

The Jus Semper Global Alliance – Manufacturing workers' Wage Gap Analysis in Purchasing Power Parities (PPPs) Comparison Terms 1975-04

International comparisons of hourly compensation costs for manufacturing workers between the US and selected developed and "emerging" markets, continue exposing Mexico as having the worst wage gap in PPPs terms.

In comparing 2004 against 2000, European economies continued to narrow their wage gap or increased their advantage for equivalent work wages against the US. This trend strengthened since 2003 with the adoption of the Euro among most EU members, as well as the UK. Canada's PPP compensation, since 1995, continued having an advantage or being at par with the U.S. Japan and South Korea show some recovery by reducing their wage gaps since 2002. Among emerging markets, Singapore and Hong Kong showed some increase in wage gaps, and Brazil appears to be recovering some real wage value. Mexico, in contrast, shows a persistent and consistent deterioration of real wages, with a widening of its wage gap index and, by far, the worst wage gap of all. Since 2000 its equalization index has worsened 21%, from 19 to 15 –its lowest since 1975 when it was 30. In 29 years the collapse in wage equalisation has been of 50% and it now endures an 85% wage gap with equivalent U.S. workers.

- The Euro area countries, as well as the UK, continued to experience a closing of their wage gaps or to experience wage equalization advantages. This becomes more evident in the countries adopting the Euro. Albeit not as high as in 2002, Germany's workers enjoyed, in 2004, a compensation 35% greater, in real terms (PPPs), than US workers. France is at par with the U.S. and the UK has now also reached an at par level, coming from an 81 equalisation index in 2000. Spain continues to close its wage gap, which has been reduced by 51% since 2000, from 31 to only 15, in 2004. Italy is the only European country experiencing a slight increase of 1 index point in its wage gap since 2002.
- Japan, after having gradually reduced its wage gap between 1975 and 2000, by increasing its equalisation index from 50 to 85 respectively, it suffered a loss of real wages, dropping to a 70 index in 2002. However, since 2003 (not shown) it has somewhat recovered and it has climbed up to a 76 index in 2004. South Korea has experienced a similar behaviour with its labour endowments. It increased its equalisation between 1975 and 2000 to reach an 81 index, to next drop to 70 in 2002 and it is now showing some recovery to record a 73 index or a 27% wage gap. As for Hong Kong and Singapore, they are in 2004 at a similar low equalisation level as they were in 2000 and actually lost wage value when compared with 2002.
- In the Americas, Brazil is recovering ground and in 2004 is almost at par with 2000, an increase of 13% since 2002. Mexico has the worst labour endowments for manufacturing workers of all the countries, showing only 54% of the real wage value of Hong Kong, the next worst performer, and 43% of Brazil's equalisation index. Mexican manufacturing workers have lost a total of 50% wage value in 29 years, a dramatic event. Indeed, while Mexico's wages collapsed, between 1975 and 2004, South Korea –a country with a wage gap twice as large as Mexico's in 1975– reached a level almost at par with Japan with a gap of only 27% in 2004.

