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UNIVERSITY OF
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BRAIN CIRCULATION: CANADA & ISRAEL

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INNOVATION POLICY BRIEF

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Brain Circulation: Canada & Israel

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Summary

High-skilled Prime working age (PWA) people are fundamental in securing economic growth. Therefore, a country's ability to attract PWA immigrants and encourage its domestic PWA population to remain put, is crucial to sustaining economic competitiveness. Looking at Canada and Israel, we found that Canada is currently benefitting from PWA brain gain while Israel is experiencing PWA brain drain. Given Canada's already high ability to attract high quality PWA immigrants, its policy should focus on circulating PWA migrants back home. With the acute shortage of high-skilled workers and unique geo-political and legal conditions in Israel, limiting its ability to attract PWA migrants, its policy should also focus on brain circulation. Accordingly, both Canada and Israel would do best if they focus their future activities on brain circulation instead of attracting PWA immigrants.

Introduction

Modern economies rely on high-skilled workers (aka: brains) to ensure sustainable growth. Accordingly, the immigration and migration of high-skilled people is an important social and economic variable. Gaining high-skilled people, or brain gain, allows countries to excel economically. However, the other side of the same token is that each country faces the risk of losing high-skilled citizens to migration, known as brain drain. Creating policies that encourage brain gain or brain circulation, and discourage brain drain is fundamental in the current globally competitive environment.

We define the prime working age (PWA) group as those aged 15 to 54. The PWA group was selected for this analysis because of this group's ability to become high-skilled through training and high likelihood of remaining in the workforce for a significant duration. Brain gain occurs when a country is receiving more PWA immigrants than it loses PWA migrants. Brain drain occurs when a country receives less PWA immigrants than it loses PWA migrants. Brain circulation refers to the ability for a country to attract its own PWA migrants back home.

This short brief uses data collated from several resources to determine if Canada and Israel are experiencing brain drain or brain gain within its PWA immigrant and migrant flows. Our finding shows that at the minimum, with approximately 1,400,000 PWA immigrants living in Canada, and

315,000 PWA migrant Canadians living abroad, Canada is currently experiencing PWA brain gain. A different statistical method is adopted by Israel to calculate the country's brain circulation by annual departures and entrances since 1996 without available static aggregated data. With a total of approximately 105,000 PWA departures and 67,000 PWA entrances over the past decade, Israel is experiencing brain drain. However, unlike Canada, Israel is actively engaged with brain circulation policy programs.

Since Canada is already enjoying a brain gain, and the current global geo-political situation is predicted to only enhance its attraction, Canadian policy should focus on bringing high-skilled Canadian PWA migrants back home. Three venues of action come to mind. First, Canada needs to ensure that there is a supply of employment opportunities in innovative industries which are willing to hire returning PWA migrants. Second, Canada and the provinces and territories need to coordinate together to make the transition back home as easy as possible. Lastly, Canada should build a migrant social network which can interact with each other during the transition process.

On the other hand, Israel is not only experiencing brain drain, but also an acute shortage of high-skilled workers. However, its unique geo-political situation and citizenship laws means that it would be extremely difficult, if not legally impossible, for it to attract a significant number of foreigners. Accordingly, it should focus its attention on brain circulation as well. Three policy actions seem to suggest themselves in the context of Israel. First, Israel should better connect its current migration policy to high technology development strategy by flexible visa arrangements, talent-oriented diasporic policies, and tailored inclusion services. Second, Israel needs to facilitate communication and information sharing mechanisms to circulate knowledge and expertise for industry and the Academia. Finally, Israel needs to promote a national brand strategy to engage with its people in the global brain circulation cycle.

