

ORIGINAL PAPER

<https://doi.org/10.17059/ekon.reg.2020-3-22>

UDC: 332.1

JEL: A13, I31, O18, Q01



Marwa Biltagy ^{a)}, Heba Nassar ^{b)}

^{a, b)} Cairo University, Giza, Egypt

^{a)} e-mail: bilmarwa@feps.edu.eg

Human Capital Upgrading, Social Inclusion and New Suez Canal Economic Zone¹

Creating society for all individuals by social inclusion is the best way to fight poverty and social exclusion. The construction of socially inclusive communities should be supported and encouraged by all partners in society not only the government. Thus, societies should create partnerships among all actors. These partnerships should promote complementary strategies for change, addressing the broad range of economic, social and environmental policies. It is time for economic zones to play their part in achieving social inclusion and sustainable development. Special Economic Zones are known for supporting the strategy of economic reform, decreasing the unemployment ratio and attracting new investments. The paper aims to propose design elements for creating socially inclusive Suez Canal Economic Zone. For this purpose, we introduced essential strategies of building an inclusive society. Moreover, we analysed inclusive growth indicators and the main characteristics of firms and workers in the Suez Canal Zone. The results include attracting foreign direct investment and increasing exports, achieving sustainable and inclusive green strategies that encompassing exports and investment creation, enabling capacity building, generating employment opportunities, assuring trickling down effect and creating linkages with the local economy to improve socio-economic conditions and eliminating regional disparities.

Keywords: social inclusion, social exclusion, inclusive growth, inclusive society, poverty, economic zones, Suez Canal Economic Zone, education, labour market, health

For citation: Biltagy, M. & Nassar, H. (2020). Human Capital Upgrading, Social Inclusion and New Suez Canal Economic Zone. *Ekonomika regiona [Economy of region]*, 16(3), 962-974, <https://doi.org/10.17059/ekon.reg.2020-3-22>

¹ © Biltagy M., Nassar H. Text. 2020.

ОРИГИНАЛЬНАЯ СТАТЬЯ

УДК: 332.1

JEL: A13, I31, O18, Q01

М. Билтаджи ^{а)}, Х. Нассар ^{б)}^{а, б)} Каирский Университет, Гиза, Египет^{а)} e-mail: bilmarwa@feps.edu.eg**Развитие человеческого капитала, социальная интеграция и новая экономическая зона Суэцкого канала**

Создание общества для всех с помощью социальной интеграции лучший способ борьбы с бедностью и социальной изоляцией, который должно поддерживать не только правительство, но и сами члены общества. Непременным элементом социальной интеграции являются партнерские отношения между всеми участниками. Партнерам необходимо продвигать дополнительные стратегии изменений, охватывающих широкий спектр проблем экономической, социальной и экологической политики. В настоящее время важную роль в достижении социальной интеграции и устойчивого развития играют экономические зоны, создание которых способствует проведению экономических реформ, снижению уровня безработицы и привлечению новых инвестиций. В настоящей статье описаны элементы, необходимые для создания социально-интегрированной экономической зоны Суэцкого канала, а также представлены основные стратегии построения социально-интегрированного общества. Проанализированы показатели инклюзивного роста и основные характеристики организаций и работников, занятых в зоне Суэцкого канала. Полученные результаты включают в себя: привлечение прямых иностранных инвестиций и рост экспорта; создание устойчивых и инклюзивных «зеленых» стратегий; создание возможностей для наращивания потенциала; обеспечение занятости и связей с региональной экономикой для улучшения социально-экономических условий и устранения региональных диспропорций.

Ключевые слова: социальная интеграция, социальная изоляция, инклюзивный рост, интегрированное общество, бедность, экономические зоны, экономическая зона Суэцкого канала, образование, рынок труда, здоровье

Для цитирования: Билтаджи, М, Нассар, Х. Модернизация человеческого капитала, социальная интеграция и новая экономическая зона Суэцкого канала // Экономика региона. 2020. Т. 16, вып. 3. С. 962-974. <https://doi.org/10.17059/ekon.reg.2020-3-22>

1. Introduction

Creating society for all individuals by social inclusion is the best way to fight poverty and social exclusion. The construction of socially inclusive communities should be supported and encouraged by all partners in society not only the government. Thus, societies should create partnerships among all actors. These partnerships should promote complementary strategies for change, addressing the broad range of economic, social and environmental policies.

It is time for economic zones to play their part in achieving social inclusion and sustainable development. Zones have the potential to become centres of excellence in corporate sustainability, attracting investment in ways that contribute to social inclusion.

The paper aims to propose design elements for creating socially inclusive Suez Canal Economic Zone. There has been a shift in how to design Economic Zones to achieve broader development objectives and effective investment promotion.

The paper is structured as follows: Section 2 presents a definition of social inclusion and describes the living conditions in the Suez Canal region. Section 3 suggests the essential strategies for

building an inclusive society. Section 4 proposes the development of a social inclusion index and explains the linkages between Special Economic Zones (SEZs) and social inclusion. Section 5 concludes the study.

2. Egypt's Experience with Economic Zones (EZ)**2.1. The Terminology of Zones**

Overall, Economic Zones are represented by Special Economic Zones (SEZs), Free Trade Zones and Export Processing Zones. The main purposes of these economic zones are to stimulate the transmission of technology and increase foreign direct investments. [1] confirmed the importance of SEZs in generating new jobs and augmenting global trade. Furthermore, SEZs encourage worldwide exports due to market diversity and motivate the local economies through human capital upgrading and transmission of expertise, skills, knowledge and technology [1–4].

Alternatively, various studies [2–7] discussed the limitations of the relationship between the catalytic effects of SEZs and the local economies since SEZs are almost always established depending on political economy factors, sequestered

from the remainder of domestic economy and focused on low profile sectors.

Since 1970s, the pioneer countries in Africa that initiated the implementation of the SEZs were Egypt, Mauritius, Liberia and Senegal. In 1990s, SEZs in these countries actually started operating and concentrated on some industries, such as agricultural and fabric businesses [8].

2.2. Definition of Social Inclusion and the Living Conditions in the Suez Canal Region

[9] have defined social inclusion as “the process by which societies combat poverty and social exclusion. In order for policies for social inclusion to be developed and implemented, the factors working against social inclusion, namely, poverty and social exclusion, have to be understood” [p. 1]. “Social exclusion is defined as the involuntary exclusion of individuals and groups from society’s political, economic and societal processes, which prevents their full participation in the society in which they live”. “Poverty is defined as the lack of economic resources”. “Poverty has various manifestations, including lack of income and productive resources sufficient to ensure sustainable livelihoods; hunger and malnutrition; ill health; limited or lack of access to education and other basic services; increased morbidity and mortality from illness; homelessness and inadequate housing; unsafe environment; and social discrimination and exclusion. It is also characterized by a lack of participation in decision-making and in civil, social and cultural life” [10].