		1975	1980	1985	1990	1995	2000	2002	2004
Benchmark	U.S. Hourly rate	6,16	9,63	12,71	14,84	17,21	19,70	21,4	23,17
Canada	GDP PPPs in country currency*	1,222	1,206	1,256	1,3	1,212	1,156	1,215	1,198
	Exchange rate	1,017	1,169	1,366	1,167	1,373	1,486	1,57	1,302
	GDP PPPs in US Dollars	\$ 1,20	\$ 1,03	\$ 0,92	\$ 1,11	\$ 0,88	\$ 0,78	\$ 0,77	\$ 0,92
	2. Equalized PPP compensation US \$	\$ 7,40	\$ 9,93	\$ 11,69	\$ 16,53	\$ 15,19	\$ 15,32	\$ 16,56	\$ 21,32
	3. Actual Real compensation US \$	\$ 5,09	\$ 8,60	\$ 12,18	\$ 14,66	\$ 18,69	\$ 21,19	\$ 21,53	\$ 23,27
	4. Actual Nominal compensation US \$	\$ 6,11	\$ 8,87	\$ 11,20	\$ 16,33	\$ 16,50	\$ 16,48	\$ 16,66	\$ 21,42
	Compensation Deficit in US \$ (2÷4)	\$ 1,29	\$ 1,06	\$ 0,49	\$ 0,20	\$ (1,31)	\$ (1,16)	\$ (0,10)	\$ (0,10)
	Wage Equalization index (4÷2 or 3÷1)	0,83	0,89	0,96	0,99	1,09	1,08	1,01	1,00
South Korea	GDP PPPs in country currency*	238,9	411,6	465	538	629	582,5	731,9	780,8
	Exchange rate	484	607,4	870	707,8	771,3	1131	1250	1145
	GDP PPPs in US Dollars	\$ 0,49	\$ 0,68	\$ 0,53	\$ 0,76	\$ 0,82	\$ 0,52	\$ 0,59	\$ 0,68
	2. Equalized PPP compensation US \$	\$ 3,04	\$ 6,53	\$ 6,79	\$ 11,28	\$ 14,03	\$ 10,15	\$ 12,53	\$ 15,80
	3. Actual Real compensation US \$	\$ 0,65	\$ 1,40	\$ 2,30	\$ 4,87	\$ 8,93	\$ 16,00	\$ 14,98	\$ 16,89
	4. Actual Nominal compensation US \$	\$ 0,32	\$ 0,95	\$ 1,23	\$ 3,70	\$ 7,28	\$ 8,24	\$ 8,77	\$ 11,52
	Compensation Deficit in US \$ (2÷4)	\$ 2,72	\$ 5,58	\$ 5,56	\$ 7,58	\$ 6,75	\$ 1,91	\$ 3,76	\$ 4,28
	Wage Equalization index (4÷2 or 3÷1)	0,11	0,15	0,18	0,33	0,52	0,81	0,70	0,73
Japan	GDP PPPs in country currency*	286	243,9	213,6	195	172,9	141,8	155,5	134,5
	Exchange rate	296,7	225,7	238,5	145	94,0	107,8	125,2	108,2
	GDP PPPs in US Dollars	\$ 0,96	\$ 1,08	\$ 0,90	\$ 1,34	\$ 1,84	\$ 1,32	\$ 1,24	\$ 1,24
	2. Equalized PPP compensation US \$	\$ 5,94	\$ 10,41	\$ 11,38	\$ 19,96	\$ 31,67	\$ 25,91	\$ 26,58	\$ 28,80
	3. Actual Real compensation US \$	\$ 3,08	\$ 5,05	\$ 7,00	\$ 9,32	\$ 12,80	\$ 16,74	\$ 15,01	\$ 17,62
	4. Actual Nominal compensation US \$	\$ 2,97	\$ 5,46	\$ 6,27	\$ 12,54	\$ 23,55	\$ 22,02	\$ 18,65	\$ 21,90
	Compensation Deficit in US \$ (2÷4)	\$ 2,97	\$ 4,95	\$ 5,11	\$ 7,42	\$ 8,12	\$ 3,89	\$ 7,93	\$ 6,90
	Wage Equalization index (4÷2 or 3÷1)	0,50	0,52	0,55	0,63	0,74	0,85	0,70	0,76