Canada: New Focus on Brain Circulation

Summary

Canada has approximately 8,000,000 immigrants, with 2,000,000 of them not holding Canadian citizenship. We take the minimalist position and discount the approximately 6,000,000 dual Canadian immigrant citizens. We are fully aware that securing a Canadian citizenship status is the optimal outcome from the process of brain gain. However, we opted to present the worst case for Canada, and for that reason take a minimalistic approach with the data by focusing on individuals with one citizenship only. As a result, we knowingly *significantly underestimated* the true PWA immigration figure in Canada's brain gain structure since a high portion of highly educated and skilled immigrants coming to Canada often obtain a Canadian citizenship. Of these 2,000,000 immigrants with one citizenship, approximately 1,400,000 are PWA. There are approximately 1,200,000 Canadian migrants living abroad, with at least 315,000 of these migrants being PWA. Although 315,000 PWA Canadian migrants are significant given Canada's small population, the

1,400,000 (not including the PWA's percentage of the other 6,000,000 immigrants who already gained Canadian citizenship that can easily quadruple that number) PWA immigrants living in Canada far outpaces this figure.

In short, it is clear that Canada is benefiting from significant brain gain on both an aggregate and PWA level. Furthermore, Canada is already an attractive destination of high-skilled migrants and the current geopolitical situation in Europe, the U.K., and the U.S. is only working to its advantage, by making other destinations less attractive. However, the 315,000 PWA Canadian migrants is also a significant number, especially since each one of them represents a substantial loss of investment in education and skills. Consequently, Canada should focus on methods in which it can circulate PWA Canadian migrants back home. This will allow Canada not only to recoup its investment in their education, but also the added skills and networks they developed in their years abroad.

Immigrants to Canada

As of 2015, there were approximately 8,000,000 immigrants in Canada.¹ China accounts for approximately 9.15%, or 710,000, of all immigrants in Canada. India, the U.K., the Philippines, and the U.S. account for approximately 8%, 7.8%, 7%, and 4.4% respectively of all immigrants in Canada. Every other country after this accounts for no more than 3.6% of the immigrant population in Canada. The aggregate number of immigrants in Canada are approximately 22% the size of the current Canadian population. (Appendix 1)

The data above is important, but complicated to interpret. Although there are approximately 8,000,000 immigrants in Canada, 6,000,000 of these immigrants are by now also Canadian, or dual, citizens. For example, of the approximately 710,000 Chinese in Canada, only 210,000 are not Canadian citizens. For the purposes of trying to determine if Canada is experiencing brain drain or gain, we take the minimalistic approach by looking only at immigrants living in Canada who do not have Canadian citizenship. It becomes clear that Canada is experiencing significant brain gain *even when the approximately 6,000,000 dual citizen immigrants are discounted*. There are approximately 2,000,000 immigrants living in Canada who are not Canadian citizens, which accounts for roughly 25% of the immigrant population in Canada.² (Appendix 2)

Regarding Canada's innovation policy and leveraging brain circulation to foster its economy, it is important to further break this data down to understand demographics. Canada National Census aggregates age data in divisions of 15-24, 25-54, and 55-64.³ Although immigrants 15-18 years old are

¹ Migration Policy Institute tabulation of data from the United Nations, Department of Economic and Social Affairs (2015), "Trends in International Migrant Stock: Migrants by Destination and Origin". United Nations database.
<http://www.migrationpolicy.org/programs/data-hub/international-migration-statistics>;
<http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml>.

² Canada National Census. 2011. <https://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/dt-td/Rp-eng.cfm?TABID=2&LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GK=0&GRP=1&PID=105411&PRID=0&PTYPE=105277&S=0&SHOWALL=0&SUB=0&Temporal=2013&THEME=95&VID=0&VNAMEE=&VNAMEF=>

³ Canada National Census. 2011. <https://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/dt-td/Rp-eng.cfm?TABID=2&LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GK=0&GRP=1&PID=105411&PRID=0&PTYPE=105277&S=0&SHOWALL=0&SUB=0&Temporal=2013&THEME=95&VID=0&VNAMEE=&VNAMEF=>

unlikely to contribute greatly to Canada's economic growth at the moment, they should be seen as a short-term investment with the longest predictive positive outcome on the workforce, accordingly we combined the first two age groups to collate data to get an approximate figure of how many PWA immigrants are in Canada. Of the approximate 2,000,000 immigrants living in Canada who are not Canadian citizens, 1,400,000 are between the ages of 15-54, or PWA. The Philippines, China, and India account for 33% of the PWA immigrants in Canada who do not hold Canadian citizenship. (Appendix 3)

