

The American University in Cairo

School of Public Affairs

**MIGRATION INTENTIONS OF ENGINEERING STUDENTS: POTENTIAL
LABOR MARKET, FINANCIAL, SOCIAL AND HUMAN CAPITAL
IMPLICATIONS**

A Thesis Submitted to

Center for Migration and Refugee Studies

In partial fulfillment of the requirements for
the degree of Master of Arts

by Marise Habib

B.Sc. in Journalism

B.A. in International Affairs

Diploma in Forced Migration and Refugee Studies

under the supervision of Dr. Ray Jureidini

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ABSTRACT

This thesis, entitled “Skilled Emigration and the Sending State: Using Engineering as a Case Study in Egypt,” was completed by Marise Habib, under the supervision of Dr. Ray Jureidini, at the American University in Cairo. The thesis explores the impact of skilled emigration on Egypt by looking into the migration intentions of the Class of 2010 from the Faculty of Engineering at Cairo University. Skilled emigration is often considered to be entirely detrimental to sending states as the loss of highly trained minds is viewed independently and not considered as part of a broader movement of persons and capital.

Student intentions in this study were gauged using a survey distributed to students online and on their campus, which posed questions regarding desires to work abroad, emigrate, reasons behind these intentions, intent to remit and intent to return. Data gathered was then analyzed in light of existing literature on skilled emigration to see how the migration intentions of the class studied will affect Egypt in terms of direct loss if the student is considered an investment, direct gains through remittances and indirect gains stemming largely from return migration. The thesis then looks at existing and recommended policies as a way to guide the discussion on moving forward. It concludes by reiterating that the gains from emigration cannot be harnessed simply retroactively, but policies and discussions on emigration must be met with an understanding that systemic and societal education and change, whether infrastructural, educational or cultural, are necessary to ensure that sending states do not wind up solely losing in the migration equation.

TABLE OF CONTENTS

List of Figures	vii
List of Tables	viii
1. Introduction.....	10
1.1 Methodology.....	12
1.2 Country Migration Context.....	15
1.3 Laws Governing Migration in Egypt.....	17
2. Who Emigrates and Where do they Choose to go?	22
2.1 Traditional Migration Patterns of Egyptians.....	22
2.2 Demographic Makeup of the Sample Population	25
2.3 Where does this generation of engineers want to go?.....	28
2.3.1 Networks	33
2.4 Why do they want to emigrate?	36
3. Skilled Emigration	39
3.1 Effect/Cost of Skilled Migration.....	39
3.2 Impact of Skilled Emigration on Domestic Unemployment.....	43
3.2.1 Calculations: How The Migration Intentions of This Graduating Class can Affect Unemployment	46
4. Is Egypt Facing a Net Gain or Net Loss?	55
4.1 Remittances.....	55
4.1.1 Historically.....	57
4.1.2 Remittance Intentions for this Sample Set.....	62
4.2 Gains from Return Migration.....	65
4.2.1 Skills acquired.....	65
4.2.2 Job Market	67
5. Steps Forward	71
5.1 Existing Policies on Emigration.....	71
5.2 Domestic Policy Discussion	72
5.3 International Policy Discussion	75
5.3.1 Promoting Circular Migration.....	75
5.3.2 Harnessing Remittance Flows.....	77
5.3.3 Consider the Option of Taxation.....	79

6. Conclusions.....	84
6.1 Future Research	88
Works Cited	90
Appendix A: Research Survey.....	95
Appendix B: Survey Answers for Cairo university faculty of engineering class of 2010.....	109
Appendix C: Survey Answers for Primary Universities Sampled.....	123

LIST OF FIGURES

Figure 1 - Intended Destination Regions for Work	29
Figure 2 - Intended Destination Regions for Emigration.....	32
Figure 3 - Reasons for Emigration.....	37
Figure 4 - Reasons for Country of Destination.....	38
Figure 5 - Unemployment Projections for Egypt 2006-2011	44

LIST OF TABLES

Table 1 - Knowledge of Other Emigrants by Intent to Emigrate.....	34
Table 2 - Respondent Gender	109
Table 3 - Respondent Marital Status.....	109
Table 4 - Respondent Religion	109
Table 5 - Other Citizenships	110
Table 6 - Pre-University Schooling	110
Table 7 - Languages Spoken.....	110
Table 8 - Engineering Concentration.....	111
Table 9 - Household Income.....	111
Table 10 - Employment Status.....	111
Table 11 - Current Means of Financial Support	112
Table 12 - Means of Financial Support Following Graduation by Gender	112
Table 13 - Means of Financial Support Following Graduation by Income Bracket..	112
Table 14 - Private or Public Employment Desired	113
Table 15 - Previous Employment Outside Egypt	113
Table 16 - Expected Domestic Compensation.....	113
Table 17- Intention to Work Abroad in the Future by Gender	113
Table 18 - Offer of Employment Abroad	114
Table 19 - Expected Compensation Abroad	114
Table 20 - Intention to Emigrate in the Future by Gender.....	114
Table 21 - Intention to Return Following Time Abroad.....	115
Table 22 - Intention to Return Following Time Abroad by Expected Departure Timeframe.....	115
Table 23 - Intention to Remit.....	115
Table 24 - Intention to Remit by Income Bracket	116
Table 25 - Reasons for Emigration	116
Table 26 - Reasons for Emigration by Gender	117
Table 27 - Reasons for Emigration by Income Bracket.....	117
Table 28 - Prior Knowledge of Emigrants.....	118
Table 29 - Intent to Join Past Emigrants.....	118

Table 30 - Pull Factors.....	118
Table 31 - Source of Information about Destination	119
Table 32 - Persons Assisting in Migration.....	119
Table 33 - Expected Cost of Migration.....	119
Table 34 - Do you have Savings for Use in Migration	120
Table 35 - Other Means of Financial Assistance for Migration	120
Table 36 - Acceptable Positions Abroad	120
Table 37 - Completion of Equivalence Exams	121
Table 38 - Completion of Equivalence Exams by Expected Departure Timeframe..	121
Table 39 - Prior Knowledge of Emigrants by Expected Departure Timeframe	122
Table 40 - Willingness to Resort to Irregular Modes of Migration	122

1. INTRODUCTION

“Egyptians have the reputation of preferring their own soil. Few ever leave except to study or travel; and they always return ... Egyptians do not emigrate” – Wendell Cleland¹

Wendell Cleland arrived at this conclusion following his research in 1936, but much has changed in this assertion over the course of the past seven decades. While the attachment to the homeland insinuated in his statement is still very evident in Egyptian society today, the political, social and economic changes that have occurred in the country in the past half century have expanded the reasons behind Egyptian departure beyond studies and travels. The present study will address the implications of skilled emigration on Egypt on domestic labor market, costs and social and human capital acquisition and does so by incorporating data gathered from an original survey of students from Cairo University's Faculty of Engineering's graduating class, gauging their migration intentions and reasons driving these, within existing scholarship on skilled emigration and the sending state. Following an exploration of these effects, primarily as they pertain to the country economically, the author will discuss policies that aim to maximize the benefits to Egypt of what can initially be construed as simple losses of bodies and minds.

Traditionally, discourse on migration deals with sending and receiving states as separate entities linking them mainly in terms of the migrants themselves, while still upholding state sovereignty as the dichotomy to distinguish between states. The nature of migration, however, stands in clear defiance of such a dichotomy underscoring the “more fluid, transnational (although not *deterritorialized*) existence

¹ Wendell Cleland, *The Population Problem in Egypt: A Study of Population Trends and Conditions in Modern Egypt* (Lancaster, PA: Science Press Printing Company, 1936).

that characterizes many of today's migrants"². The maintenance of strong ties by the migrant to their home country generates the need to observe the effect of emigration on development in the sending state. While development as a term is clearly problematic in itself, here it will be discussed in terms of economic stimulus.

Following a description of the methods used in this study to determine the migration intentions of the sample population of university students, Chapter 1 will introduce the historical migration context within which migration policies in Egypt have emerged and the existing legal framework that governs migration for Egyptians today. Chapter 2 then begins with an analysis of the traditional patterns of migration for Egyptians, followed by an introduction of the sample population, their intended destinations and their reasons for emigrating. These contextual introductions will pave the way for Chapter 3 in which skilled migration is addressed in terms of its actual costs for the sending state, and its effect on the distribution of labor. The survey sample's intentions to emigrate are analyzed here in light of existing data on unemployment in the field of engineering in Egypt to determine whether recent graduates have a realistic grasp on market provision of positions for new entrants. Chapter 4 follows with a discussion of the potential gains for the sending state stemming from emigration, by first discussing the direct monetary gains deriving from monies remitted by the diaspora, and then considering the ripple benefits for the market of return migration. Finally, Chapter 5 will provide a general discussion of existing policies addressing emigration from Egypt, and discuss a few policies that Egypt could adopt, which it has considered in some cases, to minimize potential loss from the skilled emigration discussed in this thesis.

² Laurie Brand, "Citizens Abroad: Emigration and the State in the Middle East and North Africa," (Cambridge, UK: Cambridge University Press, 2006).

While it appears counter intuitive to consider the emigration of a state's skilled minds in a positive light, this thesis aims to analyze how, despite the immediate loss of educated minds to foreign states, a sending country, namely Egypt in this instance, can benefit from skilled emigration in the short-run as a method of alleviating domestic unemployment problems until better regulating policies are put in place for the long-run that can enhance the use of skilled minds to better meet the demands of the domestic labor market.

1.1 Methodology

The sample population for this survey consists of students in their final year of study in the Faculty of Engineering at Cairo University (CU). This university was selected as it requires the highest results in the national secondary school exams of any public university in Cairo to earn acceptance into their Faculties of Engineering.

The current study results are therefore based on the responses of 115 (CU) Engineering students in their final year of study to the research survey (Appendix A) and on the information shared by the students, and their colleagues falling outside the study parameters, in informal group conversations following the administration of the survey³.

³ The initial intention of the study was to include two public and one private university, namely Ain Shams University, Cairo University and the American University in Cairo respectively. These universities were chosen to represent both the top ranking private and public institutions with faculties of Engineering in Cairo. However, after initial efforts showed that reaching a representative sample of one particular graduating class (specifically that of 2010) across all three universities would prove nearly impossible for the researcher alone, the sample population was narrowed to focus on only the class graduating from Cairo University. The overall sample reached by the researcher consisted of 442 students and recent graduates from universities across Cairo in addition to Alexandria University. Over half of the responses gathered were drawn from Cairo University, while another 15.8% came from Ain Shams, 16.3% from the American University in Cairo and 12.1% from Alexandria University. Appendix C: Survey Answers for Primary Universities Sampled provides the answers given to the survey questionnaire for the population of students reached from each of the primary universities sampled to illustrate whether the same patterns found in the Cairo University students are reflected in

The 115 students represent approximately 5% of the graduating class of engineers from CU⁴, and can reasonably be considered representative of the opinions of this class as responses were monitored throughout the collection stage to ensure that the final sample population's opinions and intentions were converging as the research progressed.

The research survey consists of questions addressing the students' intent to migrate or remain and aims to enable the researcher to determine whether students have realistic expectations surrounding migration and ascertain which students have seriously considered the subject preceding the survey by asking more detailed questions about expected costs and plans upon arrival in the destination country. The survey questions also try to address the nuances of the migration experience by requesting that students divulge their motivations for departure if they intend to leave, whether this decision is for permanent migration or temporary, what networks exist in their destination countries, as well as what financial costs and benefits they expect to experience through their decision to migrate.

The survey was designed in English, edited several times, translated into Arabic and translated back into English to ensure that the meaning behind each of the questions was uniform. In order to gather data on the migration intentions of a representative sample of the student body, the research survey was administered to students both online and in person on the CU campus. Both the online survey and the paper survey were generated using [surveymonkey.com](http://www.surveymonkey.com/)⁵, a web site specializing in survey design that facilitated the creation of a portable document format (PDF) that

the overall student/recent graduate population, recognizing that this larger sample is not representative of the intentions of the overall student population at each of these universities.

⁴ Based on the student body information found in Cairo University, 2008.

⁵ <http://www.surveymonkey.com/>.

was still easy to read and user-friendly for the in person survey administration. In order to ensure that there would be no language barriers hindering the success of the survey, each question and answer was written in both English and Arabic side by side so that students would not need to choose one over the other and could refer to either at any point.

To reach the initial broader sample population, the researcher used class email lists, by requesting them from Deans, professors, students and/or IT personnel from each of the Faculties, if such email lists are used regularly by the students and alumni at each of the target universities, with a link to the survey for students to take on their own time. The online reach was the initial step in the administration of the survey as it allowed the researcher to begin to see patterns emerging that assisted in the formulation of questions for the students surveyed in person, which the researcher asked in informal group discussions following the administration of the survey.

The in-person surveys were in effect administered using a diversified snowball method, whereby the researcher sought out students from different groups within the graduating class at CU and requested that they either administer it to their classmates or inform as many students within their reach about the survey and encourage them to complete it (whether virtually by providing their email address, or on campus). In order to avoid duplicate surveys, the students were requested to provide a mobile number that was used only for identification purposes as names may be duplicated. The mix of responses gathered from both the snowball survey method and the online sample should alleviate network biases in the results that could arise from utilizing only the snowball method, and accessibility issues that could have come from using only the online survey.

Data from the survey was funneled directly through surveymonkey—immediately for those taking the survey online and manually for the responses collected on CU’s campus. The web site was then also used as the primary tool for the data analysis, as it permitted the researcher to apply filters to see respondents fitting only a specific set of criteria easily and cross-tabulate student answers to identify trends in intentions to migrate.

1.2 Country Migration Context

Wendell Cleland’s assertion was likely valid until the 1950s when Egyptian emigration really began⁶. The "military revolution of 1952 tipped the balance of power among the country's ethnic groups in favor of the native majority," economically and politically, in part by employing nationalization and sequestration laws, resulting in the large-scale emigration of British and French groups initially, followed by a slow but steady migration of Greek and Italians, and of Jews following 1956⁷. From the early 1960s, members of the Coptic community began to emigrate for fear of increased discrimination⁸ and a permanent migration of Egyptians began for social, political and economic reasons⁹. Additional nationalization laws the following decade led to the emigration of the Syrio-Lebanese and Armenian communities remaining¹⁰. Egypt’s early emigration patterns went through three distinct phases differing in their makeup and destinations. The phase spanning from 1965 to 1975 was characterized by skilled and unskilled teachers and construction

⁶ Ayman Zohry Barbara Harrell-Bond, "Contemporary Egyptian Migration," (Cairo: Forced Migration and Refugee Studies Programme, American University in Cairo, 2003).

⁷ Fouad Assad, "Egyptians - Migration," *The Encyclopedia of Canada's People*.

⁸ Ibid.

⁹ Howaida Roman, "Emigration Policy in Egypt," in *Cooperation project on the social integration of immigrants, migration, and the movement of persons* (European University Institute, 2006).

¹⁰ Assad, "Egyptians - Migration."

workers heading mainly to the GCC states and Libya¹¹. The numbers of emigrants remained low until 1974 following the oil boom in the Gulf and Libya that allowed for development programs to be implemented. Also at this time, in 1971, the Egyptian government lifted restrictions on labor migration which was necessary to enable Egyptian workers to emigrate per Article 52 of the Egyptian Constitution that states that citizens have the right to permanent or temporary migration as regulated by the terms set forth by law¹². Law 73 then mandated a right for all public sector and government employees to return to their positions within a year of having submitted their resignation, later extending this right to two years following resignation while also removing other potential impediments to Egyptian migration¹³. These actions facilitated the second phase of migration, from 1975-1985, which was composed mainly of unskilled rural migrant workers in agriculture and construction going over to Jordan, Saudi Arabia and Iraq¹⁴. In 1975, there were 370,000 Egyptian migrants working in the Arab region, out of a total of about 655,000 globally. This total number had reached over a million by 1980. By 1983, demand peaked and an estimated 3.28 million Egyptian workers were abroad. The demand declined again after 1983 with the changing political and economic situation in the Arab oil-producing states¹⁵.

The decline of emigration carried through to the next phase of migration, from 1985 to 1995, when the makeup of the migrants shifted back to include skilled and unskilled migrants, but differing from the first phase in the professions departing as

¹¹ Leila Simona Talani, "Why Do Migrants Leave Their Countries? Motivations to Migrate at the Point of Departure: The Case of Egypt," (The British Academy, 2003).

¹² "The Constitution of the Arab Republic of Egypt," (1971); Ayman Zohry, "Egyptian Youth and the European Eldorado: Journeys of Hope and Despair. Copenhagen," (Danish Institute for International Studies, 2006).

¹³ Ayman Zohry, "Contemporary Egyptian Migration," *IOM and Cooperazione Italiana* (2003).

¹⁴ Talani, "Why Do Migrants Leave Their Countries? Motivations to Migrate at the Point of Departure: The Case of Egypt."

¹⁵ Zohry, "Egyptian Youth and the European Eldorado: Journeys of Hope and Despair. Copenhagen."

this phase was composed of scientists and agriculture workers, working in Saudi Arabia¹⁶. In 1986, the number of Egyptian workers abroad has dropped to 2.25 million and remained at around this level through the early 1990s¹⁷. The 1996 census indicated a slight rise back in the Egyptian emigrant numbers, placing them at approximately 2.8 million¹⁸. The number now seems to have risen slightly over the average for the third phase, with national estimates recording about 2.7 million Egyptian workers abroad in 2003, and between 3 and 5 million in 2006¹⁹. The Egyptian migrant population therefore makes up approximately 4 percent of Egypt's total population, and about 1.5 percent of the migrant population overall. Approximately two-thirds of Egyptian migration is considered temporary and involved migration to one of the oil-rich Arab states. Within this type of migration, about half of the migrants are absorbed by Saudi Arabia²⁰.

1.3 Laws Governing Migration in Egypt

Egyptian migration policy has only been stated concretely once, in 1983, with the introduction of the "Emigration and Sponsoring Egyptians Abroad Law" no. 111, which was to be implemented by the Ministry for Manpower and Emigration and covered provisions for both permanent and temporary migrants²¹. While no other document comprehensively addresses the Egyptian government's aims and obligation

¹⁶ Talani, "Why Do Migrants Leave Their Countries? Motivations to Migrate at the Point of Departure: The Case of Egypt."

¹⁷ Zohry, "Egyptian Youth and the European Eldorado: Journeys of Hope and Despair. Copenhagen."

¹⁸ Zohry, "Contemporary Egyptian Migration."

¹⁹ Barbara Harrell-Bond, "Contemporary Egyptian Migration."; Talani, "Why Do Migrants Leave Their Countries? Motivations to Migrate at the Point of Departure: The Case of Egypt."; Ayman Zohry, "Attitudes of Egyptian Youth Towards Migration to Europe," in *Information Dissemination on Migration* (2006).

²⁰ Talani, "Why Do Migrants Leave Their Countries? Motivations to Migrate at the Point of Departure: The Case of Egypt."

²¹ Zohry, "Contemporary Egyptian Migration."

as they pertain to migration, the actions, policies and statements made by policy makers imply the following as their primary goals for Egyptian migration:

1. Encouraging emigration to ensure equilibrium in the domestic labor market;
2. Fighting illegal migration;
3. Maximizing the economic benefits of migration and increasing migrants' remittances;
4. Ensuring the welfare of emigrants; and
5. Meeting labor demand in receiving countries.²²

Law no.111 places under the auspices of the appropriate minister the task of identifying migrants as either permanent or temporary, and recommends that, through consultation with appropriate other ministries, courses be established to prepare potential migrants for their voyage and work in the host country, and to ensure that cultural and religious heritage are saved in some manner among the migrant communities abroad²³. The Higher Committee for Migration (HCM), created in 1997 by Prime Minister Resolution no. 2000 to fulfill Article 4 of Law no. 111²⁴, was intended to not only provide for these pre-departure needs and maintain strong ties with Egyptian migrants abroad, but also facilitate both temporary and permanent return²⁵. Currently, the HCM serves predominantly as a policy and liaison committee²⁶, and has not reached its intended audience domestically as evidenced by the slim 5.5% of respondents in the current research study who list the Egyptian government as one of the resources they have utilized in their search for information about their intended destination countries.

²² Ayman Zohry, "The Migratory Patterns of Egyptians in Italy and France," (Florence: Euro-Mediterranean Consortium for Applied Research on International Migration (CARIM), Robert Schuman Centre for Advanced Studies, European University Institute, 2009).

²³ Zohry, "Contemporary Egyptian Migration."

²⁴ The HCM, as outlined in Article 4 of Law no. 111, is to be composed at minimum of representatives from the Ministries of Education and Scientific Research, Foreign Affairs, Interior, Economy, Planning, Defense, Information, Tourism and Civil Aviation, Insurance, and Finance. "Emigration and Sponsoring Egyptians Abroad Law No. 111," Egyptian Government (1983).

²⁵ Article 5, Ibid.

²⁶ Zohry, "The Migratory Patterns of Egyptians in Italy and France."

The year preceding the formation of the HCM the responsibilities of the Minister of State for Emigration Affairs and Egyptians Abroad were transferred by Presidential Decree no. 165 to what is now the Ministry of Manpower and Emigration, thereby also shifting the leadership of the HCM to the Minister.

The current strategy of the Emigration Sector focuses on two dimensions; first, developing work systems by introducing new technologies to establish an updated Egyptian Migration database that includes job opportunities abroad as well as numbers and statistics, and a computerized system through the Internet to link Egyptians abroad to their homeland. The second dimension of the Emigration Sector strategy is to reinforce the role of the “Union of Egyptians Abroad” and other civil society organizations that represent Egyptians outside the homeland.²⁷

To attain its goals, the Ministry of Manpower and Emigration has worked in conjunction with foreign governments and international organizations. The Italian government, for instance, funded the creation of the Migration Information System during the Integrated Migration Information System (IMIS) project in which the International Organization for Migration (IOM) was the implementing party²⁸. The pilot project, which was conducted from 2001-2004, was intended to create a means by which migratory flows could be controlled while simultaneously ensuring ease of integration for Egyptians intending to emigrate²⁹. The outputs of the project consisted of a website with job opportunities abroad also serving as a portal for Egyptian migrants overall. The 1,605,659.22 € grant enabled the creation of an information platform, currently highlighting France, Italy, Norway and Spain, to which migrants and potential migrants can refer³⁰. It also quite notably created a job matchmaking service meant to provide a platform through which Egyptian job seekers and Italian entrepreneurs and employers were able to find one another easily for clear mutual

²⁷ Ibid.

²⁸ Ibid.

²⁹ Italian Cooperation in Egypt, "[Http://Www.Utlcairo.Org/English/Progetti/Progetti/11.Html.](http://www.utlcairo.org/english/progetti/progetti/11.html)"

³⁰ Zohry, "The Migratory Patterns of Egyptians in Italy and France."

benefit. 1,500 applicants, out of an applicant pool of 170,000, were selected for interviews for positions ranging from assistant cook, to construction workers to engineers, and 178 were chosen to work in Italy and received 3 months of language training prior to their departure³¹. Despite the very low number of successful candidates, the initial mass of applications indicates a demand a placement service that would provide migrants with an accessible legal mode of accessing their desired country of destination, while also benefiting the Egyptian Ministry of Manpower and Emigration in that it will now be more involved in the migration of its citizens of concern from stage one.

The strategy of information provision as a means of regulating migration flows into Italy also served as the basis for the implementation of the “Information Dissemination for the Prevention of Irregular Migration from the Arab Republic of Egypt” project launched in 2006/7. This project however uses information about legal modes of emigration in addition to providing more realistic views of the realities of emigration, rather than direct entry job placements, to deter illegal migration³². The steadily increasing restrictions “by the Schengen agreements, the third pillar on justice and Home affairs, the Dublin Convention, and the few legislative provisions more recently adopted under the new title on migration instituted by the Amsterdam Treaty” have lead to an increase in irregular migration in the EU as well as a “progressive ‘securitisation’ of migration”, whereby migration itself is viewed as a security issue necessitating the attention of security agencies³³. A comparative study by Eurostat found that of the Egyptian respondents, almost none had attempted to enter or remain in a host country illegally. Six percent successfully attempted

³¹ Ibid.

³² Ibid.

