

# The Efficiency of Human Capital Allocations in Developing Countries

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## Online Appendices

### A. Mincerian Regressions

The estimates of the gains from reallocation,  $R$ , are based on Mincerian regressions made within each country. These are used both to determine the industry-specific wage premium and the amount of individual human capital. The underlying regressions are not reported in the main body of the paper.

Tables A.1 and A.2 show the estimated industry dummies for each country with no other controls included. Agriculture is the excluded industry. Standard errors are reported in parentheses. The outcome of the joint test that all industry dummies are equal to zero is reported at the foot of the table, along with the p-value of the test. A p-value of 0.000 indicates that the p-value was less than 0.001. These estimates are the basis for the values of  $R$  found in column (1) of table 3 in the main paper.

Tables A.3 and A.4 show similar regressions, but using the full set of controls for human capital: years of education, age, age-squared, gender, occupation dummies, and occupation/education interactions. These estimates are the basis for the values of  $R$  found in column (4) of table 3 of the main paper.

Results for the regressions in the intermediate cases (columns 2 and 3 of table 3 in the main paper) are not reported for brevity's sake, but are available upon request.

### B. United States Data

The estimated gains from reallocation in the United States are based on the Current Population Survey, March extract, 2000. Only those reporting themselves as “Employed - at work” are included in the estimation, consistent with the method used with the RIGA data. Observations were dropped if they did not have age, wage, or gender data.

Several recodes of the CPS data were necessary to have industry and occupation definitions harmonized with the RIGA datasets and ensure an equal comparison.

- Education (variable *grade92* in the CPS)
  - Less than 1st grade (coded 31 in CPS) recoded to 1 year of education
  - Up to fourth grade (32) recoded to 4 years
  - Up to sixth grade (33) recoded to 6 years
  - Up to eighth grade (34) recoded to 8 years
  - 9th grade (35) recoded to 9 years
  - 10th grade (36) recoded to 10 years

- 11th grade (37) recoded to 11 years
  - 12th with no diploma (38) and high school graduate or GED (39) recoded to 12 years
  - Some college, no degree (40) recoded to 13 years
  - Associates degree (41 and 42) recoded to 14 years
  - Bachelors degree (43) recoded to 16 years
  - Masters degree (44) recoded to 18 years
  - Professional degree (45) recoded to 19 years
  - Ph.D. (46) recoded to 21 years
- Occupation (variable *docc80* in CPS)
    - Codes 1,2,3 recoded to 1 (Senior officials and managers)
    - Codes 4–12 recoded to 2 (Professionals)
    - Codes 13–15 recoded to 3 (Technicians)
    - Codes 21–26 recoded to 4 (Clerks)
    - Codes 16–20 and 27–32 recoded to 5 (Sales and service workers)
    - Code 43 recoded to 6 (Skilled agriculture workers)
    - Codes 33,34 recoded to 7 (Craft and related trade workers)
    - Codes 36–39 recoded to 8 (Plant and machine operators)
    - Codes 40,41,42,44,45 recoded to 9 (Elementary laborers)
    - Code 46 recoded to 10 (Armed forces)
  - Industry (variable *dind* in CPS)
    - Codes 1,2,46 recoded to 1 (Ag, Forestry, Fisheries)
    - Code 3 recoded to 2 (Mining)
    - Codes 3–28 recoded to 3 (Manufacturing)
    - Code 31 recoded to 4 (Utilities)
    - Code 4 recoded to 5 (Construction)
    - Codes 32,33 recoded to 6 (Wholesale and retail trade)
    - Codes 29,30 recoded to 7 (Transport and communications)
    - Codes 34,35 recoded to 8 (Finance and real estate)
    - Codes 36–45 recoded to 9 (Services)

### C. Additional Sector-level Information

Table A.5 reports the percent allocation of jobs reported for a country in the RIGA database in each of the sectors. Table A.6 reports the actual distribution of human capital across sectors for each country, where the calculation of human capital is made using a Mincerian regression with: sector dummies, years of education, age, age-squared, and a gender dummy. Table A.7 shows the optimal allocation of human capital across sectors once I have removed the wage-wedges.

## D. Industry coding from IPUMS

Most censuses from IPUMS do not report industry of employment exactly to standard ISIC codes. For those that do not, I have recoded their reported values into ISIC codes to match the RIGA data.

