



## 2.6 Wages and productivity

	Average hours worked per week		Minimum wage		Agricultural wage		Labor cost per worker in manufacturing		Value added per worker in manufacturing	
	1980-84	1995-99 <sup>a</sup>	\$ per year 1980-84	1995-99 <sup>a</sup>	\$ per year 1980-84	1995-99 <sup>a</sup>	\$ per year 1980-84	1995-99 <sup>a</sup>	\$ per year 1980-84	1995-99 <sup>a</sup>
Albania	..	..	..	..	..	..	..	..	..	..
Algeria	..	..	..	1,340	..	..	6,242	..	11,306	..
Angola	..	..	..	..	..	..	..	..	..	..
Argentina	41	40	..	2,400	..	..	6,768	7,338	33,694	37,480
Armenia	..	..	..	..	..	..	..	..	..	..
Australia	37	39	..	12,712	11,212	15,124	14,749	26,087	27,801	57,857
Austria	33	32	..	<sup>b</sup>	..	..	11,949	28,342	20,956	53,061
Azerbaijan	..	..	..	..	..	..	..	..	..	..
Bangladesh	..	52	..	492	192	360	556	671	1,820	1,711
Belarus	..	..	..	..	1,641	410	2,233	754	..	..
Belgium	..	38	7,661	15,882	6,399	..	12,805	24,132	25,579	58,678
Benin	..	..	..	..	..	..	..	..	..	..
Bolivia	..	46	..	529	..	..	4,432	2,343	21,519	26,282
Bosnia and Herzegovina	..	..	..	..	..	..	..	..	..	..
Botswana	45	..	894	961	650	1,223	3,250	2,884	7,791	..
Brazil	..	..	1,690	1,308	..	..	10,080	14,134	43,232	61,595
Bulgaria	..	..	..	573	..	1,372	2,485	1,179	..	..
Burkina Faso	..	..	695	585	..	..	3,282	..	15,886	..
Burundi	..	..	..	..	..	..	..	..	..	..
Cambodia	..	..	..	..	..	..	..	..	..	..
Cameroon	..	..	..	..	..	..	..	..	..	..
Canada	38	38	4,974	7,897	20,429	30,625	17,710	28,424	36,903	60,712
Central African Republic	..	..	..	..	..	..	..	..	..	..
Chad	..	..	..	..	..	..	..	..	..	..
Chile	43	45	663	1,781	..	..	6,234	5,822	32,805	32,977
China	..	..	..	..	349	325	472	729	3,061	2,885
Hong Kong, China	48	46	..	..	..	..	4,127	13,539	7,886	19,533
Colombia	..	..	..	1,128	..	..	2,988	2,507	15,096	17,061
Congo, Dem. Rep.	..	..	..	..	..	..	..	..	..	..
Congo, Rep.	..	..	..	..	..	..	..	..	..	..
Costa Rica	..	47	1,042	1,638	982	1,697	2,433	2,829	7,185	7,184
Côte d'Ivoire	..	..	1,246	871	..	..	5,132	9,995	16,158	..
Croatia	..	..	..	..	..	..	..	..	..	..
Cuba	..	..	..	..	..	..	..	..	..	..
Czech Republic	43	40	..	..	2,277	1,885	2,306	1,876	5,782	5,094
Denmark	..	37	9,170	19,933	..	..	16,169	29,235	27,919	49,273
Dominican Republic	44	44	..	1,439	..	..	2,191	1,806	8,603	..
Ecuador	..	..	1,637	492	..	..	5,065	3,738	12,197	9,747
Egypt, Arab Rep.	58	..	343	415	..	..	2,210	1,863	3,691	5,976
El Salvador	..	..	..	790	..	..	3,654	..	14,423	..
Eritrea	..	..	..	..	..	..	..	..	..	..
Estonia	..	..	..	..	..	..	..	..	..	..
Ethiopia	..	..	..	..	..	..	..	1,596	..	7,094
Finland	..	38	..	<sup>b</sup>	..	..	11,522	26,615	25,945	55,037
France	40	39	6,053	12,072	..	..	18,488	..	26,751	61,019
Gabon	..	..	..	..	..	..	..	..	..	..
Gambia, The	..	..	..	..	..	..	..	..	..	..
Georgia	..	..	..	..	..	..	..	..	..	..
Germany	41	40	..	<sup>b</sup>	..	..	15,708	33,226	34,945	79,616
Ghana	..	..	..	..	1,470	..	2,306	..	12,130	..
Greece	..	41	..	5,246	..	..	6,461	15,899	14,561	30,429
Guatemala	..	..	..	459	..	..	2,605	1,802	11,144	9,235
Guinea	40	..	..	..	..	..	..	..	..	..
Guinea-Bissau	48	..	..	..	..	..	..	..	..	..
Haiti	..	..	..	..	..	..	..	..	..	..
Honduras	..	44	..	..	1,623	..	2,949	2,658	7,458	7,427



