



The Jus Semper Global Alliance



I O L W
INTERNATIONAL OBSERVATORY
OF LIVING WAGES

A Collaborative Research Project



Table-T5: Living-Wage-Gap and Equalisation analysis (vis-à-vis the U.S.) for selected economies of Asia and Oceania – for all employed in the manufacturing sector– in PPP for private consumption terms 1996-2018, based on the methodology of Jus Semper’s “The Living Wages North and South Initiative (TLWNSI)”, following the principle of “Equal pay for equal work of equal value” of the UN and ILO’s international conventions.

In 2018 Australia, Singapore, South Korea and New Zealand improved their equalisation index (Eq-Idx) in manufacturing, Japan recorded no change and China and India experienced slight set backs. All gains are largely the result of increases of their hour wage rates in local currency in manufacturing, combined with currency devaluations or decreases in their PPP cost of living for private consumption. Conversely, set backs are, for the most part, the result of decreases in the hourly wage rates in local currency.

- In 2018, Australia recorded the best performance of its Eq-Idx among all 41 economies in our reports by increasing it nine points to a 90 Eq-Idx, which is equal to its best position previously achieved in 2014. This was the result of a strong increase (6,6%) of its hourly rate in local currency and a 2,5% currency devaluation, which contributed to a drop of its PPP cost of living of 2,9%.
- Singapore also recorded a strong performance with a six-point gain as the result of an increase of its hourly wage rate in local currency of 6,6%, a revaluation of its currency of 2,4% and minimal increase of only 0,4% of its PPP cost of living. In this way, Singapore clearly outperformed the 1,8% increase of the US hourly rate in manufacturing and thus increased its equalisation by six points to an 89 Eq-Idx, its best position ever and the second best performance after Australia in 2018.
- South Korea followed with a similar behaviour of the key indicators, gaining three points to a 72 Eq-Idx due to a 5,9% increase of its hourly rate in local currency and a 2,7% revaluation of its currency, which was enough to offset the 2,8% increase of its PPP cost of living.
- New Zealand gained one point in its Eq-Idx (56) due to a 1,8% increase of its hourly rate in local currency, a currency devaluation 2,6% and a drop of 3,5% of its cost of living.
- Japan experienced no change in its Eq-Idx (65) due to a PPP increase of 1,3%, little increase of its hourly wage rate in local currency (0,9%) and a currency revaluation of 1,6%.
- India recorded a one-point loss in its meagre Eq-Idx (14) due to a drop of its hourly wage rate in local currency of 1,7%. India recorded a meaningful currency devaluation of 4,8% and a 2,5% drop of its PPP cost of living, but they were not enough to offset the drop in its hourly wage rate and the 1,8% increase of the US hourly wage rate.
- China also lost one point in its meagre Eq-Idx (18) due to the scant increase of only 1,5% of its hourly wage rate in local currency and a very strong increase of its PPP cost of living of 10,3%, the strongest by far among the 41 economies in our reports.
- As for the Philippines, it has not reported yet an update to its “Compilation of Industry Statistics on Labour and Employment”.