To construct a socially inclusive community, all the partners should be involved and encouraged to participate. Such partnerships should focus on creating strategies that address social, economic, and environmental policies. In Egypt, these strategies should include some of the key national policy goals, stated in terms of social outcomes and framed according to the international relevant

Table 1

Percentage of poverty by governorate
(2010/11 – 2012/13)

	2010/11	2012/13
Total Egypt	25	26
Suez	3	5
Port Said	6	19
Ismailia	18	15

Source: Author’s calculations based on [11].

guidelines, such as the Sustainable Development Goals (SDGs). It is necessary to establish these guidelines after identifying the causes of poverty and social exclusion in Egypt. In other words, the national framework should be linked with the general international framework.

Poverty and living conditions in the Suez Canal Region

A. Poverty rates

It is clear that the poverty rates in the Suez Canal governorates are different (Table 1). The rate was relatively low in Suez (5 %) in 2012/13. However, Port Said has witnessed an increasing trend, as the poverty rates rose from 6 % in 2010/11 to 19 % in 2012/13. On the other hand, while the rate was relatively high in Ismailia (15 %) in 2012/13, it has declined slightly compared to 2010/11 (18 %).

B. Annual household spending

Among Egyptian governorates, Suez and Port Said have the highest values in terms of household expenditures, while Ismailia is characterised by moderate values. The expenditures include rent, maintenance, access to water, gas and electricity. Regarding the household expenditures on health services in the Suez Canal governorates, it is clear that, at the national level, Ismailia has the lowest values, while the expenditures are higher in in Suez and Port Said.

Concerning expenditures on education (including school fees, books, transportation as well

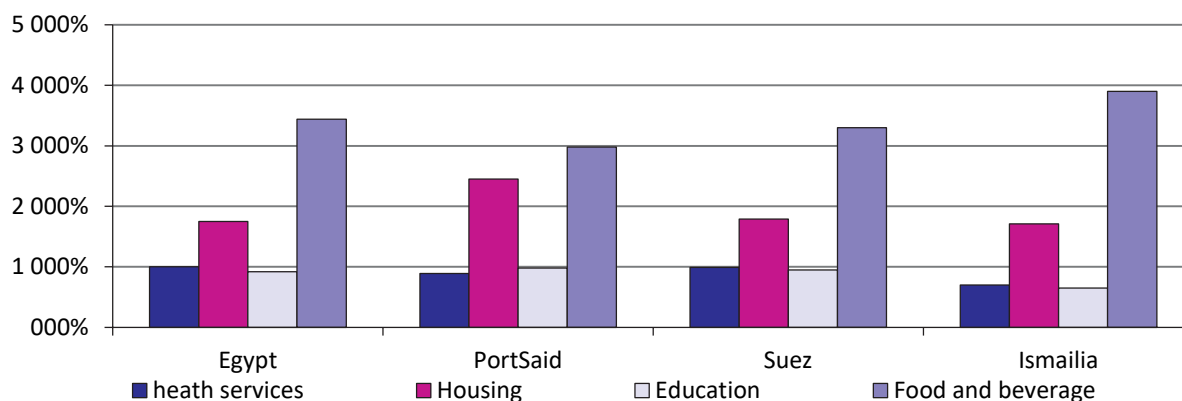


Figure 1. Percentage distribution of annual household spending by governorate (%) (2015)

Source: Done by the Authors based on [12]

Table 2

Distribution of employees with social insurance (2011–2014)

		Egypt	Port Said	Suez	Ismailia
2011	Private sector	6,981,115	99,432	99,836	89,416
	Public/ governmental sector	708,898	7,443	16,924	22,639
2014	Private sector	7323556	102938	105566	91,677
	Public/ governmental sector	70,3239	7696	18,563	19,965
Rate of increase, %	Private sector	4.90	3.50	5.70	2.50
	Public/ governmental sector	-0.80	3.40	9.70	-11.80

Source: Author's calculations based on [13].

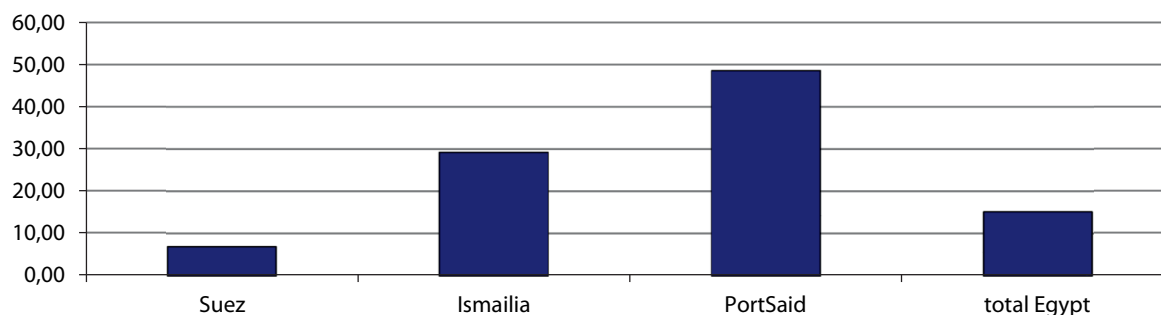


Figure 2. Total number of beneficiaries of services and assistance offered by the Labour Syndicates (2013)

Source: Done by the authors based on [14]

as private tuition), it could be concluded that Port Said and Suez are ranked fifth and sixth at the national level (9.8 % and 9.5 %). Simultaneously, the percentage of spending in Ismailia was 6.5 % in 2015.

In terms of expenditures on food and beverages, at the national level the value of this indicator is among the highest in Ismailia (39 %). Nevertheless, the expenditure on food and beverages in Suez and Port Said in 2015 was 33 % and 29.8 %, respectively, as shown in Figure 1.

C. Social protection coverage

Table 2 illustrates the social insurance coverage in the three governorates. In fact, there has been an increase in insurance coverage for those working in the private sector of about 3.5 % in Port Said, 5.7 % in Suez and 2.5 % in Ismailia. It is clear that the lowest rate of increase in insurance coverage in the private sector was recorded in Ismailia, which also showed a negative rate of change for those working in the public/governmental sector. This fact can be explained by the engagement of a bigger portion of workers in the informal sector in Ismailia where 40 % of total employees work in the informal sector compared to 18 % in the formal private and 9 % in the public/ governmental sectors.

Looking at the beneficiaries of social protection offered by the Ministry of Social Solidarity in the three governorates (Figure 2), we concluded that the Ministry disbursed as aid, assistance and pensions about 103 million Egyptian pounds (EGP) to 58 thousand families in 2013

Table 3

Slums in Suez Canal Governorates (2011)

	Number of slum areas	House units	Population
Suez	5	1462	5994
Ismailia	20	48319	196341
Port Said	6	6650	25935
total Egypt	283	209468	853249
% to total Egypt			
Suez	1.3	0.7	0.7
Ismailia	5.2	23.1	23
Port Said	1.6	3.2	3

Source: Author's calculations based on [14].

