

NATURE OR NURTURE?

HOW CHILD-CARE AND EDUCATION SHAPED JEWISH HISTORY, 70 – 1850

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The Chosen Few



THE CHOSEN FEW

How Education Shaped Jewish History, 70-1492

MARISTELLA BOTTICINI and ZVI ECKSTEIN

The Chosen Many





THE CHOSEN FEW

How **Education** Shaped
Jewish History, 70-1492

PRINCETON UNIVERSITY PRESS, 2012

from

5.5 million c. 70
(illiterate farmers)

to

1 million c. 1492
(educated merchants)

THE CHOSEN FEW

How Education Shaped Jewish History, 70-1492

MARISTELLA BOTTICINI and ZVI ECKSTEIN



THE CHOSEN MANY

How **Child Care** and
Institutions Shaped Jewish
History, 1500-1850

TO BE PUBLISHED BY
PRINCETON UNIVERSITY PRESS

from

1 million c. 1500

to

5.2 million c. 1850
(16.5 million c. 1930)

IN A NUTSHELL ...
NATURE OR NURTURE?

Our View: Nurture

- **parental investment in**
 - **infant and child-care**
 - **children education****fostered by religious / social norms**
- **special institutions**



THE CHOSEN FEW

How Education Shaped Jewish History, 70-1492

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Why are there so few Jewish farmers?

(... many traders, entrepreneurs, bankers, lawyers,
university profs...)

- **LITERATURE** – not fit the facts before 1250
- **Economic restrictions / prohibitions** - (e.g., Cecil Roth)
- **Persecutions & portable human capital: Stigler and Becker**
- **Not before 13th ce**
- **The economics of small minorities** (e.g., Weber ; Kuznets; Slezkine) : **Other small minorities**

A historical journey through the lens of economics

**To answer the question, we need to look
back (very back...) in time, analyze the
history of the Jews over 15 centuries**

70 – 1492

and then apply the lens of economic theory

Economic / Demographic Puzzles

- Jewish population dynamics : puzzle 1

65-650 decreased 5.5 to 1.2 million

1250-1500 decreased 1.5 to 1 million

- Occupational transition : puzzle 2

(750-900, Muslim Middle East)

Jews left farming and entered urban, skilled occupations

- Jewish Diaspora - minority status (800-1200): puzzle 3

The migrations of Jewish *skills*

The Chosen Few: why?