Migrants from Canada

As of 2015, there were approximately 1,200,000 Canadian migrants living in other countries.⁴ (Appendix 4) The U.S. accounts for approximately 66%, or 840,000, of all Canadian migrants. California, Florida, Texas, New York, and Washington contain a significant portion of Canadian migrants in the U.S. (Appendix 5) After the U.S., the U.K. accounts for the second largest diaspora of Canadian migrants, approximately 7%, which is significantly less than the U.S. Australia, France, and Italy account for approximately 4.25%, 2%, and 2% of all Canadian migrants respectively.⁵ (Appendix 4) Every other country has less than 2% of all Canadian migrants. The aggregate Canadian migrants are approximately 3.5% of the size of current Canadian population.

In 2000-01, 25% of the Canadians migrating to the U.S. were PWA.⁶ Even more importantly, 75% of Canadians migrating to the U.K and Australia were PWA.⁷ Therefore, Canada likely has *at least* 315,000 PWA Canadians living and working abroad.

Brain Circulation & Policy Recommendations

It seems likely that Canada will continue to attract PWA immigrants, but also as likely to lose PWA migrants. Fortunately, Canada is on course to receive many more PWA immigrants than lose PWA migrants. With the rise of anti-immigrant nationalist sentiment in the U.S., Europe and elsewhere, Canada can capitalize on attracting and keeping well trained PWA immigrants and migrants respectively. President Trump's recent anti-immigrant policies have driven many immigrants in the U.S. to consider relocating to safer environments. In response to President Trump's anti-immigrant policies, Prime Minister Trudeau has said that Canada welcomes refugees who have been rejected

D=0&PTYPE=105277&S=0&SHOWALL=0&SUB=0&Temporal=2013&THEME=95&VID=0&VNAMEE=&VNAMEF=.

⁴ What constitutes a Canadian migrant is not clearly defined or agreed upon, thus various domestic and foreign agencies have accounted for Canadian migrants under different standards and metrics. Two sources have attempted to aggregate Canadian migrant data - Statistics Canada and the Migration Policy Institute. Statistics Canada estimated there was 1,200,000 Canadian migrants in 2005 (<http://www.statcan.gc.ca/pub/11-008-x/2008001/article/10517-eng.htm#1>), and the Migration Policy Institute has a Canadian migrant figure at approximately 1,275,000 (<http://www.migrationpolicy.org/programs/data-hub/international-migration-statistics>). For the purposes of this brief, it is estimated that approximately 1,200,000 Canadian migrants are currently living outside of Canada.

⁵ <http://www.migrationpolicy.org/programs/data-hub/international-migration-statistics>

⁶ <http://www.statcan.gc.ca/pub/11-008-x/2008001/article/10517-eng.htm#footnotef6>

⁷ Ibid.

from the U.S. Moreover, Canada's private sector plans on leveraging this situation by recruiting skilled workers who are now unable to enter the U.S.⁸ Canada's technology companies have asked the government to provide visas to those impacted by the ban.⁹

Given that Canada's status quo is already attracting a relatively high level of PWA immigrants, it would be optimal to focus on the roughly 315,000 PWA migrants living abroad. These PWA migrants are approximately 1% the size of the Canadian population, and bringing them and their extensive global experience and networks home would add substantial value to Canada's economy. In similar ways in which it helps Canada to maintain its top position as a destination for immigration, the recent rise in anti-immigrant populism in the U.S. and Europe is providing Canada the opportunity to circulate high-skilled Canadians back home. There are three promising policy avenues. First, Canada needs to ensure that there is a supply of employment opportunities in innovative industries which are willing to hire on these returning PWA migrants, preferably while they are still living abroad. Second, the federal government and the provinces and territories need to coordinate with each other to make the transition back as easy as possible. Lastly, Canada should build an interactive migrant social network. Migrants coming from various countries can connect to this social network to ask for advice and perhaps build future employment opportunities.