(about 3 % of the total number of beneficiary families at the national level). Ismailia was ranked first in terms of the amount disbursed (64.4 million EGP) and the number of beneficiary families (33 thousand), followed by Suez (21.4 million EGP and about 13 thousand families) and Port Said (17.2 million EGP benefiting 13 thousand families). In Ismailia, the average share of the family is very close to the national level; however, it is significantly lower in Port Said and Suez. The share of the three governorates in the benefits offered by Labour syndicates reached 2.5 million EGP in 2013 benefiting about 38 thousand workers. While Suez has one of the lowest percentage of beneficiaries of total workers (7 %), this indicator equals 30 % in Ismailia and 48.4 % in Port Said. The number of labour Syndicate committees ranges from 19 in Suez to 21 in Port Said and 28 in Ismailia, pre-

Factors of Social Inclusion and Exclusion

Factors of Inclusion	Factors of Exclusion
Respect of human rights	Lack of respect of human rights
Access to clean and safe places for living and working	Violence, abuse and lack of safety
Equal opportunities	Discrimination
Participation in decision-making	Lack of political participation
Access to information and communication	Lack of access to different communications
Access to transportation	Lack of transportation
Access to financial services	Lack of access to financial services
Adequate income and employment opportunities	Lack of access to good job opportunities and decent work
Access to education	Lack of access to education
Access to health care	Lack of access to health care

Source: Done by the Authors.

senting 8 % of total labour Syndicate committees in Egypt in 2013 [14].

D. Slum areas

Regarding slum areas in the three governorates, Ismailia has the highest number of slum areas (20) hosting nearly 200,000 individuals, which constitute about 23 % of the total population living in slum areas at the national level. This high percentage could be attributed to the significant share of agricultural areas in Ismailia compared to Suez and Port Said, which have 5 and 6 slum areas, respectively, hosting about 6000 and 26000 individuals in 2011.

3. Strategies of Building an Inclusive Society

Social inclusion is important not only for achieving the first goal of Sustainable Development Goals (SDG), poverty elimination, but also for other vital goals. They include empowerment and participation of disadvantaged groups in the development process, realization of decent work and economic growth, achievement of quality education (since education affects the quality of life, participation of individuals in economic activities as well as economic development [15]), support of gender equality and ensuring of good health and well-being. Social inclusion can play a serious role in promoting sustainable human development. An inclusive society is a society that reduces differences of gender, class, generation, and geography, and ensures inclusion, equal opportunity for all members of the society.

3.1. Factors of Social Inclusion and Exclusion

Social inclusion encompasses all dimensions of life: economic, political, social, legal, cultural, geographical and environmental. Furthermore, social inclusion can be stimulated at different levels. For example, the government may be interested in identifying dimensions connected to their internal policies, such as education, health, em-

ployment and access to basic services in general. Alternatively, a local government may be more concerned with social mobility.

Table 4 presents different factors of social inclusion and exclusion. To achieve social inclusion, it is essential to promote respect of human rights and the rule of law, give equal opportunities to all individuals, eliminate discrimination and provide access to basic services. Institutional structures and legal systems need to be strengthened to promote social inclusion. [16], [17] and [18] explained that social and economic exclusion of older individuals directly results from economic hardship, age discrimination, exclusion and barriers for retirement planning in earlier ages.

3.2. Inclusive Growth Indicators in the Suez Canal Region

Pillar One: Demographic Profile

In the beginning of 2016, the three governorates together had more than 2.5 million inhabitants, representing 2.8 % of total population in Egypt. While population estimates for Port Said and Suez stand around 650 thousand each, there are almost twice as many people in Ismailia (1.2 million). Ismailia has nearly 45 % of its population residing in urban areas; the rest lives rural areas. Simultaneously, both Suez and Port Said are metropolitan governorates with nearly all their population residing in the urban areas.

Internal Migration by Region

This paper uses the ELMPS 2012 data to examine the main directions of internal migration related to the three governorates as well as define their main characteristics. According to the ELMPS 2012 data, Port Said has three governorates acting as the main labour dispatch governorates accounting for 70 % of internal migrants. They include Damietta, where one third of internal migrants in Port Said are located, followed by Dakahlia (25 %) and Cairo (14 %). The val-

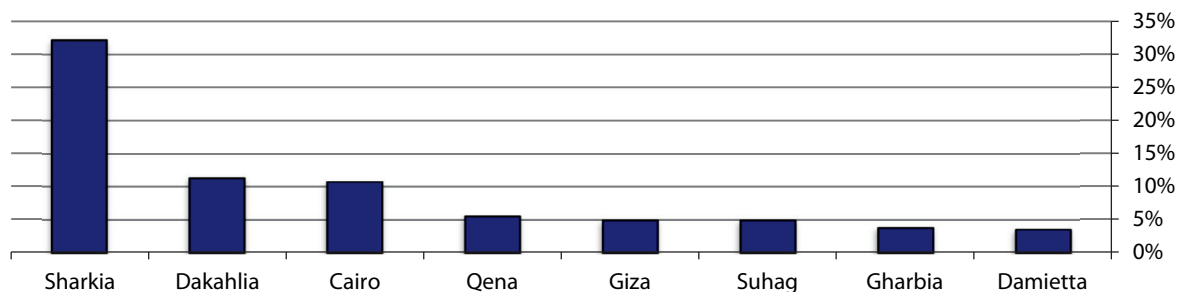


Figure 3. Distribution of Internal Migrants in Suez Canal Governorates by Top Governorates
Source: Done by the Authors based on [20]

Table 5
Population Estimates by Governorate (Urban /Rural), 2016

	Urban	Rural	Total	% of Urban, %
Port Said	678564	—	678564	100
Suez	636841	—	636841	100
Ismailia	550242	659421	1209663	45.5
Egypt	38482803	51603464	90086267	42.7

Source: Author’s calculations based on [19].

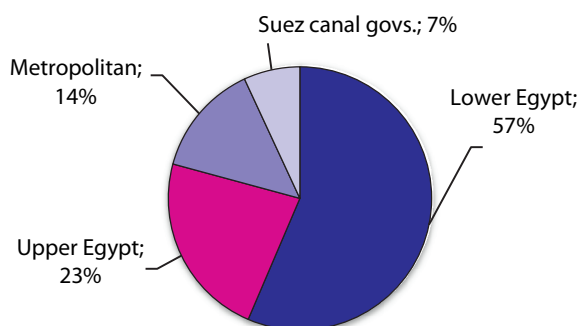


Figure 4. Distribution of Internal Migrants in Suez Canal Governorates by Region
Source: Done by the Authors based on [20]

ues of other governorates are lower (Ismailia 8 %, Gharbya 6 % and Upper Egypt by 6 %)

The image in Suez is more scattered, as internal migrants come from diverse governorates. Cairo is ranked first with 18 % of migrants followed by Sharkeya and Dakahelya (14 % and 11 %), respec-

tively, and Ismailia (9 %). From a regional perspective, internal migrants from Lower Egypt governorates come in first place presenting 38 % of internal migrants, followed by Upper Egypt (33 %) and Metropolitan governorates (29 %).

