

Geographic, Gender and Skill Structure of International Migration*

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Abstract

This paper presents a new bilateral data set documenting international migration stocks by gender, education level, origin and destination. We build on existing works recording migration to OECD host countries in 1990 and 2000. We then expand their coverage by collecting or estimating migration to non-OECD destinations. We provide comprehensive 195x195 matrices of international migration for 1990-2000, distinguishing migrants with college education and the less educated. This unique database allows us to characterize the origin, destination and education level of about 100 million adult migrants in 2000, and 80 million in 1990. We identify the main sending and receiving countries and the largest migration corridors. In particular, we show that South-North corridors are dominant in 2000, exhibit the largest growth rates, and are increasingly skilled.

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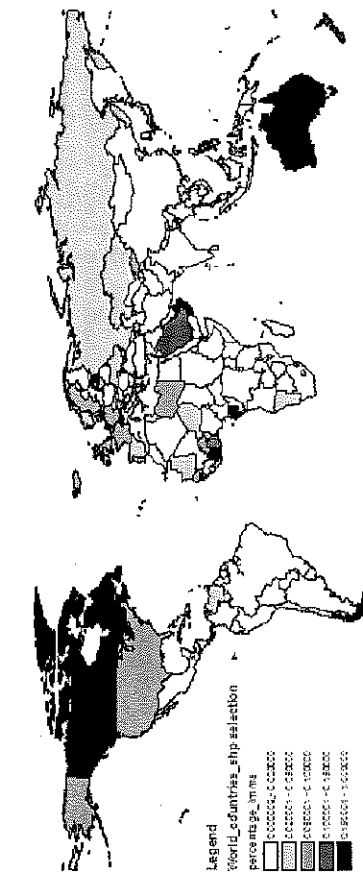
Table 4. Size (in millions), structure (in percent), and growth rate (in percent) of immigrant and emigrant stocks by region in 2000

Group	Immigration				Emigration			
	Total (mil.)	High-skill (%)	Women (%)	Growth (%)	Total (mil.)	High-skill (%)	Women (%)	Growth (%)
HIGH	67.8	33.0	48.7	36.1	25.8	36.0	52.0	9.1
DEV	32.7	11.6	48.8	7.6	74.8	22.6	47.7	32.0
LOW	7.6	4.1	47.3	31.0	14.9	9.4	44.8	21.9
LDC	5.7	4.1	49.2	8.9	15.2	8.6	43.5	18.4
SIDS	0.9	24.2	52.2	38.4	4.5	34.3	55.1	57.2
USA	24.3	42.7	51.0	62.1	0.9	58.8	50.4	18.9
CANZ	8.6	52.3	51.7	20.1	1.5	57.1	54.0	16.8
GCC	5.7	18.8	20.9	24.4	0.4	22.9	35.4	23.4
EU27	22.3	21.9	50.5	26.2	20.2	31.5	51.9	6.4
LAC	2.4	15.7	49.1	32.1	15.6	25.0	50.2	89.5
SSA	12.7	2.7	45.5	21.7	14.1	8.3	45.6	28.8
CIS	7.9	19.0	55.0	5.7	10.6	24.1	55.8	5.7
INDIA	1.6	10.0	48.8	-26.3	4.9	31.8	39.7	2.8
CHINA	0.1	36.4	56.0	237.3	4.1	28.1	52.4	25.9
MENA	4.2	22.5	49.2	4.0	8.4	23.8	38.5	24.2
ASIA	8.2	18.3	51.1	6.0	16.2	32.2	48.6	33.9
OTHERS	2.4	20.9	52.8	19.1	3.6	22.3	49.0	30.8
TOTAL	100.5	26.1	48.8	25.3	100.5	26.1	48.8	25.3

