-domestic work. Given these factors and comparable data from similar contexts, approximately 20-30% might have been in services, with 10-15% of this group possibly in domestic work. If so, roughly 2-4% of the total labor force in Nicaragua in 1955 might have been engaged in domestic work

In 1982, Nicaragua was under the rule of the Sandinista government that implemented significant economic and labor policies. During this time Nicaragua was roughly 50-60% agriculture, 15-20% industry and 25-30% services. Formal employment (excluding casual, self-employed, and subsistence work) might have been 35-45% of the labor force.

EPZs starting 1976.

ILO LS 1930, 1945, 1955.

SSPW 2011, 2019.

Nicaragua 1982. Ley de Seguridad Social. DECRETO-LEY N°. 974, February 11th. http://legislacion.asamblea.gob.ni/Normaweb.nsf/b92aaea87dac762406257265005d21f7/d018e442c0d037d5062570a10057cfa8?OpenDocument.

Nicaragua 2005. Social Security Law. Law No. 539. Approved May 12th, 2005. National Assembly of the Republic of Nicaragua

Niger cow code: 436

In 1965, the formal employment sector in Niger was quite small Gen AI approximately 10% of the labor force in Niger was formally employed. This did not change much by 1999.

Inferred first law type and blue-collar full coverage.

Buell, Raymond Leslie. 1928. *The Native Problem in Africa*. Vol. II. Bureau of International Research of Harvard University and Radcliffe College. New York: Macmillan.

ILO 1932, 1965.

SSPW 1973, 2003, 2011, 2017, 2019.

Nigeria cow code: 475

We have not found a copy of the 1950 amendment to workmen's compensation therefore we cannot say if it involved a provident fund, so we have inferred that it did not. The first true social insurance law is 2010, but 1987 law has both independence and compulsory insurance, so it operates similarly to social insurance, so we code this as the first year of social insurance.

In 1941, Gen AI predicts a large proportion of the labor force was involved in commercial agriculture, potentially around 40-50%. The industrial sector was much smaller, perhaps accounting for 5-10% of the labor force. Combining these factors, a rough estimate would be that around 45-60% of the labor force in colonial Nigeria in 1941 was working in blue-collar industrial or commercial agricultural jobs and earning less than 500 Pounds per year. 1950, 50-60% and 1987 50-65%.

Adeogun, A. A. 1971. “Thirty Years Of Workmen’s Compensation Act in Nigeria.” *Nigerian Law Journal* (5):57–75.

ILR 1960: 82(1).

Nigeria, Colony and Protectorate of. 1941. *Workmen’s Compensation Ordinance, 1941*.

Nigeria. 1987. *Workmen’s Compensation Act 1987*.

Nigeria. 2010. *Employment Compensation Act*.

SSPW 1999, 2019.

North Korea cow code: 731

Prior to 1948 same as South Korea. Very limited data.

Kichae, Min, and Ko Hyejin. 2018. “Changes in the North Korean Welfare System: A Comparison of the Kim Il Sung, Kim Jong Il and Kim Jong Un Eras.” *North Korean Review* 14(2):46–63.

Kim, Jang Gi, and Yoon Ju Duk. 2012. ‘Development and Operation of Workers’ Compensation Insurance Scheme in S. Korea’. Seoul: Ministry of Employment and Labor.

Lee, Kyung-Hee. 2009. ‘Guide for Korea’s the Industrial Accident Compensation Insurance Act and Its Practices’. Korea Legislation Research Institute.

Norway cow code: 385

1814-1905 union with Sweden.

The average daily income in Norway in 1956 was Gen AI approximately 40 to 48 Norwegian crowns per day for an industrial worker.

ILO LS 1979.

NATLEX.

SSPW 1949, 1961, 1973, 1981, 1999, 2010, 2018.

US Bureau of Labor Statistics. 1910. ‘Bulletin of the United States Bureau of Labor Statistics, No. 90’.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

Oman cow code: 698

Inferred blue-collar full coverage.

ILO LS 1977.

Mallat, Hyam. 1997. ‘Social Security and Social Insurance Law: A Survey of Nine Arab States’. *Yearbook of Islamic and Middle Eastern Law Online* 4 (1): 210–45. https://doi.org/10.1163/221129898X00107.

Oman. 1984. *Social Security Law*. https://wwwex.ilo.org/dyn/natlex2/natlex2/files/download/85967/OMN85967%20Arabic.pdf

SSPW 1999, 2002, 2010, 2018.

Pakistan cow code: 770

There are simultaneously two primary systems. The 1923 employer liability system and the 1965 social insurance system. Those not covered by the 1965 law are part of the 1923 law. As the coverage increase over time for the 1965 law, and it eventually covers 5 or more employee firms in industrial work, it is the core of work-injury law for our purposes. So we code this as the "law" even though there is another one. We try to generate wage replacement scores that reflect a mix of the two. British India until 1947.

Percentage of labor force in large firms with heavy machinery in 1923 1-2% and in 1938, Gen AI approximately 2-3% of the total labor force.

Percentage of the total labor force that were working in firms with 10 or more employees and earning less than 500 Rupees per month: 1965 60-65%, 1973 55-60%, 1999 35-40%. The 2014 figure of 28.6% suggests a continued trend of formalization and wage growth, though still indicating a significant portion of the workforce remains in low-wage employment.

EPZs starting in 1989.

Anderson, Kathryn H, Najmul Hossain, and Gian S Sahota. 1991. 'The Effect of Labor Laws and Labor Practices on Employment and Industrialization in Bangladesh'. *The Bangladesh Development Studies* 19 (1/2): 131–56.

ILO LS 1923.

Pakistan. 1938. *The Employer's Liability Act*. https://wwwex.ilo.org/dyn/natlex2/natlex2/files/download/50109/PAK50109.pdf

SSPW 1973, 1999, 2010, 2018.