Looking at the origin of internal migrants in the three governorates of the Suez Canal Region, we can conclude that there are four governorates which represent about 60 % of total migrants, namely, Sharkia (32 %), Dakahlia (11 %), Cairo (11 %) and Qena (6 %).

From a regional perspective, Lower Egypt is the main source of labour force among the three Suez canal governorates presenting nearly two thirds of internal migrants. It is followed by Upper Egypt (mainly, Qena, Giza and Sohag), then Metropolitan governorates (Cairo and Alexandria). Alternatively, it can be concluded that there are limited intra-flows of internal migrants accounting for (7 %) of total migrants in the three governorates.

Residence

According to the ELMPS 2012 data, internal migrants in Suez and Port Said reside in urban areas; they are divided among rural and urban areas in Ismailia (53.5 % in urban areas and 46.5 % in rural areas).

Gender Composition

Looking at the distribution of internal migrants by gender, more than half of internal migrants in Port Said are males (53 % males and 47 % females). In Suez and Ismailia, the percent-

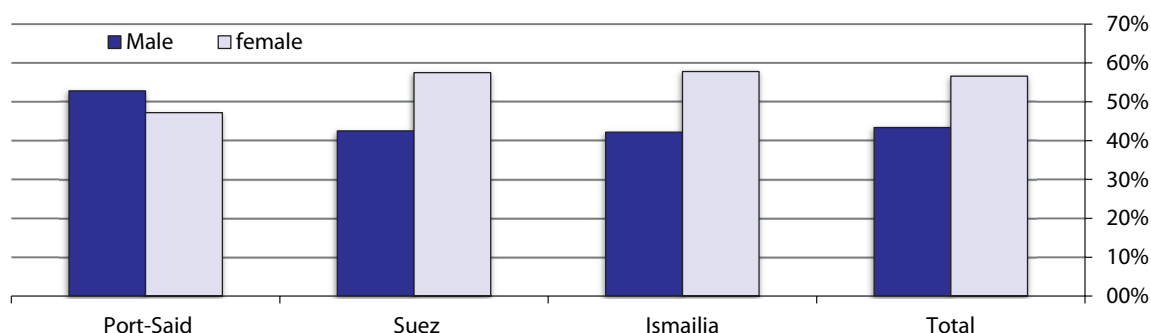


Figure 5. Distribution of Internal Migrants by Gender
Source: Done by the Authors based on [20]

age of females is higher (58 % females and 42 % males). The higher share of women could be explained by the fact that women mostly migrate because of marriage or to accompany a migrant.

Age Structure

The distribution of internal migrants shows that more than two thirds of internal migrants in the three Suez Canal governorates are in the age category 20–49 years (67 %). The percentage varies from 64 % in Ismailia to 70 % in Port Said and 76 % in Suez.

Education

Overall, internal migrants in the Suez Canal Zone (SCZ) are moderately educated; however, there are some differences among the three governorates. In Port Said, more than one third of internal migrants have higher or secondary education. Low educated and illiterates represent a relatively small proportion of the total migrants. In Suez, more than half of internal migrants have secondary education, followed by low education profile migrants (19 %) while university graduates represent a relatively small portion (13 %).

In Ismailia, the profile of internal migrants differs from the other two governorates, as more than one quarter of internal migrants are illiterates. Secondary school graduates represent nearly two fifths of internal migrants (37 %) and university graduates come third with 14 %.

Work Status

The distribution of internal migrants by work status demonstrates that most of them are paid workers (74 %), while the percentage of entrepreneurs is about 20 %. Employers represent nearly 13 % of the total and self-employed about 10 %.

Sector of Employment

Government sector is the major employer for internal migrants in the SCZ governorates; the percentage varies from 41 % in Suez to 45 % in Port Said and 47 % in Ismailia. Private sector is ranked second, employing nearly one third of internal migrants. The percentage reaches 37 % in Suez followed by Ismailia (32 %) and Port Said (30 %).

Pillar Two: Educational Profile of the Suez Canal Region

Enrolment Rates

Concerning the enrolment rates, it is evident that the three governorates have relatively high rates that exceed the average national value. Another point is the lack of gender gap: net enrolment rates among females are very close to males.

Availability of Classes, Schools and Class Density

The classes in the Suez Canal region account for more than 3.5 % of total classes and schools of Pre-University Education in Egypt, the number of schools ranges from 371 in Suez to 400 schools in Port Said and 823 in Ismailia.

Additionally, we examined other indicators concerning the performance of the three governorates in the education sector. Class density in pre-university education in general is lower in the Suez Canal region (35 in Port Said, 37 in Suez and 36 in Ismailia) than the national rate (42).

University Education

In 1976, the Suez Canal University was established in Ismailia to serve the three governorates. In 2010 and 2012, two consecutive universities have been established, namely, Port Said University and Suez University. In 2014/15, the number of enrolled students in the three universities amounted to 55 thousand students repre-

Table 6

Pre-University Schools, Classes and Pupils by Governorate (2014/15)

Governorate	Students		Classes		Schools	
	Number	Percentage, %	Number	Percentage, %	Number	Percentage, %
Port Said	142403	0.7	4070	0.9	401	0.9
Suez	152215	0.8	4093	0.9	371	0.8
Ismailia	274128	1.4	7540	1.6	823	1.8
Total Egypt	19135977	100.0	457790	100.0	44814	100.0

Source: Author's calculations based on [19].

Table 7

Class Density of Pre-University Education by Governorate (2014/15)

Governorate	Students		Classes		Class density
	Number	Percentage, %	Number	Percentage, %	
Port Said	142403	0.7	4070	0.9	35
Suez	152215	0.8	4093	0.9	37
Ismailia	274128	1.4	7540	1.6	36
Total Egypt	19135977	100.0	457790	100.0	42

Source: Author's calculations based on [19].

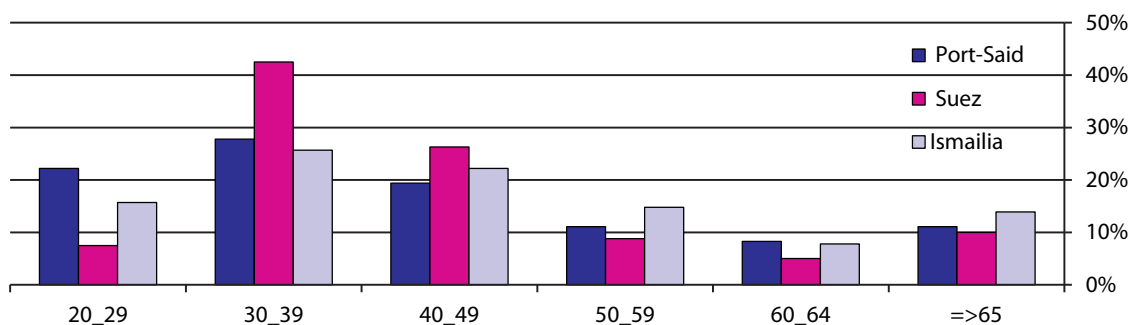


Figure 6. Age Distribution of Internal Migrants in Suez Canal Governorates

Source: Done by the Authors based on [20]

Table 8
Students and Graduates in Governmental Universities

University	Male	Female	Total	Share in total Egypt, %
<i>Enrolled Students in Governmental Universities (2014/2015)</i>				
Suez Canal	12919	16170	29089	1.52
Port Said	8108	9073	17181	0.90
Suez	4118	4120	8238	0.43
total Egypt	929795	988402	1918197	
<i>State Universities Graduates by Gender (2013/2014)</i>				
Suez canal	1268	1309	5154	1.4
Port Said	1017	1060	4154	1.1
Suez	534	375	1818	0.5
total Egypt	100072	89494	189566	

Source: Author’s calculations based on [19].