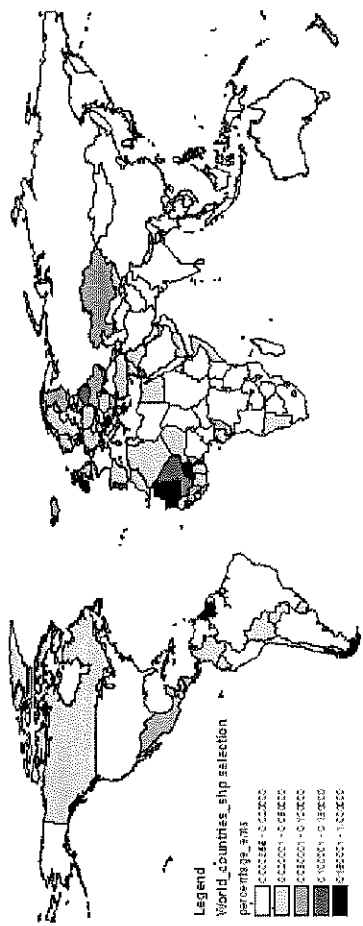
Notes. Column 'Total' gives the aggregate regional stock of migrants in millions (mil.); 'High-skill' gives the percentage (if %) or stock (if mil.) of high-skilled migrants; 'Women' gives the percentage (if %) or stock (if mil.) of female migrants; and 'Growth' gives the growth rate of the migration stock over 1990-2000. For high-income (HIGH), developing (DEV) and low-income countries (LOW), we use the World Bank classification. Least developed countries (LDC) and small island developing states (SIDS) are defined by the United Nations. EU27: 27 countries of the European Union, USA: United States of America, CANZ: Canada + Australia + New Zealand; CIS: Commonwealth of independent States of the former USSR, MENA: Middle East and Northern Africa, SSA: Sub-Saharan Africa, ASIA: Other Asian countries excluding GCC, CIS and MENA. Each country only belongs to one geographical group.

Figure 2. Geographical distribution of migration intensity and positive selection in 2000

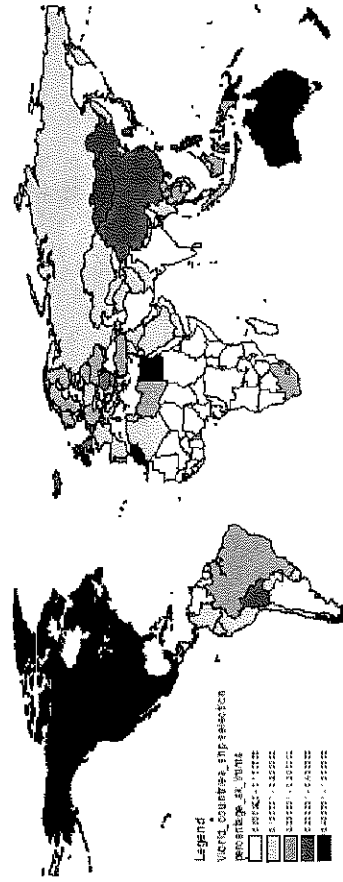
2a. Immigration stock as percentage of the population