- **Bangladesh:**

- Code 4 recoded to 1 (Agriculture)
- Code 5 recoded to 3 (Manufacturing)
- Code 6 recoded to 4 (Utilities)
- Code 7 recoded to 5 (Construction)
- Code 10 recoded to 6 (Wholesale and retail trade)
- Code 8 recoded to 7 (Transport and communications)
- Code 11 recoded to 9 (Services)

- **Ecuador, Ghana, Nepal, Nicaragua, Panama, Malawi, and Vietnam:**

- Codes 10,20,30,40,50,60 recoded to 1,2,3,4,5,6 respectively
- Code 80 recoded to 7 (Transport and communications)
- Codes 90,111 recoded to 8 (Finance and real estate)
- Codes 100,110,112,113,114,120 recoded to 9 (Services)

- **Indonesia:**

- Codes 1,2,3,4,5 recoded to 1 (Agriculture)
- Code 6 recoded to 3 (Manufacturing)
- Code 7 recoded to 6 (Wholesale and retail trade)
- Code 9 recoded to 7 (Transport and communications)
- Code 8 recoded to 9 (Services)

## E. Results using Yearly Data

In the main paper, I estimate gains from reallocation based on daily wages. This ignores the fact that workers in different sectors may work different numbers of days. Agricultural work, for example, is typically seasonal and may involve fewer work days per year than manufacturing. The RIGA database has information on days worked per year, and so total yearly earnings for each worker can be calculated. Here, I use those yearly earnings as the dependent variable in the Mincerian regressions underlying the estimates of  $R$ . Table A.9 presents the same set of results as found in table 3 of the main paper, only using yearly earnings.

Appendix Table A.1: Mincerian Regressions, No Human Capital Controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Albania	Bulgaria	Tajikistan	Bangladesh	Indonesia	Nepal	Vietnam
Mining	-0.345 (0.135)				0.688 (0.128)	0.587 (0.101)	-0.048 (0.081)
Manufacturing	-0.667 (0.135)	-0.046 (0.073)	0.836 (0.122)	0.214 (0.027)	0.413 (0.035)	0.331 (0.040)	0.058 (0.022)
Utilities	-0.627 (0.144)			0.748 (0.113)	0.778 (0.106)	0.754 (0.172)	-0.006 (0.108)
Construction	-0.246 (0.134)	0.012 (0.097)	1.350 (0.079)	0.442 (0.028)	0.374 (0.040)	0.611 (0.022)	0.177 (0.022)
Commerce	-0.765 (0.139)	-0.274 (0.074)	1.283 (0.068)	0.043 (0.077)	0.411 (0.042)	0.525 (0.066)	0.162 (0.037)
Transportation	-0.526 (0.148)	-0.037 (0.084)	1.212 (0.111)	0.547 (0.023)	0.654 (0.050)	0.853 (0.098)	0.326 (0.043)
Finance	-0.106 (0.156)	-0.266 (0.193)		0.382 (0.041)	1.038 (0.077)	1.233 (0.163)	-0.328 (0.130)
Services	-0.514 (0.128)	-0.057 (0.074)	0.980 (0.035)	0.350 (0.037)	0.828 (0.034)	0.696 (0.037)	-0.310 (0.027)
Miscellaneous				0.250 (0.077)	0.698 (0.178)	0.086 (0.184)	
Observations	2381	3089	4571	6893	8818	4387	6211
Joint F-stat	14.19	7.54	227.60	98.39	79.72	122.40	42.13
Joint p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: Log daily wage is the dependent variable. Mincerian regressions for each country using only industry dummies as explanatory variables. Standard errors in parentheses. Missing cells imply that fewer than 10 individuals in sample reported as working in that sector. The F-test has a null that all sector dummies are jointly equal to zero. Agriculture is the excluded category.