Table 9
Teaching Staff and Their Assistants in State Universities (2014/2015)

	Egypt	Suez Canal	Port Said	Suez
Total	88960	2158	997	335
Demonstrator	21000	413	218	85
Assistant Lecturer	19035	594	200	66
Lecturer	23612	598	336	107
Assistant Professor	11226	246	122	46
Professor	14351	307	121	31

Source: Author’s calculations based on [19].

senting more than 3 % of total students enrolled in state universities.

Human personnel and teaching staff are relatively available in the three governorates representing about 4 % of total teaching staff in Egypt. Suez Canal University is ranked first with more than 2000 members of the teaching staff followed by Port Said (997) and Suez (335).

Pillar Three: Labour Market Profile of the Suez Canal Region

Labour Force

According to [23], it is evident that labour force in the three governorates of the SCZ is relatively

young. The bulk of labour force is concentrated in the age groups 20–40, representing about 75 % of total labour force in the three governorates.

Regarding the educational profile of labour force in the SCZ, nearly two thirds of labour force in the three governorates is secondary school graduates. In Port Said, one third of labour force is university graduates where this percentage declines to about 17 % in Ismailia and Suez. The percentage of low educated labour force is higher in Ismailia (24 %) compared to the other two governorates (15 %)

Workers

In 2012/13, Suez Canal governorates contributed with about 4 % to the total number of workers in Egypt as well as 3.5 % of total public and private establishments. The total number of workers amounts for 111 thousand in Port Said, 62 thousand in Suez and 172 thousand in Ismailia. However, it is evident that the private sector is dominant in the economy of the three governorates; the percentage is highest in Port Said where more than 95 % of workers are in the private sector, followed by Ismailia (82 %) and Suez (77 %).

The age distribution of the working individuals in the three governorates shows that more than 80 % of them are in the age category 25–59 years.

Concerning the educational status of working individuals, we discovered that more than two fifths of them have secondary education. Workers with university education amount for one fifth of working individuals. On the other hand, low educated workers represent about 20 % of workers in Port Said and Suez and about 15 % in Ismailia.

Unemployment

Port Said has a high unemployment rate (26 %), nearly double the national average. The rate reaches 17.7 % in Suez and 13 % in Ismailia according to [23]. From a gender perspective, women unemployment is remarkably high, reaching 46.3 % in Port Said, 36.8 % in Suez and 31 % in Ismailia. This is about three times the unemployment rate for men in the three governorates.

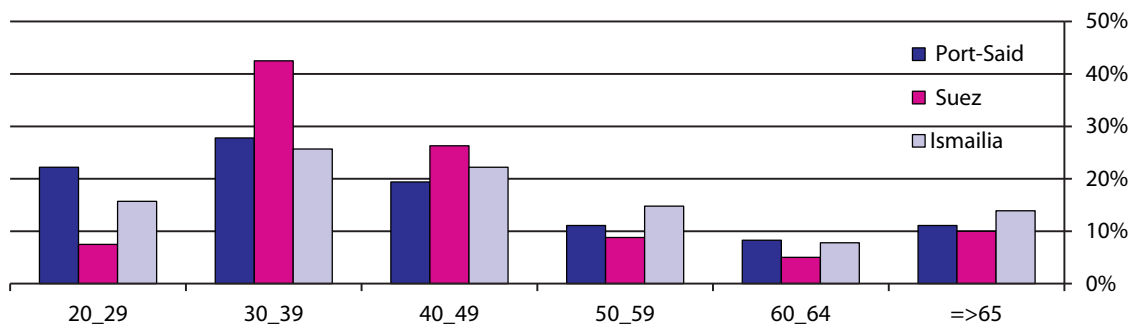


Figure 7. Distribution of Labour Force (15+) by Age
 Source: Done by the Authors based on [21]

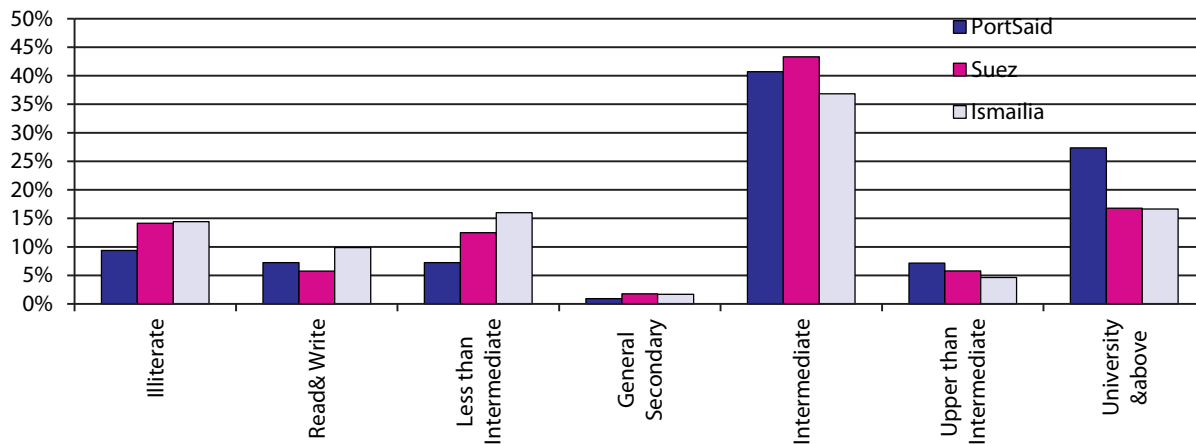


Figure 8. Distribution of Labour Force (15+) by Educational Level
 Source: Done by the Authors based on [21]