**Is there a common factor
behind the three historical patterns / puzzles?**

Our answer

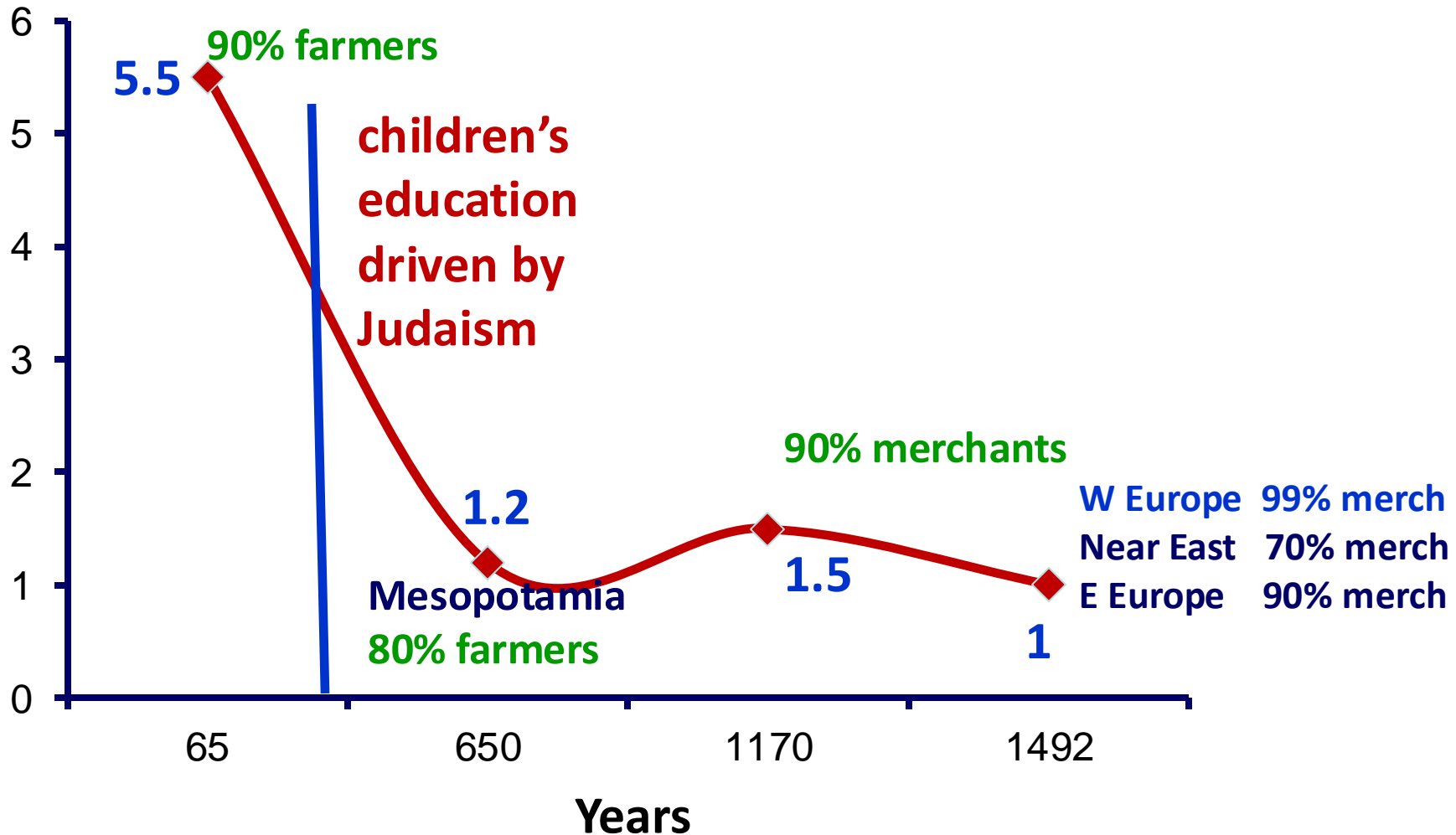
**A shift in the religious norm, as well as the
development of contract-enforcing institutions
within Judaism, after 70 brought these long-
term economic and demographic outcomes**

First “historical accident”, Temple Destroyed

70

200 BCE – 70 Temple and Torah	70 Torah	70 – 200 Torah
<p data-bbox="67 442 653 506">Many religious groups</p> <p data-bbox="86 628 637 835">Pharisees: stress the study of Written and Oral Torah (Law)</p> <p data-bbox="241 956 483 1006">About 64</p> <p data-bbox="106 1035 618 1406">Religious norm: Ben Gamla: fathers must send sons to school to study the Torah</p>	<p data-bbox="695 442 1149 506">Temple destroyed</p> <p data-bbox="695 628 1159 763">Pharisees became religious leaders</p> <p data-bbox="743 956 1101 1320">Sacrifices replaced with study of the Torah in synagogue</p>	<p data-bbox="1246 442 1796 506">Leadership of rabbis</p> <p data-bbox="1284 628 1758 871">Mishna, Rabbinical Courts Institutions</p> <p data-bbox="1284 956 1767 1249">From 200 ammei ha-aretz (illiterate people) considered outcast</p> <p data-bbox="1226 1292 1825 1349">Learning implemented</p>

First “historical accident”: a “literate” religion



Economic theory: What are the implications of the change in religious norms?

Theory: Hebrew literacy - **no** economic returns for farmers: **religious (utility) returns for Jews**. School is costly and **sanctions** on who does not learn - “*ammi-haaretz*”.

- **Jewish farmers:** send boys to school (synagogue) and whether to convert to other religions
- Jews are **heterogeneous** in religiosity, income, ability, etc.

Result 1: Some Jewish farmers educate their boys.