		1975	1980	1985	1990	1995	2000	2002	2004
Benchmark	U.S. Hourly rate	6,16	9,63	12,71	14,84	17,21	19,70	21,4	23,17
France	GDP PPPs in country currency*	4,978	5,559	6,559	6,61	6,49	7,009	0,870	0,829
	Exchange rate	4,282	4,22	8,98	5,447	4,986	7,105	1,058	0,804
	GDP PPPs in US Dollars	\$ 1,16	\$ 1,32	\$ 0,73	\$ 1,21	\$ 1,30	\$ 0,99	\$ 0,82	\$ 1,03
	2. Equalized PPP compensation US \$	\$ 7,16	\$ 12,69	\$ 9,28	\$ 18,01	\$ 22,40	\$ 19,43	\$ 17,60	\$ 23,89
	3. Actual Real compensation US \$	\$ 3,87	\$ 6,76	\$ 10,24	\$ 12,66	\$ 14,80	\$ 15,77	\$ 20,81	\$ 23,17
	4. Actual Nominal compensation US \$	\$ 4,50	\$ 8,90	\$ 7,48	\$ 15,36	\$ 19,26	\$ 15,56	\$ 17,12	\$ 23,89
	Compensation Deficit in US \$ (2÷4)	\$ 2,66	\$ 3,79	\$ 1,80	\$ 2,65	\$ 3,14	\$ 3,87	\$ 0,48	\$ (0,00)
	Wage Equalization index (4÷2 or 3÷1)	0,63	0,70	0,81	0,85	0,86	0,80	0,97	1,00
Germany	GDP PPPs in country currency*	3,062	2,397	2,173	2,09	2,02	2,136	0,892	0,876
	Exchange rate	2,455	1,815	2,942	1,617	1,432	2,119	1,058	0,804
	GDP PPPs in US Dollars	\$ 1,25	\$ 1,32	\$ 0,74	\$ 1,29	\$ 1,41	\$ 1,01	\$ 0,84	\$ 1,09
	2. Equalized PPP compensation US \$	\$ 7,68	\$ 12,72	\$ 9,39	\$ 19,18	\$ 24,28	\$ 19,86	\$ 18,04	\$ 25,24
	3. Actual Real compensation US \$	\$ 5,02	\$ 9,21	\$ 12,81	\$ 16,80	\$ 22,27	\$ 23,52	\$ 30,03	\$ 31,25
	4. Actual Nominal compensation US \$	\$ 6,26	\$ 12,16	\$ 9,46	\$ 21,71	\$ 31,41	\$ 23,71	\$ 25,31	\$ 34,05
	Compensation Deficit in US \$ (2÷4)	\$ 1,42	\$ 0,56	\$ (0,07)	\$ (2,53)	\$ (7,13)	\$ (3,85)	\$ (7,27)	\$ (8,81)
	Wage Equalization index (4÷2 or 3÷1)	0,81	0,96	1,01	1,13	1,29	1,19	1,40	1,35
Italy	GDP PPPs in country currency*	539,5	783	1184	1421	1556	1801	0,771	0,754
	Exchange rate	652,4	855,1	1909	1198	1629	2097	1,058	0,804
	GDP PPPs in US Dollars	\$ 0,83	\$ 0,92	\$ 0,62	\$ 1,19	\$ 0,96	\$ 0,86	\$ 0,73	\$ 0,94
	2. Equalized PPP compensation US \$	\$ 5,09	\$ 8,82	\$ 7,88	\$ 17,60	\$ 16,44	\$ 16,92	\$ 15,60	\$ 21,73
	3. Actual Real compensation US \$	\$ 5,61	\$ 8,84	\$ 12,19	\$ 14,57	\$ 16,43	\$ 16,11	\$ 20,23	\$ 21,84
	4. Actual Nominal compensation US \$	\$ 4,64	\$ 8,09	\$ 7,56	\$ 17,28	\$ 15,69	\$ 13,84	\$ 14,75	\$ 20,48
	Compensation Deficit in US \$ (2÷4)	\$ 0,45	\$ 0,73	\$ 0,32	\$ 0,32	\$ 0,75	\$ 3,08	\$ 0,85	\$ 1,25