Palau cow code: 986

We use US rates adjusted downward.

SSPW 1999, 2010, 2018.

Panama cow code: 95

Spain, Gran Colombia and then independent in 1903.

ILO ‘Report on Social Insurance’.

ILO LS 1943, 1947, 1970, 1973.

Ricord, Humberto E. 1953. ‘Reseña sobre la historia del derecho del trabajo en Panamá’. *Boletín del Instituto de Derecho Comparado de México* 1 (16). https://revistas-colaboracion.juridicas.unam.mx/index.php/boletin-derecho-comparado/article/view/8880.

SSPW 1949, 1973, 1981, 1999, 2011, 2019.

Papua New Guinea cow code: 910

Gen AI supported interpolation of coverage and replacement rates using 2004 SSPW information.

ILO LS 1947.

SSPW 1999, 2004, 2010, 2018

Paraguay cow code: 150

ILO ‘Report on Social Insurance’.

ILO LS 1927, 1943, 1961, 1963, 1973.

NATLEX.

SSPW 1999, 2011, 2019.

Peru cow code: 135

ILO LS 1936, 1972.

Meeker,Royal. 1914. Workmen’s Compensation Laws of the United States and Foreign *Countries*. Senate Documents 4.

SSPW 1949, 1961, 1973, 1981, 1999, 2011, 2019.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

Philippines cow code: 840

Gen AI inferred and adjusted coverage and replacement rates based on sparse information.

EPZs starting in 1969.

Farman, Carl F., and Veronica Marren Hale. 1949. *Social Security Legislation throughout the World*. Edited by United States. Social Security Administration. Vol. 16. Bureau Reports. U.S. Government Printing Office.

NATLEX.

Philippines. *1927. Workmen's Compensation Act, 3428-27.* https://elibrary.judiciary.gov.ph/thebookshelf/showdocsfriendly/28/54268

Philippines. *1954. Social Security Law.* *https://wwwex.ilo.org/dyn/natlex2/natlex2/files/download/7297/PHL7297.pdf*

San Agustin, Moises. 1929. 'The Philippine Workmen's Compensation Act'. *Philippine Law Journal* 9 (5): 167–84.

SSPW 1981, 1999, 2010, 2018.

Poland cow code: 290

Algorithmic supported translation and interpretation of Polish language 1924 law.

In 1949, a skilled manual worker in Poland would typically earn around 800 to 1,200 Polish zlotys (PLN) per month.

Chylak, Karol. 2015. 'Social Insurance in the Second Republic of Poland. Social Advantage or the Policy of Caution'. *Studia Historiae Oeconomicae* 33 (December). https://doi.org/10.1515/sho-2015-0003.

ILO 'Report on Social Insurance'.

ILO LS 1933, 1949, 1954, 1968, 1972, 1975.

Poland. 1924. *Act on the Compulsory Insurance of Workers against Accidents Jan 30, 1924*. https://www.infor.pl/akt-prawny/DZU.1924.016.0000148,metryka,ustawa-w-przedmiocie-rozciagniecia-obowiazujacych-na-obszarze-wojewodztw-krakowskiego-lwowskiego-stanislawowskiego-tarnopolskiego-i-cieszynskiej-czesci-wojewodztwa-slaskiego-ustaw-o-obowiazkowem-ubezp.html

SSPW 1949, 1973, 1981, 1999, 2010, 2018.

Portugal cow code: 235

In 1936, the average daily wage of a manual worker in Portugal was approximately 5 to 10 escudos per day.

ILO ‘Report on Social Insurance’.

ILO LS 1936, 1965.

Meeker,Royal. 1914. Workmen’s Compensation Laws of the United States and Foreign *Countries*. Senate Documents 4.

SSPW 1949, 1961, 1973, 1981, 1999, 2010, 2018

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

Puerto Rico cow code: 6

Unincorporated island that is property of the United States. Former Spanish, German and British rule. UN removed it from the list of non-self-governing states in 1953. It is functionally independent however.

Inferred first blue-collar full coverage law using US BLS (1934).

Hopgood-Jovet, Alfredo. 2018. ‘An Overview of Puerto Rico Employment Law’. Society for Human Resource Management. https://www.shrm.org/resourcesandtools/legal-and-compliance/state-and-local-updates/pages/overview-puerto-rico-law.aspx.

Rohrlich, George F. 1978. “Problems of Social Insurance Coordination. The Case of Puerto Rico.” *The Journal of Risk and Insurance* 45(2):239–59. doi:10.2307/251674.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

US Bureau of Labor Statistics. 1934. Bulletin of the United States Bureau of Labor Statistics. Washington D.C.

Qatar cow code: 694

Very little information.

NATLEX.

SSPW 2014, 2018.

Romania cow code: 360

ILO ‘Report on Social Insurance’.

ILO LS 1933, 1966.

Meeker, Royal. 1914. Workmen’s Compensation Laws of the United States and Foreign Countries. Senate Documents 4.

NATLEX.

SSPW 1949, 1961, 1973, 1981, 1999, 2006.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

Russia cow code: 365

Clark, Lindley D. 1910. ‘Recent Action Relating to Employers’ Liability and Workmen’s Compensation’. 90. Bulletin of the Bureau of Labor. Washington, D.C.; Government Printing Office: Dept. of Commerce and Labor.

Giffin, Frederick C. 1975. ‘The “First Russian Labor Code”: The Law of June 3, 1886’. *Russian History* 2 (2): 83–100.

Goldberg, Arthur J. 1962. *Principal Current Soviet Labor Legislation*. Edited by US Bureau of Labor Statistics. Washington, D.C. https://play.google.com/store/books/details?id=tNc0r687VigC&rdid=book-tNc0r687VigC&rdot=1.