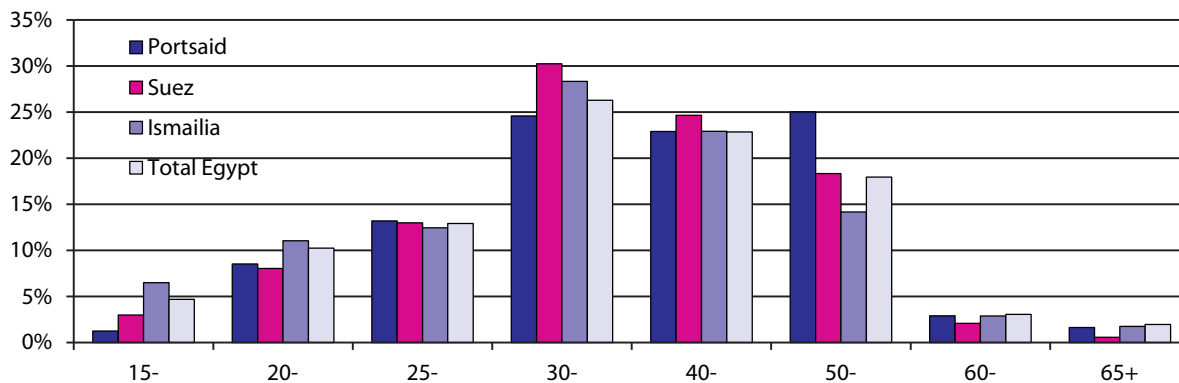


Figure 9. Distribution of Working Individuals (15+) by Age
 Source: Done by the Authors based on [21]

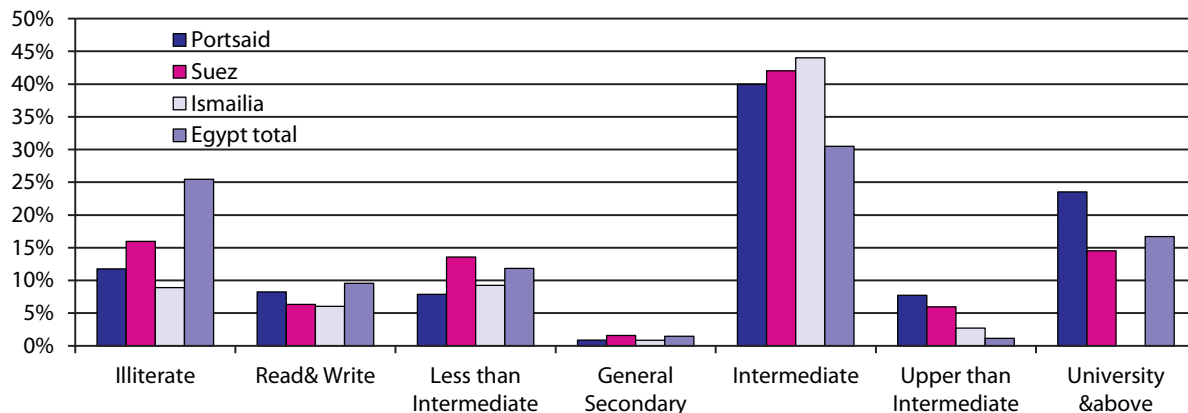


Figure 10. Distribution of Working Individuals (15+) by Education
 Source: Done by the Authors based on [21]

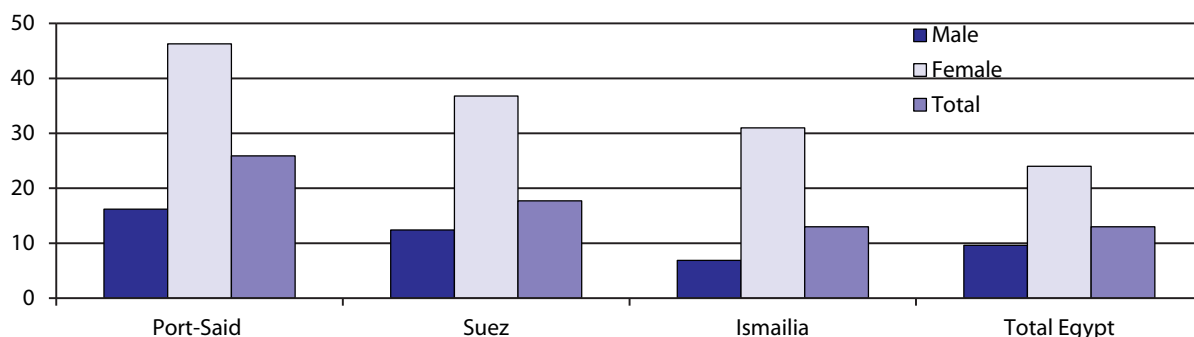


Figure 11. Unemployment Rate by Governorate and Gender
Source: Done by the Authors based on [22]

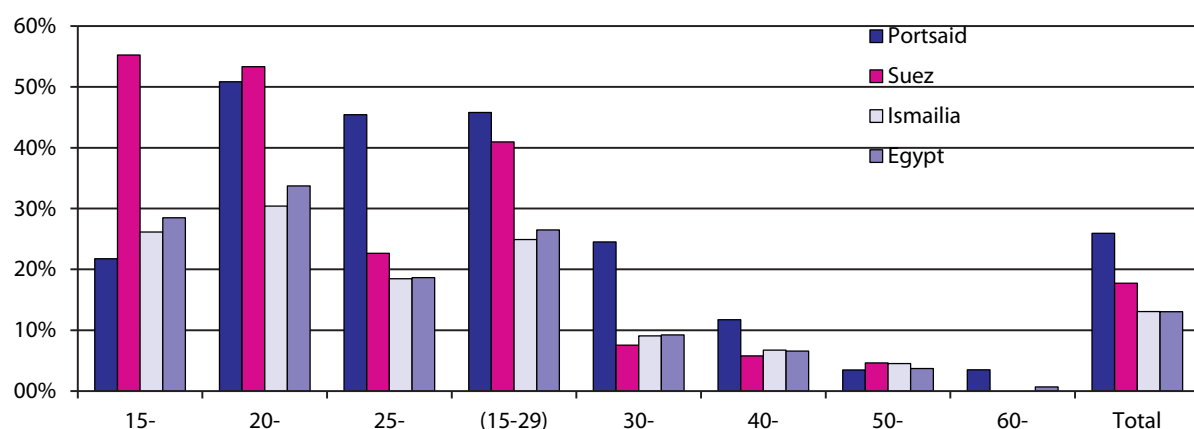


Figure 12. Unemployment Rate (15-64) by Age Group (%)
Source: Author's calculations based on [21]

Unemployment rates are significantly high among youth (15-29), scoring 46 % and 41 % in Port Said and Suez, respectively. On the other hand, the percentage of unemployment rate is much lower (however still high) in Ismailia (25 %), reaching approximately the same average national unemployment rate among the age groups (15-29).

4. Development of a Social Inclusion Index

Linkages between Special Economic Zones (SEZs) and Social Inclusion

[23] argued that there are three main ways in which the SEZs affect human competences, namely, job and employment effects, human capital formation effects and technology creation and technology transfer effects. More specifically, [24] said that women's share in total employment in the SEZs is significantly high. Generally, employers prefer female to male workers because they are more suitable for the simple and unskilled activities in the zones. [25] ascertained that the SEZs are considered crucial in the empowerment of women since they offer them a stable source of income.

