המכון להגירה ושילוב חברתי
The Institute for Immigration and Social Integration
המרכז האקדמי רופין
Ruppin Academic Center

Immigration, Education, and Social Mobility: The Case of Israel

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Seminar for Graduate Students
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Dr. Svetlana Chachashvili-Bolotin

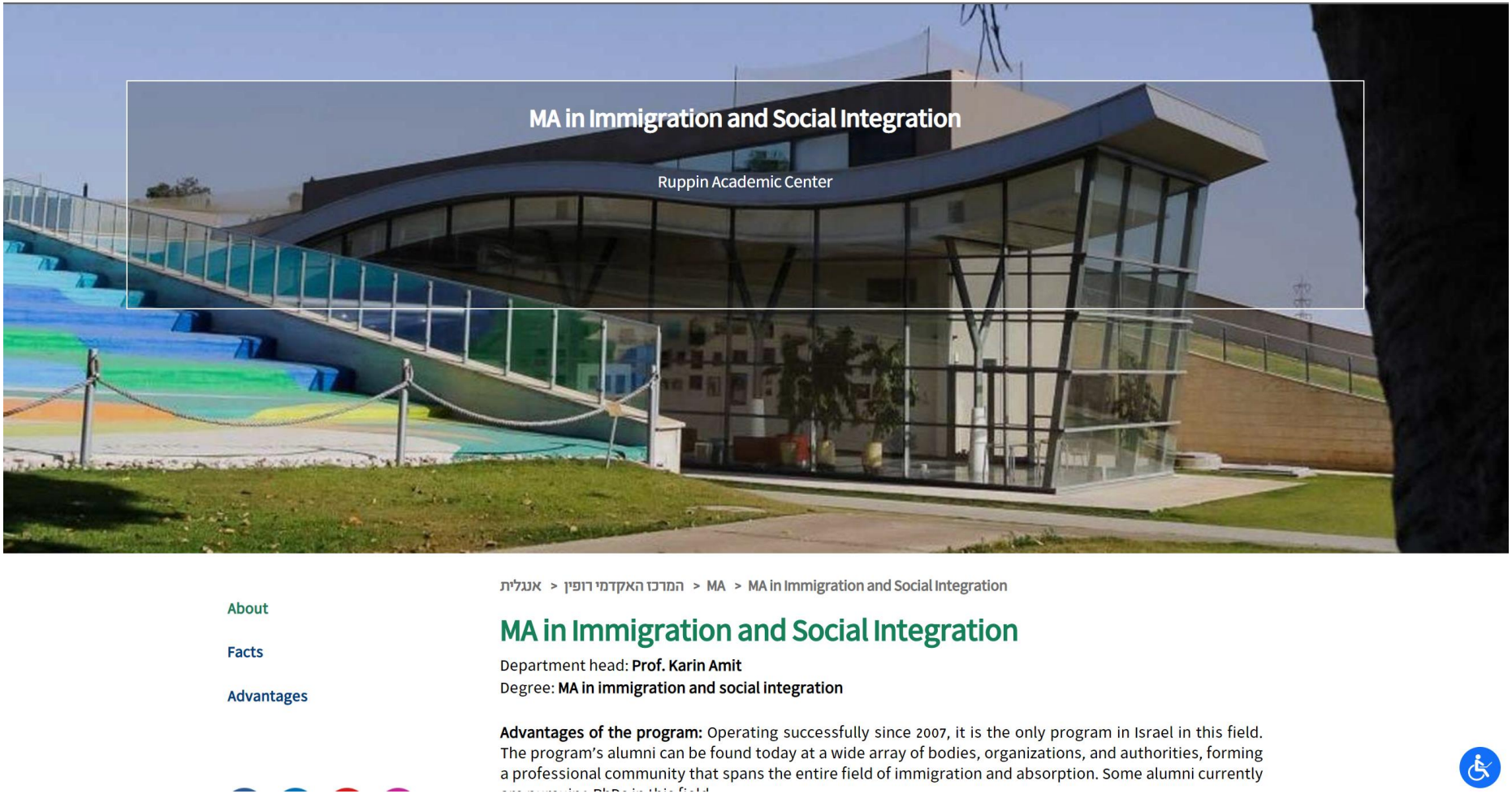
- Senior Lecturer and Researcher at Ruppin Academic Center in Israel
- Ph.D. in sociology from Tel Aviv University: educational inequality among immigrants
- Has been teaching since 2000
- Worked at the Ministry of Education of Israel
- Immigrated to Israel in 1991

Ruppin Academic Center's Focus

- Marine sciences

- Immigration and social integration
  - The Institute for Immigration and Social Integration (IISI)
  - MA in Immigration and Social Integration

- Entrepreneurship and social involvement



https://www.ruppin.ac.il/en/MA/Immigration-and-Social-Integration/Pages/default.aspx