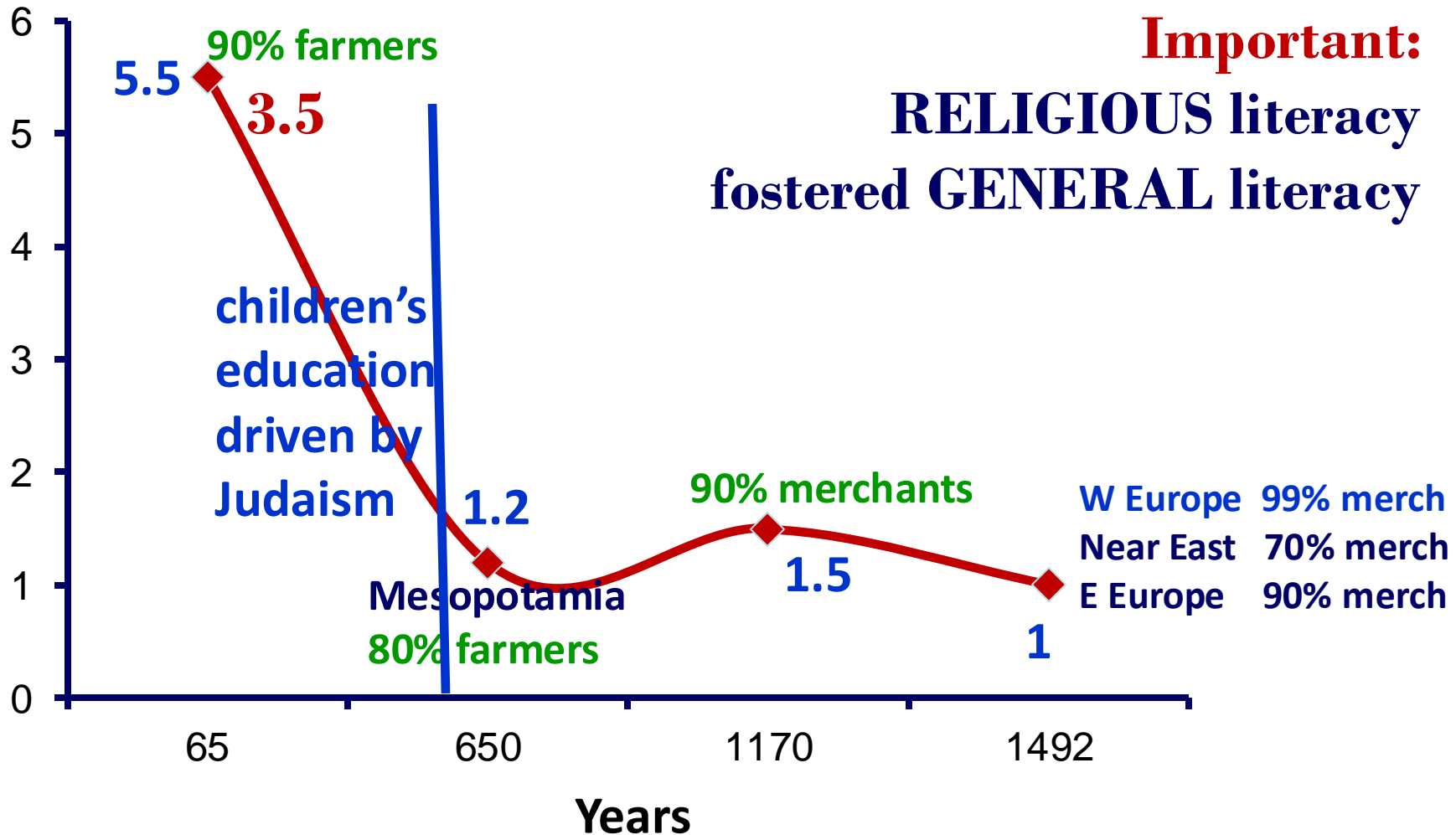
- Non-Jews farmers do not educate their boys.
- Cost of education cause **some Jewish farmers to convert** - Who? low attachment, low ability, low income: *ammei-haaretz*...
- **Implication: In the long run Judaism cannot survive in a subsistence farming society.**