	Wage Equalization index (4÷2 or 3÷1)	0,91	0,92	0,96	0,98	0,95	0,82	0,95	0,94
England	GDP PPPs in country currency*	0,3802	0,4928	0,5327	0,602	0,656	0,684	0,639	0,584
	Exchange rate	0,4501	0,43	0,7708	0,5605	0,6335	0,6598	0,666	0,546
	GDP PPPs in US Dollars	\$ 0,84	\$ 1,15	\$ 0,69	\$ 1,07	\$ 1,04	\$ 1,04	\$ 0,96	\$ 1,07
	2. Equalized PPP compensation US \$	\$ 5,20	\$ 11,04	\$ 8,78	\$ 15,94	\$ 17,82	\$ 20,44	\$ 20,54	\$ 24,79
	3. Actual Real compensation US \$	\$ 3,97	\$ 6,56	\$ 9,00	\$ 11,74	\$ 13,32	\$ 16,13	\$ 19,02	\$ 23,09
	4. Actual Nominal compensation US \$	\$ 3,35	\$ 7,52	\$ 6,22	\$ 12,61	\$ 13,79	\$ 16,73	\$ 18,25	\$ 24,71
	Compensation Deficit in US \$ (2÷4)	\$ 1,85	\$ 3,52	\$ 2,56	\$ 3,33	\$ 4,03	\$ 3,71	\$ 2,29	\$ 0,08
	Wage Equalization index (4÷2 or 3÷1)	0,64	0,68	0,71	0,79	0,77	0,82	0,89	1,00
Spain	GDP PPPs in country currency*	44,83	70,54	91,83	109,50	122,08	141,091	0,727	0,699
	Exchange rate	57,39	71,64	170	102	124,6	180,2	1,058	0,804
	GDP PPPs in US Dollars	\$ 0,78	\$ 0,98	\$ 0,54	\$ 1,07	\$ 0,98	\$ 0,78	\$ 0,69	\$ 0,87
	2. Equalized PPP compensation US \$	\$ 4,81	\$ 9,48	\$ 6,87	\$ 15,93	\$ 16,86	\$ 15,42	\$ 14,71	\$ 20,16
	3. Actual Real compensation US \$	\$ 3,23	\$ 5,95	\$ 8,59	\$ 10,53	\$ 12,96	\$ 13,60	\$ 17,34	\$ 19,66
	4. Actual Nominal compensation US \$	\$ 2,52	\$ 5,86	\$ 4,64	\$ 11,30	\$ 12,70	\$ 10,65	\$ 11,92	\$ 17,10
	Compensation Deficit in US \$ (2÷4)	\$ 2,29	\$ 3,62	\$ 2,23	\$ 4,63	\$ 4,16	\$ 4,77	\$ 2,79	\$ 3,06
	Wage Equalization index (4÷2 or 3÷1)	0,52	0,62	0,68	0,71	0,75	0,69	0,81	0,85
Mexico	GDP PPPs in country currency*	9,80	18,80	136,4	1530	2,96	5,456	6,704	7,952
	Exchange rate	12,5	22,97	256,9	2813	6,42	9,46	9,66	11,29
	GDP PPPs in US Dollars	\$ 0,78	\$ 0,82	\$ 0,53	\$ 0,54	\$ 0,46	\$ 0,58	\$ 0,69	\$ 0,70
	2. Equalized PPP compensation US \$	\$ 4,83	\$ 7,88	\$ 6,75	\$ 8,07	\$ 7,94	\$ 11,36	\$ 14,85	\$ 16,32
	3. Actual Real compensation US \$	\$ 1,85	\$ 2,68	\$ 2,98	\$ 2,87	\$ 3,19	\$ 3,81	\$ 3,75	\$ 3,55
	4. Actual Nominal compensation US \$	\$ 1,45	\$ 2,19	\$ 1,58	\$ 1,56	\$ 1,47	\$ 2,20	\$ 2,60	\$ 2,50
	Compensation Deficit in US \$ (2÷4)	\$ 3,38	\$ 5,69	\$ 5,17	\$ 6,51	\$ 6,47	\$ 9,16	\$ 12,25	\$ 13,82
	Wage Equalization index (4÷2 or 3÷1)	0,30	0,28	0,23	0,19	0,19	0,19	0,18	0,15