³³ Leila S. Talani, "Out of Egypt: Globalisation, Marginalisation and Illegal Muslim Migration to the Eu" (Los Angeles, CA, 2005).

undocumented migration, with 24% heading to each Saudi Arabia, Iraq and Jordan, 10% to Italy and another 10% to other EU countries. The countries of choice for undocumented migration mirrored the routes for migrants traveling legally. The 10% of those who said they had arrived or stayed undocumented who chose Italy as their destination, compose 40% of the total number of Egyptian respondents in Italy³⁴. The two most common means of undocumented entry for Egyptians entering into Italy are first, “entry through Libya to the coasts of Italy or entry through the eastern borders of Schengen zone,” and second, regular entry by securing a tourist or business “visit visa,” and overstaying to work undocumented aided by networks in Italy. The latter option, while favorable as the safer mode of entry, is also the more expensive option³⁵.

The law has also put forth regulations to attempt to further harness the potential developmental gains that could arise from the large sums being remitted back into Egypt every year. It aims to address the exact infrastructural fears that may lead migrant families to shy away from investing within the state, since remittance income constitutes approximately 21 percent of foreign investment within Egypt³⁶. The law notes migrant rights to sponsorship and grants exemptions from taxes and fees on the returns earned by emigrants on their investments in Egyptian banks. Furthermore, “migrants’ capital utilized in investment projects in Egypt is to be granted the same advantages granted to foreign capital³⁷.”

³⁴ Eurostat, "Push and Pull Factors of International Migration: A Comparative Report," ed. Eurostat (Luxembourg: 2000).

³⁵ Zohry, "The Migratory Patterns of Egyptians in Italy and France."

³⁶ Peter Gammeltoft, "Remittances and Other Financial Flows to Developing Countries," *International Migration* 40, no. 5 (2002).

³⁷ Zohry, "Contemporary Egyptian Migration."

2. WHO EMIGRATES AND WHERE DO THEY CHOOSE TO GO?

2.1 Traditional Migration Patterns of Egyptians

It is said that Egypt is now experiencing “*the permanence of temporary migration*” as the long-standing norm of migrating to the Arab states has turned into an ever-replenishing presence of an Egyptian labor force within the Arab receiving states³⁸. The remaining third of the existing migrant Egyptian diaspora is predominantly found in the West, and consists of those whose migration intention is more permanent³⁹. The correlation between Arab state migration and temporary migration and Western state migration and permanence coincides with the rights afforded to migrants in their respective destinations. Western states are considered to afford a path to permanence, through their permissive allowances in rights and naturalization, thereby attracting those migrants whose departure is meant to be permanent in nature⁴⁰. Egyptian migrants in the West are disproportionately present in North America, with slightly over half of the 824,000 migrants in 2000 distributed between the United States and Canada⁴¹. European states account for approximately 40 percent of the remaining migrants’ destinations, with Italy and Greece being the main European destinations and Italy being considered Egyptians’ main destination for over two decades⁴².

Findings from a 2006 survey of a sample of 1,552 young Egyptian men, aged 18 to 40, showed that the current Egyptian emigration to Europe closely resembled

³⁸ Zohry, "Egyptian Youth and the European Eldorado: Journeys of Hope and Despair. Copenhagen."

³⁹ Talani, "Why Do Migrants Leave Their Countries? Motivations to Migrate at the Point of Departure: The Case of Egypt."

⁴⁰ Zohry, "Egyptian Youth and the European Eldorado: Journeys of Hope and Despair. Copenhagen."

⁴¹ Talani, "Why Do Migrants Leave Their Countries? Motivations to Migrate at the Point of Departure: The Case of Egypt."

⁴² Ayman Zohry, "Migration without Borders: North Africa as a Reserve of Cheap Labour for Europe," (UNESCO, 2006).

past migration to Arab states in that migrants set a particular goal that they plan to achieve and intend to return once they have realized it. The demography of Egyptian migrants seems much more homogeneous with migrants arising mainly from a particular “age, sex and educational status. They are predominantly concentrated in young age groups, with more males than females, and with a relatively high educational status, especially among those from an urban background”⁴³. Most permanent migrants ranged from 30 to 49 years of age, with this demographic constituting one third of the total migrant population. A notable distinction however arose within this age group as migrants aged 30-39 years generally initiated their permanent migration from Egypt, while the age group ranging from 40-49 acquired their second nationality after having lived abroad⁴⁴. In a survey conducted by Egypt’s Central Agency for Public Mobilization and Statistics in 1987, results indicated that 97.7 percent of migrants stemming from Egypt were male⁴⁵, leaving 76 percent of sending households to be headed by married women whose spouses were abroad and remitting back support for their household . 89.8 percent of the migrants were aged between 20 and 44, with 63.5 percent of emigrants being married⁴⁶.

The recent survey found that most of the push factors were largely economic, with young migrants hoping to evade bad living conditions, low wages/salaries, lack of opportunity, unemployment and the income disparities between Egypt and the

⁴³ Talani, "Why Do Migrants Leave Their Countries? Motivations to Migrate at the Point of Departure: The Case of Egypt."

⁴⁴ Zohry, "Contemporary Egyptian Migration."

⁴⁵ Talani, "Why Do Migrants Leave Their Countries? Motivations to Migrate at the Point of Departure: The Case of Egypt."

⁴⁶ Ibid.

receiving country of choice⁴⁷. On the pull side, youth noted that friends and family in the host country constituted an important factor in their choice of destination⁴⁸.

Migration of Egyptian youth to Europe is managed and activated by family kinship and ties while migration of Egyptians to Arab Gulf countries are usually managed by a set of regulations, certified migration brokers, and many other conditions. Migration to Europe is concentrated in a set of Egyptian villages in specific governorates; each village has its own destination; the two major destinations are Italy and France.⁴⁹

These networks influence migrants' knowledge upon arrival in the country about the labor market and expected wage rates which enables them to search for higher paid positions and had been found to decrease the time some migrants spend in the receiving country. After having accounted for economic situation of the host state and personal traits of the migrants, it was found that an established network increases the percentage of migrants who will stay in the host country for less than a year by 11 percent, from 2 to 13 percent⁵⁰. This negative correlation can be attributed to the lowered initial costs of migrants with a network experience which, when coupled with these migrants' access to higher wages as mentioned, enables them to recuperate the costs tied to their migration much faster, thereby allowing them the option of returning sooner than persons who do not have access to an established network.

Length of stay also differs by country of destination as most Egyptian migrants head to Western states intending on migrating permanently, with 55.5 percent of those going to Western Europe and 93 percent of those going to the U.S. and Australia answering this way, while those migrating to Arab countries all (100

⁴⁷ Zohry, "Attitudes of Egyptian Youth Towards Migration to Europe."

⁴⁸ Talani, "Why Do Migrants Leave Their Countries? Motivations to Migrate at the Point of Departure: The Case of Egypt."

⁴⁹ Zohry, "Egyptian Youth and the European Eldorado: Journeys of Hope and Despair. Copenhagen."

⁵⁰ Ira N. Gang Thomas Bauer, "Networks and the Duration of Temporary Migration," (2002).

percent) intend to return to Egypt⁵¹. Those who intended to migrate more permanently to a Western state tended to be highly educated/skilled professionals, who were mainly concentrated in medical, engineering and educational practices⁵². Notably, however, the skill set of those heading to Western destinations is declining as compared to that of the migrants to Europe in the 1960s and 1970s as many young Egyptians are more actively trying to emigrate now because of the increasingly difficult economic and employment environments, sometimes even turning to irregular modes of migration in order to escape⁵³. Migrants with work contracts in the host country were also found to spend more time than their counterparts without such contracts, since their wages in the receiving state are more stable and predictable⁵⁴.

The historical patterns of movement of Egyptian migrants have been well researched historically, however the effect of Egyptian migratory flows on Egypt itself is an area that is still in need of particular scrutiny. This research aims to fill a gap in this knowledge area by looking at the intended migration patterns of a new generation of migrants in Egypt and discussing the implications, beyond the traditional discussions of costs and remittances, that affect the sending state in terms of its domestic labor market and skill set.

2.2 Demographic Makeup of the Sample Population

In his surveys of three Egyptian sending communities, Adams found that “international migrants were self-selected on the basis of higher education”⁵⁵. The

⁵¹ Talani, "Why Do Migrants Leave Their Countries? Motivations to Migrate at the Point of Departure: The Case of Egypt."

⁵² Zohry, "Egyptian Youth and the European Eldorado: Journeys of Hope and Despair. Copenhagen."

⁵³ Ibid.

⁵⁴ Thomas Bauer, "Networks and the Duration of Temporary Migration."

⁵⁵ Joaquin Arango J. Edward Taylor, Graeme Hugo, Ali Kouaouci, Douglas S. Massey, Adela Pellegrino, "International Migration and National Development," *Population Index* 62, no. 2 (1996).

analysis of the migratory intentions of this class of engineering students is based on the sample of 115 students drawn from Cairo University's graduating class of approximately 2300 students⁵⁶. The choice of engineering students was based on several factors, prime among them is the relatively more accessible data on the field of engineering, which will be necessary in the calculations of the effect of the intended migration patterns on the labor market in Chapter 3. Furthermore, the quantifiable nature of the outcomes of engineers' work, for the most part, makes the cost-gain analysis for this field easier to define as compared to that for social sciences graduates. Engineers also contribute to infrastructural growth where they work, and therefore lost engineers could, in theory, be a great loss for any sending state. For these reasons, this research chose to focus on the field of engineering as a quantifiable source of data with the potential to impact both the home and host countries significantly.

The study sample is composed of 90 men and 25 women ranging in age between 19 and 25, most of whom (99%) are unmarried. 89% of the students surveyed are Muslim, and 11% Christian. Of the students surveyed, all but eight were born in Egypt. Of these only two have a citizenship in another state, but listed that they were raised in Egypt. Approximately 75% of respondents were raised in Greater Cairo, while the 25% remaining were raised throughout both Lower and Upper Egypt.

Of those who answered the question regarding family income (101 respondents), the majority (approximately 81%) estimated their household income

⁵⁶ Exact numbers on the size of the graduating class of students from the Faculty of Engineering at Cairo University in 2010 were not available at the time of writing this thesis, however this estimate was calculated based on the number of students in the Class of 2010 as second and third year students, and the rate of returning students as compared to those experienced by the Class of 2009, whose numbers were available. "Student Guidebook," (2008); "Student Guidebook," (2009).

was under 7000 EGP/month, with 19% of households bringing in less than 1000 EGP/month. The pool of respondents is therefore composed primarily of students who are from middle income (30.7%), lower-middle income (31.7%) and lower income (18.8%) families.

While nearly 100% of the respondents currently rely on family support for income, with only 3.6% listing work as one of their means of supporting themselves, the percentages are reversed when students are asked how they will support themselves following graduation. 100% of the students noted that they intend to support themselves through their work income. This is particularly notable as the female respondents, who now entirely rely on family support for their livelihoods listed only their savings, and not family support as their male counterparts listed, as the source of income to supplement their employment following graduation. The men however, specifically those whose household belonged to the middle class or above, listed both savings and family support as sources of income in addition to their post-graduation employment. Currently, 9.7% of students intend to utilize their savings to contribute to their own expenditures, and this number decreases slightly to 8% following graduation.

Of the students surveyed, only 9 have worked outside Egypt before, 7 in Europe, including one female student, and 2 in other Arab countries.

While the current study will not sufficiently delve into the cultural nuances that increase the relevance of gender distinctions in the analysis of this data, future research would benefit from such a focus. Where gender distinctions are highlighted, they are intended to draw attention to a pattern that the author believes is noteworthy either because the level of independence in it can be considered out of the ordinary

within the context of cultural and social norms in Egypt or because the pattern itself defies traditional gender roles.

2.3 Where does this generation of engineers want to go?

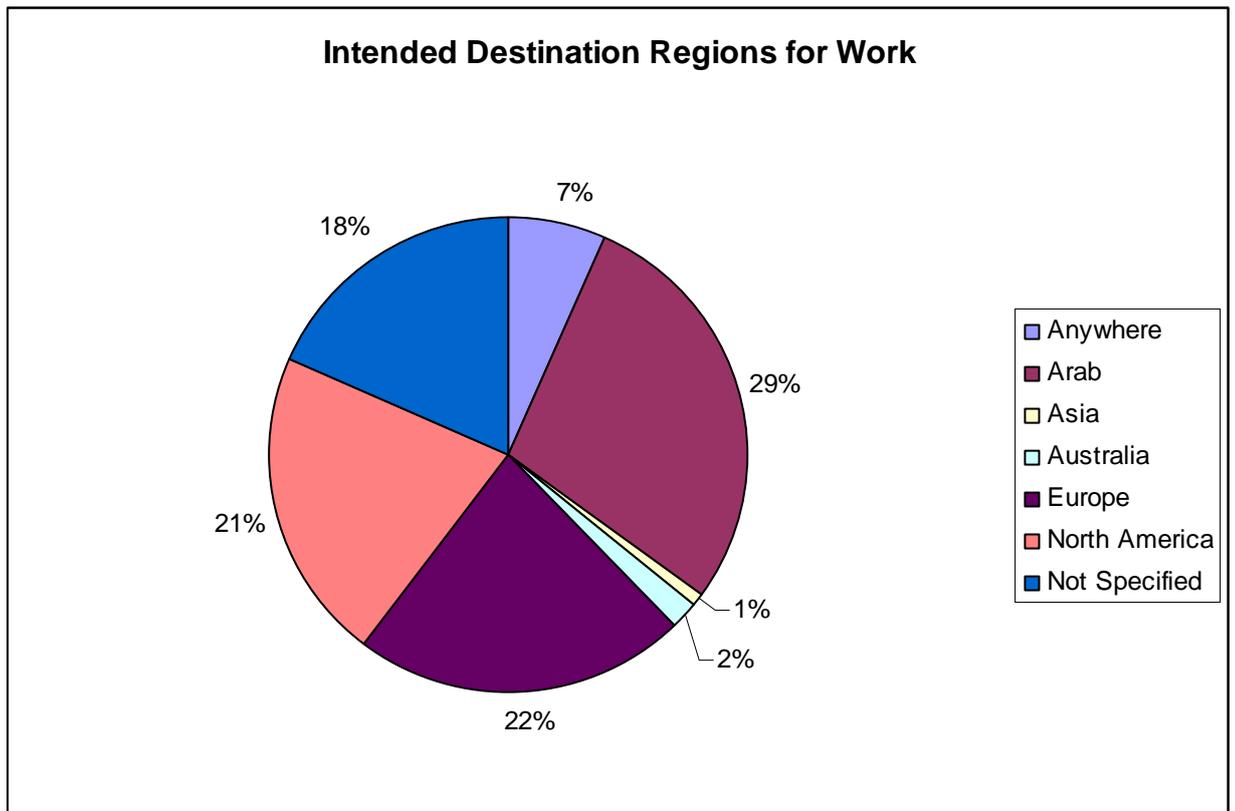
Before entering into a discussion of the emigration intentions of the sample student population, we must define the terms as they were understood by the sample. The Arabic translation of emigration (*hegra*) and that for work abroad (*3amal bel khareg*) were both used in the survey to distinguish between the students' intentions and to pinpoint whether the trends indicate a desire for permanent or temporary labor migration. While the term for emigration does imply permanence of migration, it is often used in Egypt to indicate a longer term temporary migration intention, and therefore intention to emigrate is analyzed taking into consideration the potential return of the migrant.

Case in point, of those who answered that they do intend to emigrate, several responded to the question of whether they intend to return to Egypt permanently after some time abroad affirmatively, indicating that these particular respondents, while they do intend to leave Egypt for some time, are thinking of a more temporary migration rather than final emigration.

The data in

Figure 1 is based on the responses of 86 respondents who noted that they do intend to work abroad in the future. 77.5% of respondents intend to work abroad at some point in the future, including one third of the female respondents surveyed. A few respondents listed several countries/regions, reflected here.

Figure 1 - Intended Destination Regions for Work



21 respondents (18%), including one female student, indicated that they already have been offered a chance to work abroad, split with 12 having been promised employment upon arrival and nine holding formal contracts. Of those with formal contracts, five are bound for Arab states, three for European states and one for Japan. Of those with promises of employment upon their arrival to the destination state, 11 were promised these in Arab states while one was headed for the United States. The differences in intended periods of residence in the receiving states are notable for this group as they reflect the historical migratory intentions of Egyptians as they were discussed above. The temporary nature of migration to Arab states is reflected in this sub-sample of the students who already have employment opportunities abroad. Those heading to Arab states intend to stay in their destinations between 2-15 years with an average of slightly over 6 years, with only one intending a permanent move and two uncertain about the intended duration of their voyage. The

one respondent headed for Japan is intending on staying between three to five years, while the one heading to North America is planning to stay for ten years. Of the three heading to Europe however, only one has limited his stay to five to ten years, while the other two intend to remain.

Of the students who have found employment abroad of either sort, only three have had previous work experience, and only two in the country where they intend to work following graduation. Slightly over half of these students are heading to countries where they have a network, and will be helped by family and friends across their home country and the receiving countries; those remaining who are heading to countries where they do not have a network, listed friends and family in addition to migration brokers to arrive at their final destination. Only two of the students leaving for an employment opportunity, one for the UAE and the other for the UK, are currently taking the equivalence exams to enable them to work in the work in their receiving country.

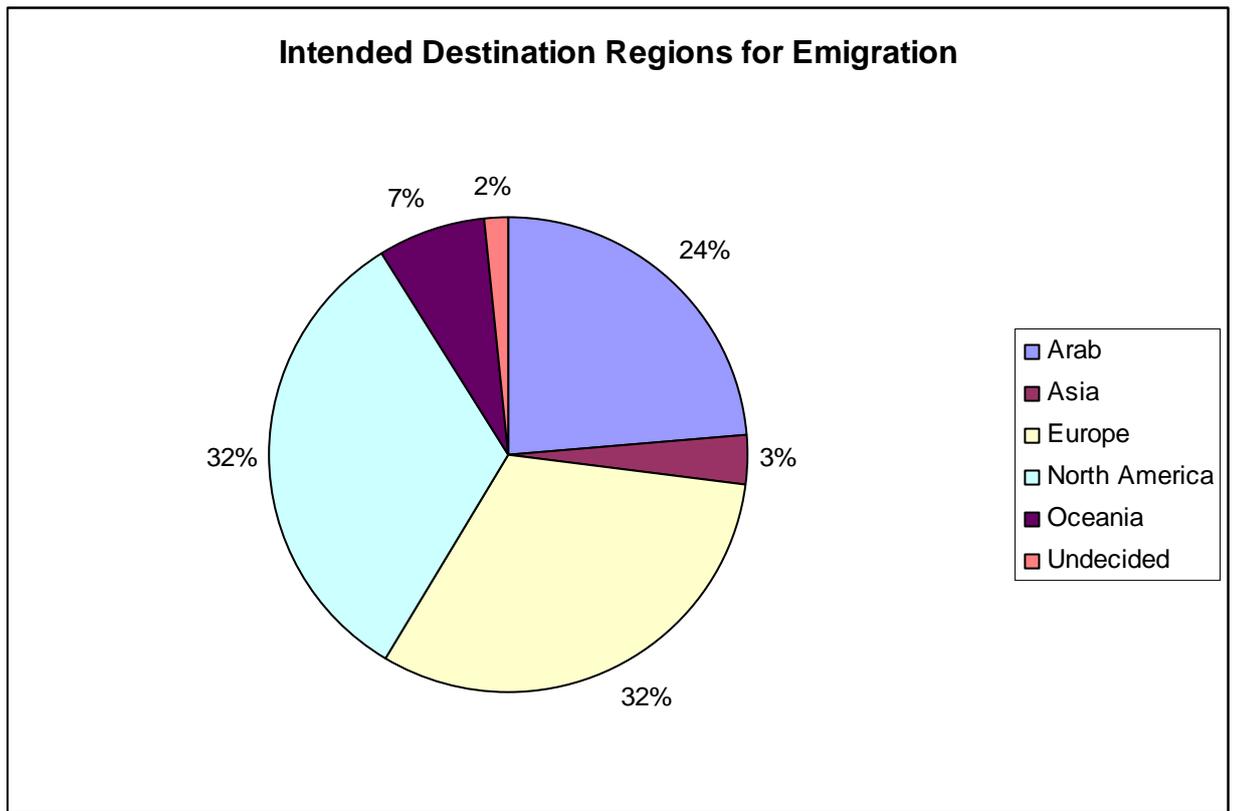
When asked about their intentions to emigrate, irrespective of job prospects, the majority of the sample population responded that they intend to emigrate from Egypt at some point, with 23.6% planning to do so in 3-5 years, 18.2% saying they do not yet have concrete plans, and 17.3% planning on leaving within 1-2 years. For those intending to emigrate, the gender composition was split 90%-10% male to female. A notably high number of respondents (36.4%), composed nearly evenly of females, said they did not intend to emigrate. While almost 73% of the male respondents indicated a desire to emigrate, the female respondents' answers weighed nearly just as heavily against emigration, with close to 70% saying they did not have the intention to emigrate from Egypt in the future. Furthermore, the women who did

indicate a desire to emigrate had not yet made concrete plans as opposed to the men whose answers signaled more urgency in their emigration intentions with the bulk of those emigrating intending to do so within the next five years.

Differences arise when comparing destination countries of those who intend to leave Egypt for work (

Figure 1) and those who intend on longer term migration (Figure 2). For those who intend to emigrate, far fewer are undecided, and a sizeable majority is split between North America and Europe as their desired host. The drop, while not severe, in those listing the Arab region as their destination for emigration as compared to those listing it for work is noteworthy as it reflects the traditional thinking that Arab states are a plausible option for long-term migration as they do not provide a path to integration as European and North American states offer.

Figure 2 - Intended Destination Regions for Emigration



Of those who responded with an intention to emigrate, whether those who had concrete plans to emigrate within a few years or those who just had the general intention, 88% noted that they do intend to return to Egypt at some point in the future. This included several of the women who were not intending on emigrating or working abroad, perhaps indicating an intention to emigrate for family purposes after marriage, which would also explain why the women for the most part who do intend to leave either do not know when their intended departure is, or also state they do not know how long they will stay abroad. This trend plays into traditional gender roles as well in that, while the women might have an interest in life abroad, it may not be socially acceptable for their parents to approve of such a decision before the women are married. As a question about whether the move is motivated by marriage was not included in the survey, the discrepancy in the answers discussed above is the only

indication that societal norms may be the only obstacle preventing these women from making their own concrete plans for emigration.

Intended duration of stay abroad overall ranged from one year to 20 years for those who specified, and “Once I make enough money abroad” and “Don’t Know” for those whose intentions have not been decided beyond the point of departure. The majority of answers fall within the 3-10 year range, regardless of how soon after graduation they intend to leave.

2.3.1 Networks

A vast majority of respondents 79.1% know someone who has already emigrated, with most listing family among those they know abroad, 11.8% listed that their parents had emigrated previously, and 49.1% noted that members of their extended families had emigrated. 51.8% said they know a friend who has emigrated. Since a friend might well be within the same age range as the respondents, it is key to also look into the migration intentions of the respondents based on whether a friend of theirs has already emigrated. 77.2% with a friend who has already emigrated intend to also leave Egypt, with the majority of those (75%) having already decided on a specific timeline for departure ranging from graduation to 10 years, weighed heavily toward 5 years or sooner.

Table 1 - Knowledge of Other Emigrants by Intent to Emigrate

Do you know people who have emigrated already? (Check all that apply) هل تعرف أناس هاجروا من قبل؟ إختتر كل ما ينطبق								
Answer Options	Do you intend to emigrate from Egypt in the future? هل تنوي						Response Percent	Response Count
	Yes, this	Yes, in	Yes, in	Yes, in	Yes, but	No, I		
Yes, my parents نعم، والديا	0	1	4	0	3	5	12.0%	8
Yes, my brother نعم، أخي	0	1	0	0	0	1	1.9%	1
Yes, my sister نعم، أختي	0	1	1	0	1	0	2.8%	3
Yes, a member of my extended	0	9	15	1	11	16	48.1%	36
Yes, a friend نعم، صديق لي	2	16	13	2	11	12	51.9%	44
No, I don't know anyone who	0	1	2	1	4	15	21.3%	8
<i>answered question</i>								108
<i>skipped question</i>								2

Approximately 67% of those with immediate or extended family members abroad intend to migrate as well. Of those who have family and/or friends abroad, slightly more than 2/3 intend to go to the same countries where their networks reside. Approximately half of those following their network intend to go to North America, while the remainder is split fairly evenly between Europe and the Arab states, with only one respondent listing Australia as a destination where he intends to join Egyptian emigrants.