	1996	2000	2004	2006	2008	2010	2012	2014	2016	2017	2018	
(PPP conversion factor for private consumption)												
Benchmark	1. U.S. Hourly Production-line Rate											
	22,46	24,95	28,59	30,77	32,26	32,61	34,05	37,23	39,73	39,36	40,07	
(Hourly compensation costs)												
Japan	PPP conversion factor (in country currency)	193,385	176,466	150,594	137,513	129,061	121,030	112,664	109,182	114,890	114,268	113,996
	Exchange rate	108,78	107,80	108,15	116,31	103,39	87,78	79,79	105,94	108,79	112,17	110,42
	PPP conversion factor (in U.S. dollars)	US\$ 1,78	US\$ 1,64	US\$ 1,39	US\$ 1,18	US\$ 1,25	US\$ 1,38	US\$ 1,41	US\$ 1,03	US\$ 1,06	US\$ 1,02	US\$ 1,03
	2. Equalised PPP nominal compensation US \$	US\$ 39,93	US\$ 40,84	US\$ 39,81	US\$ 36,38	US\$ 40,27	US\$ 44,96	US\$ 48,08	US\$ 38,37	US\$ 41,96	US\$ 40,10	US\$ 41,37
	3. Actual Real compensation US \$	US\$ 13,31	US\$ 15,29	US\$ 18,14	US\$ 20,33	US\$ 22,01	US\$ 23,03	US\$ 24,96	US\$ 26,14	US\$ 25,06	US\$ 25,68	US\$ 25,96
	4. Actual Nominal compensation US \$	US\$ 23,67	US\$ 25,03	US\$ 25,26	US\$ 24,03	US\$ 27,48	US\$ 31,75	US\$ 35,25	US\$ 26,94	US\$ 26,46	US\$ 26,16	US\$ 26,80
	Compensation Deficit in US \$ (2 minus 4)	US\$ 16,26	US\$ 15,81	US\$ 14,55	US\$ 12,35	US\$ 12,79	US\$ 13,21	US\$ 12,83	US\$ 11,43	US\$ 15,50	US\$ 13,94	US\$ 14,57
	Wage Equalisation index (4÷2 or 3÷1)	0,59	0,61	0,63	0,66	0,68	0,71	0,73	0,70	0,63	0,65	0,65
South Korea	PPP conversion factor (in country currency)	716,616	823,900	887,224	871,617	882,091	907,525	914,934	994,758	967,255	988,505	989,661
	Exchange rate	804,45	1130,96	1145,32	954,79	1102,05	1156,06	1126,47	1052,96	1160,43	1130,42	1100,50
	PPP conversion factor (in U.S. dollars)	US\$ 0,89	US\$ 0,73	US\$ 0,77	US\$ 0,91	US\$ 0,80	US\$ 0,79	US\$ 0,81	US\$ 0,94	US\$ 0,83	US\$ 0,87	US\$ 0,90
	2. Equalised PPP nominal compensation US \$	US\$ 20,01	US\$ 18,18	US\$ 22,15	US\$ 28,09	US\$ 25,82	US\$ 25,60	US\$ 27,66	US\$ 35,17	US\$ 33,12	US\$ 34,42	US\$ 36,03