ILO LS 1922, 1956.

SSPW 1949, 1973, 1999, 2010, 2018.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

Rwanda cow code: 517

German East Africa, then Belgian colony in 1922. Independence in 1962, July 1st.

Social policy interrupting war in 1994.

ILO LS 1949, 1950

ILR 1963 87(5)

SSPW 1999, 2011, 2019.

Samoa cow code: 990

Samoa. 1978. *Western Samoa Accident Compensation Scheme*. https://www.thecommonwealth-ilibrary.org/index.php/comsec/catalog/download/869/869/7244?inline=1

SSPW 1973, 1981, 2002, 2004, 2010, 2018.

San Marino cow code: 331

Inferred first blue-collar full coverage law.

ILO LS 1955, 1983.

SSPW 2002, 2006, 2010, 2018.

Sao Tome and Principe cow code: 403

Here's a summary table of the Gen AI formal labor force estimates:

Year	Total Labor Force	Formal Workers	Formal Workers Percentage
1960	25,000	2,500	10%
1979	30,000	6,000	20%
1990	35,000	10,500	30%
1999	40,000	15,000	37.5%

ILO LS 1960, 1961

NATLEX.

SSPW 2005, 1999, 2011.

Saudi Arabia cow code: 670

1961 Gen AI predicted average annual wage worker income of approximately 3,600 SAR.

Al-Zaid, Ibrahim A. 1975. 'Social Insurance in Saudi Arabia'. *International Social Security Review* 28 (3): 256–61. https://doi.org/10.1111/j.1468-246X.1975.tb00926.x.

ILO LS 1969.

SSPW 1973, 1981, 1999, 2002, 2010, 2018.

Senegal cow code: 433

From 1965 to 1973, the formal employment sector was around 10-15% of the labor force, it probably did not increase past 20-25% by 1994.

ILO LS 1926, 1927, 1932, 1957, 1964, 1973.

NATLEX.

SSPW 1999, 2011, 2019.

Serbia cow code: 345

Independent from Montenegro since 2006. Prior to 2006 they are identical and both part of Yugoslavian social security.

Farman, Carl F., and Veronica Marren Hale. 1949. *Social Security Legislation throughout the World*. Edited by United States. Social Security Administration. Vol. 16. Bureau Reports.

ILO LS 1946, 1958, 1961.

SSPW 1973, 2002, 2010, 2018.

U.S. Government Printing Office. US Bureau of Labor Statistics. 1943. 'Labor Conditions in Yugoslavia'. *Monthly Labor Review* 57 (5): 895–910.

Seychelles cow code: 591

The Seychelles became a British colony in 1810 after the British took control from the French. Independence in 1976.

In 1978, the Seychelles' currency was the Seychelles Rupee (SCR). In 1978, Gen AI predicts the average wage for industrial workers in the Seychelles ranged from approximately 12 to 25 SCR per month.

Gen AI supported inference of coverage and replacement rates based on sparse legal data.

Inferred blue-collar full coverage.

ILO LS 1987.

Msalangi, HKM. 1998. “Origins of Social Security in Developing Countries (the Case of African Countries).” *African Journal of Finance and Management* 7(1):61–68.

NATLEX.

SSPW 1981, 2011, 2019.

Sierra Leone cow code: 451

Between 1939 and 1961, Sierra Leone, like many British colonies, had laws and policies that enforced discrimination and prevented legal recourse for natives, via a dual system of governance and justice.

In the 1940s probably 3% of workers were in undertakings with 25 or more employees excluding domestic and agriculture. 1954, 4.5%. 1999, 5%.

ILO LS 1940, 1954.

ILR 1941:43(3).

NATLEX.

Sierra Leone. 1960. *Workmen’s Compensation Act*.

Sierra Leone. 2001. *The National Social Security and Insurance Trust Act, 2001*. https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/60146/70548/F147757784/SLE60146.pdf.

SSPW 1957, 2003, 2019.

Singapore cow code: 830

Gen AI support of coverage and replacement rate inference using the limited data.

Malaysia. 1952. *Workmen's Compensation Act*. https://wwwex.ilo.org/dyn/natlex2/natlex2/files/download/43905/MYS43905.pdf

NATLEX.

Singapore. 1932. 'Straits Settlements Government Gazette'. volume 67, no 48–64. Singapore: National Library Board. https://eresources.nlb.gov.sg/printheritage/detail/007afc1d-993f-4b59-9ca8-8c1933b02d8c.aspx.

Singapore. 1975. *Workmen's Compensation Bill 1975*. Vol. 5/1975.

SSPW 1958, 1981, 1999. 2018.

Slovakia cow code: 317

See Czech Republic for further information. Austro-Hungarian Empire until 1918 then Czechoslovakia. Independent 1993.

ILO 'Report on Social Insurance'.

ILO LS 1956, 1964.

ILR 1962:85(5).

SSPW 1949, 1961, 1973, 1981, 1999, 2010, 2018.

Slovenia cow code: 349

Yugoslavia.

Farman, Carl F., and Veronica Marren Hale. 1949. *Social Security Legislation throughout the World*. Edited by United States. Social Security Administration. Vol. 16. Bureau Reports. U.S. Government Printing Office.

ILO 'Report on Social Insurance'.

ILO LS 1946, 1958.

SSPW 1961, 1973, 1999, 2010, 2018.

US Bureau of Labor Statistics. 1943 'Labor Conditions in Yugoslavia'. *Monthly Labor Review* 57 (5): 895–910.

Solomon Islands cow code: 940

Angelini, John. 2006. Social Protection for All Men and Women: A Sourcebook for Extending Social Security Coverage in Solomon Islands – Options and Plans. Suva, Fiji: International Labor Organization. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---soc_sec/documents/instructionalmaterial/wcms_secsoc_8606.pdf.