The vast majority of potential emigrants from the graduating class of engineers at CU seek information about their future countries of destination either from family and friends (71.2%) or their own personal research, including internet research (listed by 57.5% of respondents), general personal research (30.7%) and consuming media-dispensed information (30.1%), or combination thereof. Only 5.5%

of students surveyed listed the Egyptian government as one of their sources of information, while twice that percentage resorted to information from their country of destination's embassy.

Having a network, consisting of family (30.4%) or friends (20.3%), in the host country appears to be useful for those students who intend on emigrating, as students listed these persons as ones who will help them migrate. 23.2% listed that they will seek the help of a migration broker. The anticipated costs associated with migration average at almost 26,000 EGP, with only 8.3% (those planning to leave within the next five years) of students noting that they had begun saving for their departure from Egypt with some even having surpassed the amount they anticipate to need. Cost expectations vary widely extending from 2000 EGP to 150,000 EGP, although the bulk of students expect a cost ranging between 10,000-30,000 EGP.

According to Zohry, historical reported costs of migration to Europe from Egypt ranged from 5,000 EGP, as paid by about 13.7 percent of migrants, to 50,000 EGP, which was the cost for about 1.6 percent of migrants. These costs simply cover facilitation expenses but do not cover the cost of transportation itself nor do they include documentation fees. The average cost for this trajectory was calculated to be 15,890 EGP, with 70 percent of migrants having paid between 5,000 EGP and 40,000 EGP⁵⁷.

In the current study sample, it is clear that not all the students responding with an estimate of their projected migration costs have already researched the expenses as evidenced by the very broad spectrum of estimates provided. Based on the informal conversations surrounding the topic, the students listed estimates that accounted for a

⁵⁷ Zohry, "Egyptian Youth and the European Eldorado: Journeys of Hope and Despair. Copenhagen."

range of costs associated with migration. Some students evaluated that the cost of migration was simply the cost of purchasing a ticket to their destination and rent costs for the first couple of months, while others calculated the overall costs including these and the costs of equivalence exams, among several other factors. It is quite interesting that those who expect assistance from Relatives or Friends in their destination country, and those seeking the assistance of a migration broker on average estimate the cost within 3000 EGP of one another, and fall right around the overall average for the estimates. Conversely, those with relatives in Egypt or non-Egyptian friends in the destination country assisting them, estimate the cost of migration at nearly 12,000 EGP less than the average of the overall responses. This could perhaps indicate that students guided, or assisted, by persons who might not have emigrated or who may have emigrated at some point in the past may be obtaining a less than realistic portrayal of emigration, not only financially but also socially in terms of what to expect in the destination country.

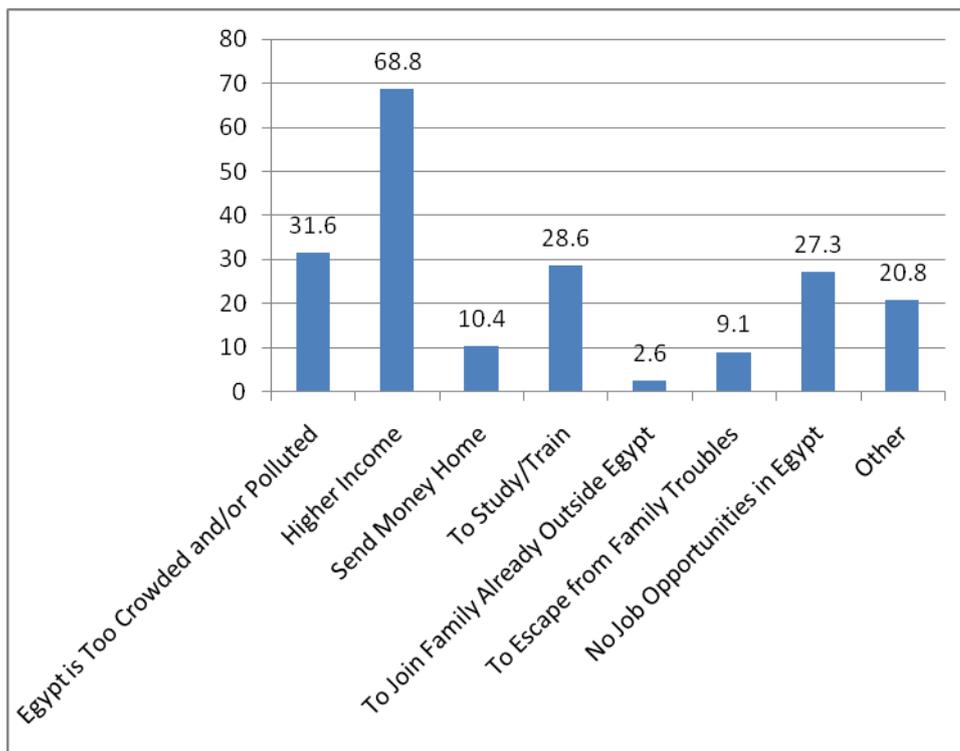
Almost two thirds of the students surveyed listed that their immediate family would assist them financially for their emigration, while about 10% also answered that extended family would contribute, and almost one third said that no one would assist them in meeting the financial needs of their migration decisions.

2.4 Why do they want to emigrate?

Figure 3 shows the reasons for the students' emigration intentions, clearly demonstrating that prime among the factors impacting intention to emigrate from Egypt is the perception that monetary compensation of these skilled minds in Egypt will not match what is attainable abroad, and this is further exacerbated by the reason chosen by 27.3% of respondents that "No job opportunities in Egypt". The "Other"

category provided interesting answers as several students noted that respectful treatment that they anticipate from people abroad is one reason they would like to migrate. One student also mentioned “democracy and human rights problems” specifically as his reason for wanting to emigrate, while several others noted that their academic aspirations drew them to the option of emigration.

Figure 3 - Reasons for Emigration



Students who included sending money home as one of the main reasons to emigrate were drawn from the middle income bracket and below, which coincides with the higher propensity for students from these socio-economic brackets to plan to remit even before their departure. The range of anticipated remittance transfers listed by the students whose emigration was partially prompted by the desire to remit, spanned from 15-45% of their salaries.

Figure 4 - Reasons for Country of Destination

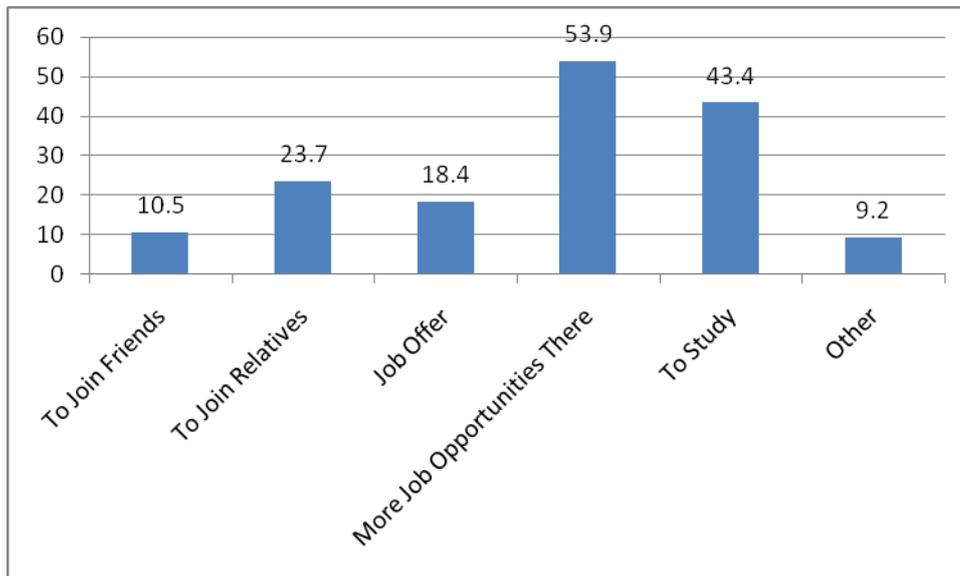


Figure 4 shows the high value the students place on the increased job opportunities they anticipate finding upon placing themselves on the international job market, which nearly 54% of students list as a main draw to their target destination country.

The push and pull factors seem to highlight economic success, educational opportunities and environmental woes as the primary reasons students aim to seek work, or permanent residence, abroad. These factors must therefore be addressed in policies seeking to address the needs of would-be emigrants to, if for no other reason, ensure that dissatisfaction with their home country does not deter them from remitting if they plan to do so, or from returning, even temporarily, to provide their sending state with knowledge based capital gains, comprising both social and human capital, as will be discussed in subsequent chapters.

3. SKILLED EMIGRATION

3.1 Effect/Cost of Skilled Migration

The emigration of highly educated nationals is one trend that is often said to have potential drawbacks for the sending countries. The brain drain phenomenon is believed to deprive the country of origin of its brightest minds, thereby utilizing the sending country's best trained capital for the benefit of the receiving country leaving the country of origin to depend on their unskilled workforce as their engine for growth, and curtailing development in the home country⁵⁸.

The emigration of skilled Egyptian workers to the United States can be taken as an example of this phenomenon. If we consider that real public expenditure in 1998 in Egypt per student equaled about 338 USD for primary education, 527 USD for secondary education and 3337 USD for tertiary education⁵⁹, we can calculate that the expense to the state of producing one engineer in 1998 was approximately 20,970 USD⁶⁰. This total cost in 2009 prices equals approximately 27,811 USD⁶¹. For the receiving state, on the other hand, gains from the emigration of these trained minds are sizable. In 1971-2, the U.S. Congressional Research Service estimated profits of 20,000 USD annually from each qualified emigrant from developing countries. In

⁵⁸ Riccardo Faini, "Migration, Remittances and Growth," *Italian Ministry of the Economy and University of Brescia* (2002).

⁵⁹ Ali Abdel Gadir Ali, "Building Human Capital for Economic Development in the Arab Countries," The Egyptian Center for Economic Studies Working Paper No. 76 (2002).

⁶⁰ This calculation makes three assumptions. The first is that time spent in primary school totaled five years, as compared to the current six years required in primary school, so as to reflect the cost expended by the state on the current study sample's education. Secondly, the calculation assumes that real public expenditure on preparatory school, the three years following primary school in Egypt, equaled that spent on primary education so as not to over-estimate overall cost. Thirdly, the calculation does not account for differences in choices in tertiary education, as an engineer would presumably cost the state more or less in this stage as compared to persons choosing other fields of study.

⁶¹ Prices adjusted using the Inflation Calculator tool provided by the U.S. Bureau of Labor Statistics at <http://data.bls.gov/cgi-bin/cpicalc.pl>.

1979, the United Nations Conference on Trade and Development (UNCTAD) listed the market value of professional migrants aged 25-35 from Africa at 184,000 USD⁶². Adjusting for inflation, the range given by these estimations would equate to gains between 103,000 – 548,000 USD for the United States as a host country in current prices.

Further depleting sending country national budgets, the expatriation of skilled minds from developing countries often necessitates a replacement of the departing domestic expertise with international expertise⁶³. It is estimated, by the Organisation for Economic Co-operation and Development (OECD) “that the recourse to international experts costs developing countries almost 40 per cent of the public development aid they receive annually.”⁶⁴ Yet, while the direct cost to the sending country, in terms of lost investment and knowledge replacement, does add up to a considerable amount, the effect of skilled labor force emigration differs tremendously depending on the home country situation, occupation and receiving country demands⁶⁵.

One striking fact is that the tertiary educated migrants are a small portion of the overall migrant population—especially in large sending countries such as Turkey, Algeria, Morocco and Tunisia. For example, between 10-15% of migrants have tertiary education in Turkey, Tunisia, Morocco and Algeria as of year 2000. On the other hand, more than 50% of migrants to OECD

⁶² Mohamed Mghari, "Exodus of Skilled Labour: Magnitude, Determinants and Impacts on Development," in *Arab Migration in a Globalized World*, ed. International Organization for Migration (Geneva: 2004).

⁶³ Nazih Ayubi, "The Egyptian "Brain Drain": A Multidimensional Problem," *International Journal of Middle East Studies* 15, no. 4 (1983); Mghari, "Exodus of Skilled Labour: Magnitude, Determinants and Impacts on Development."

⁶⁴ Mghari, "Exodus of Skilled Labour: Magnitude, Determinants and Impacts on Development."

⁶⁵ Said Ouaked, "Transatlantic Roundtable on High-Skilled Migration and Sending Countries Issues," *International Migration* 40, no. 4 (2002).

countries from other countries, including Egypt, Iran, Iraq, Lebanon and Jordan have tertiary education.⁶⁶

In a study on migration to Kuwait, emigrants from capital-poor Arab countries were found to be drawn “from the technical, skilled, and semiskilled sectors of society”. Emigrants coming from Palestine, Egypt, Jordan, Lebanon, Syria and Iraq were found in positions in Kuwait that required secondary or post-secondary training⁶⁷. Migrants from the Persian Gulf countries, Egypt, Jordan and Lebanon take on positions requiring high levels of education in the OECD. In terms of positions in the receiving country, migrants from the Middle East and North Africa rank better than their Latin American counterparts and worse than Asian migrants, with 56% of Turkish migrants, 47% of Tunisian migrants and 43% of Egyptian migrants obtaining skilled jobs and comparable levels in the remainder of the region’s countries⁶⁸. These differences are key to note as such demands for specific skill sets will set the tone for future emigration patterns to the European Union, and other regions where demographic trends indicate future industry and labor supply gaps. These labor need projections can benefit states with excess labor force, albeit not through direct employment in the home country, by encouraging the excess supply of labor to be productive members of other states or regions.

In purely economic terms, emigration is used to rectify market imbalances and wage differentials currently existing globally. As of 2005, 12.9 million people, or 4.2% of the MENA population, had emigrated out of the region with most (52.2%)

⁶⁶ Çağlar Özden, "Brain Drain in the Middle East & North Africa - the Patterns under the Surface" (paper presented at the United Nations Expert Group Meeting on International Migration and Development in the Arab Region, Beirut, 2006).

⁶⁷ J. Edward Taylor, "The New Economics of Labour Migration and the Role of Remittances in the Migration Process," *International Migration* 37, no. 1 (1999).

⁶⁸ Ibid.

heading to the OECD countries⁶⁹. Trusting in the invisible hand of the market, emigration is easily justifiable as a counter-balance to the divergent capital, labor and income realities visible in the world market⁷⁰. Incorporating demographic projections of the Middle East to this idea of the invisible hand further illustrates the necessity of forethought in emigration policies. According to UNDP's population projections for the Middle East and North Africa, the region's population will grow from 284 million in 2000 to 410 million inhabitants in 2020. Saudi Arabia, Oman and Yemen will experience the greatest growth rates, while the largest populations will be in Egypt, with 91 million, Algeria and Morocco with 41 million inhabitants each, Yemen with 37 million and Saudi Arabia with 33 million⁷¹. These growth rates if not coupled with equally expedient job creation will inevitably lead to a repeat of the high unemployment rates witnessed in much of the Middle East in the 1990s "ranging from 8% in Saudi Arabia, 15% in Tunisia, and as high as 22% and 28% in Morocco and Algeria"⁷².

Such demographic changes therefore will necessitate global cooperation to absorb demand for market positions in settings where infrastructure and job provision has yet to catch up. Regional alleviation of these market pressures for the Maghreb and Mashrek seems the least plausible option, while international market absorption would be most logical given, for example, the European Union's growing demand for labor and "dwindling population and labourforce"⁷³. Even with the existing labor dynamics, Kuwait, Syria, Morocco and Saudi Arabia hope to reduce their rates of

⁶⁹ Z.X. Dilip Ratha, "Middle East and North Africa," *Migration and Remittance Factbook* (2007).

⁷⁰ Faini, "Migration, Remittances and Growth."

⁷¹ Martin Baldwin-Edwards, "Migration in the Middle East and Mediterranean," in *Global Commission on International Migration* (Athens: Mediterranean Migration Observatory at Panteion University, 2005).

⁷² Ibid.

⁷³ Ibid.

emigration, with the latter two taking measures to encourage the return of their migrants⁷⁴. In 2001, Egypt's official view on migration saw immigration levels as adequate but hoped to lower them, and emigration levels as too low aiming to raise them⁷⁵. This policy decision is particularly noteworthy when compared with the projected labor force growth, as Syria and Saudi Arabia—two states that would like to lower their rates of emigration—will experience a comparable labor growth rate to that of Egypt, Jordan and Yemen, whose response is to encourage emigration of their nationals. Yet, even with state policies to encourage or discourage their nationals' migration patterns, the determining factor of whether emigration will serve to alleviate overcrowding of the labor force in source countries will inevitably be based on the training and qualifications demanded by the receiving states.

3.2 Impact of Skilled Emigration on Domestic Unemployment

Similarly, on a domestic level, mismatched distribution of skills and education to domestic market needs muddies unemployment projections as even sound emigration policy aimed at alleviating labor surplus in specific industries would leave behind a country with other industries scrambling to fill its positions with qualified persons. Egypt, for example, finds its brightest minds drawn to the prestige of particular careers, such as medicine and engineering, leaving emerging industries that have yet to garner comparable levels of recognition and esteem to fend for themselves⁷⁶. In the current study sample, 87.2% of students noted that they would only accept engineering positions abroad, which is in keeping with their career projections for themselves following graduation as most students listed that they plan to join the workforce as an engineer with only a very small amount listing other

⁷⁴ Ibid.

⁷⁵ Mghari, "Exodus of Skilled Labour: Magnitude, Determinants and Impacts on Development."

⁷⁶ Sherelle Jacobs, "Coming to Grips with Egypt's Unemployment Crisis," *Daily News Egypt*, August 23 2009.

positions. However, as new entrants into the Egyptian labor market, these youth face the added challenge of the disproportional representation of their age group in unemployment statistics. The total unemployment for persons aged 15-29 in 1988 was 82%, which grew to 84% in 1998 with most of these being first-time job seekers⁷⁷. This particular sub-sample also faces the added complication of the high concentration of unemployed persons within the educated segments of society, with the highest concentration of unemployed persons (55%) being composed of those with intermediate education⁷⁸, followed by university educated persons who constitute 14% of unemployment totals⁷⁹. This counter-intuitive hindrance to successful market absorption further exemplifies the discord between the products of the educational system in Egypt and the needs of the market in the country.

Figure 5 - Unemployment Projections for Egypt 2006-2011⁸⁰

Illustrative Scenarios for Unemployment, 2006-2011

	2006				2011				Assumptions		
	Emp.	Labor Force	Unemp.	Unemp. Rate (%)	Emp.	Labor Force	Unemp.	Unemp. Rate (%)	2006-2011		
									Annual GDP Growth Rate (%)	Elasticity	Annual Labor Force Growth Rate (%)
LOW GROWTH	19,877,329	21,917,429	2,040,100	9.3	22,715,575	25,285,205	2,569,630	10.2	4.43	0.59	2.9
Neutral					22,940,114		2,345,091	9.3	4.75		
Benchmark 1					23,477,241		1,807,965	7.2	5.50		
Benchmark 2					24,453,488		831,717	3.3	5.50		
High growth					24,598,304		686,901	2.7	7.00		

⁷⁷ Ismihan N Kilicarslan Mehmet Huseyin Bilgin, "An Analysis of the Unemployment in Selected Mena Countries and Turkey," *Journal of Third World Studies* (2008).

⁷⁸ Ibid.

⁷⁹ Samir Radwan, "Employment and Unemployment in Egypt: Conventional Problems, Unconventional Remedies," The Egyptian Center for Economic Studies Working Paper no. 70 (2002).

⁸⁰ Cyrus Sassanpour Mohamed Hassan, "Labor Market Pressures in Egypt: Why Is the Unemployment Rate Stubbornly High?" (paper presented at the The Unemployment Crisis in the Arab Countries, Cairo, 17-18 March 2008).

According to United Nations projections, Egypt's population is expected to grow to 96 million in 2026, and 114.8 million by 2065, when it is expected to stabilize⁸¹. The current population growth rate is approximately 1.4 million people per year, and with such rapid growth come high levels of unemployment. Official unemployment estimates show a drop from 9.2 percent unemployment in Egypt in 1991-1992, to about 8.4 percent in 2000-2001, although independent estimates place the latter at around 14 percent⁸². In 2005, official estimates placed unemployment between 10 and 12 percent, while the independent assessment's figure doubled this estimate⁸³. In order to fully address these rates of unemployment, "Egypt will need to achieve a sustained real GDP growth rate of at least 6 percent per year. The economy has to generate between 600,000 and 800,000 new jobs each year in order to absorb new entrants into the labour force"⁸⁴. For the period extending from 2001-2010, the labor supply in Egypt is predicted to grow at 2.6%, during which time "the average number of new job seekers will increase to 638,000 per year"⁸⁵. However, contrary to what is needed, only about 370,000 new jobs were created each year from 1990 to 1997⁸⁶, increasing slightly to 435,000 the following decade⁸⁷, and Egypt's real economic growth has declined from 5% to 2.1% per annum⁸⁸. As seen in Figure 5, even the most optimistic growth projections for Egypt's GDP, although it exceeds the 6% thought to be needed in 2003, would not provide for the growing demands of the labor force for market absorption.

⁸¹ Barbara Harrell-Bond, "Contemporary Egyptian Migration."

⁸² Ibid.

⁸³ Zohry, "Egyptian Youth and the European Eldorado: Journeys of Hope and Despair. Copenhagen."; - --, "Migration without Borders: North Africa as a Reserve of Cheap Labour for Europe."

⁸⁴ Barbara Harrell-Bond, "Contemporary Egyptian Migration."

⁸⁵ Mehmet Huseyin Bilgin, "An Analysis of the Unemployment in Selected Mena Countries and Turkey."

⁸⁶ Barbara Harrell-Bond, "Contemporary Egyptian Migration."

⁸⁷ Mehmet Huseyin Bilgin, "An Analysis of the Unemployment in Selected Mena Countries and Turkey."

⁸⁸ Zohry, "Contemporary Egyptian Migration."

3.2.1 Calculations: How The Migration Intentions of This Graduating Class can Affect Unemployment

This section will aim to quantify the problem of market absorption by utilizing published data on unemployment, annual engineering graduate numbers and the proportion of the labor market made up of skilled workers. This data will be used to estimate the numbers of positions available in the market for new entrants into the field of engineering and observe these in light of the migration intentions indicated by the current research sample. From there these calculations will quantify proposed means of addressing unemployment, both by specifying needed increases in labor market position provision and by assessing whether policies aimed at fostering and encouraging the migration intentions of the current class in future graduating classes would be beneficial.

These calculations are the researcher's own and are listed here step by step to elucidate the intention behind each calculation. Remainders are kept throughout the steps to ensure that the final predictions of numbers needed to address unemployment in Egypt are not over- or under-valued.

Step 1: Calculate unemployment in the field of engineering based on estimation of unemployment assuming neutral growth rate⁸⁹:

$$\text{Unemployment} = 2,345,091^{90}$$

If university educated persons account for 14% of unemployment⁹¹

$$\text{then, university unemployment} = 0.14 \times (2,345,091)$$

$$\approx 328,313$$

⁸⁹ Mohamed Hassan, "Labor Market Pressures in Egypt: Why Is the Unemployment Rate Stubbornly High?"

⁹⁰ Ibid.

⁹¹ Barbara Harrell-Bond, "Contemporary Egyptian Migration."

If engineers account for 6% of all higher education in labor force⁹²

$$\begin{aligned} \text{then, engineering unemployment} &= 0.6 \times (328,312.74) \\ &= 19,698.7644 \end{aligned}$$

Therefore, engineering unemployment in 2011 \approx 19,699

Step 2: Calculate number of engineers in labor force calculations for 2011

Assuming neutral growth rate:

$$\text{Labor force} = 25,285,205^{93}$$

If university educated persons account for 12% of labor force⁹⁴

$$\begin{aligned} \text{then, university educated labor force} &= 0.12 \times (25,285,205) \\ &\approx 3,034,225 \end{aligned}$$

If engineers account for 6% of higher education in labor force

$$\begin{aligned} \text{then, engineers in labor force} &= 0.6 \times (3,034,224.6) \\ &= 182,053.476 \end{aligned}$$

Therefore, engineers in labor force in 2011 \approx 182,053

Step 3: Calculate unemployment level within the field of engineering

If engineering unemployment in 2011 \approx 19,699⁹⁵

and engineers in labor force in 2011 \approx 182,053⁹⁶

then, 2011 engineers have 10.8% unemployment

⁹² Ahmed Abdel Moneim Abu-Ismael Ibrahim Shafie, "Engineering Education in Egypt," ed. Tempus Project (2002).

