



INTERNATIONAL LABOR COMPARISONS

International Comparisons of Hourly Compensation Costs in Manufacturing

Country Notes and Data Sources

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This file contains country specific information for data products associated with “International Comparisons of Hourly Compensation Costs in Manufacturing” at www.conference-board.org/ilcprogram/compensation. The standard series coverage and definitions (i.e. ILC concepts) explained in the Technical Notes at www.conference-board.org/ilcprogram/compensation/technicalnotes apply generally to all countries in the International Labor Comparisons (ILC) compensation costs series. In this document, each country note consists of two parts: (1) the major *data sources* used to create the estimates and (2) any *remaining deviations from ILC concepts* that limit comparability across countries. Where applicable, *breaks in series* that limit comparability over time are noted.

Definitions according to ILC concepts of compensation and summary of adjustments for comparability

To the extent possible, country data are obtained from national establishment surveys and are adjusted to standard concepts used by The Conference Board ILC program:

- Compensation costs include direct pay, social insurance expenditures and labor-related taxes. Direct pay consists of two parts: Pay for time worked and directly-paid benefits.

Pay for time worked includes base wages and salaries, overtime pay, regular bonuses and work premiums paid each pay period, and cost-of-living adjustments.

Directly-paid benefits include pay for time not worked, irregular bonuses, pay in kind, and directly paid allowances.

Social insurance and labor-related taxes include all legally required social insurance, private and contractual insurance or benefits, and taxes (minus subsidies) on payrolls or employment.

Adjustment: ILC calculates total compensation for each country by adjusting “average earnings” series published by national statistical offices for items of direct pay, social insurance, and labor-related taxes not included in the reported earnings figure. For instance, if bonuses are not included in “average earnings,” ILC obtains data on average annual bonuses and incorporates this additional cost as part of compensation.
- Compensation costs exclude employer expenditures on recruitment, vocational training, and maintenance of company-provided facilities.

Adjustment: Labor cost items not included in the ILC concept of compensation are removed from national earnings and labor cost data.

- Pay for sick leave is included in employers' social insurance expenditures (and not as part of directly-paid benefits).
Adjustment: For some countries, payments for sick leave are bundled with direct pay for vacation, holidays and other time not worked. In these cases, the proportion of sick leave pay reported as part of direct pay is reallocated to social insurance expenditures.
- Full-time and part-time workers are included.
Adjustment: Some countries report earnings and compensation data for full-time workers only. Where possible, earnings data relating to full-time employees are adjusted to include both full- and part time workers.
- The self-employed, unpaid family workers, contract workers, and workers in private households are excluded.
Adjustment: In nearly all cases, ILC uses establishment and labor cost survey data that refer to remunerated employees only. For countries where supplemental data with broader employment coverage are used, figures are adjusted to an employee-only basis.
- Earnings and compensation data relate to firms with a minimum of ten employees; data are comparable to the International Standard Industrial Classification (ISIC) Rev. 4.
Adjustment: Most country data, especially for 2008 and later, refer to establishments with at least 10 employees and are reported according to ISIC Rev. 4. Over time, however, national statistical surveys evolve in terms of the definitions and methodologies, scope of coverage, and industrial classifications used. To address these changes and maintain historical time series, ILC links together country data series which are compiled according to different definitions, industrial classifications and thresholds on employment coverage.
- Data relate to an average for the calendar year.
Adjustment: Country data reported in fiscal years are converted to calendar years.
- Data relate to the entire country.
Adjustment: Country earnings or compensation data referring to urban or regional areas only are adjusted to a national basis.

Country Notes and Data Sources

Argentina

Data Sources. National Institute of Statistics and Censuses (INDEC): Encuesta Industrial Anual (Annual Industrial Survey), Encuesta Industrial Mensual (Monthly Industrial Survey).

Remaining Deviations from ILC Concepts. Direct pay includes pay for sick leave. Total compensation costs exclude private and contractual social insurance expenditures (include legally required social costs only). Data refer to the International Standard Industrial Classification (ISIC) Rev. 3.1.

Australia

Data Sources. Australian Bureau of Statistics (ABS): Survey of Average Weekly Earnings, Survey of Employee Earnings and Hours, Survey of Labor Costs, Economic Activity Survey, Annual Manufacturing Industry Collection Survey.

Remaining Deviations from ILC Concepts. Data cover establishments with 1 or more employee.

Austria

Data Sources. Statistics Austria (ÖSTAT): Konjunkturerhebung (Business Cycle Survey). Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 1 or more employee.