Appendix Table A.2: Mincerian Regressions, No Human Capital Controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Ecuador	Guatemala	Nicaragua	Panama	Ghana	Malawi	Nigeria
Mining	1.378 (0.123)	0.311 (0.131)	0.414 (0.147)	0.421 (0.319)	1.205 (0.097)		0.913 (0.180)
Manufacturing	1.061 (0.086)	0.403 (0.040)	0.506 (0.033)	0.567 (0.048)	0.078 (0.107)	0.768 (0.042)	0.578 (0.234)
Utilities	1.414 (0.158)	0.601 (0.195)	1.024 (0.093)	0.904 (0.110)	0.425 (0.227)	0.940 (0.179)	0.356 (0.311)
Construction	1.250 (0.084)	0.548 (0.038)	0.602 (0.047)	0.612 (0.050)	0.269 (0.127)	0.134 (0.053)	0.877 (0.190)
Commerce	0.899 (0.087)	0.487 (0.038)	0.550 (0.042)	0.595 (0.036)	-0.192 (0.112)	0.585 (0.074)	0.500 (0.101)
Transportation	1.262 (0.091)	0.735 (0.052)	0.766 (0.088)	0.736 (0.056)	0.482 (0.113)	1.226 (0.100)	0.511 (0.118)
Finance	1.648 (0.101)	1.085 (0.058)	1.087 (0.101)	1.220 (0.061)	0.763 (0.154)	1.079 (0.127)	1.320 (0.132)
Services	1.248 (0.085)	0.591 (0.030)	0.467 (0.030)	0.761 (0.034)	0.664 (0.087)	0.945 (0.037)	1.152 (0.089)
Miscellaneous	0.399 (0.088)	0.789 (0.150)	0.851 (0.139)	1.188 (0.144)		0.792 (0.162)	0.761 (0.185)
Observations	7790	10102	5404	7741	1618	13001	3685
Joint F-stat	82.84	103.04	62.23	77.78	36.23	152.19	27.08
Joint p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: Log daily wage is the dependent variable. Mincerian regressions for each country using only industry dummies as explanatory variables. Standard errors in parentheses. Missing cells imply that fewer than 10 individuals in sample reported as working in that sector. The F-test has a null that all sector dummies are jointly equal to zero. Agriculture is the excluded category.

Appendix Table A.3: Mincerian Regressions, All Human Capital Controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Albania	Bulgaria	Tajikistan	Bangladesh	Indonesia	Nepal	Vietnam
Mining	-0.006 (0.285)				0.416 (0.122)	0.354 (0.112)	-0.091 (0.078)
Manufacturing	-0.195 (0.284)	-0.092 (0.095)	0.565 (0.118)	0.070 (0.039)	0.091 (0.040)	0.119 (0.046)	0.061 (0.029)
Utilities	-0.256 (0.287)			0.437 (0.099)	-0.050 (0.114)	0.422 (0.166)	-0.045 (0.108)
Construction	0.166 (0.283)	-0.010 (0.116)	0.974 (0.090)	0.228 (0.042)	0.040 (0.057)	0.464 (0.030)	0.127 (0.033)
Commerce	-0.183 (0.283)	-0.337 (0.097)	0.914 (0.088)	-0.124 (0.073)	0.186 (0.043)	0.233 (0.083)	0.242 (0.053)
Transportation	-0.117 (0.285)	-0.104 (0.108)	0.611 (0.121)	0.217 (0.039)	0.102 (0.060)	0.527 (0.086)	0.167 (0.050)
Finance	0.220 (0.291)	-0.485 (0.202)		0.078 (0.046)	0.215 (0.088)	0.622 (0.164)	-0.287 (0.135)
Services	-0.131 (0.277)	-0.217 (0.099)	0.637 (0.050)	0.091 (0.044)	0.141 (0.040)	0.352 (0.052)	-0.349 (0.035)
Miscellaneous				0.125 (0.060)	0.402 (0.171)	-0.056 (0.158)	
Observations	2381	3089	4571	6893	8816	4387	6211
Joint F-stat	6.80	6.88	52.92	10.92	4.42	33.84	29.72
Joint p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: Log daily wage is the dependent variable. Mincerian regressions for each country using industry dummies as well as age, age-squared, gender, years of education, dummies for occupation, and the interaction of occupation with years of education as explanatory variables. Standard errors in parentheses. Missing cells imply that fewer than 10 individuals in sample reported as working in that sector. The F-test has a null that all sector dummies are jointly equal to zero. Agriculture is the excluded category.