The 6th Ruppin International Conference on Immigration and Social Integration | May 18-20,2020

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The 6th Ruppin International Conference on Immigration and Social Integration

Migration and Diasporas

18/05/2020 08:30 , Ruppin Academic Center campus

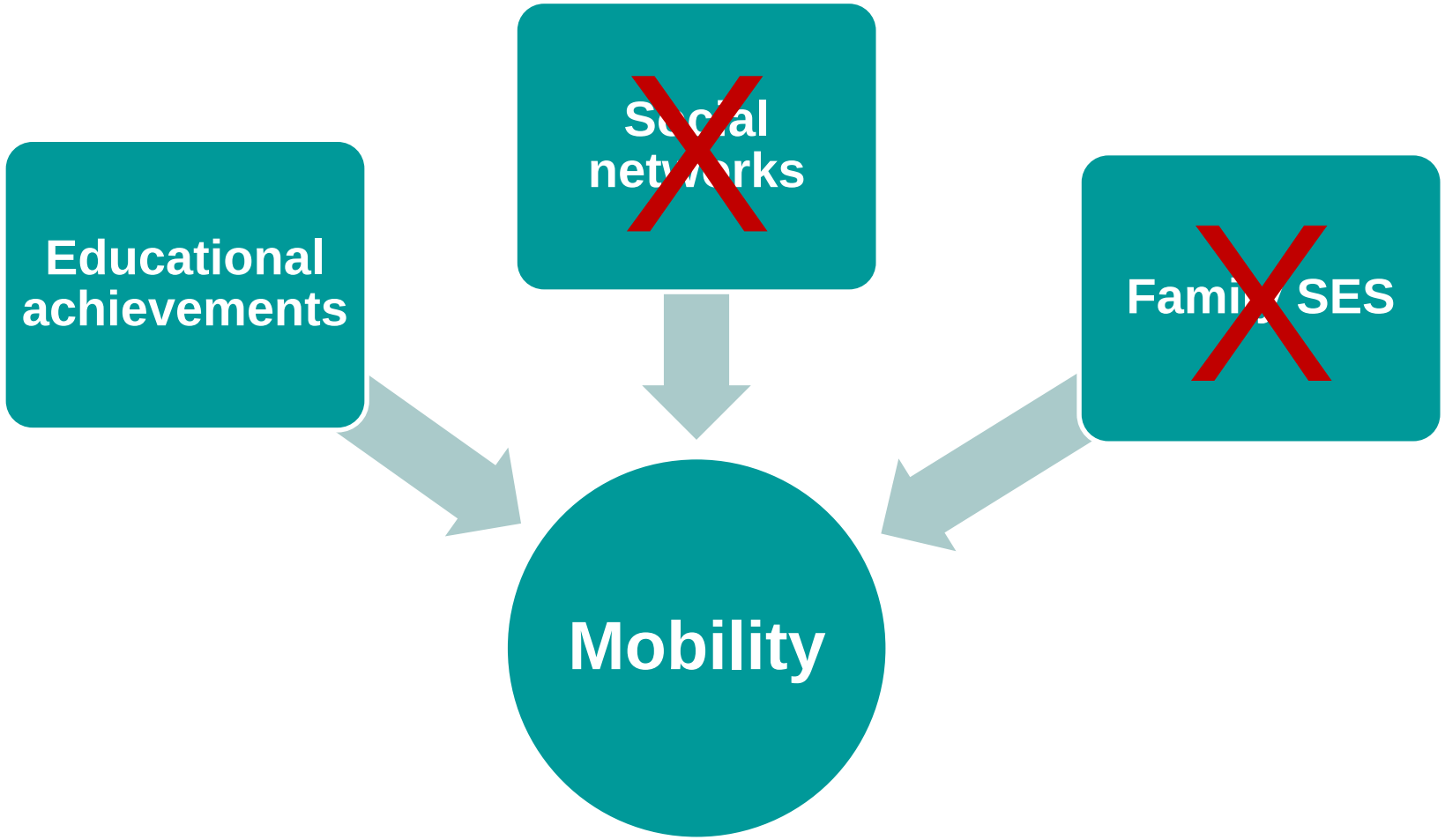
Add to calender Conference Program

To enetr the evet website click here

Link to the conference:
https://www.ruppin.ac.il/en/Events/International-Conference-on-Immigrationand-and-Social-Integration/Pages/default.aspx

Immigration, Education, and Social Mobility: The Case of Israel

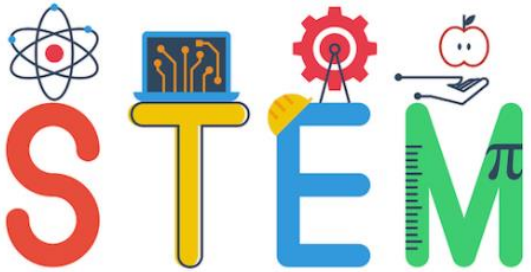
Immigration, Education, and Mobility



Immigration, Education, and Mobility

The manner in which immigrants fit into the various levels of the education system is a significant indicator of how they will integrate into the society as a whole in the future.