ILO LS 1952, 1964.

SSPW 1981, 2002, 2010, 2018.

Somalia cow code: 520

Because of fractured colonial rule (different powers, goals and geographies) we do not code the first Italian or British laws on work-injury protections and simply take the 1972 law as the start.

Gil-Alaña, Luis Alberiko, Borja Balprad, and Guglielmo Maria Caporale. 2015. “African Growth, Non-Linearities and Strong Dependence: An Empirical Study.” *NCID Working Papers*. https://ideas.repec.org//p/nva/unnvaa/wp12-2015.html.

ILO. 2007. *Somalia Country Profile*. https://www.ilo.org/dyn/natlex/docs/CTRYPROFILE/DOCUMENTS/SOM/F1508581509/Somalia.pdf.

Somalia. 1972. *Law No. 72 on Compulsory Scheme for Occupational Accident and Disease*. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=7892&p_country=SOM&p_count=41

SSPW 1981.

South Africa cow code: 560

A country of extreme racialized history and persistent inequality. The legal framework in South Africa only began to recognize Africans and Non-Africans as equal workers, with equal access to insurance, rights, and protections, with the end of apartheid and the introduction of the new democratic Constitution in 1994.

Algorithmic interpretation suggests 11.56% of the South African labor force was employed in mining in 1911, and in Namibia in 1924 might have been around 10-20%.

In 1934, African miners typically earned about £2 to £4 per month. White miners, who held more skilled positions, earned significantly higher wages, often around £20 to £30 per month. African industrial workers earned approximately £3 to £6 per month. ‘Coloured’ and Indian workers earned slightly more than Africans but less than Whites, averaging around £6 to £10 per month. White blue-collar workers in industrial sectors typically earned between £15 to £25 per month.

Average Monthly Earnings. Given the lower end of the wage spectrum, an average African blue-collar worker in the industrial sector would likely earn around £4 to £5 per month. They might earn approximately £8 to £10 per month on average. White blue-collar workers in industrial jobs averaged around £20 per month, reflecting their more skilled positions and racial wage premiums.

Approximately 12% of the South African labor force in 1934 was employed in blue-collar industrial jobs, excluding casual, domestic, subsistence, and non-industrial agricultural work. 1994, 47.6%.

Feinstein, C. H. (2005). An Economic History of South Africa: Conquest, Discrimination, and Development. Cambridge University Press.

ILO 'Report on Social Insurance'.

ILO LS 1934, 1935, 1941, 1945, 1949, 1956

Simons, H.J. 1961. 'Death in South African Mines'. *Africa South* 5 (4): 41–55.

South Africa. 1994. 'Compensation for Occupational Injuries and Diseases Act'. Law 130. Government Gazette No 15158.

South Africa. 1997. 'Compensation for Occupational Injuries and Diseases Amendment Act 1997'. Government Gazette No 18430.

South Africa. 2007. 'The Compensation Fund Preliminary Report 2nd Draft'. Workshops on

Social Security, Dec. 11-13th. Department of Treasury.

http://www.treasury.gov.za/publications/other/ssrr/Session%20One%20Papers/Compensation%20Fund%20Project%202nd%20draft.pdf.

SAHO (South African Heritage Organization). 2024. Environmental Protection Act 1967. [Citation record lost/not in Zotero?]

SSPW 1999, 2003, 2011, 2019

van Vuuren, Johanna Petronella Jansen. 2013. "A Legal Comparison between South African, Canadian and Australian Workmen's Compensation Law." University of South Africa.

South Korea cow code: 732

EPZs starting in 1970.

I lost a citation data point for 1992 here, do not know the source.

ILO LS 1953.

Kim, Jang Gi, and Yoon Ju Duk. 2012. 'Development and Operation of Workers' Compensation Insurance Scheme in S. Korea'. Seoul: Ministry of Employment and Labor.

Lee, Kyung-Hee. 2009. ‘Guide for Korea’s the Industrial Accident Compensation Insurance Act and Its Practices’. Korea Legislation Research Institute.

NATLEX.

South Korea. 1963. *Industrial Accident Compensation Insurance Act*. https://www.moel.go.kr/english/download_eng.jsp?type=&file=(49)_INDUSTRIAL_ACCIDENT_COMPENSATION_INSURANCE_ACT_2015(13323)v1.pdf

SSPW 1973, 1981, 1999, 2010, 2018.

South Sudan — cow code: 626

1956 the Anglo-Egyptian Sudan (ruled jointly by Egypt and Britain) became independent. Then in 2011 it split into Sudan and South Sudan. Laws applying to Anglo-Egyptian Sudan apply to both.

Gen AI supported inference of coverage based on sparse data.

Values after 1999 inferred. Major social policy disruption due to civil war 2013-2020.

Cookson, John A., Howard J. John, Archibald G. MacArthur, Jean McEwen, Wyatt MacGaffey, and Mildred C. Vreeland. 1960. Area Handbook for the Republic of the Sudan. Vol. American University (Washington, D. C.) Foreign Areas Studies. U.S. Government Printing Office.

ILO LS 1932.

Sudan. 1908. “The Workmen’s Compensation (Government Contracts) Ordinance 1908.” *Sudan Gazette*, March 29, 748–60.

Sudan. 2008. *The Social Insurance Act, Amended 2008*. https://docs.southsudanngoforum.org/sites/default/files/2016-06/01.A.1.8.%20Social%20Insurance%20Act%201990%20-%20Sudan.pdf

SSPW 1961, 1967, 1999.

Warburg, Gabriel. 2013. Sudan Under Wingate: Administration in the Anglo-Egyptian Sudan *(1899-1916)*. Routledge.

Spain — cow code: 230

ILO LS 1932, 1947, 1949, 1956, 1961, 1974.