[26] said that the SEZs encourage export-oriented foreign direct investment (FDI) and support other forms of partnership between local firms

and international corporations. For example, the SEZs encourage the inclusion of local SMEs into worldwide value chains by offering them stimulating investment conditions. Worldwide principles and advances in innovation raise challenges for the SEZs participating in international value chains. This situation accelerates learning and advancement, which are vital pillars of human improvement.

According to [27], there are two different types of value chains. The first value chain is related to the multinational corporations that play the fundamental role in monitoring the whole system since they deliver technology to the producers of capital and technology intensive products. On the other hand, the second type stands for low technology labour intensive industries in which big companies play the essential role in setting up production networks. In this case, multinational corporations are responsible only for marketing the products, while producers need to arrange for raw materials and technology by themselves. Producers involved in these chains are able to upgrade their technology substantially.

Figure 13 illustrates the linkages between the SEZs and social inclusion and human capital formation. They include direct and indirect effects

Matrix of Social Inclusion

Life Domains	Accessibility
Family activity	Presence of family and its participation: What is your marital status? Are your parents alive? How often are you in contact with them? Do you have children? Are they living with you? If not, how often are you in contact with them? What do you think about the opportunities you have to contact your family?
Work	How do you feel about your current job? How many hours do you actually work in your main job? In what ways would you like to change your opportunities for finding a job that is more suitable?
Income	Adequate income: What is your personal monthly income? Is it adequate for meeting basic needs?
Political and civic	Access to volunteer or civic opportunities: Did you vote in the last presidential elections?
Community facilities and financial services	Access to necessary community facilities: Have you ever used the internet at home or anywhere else? Can you access the financial services easily?
Transportation	Transport availability and accessibility: How many cars or buses are available to be used?
Neighbourhood and safety conditions	Access to neighbourhood: How often do friends or neighbours visit your house? Do you ever walk alone in your area after dark? If not, what is the main reason for this? How safe do you feel walking alone in your area after dark? How do you feel about the general and personal safety of your area?
Housing quality	Access to suitable housing: Is there housing suitable for you and your household at a price that you can afford in an area that you want to live? How many years have you lived in this area? How strong is your preference to continue living in this area? In what ways would you like to change your housing circumstances?
Social and Leisure activities	Opportunities for social participation and access to various leisure activities: Are there any community groups, clubs or organizations in your area? Do you personally have access to a group, club or organization in your area? Are there any sports or entertainment facilities in your area?
Health care	Access to health care: Can you access hospitals easily and get your medicine?
Educational attainment	Access to educational opportunities: What is the highest educational qualification that you have obtained? In the last period, have you been involved in 'on-the-job training'? What are the educational opportunities available to your children?
Generally, from your point of view, are you fully included in the society?	

Source: compiled by the authors based on [29].

of employment opportunities, knowledge spillovers, technology creation and technology transfer. It is easy to analyse and measure the direct effects. However, the indirect effects, which define backward and forward linkages are difficult to be measured. However, these effects could be assessed through the value added to the rest of the economy and the value of the net exports.

The social inclusion index is related to different aspects of life domains: family, education (as more years of education make individuals more capable in terms of human capital characteristics [28]), health, work, income, housing, safety, and

leisure. Table 10 presents a matrix of social inclusion, which examines life domains and their accessibility. It is necessary to consider not only economic but other dimensions, such as health, education, housing, civil rights, safety, political participation, leisure and communications. This fact led to the creation of a multidimensional portfolio of social indicators.

5. Conclusion

The multidimensional nature of poverty and social exclusion requires that, in order to create an inclusive society, it is necessary to involve all

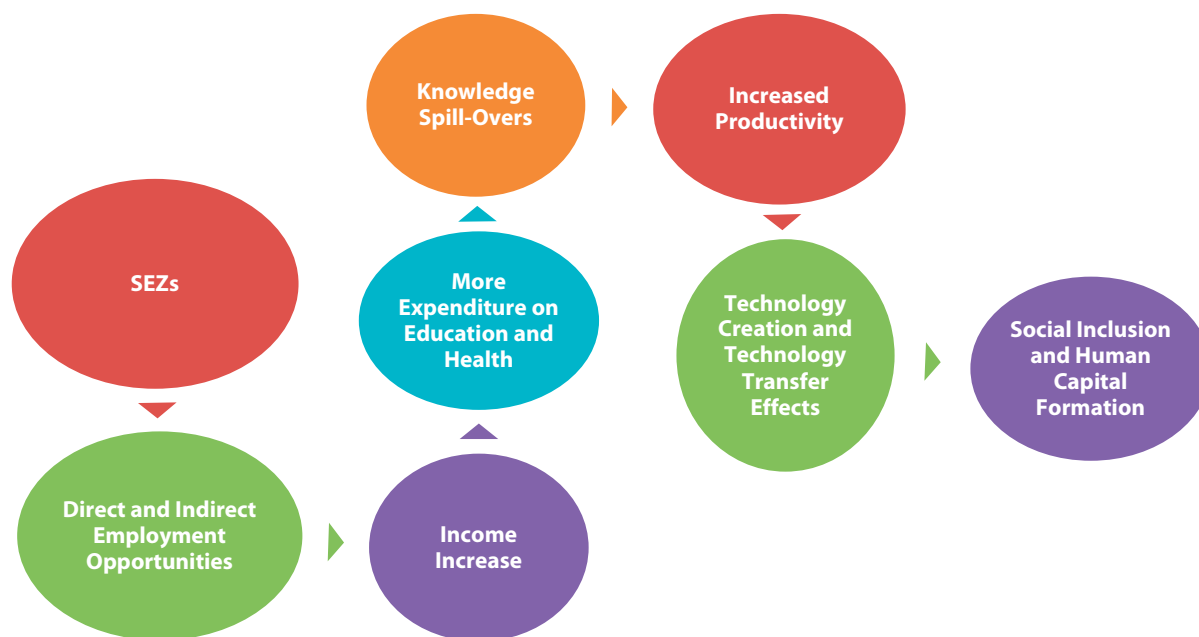


Figure 13. Linkages between the SEZs and Social Inclusion
Source: Done by the Authors

relevant policies i.e. economic, political, fiscal, cultural, social, environmental and agricultural, strategies, employment and work, health, education and training, etc.

A structure of efficient policy assessments should be constructed to achieve these policies. This fact implies the necessity to systematically examine the impact of all policies on social inclusion to identify the possible methods of adjusting such policies to strengthen their contribution to promoting social inclusion.

Social inclusion objectives should be better integrated with the design, implementation and budgetary decision-making concerning general policy. Certainly, in this case, instruments such as poverty proofing and social impact assessment play a major role to play.