	3. Actual Real compensation US \$	US\$ 10,72	US\$ 13,21	US\$ 16,30	US\$ 19,02	US\$ 20,99	US\$ 22,78	US\$ 25,17	US\$ 25,01	US\$ 27,57	US\$ 27,34	US\$ 28,93
	4. Actual Nominal compensation US \$	US\$ 9,55	US\$ 9,62	US\$ 12,63	US\$ 17,36	US\$ 16,80	US\$ 17,88	US\$ 20,44	US\$ 23,63	US\$ 22,98	US\$ 23,91	US\$ 26,02
	Compensation Deficit in US \$ (2 minus 4)	US\$ 10,46	US\$ 8,56	US\$ 9,52	US\$ 10,73	US\$ 9,02	US\$ 7,72	US\$ 7,22	US\$ 11,54	US\$ 10,14	US\$ 10,51	US\$ 10,01
	Wage Equalisation index (4÷2 or 3÷1)	0,48	0,53	0,57	0,62	0,65	0,70	0,74	0,67	0,69	0,69	0,72
Singapore	PPP conversion factor (in country currency)	1,230	1,155	1,082	1,028	1,048	1,071	1,073	1,104	1,087	1,080	1,059
	Exchange rate	1,4100	1,7240	1,6902	1,5889	1,4149	1,3635	1,2497	1,267	1,382	1,381	1,349
	PPP conversion factor (in U.S. dollars)	US\$ 0,87	US\$ 0,67	US\$ 0,64	US\$ 0,65	US\$ 0,74	US\$ 0,79	US\$ 0,86	US\$ 0,87	US\$ 0,79	US\$ 0,78	US\$ 0,79
	2. Equalised PPP nominal compensation US \$	US\$ 19,59	US\$ 16,72	US\$ 18,31	US\$ 19,91	US\$ 23,90	US\$ 25,60	US\$ 29,25	US\$ 32,43	US\$ 31,26	US\$ 30,80	US\$ 31,47
	3. Actual Real compensation US \$	US\$ 13,68	US\$ 17,49	US\$ 20,61	US\$ 21,26	US\$ 25,46	US\$ 24,57	US\$ 28,43	US\$ 30,79	US\$ 34,00	US\$ 32,69	US\$ 35,56
	4. Actual Nominal compensation US \$	US\$ 11,93	US\$ 11,72	US\$ 13,20	US\$ 13,76	US\$ 18,86	US\$ 19,29	US\$ 24,42	US\$ 26,82	US\$ 26,75	US\$ 25,58	US\$ 27,93
	Compensation Deficit in US \$ (2 minus 4)	US\$ 7,66	US\$ 5,00	US\$ 5,11	US\$ 6,15	US\$ 5,04	US\$ 6,31	US\$ 4,83	US\$ 5,61	US\$ 4,51	US\$ 5,22	US\$ 3,54
	Wage Equalisation index (4÷2 or 3÷1)	0,61	0,70	0,72	0,69	0,79	0,75	0,83	0,83	0,86	0,83	0,89
Philippines*	PPP conversion factor (in country currency)	12,880	14,905	15,768	16,600	17,314	18,492	18,127	19,068	18,926	19,393	19,917
	Exchange rate	26,1260	44,1920	56,0400	51,3143	44,3233	45,1097	42,2288	44,3952	47,4925	50,4037	52,6614