Appendix Table A.4: Mincerian Regressions, All Human Capital Controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Ecuador	Guatemala	Nicaragua	Panama	Ghana	Malawi	Nigeria
Mining	1.054 (0.156)	0.191 (0.131)	0.221 (0.157)	0.082 (0.228)	1.112 (0.121)		1.239 (0.407)
Manufacturing	0.759 (0.100)	0.241 (0.044)	0.288 (0.038)	0.109 (0.075)	0.124 (0.103)	0.234 (0.042)	1.239 (0.438)
Utilities	0.876 (0.165)	0.102 (0.193)	0.601 (0.090)	0.320 (0.140)	0.265 (0.188)	0.249 (0.180)	1.160 (0.465)
Construction	0.954 (0.101)	0.445 (0.049)	0.470 (0.044)	0.253 (0.080)	0.194 (0.125)	-0.231 (0.049)	1.427 (0.453)
Commerce	0.676 (0.104)	0.264 (0.041)	0.302 (0.043)	0.117 (0.075)	-0.140 (0.111)	0.147 (0.071)	0.645 (0.329)
Transportation	0.761 (0.107)	0.335 (0.062)	0.438 (0.086)	0.110 (0.082)	0.153 (0.108)	0.415 (0.096)	0.608 (0.349)
Finance	1.081 (0.119)	0.446 (0.057)	0.475 (0.088)	0.401 (0.090)	0.362 (0.134)	0.114 (0.123)	1.301 (0.351)
Services	0.805 (0.098)	0.308 (0.038)	0.219 (0.034)	0.220 (0.073)	0.173 (0.090)	0.280 (0.040)	1.218 (0.344)
Miscellaneous	0.562 (0.107)	0.322 (0.148)	0.321 (0.150)	0.617 (0.116)	0.286 (0.174)	0.286 (0.174)	0.694 (0.334)
Observations	7790	10102	5404	7741	1618	13001	3685
Joint F-stat	15.39	14.48	18.73	7.61	16.71	15.39	3.87
Joint p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: Log daily wage is the dependent variable. Mincerian regressions for each country using industry dummies as well as age, age-squared, gender, years of education, dummies for occupation, and the interaction of occupation with years of education as explanatory variables. Standard errors in parentheses. Missing cells imply that fewer than 10 individuals in sample reported as working in that sector. The F-test has a null that all sector dummies are jointly equal to zero. Agriculture is the excluded category.

Appendix Table A.5: Sectoral Allocation of Jobs, in Percents, by Country

Country (Year)	Sector:									
	Agriculture	Mining	Manufacturing	Utilities	Construction	Commerce	Transportation	Finance	Services	
Albania (2005)	4.6	2.3	12.3	3.6	18.4	12.3	4.9	1.3	40.5	
Bulgaria (2001)	6.8	-	27.0	-	4.8	18.7	10.3	1.7	30.7	
Tajikistan (2003)	54.6	-	1.4	-	3.9	4.2	3.3	-	32.5	
Bangladesh (2000)	36.5	-	21.4	0.6	5.3	2.2	10.3	7.2	14.2	
Indonesia (2000)	21.6	0.8	18.9	0.5	8.6	11.1	5.0	1.4	31.8	
Nepal (2003)	47.2	0.7	13.0	0.8	16.1	2.7	3.2	0.8	14.5	
Vietnam (1998)	31.2	1.3	20.1	0.9	11.5	5.0	4.0	0.7	25.2	
Ecuador (1995)	23.9	0.9	13.7	0.7	8.7	16.7	4.4	1.6	23.9	
Guatemala (2000)	34.2	0.2	12.4	0.6	7.9	13.1	3.3	3.4	24.7	
Nicaragua (1998)	31.3	0.5	10.6	1.1	6.4	13.3	3.9	0.7	31.4	
Nicaragua (2001)	29.4	0.8	12.0	1.1	7.8	12.4	3.7	0.8	31.6	
Panama (2003)	21.3	0.1	6.1	0.8	7.4	21.7	4.7	1.5	36.2	
Ghana (1998)	11.0	3.3	15.2	0.8	4.9	10.8	9.1	4.1	40.7	
Malawi (2004)	76.9	-	5.2	0.4	3.6	2.2	1.0	0.4	9.9	
Nigeria (2004)	17.4	0.5	3.4	0.7	1.9	22.9	6.9	2.6	40.9	

Notes: The table reports the percentage of wage-earning jobs that are in each sector. The data are from the RIGA database, Davis et al (2010). See text for more details. Blank cells indicate that no individuals reported themselves as working in that sector.