# Wages and productivity 2.6

	Average hours worked per week		Minimum wage		Agricultural wage		Labor cost per worker in manufacturing		Value added per worker in manufacturing	
	1980-84	1995-99 <sup>a</sup>	\$ per year		\$ per year		\$ per year		\$ per year	
	1980-84	1995-99 <sup>a</sup>	1980-84	1995-99 <sup>a</sup>	1980-84	1995-99 <sup>a</sup>	1980-84	1995-99 <sup>a</sup>	1980-84	1995-99 <sup>a</sup>
Hungary	35	33	..	1,132	1,186	1,766	1,410	2,777	4,307	6,106
India	46	..	..	408	205	245	1,035	1,192	2,108	3,118
Indonesia	..	..	..	241	..	..	898	1,008	3,807	5,139
Iran, Islamic Rep.	..	..	..	..	..	..	9,737	..	17,679	..
Iraq	..	..	..	..	..	..	4,624	13,288	13,599	34,316
Ireland	41	41	..	..	..	..	10,190	25,414	26,510	86,036
Israel	36	36	..	5,861	4,582	7,906	13,541	26,635	23,459	35,526
Italy	..	32	..	b	..	..	15,895	35,138	..	..
Jamaica	..	39	782	692	..	..	5,218	3,655	12,056	11,091
Japan	47	47	3,920	12,265	..	..	12,306	31,687	34,456	92,582
Jordan	..	50	b	b	..	..	4,643	2,082	16,337	11,906
Kazakhstan	..	..	..	..	..	..	..	..	..	..
Kenya	41	39	..	..	508	568	104	94	234	228
Korea, Dem. Rep.	..	..	..	..	..	..	..	..	..	..
Korea, Rep.	52	48	..	3,903	..	..	3,153	10,743	11,617	40,916
Kuwait	..	..	..	8,244	..	..	10,281	..	30,341	..
Kyrgyz Republic	..	..	..	89	1,695	168	2,287	687	..	..
Lao PDR	..	..	..	..	..	..	..	..	..	..
Latvia	..	..	..	..	..	..	..	366	..	..
Lebanon	..	..	..	..	..	..	..	..	..	..
Lesotho	..	45	..	..	..	..	1,442	..	6,047	..
Libya	..	..	..	..	..	..	8,648	..	21,119	..
Lithuania	..	..	..	..	..	..	..	..	..	..
Macedonia, FYR	..	..	..	..	..	..	..	..	..	..
Madagascar	..	40	..	..	..	..	1,575	..	3,542	..
Malawi	..	..	..	..	..	..	..	..	..	..
Malaysia	..	..	..	b	..	..	2,519	3,429	8,454	12,661
Mali	..	..	321	459	..	..	2,983	..	10,477	..
Mauritania	..	..	..	..	..	..	..	..	..	..
Mauritius	..	..	..	..	..	..	1,465	1,973	2,969	4,217
Mexico	43	45	1,343	768	1,031	908	3,772	7,607	17,448	25,931
Moldova	..	..	..	..	..	..	..	..	..	..
Mongolia	..	..	..	..	..	..	..	..	..	..
Morocco	..	..	..	1,672	..	..	2,583	3,391	6,328	9,089
Mozambique	..	..	..	..	..	..	..	..	..	..
Myanmar	..	..	..	..	..	..	..	..	..	..
Namibia	..	..	..	..	..	..	..	..	..	..
Nepal	..	..	..	..	..	..	371	..	1,523	..
Netherlands	40	39	9,074	15,170	..	..	18,891	39,865	27,491	56,801
New Zealand	39	39	3,309	9,091	..	..	10,605	23,767	16,835	32,723
Nicaragua	..	44	..	..	..	..	..	..	..	..
Niger	40	..	..	..	..	..	4,074	..	22,477	..
Nigeria	..	..	..	300	..	..	4,812	..	20,000	..
Norway	35	35	..	b	..	..	14,935	38,415	24,905	51,510
Oman	..	..	..	..	..	..	..	3,099	..	61,422
Pakistan	48	..	..	600	..	..	1,264	..	6,214	..
Panama	..	..	..	..	..	..	4,768	6,351	15,327	17,320
Papua New Guinea	44	..	..	..	..	..	4,825	..	13,563	..
Paraguay	36	39	..	..	1,606	1,210	2,509	3,241	..	14,873
Peru	48	..	..	..	..	944	2,988	..	15,962	..
Philippines	47	43	915	1,472	382	..	1,240	2,450	5,266	10,781
Poland	36	33	320	1,584	1,726	1,301	1,682	1,714	6,242	7,637
Portugal	39	40	1,606	4,086	..	..	3,115	7,577	7,161	17,273
Puerto Rico	..	..	..	..	..	..	..	..	..	..
Romania	..	40	..	..	1,669	1,864	1,739	1,190	..	3,482
Russian Federation	..	..	863	297	2,417	659	2,524	1,528	..	..