2b. Emigration stock as percentage of the population



2c. High-skilled immigration as percentage of total immigration



2d. High-skilled emigration as percentage of total emigration

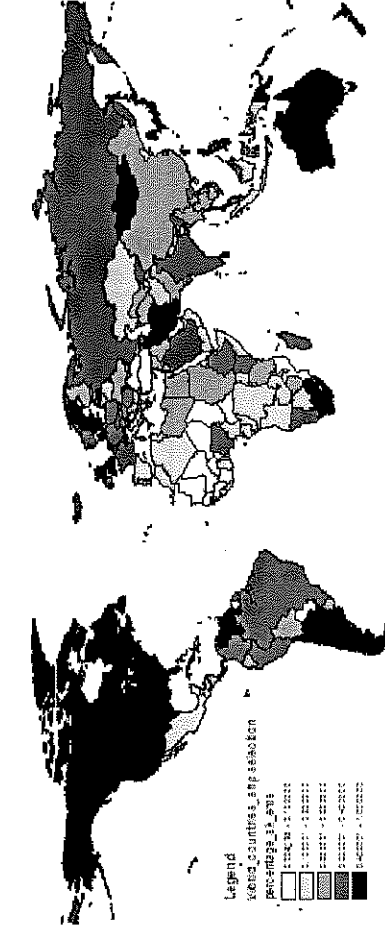


Table 5. Main receiving and sending countries in 2000

Total migration stock (in millions)				High-skilled migration stock (in millions)				Migration stock as percentage of population (%)					
Main receiving countries				Main receiving countries				Main receiving countries					
Country	Immig.	High-sk. ^a	Women ^a Growth ^a	Country	Immig.	Women ^b	Growth ^b	Country	Immig.	High-sk. ^a	Women ^a	Growth ^a	
U.S.	24.3	42.7	51.0	62.1	U.S.	10.3	50.0	66.8	Macao	81.3	16.2	60.7	13.1
Russia	4.9	18.1	54.3	-2.2	Canada	2.7	48.4	45.2	Gabon	67.8	1.5	44.5	-8.8
Germany	4.7	21.8	46.2	45.9	Australia	1.6	49.3	39.5	Qatar	67.0	18.3	25.8	27.3
Canada	4.6	58.8	52.3	25.2	U.K.	1.2	50.2	122.8	Cote d'Ivoire	65.8	0.9	44.7	19.6
Cote d'Ivoire	3.9	0.9	44.7	19.6	Germany	1.0	45.2	87.4	West B-Gaza	63.9	9.8	48.9	25.4
France	3.7	16.4	49.5	8.8	Russia	0.9	52.2	58.8	Gambia	60.3	0.5	48.1	97.4
U.K.	3.5	34.9	53.0	29.7	France	0.6	46.6	80.6	U.A.E.	59.9	18.4	28.0	71.8
Australia	3.5	45.2	50.8	12.9	Saudi Arabia	0.6	11.2	45.2	Kuwait	50.8	19.2	32.8	36.6
Saudi Arabia	3.1	18.8	14.1	8.3	Israel	0.5	53.2	220.1	Israel	45.4	33.9	54.5	28.1
Ghana	2.1	1.6	39.3	80.8	Netherlands	0.4	51.6	46.6	Bahrain	41.5	20.8	44.0	32.7
Main sending countries				Main sending countries				Main sending countries					
Country	Emig.	High-sk. ^a	Women ^a	Growth ^a	Country	Emig.	Women ^b	Growth ^b	Country	Emig.	High-sk. ^a	Women ^a	Growth ^a
Mexico	6.5	14.8	45.4	138.6	U.K.	1.6	47.1	31.5	Suriname	89.4	18.4	53.5	19.3
India	4.9	31.8	39.7	2.8	India	1.6	36.9	69.3	Burkina F.	82.7	0.3	45.8	23.5
China	4.1	28.1	52.4	25.9	Philippines	1.2	59.7	80.1	Guyana	69.2	40.2	54.9	72.3
U.K.	3.4	46.6	51.0	4.2	China	1.1	48.5	98.7	Cape Verde	57.4	8.3	53.6	55.0
Ukraine	3.3	22.2	58.2	-14.1	Germany	1.0	51.6	19.6	Jamaica	53.9	42.1	57.0	47.5
Burkina F.	2.9	0.3	45.8	23.5	Mexico	1.0	47.2	159.7	Togo	52.2	1.8	40.6	45.9
Russia	2.8	30.9	57.5	-8.9	Russia	0.9	55.9	47.2	Barbados	48.9	41.3	54.5	18.1
Italy	2.6	16.5	46.7	-4.0	Ukraine	0.7	55.2	90.5	Mauritania	43.2	1.2	22.7	126.7
Germany	2.6	39.6	56.8	4.3	Korea	0.6	52.1	84.4	West B-Gaza	41.8	20.1	45.7	4.7
Philippines	2.3	54.5	59.0	66.9	Vietnam	0.5	45.5	135.4	Guinea-Bissau	39.6	1.1	63.6	214.4

Notes. We exclude microstates with less than 100,000 inhabitants. Superscript ^a denotes percentage or 1990-2000 growth rate of the total migration stock. Superscript ^b denotes percentage or 1990-2000 growth rate of the high-skill migration stock.

Table 6. Main migration corridors in 2000 and in 1990-2000 (top-40)

