



הלשכה המרכזית לסטטיסטיקה  
Central Bureau of Statistics  
دائرة الإحصاء المركزية

# **Emigrating Israeli Families – Identification Using Official Israeli Databases**

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# In the Presentation

- Overview of Israel
- Identifying emigrating families: model and method
- Sources of information and databases
- Validating the model
- Characteristics of emigrants by destination
- Conclusions

# Israel

- Population: 8.5 million (2015, provisional data)
- Population groups:  
Jews 75%, Arabs 21%, “Others” 4%
- 25% of Jews were born abroad
- Jewish immigration characterized by waves, including a large wave in the 1990s from the former USSR
- High marriage and fertility rates relative to other developed countries

# Emigration – Existing Israeli Method

- Based on Border Control records – departures and returns
- “Departing Israeli” – Israeli (listed in the Population Register) who has been abroad 365 days continuously, and before departing had been in Israel for 90 days continuously
- An annual average of 22,100 departing Israelis in 1996-2009

# Goal of Research

- Build a model and method, based on official administrative records, to characterize emigrant families, by country of destination

# Research Population

- Israeli families outside of Israel
- Families of men and women who are or were residents of Israel, with children up to age 17
- Who have at least one child born outside of Israel between the years 1996–2008
- Marital status of the parents was not a factor
- Resident status of partner was not a factor

# Research Population – in numbers

- 34,047 families
- 133,502 individuals
- Main countries of emigration:
  - US – 45.1%
  - France – 7.9%
  - UK – 6.9%
  - Canada – 5.4%
  - Russian Federation – 3.7%
  - Germany – 3.5%
- More than 70% of emigrants are included in first 6 countries

"Residing Abroad"

"Immigrant Citizens"

**Children born abroad**

**Add** parents and other children aged 0-17

**Add** characteristics from ICBS files:

- Sample file (20%) 1995 census
- Degree recipients in Israel
- Multi-year file of immigrants
- "Demographic System of Individuals"

**Remove** deceased, duplicate records

**Database of Emigrating Families**



# Method

- Indication in Population Register that a child (or children) were born abroad
- Linking family members – parent(s) and other children up to age 17
- **Destination country = country of birth of child born abroad**
- Other characteristics added from various ICBS files

# Method

- Indication in Population Register that a child was born abroad:
  - Residing Abroad:
    - children who are born outside of Israel
    - to an Israeli resident who lives permanently outside of Israel
    - whose parent requested that the child be recorded in the Population Register at an Israeli government office abroad
  - Immigrant Citizens:
    - a person who was born to an Israeli citizen while he or she was staying abroad
    - entered Israel with the intent of settling

# Databases Used

- Population Register:
  - Identify children born abroad
  - Build administrative families
  - Add demographic information
- Sample file (20%) of 1995 Census – education, occupation, marital status

# Databases Used

- Degree recipients 1983-2008 – type of degree, year of degree, field of degree
- Multi-year file of immigrants 1984-2008 – country of residence before immigration
- “Demographic System of Individuals”:
  - Status: immigrant/ family unification/ returning emigrants
  - Year of emigration from Israel

# **“Possible Emigrant” Databases**

- For comparison and evaluation
- “Demographic System of Individuals” – stock of emigrants 1995-2008
- “Surplus” database from 1995 Census – records from 1995 Population Register who were not linked to the 1995 Census
- Israeli residents abroad 2008 – people who were not enumerated in the previous two Censuses (1995, 1983)

