

Definitions of terms

- Labour/work: Specific activities with rewards (cf. Subsistence activity means major labour)
- Occupation/job: Continuous human activities to get rewards for maintaining life (eg., employee, teacher, ...)
- Industry: Economic activities as business (eg., primary / secondary / tertiary)

Stressful characteristics of work	
Work characteristics	Condition defining hazard (demands, control and support)
CONTEXT	
Organizational function and culture	Poor task environment and lack of definition of objective Poor problem solving environment Poor development environment Poor communication Non-supportive culture
Role in organization	Role ambiguity Role conflict High responsibility for people
Career development	Career uncertainty Career stagnation Poor status or status incongruity Poor pay Job insecurity and redundancy Low social value to work
Decision latitude/control	Low participation in decision-making Lack of control over work Little decision-making in work
Interpersonal relationships at work	Social or physical isolation Poor relationships with supervisors Interpersonal conflict and violence Lack of social or practical support at home Dual career problems
CONTENT	
Task design	Ill-defined work High uncertainty in work Lack of variety of short work cycles Fragmented or meaningless work Underutilization of skill Continual exposure of client/customer groups
Workload/work pace	Lack of control over pacing
Quantities and quality	Work overload or underload High levels of pacing or time pressure
Work schedule	Shift working Inflexible work schedule Unpredictable working hours Long or unsociable working hours
Consensus from literature outlining nine different characteristics of jobs, work environment and organization which are hazardous.	
Source: HSE Contract Research Report No. 61/1993. Cox T. <i>Stress Research and Stress Management: Putting Theory to Work.</i>	

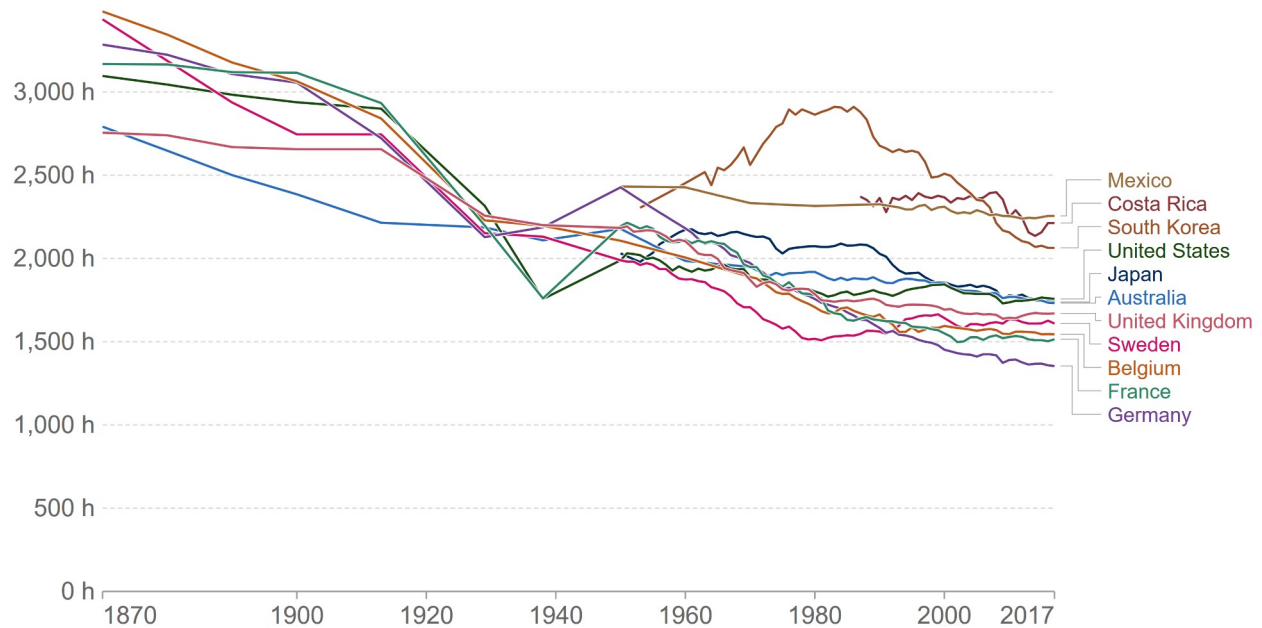
(Source: WHO/ILO, 2000)

Working hours

- Japan shows relatively longer working hours than European countries, though Korea and Singapore show much longer.
- Hunter-gatherer and horticulturalists generally worked shorter than current Europeans.
- Working more than 48 hours/week is considered too long.

Annual working hours per worker

Average working hours per worker over an entire year. Before 1950 the data corresponds only to full-time production workers (non-agricultural activities). Starting in 1950 estimates cover total hours worked in the economy as measured primarily from National Accounts data.



Source: Huberman & Minns (2007) and PWT 9.1 (2019)

OurWorldInData.org/working-hours • CC BY

Note: We plot the data from Huberman & Minns (2007) and extend coverage using an updated vintage of PWT, which uses the same underlying source. Comparisons between countries are limited due to differences in measurement.

(Source: <https://ourworldindata.org/grapher/annual-working-hours-per-worker?country=GBR~DEU~USA~FRA~SWE~AUS~BEL~CRI~MEX~JPN~KOR>)

Please see, <https://clockify.me/working-hours>, too.