		1996	1998	2000	2001	2002	2004
Benchmark	U.S. Hourly rate	17,70	18,64	19,70	20,58	21,4	23,17
Brazil	GDP PPPs in country currency*	0,7595	0,8329	0,897	1,022	1,110	1,106
	Exchange rate	1,005	1,161	1,83	2,353	2,921	2,926
	GDP PPPs in US Dollars	\$ 0,76	\$ 0,72	\$ 0,49	\$ 0,43	\$ 0,38	\$ 0,38
	2. Equalized PPP compensation US \$	\$ 13,38	\$ 13,37	\$ 9,66	\$ 8,94	\$ 8,13	\$ 8,75
	3. Actual Real compensation US \$	\$ 7,66	\$ 7,72	\$ 7,16	\$ 6,79	\$ 6,74	\$ 8,02
	4. Actual Nominal compensation US \$	\$ 5,79	\$ 5,54	\$ 3,51	\$ 2,95	\$ 2,56	\$ 3,03
	Compensation Deficit in US \$ (2÷4)	\$ 7,59	\$ 7,83	\$ 6,15	\$ 5,99	\$ 5,57	\$ 5,72
	Wage Equalization index (4÷2 or 3÷1)	0,43	0,41	0,36	0,33	0,31	0,35

		1996	1998	2000	2001	2002	2004
Benchmark	U.S. Hourly rate	17,70	18,64	19,70	20,58	21,4	23,17
Hong Kong	GDP PPPs in country currency*	7,75	8,82	7,89	7,73	7,01	6,58
	Exchange rate	7,735	7,75	7,79	7,80	7,80	7,79
	GDP PPPs in US Dollars	\$ 1,00	\$ 1,14	\$ 1,01	\$ 0,99	\$ 0,90	\$ 0,84
	2. Equalized PPP compensation US \$	\$ 17,73	\$ 21,21	\$ 19,95	\$ 20,39	\$ 19,22	\$ 19,57
	3. Actual Real compensation US \$	\$ 5,11	\$ 4,74	\$ 5,38	\$ 5,79	\$ 6,30	\$ 6,52
	4. Actual Nominal compensation US \$	\$ 5,12	\$ 5,40	\$ 5,45	\$ 5,74	\$ 5,66	\$ 5,51
	Compensation Deficit in US \$ (2÷4)	\$ 12,61	\$ 15,81	\$ 14,50	\$ 14,65	\$ 13,56	\$ 14,06
	Wage Equalization index (4÷2 or 3÷1)	0,29	0,25	0,27	0,28	0,29	0,28
Singapore	GDP PPPs in country currency*	1,71	2,00	1,71	1,69	1,56	1,53
	Exchange rate	1,41	1,67	1,73	1,79	1,79	1,69
	GDP PPPs in US Dollars	\$ 1,21	\$ 1,19	\$ 0,99	\$ 0,94	\$ 0,87	\$ 0,90
	2. Equalized PPP compensation US \$	\$ 21,41	\$ 22,25	\$ 19,57	\$ 19,36	\$ 17,94	\$ 20,96
	3. Actual Real compensation US \$	\$ 6,75	\$ 6,17	\$ 7,24	\$ 7,41	\$ 7,70	\$ 8,24
	4. Actual Nominal compensation US \$	\$ 8,17	\$ 7,37	\$ 7,19	\$ 6,97	\$ 6,71	\$ 7,45
	Compensation Deficit in US \$ (2÷4)	\$ 13,24	\$ 14,88	\$ 12,38	\$ 12,39	\$ 11,23	\$ 13,51
	Wage Equalization index (4÷2 or 3÷1)	0,38	0,33	0,37	0,36	0,37	0,36

***Definitions:**

- PPPs stands for Purchasing Power Parities, which reflect the currency units in a giving currency that are required to buy the same goods and services that can be purchased in the base country with one currency unit. This analysis uses the U.S. and the U.S. dollar as the benchmark.
- GDPs PPPs in country currency express the number of country currency units required to buy the same goods and services a U.S. dollar can buy in the U.S.
- Exchange rate is nominal exchange rate.
- GDP PPPs in U.S. Dollars expresses the U.S. dollar units required in a given country to buy the same goods and services a U.S. dollar can buy in the U.S. If the PPP is less than 1, a U.S. dollar can buy more in the country in question because the cost of living is lower, and viceversa.
- The PPP, expressed in national currency, reflects the exchange rate in comparison with the market exchange rate, which does not reflect the ratio of prices.
- Equal PPP compensation expresses the hourly U.S. dollar nominal rate required in a given country to equally compensate a local worker, in terms of purchasing power, for equal work rendered, as the equivalent U.S. workers is compensated, in accordance with Article 23 of the UN Universal Declaration of Human Rights of "equal pay for equal work".
- Actual Real Compensation is the hourly wage paid in a given country in purchasing power terms.
- Actual Nominal Compensation is the nominal hourly wage paid in a given country.
- Compensation deficit expresses the wage gap between the hourly nominal rate paid (4) and the equalized PPP hourly rate that should be paid for equal work (2).
- Compensation equalization index expresses the ratio of actual nominal pay to equivalent PPP hourly pay (4 between 2): or the ratio of actual real pay (3) to the hourly nominal pay benchmark (1) (3 between 1).

Sources: The Jus Semper Global Alliance analysis using the sources below.

(Sources with X indicate that some of their data is directly incorporated in the table:)

- World Development Indicators 1998, 2000, 2002 and 2004, 2006, The World Bank, table 1.1
- World Development Indicators database, The World Bank, April 2006 – GNI per capita 2004, Atlas method and PPP
- X International Comparisons of Hourly Compensation Costs for Production Workers in Manufacturing, November 2005.
U.S. Department of Labour, Bureau of Labour Statistics
- X Comparative Real Gross Domestic Product per Capita and per Employed Person, Fourteen Countries 1960-2004
U.S. Department of Labour, Bureau of Labour Statistics, Office of Productivity and Technology.
- X PPPs for OECD Countries 1970-2002, OECD 2002 and GDP PPPs historical series 1970-1999.
- Purchasing Power parities – Measurement and Uses by Paul Schreyer and Francette Koechlin, OECD Statistical briefs, March 2002.