	PPP conversion factor (in U.S. dollars)	US\$ 0,49	US\$ 0,34	US\$ 0,28	US\$ 0,32	US\$ 0,39	US\$ 0,41	US\$ 0,43	US\$ 0,43	US\$ 0,40	US\$ 0,38	US\$ 0,38
	2. Equalised PPP nominal compensation US \$	US\$ 11,07	US\$ 8,42	US\$ 8,04	US\$ 9,95	US\$ 12,60	US\$ 13,37	US\$ 14,62	US\$ 15,99	US\$ 15,83	US\$ 15,14	US\$ 15,15
	3. Actual Real compensation US \$	US\$ 2,66	US\$ 2,94	US\$ 3,84	US\$ 4,11	US\$ 4,45	US\$ 4,54	US\$ 4,85	US\$ 4,91	US\$ 5,17	US\$ 5,17	NA
	4. Actual Nominal compensation US \$	US\$ 1,31	US\$ 0,99	US\$ 1,08	US\$ 1,33	US\$ 1,74	US\$ 1,86	US\$ 2,08	US\$ 2,11	US\$ 2,06	US\$ 1,99	NA
	Compensation Deficit in US \$ (2 minus 4)	US\$ 9,76	US\$ 7,43	US\$ 6,96	US\$ 8,62	US\$ 10,86	US\$ 11,51	US\$ 12,54	US\$ 13,88	US\$ 13,77	US\$ 13,15	NA
	Wage Equalisation index (4÷2 or 3÷1)	0,12	0,12	0,13	0,13	0,14	0,14	0,14	0,13	0,13	0,13	NA
Australia	PPP conversion factor (in country currency)	1,375	1,384	1,444	1,498	1,531	1,554	1,546	1,530	1,533	1,543	1,537
	Exchange rate	1,278	1,725	1,360	1,328	1,192	1,090	0,966	1,109	1,345	1,305	1,338
	PPP conversion factor (in U.S. dollars)	US\$ 1,08	US\$ 0,80	US\$ 1,06	US\$ 1,13	US\$ 1,28	US\$ 1,43	US\$ 1,60	US\$ 1,38	US\$ 1,14	US\$ 1,18	US\$ 1,15
	2. Equalised PPP nominal compensation US \$	US\$ 24,16	US\$ 20,02	US\$ 30,36	US\$ 34,71	US\$ 41,42	US\$ 46,48	US\$ 54,51	US\$ 51,35	US\$ 45,27	US\$ 46,56	US\$ 46,01
	3. Actual Real compensation US \$	US\$ 18,20	US\$ 20,87	US\$ 25,16	US\$ 25,84	US\$ 27,48	US\$ 27,75	US\$ 29,82	US\$ 33,36	US\$ 33,52	US\$ 31,83	US\$ 35,86
	4. Actual Nominal compensation US \$	US\$ 19,58	US\$ 16,75	US\$ 26,72	US\$ 29,15	US\$ 35,28	US\$ 39,55	US\$ 47,74	US\$ 46,01	US\$ 38,19	US\$ 37,65	US\$ 41,18
	Compensation Deficit in US \$ (2 minus 4)	US\$ 4,58	US\$ 3,27	US\$ 3,64	US\$ 5,56	US\$ 6,14	US\$ 6,93	US\$ 6,77	US\$ 5,34	US\$ 7,08	US\$ 8,91	US\$ 4,83
	Wage Equalisation index (4÷2 or 3÷1)	0,81	0,84	0,88	0,84	0,85	0,85	0,88	0,90	0,84	0,81	0,90