## 2.6 Wages and productivity

	Average hours worked per week		Minimum wage		Agricultural wage		Labor cost per worker in manufacturing		Value added per worker in manufacturing	
	1980-84	1995-99 <sup>a</sup>	\$ per year		\$ per year		\$ per year		\$ per year	
	1980-84	1995-99 <sup>a</sup>	1980-84	1995-99 <sup>a</sup>	1980-84	1995-99 <sup>a</sup>	1980-84	1995-99 <sup>a</sup>	1980-84	1995-99 <sup>a</sup>
Rwanda	..	..	..	..	..	..	1,871	..	9,835	..
Saudi Arabia	..	..	..	..	..	..	9,814	..	..	..
Senegal	..	..	993	848	..	..	2,828	7,754	6,415	..
Sierra Leone	44	..	..	..	..	..	1,624	..	7,807	..
Singapore	..	46	..	..	..	4,856	5,576	21,534	16,442	40,674
Slovak Republic	..	..	..	..	..	..	..	..	..	..
Slovenia	..	..	..	..	..	..	..	9,632	..	12,536
South Africa	..	42	..	<sup>b</sup>	..	..	6,261	8,475	12,705	16,612
Spain	38	37	3,058	5,778	..	..	8,276	19,329	18,936	47,016
Sri Lanka	50	53	..	..	198	264	447	604	2,057	3,405
Sudan	..	..	..	..	..	..	..	..	..	..
Sweden	36	37	..	..	9,576	27,098	13,038	29,043	32,308	56,675
Switzerland	44	42	..	<sup>b</sup>	..	..	..	..	..	61,848
Syrian Arab Republic	..	..	..	..	..	..	2,844	4,338	9,607	9,918
Tajikistan	..	..	..	..	..	..	..	..	..	..
Tanzania	..	..	..	..	..	..	1,123	..	3,339	..
Thailand	48	..	..	1,083	..	..	2,305	2,705	11,072	19,946
Togo	..	..	..	..	..	..	..	..	..	..
Trinidad and Tobago	..	40	..	2,974	..	..	..	..	14,008	..
Tunisia	..	..	1,381	1,525	668	968	3,344	3,599	7,111	..
Turkey	..	48	594	1,254	1,015	2,896	3,582	7,958	13,994	32,961
Turkmenistan	..	..	..	..	..	..	..	..	..	..
Uganda	43	..	..	..	..	..	253	..	..	..
Ukraine	..	..	..	..	..	..	..	..	..	..
United Arab Emirates	..	..	..	..	..	..	6,968	..	20,344	..
United Kingdom	42	40	..	<sup>b</sup>	..	..	11,406	23,843	24,716	55,060
United States	40	41	6,006	8,056	..	..	19,103	28,907	47,276	81,353
Uruguay	48	42	1,262	1,027	1,289	..	4,128	3,738	13,722	16,028
Uzbekistan	..	..	..	..	..	..	..	..	..	..
Venezuela, RB	41	..	1,869	1,463	..	..	11,188	4,667	37,063	24,867
Vietnam	..	47	..	134	..	442	..	711	..	..
West Bank and Gaza	..	..	..	..	..	..	..	..	..	..
Yemen, Rep.	..	..	..	..	..	..	4,492	1,291	17,935	5,782
Yugoslavia, FR (Serb./Mont.)	..	..	..	..	..	..	..	..	..	..
Zambia	..	45	..	..	..	..	3,183	4,292	11,753	16,615
Zimbabwe	..	..	..	..	1,065	..	4,097	3,422	9,625	11,944

a. Figures in italics refer to 1990-94. b. Country has sectoral minimum wages but no minimum wage policy.