STEM-related occupations



- Offer higher financial payoffs
- May function as an economic safety-net
- Transferable between national contexts
- Lack of language proficiency

Ostensibly, ***STEM careers*** *are especially relevant for economically and socially disadvantaged groups, including* ***immigrants***

My Research Focus

- *To examine differences and similarities in enrollment and achievements in STEM subjects among different generations of immigrant groups*
- *To provide policy recommendations to support successful immigrants' integration in a target society*

Outline

- Background:
  - Israeli demographics
  - Israeli education system
  - Secondary science education in Israel
- Overview of current research
- Discussion and Q&A

Background


ISRAEL
MEDITERRANEAN SEA
Hula Valley & Nature Reserve
The Galilee
The Golan
SYRIA
Akko
HAIFA
Nazareth
Sea of Galilee
Caesarea
Beit She'an
Tel Aviv
Ramla
Jerusalem
Gaza City
Dead Sea
Ein Gedi
Masada
Port Said
Be'ersheva
ISRAEL
The Negev
JORDAN
Mitzpe Ramon
EGYPT
Suez Canal
SINAI PENINSULA
Suez
Red Sea
Eliat
0 80 km
0 50 miles

Israel

- Israel is an immigrant country founded in 1948

Over 3.3 million people immigrated to Israel since 1948

- "The **Law of Return** gives **people of Jewish ancestry and their spouses** the right to immediate citizenship".

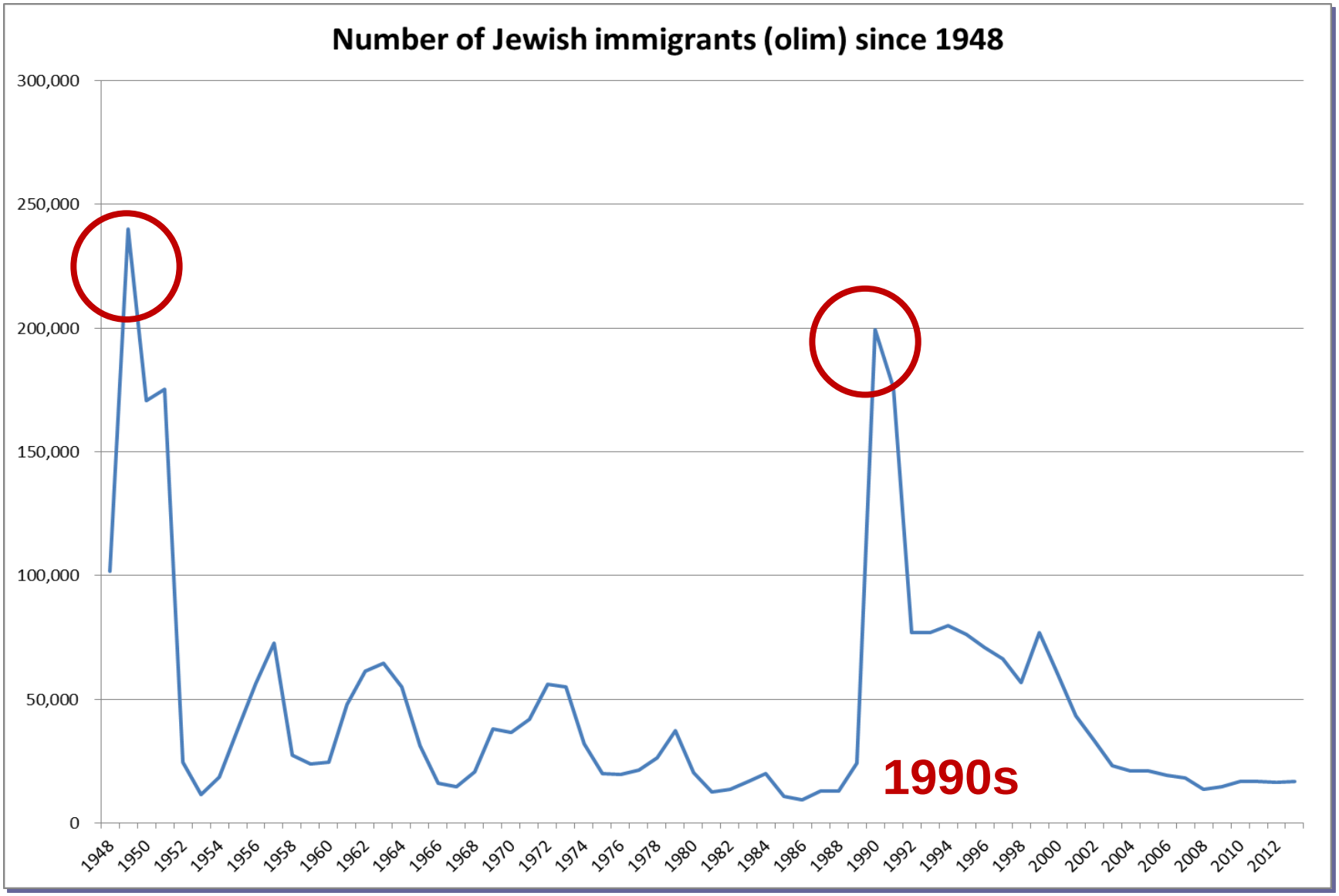
Of Israel's ~9 million citizens, about 75% are Jews (or of Jewish ancestry) and the remainder are non-Jews (mostly Muslim Arabs).