# **“Possible Emigrant” Databases - Results**

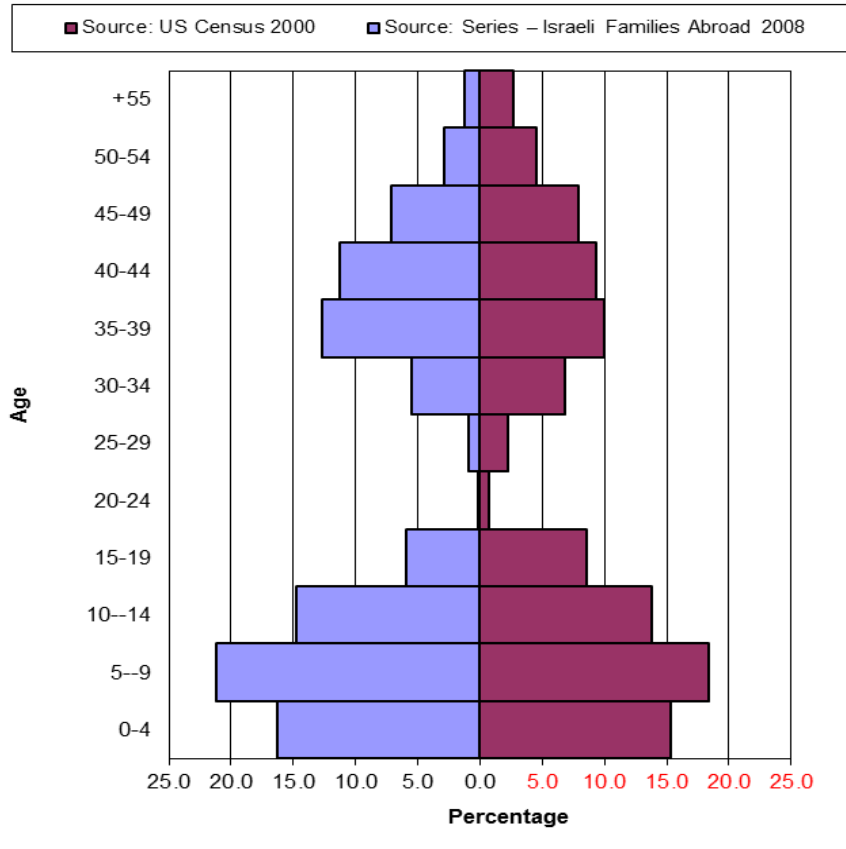
- Found in “Possible Emigrant” databases:
  - 76% of Residing Abroad
  - 42% of Immigrant Citizens

# Reliability of the Data as Representing the Population of Israeli Families Abroad

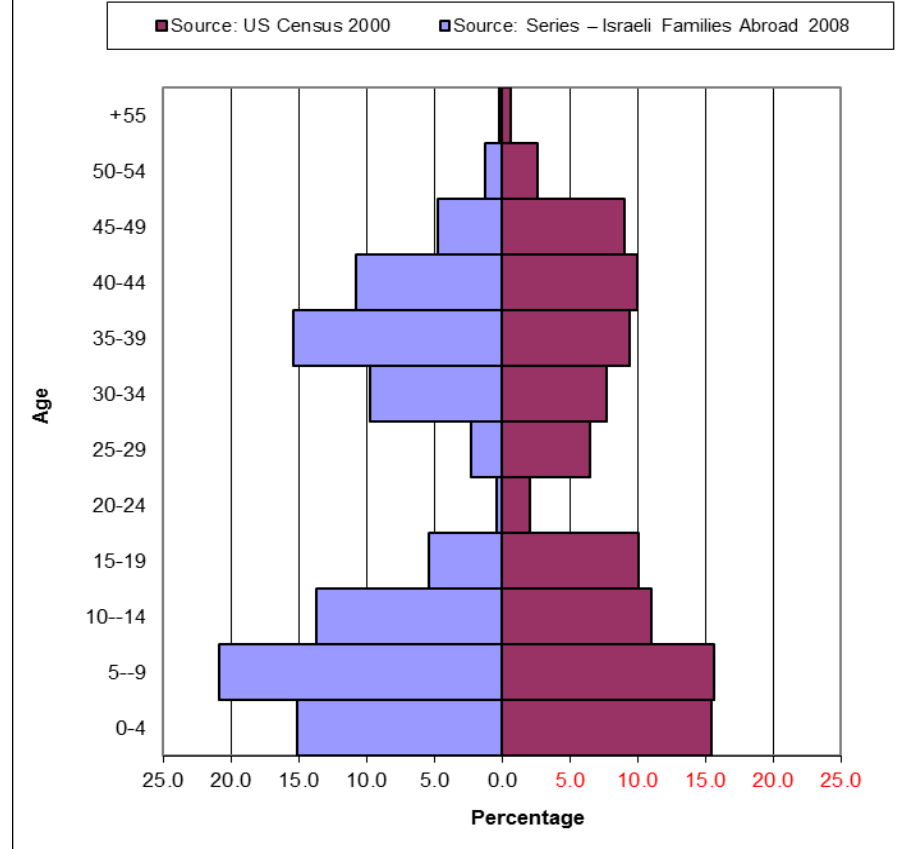
- Comparison to US Census data
  - US has largest group of Israelis abroad
  - US data available for research – 1% files of 2000 Census
- Results:
  - Average family size: Israeli data: 4.1 persons; US data: 4.6 persons

# Results – Age Pyramid

Age Pyramid Comparison Between Data of Israeli Families Abroad and a Parallel Group from the US Census: Males