Jews in the Talmud Era (200-650): The **Chosen Few**

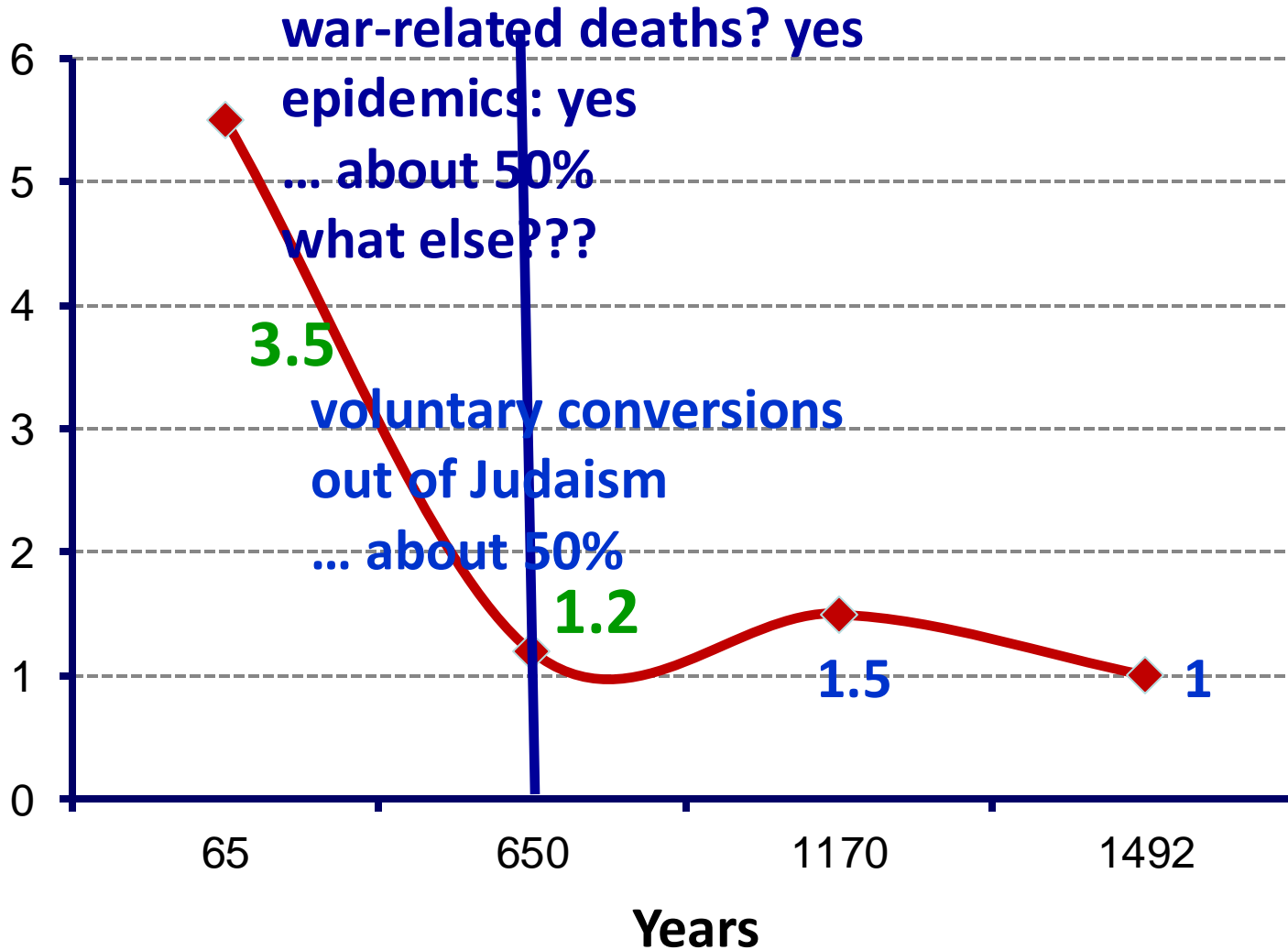
Evidence for implications - children's education

- **In a subsistence farming economy, the investment in children's education is a religious sacrifice with no economic return**
- **A typical family's budget in Roman Palestine**
 - **food expenses = 40-50%**
 - **taxes = 30%**
 - **little was left to buy clothing, books, and paying for the teacher's salary**

Despite being costly, primary education became spread from 200 to 650 among Jews (farmers)



The Chosen FEW: why?