⁹³ Mohamed Hassan, "Labor Market Pressures in Egypt: Why Is the Unemployment Rate Stubbornly High?"

⁹⁴ Ahmed Galal, "The Paradox of Education and Unemployment in Egypt," The Egyptian Center for Economic Studies Working Paper no. 67 (2002).

⁹⁵ Based on calculation in Step 1.

⁹⁶ Based on calculation in Step 2.

Step 4: Calculate the number of engineering graduates per year

Using the same number of students of engineering in the public universities as that for 2002/2003⁹⁷: 104,081

$$\begin{aligned} \text{then, graduating students} &\approx (104,081) / 5 \text{ (years of study)} \\ &= 20,816.2 \end{aligned}$$

Therefore, overall graduating class of engineers in Egypt $\approx 20,816$

Step 5: Calculate unemployment for class of new entrants into the field of engineering

If unemployment level for new entrants into the market was proportional to that for the field of engineering overall

$$\begin{aligned} \text{then, ideal unemployment for graduating class} &= 0.108 \times (20,816.2) \\ &\approx 2,248 \end{aligned}$$

In reality however, the proportion of new students among unemployed is 82% due to the problem in Egypt of youth insertion in the market⁹⁸

$$\begin{aligned} \text{Therefore, if engineering unemployment in 2011 is} &\approx 19,699 \\ \text{then, actual unemployment for entrants in 2011} &= 0.82 \times (19,698.7644) \\ &= 16,152.987 \end{aligned}$$

Actual unemployment for new entrants in 2011 $\approx 16,153$

Step 6: Calculate jobs created per year for new entrants into engineering

If new jobs created per year = 435,000

$$\begin{aligned} \text{then, new jobs for university educated persons} &= 0.12 \times (435,000) \\ &= 52,200 \end{aligned}$$

$$\begin{aligned} \text{Of these, 6% are for engineers in work force} &= 0.6 \times (52,200) \\ &= 3,132 \end{aligned}$$

⁹⁷ Ibrahim Shafie, "Engineering Education in Egypt."

⁹⁸ Mehmet Huseyin Bilgin, "An Analysis of the Unemployment in Selected Mena Countries and Turkey."

Therefore, new jobs created per year for engineering = 3,132

Step 7: Check the numbers

Therefore, total accounted for = $16,152.987 + 3,132$

$$\approx 19,285$$

Total unaccounted for = $20,816.2 - 19,284.987$

$$\approx 1,531 \text{ engineers } (\approx 7.36\%)$$

Step 8: Calculate new jobs that would need to be created per year to yield

unemployment for new entrants that is proportional to that for the field of engineering overall

If we wanted unemployment for new entrants to reflect that for engineers

then, new jobs per year for engineers would need to = $20,816.2 - 2,248.1496$

$$\approx 18,568$$

Therefore, engineering new jobs for university educated persons

$$= (18,568.0504) / 0.6$$

$$\approx 309,468$$

Therefore, new jobs created per year would need to be = $(309,467.51) / 0.12$

$$\approx 2,578,896$$

Step 9: Apply results for study to overall graduating class of engineers in Egypt

If we apply the migration intentions for work (77.5%) to the projected number of engineering graduates from public universities for 2011 in Egypt, we can visualize the effect migration could have on unemployment in Egypt.

Applying results from question of interest in temporary work migration:

Engineering graduates leaving for work = $0.775 \times (20,816.2)$

$$\approx 16,133$$

$$\begin{aligned}
 \text{Engineering graduates remaining in Egypt} &= 20,816.2 (100\% - 77.5\%) \\
 &= .225 (20,816.2) \\
 &\approx 4684
 \end{aligned}$$

Therefore, unemployed engineers remaining, based on these students migration intentions = 4683.6 – 3132
 ≈ 1551

Therefore, unemployment rate for new entrants into the field of engineering in Egypt following the migration of 77.5% of these new entrants as projected by the students' intentions, would be:

$$\begin{aligned}
 &= (1551.6 / 4683.6) \times 100 \\
 &= 31.128\%
 \end{aligned}$$

Step 10: Calculate projections of changes needed to attain desired levels of unemployment

While the above rate of unemployment that would result from the anticipated rate of migration of the students surveyed (31.128%) is significantly better than the 82% currently seen for new entrants in unemployment statistics, it is still a worthwhile endeavor to calculate the rates of emigration that would be necessary, based on current predictions of market provision of positions for new entrants into the field of engineering (calculated here to be 3132), in order to have unemployment rates for new entrants be proportional to those of the field overall and in order to achieve 0% unemployment.

If goal is 10.8% unemployment for new graduates

$$\begin{aligned}
 \text{then, unemployed} &= 4683.6 \times (.108) \\
 &\approx 506
 \end{aligned}$$

then, necessary number of jobs for new entrants would be

$$4683.6 - 505.8288 \approx 4178$$

This means that either job provision/creation would need to increase by

$$\begin{aligned} 4177.7712 - 3132 &= 1045.7712 \\ &= 33.39\% \text{ increase} \end{aligned}$$

OR, emigration would need to increase by

$$\approx 1046 \text{ persons emigrating}$$

Therefore, total engineering graduates needing to leave for work

$$= 16,132.555 + 1045.7712$$

$$= 17178.326 \text{ or } 17179 \text{ engineering graduates}$$

Therefore, necessary emigration rate to achieve 10.8% unemployment

for new graduates based on current market provision of positions

$$= 100 \times (17178.326 / 20,816.2)$$

$$= 82.52\%$$

This indicates that an increase of 5.02% is needed from current

migration intentions among new entrants

If goal is 0% unemployment

then job provision needs to increase by

$$4483.6 - 3132 \approx 1552$$

$$= 49.54\% \text{ increase}$$

OR, emigration would need to increase by

$$\approx 1552 \text{ persons emigrating}$$

Therefore, total engineering graduates needing to leave for work

$$= 16,132.555 + 1551.6$$

$$= 17,684.155 \text{ or } 17,685 \text{ engineering graduates}$$

Therefore, necessary emigration rate to achieve 0% unemployment for new graduates based on current market provision of positions

$$= 100 \times (17684.155 / 20,816.2)$$

$$= 84.95\%$$

This indicates that an increase of 7.45% is needed from current migration intentions among new entrants

It is important to point out that, based on these results, the student intentions seem to indicate a reasonable level of awareness, meaning that their migration intentions meet the realities of the local labor market they are entering. The fact that the intentions of near-graduates do show such an overwhelming desire to work abroad and the more striking fact that these intentions might in fact be what is ideal under the present market conditions in Egypt clearly indicates that the domestic environment is not conducive to alleviating traditional fears of losses from skilled emigration. This may, however, be a blessing in disguise for Egypt in the short-run as the domestic market appears incapable of absorbing the skilled persons stretching the demand for unavailable positions.

In 2006, the average male graduate from engineering faculties in Egypt took approximately two years to find gainful employment, with about 50% needing this amount of time, and an additional 25% found employment within the first five years following graduation. These numbers have improved from their levels in 1998 when 50% employment rates for the class was reached three years after graduation and 75% took nearly eight years to attain. For women, the remarkably low rate of incorporation into the market has remained constant with less than 25% of female students joining

the workforce even after 15 years⁹⁹. The disjointed reality of education and employment in Egypt is further exemplified by the non-existence of graduate assistance for employment at public universities across the country. Even in private universities, only two offer career services for their students and alumni¹⁰⁰. This signals the presence of the additional hurdle for students who are approaching a difficult market with no sense of what limited options it has to offer.

The IMIS project discussed above is one model that could be adopted nationally, bilaterally or multilaterally, as a way of connecting the prospective applicant pool with positions needing their qualifications. Not only would such a method aid in the amelioration of the perpetually increasing unemployment rate for nationals with tertiary education, it would also facilitate the creation and retention of ties with recent graduates for the Egyptian government. Domestically, by becoming the portal through which recent graduates are placed in private or public sphere positions, the Egyptian government will more easily be able to track trends in graduate employment and market demand. This information can then be used to better prepare university students for the real market and not an idealized version of what it might provide.

Internationally, by facilitating coordination between its own nationals and foreign states, the government can preemptively protect its nationals from the dangers of illegal forms of migration (which only 10% of the present sample said they might consider) as well as strengthen the accuracy of its own data on and ties with its diaspora. Furthermore, by ensuring that it keeps in contact with its nationals abroad, the Egyptian government will have a better understanding of the skills its nationals

⁹⁹ Ragui Assaad, "Unemployment and Youth Insertion in the Labor Market in Egypt," The Egyptian Center for Economic Studies Working Paper no. 118 (2007).

¹⁰⁰ Ibrahim Shafie, "Engineering Education in Egypt."

are acquiring abroad, and will consequently be better prepared for the imminent return of a large majority of these immigrants.

The next chapter will consider some of the gains often discussed in the literature on emigration, all of which would be strengthened by increased ties with and support from the Egyptian government. The chapter will address remittances as one benefit stemming from the emigrants while abroad, and follow with possible gains arising from return migration.

4. IS EGYPT FACING A NET GAIN OR NET LOSS?

4.1 Remittances

The stability of remittances, as will be discussed, has proven to be reliable in the MENA region, but how far-reaching the effects of the remittances themselves will be in terms of contribution to development once in the migrant sending country largely depends on the situation in the home country¹⁰¹.

The economic environments that encourage out-migration also limit the potential for migrant remittances to stimulate development in migrant sending areas. Poor market infrastructure, particularly in rural areas from which many migrants come, discourages the production of goods for markets. Incomplete or missing credit markets in migrant sending areas make it difficult to harness remittances for local investment, and they force migrant households to perform the dual function of being agents both of migration and of investment.¹⁰²

Low incomes, productivity levels and domestic policies yielding high inflation, risk and economic uncertainty further hinders the potential gains that could come from emigrants' remittance sending patterns¹⁰³. Domestic government policy in the migrant sending states, which will be discussed below, thereby carries much of the obligation to rectify its own policies to most effectively be able to harness the productive potential of this significant source of income.

One aspect of economic development that is often said to be greatly influenced by emigrant remittances, is income inequality in the migrant sending country and on

¹⁰¹ Taylor, "The New Economics of Labour Migration and the Role of Remittances in the Migration Process."

¹⁰² Ibid.

¹⁰³ J. Edward Taylor, "International Migration and National Development."; Taylor, "The New Economics of Labour Migration and the Role of Remittances in the Migration Process."

the global level. Looking nationally first, remittances are said to increase income inequality in the sending area thereby creating a self-perpetuating cycle where deprived households will continue to send members abroad hoping to obtain the remittance income from their emigration¹⁰⁴. The effect felt within the sending country can vary, but is particularly interesting in the case of Egypt whose Gini coefficient rises by 24.5% when remittances are factored into calculations of per capita household income, meaning that income inequality increases dramatically when remittances are included. Richard Adams explains that this occurs due to the distribution of which quintile of society is producing and maintaining the largest number of migrants abroad. He states that the poorest quintile in Egyptian rural society is producing a proportional amount of migrants, but that the wealthiest 40% of the population is producing a disproportionately large number of migrants, while the middle strata are under-producing migrants. This means that the upper 40% is receiving remittances from a larger amount of people, which he claims is where the difference lies between the social strata, and not in the migrants' earnings abroad or in their likelihood to remit¹⁰⁵. While clearly a legitimate concern, this macro level look at the effect of emigrant remittances on the population can also be considered in a different light.

After instrumenting for the possible endogeneity of international migration, and controlling for level of income, income inequality and geographic region, results for the poverty headcount measure suggest that, on average, a 10% increase in the share of international migrants in a country's population will lead to a 2.1% decline in the share of people living on less than \$1.00 per person per day. After instrumenting for the possible endogeneity of international remittances, a similar 10% increase in per capita official

¹⁰⁴ Taylor, "The New Economics of Labour Migration and the Role of Remittances in the Migration Process."

¹⁰⁵ B. Q. Ali Mansour, "Migration and Remittances: Eastern Europe and the Former Soviet Union," (The World Bank, 2006).

international remittances will lead, on average, to a 3.5% decline in the share of people living in poverty.¹⁰⁶

Picturing population income shifts in this manner would illustrate that while the gap between social strata has been exacerbated, the common denominator is now in a higher place indicating an overall increase in the income levels of the population as a whole.

On a global scale however, emigration is notably assumed to lead toward a convergence of income and wages between capital-rich and capital-poor countries¹⁰⁷. In turn, “well-functioning markets for capital, credit, insurance, and futures emerge” lessening the desire of nationals to emigrate. Once these institutions become well-established the state becomes incorporated as a developed capitalist state in the global economy. This process, which has traditionally taken approximately eight or nine decades to complete, may be more accelerated in recent years generating changes in the country’s migration patterns enabling it to now be a net-importer of labor rather than a net-exporter¹⁰⁸.

4.1.1 Historically

Oftentimes, brain “mobility bolsters a developing country’s ability to attract global investment and trade linkages”¹⁰⁹. Countries in the MENA region, including Egypt, Jordan and Turkey continue to utilize emigration as part of their economic strategies¹¹⁰.

¹⁰⁶ John Page Richard H. Adams Jr., "Do International Migration and Remittances Reduce Poverty in Developing Countries?," *World Development* 33, no. 10 (2005).

¹⁰⁷ Faini, "Migration, Remittances and Growth."

¹⁰⁸ Douglas S. Massey, "International Migration at the Dawn of the Twenty-First Century: The Role of the State," *Population and Development Review* 25, no. 2 (1999).

¹⁰⁹ Ouaked, "Transatlantic Roundtable on High-Skilled Migration and Sending Countries Issues."

¹¹⁰ Baldwin-Edwards, "Migration in the Middle East and Mediterranean."

The Egyptian government experimented with a range of policies to exploit this resource but with little success. From 1964 Egyptians were allowed to hold foreign currency accounts in Egyptian banks and were initially obliged to repatriate a proportion of their income: 25% for single people, 10% for those with families. This proved unsuccessful and exchange rates were altered in 1968 and 1972 in an attempt to encourage remittances. By the end of the 1970s, the government had begun to issue bonds for Egyptians abroad as a way to tap their income for development investment. None of these policies led to significant growth of access to remittances by official sources. Fluctuations in remittances clearly relate to the unpredictable nature of movements which are disruptive for migrants and make it very difficult to plan based on future remittance transfers.¹¹¹

While such a strategy could potentially be viewed as risky, the reliance of countries in the region on remittances sent back as part of their economic strategy has notably proven to be sustainable and secure source of finance, even in times of economic hardship for the host countries¹¹². Comparing the statistics from the mid-1990s to current remittance data demonstrates the stability surprisingly stemming from this voluntary form of economic assistance.

In 1995, Egypt received \$4.7 billion in remittances, nearly equaling the \$6 billion in combined revenues brought in by oil exports, tourism and Suez Canal receipts¹¹³. The previous year Egypt was one of the top five remittance receiving countries that accounted for approximately one third of global remittances¹¹⁴.

In the fiscal year 2003–2004 the remittances of Egyptian expatriates amounted to \$2.999 billion. The US ranked top among the countries from which Egyptians abroad send their remittances with \$1.111 billion. Saudi Arabia ranked second with \$951 million, followed by the United Arab Emirates with \$278 million, and Germany with \$131 million.¹¹⁵

¹¹¹ Roman, "Emigration Policy in Egypt."

¹¹² Nicholas P. Gylstos, "International Migration, Remittances, and the Brain Drain: A Study of 24 Labor-Exporting Countries," *International Migration* 40, no. 1 (2002).

¹¹³ Peter Stalker, *Workers without Frontiers: The Impact of Globalization on International Migration* (International Labour Organization, 2000).

¹¹⁴ Taylor, "The New Economics of Labour Migration and the Role of Remittances in the Migration Process."

¹¹⁵ Roman, "Emigration Policy in Egypt."

Present day data shows the MENA region as the third largest recipient of remittances globally, receiving 18% of global remittances¹¹⁶. In 2007, the MENA region received approximately \$28.5 billion in remittances, with Egypt leading the list of recipients with \$ 5.9 billion received¹¹⁷. Patterns of remittance by state of origin differ, yet have shown to also be consistent over time. Moroccans have been found to remit proportionally irrespective of their host state. Egyptians on the other hand, “remit massively from the USA, Gulf states and Europe; and proportionately very little from Saudi Arabia, Libya, Jordan, Canada and Greece”¹¹⁸.

Yet, despite seemingly permanent stays in the host country, one explanation given for these continued remittances is the “return illusion”¹¹⁹ that keeps emigrants tied to their home countries despite the slim likelihood that they will return home.

By sending members abroad to work, households diversify their labor portfolios to control risks stemming from unemployment, crop failures, or commodity price fluctuations. Engaging in foreign labor also permits households to accumulate cash for large consumer purchases or productive investments, or to build up savings for retirement. Whereas the rational actor posited by neoclassical economics takes advantage of a geographic disequilibrium in labor markets to move abroad permanently to achieve higher lifetime earnings, the rational actor assumed by the new economics of labor migration seeks to cope with market failures by moving overseas temporarily to repatriate earnings in the form of regular remittances or lump-sum transfers.¹²⁰

Most sending and host countries view the circular migration trend as positive as long as the length of time that the emigrant remained outside his or her own borders was sufficient to offset the costs of his or her departure. If the migrant were to stay for a short period of time abroad, one benefit to the sending state would arise from limiting

¹¹⁶ United Nations Development Program, "The Potential Role of Remittances in Achieving the Millennium Development Goals--an Exploration," *UNDP Background Note* (2005).

¹¹⁷ Dilip Ratha, "Middle East and North Africa."

¹¹⁸ Baldwin-Edwards, "Migration in the Middle East and Mediterranean."

¹¹⁹ Glystos, "International Migration, Remittances, and the Brain Drain: A Study of 24 Labor-Exporting Countries."

¹²⁰ Massey, "International Migration at the Dawn of the Twenty-First Century: The Role of the State."

the social cost of having a missing member in the nuclear family, yet such a decision to return too promptly would exaggerate the proportional cost of the decision to migrate. However, the desire to return promptly is an indication of the strength of the ties remaining with the sending state, thereby translating into more secure remittance sending patterns¹²¹.

Once received, remittances contribute to the local economies of the home countries both at the micro and macro levels. In his study, Adams found that simply receiving remittances increased the propensity of a family to invest¹²². While direct evidence of remittance expenditure patterns is hard to find for the Middle East, evidence suggests that the funds for this region are allocated comparably to those received in the Mediterranean and Mexican cases. The latter regions utilize the funds coming from remittances largely on consumption, namely “improved food, clothing, housing and household effects. The economic impact of such spending varies from country to country, but in general only the last two kinds of spending seem to be of the labor-intensive employment-generating type”¹²³. Data on remittance sending to Morocco, Algeria and Egypt indicates the same spending pattern on consumption, while highlighting that in the Egyptian case the propensity to consume is no higher in remittance receiving families than it is in non-migrant-sending families¹²⁴. Spending on consumer goods for the remittance receiving families may seem like a short-sighted decision, but given the often difficult saving infrastructure and the need for

¹²¹ Robert E.B. Lucas, "International Migration and Economic Development: Lessons from Low-Income Countries," (Stockholm: Ministry for Foreign Affairs of Sweden, 2005).

¹²² Taylor, "The New Economics of Labour Migration and the Role of Remittances in the Migration Process."

¹²³ Massey, "International Migration at the Dawn of the Twenty-First Century: The Role of the State."

¹²⁴ J. Edward Taylor, "International Migration and National Development."

immediate enhancement of a family's standard of living, such decision are, at the micro level, immediately logical and should be anticipated¹²⁵.

That is not to say however that spending on consumption goods negates the benefits of remittances on the larger national economy of the migrant sending state. Most directly, consumption goods, especially those pertaining to housing, food, education and health care, have the immediate effect of enhancing productivity in the migrant sending state. The extent to which such increased productivity will have a lasting impact largely depends on the structure of the remittance receiving state¹²⁶. Increased consumption will also have a multiplier effect in the economy as the increased demand for goods and services will reinvigorate local business and generate new demand for local manufactured goods¹²⁷, providing that the remittances are not used to increase imports¹²⁸. More indirectly, remittances received in the migrant sending states from their emigrants aid at the macro-economic level by alleviating exchange constraints that are often faced by developing countries, providing sending state nationals with access to foreign currency and bolstering domestic savings through those families who despite any infrastructural obstacles are still able to save¹²⁹. Migrant sending households often also experience positive effects on income as the steady flow of remittances provides them with risk-free access to capital encouraging them to make economic contributions to local production that were

¹²⁵ Massey, "International Migration at the Dawn of the Twenty-First Century: The Role of the State."

¹²⁶ Stalker, *Workers without Frontiers: The Impact of Globalization on International Migration*.

¹²⁷ Ouaked, "Transatlantic Roundtable on High-Skilled Migration and Sending Countries Issues."

¹²⁸ Stalker, *Workers without Frontiers: The Impact of Globalization on International Migration*.

¹²⁹ J. Edward Taylor, "International Migration and National Development."; Taylor, "The New Economics of Labour Migration and the Role of Remittances in the Migration Process."

previously unattainable. Regular market interaction would then further extend the reach of the remittances to non-migrant sending households¹³⁰.

4.1.2 Remittance Intentions for this Sample Set

While emigrant remittances have been shown to enhance standard of living and positively influence demand for local market goods, the true developmental impact can only be assessed when balanced against the loss experienced due to the emigration of the migrant¹³¹. In order to make such an assessment, many of the factors discussed above would need to be taken into account. In states where the labor supply exceeds the labor demand in a particular sector, the emigration of a national in that particular field, whether skilled or unskilled, would serve the development purposes of the migration sending state. This is in large part due to the lack of productive contribution this national would have otherwise made if they had not emigrated. While this national may have contributed to the local economy as a consumer, by emigrating and then remitting this now-emigrant is able to maintain his or her level of consumption spending, via their home network's use of the funds remitted on consumption goods, while also likely being able to contribute more to the national economy through the potential savings arising from the remaining unused remittances.

In states however where the emigrant was able to work, the opportunity cost of their departure must be calculated in terms of their current and projected productive and economic contribution in their line of work. This must then be compared to the emigrant's current and projected earnings abroad, and the anticipated percentage as a

¹³⁰ Taylor, "The New Economics of Labour Migration and the Role of Remittances in the Migration Process."

¹³¹ Baldwin-Edwards, "Migration in the Middle East and Mediterranean."; Taylor, "The New Economics of Labour Migration and the Role of Remittances in the Migration Process."

portion of (potentially increasing) compensation that he or she expects to remit. Based on this remittance amount, the economic contribution in consumption and in productive investment of the remittance receiving household should be estimated. This last step would likely prove to be the most challenging as intended spending patterns may over-emphasize the productive use of the funds remitted while downplaying the receiving household's intended expenditure on consumption goods. However, comparable real expenditure patterns could be scrutinized to determine how far the remittance receiving household's intentions are from what tends to occur in reality. The final assessment of the economic contribution arising from remittances sent by the emigrant can then be compared to what his or her productive contribution to the labor market would have been had he or she stayed thereby determining whether this particular migrant's decision to leave was beneficial or detrimental to the economic development of the sending state.

Applying this logic to the target sample of students for this survey aids in the analysis of their anticipated remittance patterns. When asked what they expect their salaries to be following graduation, student responses ranged from 800 EGP/month to 10,000 EGP/month. The average salary expectation was 2,530 EGP/month, while the median answer was 2000 EGP/month, and the most listed salary expectation was 3000 EGP/month, followed closely by 2000 EGP/month. A marked difference arises when these results are compared for male and female respondents, as the female respondents anticipate salaries that are on average 500 EGP/month lower than those projected by the male students for their work in Egypt. Female students' expectations average around 2,120 EGP/month and do not exceed 3000 EGP/month. There is also a noticeable difference in salary expectations depending on the student's familial income level, as students from the highest income bracket expect almost twice as

much on average as those from the <1000 bracket, while students in the middle income brackets expect to earn amounts that hover right around the overall average of responses.

When asked the same question in terms of expectations if they were to work abroad, students listed salaries ranging from 2000 EGP/month on the lower end to 55,000 EGP/month on the higher. The mode in the students' listing of salary ranges abroad was 10,000 EGP/month, with an average of 12,540.70 EGP/month. Here again we find that there is a clear difference in the expectations of male and female students, with an average difference of almost 3000 EGP/month where female students project salaries abroad to range from 3000-30,000 EGP/month, with less than a third of female respondents listing salary expectation abroad higher than 6000 EGP/month.