Demographic Overview

	Jews	Arabs	Total
1948	600,000	156,000	756,000
2018	6.6 million	1.8 million	8,8 million

Seventy years after the foundation of the state of Israel, the size of the Israeli population has increased more than **ten-fold.**

Most Jewish population is composed of immigrants or offspring of immigrants who immigrated from more than 130 countries. Most Arab citizens were born in Israel.


Number of Jewish immigrants (olim) since 1948
300,000
250,000
200,000
150,000
100,000
50,000
0
1948
1950
1952
1954
1956
1958
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
1990s

Israeli Education System

- Ministry of Education – Nationwide curriculum
- Division by sector: Jewish and Arab sectors
- Grades 10-12 constitute high school
- During high school, most students take national final examinations, compulsory in both core and elective subjects
- Compulsory core and elective subjects can be studied at various difficulty levels

Science Education in Israeli High Schools

- **Mathematics** is a compulsory subject; science subjects are optional
- **Advanced mathematics** provides accessibility to prestigious tertiary education
- **Studying advanced mathematics and science subjects** bring advantages to those wishing to enter prestigious majors
- **Advanced mathematics and science subjects** are prerequisites for STEM tertiary education

Advanced Physics in High Schools

- **Physics** has a long tradition of being perceived as the most difficult science subject and signals “science ability”
- Enrollment in a secondary physics course **is not required** for STEM tertiary education
- Students can **decide what science subject to enroll in**
- **Therefore, secondary physics is not in high demand in contrast to math that is required for prestigious majors**