**If most Jews were literate,
why were they still farmers in 650?**

**Given rural subsistence economies in
4th-7th centuries, literate Jewish farmers
could not find urban skilled occupations
Evidence : The Jerusalem and Babylonian
Talmud**

Second “historical accident”, c. 622

Mohammed established Islam and set the foundations of one of the largest, most urban, and commercially developed empires in history

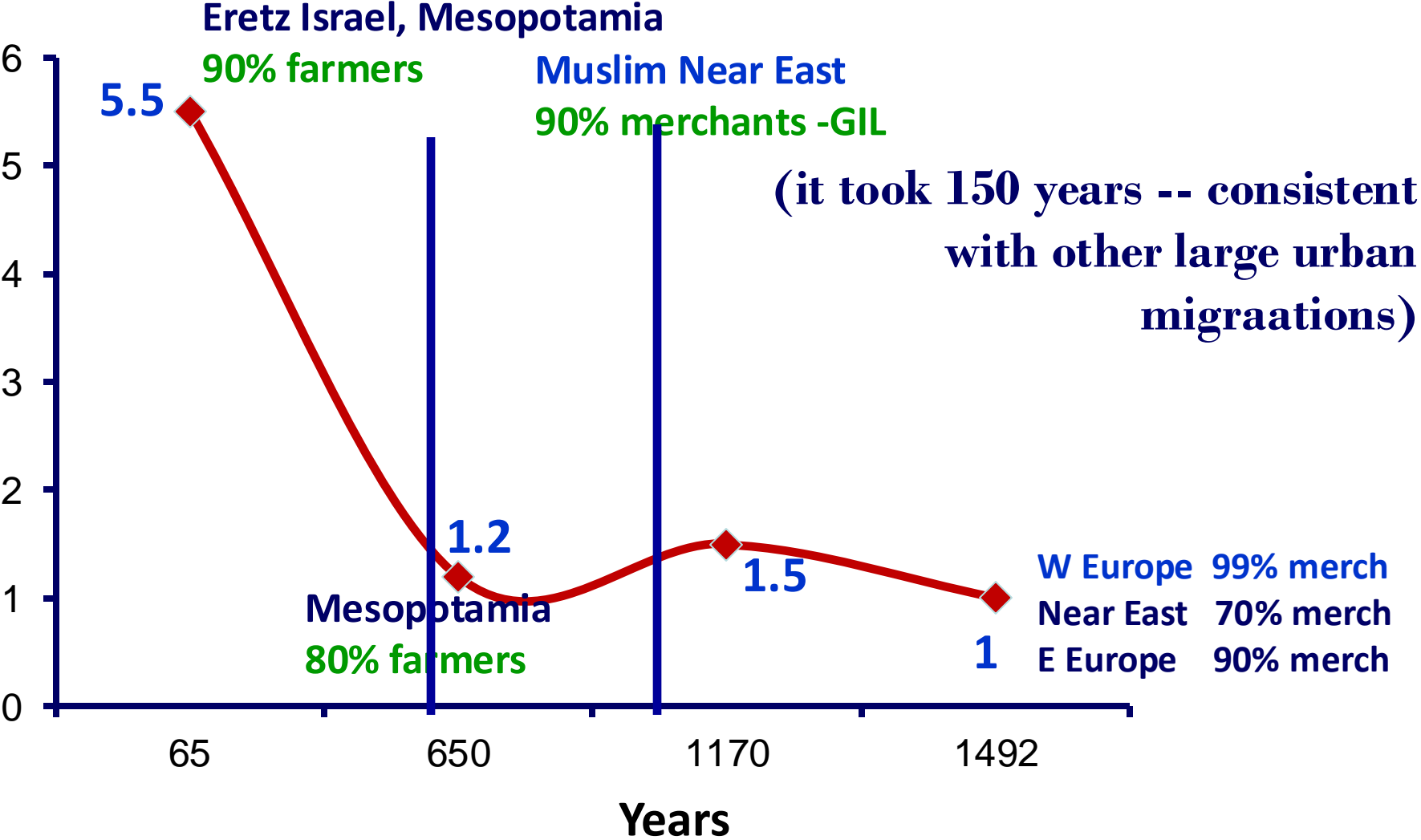


Economic Theory

- **Result 2:** Jewish farmers who learn in synagogue to read (write) have a **comparative advantage in occupations** and locations in which reading, writing contracts and communication have high economic returns.
- Jewish Merchants **do not convert** – **literacy is productive** and provide higher income

This is why there are so few Jewish farmers

Evidence Result 2: Jewish occupational transition, 750 - 900



Voluntary Diaspora

Migrations of Jewish *skills*, ca. 800-1250

- **Main insight from the model**
Judaism can survive in the long run only if Jews can find occupations with high returns to their investment in education – Genizah Documents
- **Historical evidence – Benjamin of Tudela 1170**
The voluntary migrations of Jewish people between 800 and 1250 support this argument

Migrations within the Muslim Empire (800-1100) voluntary and free

- Jewish craftsmen, traders, physicians, scholars from Mesopotamia and Persia settled in Syria, Egypt, Maghreb, Spain, and Sicily
- The “golden age” of Jewish history: **Responsa and Geniza evidence**

Migrations to western Europe (850-1250) voluntary and regulated

- Jews migrated to England, Flanders, France, Germany, Italy upon invitation by local rulers --- wealthy communities in hundreds of towns. Based on **privileges** with rights and taxes
- Because of high human capital and skills, Jews viewed as essential for economic growth -
- **Almost no restrictions on Jewish economic activities**

Why Money Lending?