Israel: How to Innovate from Brain Drain

Summary

Israel is facing a shortage of high-skilled PWA citizens, especially in the high-technology sectors and the Academia. Given the country's active engagement with the high-technology industry and innovation economy, the Israeli government has released a series of policy initiatives to respond to the shortage of talents. Considering the political and legal limits Israel has with regards to attracting immigration (or brain gain), the country needs to more actively engage in stimulating brain circulation. There are three promising venues for Israel circulating PWA migrants back home. First, Israel needs to better connect its migration policy to economic development strategy pivoting toward high-technology and innovation by flexible visa arrangements, talent-targeted diasporic policies, and tailored inclusion services. Second, Israel needs to facilitate communication and information sharing mechanisms, both government-led and civil society initiated, to circulate knowledge and expertise for domestic industry and the Academia. Last but not least, Israel needs to promote a national brand strategy to engage with its people currently involved or potentially to engage in the global brain circulation cycle.

⁸ <http://www.theglobeandmail.com/report-on-business/trump-immigration-ban-a-boon-for-canadian-tech-industry-say-executives/article33818200/>.

⁹ <http://www.theglobeandmail.com/report-on-business/canadian-tech-leaders-ask-ottawa-for-temporary-visas-after-trump-order/article33818691>.

Israel Migration Flow

As of 2015, approximately 3,200,000 immigrants resided in Israel, with about 42.28% (1,350,000) of them arriving in 1990 and after.¹⁰ Top countries of birth include Morocco (8.11%), Ukraine (6.72%), Russian Federation (5.70%) and Romania (5.15%).¹¹ (Appendix 6) The Israeli Central Bureau of Statistics views an increase in the extent of immigration in recent years, from a relatively low level (approximately 13,700 immigrants) in 2008 to 27,900 immigrants in 2015.¹² The 15-54 age group¹³ represents the bulk part of the immigration age structure with approximately 2,122,000 as of 2015, accounting for approximately 66.3% of total immigrants, which is higher than the PWA percentage in Israeli population (60.9%).¹⁴ Estimation for the stock of Israeli immigration adopted by Israeli Central Bureau of Statistics is based on the number of Israeli residents who came to Israel since 1948 and who have been staying for over a year, excluding visits of less than 90 days abroad. On this measure, Israel displays a decade return of approximately 105,000 immigrants including 67,000 PWA brains over the past decade.¹⁵ (Appendix 7)

As of 2015, the total number of migrants from Israel was approximately 342,600, accounting for 3.97% of the country's overall population. The U.S. accounts for about 39.69% of all overseas Israelis, followed by the Palestinian Territories (18.36%),¹⁶ Canada (7.97%), and the U.K. (5.72%). Germany, Australia, and France account for approximately 4.35%, 3.55%, and 2.68% of Israel migrants respectively.¹⁷ (Appendix 8) More than 75% of the migrants choose OECD countries as their destination. Based on OECD Database on Immigrants, the 15-54 age group constitutes the bulk part with approximately 150,000 migration outflows as of 2011, accounting for about 75.5% of total Israelis emigrated to OECD economies.¹⁸ Estimation for the stock of Israeli immigration adopted by Israeli Central Bureau of Statistics is based on the number of Israeli residents who left Israel since 1948 and who have been residing abroad for over a year, excluding visits of less than 90 days in Israel and adjusting for mortality abroad. On this measure, Israel which displays a departure

¹⁰ http://www.cbs.gov.il/reader/shnaton/shnatone_new.htm.

¹¹ <http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml>.

¹² http://www.cbs.gov.il/reader/shnaton/shnatone_new.htm.

¹³ 15-54 age group is defined as the "prime working age group" in this policy brief, which the closest approximation of working age population based on the age group classification adopted by the Census Program of Statistics Canada, Israeli Central Bureau of Statistics, and OECD (Organization for Economic Co-operation and Development).

¹⁴ http://www.cbs.gov.il/reader/newhodaot/tables_template_eng.html?hodaa=201621157.

¹⁵ http://www.cbs.gov.il/reader/shnaton/shnatone_new.htm.

¹⁶ Based on the international migration statistics provided by United Nations Department of Economic and Social Affairs, population born in territories of Israel and now reside in Palestinian territories is accounted as emigration outflow from Israel.

¹⁷ <http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml>.