	1996	2000	2004	2006	2008	2010	2012	2014	2016	2017	2018
(PPP conversion factor for private consumption)											
Benchmark	1. U.S. Hourly Production-line Rate										
	22,46	24,95	28,59	30,77	32,26	32,61	34,05	37,23	39,73	39,36	40,07
<i>(Hourly compensation costs)</i>											
New Zealand	PPP conversion factor (in country currency)										
	1,484	1,508	1,565	1,587	1,570	1,594	1,586	1,601	1,585	1,594	1,579
	Exchange rate										
	1,4548	2,2011	1,5087	1,5421	1,4227	1,3878	1,2343	1,2054	1,4365	1,4074	1,4453
	PPP conversion factor (in U.S. dollars)										
	US\$ 1,02	US\$ 0,68	US\$ 1,04	US\$ 1,03	US\$ 1,10	US\$ 1,15	US\$ 1,29	US\$ 1,33	US\$ 1,10	US\$ 1,13	US\$ 1,09
	2. Equalised PPP nominal compensation US \$										
	US\$ 22,91	US\$ 17,09	US\$ 29,65	US\$ 31,68	US\$ 35,61	US\$ 37,46	US\$ 43,76	US\$ 49,44	US\$ 43,84	US\$ 44,59	US\$ 43,79
	3. Actual Real compensation US \$										
	US\$ 11,87	US\$ 13,07	US\$ 14,21	US\$ 15,28	US\$ 17,05	US\$ 17,75	US\$ 19,38	US\$ 20,28	US\$ 21,45	US\$ 21,65	US\$ 22,24
	4. Actual Nominal compensation US \$										
	US\$ 12,11	US\$ 8,95	US\$ 14,74	US\$ 15,73	US\$ 18,82	US\$ 20,39	US\$ 24,90	US\$ 26,93	US\$ 23,67	US\$ 24,52	US\$ 24,31
	Compensation Deficit in US \$ (2 minus 4)										
	US\$ 10,80	US\$ 8,14	US\$ 14,91	US\$ 15,95	US\$ 16,79	US\$ 17,07	US\$ 18,86	US\$ 22,51	US\$ 20,17	US\$ 20,07	US\$ 19,48
	Wage Equalisation index (4÷2 or 3÷1)										
	0,53	0,52	0,50	0,50	0,53	0,54	0,57	0,54	0,54	0,55	0,56
India*	PPP conversion factor (in country currency)										
	—	9,965	10,592	10,946	11,812	14,482	15,444	17,789	18,885	19,469	19,929
	Exchange rate										
	—	44,9416	45,3165	45,3070	43,5052	45,7258	53,4372	61,0295	67,1953	65,1216	68,3895
	PPP conversion factor (in U.S. dollars)										
	—	US\$ 0,22	US\$ 0,23	US\$ 0,24	US\$ 0,27	US\$ 0,32	US\$ 0,29	US\$ 0,29	US\$ 0,28	US\$ 0,30	US\$ 0,29
	2. Equalised PPP nominal compensation US \$										
	—	US\$ 5,53	US\$ 6,68	US\$ 7,43	US\$ 8,76	US\$ 10,33	US\$ 9,84	US\$ 10,85	US\$ 11,17	US\$ 11,77	US\$ 11,68
	3. Actual Real compensation US \$										
	—	US\$ 3,16	US\$ 3,64	US\$ 3,93	US\$ 4,64	US\$ 4,61	US\$ 5,50	US\$ 5,80	US\$ 5,62	US\$ 5,79	US\$ 5,56
	4. Actual Nominal compensation US \$										
	NA	US\$ 0,70	US\$ 0,85	US\$ 0,95	US\$ 1,26	US\$ 1,46	US\$ 1,59	US\$ 1,69	US\$ 1,58	US\$ 1,73	US\$ 1,62
	Compensation Deficit in US \$ (2 minus 4)										
	—	US\$ 4,83	US\$ 5,83	US\$ 6,48	US\$ 7,50	US\$ 8,87	US\$ 8,25	US\$ 9,16	US\$ 9,59	US\$ 10,04	US\$ 10,06
	Wage Equalisation index (4÷2 or 3÷1)										
	—	0,13	0,13	0,13	0,14	0,14	0,16	0,16	0,14	0,15	0,14
China*	PPP conversion factor (in country currency)										
	—	—	3,545	3,436	3,572	3,612	3,716	3,769	3,847	3,827	4,132
	Exchange rate										
	—	—	8,2768	7,9734	6,9487	6,7703	6,3123	6,1434	6,6445	6,7588	6,6160
	PPP conversion factor (in U.S. dollars)										
	—	—	US\$ 0,43	US\$ 0,43	US\$ 0,51	US\$ 0,53	US\$ 0,59	US\$ 0,61	US\$ 0,58	US\$ 0,57	US\$ 0,62
	2. Equalised PPP nominal compensation US \$										
	—	—	US\$ 12,24	US\$ 13,26	US\$ 16,58	US\$ 17,40	US\$ 20,05	US\$ 22,84	US\$ 23,00	US\$ 22,29	US\$ 25,02
	3. Actual Real compensation US \$										
	—	—	US\$ 1,75	US\$ 2,23	US\$ 3,09	US\$ 3,71	US\$ 5,20	US\$ 6,93	US\$ 6,94	US\$ 7,59	US\$ 7,14
	4. Actual Nominal compensation US \$										
	NA	NA	US\$ 0,75	US\$ 0,96	US\$ 1,59	US\$ 1,98	US\$ 3,06	US\$ 4,25	US\$ 4,02	US\$ 4,30	US\$ 4,46
	Compensation Deficit in US \$ (2 minus 4)										
	—	—	US\$ 11,49	US\$ 12,30	US\$ 14,99	US\$ 15,42	US\$ 16,99	US\$ 18,59	US\$ 18,98	US\$ 17,99	US\$ 20,56
	Wage Equalisation index (4÷2 or 3÷1)										
	—	—	0,06	0,07	0,10	0,11	0,15	0,19	0,17	0,19	0,18