Appendix Table A.6: Actual allocation of Human Capital

Country (Year)	Sector:									
	Agriculture	Mining	Manufacturing	Utilities	Construction	Commerce	Transportation	Finance	Services	
Albania (2005)	6.7	1.4	13.8	3.0	24.8	13.3	5.6	0.8	30.5	
Bulgaria (2001)	7.9	-	25.9	-	5.1	16.1	9.5	2.7	32.8	
Tajikistan (2003)	64.0	-	1.2	-	3.6	3.0	3.1	-	25.1	
Bangladesh (2000)	34.7	-	18.9	0.6	4.5	2.0	9.4	8.0	20.0	
Indonesia (2000)	18.3	0.9	16.7	0.6	7.8	10.5	4.9	1.7	38.4	
Nepal (2003)	45.0	0.5	13.1	1.2	16.0	2.6	4.1	0.8	15.4	
Vietnam (1998)	29.0	1.5	19.5	1.1	11.8	4.3	4.0	0.7	28.2	
Ecuador (1995)	31.8	0.8	11.2	0.8	6.5	15.4	3.9	1.1	21.9	
Guatemala (2000)	29.5	0.1	13.7	0.7	8.8	14.2	3.5	4.0	25.2	
Nicaragua (1998)	23.9	0.4	11.7	0.9	6.9	14.7	6.7	0.7	32.3	
Nicaragua (2001)	22.7	0.9	12.7	1.3	7.7	14.8	4.7	0.9	33.8	
Panama (2003)	14.1	0.1	6.5	0.8	7.3	23.4	5.4	1.9	40.0	
Ghana (1998)	9.2	2.8	13.2	0.5	3.9	10.2	9.2	4.3	46.7	
Malawi (2004)	66.3	-	5.5	0.7	4.4	2.9	1.7	1.1	16.9	
Nigeria (2004)	10.8	0.2	3.3	0.5	1.6	18.9	4.4	1.3	55.6	

Notes: The table reports the actual fraction of total human capital in each sector. The values are based on estimates using the basic human capital controls: age, education, and gender. Within countries, the values do not sum to zero because the miscellaneous sector is excluded from the table.

Appendix Table A.7: Optimal allocation of Human Capital

Country (Year)	Sector:									
	Agriculture	Mining	Manufacturing	Utilities	Construction	Commerce	Transportation	Finance	Services	
Albania (2005)	27.5	1.4	6.7	1.1	39.1	4.1	2.9	1.5	15.8	
Bulgaria (2001)	12.5	-	29.7	-	6.9	8.8	11.0	1.1	30.0	
Tajikistan (2003)	7.6	-	2.3	-	20.1	18.1	9.4	-	42.4	
Bangladesh (2000)	18.2	-	23.7	1.9	8.6	1.3	20.0	9.0	15.5	
Indonesia (2000)	8.9	1.6	13.1	0.3	4.9	8.2	4.2	2.1	56.3	
Nepal (2003)	17.1	0.7	8.7	2.0	30.1	2.3	12.3	3.5	22.7	
Vietnam (1998)	33.7	1.1	22.8	1.0	17.3	6.8	8.7	0.2	8.5	
Ecuador (1995)	1.9	2.8	15.4	1.8	17.9	14.0	6.6	5.0	34.1	
Guatemala (2000)	11.9	0.1	12.4	0.4	12.2	14.4	5.7	11.2	31.6	
Nicaragua (1998)	7.6	1.1	16.1	3.1	5.5	12.7	13.6	1.6	38.2	
Nicaragua (2001)	8.4	0.9	14.5	4.5	13.2	17.6	9.9	2.6	28.2	
Panama (2003)	4.0	0.1	5.5	1.3	8.5	19.5	5.2	5.6	50.3	
Ghana (1998)	2.8	28.2	5.8	0.4	2.2	1.9	6.1	6.3	46.2	
Malawi (2004)	34.9	-	9.1	1.4	1.4	3.3	7.9	1.5	39.3	
Nigeria (2004)	0.6	0.1	1.3	0.2	1.0	4.8	1.1	4.0	86.6	

Notes: The table reports the optimal fraction of total human capital in each sector, having eliminated all wage-wedges ( $1 + \tau_j^W$ ). The values are based on estimates using the basic human capital controls: age, education, and gender, as well as an elasticity of wages of  $\alpha = 0.3$  and an unmeasured human capital share of  $\gamma = 0$ . Within countries, the values do not sum to one because the miscellaneous sector is excluded from the table.