Economic Restrictions? NO!

- **Most popular view, I**
Jews in medieval Europe became segregated in moneylending because they could not own land (no farming) & guilds pushed them out of urban skilled occupations
- **Most popular view, II**
Usury bans on Muslims and Christians led to Jewish specialization in moneylending

Specialization in Moneylending: Before Usuary Ban by the Church

- **Circa 1000:** main occupations of Jews in Spain, France, Germany, and southern Italy were local commerce, long-distance trade, crafts, and medicine
- **Circa 1100:** moneylending was *the* occupation of Anglo Jewry; a very important occupation of French Jewry; one of many professions of the Jews in Germany, the Iberian Peninsula, and southern Italy
- **By 1250:** almost all Jews in France, Germany, England and northern and central Italy were engaged in moneylending (unlike Spain and southern Italy)

Jewish Specialization in Financial Intermediation: Segregation or Choice?

- **Jewish specialization in money landing was decades prior to Church strict usury ban on Christians**
- **Hence, it was not the outcome of restrictions and persecutions**
- **Jewish comparative advantage in the four assets required (funds, literacy, law, protection) for successful financial intermediation led to choice of occupation. England 1290 case - expell**

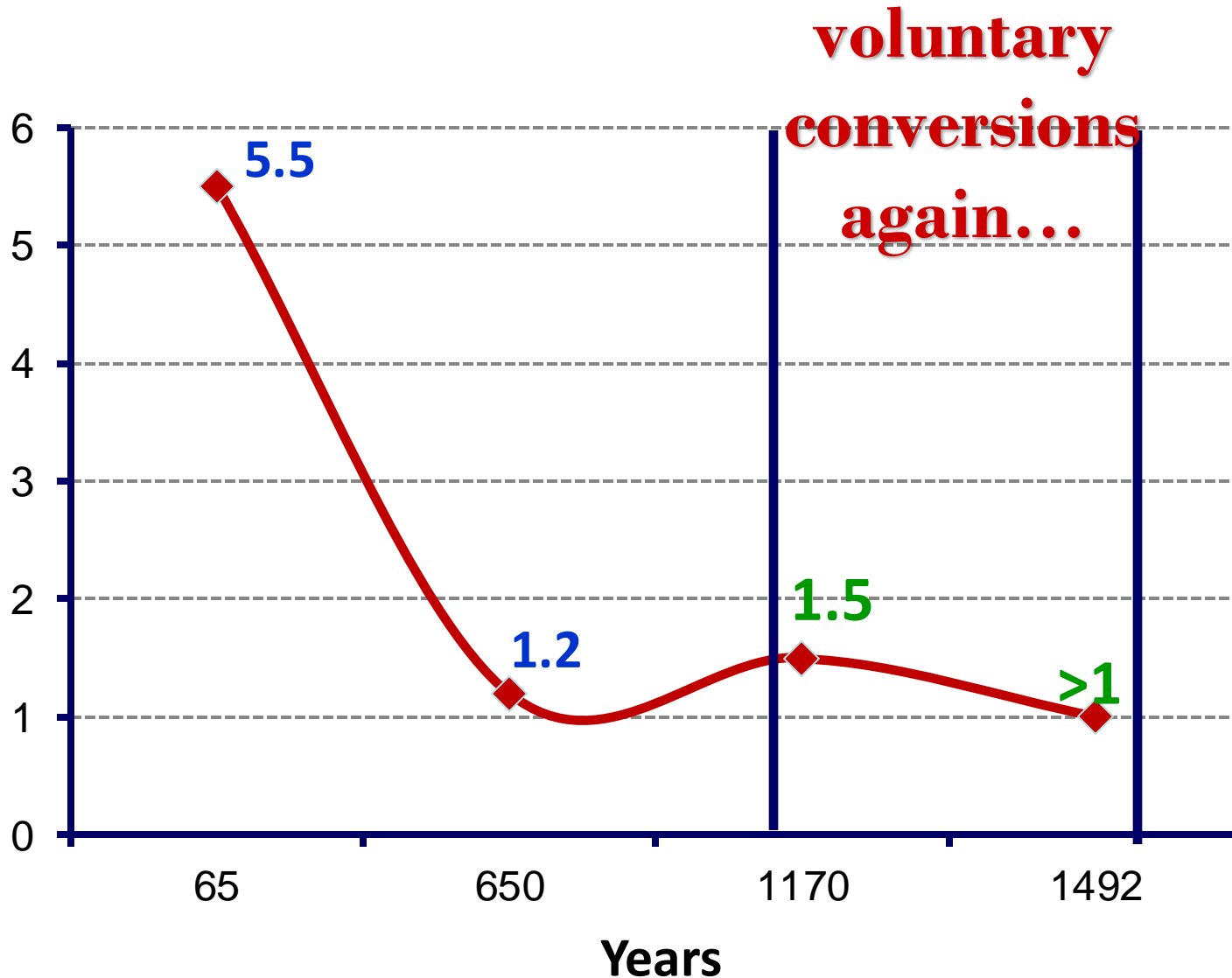
Third “Historical Accident”, 1220/68

The Mongol Shock

(Could the Jews be farmers in the long-run?)

- **The Mongols** invaded Persia (earliest 1220) and Mesopotamia in 1256-1260 and **destroyed the urban economy**
- **Because of massacres, starvation, epidemics, total population was reduced by half**
- **Jewish population shrank from about 800 thousands to nearly 200-300 thousands**

Jewish Population (in million), 70 CE - 1492



1492 to Today: Open Questions

- **Circa 1492** world Jewry: less than 1 million people