77.3% of respondents who intend to work abroad or emigrate said that they intend to remit part of their salary. Persons who reported that their household income fell below 3000 EGP/month were 20% more likely to have the intention to remit than persons whose income exceeded this amount, however the percentages of students from all income brackets aiming to remit some portion of their income is notably high. Of these a quarter were unsure of how much they intended to remit, with some specifying simply that they will use what they need and send the remainder home, while the remaining 75% specified amounts ranging from 10 to 90 per cent of their wages, with the average falling just under 34%. Of the women who plan to remit, only one specified a percentage of her salary (35%) while the rest said they did not know.

Based on their salary expectations, we can calculate what the potential imagined remittance amount from this graduation class will be. If the 77.3% who plan to remit while abroad, whose average expectation for compensation while abroad was

12,540 EGP/month, do in fact do so, their total remittances would equal 291,788.175 EGP/month (53,530.2741 USD/month¹³²)¹³³. The amount remitted is therefore slightly higher than the sum of the salary expectations the students listed for work in Egypt if they were to remain which add up to 263,155 EGP/month (48,277.35 USD/month). The difference between the sum remitted and the sum earned at home will widen even further as the latter amount decreases as the engineer, or family unit, utilizes this income for their livelihoods, as compared to the remittances which represent a net amount that was dispensable and which can be used in the full by the recipients.

Interestingly, in the responses from CU females, none noted sending money home as part of the reason they intend to emigrate. This further plays into the country context of this emigration decision as Egypt predominantly sends its single young men abroad, while a woman emigrating is less likely to be the primary breadwinner for any family unit and more likely to be married, therefore she will be less likely to remit as she will be traveling as part of the family unit.

4.2 Gains from Return Migration

4.2.1 Skills acquired

Another criticism that arises when considering the region's dependence on remittances for economic stimulus addresses migrants from the Middle East who do return to their country of origin. Oftentimes they return overseas after finding that they are unable to maintain the lifestyle to which they have become accustomed

¹³² Amounts converted using <http://www.xe.com/>.

¹³³ Total intended remittances are calculated based on 77.3% of those emigrating intended on remitting an average of 35% of their salaries, therefore $.773(.35)(\text{Sum of Expected Salaries}) = .773(.35)(1,078,500 \text{ EGP/month})$

following the depletion of their savings¹³⁴. This cyclical pattern of movement, while seemingly detrimental to the sending states, can serve the latter by curbing the effect of lower remittance sending generally associated with skilled migrants¹³⁵ by harnessing their presence in their home country in the form of information sharing. This in turn raises the labor force's proficiency via technology, methods or training that may not have otherwise been available in the migrant sending country.

[A] recent study (Moomaw et. al, 1999) found that when physical and human capital is taken separately to measure the influence on growth, the results [for the aggregate Knowledge Economy Index and the GDP per capita] are positive, but not statistically significant. However, when all the forms of capital (physical, human, and knowledge) are included, the results are positive and significant. Specifically, the output elasticity of this broader concept of capital when considered within a Cobb-Douglas framework is 0.485. This means that a change of 1% in capital results in an increase of 0.485% in the level of economic output.¹³⁶

Using a revisionist approach to looking at migration, the prospect of skilled demand and future employment abroad for higher wages and better conditions is also said to serve as an incentive for nationals in the sending state to strive for higher levels of education. In turn, if migration trends do not call upon all of the newly educated nationals of the sending country to work abroad, the sending state's resulting levels of education are increased and the home country benefits even without having taken into account the remittance patterns of those who have left or their potential return home¹³⁷. In a study of a representative global sample of 33 countries, Adams found that less than 10 percent of those with tertiary education in sending countries

¹³⁴ J. Edward Taylor, "International Migration and National Development."

¹³⁵ Faini, "Migration, Remittances and Growth."

¹³⁶ Ahmed El Daly, "Human Resources in Egypt: Maximizing Our Best Asset" (2009).

¹³⁷ Faini, "Migration, Remittances and Growth."; Ouaked, "Transatlantic Roundtable on High-Skilled Migration and Sending Countries Issues."

migrated to the United States or the OECD countries¹³⁸. One study found that increased demand for migrants with tertiary education will lead to an increase in secondary school enrollment, thereby enhancing interest in education in the sending country¹³⁹. Additionally, the circular nature of migration means that fears of brain drain should be more accurately considered brain mobility¹⁴⁰, whereby a migrant's knowledge is in reality being shared by both the host country, where the migrant is likely refining the skills and bolstering his or her human capital, and the home country to which a migrant might choose to return, even temporarily, sharing some of the newly acquired skills and lessons with co-nationals in the sending state. This therefore would indicate, that while a "brain" might not immediately and directly contribute to productivity domestically if it migrates, the mobile nature inherent to circular migration results in this "drain" not constituting a net loss for the sending state as frequent access by the sending state to the human and social capital accrued enables it to share in the same "brain's" capacities.

4.2.2 Job Market

While the direct impact of skilled migrants' return into the Egyptian job market must be considered in terms of increased skill level and capabilities of the market to absorb and benefit from these new levels, return emigration generates a different type of stimulus for the home market as well. In analyses done by Barry McCormick and Jackline Wahba on return migrants in the Egyptian market, results showed that skill acquisition was not the only added benefit to be reaped from

¹³⁸ Richard H. Adams, "International Migration, Remittances, and the Brain Drain: A Study of 24 Labor-Exporting Countries," ed. Poverty Reduction and Economic Management Network (The World Bank, 2003).

¹³⁹ Faini, "Migration, Remittances and Growth."

¹⁴⁰ Ouaked, "Transatlantic Roundtable on High-Skilled Migration and Sending Countries Issues."

returnees. Levels of savings, coupled with the human capital brought back, impacted entrepreneurship among returnees, as did region of origin. Since we clearly cannot predict the propensity to save while abroad of the surveyed students for this study, area of origin and interest in entering into public or private work will be applied to the trends found by McCormick and Wahba to attempt to predict the potential market contributions of these students. The current sample is composed primarily of urban students, with the vast majority (nearly 90%) having been raised in urban Egypt and intending to live in urban areas if they remain in Egypt. This would mean that nearly 30.6% of this study's total sample may return to Egypt without savings as "36% of rural-origin and 30% of urban-origin returnees were unable to make any savings at all"¹⁴¹. Savings on their own however will not influence the sample population's likelihood of investment quite as much as it might other broader populations as educated returnees are influenced by both savings and human capital acquisition¹⁴². Keeping savings constant, returnees who spent a longer period of time abroad (an average of 4.3 years as compared to 2.4 years) and noted that they have acquired useful skills during their time abroad are much more likely to invest in non-farm enterprises¹⁴³. According to the predictions of students sampled for this study, nearly half of those who intend to return to Egypt after some time abroad intend to do so after having spent more than 4 years abroad, which might indicate a high likelihood (nearly 45%) that students from this graduating class will contribute to Egypt's economy via entrepreneurial projects.

¹⁴¹ Jackline Wahba Barry McCormick, "Return International Migration and Geographical Inequality: The Case of Egypt," *United Nations University: World Institute for Development Economics Research* (2004).

¹⁴² Ibid; Jackline Wahba, "Does International Migration Matter? A Study of Egyptian Return Migrants" (paper presented at the Arab Migration in a Globalised World, Geneva, Switzerland, 2004).

¹⁴³ Barry McCormick, "Return International Migration and Geographical Inequality: The Case of Egypt."

The share of returnees' enterprises engaged in services activities is twice that of stayers. On the other hand, non-migrants' enterprises tend to be concentrated in trade activities. The proportion of returnees' enterprises in manufacturing is about the same as that of non-migrants: 28% compared to 26%.¹⁴⁴

In general, returnees found to invest in non-farm enterprises have been found to have higher levels of education than those investing in agricultural projects, yet the majority of such projects are founded in rural areas¹⁴⁵. Therefore, in this sample population it would be interesting to find out upon their return, whether the migrants with higher levels of education who do choose to return to rural areas opt to invest in agricultural or non-farm enterprises.

Furthermore, there is a shift in the market distribution of returnees among the private and public sectors following their migration. Slightly less than a third of those employed in the public sector prior to migration return to public enterprise, with one third entering into private sector employment¹⁴⁶. Employment characteristics within each sector also change as there is a 9% increase, from 10% to 19%, in the number of employers among the sample population post-migration. This increase is felt most in urban settings where the share quadruples, as compared to the 50% increase experienced in rural areas¹⁴⁷. As employers, returnees generally account for 15 percent of the capital invested in a small enterprise, thereby also being responsible for generating 15% of the associated employment, equaling approximately 1.5 more jobs per enterprise than do stayers generate¹⁴⁸. While returnees are just as likely to employ informal workers who do not pay into social security, the overall quality of the jobs

¹⁴⁴ Wahba, "Does International Migration Matter? A Study of Egyptian Return Migrants".

¹⁴⁵ Barry McCormick, "Return International Migration and Geographical Inequality: The Case of Egypt."

¹⁴⁶ Barry McCormick and Jackline Wahba, "Return Migration and Entrepreneurship in Egypt," (University of Southampton, UK, 2000).

¹⁴⁷ Barry McCormick, "Return International Migration and Geographical Inequality: The Case of Egypt."

¹⁴⁸ Ibid; Wahba, "Does International Migration Matter? A Study of Egyptian Return Migrants".

created by returnees, both for formal and informal employees, is deemed higher in terms of allowing for paid leave, for example. Although returnees do utilize the informal labor market for their employee pool, 76% of returnee firms follow proper procedure and pay taxes on their earnings and 80% have licensed or registered their enterprise, as compared to 67% and 74% of stayer firms respectively¹⁴⁹.

¹⁴⁹ Barry McCormick, "Return International Migration and Geographical Inequality: The Case of Egypt."; Wahba, "Does International Migration Matter? A Study of Egyptian Return Migrants".

5. STEPS FORWARD

Without simply reducing each student, potential migrant or not, to an economic unit and acknowledging that beyond purely monetary evaluations, there are social and political reasons to choose emigration, the following is a discussion of policies that can be used by sending states to better harness gains that could stem from their citizens' migration choices..

5.1 Existing Policies on Emigration

The state's influence on the impact and potential productivity generated from emigration, both in terms of promoting higher education and training and in relation to the possible economic contributions arising from migrant remittances, has been discussed in the preceding chapters. Without the proper reinforcement and enabling infrastructure in the home country, it would be practically impossible for emigration to have far-reaching positive effects. It would likely still influence household level changes in educational desires and standard of living, but it would be a waste for migrant sending countries' governments not to implement necessary methods, some of which will be discussed in this chapter, to maximize the gains accessible from their existing emigration patterns.

Egypt's strategy as a sending country to promote emigration that was noted earlier is utilized "as part of broader strategies to acquire foreign exchange, reduce unemployment, and develop skills"¹⁵⁰. Egyptian Emigration Law no. 111, discussed earlier, has put forth regulations to attempt to further harness the potential developmental gains that could arise from the large sums being remitted back into

¹⁵⁰ Massey, "International Migration at the Dawn of the Twenty-First Century: The Role of the State."

Egypt every year. Since remittance income constitutes approximately 21 percent of foreign investment within Egypt¹⁵¹, the law aims to address infrastructural fears that may lead migrant families to shy away from investing within the country. The law notes migrant rights to sponsorship and grants exemptions from taxes and fees on the returns earned by emigrants on their deposits in Egyptian banks. Furthermore, “migrants’ capital utilized in investment projects in Egypt is to be granted the same advantages granted to foreign capital¹⁵². Other sending states aim to slow the integration of their nationals in the host country so as to ensure continued remittances without needing to rely on encouraging emigration of their nationals¹⁵³. Based on the remittance intentions for the class in question for this study, the Egyptian government would benefit greatly from strengthening ties with migrants prior to their departure and facilitating the flows of funds from this diaspora to their country of origin. Furthermore, if one is to assume that the migration intentions of future classes of graduates from Egyptian universities will exhibit the same trends as the sample class, then the government would not stand to benefit from slowing the integration of their nationals abroad as, based on the intentions identified in this study, intentions to emigrate prevail among recent graduates thereby meaning that Egypt will have a replenishing source of remitting migrants.

5.2 Domestic Policy Discussion

Just as the movement of labor internationally is guided by foreign demand and domestic surplus, the incongruity evident within the Egyptian labor market and its unemployment patterns can be rectified through re-adjustment of skills based on domestic needs assessments. Egyptian Minister of Manpower and Emigration

¹⁵¹ Gammeltoft, "Remittances and Other Financial Flows to Developing Countries."

¹⁵² Zohry, "Contemporary Egyptian Migration."

¹⁵³ Ouaked, "Transatlantic Roundtable on High-Skilled Migration and Sending Countries Issues."

recommends the use of vocational training centers and post undergraduate re-education as tools to stimulate the reallocation of labor force resources domestically¹⁵⁴. According to the International Labour Organization,

Skills development should be understood as one of the elements of the virtuous circle, within which we have high wages, high productivity, and high development. Identifying the virtuous circle as the target, or end goal, the policies enacted in its pursuit serve 3 main objectives:

- Matching supply and demand of skills, and to expand availability of training to more people so that they can benefit from economic growth
- Maintaining the employment of workers through re-skilling and lifelong learning
- Building up capabilities to sustain a dynamic development process, using education and training policies to boost technological change, investment, diversification and competitiveness.¹⁵⁵

The government has begun promoting these much needed market shifts by simultaneously addressing two potential hindrances to attaining its goals. The first is the cultural undercurrent that fuels the desire to ‘save face’ and gain prestige by working within certain industries, such as medicine, pharmacy and engineering, which the government is targeting through its “Train Campaign,” a campaign working to promote the idea that it does not matter where one graduated from, it matters that one is employed¹⁵⁶. This campaign also aims to educated people and train them to enter into positions in the private sector. Ironically, in this sample population, 67.3% of the students noted that they preferred to work in private companies, while 31% would work in either public or private companies. The second obstacle to market labor force re-allocation is the need for training conducive to effective reorganization. “The government sponsored Social Development Fund has invested in over 700 new trade trainees to retrain the Egyptian labor force; upgraded 152 vocational trading

¹⁵⁴ Information and Decision Support Center (IDSC). "المطور الاستخدام معلومات تقرير 2009" Cairo, Egypt: Ministry of Manpower and Emigration, 2009. Available: http://www.mome.gov.eg/ach/rep_d2009.pdf

¹⁵⁵ El Daly, "Human Resources in Egypt: Maximizing Our Best Asset".

¹⁵⁶ Ibid; Jacobs, "Coming to Grips with Egypt's Unemployment Crisis."

centers; and produced 38 new curricula”¹⁵⁷. The SDF also invests in capacity building through micro-credit programs for small and medium size enterprises, to encourage informal enterprises to enter into the formal economy¹⁵⁸.

In addition to skill development and increased investment spending, Egypt can benefit from catering to international market demands in ways beyond emigration by meeting foreign demands through domestic services. The Egyptian Minister of Communications and Technology proposes the “Development of Export Oriented IT” by which he intends to cater to foreign needs through the creation of Egypt as a resource pool and base for outsourcing activities needed by companies around the world. In this way, he foresees attracting ICT investment and foreign direct investment, which in turn will assist in achieving the ministry’s set goals of sustaining an annual growth rate of 20% and increasing job provision in this particular sector by about 20,000 in three years¹⁵⁹. This would contribute a perceptible increase in the number of positions for new entrants into the labor market each year, particularly if foreign states necessitate outsourced support rooted in technology, as this would mean that the employable “export oriented” persons would need to be pulled from engineering graduates, and this would in effect double the provision of positions for these graduates each year. Linking the IT industry domestically with international needs would also facilitate knowledge sharing and technology exchange¹⁶⁰.

¹⁵⁷ Jacobs, "Coming to Grips with Egypt's Unemployment Crisis."

¹⁵⁸ El Daly, "Human Resources in Egypt: Maximizing Our Best Asset".

¹⁵⁹ Tarek Kamel, "Egypt'S Ict Strategy 2010: An Invitation for Partnership," (Ministry of Communications and Information Technology, 2007).

¹⁶⁰ Ibid.

5.3 International Policy Discussion

5.3.1 Promoting Circular Migration

The presence of a strong diaspora in certain receiving states can serve as a lobby for migrant interests and home country interests on a global scale. A strong diaspora can also implement more formal methods, such as that noted above, of information sharing to enhance collaboration between their two homes in science and technology, and diffuse new strategies used in trade and management¹⁶¹. These types of policies however, being spurred by the diaspora would prove to be largely inefficient if the home country's government does not put an equal stake in advancing its own technology to efficiently be able to implement incoming shared knowledge¹⁶².

The IOM advocates the notion of circular migration for the dissemination of professional skills and methods. This type of migration pattern enables the sending country to harness the professional productive abilities of its diaspora while alleviating fears holding the migrants back from returning to their home countries associated with working conditions and standard of living. Advocating the use of circular migration enables persons originating from one country to return to this country, whether through a state-sponsored program or on their own, for a short period of time during which they can teach or apply their lessons learned while abroad in their home country. This option is particularly enticing for migrants who do not feel that their home country offers a professional environment that they are willing to reenter, but who still wish to contribute to the its advancement. In order to successfully utilize circular migration for the benefit of both the sending and receiving countries, both governments must implement certain practices.

¹⁶¹ Ouaked, "Transatlantic Roundtable on High-Skilled Migration and Sending Countries Issues."

¹⁶² Ibid.

These include, for receiving countries: visa regimes, student fee levels, networking with sending countries, and ethical and controlled recruitment campaigns. For sending countries, taxation and human rights problems are clear disincentives, and R&D priorities, incentives not only to return but also to attract expatriate investments, along with other issues of economic growth and development are essential. This approach is emphasised systematically in the two UNDP Arab Human Development Reports, as well as the World Bank regional employment report (World Bank, 2004a) and other IOM reports on emigration and remittances.¹⁶³

Such circular migration would also be most useful in situations where the emigrant has formed a family abroad as it would enable him or her to maintain some form of stability in their new life while also keeping their ties with their home country strong.

Some sending governments in the hopes of promoting permanent repatriation, have considered offering assistance programs as an incentive for their expatriate nationals to return. These programs can be all-encompassing including offers covering transportation costs of the emigrant, his or her family and their belongings. Some also include transportation of any relevant equipment and insurance offers. Yet despite some countries' use of such extreme measures to lure nationals back in, evidence has shown that these financial incentives take a back seat to the expatriates' expectations of workable infrastructure. Additionally, they are often quite expensive and inefficient at encouraging mass repatriation, and could cause problems between the nationals and the returning expatriates who may be viewed as receiving unfair privileges¹⁶⁴. Despite the gains to the returning emigrants of accepting such incentive packages, the use of circular migration still seems the more plausible option as it provides the migrant sending country with the gains associated with brain mobility while alleviating the pressure off the sending government to make such provisions allowing the latter to then commit more of its resources to building the needed

¹⁶³ Baldwin-Edwards, "Migration in the Middle East and Mediterranean."

¹⁶⁴ Ouaked, "Transatlantic Roundtable on High-Skilled Migration and Sending Countries Issues."

technological infrastructure that would enable the country to best utilize the new shared knowledge.

5.3.2 Harnessing Remittance Flows

The proposed support for circular migration additionally allows the emigrant to maintain strong ties with their sending state, and therefore by encouraging circular migration and providing the economic atmosphere to harness its gains, emigrants will be more likely to continue to remit. Migrant sending government policy should directly address remittances and seek assistance from the international community to reduce the high costs associated with sending remittances. Such global policies would not only encourage increased remittance sending and alleviate the taxing effect that the current high costs create, but it would also encourage the use of formal remittance channels which in turn would aid the global community in understanding the true effect of emigrant remittances on the home country¹⁶⁵.

Facilitating the use of formal channels through which funds can be remitted will also enable sending governments to securitize the remittances, or, in other words, to utilize the guarantee of consistent future money flows, based on the historical flows they can now monitor, to “extend loans by the local banks for productive purposes, [and to] pass on interest savings from the remittance securitization to its customers and offer longer term loans on new products”¹⁶⁶. Enhanced access to banking and the formalization of remittance flows is a key goal of several international organizations, including the World Bank and the International Monetary Fund, who hope such measures will alleviate poverty and ameliorate access to financial services for people

¹⁶⁵ Richard H. Adams Jr., "Do International Migration and Remittances Reduce Poverty in Developing Countries?."

¹⁶⁶ UNDP, "The Potential Role of Remittances in Achieving the Millenium Development Goals--an Exploration" (2005).

in poor areas of developing countries. A benefit of securitizing these remittances would be the ability to more accurately quantify the direct effect monies remitted have on household investment decisions and long-term economic adjustment within the country. By keeping closer track of the investment patterns of migrant families before and after the migration of one of their members, the home country government can better understand what the immediate needs of families are based on how they spend their additional funds, and can begin to provide channels for nationally constructive uses of these supplementary funds.

Prime among the means found to formalize remittances is the establishment, or strengthening, of migrant-sending countries' economic policies by establishing an effective banking system and an appropriate exchange rate¹⁶⁷. Simultaneously, reducing the cost of access to formal remittance networks, including banks and other transfer systems, would likely be a more expedient and efficient method of formalization than any attempt to formalize all available informal routes.

Reducing formal remittance costs, in turn, can be accomplished with regulatory changes such as: (1) allowing and encouraging domestic banks to operate in countries where migrants are employed to overcome migrant distrust of banks and ensure that banking services are provided in the migrants' language (in some cases, capital requirements need to be reduced for transfer agents as well); (2) discouraging or banning exclusive arrangements between transfer agents such as Western Union or Moneygram and entities with dispersed facilities in migrant areas of origin such as postal agencies, thus ensuring competition in the so-called "last mile" of a remittance corridor; and (3) encouraging the spread of cell-telephone based remittance transfer systems, since this promises the lowest cost and remitters and remittance receivers can use the cell telephones for other purposes as well.¹⁶⁸

This latter method of reducing costs has been proven effective in several other sectors by extending access to information systems to remote areas without requiring the heavy investment in infrastructure that was previously necessary. In February 2007,

¹⁶⁷ Elisabeth Eaves, "Global: Population, Remittances, Hld," *Migration News* 13, no. 2 (2007).

¹⁶⁸ Ibid.

Mastercard in conjunction with the GSM Association proposed a plan that would send money from one SIM card to another via Mastercard's transaction networks to facilitate the use of cellular technology in remittance sending¹⁶⁹. With only one-third of the world's population having easy access to banking services and 2.5 billion phones being used around the world¹⁷⁰, if the idea to leverage this technology for use in formalizing remittances did catch on, better estimates of remittance patterns could be formulated and the true impact of remittances on their recipients could begin to be analyzed.

5.3.3 Consider the Option of Taxation

Whether migration constitutes a net brain drain for the sending country or a brain gain for the receiving country blurs an already unclear line between rights of the migrant sending and migrant receiving state over a migrant's labor, knowledge and wealth. The topic of taxation, although fairly uniformly applied as a right of the country of residence, deserves further scrutiny as it falls squarely within the gray area of mixed state possession. "Until the early seventies, Egyptians working abroad were obliged to transfer to Egypt in a free currency a certain proportion (normally 25 percent) of their incomes"¹⁷¹, yet, and despite the growth of the numbers of Egyptians heading to Arab states for work in that decade, the practice is no longer utilized meaning that there exists in the Egyptian diaspora a large portion of Egyptians who do not pay taxes anywhere.

¹⁶⁹ Ibid.

¹⁷⁰ Ibid.

¹⁷¹ Ayubi, "The Egyptian "Brain Drain": A Multidimensional Problem."

On the polar extreme, the threat of dual taxation¹⁷² for citizens of one state, residing in and perhaps becoming citizens of, another is what complicates the applicability of policies regarding the taxation of emigrants. These migrants' situation places them in a position where they may show allegiance to two countries simultaneously, for example by paying taxes in their host country while maintaining political ties in the other.