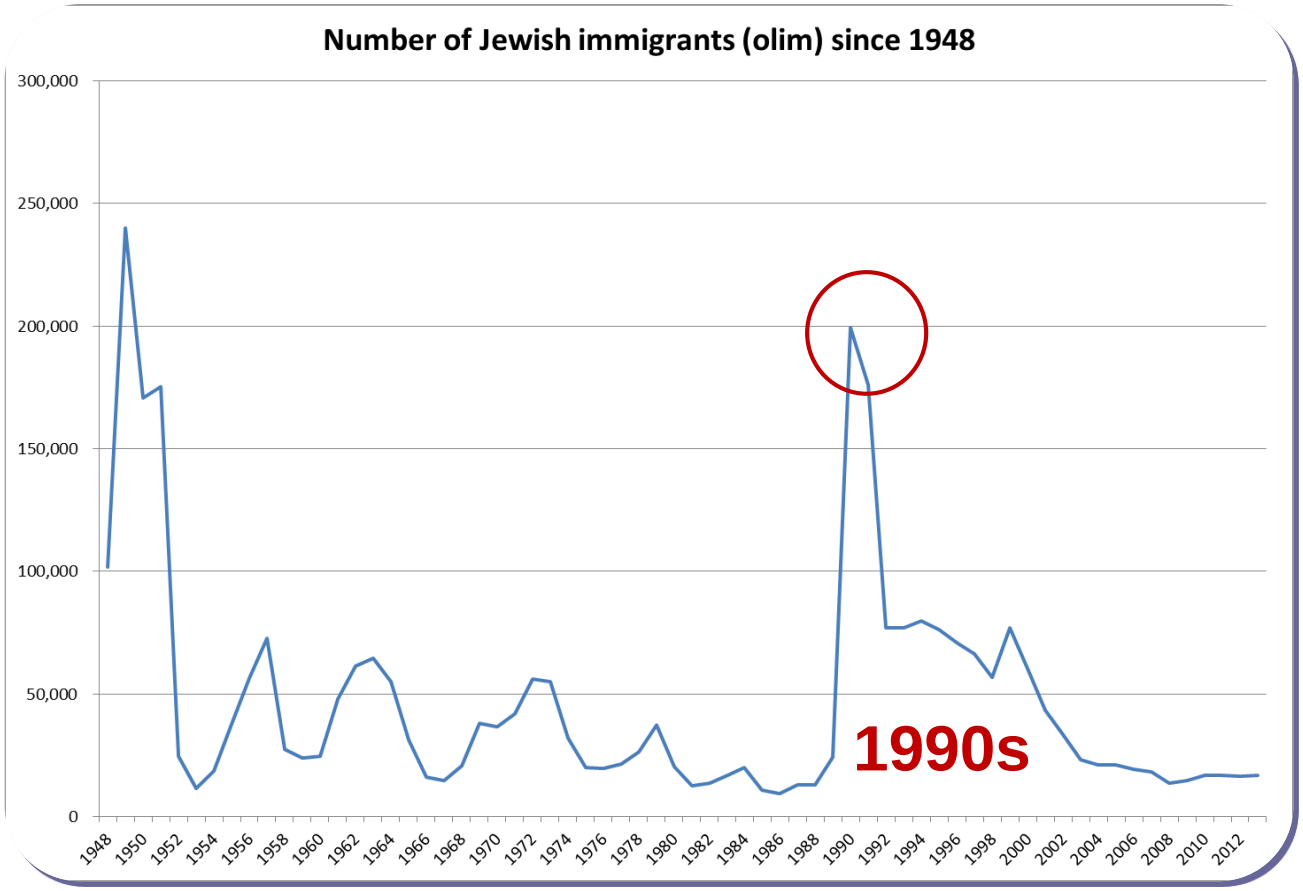
Current Research

- Enrollment in science education among first and second generations of the Former Soviet Union (FSU) immigrants

Lissitsa, S., & Chachashvili-Bolotin, S. (2019). Enrolment in Mathematics and Physics at The Advanced Level in Secondary School Among Two Generations of Highly Skilled Immigrants. *International Migration*.