Age Pyramid Comparison Between Data of Israeli Families Abroad and a Parallel Group from the US Census: Females

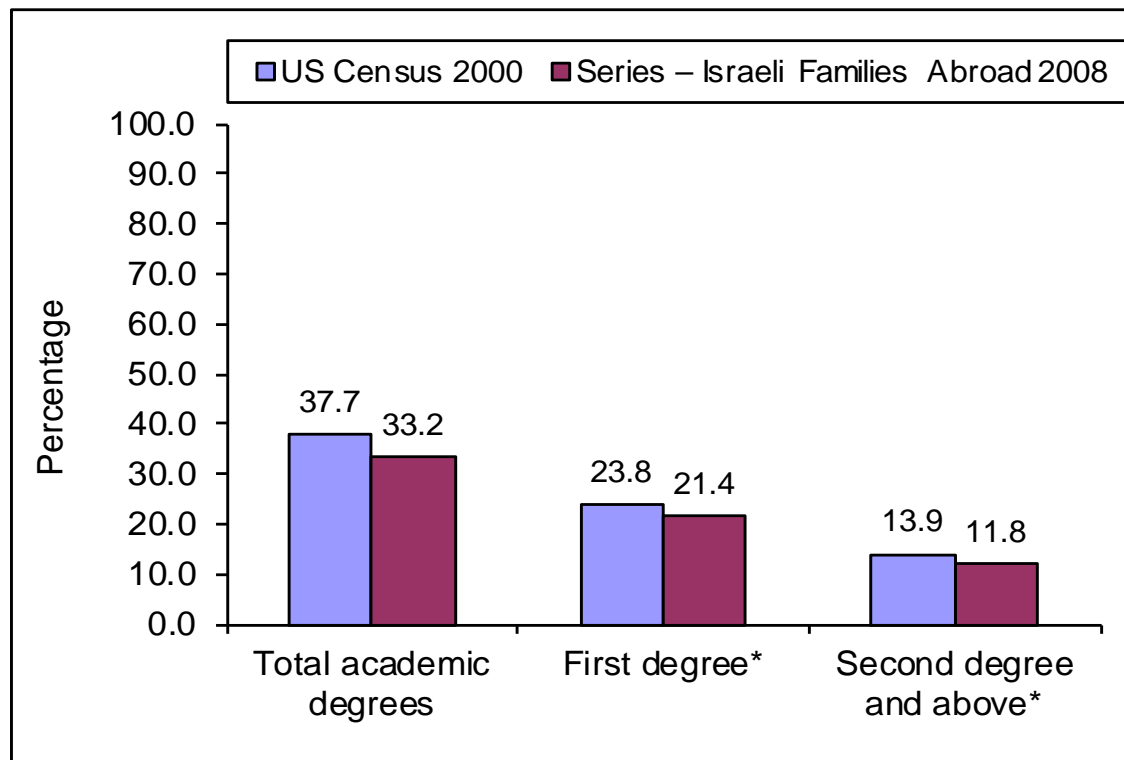




# Results – Age Pyramid

- The age structures of males and females in the two groups are very similar
- With the exception of a few percentage points in a few age groups

# Results – Education



\* Calculated from total holders of academic degrees

# Results – Education

- There is great similarity between the groups
- The slightly larger percentage of holders of academic degrees in the data from the US Census might be explained by the fact that a not inconsiderable number of emigrants move to the US to further their academic studies, thus slightly raising their average educational level above what it was when they left Israel

# Results – Comparison to Register of Doctoral and Research Students Abroad

Major field of research	Holders of doctoral degrees in register	Holders of doctoral degrees in study data
Physical sciences/biological sciences	45%	55%
Computer sciences/mathematics	12%	13%
Business administration/Management/Economics	11%	8%
Humanities	6%	2%
Medicine	6%	5%
Social sciences	6%	7%
Engineering	3%	8%*

\* Including Architecture

N = 531

N = 1,171

# Results – Comparison to Register of Doctoral and Research Students Abroad

- The percentages of holders of doctoral degrees are quite similar
- Possible explanation of differences: data in register is of “current major field of research abroad” and in emigration study file is “field of study in which the doctorate was received”
- Note: 73% of the holders of doctoral degrees in the register received them in Israel