¹⁸ <http://www.oecd.org/els/mig/dioc.htm>.

of approximately 180,000 migrants including 100,000 PWA workers over the past decade.¹⁹ (Appendix 7)

Israel-Canada Migration Flow

As of 2015, there were 27,304 Israeli born migrants living in Canada, who account for about 0.35% of Canada's total immigration inflow.²⁰ Breakdown data for the last available year, 2011, shows 25,145 Israeli born migrants living in Canada, including 18,195 with Canadian citizenship and 6,950 non-Canadian citizens, with 3,600 holding citizenship of at least one other country.²¹ Canada is the third migration destination for Israeli migrants, which was 343,585 as of 2015, accounting for 7.97% of Israel population outflow.²² (Appendix 8) Migration flow from Canada to Israel is less significant by size, with 8,132 Canadians now residing in Israel as of 2015, accounting for only 0.40% of Israel's total immigration intake.²³ (Appendix 6) Based on the 2011 National Household Survey released by Statistics Canada, 54.52% of Israelis in Canada, including those with Canadian citizenship and non-Canadian citizens, are of prime working age, which is lower than the percentages for most OECD economies.²⁴ (Appendix 9)

Net Brain Drain

Israel relies on the annual departures and entrances to Israel as the measurement for brain drain and brain gain, information has only been provided since 1996, without available static aggregated data, thus creating statistical differences from Canada's calculation. It is estimated that Israel is now experiencing a brain drain, especially in the domestic high-technology sector (engineers and computer scientists) and Academia. The departures and returns of Israelis staying abroad continuously for one year or more displays loss of approximately 180,000 over the past decade,²⁵ with only approximate decade entrances of 105,000 migrants to Israel.²⁶ Among them, there are approximately 100,000 PWA departures leaving Israel over the past decade, compared with merely 67,000 approximate decade PWA returns. (Appendix 7) On top of that, Israeli migration to OECD economies shows a higher percentage of PWA population (approximately 75.5%) than its

¹⁹ http://www.cbs.gov.il/reader/shnaton/shnatone_new.htm.

²⁰ This number does not include Israeli immigrants which were born outside Israel.

²¹ <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/dt-td/Rp-eng.cfm?LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GID=0&GK=0&GRP=0&PID=105411&PRID=0&PTYPE=105277&S=0&SHOWALL=0&SUB=0&Temporal=2013&THEME=95&VID=0&VNAMEE=&VNAMEF>.

²² <http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml>.

²³ <http://www12.statcan.gc.ca/datasets/index-eng.cfm?Temporal=2011>.

²⁴ <http://www.oecd.org/els/mig/dioc.htm>.

²⁵ According to the Israel Central Bureau of Statistics The latest annual data on departures and returns of Israelis staying abroad continuously for one year or more available was of 2014, thus the ten-year calculation was based on the time scheme from 2005 to 2014.

²⁶ http://www.cbs.gov.il/reader/shnaton/shnatone_new.htm.

immigration PWA percentage (66.3%), and higher than its domestic-born population (60.9%).²⁷ In addition, the migration rate of Israeli academics is among the highest of OECD countries and the number of Israelis teaching in the U.S. is roughly a third of those who remained at Israeli universities in each discipline.²⁸ Lastly, while it is estimated that an additional 10,000 engineers are currently needed to ensure that its high-technology sector, the mainstay of the Israeli economy, can grow, survey results show one out of three Israeli engineers are actively expecting to move to the U.S.²⁹

Reversing the Brain Drain

The causes of Israeli brain drain are not purely economic, but also political and cultural, which includes: lack of positions and funding in Israeli industry and the Academia, the lack of information sharing to re-engage talents overseas, as well as the problem to engage with Israelis attracted to learning or working abroad.³⁰ Since the beginning of this century, several government-led initiatives to reverse the brain drain have been launched, including selective approaches of State Assisted Return Programs and the facilitation of a wider return network. Since going abroad is both necessary and desired for Israeli academia and the high-technology industry, Israeli authorities are also aware of the advantages the country can take from global brain circulation and thus encourage its people to move abroad, while trying to ensure that as many of them come back or at least cycle information with other Israelis back home.³¹

