

# U.S. Outsourcing Effects on Welfare of Underdeveloped/Developing Countries

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## Introduction

For years now, in attempt to reduce manufacturing costs, U.S major corporations and multinational conglomerates (U.S MNEs) have outsourced labor to underdeveloped/developed countries. This allows corporations to reduce their overhead costs significantly and also limits their liability, as outsourced laborers work for the contractor, and not the corporations themselves. The intentions of this research observes how outsourcing practices by these U.S MNEs effect the countries specifically. Focusing on the benefits received through outsourced labor, our research examines whether or not this tactic is useful or detrimental to those contracted countries. We use HDI (human development index) as a way to measure the overall well being and development of the country to determine the answer. Additionally, we focus on countries that are underdeveloped/developing and test whether the inflow of new labor into their labor markets is actually helping further the development of their country, as captured by the HDI.

## Methods

For this research, we comprised a panel data of countries from 2000-2008 via the United Nations database. We obtained 32 countries that met the developing/underdeveloped HDI index score threshold (0.5) while also receiving foreign direct investment from the United States. For our regression, we log-transformed the dependent and independent variables in order to have their respective data in equivalent proportions. The dependent variable, lhdi, is regressed against our chosen independents, lfdi (log of foreign direct investment from countries except the U.S.) and lcomp (log of compensation of employees hired for outsourcing within the panel countries). We included fixed effects for the year and country ( $\alpha_{it}$ ) for additional robustness. Lastly, our independent variables have been lagged by one year, as the effect onto the well-being of a country do not show immediately. Our econometric model is given below.

$$\text{Log(H.D.I)}_{it} = B_0 + B_1 \log(\text{FDI})_{it} + B_2 \log(\text{compensation})_{it} + \alpha_{it} + \epsilon_{it}$$

**Figure 1**

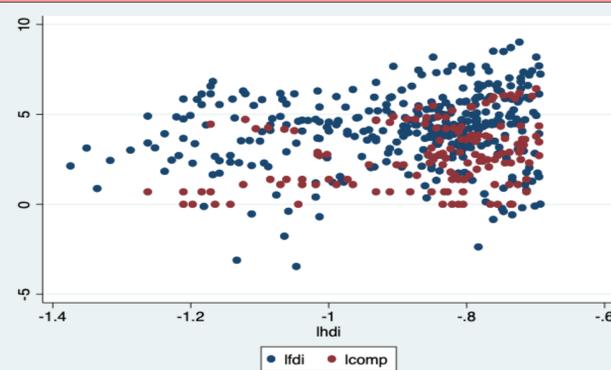


Fig 1. A scatter plot depicting the independent variables used in the regression, lfdi (log of Foreign Direct Investment from all countries excluding U.S.A) and lcomp (log of the compensation of employees on the lhdi (log of the HDI of the panel data countries).

## Results

Table #1 shown below is the results following the regression of our model. We were able to find that when the HDI increases by a unit of 1%, the compensation of employees that are hired for outsourcing increases by 1.2%. The R-squared value for this model is 0.7705, indicating a positive correlation of the variables. We are able to verify now that our fixed effects for year and country are statistically significant. Notably, many countries are shown to have quite the percent change in their HDI based on the previous years U.S. MNEs investment. For example, Chad's HDI changes by approximately -28.6%, and India shows an increase by approx. 26.5%.

**Table #1**

Ind	Coef.	St.Err.	t-value	Sig.
lfdi_L1	0.000	0.002	-0.21	
lcomp_L1	0.013	0.008	1.58	
2001	0.054	0.024	2.25	**
2002	0.067	0.023	2.88	***
2003	0.079	0.021	3.73	***
2004	0.102	0.021	4.87	***
2005	0.122	0.021	5.78	***
2006	0.136	0.022	6.25	***
2007	0.151	0.024	6.31	***
2008	0.156	0.028	5.63	***
Bangladesh	0.171	0.019	9.05	***
Benin	0.052	0.043	1.22	
Burkina Faso	-0.253	0.044	-5.71	***
Cambodia	0.148	0.035	4.17	***
Cameroun	0.120	0.024	5.08	***
Chad	-0.286	0.009	-31.06	***
Comoros	0.162	0.029	5.55	***
Djibouti	-0.032	0.039	-0.84	
Ethiopia	-0.248	0.035	-7.09	***
Ghana	0.152	0.014	10.52	***
Guinea	-0.145	0.032	-4.56	***
Haiti	0.071	0.030	2.36	**
India	0.265	0.042	6.28	***
Kenya	0.102	0.014	7.39	***
Laos People	0.188	0.035	5.44	***
Liberia	-0.055	0.013	-4.21	***
Madagascar	0.150	0.024	6.35	***
Madaw	-0.123	0.020	-6.21	***
Mali	-0.138	0.044	-3.15	***
Mauritania	0.116	0.044	2.63	***
Mozambique	-0.170	0.040	-4.20	***
Myanmar	0.125	0.053	2.38	**
Nepal	0.128	0.039	3.33	***
Nigeria	0.043	0.012	3.70	***
Pakistan	0.121	0.010	11.73	***
Papua New Guinea	0.081	0.018	4.55	***
Senegal	0.014	0.026	0.55	
Sierra Leone	-0.204	0.037	-5.56	***
Solomon Islands...	0.236	0.051	4.66	***
Togo	0.035	0.040	0.87	
Uganda	0.043	0.038	1.13	
Yemen	0.094	0.016	6.02	***
Zambia	0.098	0.023	4.19	***
Zimbabwe	0.000	0.018	0.53	
Constant	-0.994	0.063	-15.84	***

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Conclusions

Our results show that U.S MNEs FDI to the panel countries has a positive effect on the well-being of those receiving the foreign investment. Our data, retrieved from the U.S Direct Investment Abroad, World Bank, and Human Development Index, provides evidence that during the years 2000-2008, underdeveloped/developing countries benefited from U.S direct investment abroad in multiple ways. Additionally, our results boast that there is a positive correlation between an increase in employment levels and an increase in HDI in the panel countries we studied.

After running many regression combinations, we are able to conclude with confidence that outsourcing from U.S. MNEs to underdeveloped/developing countries has correlation with their welfare. This research suggests that additional studies may be beneficial to understanding more about this relationship.



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