# Characteristics of Families that Emigrated from Israel – by Country of Destination

Selected Data	Total – 10 Destination Countries	Chosen Emigration Destination Country									
	Absolute numbers	US	France	UK	Canada	Russian Federation	Germany	Australia	Belgium	Netherlands	Ukraine
Total	113,836	60,169	10,559	9,230	7,220	4,921	4,633	3,078	3,051	2,287	2,174
		Percentages									
Religion - % of total emigrants to destination country											
Jews	103,316	94.4	96.7	91.4	88.8	70.1	69.7	93.0	94.2	88.6	56.6
Arabs	4,779	4.1	0.9	1.9	5.3	1.3	19.2	4.2	1.0	3.7	1.1
Others	5,741	1.5	2.4	6.7	5.9	28.6	11.1	2.8	4.7	7.7	42.3
Country of birth - % of total parents in file who emigrated to destination country											
Israel	30,952	74.4	38.5	66.2	55.8	17.4	59.7	68.7	60.8	72.7	25.0
Born in and emigrated to same destination country	7,361	10.9	42.9	17.4	6.7	28.9	8.0	11.3	14.0	10.7	38.0

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		Percentages									
Number of persons in household - % of total emigrants to destination country											
1-2	8,600	5.3	7.7	6.7	6.1	18.5	18.9	7.0	4.6	18.5	14.9
3-4	54,882	47.4	39.0	47.4	52.0	60.2	55.3	48.6	38.2	54.8	69.4
5-6	39,822	39.1	36.5	34.0	32.4	15.7	22.0	35.6	42.9	24.6	10.4
7+	10,532	8.2	16.8	11.9	9.5	5.6	3.9	8.8	14.3	2.2	5.2
Marital status - % of persons aged 15 and over who emigrated to destination country											
Single	8,923	14.9	22.2	15.3	17.4	16.0	15.9	14.8	19.4	20.8	14.5
Married	44,304	82.5	74.2	82.1	80.2	77.6	79.0	82.7	78.0	74.2	79.1
Divorced	1,567	2.4	3.3	2.4	2.3	6.1	4.8	2.4	2.3	4.9	5.8
Widowed	126	0.2	0.4	0.1	0.0	0.3	0.3	0.1	0.4	0.1	0.6

# Analysis of Destination Groups

- Destination groups:
  - United States (US)
  - Central and Western European countries
  - former USSR and Eastern European countries
- Based on the differing characters of the economies and employment markets in each destination



# Hypotheses

- Emigrants to the US will tend to have very high levels of skills
- Emigrants to Central and Western Europe will tend to be those with high skill levels and/or those who are natives of the countries they emigrate to
- Emigrants to a republic of the former USSR or to Eastern Europe will tend to have relatively low skill levels and/or be natives of the countries they emigrate to

# Population and Variables

- Population: married couples with education information of at least one spouse
- Variables:
  - Religion
  - Country of birth
  - Migration history
  - Education
  - Occupation

# Results - US

- Emigrants to the US will tend to have very high levels of skills – **CONFIRMED**
- 80% of PhDs, 70% of MDs, 71% with scientific degree emigrated to the US
- Selected predictive variables (logistic regression analysis,  $p < .0001$ ):
  - Both partners Jewish
  - Both partners born in Israel
  - Scientific field or PhD – man and woman (scientific field for woman  $p < .01$ )
  - At least 1 partner born in US ( $p < .001$ )

# Results - Central and Western Europe

- Emigrants will tend to have high skill levels – **NOT confirmed**
- Man has scientific degree or woman has PhD lower tendency to emigrate to this destination
- Emigrants will tend to be those who are natives of the countries they emigrate to - **CONFIRMED**
- Selected predictive variables (logistic regression analysis,  $p < .0001$ ):
  - At least one of the couple was born in the emigration destination
  - At least one of the couple was not Jewish

# Results – Former USSR and Eastern European countries

- Emigrants will tend to have relatively low skill levels – **CONFIRMED**
- If man or woman has a scientific study field or the woman has a B.A, the tendency to this destination decreases
- Emigrants would be persons who were born in these countries – **NOT confirmed**
- If at least one partner was born in the emigration destination country, the tendency to this destination decreases
- Selected predictive variables (logistic regression analysis,  $p < .0001$ ):
  - At least one partner is not Jewish
  - Man or woman ( $p < .001$ ) had immigrant status in the past
  - Man has less than an academic education ( $p < .01$ )
  - Woman has an academic, professional, or technical occupation

# Conclusions

- Emigrant families were successfully identified using official Israeli databases including registrations of births abroad
- This method enables identification of families, destination of emigration and family characteristics
- This method allows analysis of characteristics that predict emigration
- Conditions to implement the method:
  - Well-kept and comprehensive databases: population register, entrances and exits, registrations from abroad etc.
  - Motivation to register
  - Reliable source for comparison



**Thank you for your attention!**