[P]rofessional migrants retain their national status and associated rights, including often the right to vote, but carry no corresponding tax obligation, even of a minimal nature. The situation is one of "representation without taxation." The anomaly is particularly compounded because typically these highly skilled migrants are among the more prosperous and successful even prior to their migration, and their ability to work abroad renders them the more taxable, and almost totally untaxed, citizens of their countries. When one considers that in Albert Hirschman's apt conceptualization, these migrants have chosen to "exit" but have retained "voice" and "loyalty," it appears legitimate to regard their escaping the tax system as altogether incongruous. (Bhagwati, 1979 [1983, pp 63-64]).¹⁷³

The source country thereby not only loses individuals who may have been able to contribute quite productively within their home country, but it has also allowed them to maintain the same rights afforded to any of their citizens¹⁷⁴. In effect, the taxation scheme as it exists in most countries does not distinguish between persons emigrating and persons traveling for a short period in the rights they can access upon their return to their home country. The United States is one of the few states, and is the only advanced country, to apply a tax on its emigrant population that has surpassed a certain wage cap abroad. The justification for such taxation by the United States of its

¹⁷² The "International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families," (2003). guarantees in Article 48 that a migrant cannot face unduly restrictive taxation regulations, whether by facing higher taxation than their counterparts in their country of residence, obtaining fewer concessions or by being doubly taxed due to their unique circumstance. While the Convention itself has not been adopted vastly, it does reflect, legitimate concerns that necessitated that they be incorporated into the protection of migrant workers.

¹⁷³ John McHale, "Taxation and Skilled Indian Migration to the United States: Revisiting the Bhagwati Tax" (paper presented at the Skilled Migration Today: Prospects, Problems and Policies, Kingston, 2005).

¹⁷⁴ John Douglas Wilson, "Taxing the Brain Drain: A Reassessment of the Bhagwati Proposal" (Columbia University, 2006).

citizens would seem to address precisely the dilemma underscored by Bhagwati's concern over "representation without taxation," in that the U.S. bases its taxation scheme on citizenship rather than residence¹⁷⁵. In this way, it is able to tax its citizens around the world for the benefits they reap by carrying this citizenship, in lieu of holding them only accountable when within the state borders.

While this is a logical approach, if applied incorrectly taxation based on citizenship and not residence could lead to the creation for a call for double taxation. Several fears arise however from such a call. Nonresident citizens give up some of their claims to services that only home-based nationals can access, such as roads, healthcare services and public education, yet they also may need to access resources that would be of no use to persons within their own territory. Citizen migrants maintain the right to access personal protection, property protection, right to vote and the right to enter. They also might have benefited in the past from state resources that will now not provide gains for the state that provided them. One example that arises here is the use of public schooling by a citizen preceding their departure from the country. Would it be justifiable for the state to factor in its expenditure on education for the 34.2% of our present sample who attended a public primary school, and/or the 40.5% and 58.4% who did so for their preparatory and secondary years respectively to calculate taxes owed? Could the state also attach a value to its expenditure on private schooling?

If the idea of taxation is based on what the state believes it is owed, then the room for abuse of taxation by malintentioned states would be too high for this recommendation to work. Conversely, qualifying state collection of nonresident

¹⁷⁵ Michael S. Kirsch, "Taxing Citizens in a Global Economy," *New York Law Review* 82 (2007).

citizens' taxes with exceptions to ensure that precautions are taken, by all countries, to circumvent the issues of double taxation, by accounting for differences in each migrant's situation in terms of how much they would have paid in taxes in their host country, how much they are currently paying and how much the cost of living will enable them to pay, would likely serve to lessen apprehension regarding the imposition of the tax¹⁷⁶, although this process would prove cumbersome and ineffective if not coordinated through an international body to ensure synchronicity across all host and destination countries. The United Nations General Assembly, in its meeting to discuss "High-level international intergovernmental consideration for financing development" in 2001, did recommend emigrant taxation and emphasized the need for an International Tax Organization to lead monitoring and coordination of taxation, as one way to provide some redress for the sending countries¹⁷⁷.

Another suggestion put forth to avoid criticism for double taxation is to word regulations mandating an emigrant income tax in a way that allows for migrants to renounce their citizenship if the terms are not acceptable to them¹⁷⁸. Having seen that 91% of students intend to return to Egypt following a short period of time abroad, it would be hard to imagine that a renunciation of their Egyptian citizenship would be a path of interest. This ultimatum, while clearly a direct challenge to the home country's government to utilize the funds from taxes received in an acceptable manner for fear of losing its ties to the Egyptian diaspora, might not be very effective in this situation as the renunciation of home in itself does not appear to be a plausible option for migrants from Egypt who would likely not use such a measure to hold their government accountable for the direction the tax monies collected travel.

¹⁷⁶ Ibid.

¹⁷⁷ United Nations General Assembly, "High-Level International Intergovernmental Consideration of Financing for Development," (2001).

¹⁷⁸ Wilson, "Taxing the Brain Drain: A Reassessment of the Bhagwati Proposal".

The idea that a state would benefit through taxation from the loss of many of its most talented minds seems flawed since the internal development that is desired through the generation of this additional source of income could stagnate when faced with infrastructure that has not caught up with what is needed to properly utilize incoming funds. Therefore this policy recommendation cannot be used independently, but must be coupled with a diversified approach that will bolster infrastructural needs in Egypt and also ensure that funds are funneled appropriately into projects and/or areas where they are most needed and through which potential developmental, social and economical, gains will be maximized.

6. CONCLUSIONS

The policy discussion here, it should be noted, considers emigration retroactively and must be supplemented with systemic and societal changes that will simultaneously address the existing trends in unemployment patterns in Egypt and encourage the strengthening of ties among the diaspora, and between the Egyptian diaspora and Egypt. For example, by working to harness remittance monies, or highlighting the value added to the market by return migrants through their contribution of skills and additional jobs in the market, Egypt is able to benefit from the migration of its skilled minds; however, by merely aiming to benefit in retrospect from the decision of its migrants, Egypt, as a sending state, is not sufficiently scrutinizing the intention of its nationals to emigrate.

The research discussed here illustrates that the migration intentions in the student population sampled is not negligible and, if it is found to be reflected beyond this survey's target population, could affect Egyptian population dynamics so fundamentally as to alter the demographic constitution of future generations, particularly if disenchantment with the home state leads migrants to choose to remain abroad for longer periods of time or even permanently. The guiding dynamics that lead to a student's decision to choose to migrate emerge even before the student is born as the societal reinforcement of what a family's desirable expectations for this new born should be inevitably influence the manner in which the child is raised to think about education and future opportunities.

That public higher education in Egypt is based primarily on matching the most desired areas of study with the highest scoring high school graduates perpetuates a

never-ending cycle whereby the highest scores are associated with only a limited number of university degrees. Therefore, even if a high school graduate is not interested in a particular field of study, if he/she earns a high score in the national “*thanaweya*” (final high school) exams, it has become socially objectionable to forego applying for these select few prestigious majors, namely medicine, engineering, pharmacy and political sciences and economics, among others. This, in turn, generates fresh graduates in particular fields whose scores on the national entrance exams were disproportionately high as compared to other fields of study, as opposed to generating graduates in each field with a proper bell curve representation including a portion of the brightest high school students, a large majority of students who earned average scores and a few who did not do as well. While such a bell curve might develop among the university students themselves, it still could not be juxtaposed (when considering the national high school exam scores) across different faculties to show an even distribution of high schools’ brightest minds across disciplines of study at the university level. Where the bell curve ends for one major of study might be where another begins, meaning that the latter fields of study and, by extension, its dependent industry is not set up for success from the very beginning. While one cannot make the assumption that all those earning high scores are necessarily distributed among a few top majors in the top universities, as some may not face or might be able to evade pressures to conform, the current reality does dictate that all those in those top majors at the top universities are high scorers since they all have to have met the minimum acceptance scores. Rectifying such deeply seeded societal impressions of what is best can only be possible if the issue is addressed from the top with education for the general public about market realities and the harm that arises out of unwarranted concentration in particular industries, as well as from the bottom with an educational

system that promotes independent thought, which would enable students to recognize where their interests truly converge and lead them to choose the proper field based on this recognition.

The problem of socially dictated educational aspirations is compounded when it is considered in light of the present research, as the concentration of the brightest minds in a few particular areas of focus leads to the over-saturation of the market and the creation of high levels of unemployment for graduates from these prestigious faculties. Therefore, not only has the 'prestige' mentality led to disadvantaging full industries, but it also then contributes to an amplification of the problems of unemployment and skilled emigration.

One way of resolving some of the adverse effects of emigration is the "win-win strategy" proposed by Chouri (1997). This strategy recognizes individual initiative in emigration and the government's role as a facilitator of individual initiative. However, the "win-win strategy" is a utopian situation in which all parties in the game are expected to gain from the exchange. If the strategy were to work, it would involve the regions or parties concerned seeking maximization of employment opportunities for workers, skill enhancement and other management strategies. And in cases where the maximum cannot be achieved, the strategy holds ways of reducing the gap in such a way that there would be mutual benefits for all parties. The strategy is, therefore, thought-provoking as a way of resolving the dilemma posed by ill-integrated consequences that offer little or no gain to the source or destination regions.¹⁷⁹

Contemplating emigration with the aim of creating a win-win strategy is necessary both domestically and internationally, as discussed earlier. Domestically, working to balance skills with need is the clear first step. Domestic policy can also contribute in win-win thinking in terms of recognizing the realities facing the country. As we discussed that 82% of recent graduates find it impossible to enter into the market upon graduation, and even after 5 years, only about 75% successfully do, domestic policies

¹⁷⁹ A.A. Afolayan, "Issues and Challenges of Emigration Dynamics in Developing Countries," *International Migration* 39, no. 4 (2001).

aimed specifically at those left to live in the lag between education and employment would prove most efficient. If the migration intentions, for example, of recent graduates are gauged and funneled into effective placements abroad for the first few years following graduation, then the government of Egypt would benefit its own country in the short-run by lessening the rates of unemployment, industry-wide and for new entrants, and benefit from the ripple effects of human and social capital accumulation, as discussed earlier, gained while abroad by the return migration of the students after their set placements abroad. Realistically, the short-run implementation of such a strategy would need serious consideration in terms of how best to incorporate the returnees following their ‘training’ period abroad as the market may be faced with the same overwhelming demands for entry a few years after the students graduate. In the long-run however, this strategy may prove to be sustainable as the conditions, both logistical and infrastructural, should be in place that will facilitate the placement of students in positions in which expertise will be necessary upon their return.

This strategy clearly would require international cooperation of the sort used in the IMIS project discussed earlier to succeed and to best offer the opportunity for all parties involved to ascertain the level at which mutual cooperation will best yield the most valuable win-win situation. If assessed within existing views on international migration, security concerns would weigh heavily against permitting emigration in many industrialized countries¹⁸⁰, and therefore, without first addressing such concerns, a situation that might be a win for the receiving country may not comprehensively constitute a win for the sending country. Efforts by the government on the international front should strive to generate bilateral and multilateral

¹⁸⁰ Ronald Skeldon, "International Migration as a Tool in Development Policy: A Passing Phase?," *Population and Development Review* 34, no. 1 (2008).

agreements that would enable intending migrants from Egypt to find gaps within foreign markets to fill, and that would encourage these foreign countries to turn to Egypt first as needs emerge. In order to accomplish such a feat and confidently be able to sell Egyptian graduates as the best candidates for open positions, the system of higher education within Egypt should continue to expand its provision of accredited schools and improve the level of tertiary education in existing universities to earn accreditation and facilitate entrance into foreign job markets for its recent graduates. While solely utilizing the Maghreb and Mashrek states to alleviate market woes in Egypt was noted earlier to be the least plausible option, if the creation of an “Arab Economic Citizenship Area,”¹⁸¹ for example, were supplemented with agreements with the European Union and any other states whose market supply needs reinforcement, the situation could prove to be a definite win for Egypt, and ideally for the host states as well.

6.1 Future Research

In order to determine whether the efforts the Egyptian government would need to expend to secure agreements as recommended above would be worthwhile, this study first needs to be expanded to provide a representative assessment of the migration intentions of all students graduating from university across Egypt. This would allow researchers to evaluate which industries are most likely to be affected by emigration and which labor markets are most strained, in terms of either too many or too few new entrants each year. Feasibility studies delving into labor market needs in popular countries of destination and labor market generation in Egypt could also benefit potential discussion to create mutually beneficial agreements as these would

¹⁸¹ Nasra M. Shah, "Arab Migration Patterns in the Gulf," in *Arab Migration in a Globalized World*, ed. International Organization for Migration (Geneva: 2004).

be based on realities of the market and not on illusions of possibilities from either party.

Furthermore, future research would benefit from the perspectives of Egyptians abroad across countries of destination and fields of employment to see whether their intentions to remit and to return reflect the same patterns as the intentions of students who plan to migrate. Research with nationals abroad could also gauge the realities of expenses by country of destination and income; the reasons migrants would or would not choose to return; and the strength of their relationship with the Egyptian government so as to provide the home government with a basis from which to begin its work to ameliorate its relationship with the diaspora.

In addition to cross-country, single-point-in-time studies of Egyptian migrants, discussions with nationals abroad and domestically could provide the basis for an interesting longitudinal study whereby not only are student intentions at a single point in time compared with the realities experienced by their demographic counterparts abroad at the same point in time. Their intentions could be tracked every few years for several decades to determine whether the destination choices, financial costs and gains, remittance patterns and duration of expatriation matched the intentions when the subjects were students.

Further scrutiny of return migration would also benefit this field of study. A contemporary study on the real activities of return migrants and any obstacles that emerge in their attempts to return would benefit Egypt as a case study by enabling the country to create policies based on realistic expectations of gains accrued from the emigration of its nationals.

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APPENDIX A: RESEARCH SURVEY

1. Hi There! اهلا بكم

Thank you very much for taking the time to click through my survey. This research will be used for my Masters thesis work for the American University in Cairo.

It should only take about 5 mins, and will help me a ton!

I assure you that all of the answers you provide will be kept strictly confidential and will only be used as part of this research. I will not give your names or the data collected to anyone. If there is a question you prefer not to answer, simply skip it and move on to the next one.

Thank you again for taking the time to answer! Enjoy :)

اشكركم جزيلًا على وقتكم في الرد على هذا الإستطلاع. هذا البحث سيتم استخدامه لرسالة الماجستير التي أجريها في الجامعة الأمريكية بالقاهرة

سوف يستغرق الإستطلاع حوالي خمس دقائق فقط و سوف يساعني جدا

إنتي أؤكد لكم أن جميع الإجابات سوف تحفظ بمنتهى السرية و لن تستخدم الا كجزء من هذا البحث. إنتي لن أسلم أسماءكم أو أي من البيانات المجمعة لأي شخص. إذا فضلتم عدم الإجابة على أحد الأسئلة، رجاء الانتقال ببساطة للسؤال التالي

أكرر شكري لتقييمكم الوقت للإجابة! أتمنى لكم وقتًا ممتعًا

2. Demographics Section البيانات الشخصية

1. Name (Optional) (إختياري) الاسم

2. Email

3. Mobile Number (Optional – to check for duplication)

رقم المحمول - اختياري - للتأكد من عدم التكرار

4. Gender الجنس

- Male ذكر
- Female أنثى

5. Marital Status الحالة الاجتماعية

- Never Married لم يسبق له الزواج
- Married متزوج/متزوجة
- Widowed أرمل/أرملة
- Divorced مطلق/مطلقة
- Separated منفصل/منفصلة

6. Religious Affiliation الديانة

- Muslim مسلم/مسلمة
- Christian مسيحي/مسيحية
- Other ديانة أخرى

7. Date of Birth تاريخ الميلاد

Date تاريخ DD MM YYYY
/ /

8. Place of Birth محل الميلاد

City مدينة

Country دولة

9. Which governorate were you raised in?

في أي المحافظات تربيته؟

- | | | |
|---|--|---|
| <input type="radio"/> Alexandria الإسكندرية | <input type="radio"/> Giza الجيزة | <input type="radio"/> Qena قنا |
| <input type="radio"/> Aswan أسوان | <input type="radio"/> Ismailia الإسماعيلية | <input type="radio"/> Red Sea البحر الأحمر |
| <input type="radio"/> Asyut أسيوط | <input type="radio"/> Kafr el-Sheikh كفر الشيخ | <input type="radio"/> Sharqia الشرقية |
| <input type="radio"/> Beheira البحيرة | <input type="radio"/> Matruh مطروح | <input type="radio"/> Sohag سوهاج |
| <input type="radio"/> Beni Suef بني سويف | <input type="radio"/> Minya المنيا | <input type="radio"/> South Sinai جنوب سيناء |
| <input type="radio"/> Cairo القاهرة | <input type="radio"/> Monufia المنوفية | <input type="radio"/> Suez السويس |
| <input type="radio"/> Dakahlia الدقهلية | <input type="radio"/> New Valley الوادي الجديد | <input type="radio"/> Luxor الأقصر |
| <input type="radio"/> Damietta دمياط | <input type="radio"/> North Sinai شمال سيناء | <input type="radio"/> Helwan حلوان |
| <input type="radio"/> Faiyum الفيوم | <input type="radio"/> Port Said بورسعيد | <input type="radio"/> 6th of October السادس من أكتوبر |
| <input type="radio"/> Gharbia الغربية | <input type="radio"/> Qalyubia القليوبية | |

10. What is the total monthly income in your household in LE?

ما هو مجموع الدخل الشهري في محل إقامتك بالجنيه المصري؟

- < 1000
- 1000-3000
- 3000-7000
- 7000-12000
- > 12000

11. Pre-University Schooling

المراحل الدراسية فيما قبل الجامعة

	Public School مدرسة عامة	Private School مدرسة خاصة
Where did you attend primary school? المرحلة الابتدائية?	<input type="radio"/>	<input type="radio"/>
Where did you attend preparatory school? المرحلة الإعدادية?	<input type="radio"/>	<input type="radio"/>
Where did you attend secondary school? المرحلة الثانوية?	<input type="radio"/>	<input type="radio"/>

12. Which university do you currently attend? ما اسم الجامعة التي تدرّس بها؟

- | | | |
|---|---|---|
| <input type="radio"/> Ain Shams University جامعة عين شمس | <input type="radio"/> Cairo University جامعة القاهرة | <input type="radio"/> Nahda University جامعة النهضة |
| <input type="radio"/> Al-Ahram Canadian University جامعة الأهرام الكندية | <input type="radio"/> Delta University for Science and Technology جامعة الدلتا للعلوم والتكنولوجيا | <input type="radio"/> Nile University جامعة النيل |
| <input type="radio"/> Al-Azhar University جامعة الأزهر | <input type="radio"/> Egyptian Russian University الجامعة المصرية الروسية | <input type="radio"/> October 6 University جامعة 6 أكتوبر |
| <input type="radio"/> Alexandria University جامعة الإسكندرية | <input type="radio"/> Future University جامعة المستقبل | <input type="radio"/> October University for Modern Sciences and Arts جامعة أكتوبر للعلوم الحديثة والآداب |
| <input type="radio"/> Al-Fayoum University جامعة الفيوم | <input type="radio"/> German University in Cairo الجامعة الألمانية بالقاهرة | <input type="radio"/> Pharos University in Alexandria جامعة فاروس بالإسكندرية |
| <input type="radio"/> Al-Minya University جامعة المنيا | <input type="radio"/> Helwan University جامعة حلوان | <input type="radio"/> Sinai University جامعة سيناء |
| <input type="radio"/> American University in Cairo الجامعة الأمريكية بالقاهرة | <input type="radio"/> Kafr El Shiekh University جامعة كفر الشيخ | <input type="radio"/> Sohag University جامعة سوهاج |
| <input type="radio"/> Arab Academy for Science and Technology and Maritime Transport الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري | <input type="radio"/> Mansoura University جامعة المنصورة | <input type="radio"/> South Valley University جامعة جنوب الوادي |
| <input type="radio"/> Assiut University جامعة أسيوط | <input type="radio"/> Minufiya University جامعة المنوفية | <input type="radio"/> Suez Canal University جامعة قناة السويس |
| <input type="radio"/> Banha University جامعة بنها | <input type="radio"/> Misr International University جامعة مصر الدولية | <input type="radio"/> Tanta University جامعة طنطا |
| <input type="radio"/> Beni-Suef University جامعة بني سويف | <input type="radio"/> Misr University for Science and Technology جامعة مصر للعلوم والتكنولوجيا | <input type="radio"/> Université Française d'Égypte (UFE) الجامعة الفرنسية في مصر |
| <input type="radio"/> British University in Egypt الجامعة البريطانية في مصر | <input type="radio"/> Modern University For Technology and Information الجامعة الحديثة للتكنولوجيا والمعلومات | <input type="radio"/> Zagazig University جامعة الزقازيق |

13. Do you have a valid passport?

هل تحمل جواز سفر ساري؟

- Yes نعم
- No لا

14. Do you have Egyptian nationality?

هل تحمل الجنسية المصرية؟

- Yes نعم
- No لا

15. Do you have any other citizenships?

هل تحمل جنسيات أخرى؟

- Yes نعم
- No لا

16. If yes, what are your countries of citizenship?

إذا أجبت بنعم، ما هي الدول التي تحمل جنسيتها؟

17. Which languages do you speak? (Check all that apply)

ما هي اللغات التي تتحدثها؟ إختار كل ما ينطبق

- | | | |
|---|---|---|
| <input type="checkbox"/> Arabic العربية | <input type="checkbox"/> French الفرنسية | <input type="checkbox"/> Italian الإيطالية |
| <input type="checkbox"/> Chinese الصينية | <input type="checkbox"/> German الألمانية | <input type="checkbox"/> Japanese اليابانية |
| <input type="checkbox"/> English الإنجليزية | <input type="checkbox"/> Greek اليونانية | <input type="checkbox"/> Spanish الأسبانية |
| <input type="checkbox"/> Other (please specify) أخرى (رجاء التمييز) | | |

18. Which field of engineering are you studying?

ما هو فرع الهندسة الذي تدرسه؟

- Aerospace الطيران
- Architectural المعمارية
- Biomedical الطبية
- Chemical الكيمائية
- Civil المدنية
- Computer الكمبيوتر
- Electrical الكهربائية
- Mechanical الميكانيكية
- Petroleum البترول

Please specify your concentration رجاء تحديد التخصص

19. What year did/will you graduate with your engineering degree?

في أي سنة حصلت/ سوف تحصل على بكالوريوس الهندسة؟

- | | | |
|----------------------------|----------------------------|----------------------------|
| <input type="radio"/> 2004 | <input type="radio"/> 2008 | <input type="radio"/> 2012 |
| <input type="radio"/> 2005 | <input type="radio"/> 2009 | <input type="radio"/> 2013 |
| <input type="radio"/> 2006 | <input type="radio"/> 2010 | |
| <input type="radio"/> 2007 | <input type="radio"/> 2011 | |

20. What was the acceptance score for the Faculty of Engineering the year you applied?

ما هو مجموع القبول لكلية الهندسة في سنة الالتحاق بها؟

- Not Applicable لا ينطبق
- Entrance Score مجموع القبول

3. Employment Section البيانات الوظيفية

1. Do you currently work? هل تعمل حالياً؟

- No لا
- Yes (Please specify your current position (رجاء تحديد الوظيفة الحالية) نعم
- _____

2. How do you currently support yourself? (Check all that apply)

كيف تعول نفسك حالياً؟ إختار كل ما ينطبق

- Work عمل
- Family Support دعم أسري
- Savings مخرات
- Scholarship منحة دراسية
- Other (please specify (رجاء التحديد) أخرى
- _____

3. How will you support yourself following graduation? (Check all that apply)

كيف تنوي إعالة نفسك بعد التخرج؟ إختار كل ما ينطبق

- Work عمل
- Family Support دعم أسري
- Savings مخرات
- Other (please specify (رجاء التحديد) أخرى
- _____

4. What do you intend to work as after you graduate?

ماذا تنوي العمل بعد التخرج؟

5. Do you intend to work for a public or private company?

هل تنوي العمل في شركة عامة ام خاصة؟

- Public عامة
- Private خاصة
- Either Private or Public أي نوع

6. How much would you expect to earn as an engineer in Egypt upon graduation?

كم تتوقع أن تكسب كمهندس في مصر بعد التخرج؟

Anticipated Salary in LE/month (المرتب المتوقع بالجنيه المصري)

7. Have you ever worked outside Egypt before?

هل سبق لك العمل خارج مصر من قبل؟

No لا

Yes (Please specify where (رجاء تحديد المكان

4. Migration Intentions نوايا الهجرة

1. Do you intend to work abroad in the future?

هل تنوي العمل بالخارج في المستقبل؟

No لا

Yes (Please specify where نعم (رجاء تحديد المكان

2. How much would you expect to earn as an engineer abroad?

كم تتوقع أن تكسب كمهندس بالخارج؟

Expected Salary in LE/month العرب المتوقع بلجنه المصري

3. Do you already have an offer to work abroad?

هل لديك عرض عمل بالخارج بالفعل؟

No لا

Yes نعم

4. If you have already been offered a position:

إن كان لديك عرض عمل بالفعل

In which country? في أي دولة?