***Definitions:**

- PPPs stands for Purchasing-Power Parities, which reflect the currency units in a given 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 and assumes that the U.S. wage is a living wage.
- The hourly manufacturing wage rate is the "hourly compensation cost" as defined by the U.S. Department of Labour, Bureau of Labour Statistics: This includes (1) hourly direct pay and (2) employer social insurance expenditures and other labour taxes. Hourly direct pay includes all payments made directly to the worker, before payroll deductions of any kind, consisting of pay for time worked and other direct pay. Social insurance expenditures and other labour taxes refers to the value of social contributions incurred by employers in order to secure entitlement to social benefits for their employees.
- PPP conversion factor, (private consumption) 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.
- PPP conversion factor, private consumption 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 for private consumption, expressed in national currency, reflects the exchange rate in comparison with the market exchange rate, which does not reflect the ratio of prices.
- Equalised PPP nominal wage rate is the hourly U.S. dollar nominal rate required to equally compensate a worker in a country, in purchasing power terms, for equal work rendered, as the equivalent U.S. worker is compensated. This analysis assumes the U.S. wage to be a living-wage. A living wage is a human right in accordance with Article 23 of the UN Universal Declaration of Human Rights. ILO's Convention 100 of "equal pay for equal work", for men and women is hereby applied in a global context.
- Actual PPP Real wage rate is the hourly wage paid in a given country in purchasing power terms.
- Actual Nominal wage rate is the nominal hourly wage paid in a given country.
- Compensation deficit expresses the wage gap between the hourly nominal wage rate paid (4) and the equalised PPP hourly rate that should be paid for equal work (2).
- Compensation equalisation index expresses the ratio of actual nominal pay to equalised PPP hourly pay (4 between 2); or the ratio of actual real pay (3) to the hourly nominal pay benchmark (1) (3 between 1).
- *India and China data gathered by the BLS and TCB are not fully comparable to the rest of countries due to some inconsistencies in methodology. However, given that in both cases the BLS argues that this work does not substantially affect the hourly compensation estimates, rough comparisons can still be made. For further reference on the description of each country see TCB's [Country Notes](#)
- Note: Variations in previous years are due to revisions made by the sources, including the World Bank's new 2011 PPP benchmarks, which replaced the previous 2005 benchmarks.
- Since 2010 the international comparison of hourly compensation costs (hourly wage rates) between the U.S. and selected developed and "emerging" markets refers to all employed in the manufacturing sector and no longer will be available for production workers only. Production-line wage rates are on average 20% below wage rates for all employed in manufacturing, including production workers, for the 1996-2009 period, for all countries included in the assessment. For further reference see wage-gap assessment of trends and differences between production-line and all employed in manufacturing in compensation cost terms here: [<Wage Gap Analysis of PLW versus All employed 1996-2009>](#)

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:)

- The Jus Semper Global Alliance: Living Wage Gaps Analysis in the manufacturing sector using:
- The Living Wages North and South Initiative ([TLWNSI](#)) using "Equal Pay for Work of Equal Value" Methodology.
- x Database of World Bank's World Development Indicators, 1975-2019.
- x U.S. Bureau of Labor Statistics, August 2013 and The Conference Board (TCB), International Labor Comparisons Program - Manufacturing Hourly Compensation Costs 2016, April 2018.
- x For all Countries except those listed below: The Conference Board (TCB) — International Comparisons of Manufacturing Productivity and Unit Labor Costs 2018, December 2019
- For all countries: Purchasing Power Parities and the Size of World Economies. Results from the 2017 International Comparison Program. World Bank 2020,
- Direct government sources for:
 - Argentina: (1) Ministerio de Producción y Trabajo, Observatorio de Empleo y Dinámica Empresarial: Boletín de Remuneraciones de los Trabajadores Registrados — serie Anual 2018; (2) (INDEC): Índice de precios al consumidor con cobertura nacional. Resultados por región, Julio 2020;
 - Brazil (IBGE): Pesquisa Industrial Anual Empresa, Custos e Despesas, Ano 2018.
 - Mexico (INEGI): EMIM (Encuesta Mensual de la Industrial Manufacturera. Principales características, datos mensuales. 2007-2019. por Variable, Tipo dato, Código SCIAN (2007), Año y Mes, Mayo 2019,
 - New Zealand Government: Stats NZ: Labour cost index (salary and wage rates): June 2020 quarter;
 - Philippines: Philippines Statistics Authority: 2018 Compilation of Industry Statistics on Labor and Employment,
 - United States: Employer Costs for Employee Compensation — Historical Listing — National Compensation Survey — March 2004 – March 2020,