Largest migration stocks in 2000 (in thousands)					Largest migration net flows 1990-2000 (in thousands)				
Origin	Destination	Stock	H-S	Women	Origin	Destination	Flow	H-S	Women
Mexico	U.S.	6,374.8	14.4	45.2	Mexico	U.S.	3,718.8	15.2	45.1
Burkina F.	Ivory C.	2,238.5	0.3	44.7	India	U.S.	490.6	81.2	46.0
Ukraine	Russia	1,926.1*	15.8	58.3	Vietnam	U.S.	484.9	44.2	51.9
China	Hong Kong	1,620.5	12.9	50.6	Kazakhstan	Russia	467.6*	22.4	52.5
Turkey	Germany	1,272.0	6.3	45.8	Philippines	U.S.	418.2	80.8	62.5
Philippines	U.S.	1,163.6	71.7	58.6	Turkey	Germany	390.0	9.2	47.6
Kazakhstan	Russia	1,069.6*	18.8	51.1	China	U.S.	378.7	57.9	54.3
Russia	Ukraine	988.9*	25.1	56.0	Burkina F.	Ivory C.	367.5	0.3	44.7
U.K.	Australia	969.0	39.4	50.0	El Salvador	U.S.	341.3	19.4	48.3
India	Pakistan	905.6*	14.1	46.5	Ivory C.	Burkina F.	323.8*	0.7	56.3
Bangladesh	India	902.5*	7.8	47.8	Dom. Rep.	U.S.	287.0	23.0	56.0
China	U.S.	841.7	51.6	52.6	Korea	U.S.	265.5	78.1	57.1
India	U.S.	836.8	79.4	45.2	Russia	Kazakhstan	250.0*	21.4	60.1
Vietnam	U.S.	807.3	43.0	50.8	Togo	Ghana	242.8*	0.9	1.4
Cuba	U.S.	803.5	38.3	51.7	Mauritania	Ghana	211.6*	0.8	13.9
Mali	Ivory C.	792.3	0.4	45.0	Guatemala	U.S.	204.3	17.3	44.6
Belarus	Russia	717.1*	14.7	57.4	Jamaica	U.S.	203.7	46.4	60.1
Canada	U.S.	715.8	61.4	56.7	China	Hong Kong	198.6*	51.7	59.7
Korea	U.S.	676.6	64.6	58.3	Colombia	U.S.	181.7	44.9	58.5
Togo	Ghana	651.5*	1.0	36.1	Burkina F.	Ghana	180.9*	0.1	32.1
Germany	U.S.	646.8	59.8	60.4	Haiti	U.S.	168.1	46.6	59.2
U.K.	U.S.	637.6	65.7	56.3	India	U.A.E	156.2	23.9	23.3
El Salvador	U.S.	619.2	18.3	50.4	China	Canada	142.3	65.9	54.6
India	Saudi Arabia	604.6	18.8	14.1	Uzbekistan	Russia	137.6*	21.2	57.1
Egypt	Saudi Arabia	588.1	18.8	14.1	Cuba	U.S.	135.9	55.3	49.1
U.K.	Canada	580.3	63.0	53.5	Russia	Kyrgyzstan	133.9*	12.9	64.5
Portugal	France	536.2	4.0	48.6	Honduras	U.S.	133.7	21.0	48.1
Dom. Rep.	U.S.	527.5	27.3	55.8	Mali	Ivory C.	130.1	0.4	45.0
Burkina F.	Ghana	517.2*	0.3	47.8	Ukraine	Israel	128.9	66.7	56.7
Algeria	France	512.8	10.2	43.1	Ecuador	U.S.	128.1	28.9	47.3
Italy	U.S.	461.1	28.7	51.3	India	Canada	124.1	59.4	51.3
Italy	Germany	456.0	9.6	40.5	Pakistan	U.A.E	124.1	23.5	18.1
Jamaica	U.S.	449.8	44.3	57.2	Philippines	Hong Kong	120.3*	25.7	95.7
Indonesia	Malaysia	437.0*	1.3	42.7	Morocco	Spain	119.6	11.1	38.2
Morocco	France	423.8	12.8	45.0	Tajikistan	Russia	115.3*	20.7	48.6
Ireland	U.K.	422.4	24.6	54.8	Paraguay	Argentina	114.6	2.4	61.4
Pakistan	India	418.1*	12.6	50.4	Peru	U.S.	112.8	50.2	51.6
Ivory C.	Burkina F.	406.7*	1.4	54.3	Vietnam	Cambodia	112.6*	11.1	56.2
Colombia	U.S.	402.9	45.8	56.7	Italy	Germany	106.0	24.5	42.9
Korea	Japan	400.7	23.0	53.8	China	Japan	104.2	36.7	62.4

Notes. Migration net flows 1990-2000 = Migration stock in 2000 minus Migration stock in 1990. Columns 'H-S' and 'Women' give the proportion of high-skilled migrants and women in total migration. A superscript * denotes imputed value.