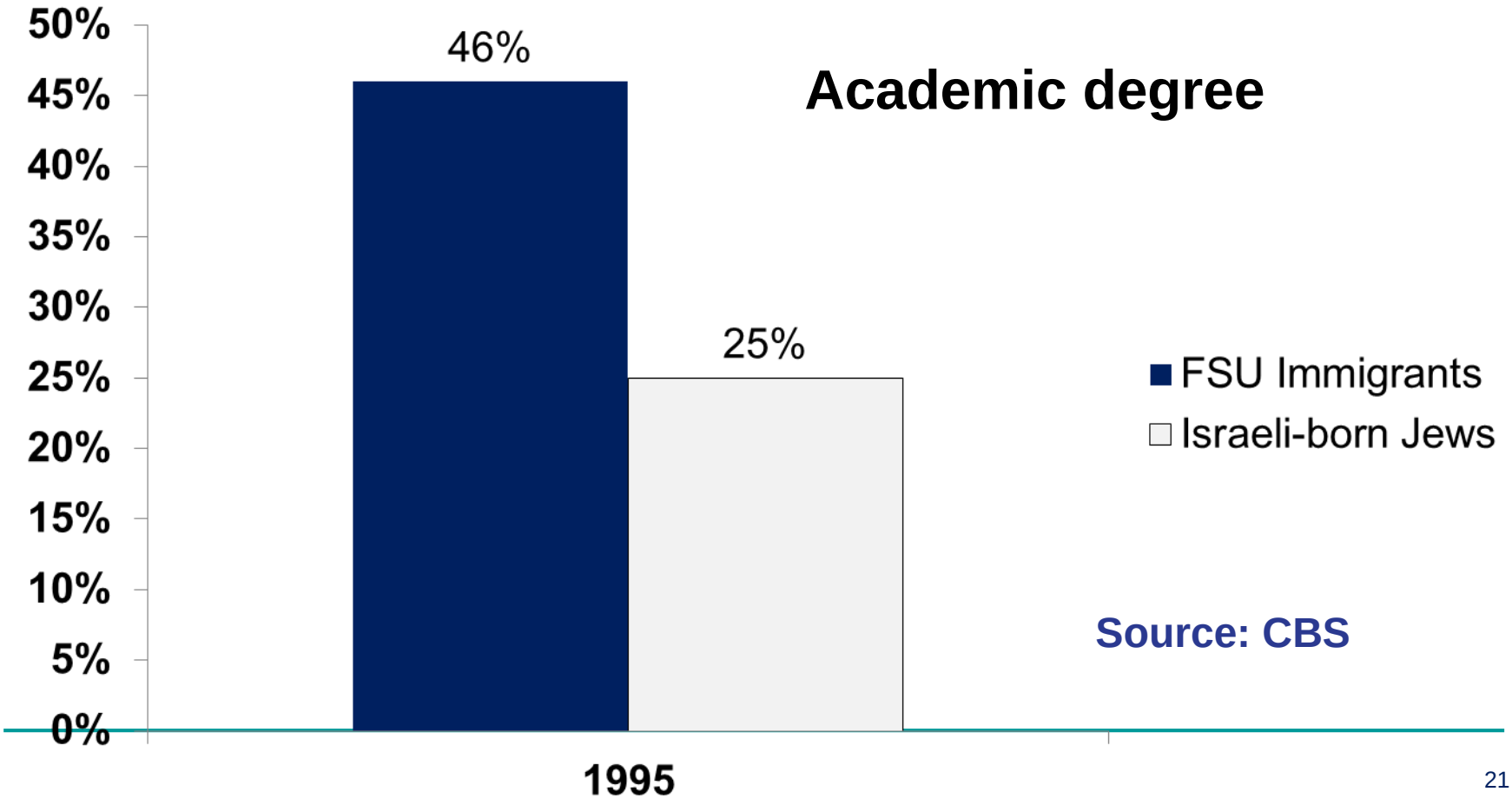
FSU Immigrants in Israel

1. Mass migration in the 1990s



FSU Immigrants in Israel

2. High educational level and low economic means



FSU Immigrants in Israel

3. High % of STEM-related occupations

	STEM-related occupation	Gross Annual work income (Shekels)
Immigrants from the FSU who immigrated after 1995 – parents of the first generation immigrant students	**22.4%**	**69,192.4**
Immigrants from the FSU who immigrated between 1989-1995 – parents of the second generation immigrant students	**30.5%**	**101,929.3**
Israeli–born Jews	**15.5%**	**125,762.9**

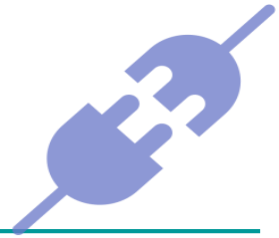
CBS, 2008 year

FSU Immigrants in Israel

4. Today, most immigrants have experienced a gradual and steady improvement in their relative social and economic position. However, they have not yet closed the gaps with the Israeli-born group or with immigrants who arrived in earlier periods

FSU Students' Integration in K-12 Schools

- Settlement in the poor localities with lower level of schools
- Educational opportunities for children of immigrants were clearly shaped by parental mobility and status
- In the last decade, FSU students' achievements became similar to those of non-immigrant Jewish students



Research Question

What are the between-group differences between the first and the second generations of FSU immigrants and non-immigrant background students regarding enrollment in mathematics and physics at the advanced level?

Methods – Data

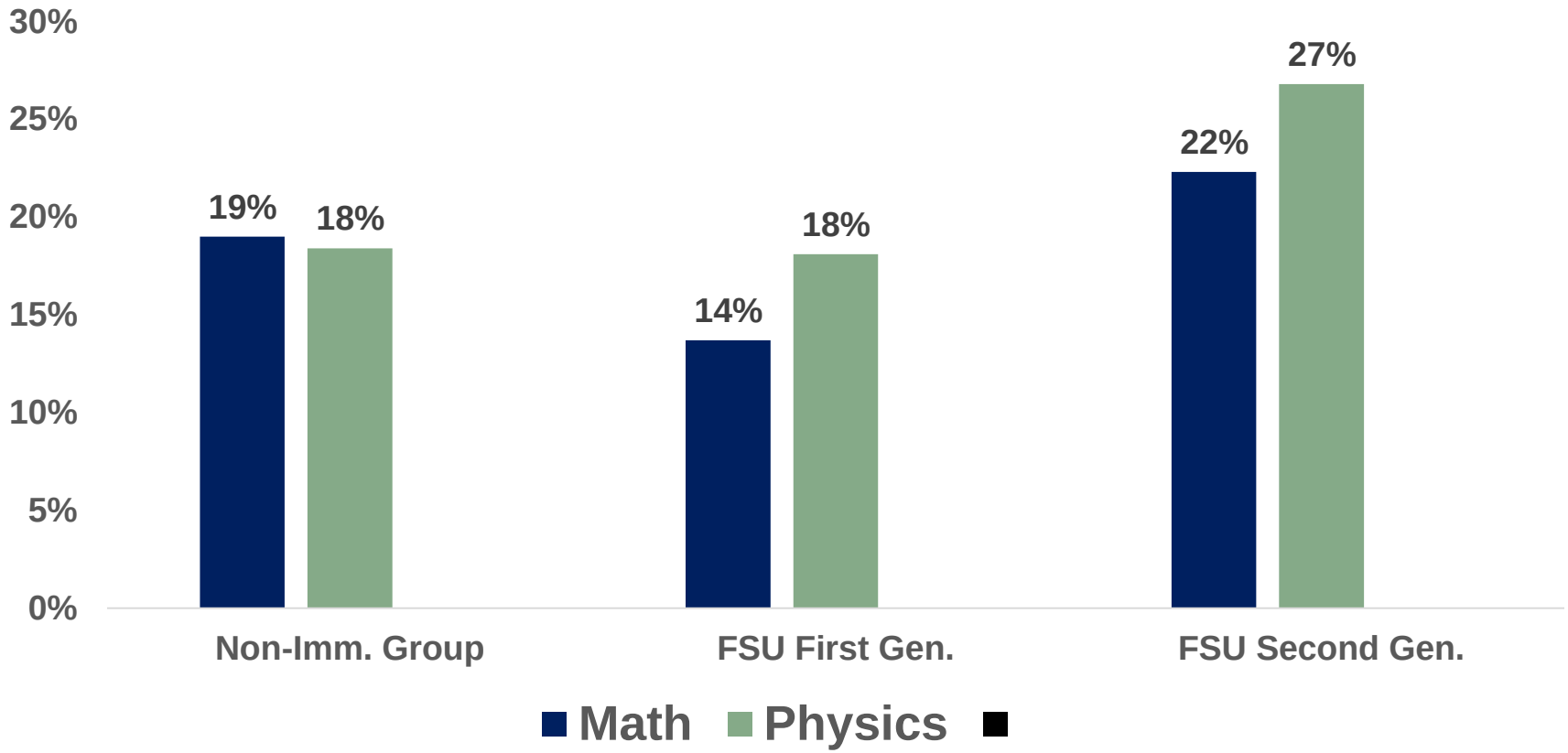
- Database of the Ministry of Education, which includes data on all students
- Parent-reported information on student background variables (for school registration procedures)
- Our sample includes students who finished their secondary education with a matriculation certificate in 2013 (most were born in 1995), with parents born in Israel or in the FSU