The selective approaches include: Israel Academy of Science and Humanities' special office, set up in 2007, to assist expatriate scientists abroad to settle/resettle in Israel, which has attracted more than 500 returning scientists with 3,027 registration of interests by 2015;³² Israel National Brain Drain Program, launched in 2013, aiming for a more general (that is not only academia) reverse of the country's brain drain, which is a cooperative project led by the Chief Scientist of the Ministry of Industry and Trade (now the Israeli Innovation Authority IIA), with the Immigration and Absorption Ministry, the Finance Ministry, and the Planning and Budget Committee at the Council for Higher Education.³³ Additionally, Israel introduced "innovation visas" for start-ups to make foreign hires in 2015,³⁴ and then in 2016, a promised issue of 4,000 "specialist visas" for highly skilled people across industries, followed by a dedicated immigration visa for tech entrepreneurs at the end

²⁷ Ibid.

²⁸ <http://www.haaretz.com/israel-news/business/.premium-1.551116>.

²⁹ <https://www.bloomberg.com/news/articles/2015-06-08/geek-shortage-stymies-israel-s-tech-boom>;
<http://www.geektime.com/2016/03/02/in-israel-1-out-of-3-engineers-wants-to-move-to-the-u-s/>.

³⁰ <http://www.forbes.com/sites/giovannirodriguez/2015/04/07/5601/#39beb6c62ac2>; <http://prospect.org/article/israels-brain-drain>.

³¹ <http://www.jpost.com/Business-and-Innovation/Health-and-Science/Brain-Drain-Reversal-Record-number-of-Israeli-scientists-looking-to-come-home-437966>.

³² Ibid.

³³ <https://www.israel-braingain.org.il/>.

³⁴ <http://www.geektime.com/2015/10/20/israel-introduces-innovation-visas-for-startups-to-make-foreign-hires/>.

of that year.³⁵ The government-led return network includes: participation of non-profit organizations, such as the Jewish People Policy Institute and BioAbroad, in policy consultation and service supply;³⁶ collaboration projects to reconnect with Israeli-born entrepreneurs and scientists, such as the U.S.-Israel Center at the University of San Diego and research partnerships between Israeli universities and the University of Toronto; networks led by government ministries, the National Brain Drain Program as an example, which shares IIA's connection with more than 350 organizations in Israel encouraging private firms and highly skilled migrant associations to participate and contribute.

APPENDICIES

Appendix 1: Migrants in Canada from Other Countries (2015)

	Country of origin	Migrants	Percentage of Total
	Total Migrants	7771786	100%
1	China	711220	9.15%
2	India	621469	8.00%
3	United Kingdom of Great Britain and Northern Ireland	607377	7.82%
4	Philippines	545321	7.02%
5	United States of America	343252	4.42%
6	Italy	282537	3.64%
...

Source: United Nations database, 2016. Date of Access: January 20, 2016.
<http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml>.

Appendix 2: National Household Survey: Migrants in Canada from Other Countries by Immigration Status (2011) (Rank by "Not-Canadian-Citizens")

	Country of origin	Total - Citizenship	Canadian citizens	Canadian citizens only	Citizens of Canada and at least one other country	Not Canadian citizens	Weight
	Total	32852325	30895305	29962640	932665	1957015	100%
1	China	585555	376545	364215	12330	209010	10.68%
2	Philippines	502295	293855	278735	15115	208440	10.65%
3	India	572435	383395	365040	18355	189040	9.66%

³⁵ <http://www.businessinsider.com/israel-entrepreneur-visas-2016-9>

³⁶ Official websites available at: <http://jppi.org.il/>; <http://www.bioabroad.org.il/>.

4	United States	316165	190445	132730	57715	125720	6.42%
5	United Kingdom	559455	453355	371205	82150	106095	5.42%
...

Source: National Household Survey, Statistics Canada, Census Program. 2011. Date of Access: February 3, 2016.
<https://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E>.