In which industry? في أي مجال?

What type of offer do you have? (A formal contract/Promise of employment upon arrival

ما هو نوع العرض؟ (عقد رسمي / وعد بالعمل عند الوصول

5. Do you intend to emigrate from Egypt in the future?

هل تنوي الهجرة من مصر في المستقبل؟

Yes, this year نعم، خلال هذا العام

Yes, in 1-2 years نعم، خلال عام أو اثنين

Yes, in 3-5 years نعم، خلال ثلاثة إلى خمسة أعوام

Yes, in 6-10 years نعم، خلال ستة إلى عشرة أعوام

Yes, but I don't have concrete plans yet نعم، لكن ليس لدي خطط محددة بعد

No, I do not intend to emigrate لا، لا أنوي الهجرة

6. If you intend to work abroad or to emigrate, do you intend to return to Egypt permanently after some time abroad?

إذا كنت تنوي العمل بالخارج أو الهجرة، هل تنوي العودة إلى مصر بعد قضاء بعض الوقت بالخارج؟

No لا

Yes (Please specify how long you expect to stay abroad نعم (رجاء تحديد المدة المتوقع قضاها بالخارج

7. If you plan to work abroad or emigrate, do you plan to send money back to Egypt during your time abroad?

إذا كنت تنوي العمل بالخارج أو الهجرة، هل تنوي إرسال أموالاً لذويك في مصر أثناء وجودك بالخارج؟

- No لا
- Yes (Please specify a percentage you plan to send back home نعم (رجاء تحديد النسبة التي تنوي إرسالها لذويك

8. Do you know people who have emigrated already? (Check all that apply)

هل تعرف أناس هاجروا من قبل؟ إختتر كل ما ينطبق

- Yes, my parents نعم، واليا واليا
- Yes, my brother نعم، أخي
- Yes, my sister نعم، أختي
- Yes, a member of my extended family نعم، فرد من أفراد عرستي الموسعة
- Yes, a friend نعم، صديق لي
- No, I don't know anyone who has emigrated لا، لا أعرف أحدا هاجر

9. If you plan to stay in Egypt, which governorate do you intend to live in?

إن كنت تنوي البقاء في مصر، في أي محافظة تنوي أن تعيش؟

- | | | |
|---|--|---|
| <input type="radio"/> Alexandria الإسكندرية | <input type="radio"/> Giza الجيزة | <input type="radio"/> Qena قنا |
| <input type="radio"/> Aswan أسوان | <input type="radio"/> Ismailia الإسماعيلية | <input type="radio"/> Red Sea البحر الأحمر |
| <input type="radio"/> Asyut أسيوط | <input type="radio"/> Kafr el-Sheikh كفر الشيخ | <input type="radio"/> Sharqia الشرقية |
| <input type="radio"/> Beheira البحيرة | <input type="radio"/> Matruh مطروح | <input type="radio"/> Sohag سوهاج |
| <input type="radio"/> Beni Suef بني سويف | <input type="radio"/> Minya المنيا | <input type="radio"/> South Sinai جنوب سيناء |
| <input type="radio"/> Cairo القاهرة | <input type="radio"/> Monufia المنوفية | <input type="radio"/> Suez السويس |
| <input type="radio"/> Dakahlia الدقهلية | <input type="radio"/> New Valley الوادي الجديد | <input type="radio"/> Luxor الأقصر |
| <input type="radio"/> Damietta دمياط | <input type="radio"/> North Sinai شمال سيناء | <input type="radio"/> Helwan حلوان |
| <input type="radio"/> Faiyum الفيوم | <input type="radio"/> Port Said بورسعيد | <input type="radio"/> 6th of October السادس من أكتوبر |
| <input type="radio"/> Gharbia الغربية | <input type="radio"/> Qalyubia القليوبية | |

5. Migration Intentions نوايا الهجرة

1. If you intend to emigrate, which country/countries would you most likely choose?

إن كنت تنوي الهجرة، ما هي البلد/البلاد المرجح أن تختارها؟

2. If you know people who have already emigrated, are you planning on going to one of the countries where they are?

إن كنت تعرف أناس هاجروا، هل تنوي الذهاب إلى إحدى الدول التي هاجروا إليها؟

- I do not know anyone who has emigrated already لا أعرف أحدا هاجر من قبل
- No, I do not plan to go to the same country لا، لا أنوي الذهاب إلى نفس الدولة
- Yes, I plan to go to the same country (Please specify the country/countries) نعم، أنوي الذهاب إلى نفس الدولة (رجاء تحديد)

الدولة/الدول

3. What are the main reasons you want to emigrate? (Check all that apply)

ما هي أهم أسباب الهجرة لديك؟ إختار كل ما ينطبق

- To make a higher income لتسب دخل أكبر
- To send money home لإرسال أموال لتوذك
- To get training and return للتدريب ثم العودة
- To live outside Egypt للعيش خارج مصر
- Bad living conditions in Egypt لسوء أحوال المعيشة في مصر
- To join family already outside Egypt للتحاق بالاعل الموجودين خارج مصر
- To escape from family pressures and troubles للهروب من ضغوط عائلية أو مشكلات
- There are no job opportunities in Egypt لعدم توفر فرص عمل في مصر
- Other (Please specify) أسباب أخرى (رجاء التحديد)

4. What draws you to your country of destination? (Check all that apply)

ما الذي يجذبك إلى الدولة التي تقصدها؟ إختتر كل ما ينطبق

- I have friends there لدي أصدقاء هناك
- I have relatives there لدي أقرب هناك
- I have a job offer there لدي عرض عمل هناك
- I want to live in that country أحب أن أعيش في هذه النولة
- More job opportunities there فرص العمل أكثر هناك
- My destination is less crowded and/or polluted وجهتي أقل إزدحاما أو ثوتنا
- I could study there يمكنك الدراسة هناك
- Other (Please specify) ألياب أخرى (رجاء التحديد)

5. What is your source of information about your country of destination? (Check all that apply)

ما هو مصدر معلوماتك عن الدولة التي تقصدها؟ إختتر كل ما ينطبق

- Friends/Relatives أصدقاء/أقرب
- Internet الإنترنت
- Egyptian Authorities مصادر مصرية رسمية
- Personal Research بحث شخصي
- Media (TV/Radio/Newspapers) الإاعتم (تلفزيون/راديو/جرائد)
- Embassy of the Receiving Country سفارة النولة المقصودة
- Other (Please specify) مصادر أخرى (رجاء التحديد)

6. Are there persons who will help you migrate? (Check all that apply)

هل هناك من سيساعدك للهجرة؟ إختتر كل ما ينطبق

- Relatives in your destination country أقرب في الدولة التي تقصدها
- Relatives in Egypt أقرب في مصر
- Egyptian Friends in your destination country أصدقاء مصريين في الدولة التي تقصدها
- Non-Egyptian Friends in your destination country أصدقاء غير مصريين في الدولة التي تقصدها
- Friends in Egypt أصدقاء في مصر
- Migration Brokers وسطاء هجرة
- Other (Please specify) أخرى (رجاء التحديد)

7. What do you expect is the cost of migrating?

كم تتوقع ان تكون تكلفة الهجرة؟

Expected cost in LE التكلفة المتوقعة بالجنيه المصري

8. Have you saved up money to use for your emigration?

هل ادخرت أموالا بقصد استخدامها للهجرة؟

No لا

Yes (Please specify in LE نعم (رجاء التحديد بالجنيه المصري

9. Are there others financially assisting you in your emigration? (Check all that apply)

هل هناك من يساعدك ماليا للهجرة؟ إختتر كل ما ينطبق

Yes, a member of my immediate family نعم، فرد من أفراد أسرتي المباشرة

Yes, a member of my extended family نعم، فرد من أفراد أسرتي الموسعة

Yes, friend/friends نعم، صديق/أصدقاء لي

Yes, people from my neighborhood/village نعم، أشخاص من الجيرة/القرية

No, no one is assiting me financially لا، لا أحد يساعدني ماليا

If yes (Please specify in LE إذا أجبت بنعم (رجاء التحديد بالجنيه المصري

10. Do you intend to work as an engineer abroad, or will you accept a position in another industry?

هل تنوي العمل كمهندس بالخارج، أم يمكنك قبول العمل في مجال آخر؟

Engineering positions only وظائف هندسية فقط

Any position abroad أي وظيفة بالخارج

11. If you intend to work as an engineer, have you already completed any necessary equivalence exams for your destination country?

إن كنت تنوي العمل كمهندس، هل أجريت أي إختبارات معادلة مطلوبة في الدولة التي تقصدها؟

Yes, I have already completed the exams نعم، لقد تكملت الإختبارات بالفعل

In progress جاري القيام بها

I will in the future سوف أجريها لاحقا

No, I do not intend to لا، لا أنوي

No, none are needed in my country of destination لا، ليست مطلوبة في الدولة التي أقصدها

12. How willing would you be to migrate illegally if a legal path to migration is unavailable?

ما مدى إستعدادك للهجرة بطريقة غير قانونية إذا لم تتوفر لك طرق قانونية؟

- Will definitely resort to illegal measures if a legal way is not available سوف ألتجأ بالتأكيد إلى وسائل غير قانونية إذا لم تتوفر طرق قانونية
- Very willing مستعد جدا
- Somewhat willing مستعد بعض الشيء
- Very Reluctant متردد جدا
- Will not resort to illegal measures if a legal path is not available لن ألتجأ إلى وسائل غير قانونية إذا لم تتوفر طرق قانونية

6. Thank you! شكراً

Thank you for taking the time to answer!

شكراً لكم لتقديمكم الوقت للإجابة

APPENDIX B: SURVEY ANSWERS FOR CAIRO UNIVERSITY FACULTY OF
ENGINEERING CLASS OF 2010

Table 2 - Respondent Gender

Gender الجنس		
Answer Options	Response Percent	Response Count
Male ذكر	78.9%	90
Female أنثى	21.1%	24
<i>answered question</i>		114
<i>skipped question</i>		1

Table 3 - Respondent Marital Status

Marital Status الحالة الاجتماعية		
Answer Options	Response Percent	Response Count
Never Married لم يسبق لك الزواج	99.1%	113
Married متزوج/متزوجة	0.9%	1
Widowed أرمل/أرملة	0.0%	0
Divorced مطلق/مطلقة	0.0%	0
Separated منفصل/منفصلة	0.0%	0
<i>answered question</i>		114
<i>skipped question</i>		1

Table 4 - Respondent Religion

Religious Affiliation الديانة		
Answer Options	Response Percent	Response Count
Muslim مسلم/مسلمة	88.6%	101
Christian مسيحي/مسيحية	11.4%	13
Other ديانة أخرى	0.0%	0
<i>answered question</i>		114
<i>skipped question</i>		1

Table 5 - Other Citizenships

هل تحمل جنسيات أخرى؟ / Do you have any other citizenships?		
Answer Options	Response Percent	Response Count
Yes نعم	2.7%	3
No لا	97.3%	108
<i>answered question</i>		111
<i>skipped question</i>		4

Table 6 - Pre-University Schooling

المراحل الدراسية فيما قبل الجامعة / Pre-University Schooling			
Answer Options	Public	Private	Response Count
Where did you attend primary school? المرحلة الابتدائية	38	73	111
Where did you attend preparatory school? المرحلة الإعدادية	45	66	111
Where did you attend secondary school? المرحلة الثانوية	66	47	113
<i>answered question</i>		113	
<i>skipped question</i>			2

Table 7 - Languages Spoken

ما هي اللغات التي تتحدثها؟ إختتر كل ما / Which languages do you speak? (Check all that apply)		
Answer Options	Response Percent	Response Count
Arabic العربية	99.1%	112
Chinese الصينية	0.0%	0
English الإنجليزية	95.6%	108
French الفرنسية	25.7%	29
German الألمانية	8.8%	10
Greek اليونانية	0.0%	0
Italian الإيطالية	0.9%	1
Japanese اليابانية	0.0%	0
Spanish الأسبانية	0.0%	0
Other (please specify) أخرى (رجاء التحديد)	0.0%	0
<i>answered question</i>		113
<i>skipped question</i>		2

Table 8 - Engineering Concentration

Which field of engineering are you studying? ما هو فرع الهندسة الذي تدرسه؟		
Answer Options	Response Percent	Response Count
Architectural المعمارية	19.1%	21
Civil المدنية	10.9%	12
Electrical الكهربائية	29.1%	32
Mechanical الميكانيكية	26.4%	29
Computer الكمبيوتر	3.6%	4
Chemical الكيماوية	3.6%	4
Petroleum البترول	0.9%	1
Aerospace الطيران	0.0%	0
Biomedical الطبية	6.4%	7
Please specify your concentration رجاء تحديد التخصص		44
<i>answered question</i>		110
<i>skipped question</i>		5

Table 9 - Household Income

What is the total monthly income in your household in LE? ما هو مجموع الدخل الشهري في محل		
Answer Options	Response Percent	Response Count
< 1000	18.8%	19
1000-3000	31.7%	32
3000-7000	30.7%	31
7000-12000	8.9%	9
> 12000	9.9%	10
<i>answered question</i>		101
<i>skipped question</i>		14

Table 10 - Employment Status

Do you currently work? هل تعمل حالياً؟		
Answer Options	Response Percent	Response Count
No لا	95.6%	108
Yes (Please specify your current position نعم) رجاء تحديد	4.4%	5
<i>answered question</i>		113
<i>skipped question</i>		2

Table 11 - Current Means of Financial Support

How do you currently support yourself? (Check all that apply) كيف تعول نفسك حالياً؟ إختتر كل ما ينطبق				
Answer Options	Gender الجنس		Response Percent	Response Count
	Male ذكر	Female أنثى		
Work عمل	4	0	3.6%	4
Family Support دعم أسري	86	24	98.2%	110
Savings مدخرات	11	0	9.8%	11
Scholarship منحة دراسية	1	0	0.9%	1
Other (please specify إخرى (رجاء التحديد	0	0	0.0%	0
<i>answered question</i>				112
<i>skipped question</i>				2

Table 12 - Means of Financial Support Following Graduation by Gender

How will you support yourself following graduation? (Check all that apply) كيف تنوي إعالة نفسك بعد				
Answer Options	Gender الجنس		Response Percent	Response Count
	Male ذكر	Female أنثى		
Work عمل	88	24	100.0%	112
Family Support دعم أسري	5	0	4.5%	5
Savings مدخرات	8	1	8.0%	9
Other (please specify إخرى (رجاء التحديد	1	0	0.9%	1
<i>answered question</i>				112
<i>skipped question</i>				2

Table 13 - Means of Financial Support Following Graduation by Income Bracket

How will you support yourself following graduation? (Check all that apply) كيف تنوي إعالة نفسك بعد التخرج؟ إختتر كل ما ينطبق							
Answer Options	What is the total monthly income in your					Response Percent	Response Count
	< 1000	1000-3000	3000-7000	7000-12000	> 12000		
Work عمل	14	26	23	9	7	100.0%	79
Family Support دعم أسري	0	0	1	1	3	6.3%	5
Savings مدخرات	0	0	5	1	0	7.6%	6
Other (please specify إخرى	0	0	1	0	0	1.3%	1
<i>answered question</i>							79
<i>skipped question</i>							1

Table 14 - Private or Public Employment Desired

هل تنوي العمل في شركة عامة ام خاصة؟ Do you intend to work for a public or private company?		
Answer Options	Response Percent	Response Count
عامة Public	1.8%	2
خاصة Private	67.3%	76
أي نوع Either Private or Public	31.0%	35
<i>answered question</i>		113
<i>skipped question</i>		2

Table 15 - Previous Employment Outside Egypt

هل سبق لك العمل خارج مصر من قبل؟ Have you ever worked outside Egypt before?		
Answer Options	Response Percent	Response Count
لا No	92.1%	105
نعم (رجاء تحديد المكان) Yes (Please specify where)	7.9%	9
<i>answered question</i>		114
<i>skipped question</i>		1

Table 16 - Expected Domestic Compensation

كم تتوقع أن تكسب؟ How much would you expect to earn as an engineer in Egypt upon graduation?			
Answer Options	Response Average	Response Total	Response Count
المرتنب المتوقع Anticipated Salary in LE/month	2,530.34	263,155	104
<i>answered question</i>			104
<i>skipped question</i>			11

Table 17- Intention to Work Abroad in the Future by Gender

هل تنوي العمل بالخارج في المستقبل؟ Do you intend to work abroad in the future?				
Answer Options	الجنس Gender		Response Percent	Response Count
	Male	Female		
لا No	9	16	22.7%	25
نعم (رجاء تحديد المكان) Yes (Please specify where)	77	8	77.3%	85
<i>answered question</i>				110
<i>skipped question</i>				4

Table 18 - Offer of Employment Abroad

هل لديك عرض عمل بالخارج بالفعل؟ Do you already have an offer to work abroad?		
Answer Options	Response Percent	Response Count
No لا	82.7%	91
Yes نعم	17.3%	19
<i>answered question</i>		110
<i>skipped question</i>		5

Table 19 - Expected Compensation Abroad

كم تتوقع أن تكسب كمهندس How much would you expect to earn as an engineer abroad?			
Answer Options	Response Average	Response Total	Response Count
Expected Salary in LE/month المرتب المتوقع	12,540.70	1,078,500	86
<i>answered question</i>			86
<i>skipped question</i>			29

Table 20 - Intention to Emigrate in the Future by Gender

هل تنوي الهجرة من مصر في المستقبل؟ Do you intend to emigrate from Egypt in the future?				
Answer Options	Gender الجنس		Response Percent	Response Count
	Male	Female		
Yes, this year نعم، خلال هذا العام	2	0	1.8%	2
Yes, in 1-2 years نعم، خلال عام أو اثنين	18	1	17.4%	19
Yes, in 3-5 years نعم، خلال ثلاثة إلى خمسة أعوام	25	1	23.9%	26
Yes, in 6-10 years نعم، خلال ستة إلى عشرة أعوام	3	0	2.8%	3
Yes, but I don't have concrete plans yet نعم،	14	5	17.4%	19
No, I do not intend to emigrate لا، لا أنوي الهجرة	23	17	36.7%	40
<i>answered question</i>				109
<i>skipped question</i>				5

Table 21 - Intention to Return Following Time Abroad

If you intend to work abroad or to emigrate, do you intend to return to Egypt		
Answer Options	Response Percent	Response Count
No ٧	9.3%	9
Yes (Please specify how long you expect to stay abroad)	90.7%	88
<i>answered question</i>		97
<i>skipped question</i>		18

Table 22 - Intention to Return Following Time Abroad by Expected Departure Timeframe

If you intend to work abroad or to emigrate, do you intend to return to Egypt permanently after some time abroad? إذا كنت تنوي العمل بالخارج أو الهجرة، هل تنوي العودة إلى مصر بعد قضاء بعض الوقت بالخارج؟							
Answer Options	Do you intend to emigrate from Egypt in the					Response Percent	Response Count
	Yes,	Yes,	Yes, in	Yes, in	Yes, but		
No ٧	0	3	4	0	1	11.9%	8
Yes (Please specify how long you)	2	15	22	3	17	88.1%	59
<i>answered question</i>						67	
<i>skipped question</i>						3	

Table 23 - Intention to Remit

If you plan to work abroad or emigrate, do you plan to send money back to Egypt		
Answer Options	Response Percent	Response Count
No ٧	22.7%	20
Yes (Please specify a percentage you plan to send back)	77.3%	68
<i>answered question</i>		88
<i>skipped question</i>		27

Table 24 - Intention to Remit by Income Bracket

If you plan to work abroad or emigrate, do you plan to send money back to Egypt during your time							
Answer Options	What is the total monthly income in					Response Percent	Response Count
	< 1000	1000- 3000	3000- 7000	7000- 12000	> 12000		
No لا	1	2	8	2	2	19.7%	15
Yes (Please specify a percentage you	9	22	18	6	6	80.3%	61
<i>answered question</i>							76
<i>skipped question</i>							25

Table 25 - Reasons for Emigration

What are the main reasons you want to emigrate? (Check all that apply) ما هي أهم أسباب		
Answer Options	Response Percent	Response Count
To make a higher income لكسب دخل أكبر	68.8%	53
To send money home لإرسال أموال لذويك	10.4%	8
To get training and return للتدريب ثم العودة	28.6%	22
To live outside Egypt للعيش خارج مصر	24.7%	19
Bad living conditions in Egypt لسوء أحوال المعيشة في مصر	49.4%	38
To join family already outside Egypt للحاق بالاهل الموجودين	2.6%	2
To escape from family pressures and troubles للهروب من	9.1%	7
There are no job opportunities in Egypt لعدم توفر فرص عمل	27.3%	21
Other (Please specify أسباب أخرى (رجاء التحديد	20.8%	16
<i>answered question</i>		77
<i>skipped question</i>		38

Table 26 - Reasons for Emigration by Gender

What are the main reasons you want to emigrate? (Check all that apply) ما هي أهم أسباب الهجرة				
Answer Options	Gender الجنس		Response Percent	Response Count
	Male	Female		
To make a higher income لكسب دخل أكبر	50	3	69.7%	53
To send money home لإرسال أموال لذويك	8	0	10.5%	8
To get training and return للتدريب ثم العودة	19	3	28.9%	22
To live outside Egypt للعيش خارج مصر	17	2	25.0%	19
Bad living conditions in Egypt لسوء أحوال المعيشة في مصر	32	5	48.7%	37
To join family already outside Egypt للحاق بالاهل	2	0	2.6%	2
To escape from family pressures and troubles للهروب من	6	1	9.2%	7
There are no job opportunities in Egypt لعدم توفر فرص	17	4	27.6%	21
Other (Please specify أسباب أخرى (رجاء التحديد	14	2	21.1%	16
<i>answered question</i>				76
<i>skipped question</i>				38

Table 27 - Reasons for Emigration by Income Bracket

What are the main reasons you want to emigrate? (Check all that apply) ما هي أهم أسباب الهجرة لديك؟ إختار كل ما ينطبق							
Answer Options	What is the total monthly income in your					Response Percent	Response Count
	< 1000	1000-3000	3000-7000	7000-12000	> 12000		
To make a higher income لكسب دخل أكبر	6	16	12	6	6	65.7%	46
To send money home لإرسال أموال لذويك	2	4	1	0	0	10.0%	7
To get training and return للتدريب ثم العودة	1	7	7	4	3	31.4%	22
To live outside Egypt للعيش خارج مصر	2	4	5	3	3	24.3%	17
Bad living conditions in Egypt لسوء أحوال	6	9	11	4	4	48.6%	34
To join family already outside Egypt	0	0	0	0	2	2.9%	2
To escape from family pressures and	1	0	1	1	2	7.1%	5
There are no job opportunities in Egypt	2	5	8	2	2	27.1%	19
Other (Please specify أسباب أخرى (رجاء	0	7	6	1	1	21.4%	15
<i>answered question</i>							70
<i>skipped question</i>							31

Table 28 - Prior Knowledge of Emigrants

هل تعرف أناس (Check all that apply) Do you know people who have emigrated already?		
Answer Options	Response Percent	Response Count
Yes, my parents نعم، والديا	11.8%	13
Yes, my brother نعم، أخي	1.8%	2
Yes, my sister نعم، أختي	2.7%	3
Yes, a member of my extended family نعم، فرد من أفراد	49.1%	54
Yes, a friend نعم، صديق لي	51.8%	57
No, I don't know anyone who has emigrated لا، لا أعرف	20.9%	23
<i>answered question</i>		110
<i>skipped question</i>		5

Table 29 - Intent to Join Past Emigrants

If you know people who have already emigrated, are you planning on going to one of the		
Answer Options	Response Percent	Response Count
I do not know anyone who has emigrated already لا أعرف	13.7%	10
No, I do not plan to go to the same country لا، لا أنوي الذهاب	27.4%	20
Yes, I plan to go to the same country (Please specify the	58.9%	43
<i>answered question</i>		73
<i>skipped question</i>		42

Table 30 - Pull Factors

What draws you to your country of destination? (Check all that apply) ما الذي يجذبك إلى		
Answer Options	Response Percent	Response Count
I have friends there لدي أصدقاء هناك	10.5%	8
I have relatives there لدي أقارب هناك	23.7%	18
I have a job offer there لدي عرض عمل هناك	18.4%	14
I want to live in that country أحب أن أعيش في هذه الدولة	51.3%	39
More job opportunities there فرص العمل أكثر هناك	53.9%	41
My destination is less crowded and/or polluted وجهتي أقل	31.6%	24
I could study there يمكنني الدراسة هناك	43.4%	33
Other (Please specify أسباب أخرى (رجاء التحديد	9.2%	7
<i>answered question</i>		76
<i>skipped question</i>		39