Belgium

Data Sources. SPF Economie, PME, Classes moyennes et Energie: Enquête sur la structure et la répartition des salaires (Structure of Earnings Survey). Service public fédéral Emploi, Travail et Concertation sociale: L'indice des salaires conventionnels (Index of Collective Bargaining Salaries). Institut National de Statistique (NIS): Enquête semestrielle sur les gains horaires bruts des ouvriers dans l'industrie (Biannual survey on the hourly earnings of workers in industry). Federation des Entreprises de Belgique: Les Charges Sociales. Eurostat: Labor Cost Survey.

Deviations from ILC Concepts. Earnings data refer to October only. Pay for time worked includes some family and other social allowances paid regularly.

Brazil

Data Sources. Instituto Brasileiro de Geografia e Estatística (IBGE): Pesquisa Industrial Anual – Empresa (Annual Industrial Survey – Establishment), Pesquisa Industrial Mensal do Emprego e Salário (Monthly Industrial Survey of Employment and Wages). Departamento Intersindical de Estatística e Estudos Socioeconômicos (DIEESE): Pesquisa de Emprego e Desemprego (Survey of Employment and Unemployment).

Remaining Deviations from ILC Concepts. Data cover establishments with 1 or more employee. Hours worked data refer to urban areas only and include unpaid family workers. Direct pay includes pay for sick leave not linked to social security.

Canada

Data Sources. Statistics Canada: Survey of Employment, Payrolls and Hours, Estimate of Labor Income, Wages and Working Conditions in Canada, Employer Labor Costs in Canada.

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 1 or more employee. Pay for time worked includes some irregular bonuses.

China

Data Sources. National Bureau of Statistics: China Statistical Yearbook, China Agriculture Yearbook, China Village and Town Enterprise Yearbook, China Labour Statistical Yearbook.

Remaining Deviations from ILC Concepts. Compensation costs for China are not directly comparable with the data for the other countries published by The Conference Board ILC program. ILC approximates average hourly compensation costs in Chinese manufacturing by filling important data gaps for hours worked per year and for benefit components of labor compensation. Further, the concepts and coverage of Chinese statistics on manufacturing employment and wages often do not follow international standards and can be difficult to understand. Largely because of these data gaps and challenges, ILC estimates for China cannot be considered as robust as the manufacturing statistics for the other countries. A complete discussion of data comparability issues and methods used to calculate the estimates can be found in the following publications:

[Banister, J. \(2013\). China's manufacturing employment and hourly labor compensation, 2002-2009. Bureau of Labor Statistics methodology, June.](#)

[Banister, J. and G. Cook \(2011\). China's employment and compensation costs in manufacturing through 2008. Monthly Labor Review, March, 39-52.](#)

[Lett, E. and J. Banister \(2009\). China's manufacturing employment and compensation costs: 2002-06. Monthly Labor Review, April, 30-38.](#)

[Lett, E. and J. Banister \(2006\). Labor Costs of Manufacturing Employees in China: An Update to 2003-04. Monthly Labor Review, November, 40-45.](#)

[Banister, J \(2005\). Manufacturing Earnings and Compensation in China. Monthly Labor Review, August, 22-40.](#)

[Banister, J \(2005\). Manufacturing Employment in China. Monthly Labor Review, July, 11-29.](#)

Czech Republic

Data Sources. Czech Statistical Office: Labor Cost Survey, Registered Number of Employees and Their Wages, Labour Force Sample Survey.

Remaining Deviations from ILC Concepts. Data cover establishments with 1 or more employee.

Denmark

Data Sources. Danish Employers' Confederation: Annual Survey of Earnings, Survey of Other Labor Costs. Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Data cover establishments with 2 or more employees.

Estonia

Data Sources. Statistics Estonia: Survey of Wages and Salaries, Comprehensive Annual Questionnaire for Enterprises (EKOMAR). Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Data cover establishments with 1 or more employee.

Finland

Data Sources. Statistics Finland: Regional and Industrial Statistics on Manufacturing, Index of Wage and Salary Earnings. Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 1 or more employee. Data for Finland refer to each firm's accounting year. However, the most common accounting year among firms coincides with the calendar year.

France

Data Sources. Institut National de la Statistique et des Études Économiques (INSEE): Déclaration Annuelle des Données Sociales (Annual Survey of Social Data). Ministère du Travail et des Affaires Sociales: Enquête sur l'activité et les conditions d'emploi de la main-d'œuvre (ACEMO) (Survey on the Economic Activity and Working Conditions of the Labor Force). Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 1 or more employee.

Germany

Data Sources. Statistisches Bundesamt (Destatis, Federal Statistical Office): Vierteljährliche Verdiensterhebung (Quarterly Earnings Survey), Jahresbericht fuer Betriebe und Monatsbericht fuer Betriebe (Annual Report for Businesses and Monthly Report for Businesses); Volkswirtschaftliche Gesamtrechnungen der Länder (National Accounts). Institut für Arbeitsmarkt und Berufsforschung (IAB, Institute for Employment Research): Working Time and the Volume of Work in Germany. Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. None.