SSPW 1949, 1961, 1981, 1999, 2010, 2018.

US Bureau of Labor Statistics. 1910. ‘Bulletin of the United States Bureau of Labor Statistics, No. 90’.

Sri Lanka cow code: 780

Sri Lanka, known as Ceylon until 1972. Had Portuguese, Dutch and British colonial rule. Independent British Commonwealth state in 1948.

1935, 1957, 1966, Gen AI predicts 5%, 8-10% and 10-12% respectively in industrial work. Also, 1990 25-30% formal employment, 1999 30-35%.

EPZs starting in 1978.

ILO LS 1923

Myanmar. 1954. *Social Security Act 1954*. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=88686&p_country=MMR&p_count=86&p_classification=15&p_classcount=3.

Sri Lanka. 1958. *Employee's Provident Fund*. https://wwwex.ilo.org/dyn/natlex2/r/natlex/fe/details?p3_isn=8446

Sri Lanka. 1966. *Workmen's Compensation Act 1966*. https://www.lawnet.gov.lk/workmens-compensation-3/

Sri Lanka. 1990. *Workmen's Compensation Ordinance 1990*.

Sri Lanka. 2005. *An Ordinance to Provide for the Payment of Compensation to Workmen Who Are Injured in the Course of Their Employment (Amended until 2005)*.

SSPW 1958, 2018

US Bureau of Labor Statistics. 1957. *Summary of the Labor Situation in Ceylon*. U.S. International Cooperation Administration, Office of Labor Affairs.

St. Kitts and Nevis cow code: 60

British colony mostly. Independence in 1983 (one of the first to be settled and latest to be free).

Inferred first blue-collar full coverage law.

ILO LS 1937, 1955.

Palmer, Colin A. 2014. Freedom's Children: The 1938 Labor Rebellion and the Birth of Modern*Jamaica*. Chapel Hill: The University of North Carolina Press.

SSPW 1999, 2003, 2011, 2019.

St. Lucia cow code: 56

Inferred first law type.

ILO LS 1964, 1974, 1978.

SSPW 1981, 1999, 2011, 2019.

St. Vincent and the Grenadines cow code: 57

Inferred first law type.

Degazon, F. E. 1941. 'West Indies'. Journal of Comparative Legislation and International Law 23 (2/3): 158–63.

ILO LS 1963.

SSPW 1999, 2015, 2019.

St. Vincent. 1970. *National Provident Fund Act*. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=17655&p_country=VCT&p_count=88.

St. Vincent and the Grenadines. 1986. *National Insurance Act*. https://www.nissvg.org/nis-legislation/

Sudan cow code: 625

1956 the Anglo-Egyptian Sudan (ruled jointly by Egypt and Britain) became independent. Then in 2011 it split into Sudan and South Sudan. Laws applying to Anglo-Egyptian Sudan apply to both.

Cookson, John A., Howard J. John, Archibald G. MacArthur, Jean McEwen, Wyatt MacGaffey, and Mildred C. Vreeland. 1960. Area Handbook for the Republic of the Sudan. Vol. American University (Washington, D. C.) Foreign Areas Studies. U.S. Government Printing Office.

ILO LS 1932.

SSPW 1961, 1967, 1999, 2008, 2016.

Sudan. 1908. "The Workmen's Compensation (Government Contracts) Ordinance 1908." *Sudan Gazette*, March 29, 748–60.

Sudan. 2008. *The Social Insurance Act, Amended 2008*. https://docs.southsudanngoforum.org/sites/default/files/2016-06/01.A.1.8.%20Social%20Insurance%20Act%201990%20-%20Sudan.pdf

Sudan. 2016. *National Pension and Social Insurance Fund*.

Warburg, Gabriel. 2013. Sudan Under Wingate: Administration in the Anglo-Egyptian Sudan *(1899-1916)*. Routledge.

Suriname cow code: 115

Gen AI supported prediction about legal coverage from 1947 law.

Social policy disrupting civil war from 1986-1992.

ILR 1948:57(4)

SSPW 2017, 2019.

Sweden cow code: 380

ILO ‘Report on Social Insurance’.

ILO LS 1948, 1954, 1976.

SSPW 1949, 1973, 1981, 1999, 2010, 2018.

US Bureau of Labor Statistics. 1910. ‘Bulletin of the United States Bureau of Labor Statistics, No. 90’.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

Switzerland cow code: 225

ILO ‘Report on Social Insurance’.

ILO LS 1946.

NATLEX.

SSPW 1961, 1973, 1981, 2002, 2010, 2018.

US Bureau of Labor Statistics. 1912. ‘Sickness and Accident Insurance Law of Switzerland’. 3. Workmen’s Insurance and Compensation Series.

US Bureau of Labor Statistics. 1917. *Workmen’s Compensation Laws of the United States and Foreign Countries*. 8. Workmen’s Insurance and Compensation Series. Washington D.C.

Syria cow code: 652

Social policy interrupting civil war from 2011 until recently.

ILO LS 1943, 1946, 1959.

SSPW 1958, 2002, 2010, 2018.

Taiwan cow code: 713

Japanese rule 1895-1945. Taiwan is recognized as part of China by the most states but has de-facto been self-governing since 1912. We treat it as a country given its independent social policy system.

Inferred blue-collar full coverage.

EPZs starting in 1966.

ILO LS 1929, 1950, 1968.

SSPW 1973, 1981, 1999, 2002, 2010, 2018.

Taiwan. 1958. 'Labor Insurance Act'. Law and Regulations Database of the Republic of China. https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=N0050001.

Tajikistan cow code: 702

USSR starting in 1929.

Adopted the 1973 Soviet Laws in 1989.

ILO LS 1956.

NATLEX.

SSPW 1949, 1961, 1973, 2010, 2018.