Table 31 - Source of Information about Destination

What is your source of information about your country of destination? (Check all that apply)		
Answer Options	Response Percent	Response Count
Friends/Relatives أصدقاء/أقارب	71.2%	52
Internet الإنترنت	57.5%	42
Egyptian Authorities مصادر مصرية رسمية	5.5%	4
Personal Research بحث شخصي	37.0%	27
Media (TV/Radio/Newspapers) الإعلام (تلفزيون/راديو/جرائد)	30.1%	22
Embassy of the Receiving Country سفارة الدولة المقصودة	11.0%	8
Other (Please specify) مصادر أخرى (رجاء التحديد)	4.1%	3
<i>answered question</i>		73
<i>skipped question</i>		42

Table 32 - Persons Assisting in Migration

Are there persons who will help you migrate? (Check all that apply) هل هناك من سيساعدك		
Answer Options	Response Percent	Response Count
Relatives in your destination country أقارب في الدولة التي	30.4%	21
Relatives in Egypt أقارب في مصر	18.8%	13
Egyptian Friends in your destination country أصدقاء	20.3%	14
Non-Egyptian Friends in your destination country أصدقاء	5.8%	4
Friends in Egypt أصدقاء في مصر	8.7%	6
Migration Brokers وسطاء هجرة	23.2%	16
Other (Please specify) أخرى (رجاء التحديد)	17.4%	12
<i>answered question</i>		69
<i>skipped question</i>		46

Table 33 - Expected Cost of Migration

What do you expect is the cost of migrating? كم تتوقع ان تكون تكلفة الهجرة؟			
Answer Options	Response Average	Response Total	Response Count
Expected cost in LE التكلفة الممتوقعة بالجنيه المصري	25,641.30	1,179,500	46
<i>answered question</i>			46
<i>skipped question</i>			69

Table 34 - Do you have Savings for Use in Migration

هل إدخرت أموالا بقصد استخدامها للهجرة؟		
Answer Options	Response Percent	Response Count
No لا	91.7%	66
Yes (Please specify in LE نعم (رجاء التحديد بالجنيه المصري	8.3%	6
<i>answered question</i>		72
<i>skipped question</i>		43

Table 35 - Other Means of Financial Assistance for Migration

هل هناك آخرون يمدونك مالياً في هجرتك؟ (تحقق من كل ما ينطبق)		
Answer Options	Response Percent	Response Count
Yes, a member of my immediate family نعم، فرد من أفراد	63.0%	46
Yes, a member of my extended family نعم، فرد من أفراد	9.6%	7
Yes, friend/friends نعم، صديق/أصدقاء لي	1.4%	1
Yes, people from my neighborhood/village نعم، أشخاص من	0.0%	0
No, no one is assisting me financially لا، لا أحد يساعدني مادياً	32.9%	24
If yes (Please specify in LE إذا أجبت بنعم (رجاء التحديد بالجنيه المصري		1
<i>answered question</i>		73
<i>skipped question</i>		42

Table 36 - Acceptable Positions Abroad

هل أنت متجه إلى العمل كمهندس في الخارج، أو ستقبل وظيفة أخرى		
Answer Options	Response Percent	Response Count
Engineering positions only وظائف هندسية فقط	87.2%	68
Any position abroad أي وظيفة بالخارج	12.8%	10
<i>answered question</i>		78
<i>skipped question</i>		37

Table 37 - Completion of Equivalence Exams

If you intend to work as an engineer, have you already completed any necessary		
Answer Options	Response Percent	Response Count
Yes, I have already completed the exams نعم، لقد أكملت	0.0%	0
In progress القيام بها جاري	9.9%	7
I will in the future سوف أجريها لاحقا	74.6%	53
No, I do not intend to لا، لأنوي	8.5%	6
No, none are needed in my country of destination لا، ليست	7.0%	5
<i>answered question</i>		71
<i>skipped question</i>		44

Table 38 - Completion of Equivalence Exams by Expected Departure Timeframe

If you intend to work as an engineer, have you already completed any necessary equivalence exams for your destination country? إن كنت تنوي العمل كمهندس، هل أجريت أي إختبارات معادلة مطلوبة في الدولة التي تقصدها؟							
Answer Options	Do you intend to emigrate from Egypt in the					Response Percent	Response Count
	Yes,	Yes,	Yes, in	Yes, in	Yes,		
Yes, I have already completed the	0	0	0	0	0	0.0%	0
In progress القيام بها جاري	0	1	4	1	0	10.2%	6
I will in the future سوف أجريها لاحقا	2	14	16	2	12	78.0%	46
No, I do not intend to لا، لأنوي	0	1	1	0	1	5.1%	3
No, none are needed in my	0	0	3	0	1	6.8%	4
<i>answered question</i>						59	
<i>skipped question</i>						11	

Table 39 - Prior Knowledge of Emigrants by Expected Departure Timeframe

Do you know people who have emigrated already? (Check all that apply) هل تعرف أناس هاجروا من قبل؟ إختتر كل ما								
Answer Options	Do you intend to emigrate from Egypt in the future?						Response Percent	Response Count
	Yes, Yes,	Yes, Yes,	Yes, Yes, in	Yes, Yes, in	No, I	No, I		
Yes, my parents نعم، والديا	0	1	4	0	3	5	11.1%	8
Yes, my brother نعم، أخي	0	1	0	0	0	1	1.7%	1
Yes, my sister نعم، أختي	0	1	1	0	1	0	2.6%	3
Yes, a member of my	0	9	15	1	11	16	44.6%	36
Yes, a friend نعم، صديق لي	2	16	13	2	11	12	48.0%	44
No, I don't know anyone who	0	1	2	1	4	15	19.7%	8
							<i>answered question</i>	108
							<i>skipped question</i>	2

Table 40 - Willingness to Resort to Irregular Modes of Migration

How willing would you be to migrate illegally if a legal path to migration is unavailable?		
Answer Options	Response Percent	Response Count
Will definitely resort to illegal measures if a legal way is	0.0%	0
Very willing مستعد جدا	1.3%	1
Somewhat willing مستعد بعض الشيء	3.9%	3
Very Reluctant متردد جدا	3.9%	3
Will not resort to illegal measures if a legal path is not	90.9%	70
<i>answered question</i>		77
<i>skipped question</i>		38

APPENDIX C: SURVEY ANSWERS FOR PRIMARY UNIVERSITIES SAMPLED

This Appendix provides the answers given to the survey questionnaire for the population of students reached from each of the primary universities sampled to illustrate whether the same patterns found in the Cairo University students are reflected in the overall student/recent graduate population, recognizing that this larger sample is not representative of the intentions of the overall student population at each of these universities. The overall sample reached by the researcher consisted of 442 students and recent graduates from universities across Cairo in addition to Alexandria University. Over half of the responses gathered were drawn from Cairo University, while another 15.8% came from Ain Shams, 16.3% from the American University in Cairo and 12.1% from Alexandria University. The answers from these four universities are given here, and account for 400 of the total number of responses.

Gender الجنس						
Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
Male ذكر	159	47	39	50	74.1%	295
Female أنثى	57	17	12	17	25.9%	103
					<i>answered question</i>	398
					<i>skipped question</i>	2

Marital Status الحالة الاجتماعية						
Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
Never Married لم يسبق لك الزواج	204	60	50	57	93.5%	371
Married متزوج/متزوجة	11	3	1	10	6.3%	25
Widowed أرمل/أرملة	0	0	0	0	0.0%	0
Divorced مطلق/مطلقة	0	0	0	0	0.0%	0
Separated منفصل/منفصلة	1	0	0	0	0.3%	1
<i>answered question</i>						397
<i>skipped question</i>						3

Religious Affiliation الديانة						
Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
Muslim مسلم/مسلمة	192	45	48	53	85.6%	338
Christian مسيحي/مسيحية	21	18	3	14	14.2%	56
Other ديانة أخرى	1	0	0	0	0.3%	1
<i>answered question</i>						395
<i>skipped question</i>						5

What is the total monthly income in your household in LE? ما هو مجموع الدخل الشهري في محل إقامتك بالجنيه المصري؟

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
< 1000	29	6	6	4	12.5%	45
1000-3000	73	19	16	8	32.1%	116
3000-7000	56	19	15	12	28.3%	102
7000-12000	17	11	5	5	10.5%	38
> 12000	18	4	4	34	16.6%	60
<i>answered question</i>						361
<i>skipped question</i>						39

Pre-University Schooling المراحل الدراسية فيما قبل الجامعة

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Count	
Where did you attend primary school? المرحلة الابتدائية?						
Public School مدرسة عامة	66	20	15	4	385	
Private School مدرسة خاصة	140	42	35	63		
Where did you attend preparatory school? المرحلة الإعدادية?						
Public School مدرسة عامة	82	26	28	6	384	
Private School مدرسة خاصة	124	36	22	60		
Where did you attend secondary school? المرحلة الثانوية?						
Public School مدرسة عامة	120	32	37	12	396	
Private School مدرسة خاصة	94	32	14	55		
					<i>answered question</i>	396
					<i>skipped question</i>	4

هل تحمل جنسيات أخرى؟ Do you have any other citizenships?						
Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
Yes نعم	7	3	1	4	3.8%	15
No لا	206	61	49	63	96.2%	379
<i>answered question</i>						394
<i>skipped question</i>						6

ما هي اللغات التي تتحدثها؟ إختار كل ما ينطبق (Check all that apply) Which languages do you speak?						
Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
العربية العربية	213	62	50	65	99.2%	390
الصينية الصينية	2	0	0	0	0.5%	2
الإنجليزية English	205	61	49	66	96.9%	381
الفرنسية French	65	22	8	25	30.5%	120
الألمانية German	26	4	3	12	11.5%	45
الإيطالية Italian	4	2	0	1	1.8%	7
اليابانية Japanese	0	0	0	1	0.3%	1
الأسبانية Spanish	3	0	1	1	1.3%	5
أخرى (رجاء التحديد Other (please specify	1	0	0	3	1.0%	4
<i>answered question</i>						393
<i>skipped question</i>						7

ما هو فرع الهندسة الذي تدرسه؟ Which field of engineering are you studying?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
المعمارية Architectural	26	4	0	2	8.2%	32
المدنية Civil	16	9	0	12	9.5%	37
الكهربائية Electrical	46	10	0	8	16.5%	64
الميكانيكية Mechanical	37	26	0	37	25.7%	100
الكمبيوتر Computer	30	15	49	4	25.2%	98
الكيميائية Chemical	36	0	0	0	9.3%	36
البتروال Petroleum	3	0	0	1	1.0%	4
الطيران Aerospace	1	0	0	1	0.5%	2
الطبية Biomedical	15	0	0	1	4.1%	16
Please specify your concentration رجاء تحديد التخصص						169
<i>answered question</i>						389
<i>skipped question</i>						11

هل تعمل حالياً؟ Do you currently work?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
لا No	137	29	17	23	56.3%	206
نعم (رجاء تحديد الوظيفة الحالية) Yes (Please specify your current position)	67	26	30	38	44.0%	161
<i>answered question</i>						366
<i>skipped question</i>						34

What year did/will you graduate with your engineering degree? في أي سنة حصلت/سوف تحصل على بكالوريوس الهندسة؟

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
2004	1	3	0	2	1.6%	6
2005	1	1	0	5	1.8%	7
2006	3	0	2	7	3.1%	12
2007	40	3	2	8	13.8%	53
2008	6	13	17	6	10.9%	42
2009	40	20	12	13	22.1%	85
2010	115	11	12	8	38.0%	146
2011	6	5	5	8	6.3%	24
2012	1	3	0	3	1.8%	7
2013	0	1	1	0	0.5%	2
<i>answered question</i>						384
<i>skipped question</i>						16

How do you currently support yourself? (Check all that apply) كيف تعول نفسك حالياً؟ اختر كل ما ينطبق

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
Work عمل	59	29	30	34	41.5%	152
Family Support دعم أسري	160	35	28	39	71.6%	262
Savings مدخرات	21	5	0	7	9.0%	33
Scholarship منحة دراسية	3	0	0	9	3.3%	12
Other (please specify أخرى (رجاء التحديد	1	1	1	2	1.4%	5
<i>answered question</i>						366
<i>skipped question</i>						34

كيف تنوي إعالة نفسك بعد التخرج؟ إختتر كل ما ينطبق (Check all that apply) How will you support yourself following graduation?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
عمل Work	199	54	47	57	99.2%	357
دعم أسري Family Support	21	7	5	13	12.8%	46
مدخرات Savings	16	4	2	9	8.6%	31
إخرى (رجاء التحديد) Other (please specify)	5	1	0	2	2.2%	8
<i>answered question</i>						360
<i>skipped question</i>						40

هل تنوي العمل في شركة عامة ام خاصة؟ Do you intend to work for a public or private company?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
عامة Public	4	2	3	1	2.8%	10
خاصة Private	133	35	24	53	68.2%	245
أي نوع Either Private or Public	65	17	17	6	29.2%	105
<i>answered question</i>						359
<i>skipped question</i>						41

كم تتوقع أن تكسب كمهندس في مصر بعد التخرج؟ How much would you expect to earn as an engineer in Egypt upon graduation?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Average	Response Total	Response Count
المرتنب المتوقع بالجنيه المصري Anticipated Salary in LE/month	183	47	42	55	3,166.22	1,035,355	327
<i>answered question</i>							326
<i>skipped question</i>							74

هل سبق لك العمل خارج مصر من قبل؟ Have you ever worked outside Egypt before?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
No لا	180	46	42	51	87.9%	319
Yes (Please specify where نعم (رجاء تحديد المكان	22	8	5	10	12.4%	45
<i>answered question</i>						363
<i>skipped question</i>						37

هل تنوي العمل بالخارج في المستقبل؟ Do you intend to work abroad in the future?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
No لا	48	17	8	22	28.4%	95
Yes (Please specify where نعم (رجاء تحديد المكان	141	29	33	36	71.6%	239
<i>answered question</i>						334
<i>skipped question</i>						66

كم تتوقع أن تكسب كمهندس بالخارج؟ How much would you expect to earn as an engineer abroad?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Average	Response Total	Response Count
Expected Salary in LE/month المرتب المتوقع بالجنيه المصري	149	40	37	45	14,404.06	3,903,500	271
<i>answered question</i>							271
<i>skipped question</i>							129

هل تنوي الهجرة من مصر في المستقبل؟ Do you intend to emigrate from Egypt in the future?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
نعم، خلال هذا العام Yes, this year	8	3	0	3	4.2%	14
نعم، خلال عام أو اثنين Yes, in 1-2 years	24	8	8	10	15.1%	50
نعم، خلال ثلاثة إلى خمسة أعوام Yes, in 3-5 years	30	2	8	3	13.0%	43
نعم، خلال ستة إلى عشرة أعوام Yes, in 6-10 years	7	1	1	0	2.7%	9
نعم، لكن ليس لدي خطط محددة بعد Yes, but I don't have concrete plans yet	36	13	12	11	21.7%	72
لا، لا أنوي الهجرة No, I do not intend to emigrate	82	19	14	29	43.4%	144
answered question						332
skipped question						68

إذا كنت تنوي العمل بالخارج أو الهجرة، هل إذا كنت تنوي العمل بالخارج أو الهجرة، هل If you intend to work abroad or to emigrate, do you intend to return to Egypt permanently after some time abroad?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
لا No	18	6	7	15	17.2%	46
نعم (رجاء تحديد المدة المتوقع قضاءها بالخارج Yes (Please specify	139	26	30	27	82.8%	222
answered question						268
skipped question						132

If you plan to work abroad or emigrate, do you plan to send money back to Egypt during your time abroad? إذا كنت تنوي العمل بالخارج أو الهجرة، هل تنوي إرسال

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
No لا	37	8	8	29	32.0%	82
Yes (Please specify a percentage you plan to send back home) نعم ()	109	23	27	15	68.0%	174
<i>answered question</i>						256
<i>skipped question</i>						144

Do you know people who have emigrated already? (Check all that apply) هل تعرف أناس هاجروا من قبل؟ إختتر كل ما ينطبق

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
Yes, my parents نعم، والديا	19	5	7	4	10.5%	35
Yes, my brother نعم، أخي	7	5	2	2	4.8%	16
Yes, my sister نعم، أختي	4	3	0	1	2.4%	8
Yes, a member of my extended family نعم، فرد من أفراد أسرتي الموسعة	93	20	23	34	51.1%	170
Yes, a friend نعم، صديق لي	97	21	18	37	52.0%	173
No, I don't know anyone who has emigrated لا، لا أعرف أحدا هاجر	42	8	6	6	18.6%	62
<i>answered question</i>						333
<i>skipped question</i>						67

إن كنت تعرف أناس هاجروا، هل تنوي الذهاب إلى إحدى If you know people who have already emigrated, are you planning on going to one of the countries where they are?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
I do not know anyone who has emigrated already لا أعرف أحدا هاجر من قبل	14	2	4	1	12.1%	21
No, I do not plan to go to the same country لا، لا أنوي الذهاب إلى نفس الدولة	28	3	5	16	29.9%	52
Yes, I plan to go to the same country (Please specify the country/countries)	64	15	12	10	58.0%	101
<i>answered question</i>						174
<i>skipped question</i>						226

ما هي أهم أسباب الهجرة لديك؟ إختتر كل ما ينطبق What are the main reasons you want to emigrate? (Check all that apply)

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
To make a higher income لكسب دخل أكبر	74	22	22	18	72.3%	136
To send money home لإرسال أموال لذويك	15	4	8	2	15.4%	29
To get training and return للتدريب ثم العودة	37	10	9	10	35.1%	66
To live outside Egypt للعيش خارج مصر	30	8	11	14	33.5%	63
Bad living conditions in Egypt لسوء أحوال المعيشة في مصر	60	18	18	15	59.0%	111
To join family already outside Egypt للحاق بالاهل الموجودين خارج مصر	5	2	3	4	7.4%	14
To escape from family pressures and troubles للهروب من ضغوط عائلية أو مشكلات	8	2	6	0	8.5%	16
There are no job opportunities in Egypt لعدم توفر فرص عمل في مصر	30	8	10	9	30.3%	57
Other (Please specify أسباب أخرى (رجاء التحديد	25	3	2	9	20.7%	39
<i>answered question</i>						188
<i>skipped question</i>						212

What draws you to your country of destination? (Check all that apply) ما الذي يجذبك إلى الدولة التي تقصدها؟ إختتر كل ما ينطبق

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
I have friends there لدي أصدقاء هناك	13	1	2	11	14.4%	27
I have relatives there لدي أقارب هناك	31	5	3	8	25.1%	47
I have a job offer there لدي عرض عمل هناك	20	6	4	6	19.3%	36
I want to live in that country أحب أن أعيش في هذه الدولة	59	16	15	17	57.2%	107
More job opportunities there فرص العمل أكثر هناك	60	12	12	14	52.4%	98
My destination is less crowded and/or polluted وجهتي أقل ازدحاما أو تلوثا	43	17	14	15	47.6%	89
I could study there يمكنني الدراسة هناك	57	12	16	19	55.6%	104
Other (Please specify أسباب أخرى (رجاء التحديد	10	3	2	5	10.7%	20
<i>answered question</i>						187
<i>skipped question</i>						213

What is your source of information about your country of destination? (Check all that apply) ماهو مصدر معلوماتك عن الدولة التي تقصدها؟ إختتر كل ما ينطبق

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
Friends/Relatives أصدقاء/أقارب	76	20	20	21	75.3%	137
Internet الإنترنت	63	19	19	15	63.7%	116
Egyptian Authorities مصادر مصرية رسمية	4	2	2	1	4.9%	9
Personal Research بحث شخصي	48	13	12	18	50.0%	91
Media (TV/Radio/Newspapers الإعلام (تلفزيون/راديو/جرائد	35	8	11	10	35.2%	64
Embassy of the Receiving Country سفارة الدولة المقصودة	13	4	0	2	10.4%	19
Other (Please specify مصادر أخرى (رجاء التحديد	6	2	0	3	6.0%	11
<i>answered question</i>						182
<i>skipped question</i>						218

هل هناك من سيساعدك للهجرة؟ إختتر كل ما ينطبق (Check all that apply) Are there persons who will help you migrate?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
أقارب في الدولة التي تقصدها Relatives in your destination country	30	9	2	9	33.3%	50
أقارب في مصر Relatives in Egypt	17	1	0	5	15.3%	23
أصدقاء مصريين في الدولة التي تقصدها Egyptian Friends in your destination country	20	6	3	8	24.7%	37
أصدقاء غير مصريين في الدولة التي تقصدها Non-Egyptian Friends in your destination country	8	1	1	3	8.7%	13
أصدقاء في مصر Friends in Egypt	11	3	1	3	12.0%	18
وسطاء هجرة Migration Brokers	20	3	3	2	18.7%	28
أخرى (رجاء التحديد) Other (Please specify)	19	3	3	4	19.3%	29
<i>answered question</i>						150
<i>skipped question</i>						250

كم تتوقع ان تكون تكلفة الهجرة؟ What do you expect is the cost of migrating?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Average	Response Total	Response Count
التكلفة الممتوقعة بالجنيه المصري Expected cost in LE	70	17	17	19	32,748.13	4,028,020	123
<i>answered question</i>							123
<i>skipped question</i>							277

هل إدرت أموالا بقصد استخدامها للهجرة؟ Have you saved up money to use for your emigration?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
No لا	88	20	19	21	86.5%	148
Yes (Please specify in LE نعم (رجاء التحديد بالجنيه المصري	14	2	2	5	13.5%	23
<i>answered question</i>						171
<i>skipped question</i>						229

هل هناك من يساعدك ماليا للهجرة؟ إختتر كل ما ينطبق (Check all that apply) Are there others financially assisting you in your emigration?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
Yes, a member of my immediate family نعم، فرد من أفراد أسرتي المباشرة	58	7	4	12	47.4%	81
Yes, a member of my extended family نعم، فرد من أفراد أسرتي الموسعة	9	2	0	0	6.4%	11
Yes, friend/friends نعم، صديق/أصدقاء لي	2	0	0	0	1.2%	2
Yes, people from my neighborhood/village نعم، أشخاص من الجيرة/القرية	1	0	0	0	0.6%	1
No, no one is assiting me financially لا، لا أحد يساعدني ماديا	41	11	17	14	48.5%	83
If yes (Please specify in LE اذا أجبت بنعم (رجاء التحديد بالجنيه المصري						11
<i>answered question</i>						171
<i>skipped question</i>						229

هل تنوي العمل كمهندس بالخارج، أم يمكنك قبول العمل في مجال آخر ؟ Do you intend to work as an engineer abroad, or will you accept a position in another industry?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
Engineering positions only وظائف هندسية فقط	93	18	25	17	82.7%	153
Any position abroad أي وظيفة بالخارج	18	5	0	9	17.3%	32
<i>answered question</i>						185
<i>skipped question</i>						215

إن كنت تنوي العمل كمهندس، هل إن كنت تنوي العمل كمهندس، هل If you intend to work as an engineer, have you already completed any necessary equivalence exams for your destination country?

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
Yes, I have already completed the exams نعم، لقد أكملت الإختبارات بالفعل	1	1	1	1	2.3%	4
In progress القيام بها جاري	17	2	4	7	16.9%	30
I will in the future سوف أجريها لاحقا	67	11	17	10	59.3%	105
No, I do not intend to لا، لا أنوي	13	3	1	5	12.4%	22
No, none are needed in my country of destination لا، ليست مطلوبة في الدولة التي أقصدها	5	6	2	3	9.0%	16
<i>answered question</i>						177
<i>skipped question</i>						223

How willing would you be to migrate illegally if a legal path to migration is unavailable? ما مدى استعدادك للهجرة بطريقة غير قانونية إذا لم تتوفر لك طرق قانونية؟

Answer Options	Cairo University	Ain Shams University	Alexandria University	American University in Cairo	Response Percent	Response Count
Will definitely resort to illegal measures if a legal way is not available	2	0	0	0	1.1%	2
Very willing مستعد جدا	5	0	0	0	2.7%	5
Somewhat willing مستعد بعض الشيء	3	2	2	0	3.7%	7
Very Reluctant متردد جدا	3	2	0	0	2.7%	5
Will not resort to illegal measures if a legal path is not available لن أجا	98	21	23	27	89.9%	169
answered question						188
skipped question						212