To achieve long-term success, economic zones should contribute to structural transformation of the economy, including diversification and economic upgrading. Thus, it requires leveraging dynamic economic benefits from investment and employment. Countries succeeded in deriving long-term economic benefits from their SEZs have established the conditions for ongoing exchange, and the accompanying hard and soft technology transfer, between the domestic economy and investors based on the zones. This includes investment by domestic firms into the zones, forward and backward linkages, business support, and the smooth movement of skilled labour and entrepreneurs between the zones and the domestic economy.

References

1. Cheesman, A. (2012). *Special Economic Zones and Development: Geography and Linkages in the Indian EOU Scheme*. Development Planning Unit, The Bartlett, University College London, Working Paper no. 145, 42.
2. Foreign Investment Advisory Service (FIAS). (2008). *Special Economic Zones: Performance, Lessons Learned, and Implications for Zone Development*. The Multi-Donor Investment Climate Advisory Service of the World Bank Group. Washington, DC, 73.
3. Johansson, H. & Nilsson, L. (1997). Export Processing Zones as Catalysts. *World Development*, 25(12), 2115-2128.
4. Litwack, J. M. & Qian, Y. (1997). Balanced of Unbalanced Development: Special Economic Zones as Catalysts for Transition. *Journal of Comparative Economics*, 26, 117-121.
5. Brautigam, D. & Xiaoyang, T. (2011). African Shenzhen: China's Special Economic Zones in Africa. *Modern African Studies*, 49(1), 27-54.
6. Farole, F. (2010). *Second best? Investment Climate and Performance in Africa's Special Economic Zones: Prospects, Challenges, and Opportunities*. The World Bank No. 5, 37.
7. Aggarwal, A. (2004). *Export Processing Zones in India: Analysis of the Export Performance*. Indian Council for Research on International Economic Relations (ICRIER), Working Paper No. 148, 41.
8. Rolfe, R. J., Douglas, D. P. & Kagira, B. (2004). Footloose and Tax Free: Incentive Preferences in Kenyan Export Processing Zones. *South African Journal of Economics*, 72, 784-807.

9. UNDP (2015). *If Africa Build Nests, Will the Birds Come? Comparative Study on Special Economic Zones in Africa and China*. Working Paper series, No. 06.
10. Atkinson, A. B. & Marlier, E. (2010). *Analyzing and Measuring Social Inclusion in a Global Context*. United Nations, Department of Economic and Social Affairs, New York, 68.
11. United Nations (1995). *Report of the World Summit for Social Development*. Copenhagen, 6-12 March 1995, 129.
12. Central Agency for Public Mobilization and Statistics (CAPMAS). (2012/13). *Income, Spending and Consumption Survey*. Arab Republic of Egypt. (In Arabic)
13. Central Agency for Public Mobilization and Statistics (CAPMAS). (2015). *Income, Spending and Consumption Survey*. Arab Republic of Egypt. (In Arabic)
14. Central Agency for Public Mobilization and Statistics (CAPMAS). (2016). *Egypt Statistical Profile*. Arab Republic of Egypt. (In Arabic)
15. Central Agency for Public Mobilization and Statistics (CAPMAS). (2015). *Study on Suez Canal Governorates*. Arab Republic of Egypt. (In Arabic)
16. Biltagy, M. (2019). Economic Analysis of Supply Functions, Private Returns to Investment in Education and Skill Mismatch in Egypt. *European Journal of Government and Economics*, 8(1), 81-95.
17. Preston, C. (2019). What Are the Structural Barriers to Planning for Later Life? A Scoping Review of the Literature. *Social Inclusion*, 7(3), 17-26.
18. De Tavernier, W. & Draulans, V. (2019). Negotiating Informal Elder Care, Migration and Exclusion: The Case of a Turkish Immigrant Community in Belgium. *International Journal of Ageing and Later Life*, 12(2), 89-117.
19. Walsh, K., Scharf, T. & Keating, N. (2017). Social Exclusion of Older Persons: A Scoping Review and Conceptual Framework. *European Journal of Ageing*, 14(1), 81-98.
20. Central Agency for Public Mobilization and Statistics (CAPMAS). (2016). *Egypt in Figures*. Arab Republic of Egypt. (In Arabic)
21. OAMDI. (2016). *Labour Market Panel Surveys (LMPS), Version 2.2 of Licensed Data Files. ELMPS 2012*. Egypt: Economic Research Forum (ERF). Retrieved from: <http://erf.org.eg/data-portal/> (Date of access: 14.08.2020)
22. Central Agency for Public Mobilization and Statistics (CAPMAS). (2015). *Labour Force Sample Survey (LFSS)*. Arab Republic of Egypt. (In Arabic)
23. Central Agency for Public Mobilization and Statistics (CAPMAS). (2015). *Egypt in Figures*. Arab Republic of Egypt. (In Arabic)
24. Aggarwal, A. (2007). *Impact of Special Economic Zones on Employment, Poverty and Human Development*. Working Paper No. 194. New Delhi: Indian Council for Research on International Economic Relations, 53.
25. Kusago, T. & Tzannatos, T. (1998). *Export Processing Zones: A Review in Need of Update*. SP Discussion Paper 9802. Washington, DC: World Bank.
26. Madani, D. (1999). *A Review of the Role and Impact of Export Processing Zones*. World Bank Policy Research Working Paper No. 2238. Washington, DC: World Bank.
27. Gereffi, G. (2005). *The New Offshoring of Jobs and Global Development*. ILO Social Policy Lectures. Geneva: International Institute for Labour Studies, 65.
28. Gereffi, G., Humphrey, J. & Sturgeon, T. (2005). The Governance of Global Value Chains. *Review of International Political Economy*, 12(1), 78-104.
29. Biltagy, M. (2019). Gender Wage Disparities in Egypt: Evidence from ELMPS 2006 and 2012. *Quarterly Review of Economics and Finance*, 73C, 14-23.
30. Huxley P, Evans S, Madge S, Webber M, Burchardt T, McDaid, D. & Knapp, M. (2012). Development of a Social Inclusion Index to Capture Subjective and Objective Life Domains (phase II): Psychometric Development Study. *Health Technology Assessment*, 16(1), 248.

About the Authors

Marwa Biltagy — Associate Professor of Economics, Faculty of Economics and Political Science, Cairo University; Scopus Author ID: 57191647139 (1, Gamaa St., Giza, 12613, Egypt; e-mail: bilmarwa@feps.edu.eg).

Heba Nassar — Professor of Economics, Faculty of Economics and Political Science, Cairo University (1, Gamaa St., Giza, 12613, Egypt).

Информация об авторах

Марва Билтаджи — доцент, кафедра экономики, факультет экономики и политологии, Каирский Университет; Scopus Author ID: 57191647139 (Египет, 12613, г. Гиза, ул. Гамаа, 1; e-mail: bilmarwa@feps.edu.eg).

Хеба Нассар — профессор экономики, факультет экономики и политологии, Каирский Университет (Египет, 12613, г. Гиза, ул. Гамаа, 1).

Дата поступления рукописи: 13.06.2019.

Прошла рецензирование: 30.01.2020.

Принято решение о публикации: 10.06.2020.