Greece

Data Sources. Hellenic Statistical Authority: Βραχυχρόνιες Στατιστικές (Short Term Statistics). Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. None.

Hungary

Data Sources. Hungarian Central Statistical Office (HCSO): Foglalkoztatottság és kereseti arányok (Employment and Earnings Survey), A munkaerőköltség alakulása (Labor Cost Survey). Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Part-time workers are excluded. Earnings data cover establishments with 5 or more employees.

India

Data Sources. Ministry of Statistics and Programme Implementation, Central Statistics Office: Annual Survey of Industries (ASI).

Remaining Deviations from ILC Concepts. Compensation costs for India are not directly comparable with the data for the other countries published by The Conference Board ILC program. A complete discussion of data comparability issues and methods used to calculate the estimates can be found in [Sincavage, J. R., C. Haub and O.P. Sharma \(2010\). Labor costs in India's organized manufacturing sector. *Monthly Labor Review*, May, 3-22.](#) The following aspects of Indian source data limit comparability with estimates of compensation for other countries:

Data Treatment. India's central statistics office does not adjust ASI data to correct for missing, incomplete, or incorrect data. In addition, penalties for noncompliance are rarely enforced. The data are thus less reliable than survey data that have been adjusted by the receiving statistical agency, or than data that are weighted to be representative of the entire survey population.

Organized vs Unorganized Sector. These data cover India's organized manufacturing sector only, that is, the portion of India's manufacturing activity that is formally registered with state governments, and is thus subject to regulation. The unorganized sector is not regulated, and little data exist for its enterprises. The organized sector produces two-thirds of India's manufacturing output; however, close to 80 percent of Indian manufacturing employees work in the unorganized sector. The lack of information on the unorganized sector means that a large segment of the manufacturing workforce is not represented in these data.

Contract Labor. Contract workers, who are cheaper to employ because they are often not provided with benefits such as social insurance and paid vacation, make up a significant and growing portion of manufacturing workers in India. Data do not exist to remove contract workers' earnings from the earnings of other workers, as ILC does for other countries; as a result, it is likely that the labor cost estimates are lower than they would be if they excluded contract workers.

Hours. Hours actually worked are not recorded by the ASI; thus, it is not clear how much work occurs "off the books." Information gained from personal interviews indicates that overtime work is common, but that it is not always compensated at the legally required rate of two times the usual salary. Although earnings, hours, and employment that are not documented by employers likely affect the hourly compensation estimates presented, no adjustments have been made because the magnitude of the unrecorded data is not known.

Ireland

Data Sources. Central Statistical Office (CSO): Earnings, Hours, and Employment Costs Survey; Quarterly Industrial Inquiry of Employment, Earnings, and Hours Worked. Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 3 or more employees.

Israel

Data Sources. Central Bureau of Statistics: Monthly Bulletin of Statistics, Statistical Abstract of Israel.

Remaining Deviations from ILC Concepts. Data cover establishments with 20 or more employees.

Italy

Data Sources. Istituto Nazionale di Statistica (Istat): Indagine sulle retribuzioni e orari contrattuali (Survey of Contractual Remunerations and Working Hours). Eurostat: Labor Cost Survey. Ministry of Economy and Finance: Relazione Generale sulla Situazione Economica del Paese (General Report of the Country's Economic Situation)

Remaining Deviations from ILC Concepts. None.

Japan

Data Sources. Ministry of Health, Labor and Welfare: 毎月勤労統計調査 (Monthly Labor Survey), 就労条件総合調査 (General Survey on Working Conditions).

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 5 or more employees; other compensation data cover establishments with 30 or more employees. Direct pay includes pay for sick leave. The value of payment in kind includes employer expenditures for maintenance of company-provided facilities. Data refer to the Japanese Standard Industrial Classification (JSIC).

Mexico

Data Sources. Instituto Nacional de Estadística y Geografía (INEGI): Encuesta Industrial Mensual (Monthly Industrial Survey), Encuesta Mensual de la Industria Manufacturera (Monthly Survey of the Manufacturing Industry).

Remaining Deviations from ILC Concepts. Data cover establishments with 15 or more employees. Employers' social insurance expenditures include some payments in kind.

Netherlands

Data Sources. Central Bureau of Statistics (CBS): Labor Cost Survey, Prijs van arbeid indexcijfers (Labor Price Index). Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. None.

New Zealand

Data Sources. Statistics New Zealand: Quarterly Employment Survey, Labor Cost Index.

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 1 or more employee. Sick leave and some seasonal and irregular bonuses are excluded.