Tajikistan. 1989. *Labour Code of the Soviet Republic of Tajikistan of 1989*.

Tajikistan. 1997. *Law No. 517 of 13 December 1997 on State Social Insurance*.

British Tanganyika.

Regular workers predicted by Gen AI to be 10-20% in 1948 and 20-30% in 1966.

Fultz, Elaine, and Bodhi Pieris. 1999. “Compensation for Employment Injuries in Southern Africa: An Overview of Schemes and Proposals for Reform.” *International Labour Review* 138(2):171–94.

ILO LS 1948.

Marobhe, Muroba Godfrey. 2013. ‘Compensation of Workers Affected by Occupational Diseases in Tanzania: A Call for Review’. BA Law, Dar Es Salaam: Tumaini University Makumira. https://www.academia.edu/36710707/GODFREY_RESEARCH.

Mpedi, Letlhokwa George, and Mathias Ashu Tako Nyenti. 2016. *Employment Injury Protection in Eastern and Southern African Countries*.

Pratt, Cranford. 1960. “‘Multi-Racialism’ and Local Government in Tanganyika.” *Race* 2(1):33–49. doi:10.1177/030639686000200103.

SSPW 2007, 2011, 2019.

Tanzania. 1966. *An Act to Amend the Workmen’s Compensation Ordinance 1966*. Vol. 60. https://tanzlii.org/node/14589.

The United Republic of Tanzania. 1983. *An Act to Amend the Workmen’s Compensation Ordinance*.

The United Republic of Tanzania. 1997. *The National Social Security Fund Act*.

The United Republic of Tanzania. 2008. *Workers Compensation Act*.

The United Republic of Tanzania. 2015. *Workers Compensation Act, Revised Edition of 2015, Including All Amendments up to 2015 (Chapter 263)*.

EPZs starting in 1972.

ILO LS 1956, 1972.

SSPW 1961, 1973, 1981, 1999, 2010, 2018.

Thailand. 1998. *Labor Protection Act of 1998*. https://www.ilo.org/dyn/natlex/docs/WEBTEXT/49727/65119/E98THA01.htm#c2.

US Army. 1943. *Civil Affairs Handbook: French Indo-China: Labor*. US Army Service Forces.

US Bureau of Labor Statistics. 1972. ‘Labor Law and Practice in Thailand’. 405. BLS Reports. https://books.google.de/books?id=FyT0AAAAMAAJ&pg=PA29&lpg=PA29&dq=compensation+thailand+fund+1972+law&source=bl&ots=1Sh1EIg2wt&sig=ACfU3U3DKExxRiDAP-6ItK-syQooRtVbfA&hl=en&sa=X&ved=2ahUKEwjQu5-L87XoAhWsw6YKHb9_CfUQ6AEwCHoECAgQAQ.

Togo — cow code: 461

The part of Togoland that became Togo was controlled by the French, after the Germans. The British part became part of Ghana.

We were unable to locate the original text of the 1973 Social Security (general standards) law that is reported on the ILO’s NATLEX database. It appears to be social insurance, but it also appears to include the operation of a fund. We code it as social insurance, consistent with the SSPW coding. This is uncertain.

Gen AI predicts 2-5% in 1964 were formal worker; 1973 5-7; 1999 10-15%.

ILO LS 1964.

SSPW 1967, 1999, 2003, 2011, 2019.

Togo. 1973. *Social Security (General Standards)*. Vol. 39. https://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=30402&p_country=TGO&

Trinidad and Tobago — cow code: 52

Former colony of the United Kingdom. Independence in 1962. The first law is introduced 1926 under colonial rule.

1966 Gen AI estimated average monthly wage for a manual worker in Trinidad and Tobago in US dollars, would be approximately 21.71 USD. Estimated Average Annual Income in 1976: TTD 4,000 to TTD 6,000 (Trinidad and Tobago dollars).

ILO LS 1926, 1960, 1976.

SSPW 1973, 1981, 1999, 2010, 2018.

Teelucksingh, Jerome. 2015. *Labour and the Decolonization Struggle in Trinidad and Tobago. Cambridge Imperial and Post-Colonial Studies Series*. Palgrave Macmillan UK. https://doi.org/10.1057/9781137462336.

Tunisia cow code: 616

There is a reference to France having employer liability in 1908 in Moses (2018); however, we have found no such record of this law being applied in Tunisia.

Approximately 7.2% of the labor force in Tunisia in 1921 were formal workers, excluding native workers.

Formally employed (all) in 1958 was around 25%, 1960 around 30%, 1981 35%, and 1999 45%.

Besson, Maurice. 1927. 'Labour Legislation in the French Colonies'. *International Labour Review* 16 (4): 487–511.

ILO LS 1957, 1960.

SSPW 1981, 1999, 2011, 2019.

US Bureau of Labor Statistics. 1910. 'Bulletin of the United States Bureau of Labor Statistics, No. 90'.

Turkey (Türkiye) cow code: 640

EPZs starting in 1985.

Farman, Carl F., and Veronica Marren Hale. 1949. 'Social Security Legislation throughout the World'. 16. Bureau Reports. US Social Security Administration.

ILO LS 1923, 1936, 1946, 1964.

SSPW 1961, 1973, 1981, 1999, 2004, 2010, 2018.

Turkmenistan cow code: 701

USSR in 1924.

Inferred blue-collar full coverage.

ILO LS 1956.

SSPW 1949, 1973, 2002, 2010, 2018.

Turkmenistan. 1995. *Insurance Law of Turkmenistan*.

Uganda cow code: 500

In 1946, Uganda was under British colonial rule, and the labor laws that were in place were primarily designed to serve the interests of the colonial administration and European settlers. The coverage of labor laws for native Ugandan workers was limited and often discriminatory.