Population: Matriculation Certificate Holders in 2013

	Non-Imm. Background	FSU First Gen.	FSU Second Gen.	Total
N	32,129	2,409	3,913	38,484
%	83.4%	6.3%	10.3%	100%
Mother's education:				
Tertiary	39.1%	36.1%	41.4%	39.1%
Post-secondary	7.8%	42.7%	41.9%	13.4%
Secondary	48.9%	15.3%	11.4%	43.1%

Study Findings

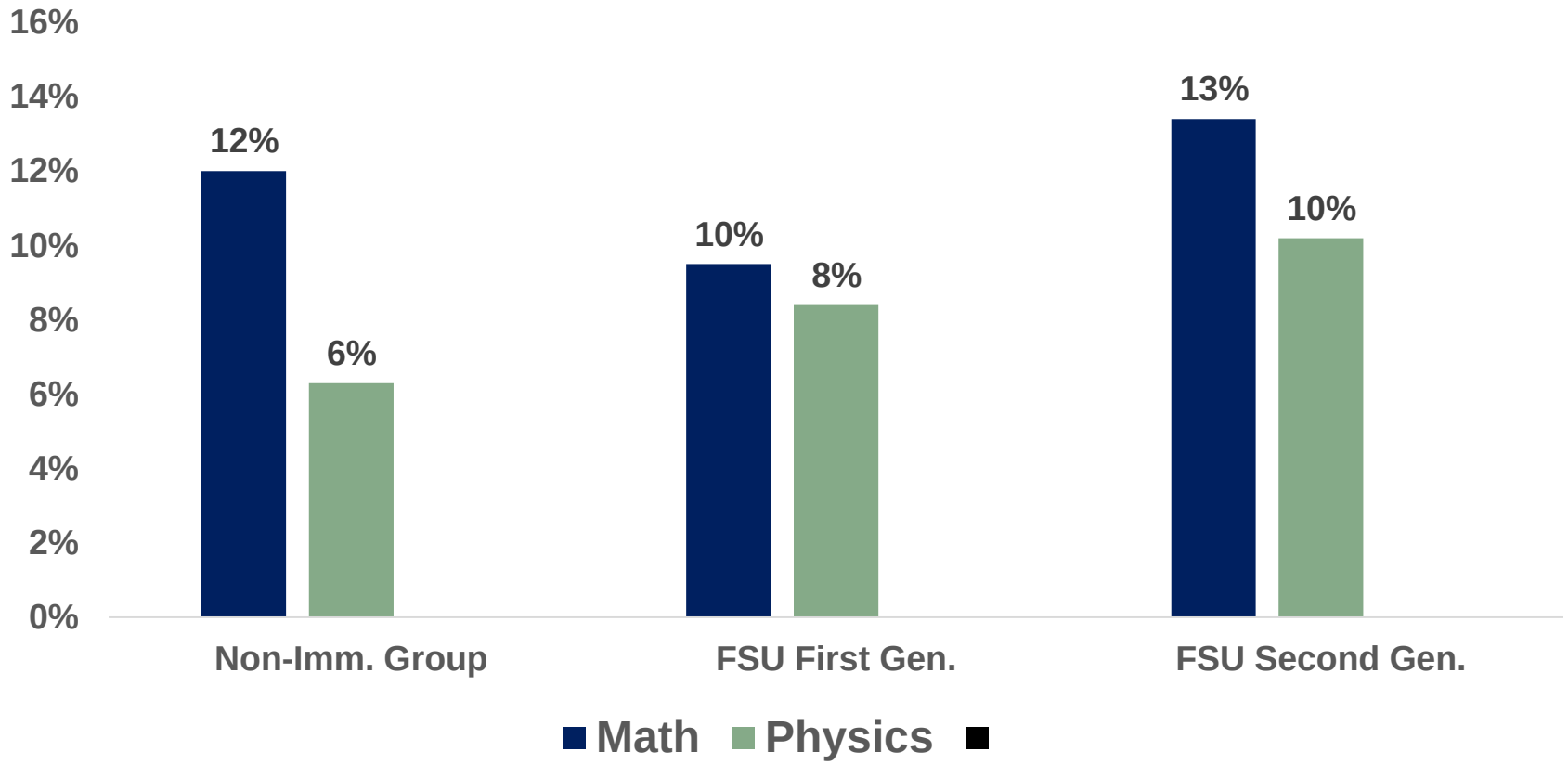
Enrollment in Math & Physics at Advanced Level - Boys