Appendix Table A.8: Allocation of Workers, IPUMS Census Data

Country (Year)	Sector:									
	Agriculture	Mining	Manufacturing	Utilities	Construction	Commerce	Transportation	Finance	Services	
<i>Asia</i>										
Bangladesh (2001)	67.7	-	4.4	0.2	3.1	17.9	4.9	-	2.3	
Indonesia (2000)	53.4	-	9.2	-	-	14.2	2.6	-	20.6	
Nepal (2001)	67.0	0.2	8.7	1.5	2.9	8.8	1.7	0.8	8.4	
Vietnam (2009)	62.8	0.6	10.7	0.3	4.9	8.8	2.7	1.2	7.8	
<i>Latin America</i>										
Ecuador (1990)	36.3	0.6	12.7	0.4	6.3	14.8	4.3	2.6	21.9	
Nicaragua (1995)	45.0	0.3	9.9	0.5	4.4	14.9	3.6	1.9	19.4	
Nicaragua (2005)	35.6	0.3	12.7	0.3	5.6	16.9	4.1	3.6	20.8	
Panama (2000)	20.7	0.9	8.8	0.8	8.5	19.3	7.4	6.7	26.9	
<i>Sub-saharan Africa</i>										
Ghana (2000)	55.0	1.8	10.8	0.4	2.9	15.1	2.9	1.5	9.5	
Malawi (2008)	67.1	0.1	5.1	0.2	4.1	12.4	1.6	2.1	7.3	

Notes: The table shows the sector distribution of all workers, including both wage-workers and self-employed. Data for all countries is from IPUMS International, except Nigeria, where the data is obtained directly from the Nigerian General Household Survey of 2005.

Appendix Table A.9: Estimated Efficiency Gain from Re-allocation,  $R$ , Using Yearly Earnings

Country (Year)	Baseline:			Including self-employed:			Wage elasticity:		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Albania (2005)	1.045	1.046	1.024	1.023	-	-	-	1.235	1.088
Bulgaria (2001)	1.009	1.010	1.014	1.014	-	-	-	1.032	1.016
Tajikistan (2003)	1.334	1.243	1.148	1.150	-	-	-	1.626	1.379
Bangladesh (2000)	1.042	1.026	1.009	1.009	1.026	1.036	1.026	1.097	1.044
Indonesia (2000)	1.090	1.017	1.005	1.005	1.022	1.017	1.026	1.056	1.028
Nepal (2003)	1.111	1.051	1.041	1.043	1.053	1.046	1.067	1.172	1.085
Vietnam (1998)	1.042	1.043	1.045	1.043	1.025	1.038	1.025	1.115	1.067
Ecuador (1995)	1.218	1.139	1.099	1.095	1.189	1.135	1.252	1.306	1.197
Guatemala (2000)	1.088	1.027	1.021	1.022	-	-	-	1.094	1.044
Nicaragua (1998)	1.078	1.035	1.029	1.029	1.047	1.040	1.055	1.115	1.057
Nicaragua (2001)	1.068	1.031	1.024	1.025	1.040	1.035	1.046	1.120	1.053
Panama (2003)	1.061	1.022	1.009	1.009	1.035	1.027	1.040	1.091	1.037
Ghana (1998)	1.146	1.102	1.128	1.134	1.120	1.122	1.089	1.553	1.216
Malawi (2004)	1.192	1.052	1.027	1.025	1.043	1.033	1.051	1.154	1.083
Nigeria (2004)	1.164	1.119	1.140	1.155	-	-	-	1.291	1.181
United States (2000, weekly)	1.051	1.021	1.018	1.018	-	-	-	1.065	1.030
United States (2000, hourly)	1.023	1.009	1.009	1.009	-	-	-	1.034	1.015
<i>Controls included in specification:</i>									
Education and Demographic	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation	No	No	Yes	Yes	No	No	No	No	No
Occupation-specific returns	No	No	No	Yes	No	No	No	No	No
Rel. self-emp. ag. wage	-	-	-	-	1.0	0.1	1.0	-	-
Rel. self-emp. non-ag. wage	-	-	-	-	1.0	0.1	0.1	-	-
Wage elasticity ( $\alpha$ )	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.2

Notes: This table uses yearly wages, rather than daily wages, to estimate wage wedges, capturing differences in days worked per year. The value of  $R$  is the ratio of wages under the optimal allocation of human capital to the observed level of wages, see text for details. The estimates of  $R$  depend upon estimated Mincer equations, using the human capital controls indicated, again see text for details regarding the exact specification. The self-employed columns are calculated using distributions of workers from IPUMS that include self-employed workers, and with their earnings relative to wage-workers in their sector set as noted in the table. The wage elasticity columns refer to the value of  $\alpha$ , which dictates the response of wages to the amount of human capital in a sector. The different rows for the U.S. refer to whether weekly earnings or hourly earnings are used in the calculations.