## Wages and productivity 2.6

### About the data

Much of the available data on labor markets are collected through national reporting systems that depend on plant-level surveys. Even when these data are compiled and reported by international agencies such as the International Labour Organization or the United Nations Industrial Development Organization, differences in definitions, coverage, and units of account limit their comparability across countries. The indicators in this table are the result of a research project at the World Bank that has compiled results from more than 300 national and international sources in an effort to provide a set of uniform and representative labor market indicators. Nevertheless, many differences in reporting practices persist, some of which are described below.

Analyses of labor force participation, employment, and underemployment often rely on the number of hours of work per week. The indicator reported in the table is the time spent at the workplace working, preparing for work, or waiting for work to be supplied or for a machine to be fixed. It also includes the time spent at the workplace when no work is being performed but for which payment is made under a guaranteed work contract or time spent on short periods of rest. Hours paid for but not spent at the place of work, such as paid annual and sick leave, paid holidays, paid meal breaks, and time spent in commuting between home and workplace, are not included, however. When this information is not available, the table reports the number of hours paid for, comprising the hours actually worked plus the hours paid for but not spent in the workplace. Data on hours worked are influenced by differences in methods of compilation and coverage as well as by national practices relating to the number of days worked and overtime, making comparisons across countries difficult.

Wages refer to remuneration in cash and in kind paid to employees at regular intervals. They exclude employers' contributions to social security and pension schemes as well as other benefits received by employees under these schemes. In some countries the national minimum wage represents a "floor," with higher minimum wages for particular occupations and skills set through collective bargaining. In those countries the agreements reached by employers associations and trade unions are extended by the government to all firms in a specific sector, or at least to large firms. In general, changes in the national minimum wage are associated with parallel changes in the minimum wages set through collective bargaining.

In many developing countries agricultural workers are hired on a casual or daily basis and lack any social

security benefits. International comparisons of agricultural wages are subject to greater reservations than those of wages in other activities. The nature of the work carried out by different categories of agricultural workers and the length of the workday and workweek vary considerably from one country to another. Seasonal fluctuations in agricultural wages are more important in some countries than in others. And the methods followed in different countries for estimating the monetary value of payments in kind are not uniform.

Labor cost per worker in manufacturing is sometimes used as a measure of international competitiveness. The indicator reported in the table is the ratio of total compensation to the number of workers in the manufacturing sector. Compensation includes direct wages, salaries, and other remuneration paid directly by employers plus all contributions by employers to social security programs on behalf of their employees. But there are unavoidable differences in concepts and reference periods and in reporting practices. Remuneration for time not worked, bonuses and gratuities, and housing and family allowances should be considered part of the compensation costs, along with severance and termination pay. These indirect labor costs can vary substantially from country to country, depending on the labor laws and collective bargaining agreements in force. Figures are converted into U.S. dollars using the average exchange rate for each year.

International competitiveness also depends on productivity. Value added per worker in manufacturing is a frequently cited measure of productivity. The indicator reported in the table is the ratio of total value added in manufacturing to the number of employees engaged in that sector. Total value added is estimated as the difference between the value of industrial output and the value of materials and supplies for production (including fuel and purchased electricity) and cost of industrial services received. Figures are converted into U.S. dollars using the average exchange rate for each year.

Observations on labor costs and value added per worker are from plant-level surveys covering relatively large establishments, usually employing 10 or more workers and mostly in the formal sector. In high-income countries the coverage of these surveys tends to be quite good. In developing countries there is often a substantial bias toward very large establishments in the formal sector. As a result figures may not be strictly comparable across countries.

The data in the table are period averages and refer to workers of both sexes.

### Definitions

- **Average hours worked per week** refer to all workers (male and female) in nonagricultural activities or, if unavailable, in manufacturing. The data correspond to hours actually worked, to hours paid for, or to statutory hours of work in a normal workweek.
- **Minimum wage** corresponds to the most general regime for nonagricultural activities. When rates vary across sectors, only that for manufacturing (or commerce, if the manufacturing wage is unavailable) is reported.
- **Agricultural wage** is based on daily wages in agriculture.
- **Labor cost per worker in manufacturing** is obtained by dividing the total payroll by the number of employees, or the number of people engaged, in manufacturing establishments.
- **Value added per worker in manufacturing** is obtained by dividing the value added of manufacturing establishments by the number of employees, or the number of people engaged, in those establishments.

### Data sources

The data in the table are drawn from Martin Rama and Raquel Artecona's "Database of Labor Market Indicators across Countries" (1999).