Appendix 3: National Household Survey: PWA Migrants in Canada from Other Countries (2011)
(Non-Canadian Citizens in Canada)

(Prime Working Age Group = 15 to 54 years)

	Country of origin	Not Canadian citizens	Percentage of Total
	Total Migrants	1411445	100%
1	Philippines	168065	11.91%
2	China	164165	11.63%
3	India	134710	9.54%
4	United States	67395	4.77%
5	United Kingdom	61810	4.38%

Source: National Household Survey, 2011.

Appendix 4: Migrants Originating from Canada to Other Countries (2015)

	Select migrant country	Migrants	Percentage of Total
	Total Migrants	1,274,476	100%
1	United States	842,175	66.08%
2	United Kingdom	86,415	6.78%
3	Australia	54,034	4.24%
4	France	25,738	2.02%
5	Italy	25,540	2.00%
...

Source: Migration Policy Institute. 2015. Date of Access: February 20, 2016.
<http://www.migrationpolicy.org/programs/data-hub/international-migration-statistics>

Appendix 5: Migrants Originating from Canada to the United States, by State (2015)

	Country of origin	Migrants	Percentage of Total
	Total Migrants to US	1,274,476	100%
1	California	842,175	16.23%
2	Florida	112,453	13.35%
3	Texas	54,457	6.47%
4	New York	53,166	6.31%
5	Washington	43,341	5.15%
...

Source: Migration Policy Institute. 2015.

Appendix 6: Migrants in Israel from Other Countries (2015)

	Country of origin	Migrants	Percentage of Total
	Total Migrants	2011727	100%
1	Morocco	163113	8.11%
2	Ukraine	135112	6.72%
3	Russian Federation	114630	5.70%
4	Romania	103678	5.15%
...
32	Canada	8132	0.40%
...

Source: United Nations database, 2016.

Appendix 7: Departures and Returns of Israelis Staying Abroad Continuously for One Year or more, By Year of Departure or Year of Return in Thousands (Age) (2005-2014)

	2014	2013	2012	2011	2010	2009	Age
Departures	15.7	16.2	15.9	16.2	15.6	15.9	Total
	9.1	9.4	9.6	9.4	9.4	9.4	15-54 (PWA)
	57.96%	58.02%	60.38%	58.02%	60.26%	59.12%	PWA Percentage
Returns	8.9	8.9	8.8	9.5	10.2	8.7	Total

	2008	2007	2006	2005	Average	Total	Age
	5.5	5.5	5.8	6.25	6.8	7.9	15-54 (PWA)
	61.80%	61.80%	65.91%	65.79%	66.67%	90.80%	PWA Percentage
Departures	19.1	21.1	22.4	21.9	18.0	180.	Total
	9.7	11.7	13.3	14.0	10.5	105.0	15-54 (PWA)
	50.79%	55.45%	59.38%	63.93%	58.24%	N.A.	PWA Percentage
Entrances	10.3	11.2	12.0	11.9	10.0	100.0	Total
	7.6	6.7	7.0	7.7	6.7	67.0	15-54 (PWA)
	73.79%	59.82%	58.33%	64.71%	64.29%	N.A.	PWA Percentage

Source: Statistical Abstract of Israel. Central Bureau of Statistics of Israel. 2016. Date of Access: February 10, 2016. http://www.cbs.gov.il/reader/shnaton/shnatone_new.htm.

Appendix 8: Migrants Originating from Israel to Other Countries (2015)

	Select migrant country	Migrants	Percentage
	Total Migrants	342585	
1	United States	135963	39.69%
2	Palestinian Territories	62895	18.36%
3	Canada	27304	7.97%
4	United Kingdom	19608	5.72%
5	Germany	14900	4.35%
6	Australia	12174	3.55%
...

Source: United Nations database, 2016.

Appendix 9: National Household Survey: Israeli Migration to Canada and PWA Weight (2011)

(Prime Working Age Group = 15 to 54 years)

Place of birth	Total - Citizenship	Canadian citizens	Canadian citizens only	Citizens of Canada and at least one other country	Not Canadian citizens
Born outside Canada	4302925	2891475	2440390	451090	1411445
Born in Israel	13710	10515	6910	3600	3195
PWA Weight	54.52%	0.36%	0.28%	0.80%	45.97%

Source: National Household Survey, 2011.