Norway

Data Sources. Statistics Norway: Lønnsstatistikk. Ansatte i industri (Wage Statistics/Employees in Manufacturing Survey), Arbeidskraftundersøkelsene (Labor Force Survey). Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 5 or more employees.

Philippines

Data Sources. National Statistics Office: Annual Survey of Philippine Business and Industry, Labor Force Survey. National Statistics Coordination Board: Quarterly Survey of Philippine Business and Industry. Bureau of Labor and Employment Statistics: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Data cover establishments with 20 or more employees. Direct pay includes pay for sick leave not linked to social security.

Poland

Data Sources. Central Statistical Office (CSO): Outlays and Results in Industry, Monthly Statistical Survey on Economic Activity, Labor Cost Survey. Eurostat: Labor Cost Survey. International Social Security Association: Social Security Programs Throughout the World (SSPTW).

Remaining Deviations from ILC Concepts. The value of payment in kind includes employer expenditures for maintenance of company-provided facilities.

Portugal

Data Sources. Ministry of Labor and Social Security, Bureau of Strategy and Planning: Inquérito aos Ganhos e Duração de Trabalho (Survey of Earnings and Working Time), Quadros de Pessoal (Administrative Personnel Tables). Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 1 or more employee.

Singapore

Data Sources. Central Provident Fund Board: Occupational Wage Survey. Ministry of Manpower (MOM): Labor Market Survey, Labor Cost Survey, Conditions of Employment Survey.

Remaining Deviations from ILC Concepts. Earnings data refer to June only and cover establishments with 25 or more employees. Part-time workers are excluded. Pay for time worked includes direct allowances for food, housing, and transportation. Direct pay excludes pay in kind. Total compensation costs include employer expenditures on recruitment.

Slovakia

Data Sources. Statistical Office of the Slovak Republic (SOSR): annual survey of establishments, Total Labor Costs Survey.

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 20 or more employees.

South Korea

Data Sources. Ministry of Labor: Monthly Labor Survey / Survey on Wages and Working Hours at Establishments, Labor Cost of Enterprise Survey, Labor Force Survey at Establishments.

Remaining Deviations from ILC Concepts. None.

Breaks in Series. For all series except data on the structure of hourly compensation, there is a break at 2002 which reflects a change in the industrial classification system used. Data for 2002 onward are based on the Korean Standard Industrial Classification (KSIC) Revision 9, which is structured after ISIC Rev. 4.

Spain

Data Sources. Instituto Nacional de Estadística: Encuesta Trimestral de Coste Laboral (Quarterly Labor Cost Survey), Encuesta Anual de Coste Laboral (Annual Labor Cost survey), Encuesta de Salarios en la Industria y los Servicios (Survey of Wages in Industry and Services). Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 1 or more employee.

Sweden

Data Sources. Statistiska Centralbyrån (Statistics Sweden, SCB): Konjunkturstatistik, löner för privat sektor (Wages and Salaries in the Private Sector, KLP), National Accounts. Svenskt Näringsliv (Confederation of Swedish Enterprise): Fakta om Löner och Arbetstider (Facts on Wages and Working Hours). Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 5 or more employees.

Switzerland

Data Sources. Office fédéral de la statistique (OFS): Coûts de la main-d'œuvre (Labor Costs), L'enquête suisse sur la structure des salaires (Swiss Earnings Structure Survey), Indice suisse des salaires (Index of the Evolution of Wages/Swiss Wage Index), Statistique du volume du travail (Work Volume Statistics).

Remaining Deviations from ILC Concepts. Pay for time worked includes pay in kind. Earnings data cover establishments with 1 or more employee.

Taiwan

Data Sources. Directorate General of Budget, Accounting, and Statistics (DGBAS): 受雇員工薪資調 (Employees' Earnings Survey), 受雇員工動向調 (Employee Movement Survey).

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 1 or more employee. Data refer to the Standard Industrial Classification of the Republic of China.

Turkey

Data Sources. Turkstat: Annual Industry and Service Statistics. Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Earnings data cover establishments with 1 or more employee.

United Kingdom

Data Sources. Office for National Statistics (ONS): Annual Survey of Hours and Earnings, New Earnings Survey, Monthly Wages and Salary Survey. Towers Watson: National Insurance Contribution Rates. Eurostat: Labor Cost Survey.

Remaining Deviations from ILC Concepts. Earnings data cover all registered jobs.

United States

Data Sources. Bureau of Labor Statistics: Current Employment Statistics, National Compensation Survey, Employer Costs for Employee Compensation. Census Bureau: Annual Survey of Manufactures.

Remaining Deviations from ILC Concepts. Data cover establishments with 1 or more employee. Pay in kind is excluded.