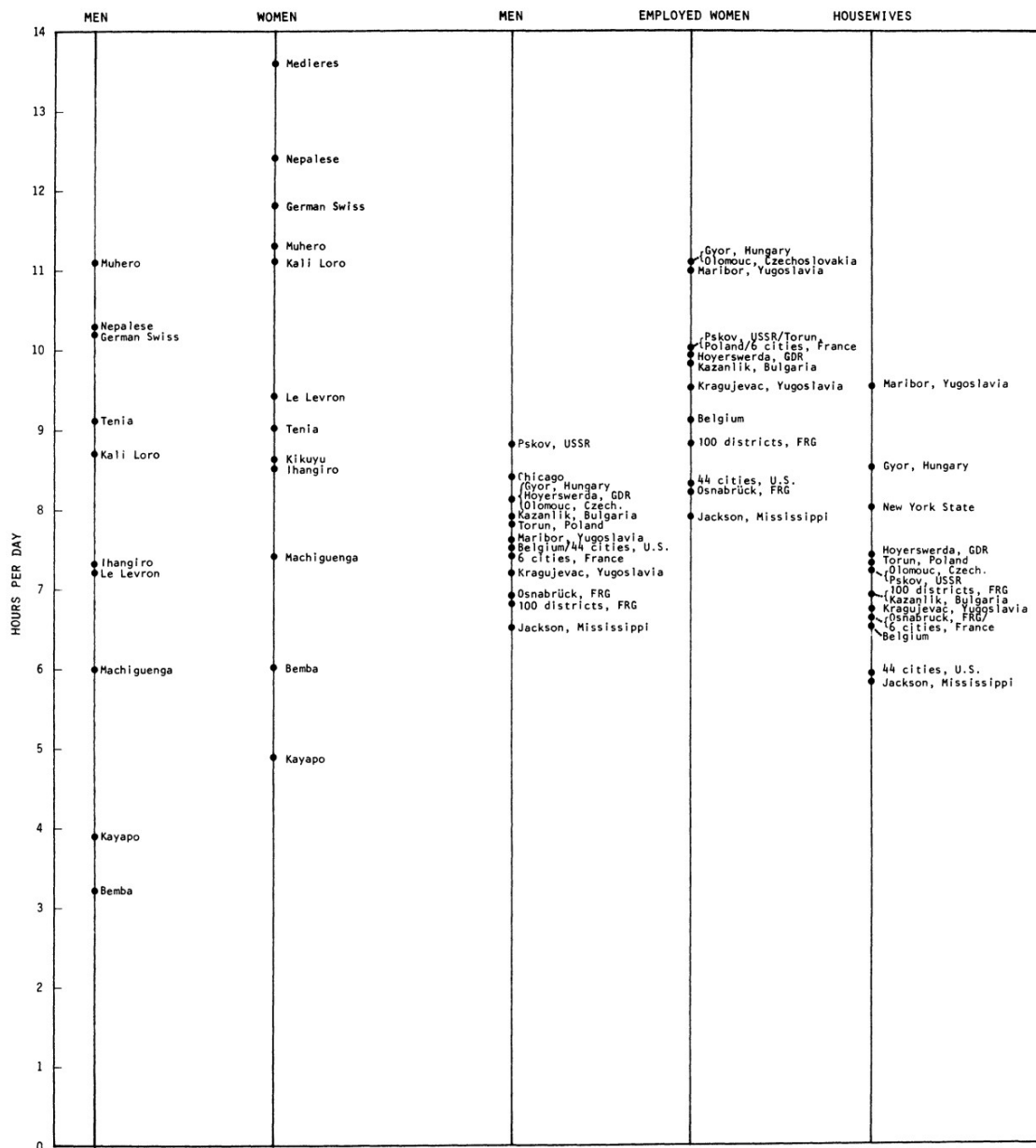


FIG. 1. Labor time inside and outside the home, as recorded in studies shown in tables 1-3; *left*, agricultural societies; *right*, postindustrial societies.

(Source: Minge-Klevana W et al. 1980. <https://doi.org/10.1086/202455>)

Historical view

- No occupation in hunter-gatherer society, no occupation-related disease existed. In general, pre-industrial farmers worked (to live, including unpaid works) shorter than employees in industrialized world (Source: Minge-Klevana W et al., 1980)
- After the mining started, occupational health became important. Ramazzini B published “*De Morbis Artificum Diatriba*” in 1700 (<http://www.historyofinformation.com/detail.php?entryid=3681>; <http://smallbusiness-solution.com/hekint/ramazzini-and-the-birth-of-occupational-medicine/>).
- After the industrial revolution, the problem became more important.
- However, economic development was more important for some governments than protecting workers health. Many tragedies occurred (In Japan, many young female workers at silk mills or cotton mills suffered from tuberculosis and other serious diseases and forced to go back to their home village, then died [http://www.mrbuddhistory.com/uploads/1/4/9/6/14967012/japanese_women_at_work.pdf]).

- International Labour Organization (ILO) has been established in 1919 (just after the WWI), to set labour standards, develop policies and devise programmes promoting decent work for all women and men (<https://www.ilo.org/global/about-the-ilo/lang--en/index.htm>).

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