Based on Gen AI and typical wage ranges in East Africa during the colonial period, the average earnings of a blue-collar worker in 1949 would likely have been between 1.5 to 2.5 pounds per month.

1969, 15-20% of the labor force are regular workers.

Cotran, E., and N. N. Rubin. 2014. Annual Survey of African Law Cb: Volume Three: 1969. Routledge.

ILO LS 1946.

Republic of Uganda. 2000. *Workers Compensation Act*.

SSPW 1973, 2011, 2019.

Ukraine cow code: 369

USSR in 1922.

Abramson, A. 1929. 'Social Insurance in Soviet Russia'. *Journal of Political Economy* 37 (4): 377–99.

ILO LS 1922, 1956.

SSPW 1949, 1973, 1999, 2010, 2018.

United Arab Emirates cow code: 696

EPZs starting in 1980.

Inferred blue-collar full coverage.

Lack of data. 2000 and 2018 were inferred from 1980 law. Lack of law may relate to distinction between Emirati and non-Emirati, or missing data.

United Arab Emirates. 1980. *Federal Labor Law*. https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/11956/69376/F417089305/ARE11956.pdf.

United Kingdom cow code: 200

"UK" here only reliably refers to laws covering Great Britain and Northern Ireland not the former empire and dependencies.

Although many studies cite 1897 as the first "social insurance" law for work-injury, this is false. Upon careful reading of the law there is no compulsory insurance nor provident fund set up. In 1934 a coal miner's compulsory insurance scheme is introduced, but it is not until Beveridge (1946) that social insurance comes to cover work-injury. Part of the confusion comes because in the UK prior to Beveridge, there was social insurance set up for unemployment and health care and at this time the UK would be classified as having "social insurance" generally speaking.

Estimated Average Weekly Earnings in 1981: £120 to £140 per week.

ILO 'Report on Social Insurance'.

ILO LS 1946, 1965, 1975.

Lambiotte, Joann. 1983. "The Human Element: Birth and Development of Workmen's Compensation in Great Britain; 1880-1906." University of Illinois. https://www.ideals.illinois.edu/items/95844/bitstreams/309267/data.pdf

Packer, Launcelot. 1912. 'History and Operation of Workmen's Compensation in Great Britain'. 618. Washington D.C.: US Senate. https://phw03.newsbank.com/cache/serial2/display_bitonal_pdf/ra_117675C6332E99A0_1_71.pdf.

SSPW 1973, 1999, 2010, 2018.

United Kingdom. 1880. *Employer's Liability Act*.

United States of America cow code: 2

Federal system. No full coverage federal law, only for blue-collar federal employees. By 1949 it seems that every state had some form of work-injury law but the coverage and provisions vary widely. Work disability compensation was omitted from the 1935 Social Security Act. In 1956 a disability benefit for older workers was introduced, thus marking the first social insurance law. There has not been a comprehensive social insurance law in the United States, each state regulates this on its own and not all employees are covered.

Racial history also prevents laws from being implemented for all workers until the late 1900s.

Hackett, Frank Warren. 1908. "The Federal Employers' Liability Act of 1908: Is It Constitutional?" *Harvard Law Review* 22 (1): 38–47. https://doi.org/10.2307/1325455.

Kearney, John R. 2005. 'Social Security and the "D" in OASDI: The History of a Federal Program Insuring Earners Against Disability'. *Social Security Bulletin* 66 (3).

SSPW 1949, 1967, 1999, 2010, 2018.

Szymendera, Scott D. 2017. “The Federal Employees’ Compensation Act (FECA): Workers’ Compensation for Federal Employees.” 7–5700. Washington, D.C.: Congressional Research Service. https://fas.org/sgp/crs/misc/R42107.pdf.

US Bureau of Labor Statistics. 1910. *Bulletin of the United States Bureau of Labor Statistics*. 90.

US National Archives. 1974. ‘Revolutionary Pension and Bounty-Land-Warrant Application Files’. Records of the Veterans Administration 15. National Archives and Records Service. https://www.fold3.com/pdf/M804.pdf.

Uruguay — cow code: 165

In the 1920 law, paragraph 47 reads, "Any employer who has failed to make use of the permission to free himself of the responsibility arising from occupational risks by means of insurance in accordance with the provisions of this Act, shall deposit with the State Insurance Bank a capital amount corresponding to the pension or pensions due from him, within the ten days following the agreement of the parties before the justice of the peace or the final verdict. The deposition of the said capital amount may be demanded either by the interestedperson or by the State in pursuance of the judicial proceedings."

This means that a fund is set up in case of an accident, this is like a provident fund but happens 'on the fly', sort of like a fund-as-you-go fund for employers. We code this as a "fund" as it creates a safety net that is much stronger than simple employer liability; although technically not exactly "risk-pooling" because it only impacts employers after an accident. This decision was helped along by the fact that most large employers go through the state insurance company by 1920.

ILO ‘Report on Social Insurance’.

ILO LS 1920, 1941.

Martin, Percy A., and Earl M. Smith. 1927. ‘Labor Legislation in Uruguay’. Edited by US Bureau of Labor Statistics. *Monthly Labor Review* 25 (4): 10–17.

SSPW 1961, 1973, 1981, 1999, 2011, 2019.

Tixier, A. 1935. “The Development of Social Insurance in Argentina, Brazil, Chile, and Uruguay: Special Article (Part I).” *International Labour Review* 32(5):610–36.

Uzbekistan cow code: 704

USSR in 1924.

ILO LS 1956.

SSPW 1949, 1973, 2010, 2018.

Vanuatu cow code: 935

Not included in the GWIP_long.

SSPW 2017

Venezuela cow code: 101

Haggerty, Richard A. 1990. 'Venezuela: A Country Study'. Washington: GPO for the Library of Congress. http://countrystudies.us/venezuela/20.htm.

ILO LS 1946, 1966.