Enrollment in Math & Physics at Advanced Level - Boys

	Boys		
	Non-Imm. Group	FSU First Gen.	FSU Second Gen.
Math	19.0%	13.7%	22.3%
Physics	18.4%	18.1%	26.8%
Both Math and Physics	13.9%	11.5%	18.8%

Enrollment in Math & Physics at Advanced Level - Girls



Enrollment in Math & Physics at Advanced Level - Girls

	Girls		
	Non-Imm. Gen.	FSU First Gen.	FSU Second Gen.
Math	**12.0%**	**9.5%**	**13.4%**
Physics	**6.3%**	**8.4%**	**10.2%**
Both Math and Physics	4.9%	5.6%	7.7%
Gap between Math and Physics	**5.7%**	**1.1%**	**3.1%**

The Odds of Enrollment in Advanced Level Math

	Model 1		Model 2	
	B	**Exp(B)**	**B**	**Exp(B)**
Intercept	-2.29**	0.10	-4.79**	0.01
Student variables				
Gender (boys=1)	0.54**	1.72	0.54**	1.71
Ethnic group (compared to Non-Imm. Background)				
First generation	**-0.20****	0.82	**-0.33****	0.72
Second generation	**0.25****	1.28	**-0.01**	0.99
Number of siblings			0.06**	1.06
Mother/Father education (compared to secondary education)				
Mother Post-secondary educ.			0.25**	1.29
Father Post-secondary educ.			0.35**	1.41
Mother Tertiary educ.			0.62**	1.87
Father Tertiary educ.			0.79**	2.21
School variables				
Type of school (Religious school=1)			-0.12	0.88
Number of students at grade 12			0.00**	1.00
% of boys			0.11	1.11
% of matriculation certificate			1.99**	7.29
Random effect covariance	0.47		0.33	

The odds of Enrollment in Advanced Level Physics

	Model 1		Model 2	
	B	**Exp(B)**	**B**	**Exp(B)**
Intercept	-2.97**	0.05	-5.16**	0.01
Student variables				
Gender (Boys=1)	1.18**	3.27	1.18**	3.26
Ethnic group (compared to third generation Israelis)				
First generation	**0.14***	1.15	**0.02**	1.02
Second generation	**0.49****	1.63	**0.25****	1.29
Number of siblings			0.10**	1.10
Mother/Father education (compared to secondary education)				
Mother Post-secondary educ.			0.26**	1.30
Father Post-secondary educ.			0.31**	1.36
Mother Tertiary educ.			0.53**	1.70
Father Tertiary educ.			0.81**	2.24
School variables				
Type of school (Religious school=1)			-0.06	0.94
Number of students at grade 12			0.00*	1.00
% of boys			0.31	1.37
% of matriculation certificate			1.25**	3.51
Random effect covariance	0.55		0.57	

Conclusions

First-generation FSU immigrants:

- In the competitive field of **Math,** these *immigrants* still suffer from educ. barriers: e.g., discouraged from advanced studies
- In the less competitive and more demanding **Physics**, such barriers are less pronounced or even disappeared
- Israeli K-12 education system is a gatekeeper to entering into prestigious fields of study and immigrants are often left behind
- Despite the shortage of STEM professionals, immigrant students' potential is not fully realized

Conclusions

- **Second-generation FSU immigrants:**

- These *immigrants* have already overcome the barriers in the mentioned subjects and even mobilized their cultural capital for obtaining the advantage in **Physics studies**.

- Enrollment in advanced **Physics** reflects possession of suitable familial cultural capital.

Implications for Practice

- Immigrant students (especially the first-generation) **need support from teachers and councilors in choosing subjects in high school**
- Student ability is insufficient for making “right choices”
- The lack of family understanding of the educational system causes **a waste of human potential**, especially among immigrants
- A big impact can be made with relatively small investment into councilors, teachers, and parents

Thanks to My Collaborator

Dr. Sabina Lissitsa

Ariel University
Communication Faculty Member

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Thank you!

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