Powell, Oscar M. 1946. "Social Insurance in Venezuela." *Social Security Bulletin* 9(4):3–8.

SSPW 1973, 1981, 1999, 2009, 2019.

US Bureau of Labor Statistics. 1917. *Workmen's Compensation Laws of the United States and Foreign Countries*. 8. Workmen's Insurance and Compensation Series. Washington D.C.

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Vietnam cow code: 816

Duplicate entries are given for Vietnam as cow code 816 and 817 now. There was confusion in earlier versions and the only way to solve it was to use both as indicative of the single country.

As of the GWIP_long I use 816.

EPZs starting in 1991.

ILO LS 1952.

SSPW 1961, 1973, 1981, 1999, 2010, 2018.

US Army. 1943. Civil Affairs Handbook: French Indo-China: Labor. US Army Service Forces.

Vietnam. 1994. *Labor Code of the Socialist Republic of Vietnam*. http://www.global-standards.com/Resources/VNLaborCode1994-2002.pdf.

Yemen cow code: 679

Inferred blue-collar full coverage.

Social policy interrupting war from 2014-present.

Mallat, Hyam. 1997. 'Social Security and Social Insurance Law: A Survey of Nine Arab States'. *Yearbook of Islamic and Middle Eastern Law Online* 4 (1): 210–45. https://doi.org/10.1163/221129898X00107.

SSPW 2010, 2018.

Zambia cow code: 551

We code first full coverage as 1965; although it covers workers under 750 Pounds income, this is a majority of blue-collar, and those higher are likely covered by other agreements.

Gen AI guess that around 70-80% of Zambia's labor force was engaged in agriculture and related activities in the mid-1960s. Therefore, around 20-30% of Zambia's total labor force in 1965 was engaged in formal, non-casual, non-subsistence, and non-domestic work.

Some inference from statistics from Zimbabwe.

ILO LS 1965, 1966.

SSPW 1973, 1983, 1999, 2011. 2019.

Fultz, Elaine, and Bodhi Pieris. 1999. "Compensation for Employment Injuries in Southern Africa: An Overview of Schemes and Proposals for Reform." *International Labour Review* 138(2):171–94.

Parpart, Jane L., and Bill Freund. 1983. 'Labor Supply and Corporate Strategy, 1926–1936'. In *Labor and Capital on the African Copperbelt*, 29–53. Temple University Press. https://doi.org/10.2307/j.ctv6mtdm4.9.

Weeks, Sinclair, and Loring K. Macy. 1956. *Investment in Federation of Rhodesia and*

Nyasaland: Basic Information for United States Businessmen. United States Bureau of Foreign Commerce Near Eastern and African Division. Washington, D.C.: U.S. Government Printing Office.

Zambia. 1994. Workmen's Compensation Amendment Act. No. 27. Assent, September 29th. Ministry of Justice, Attorney General Library.

An estimated weekly wage for a blue-collar industrial worker might have been around £1 to £2 per week. Annual wage in 1922 USD: 78 GBP × 4.40 USD/GBP = 343.20 USD

In 1990, Zimbabwe's economy was experiencing significant challenges, including high inflation and economic restructuring. Blue-collar wages varied widely depending on the sector, location, and specific job roles. Many blue-collar workers in Zimbabwe in 1990 would have had annual incomes below Z$1,200. Skilled blue-collar workers, particularly those in mining, manufacturing, and more specialized trades, would have had higher earnings, potentially above Z$1,200. A reasonable estimate might be approximately 70-80% of blue-collar workers likely earned below Z$1,200 per year.

Around 20.8-24.3% of Zimbabwe's labor force in 1990 was likely engaged in non-casual, non-subsistence agricultural and industrial work. It is reasonable to estimate that about 20-25% of the agricultural labor force was engaged in non-subsistence, formal agricultural work. Given that 67.5% of the labor force was in agriculture, this translates to roughly 13.5-17% of the total labor force being in formal agricultural employment. The industrial sector, which comprised 7.3% of the labor force, would primarily consist of formal employment due to the nature of industrial work. This means that approximately 7.3% of the total labor force was engaged in formal industrial employment.

In 1980, approximately 67% of the labor force was employed in agriculture. This includes subsistence farming as well as formal agricultural work on large commercial farms. About 8% of the labor force was engaged in industrial sectors, which include mining, manufacturing, construction, and utilities. It is estimated that around 20-25% of the agricultural workforce was in formal employment, translating to roughly 13-17% of the total labor force. Therefore, approximately 8% of the total labor force was engaged in formal industrial employment. Combining these figures, around 21-25% of Zimbabwe's labor force in 1980 was likely engaged in formal, non-subsistence, non-casual agricultural and industrial work.

In 1998, the distribution of Zimbabwe's labor force showed approximately 66% of was employed in agriculture. This includes both subsistence farming and commercial agricultural activities. About 8% of the labor force was involved in industrial sectors, including mining, manufacturing, construction, and utilities. Probably around 20-25% of those employed in agriculture were in formal, non-subsistence roles. Given that 66% of the labor force was in agriculture, this translates to approximately 13-17% of the total labor force. Combining these figures, around 21-25% of Zimbabwe's labor force in 1998 was likely engaged in formal, non-subsistence, non-casual agricultural and industrial work.

I further estimate that approximately 47-51% of Zimbabwe's labor force in 1998 was engaged in formal, non-subsistence, non-casual employment across all sectors (agriculture, industry, and services).

ILO LS 1922, 1934, 1935, 1980
111

SSPW 1983, 1999, 2011, 2019

ILO ‘Report on Social Insurance’.

Lowry, Donal. 1997. ‘“White Woman’s Country”: Ethel Tawse Jollie and the Making of White Rhodesia’. Journal of Southern African Studies 23 (2): 259–81.

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