 - half Sephardim (urban skilled occupations)
Spain, North Africa, Greece, Turkey, Iraq, Persia
 - half Ashkenazim (urban skilled occupations)
Germany, Netherlands, Italy, eastern Europe, Russia
- **Circa 1850** world Jewry: about 5.2 million
 - 0.8 Sephardic and 4.4 Ashkenazi
- **Circa 1938** world Jewry: about 16.5 million
 - 2.2 million Sephardic Jews
 - 14.3 million Ashkenazi Jews (growth in E. Europe)
- **Why this divergent demographic trend?**

Recent Puzzles

Why are there so few Jewish farmers?

1930: 96%-99% of Jews in urban Jobs -

Kuznets

Stigler and Becker “De gustibus non est disputandum”
AER (1977)?

Jews invest in human capital

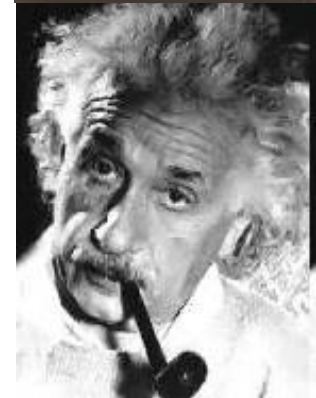
**Late 20th Century: Jews make 0.2 percent of
the world population, and ...**

54 percent of the world chess champions

27 percent of the Nobel physics laureates

31 percent of the medicine laureates

WHY?





THE CHOSEN MANY

How **Child-Care and Institutions** Shaped Jewish History, 1500-1930

... TO BE PUBLISHED BY PUP 2025

from

1 million c. 1500

to

5.2 million c. 1850

Main Question: High population growth – why?

Jews in Poland-Lithuania (PL)

1500 0.13% of the local population

1850 13.3% of the local population

53% of world Jewry

1500–1930 average annual growth rate was

1.37% – the highest in Europe!

- What was the **source** of this exceptional demographic growth?
 - **Migrations? from West? from East?**
 - **Higher fertility?**
 - **Lower mortality?**

Higher fertility?

NO

Lower mortality?

YES, *but ...*

Main Insight

- **70%** of higher Jewish population growth rate in PL was due to **lower infant and child mortality**.

Why?

- **Jewish infant and child-care norms and practices** dating back to Talmudic times lead to **lower infant and child mortality rates** --- and through this channel to Jewish exceptional population growth rate in PL.

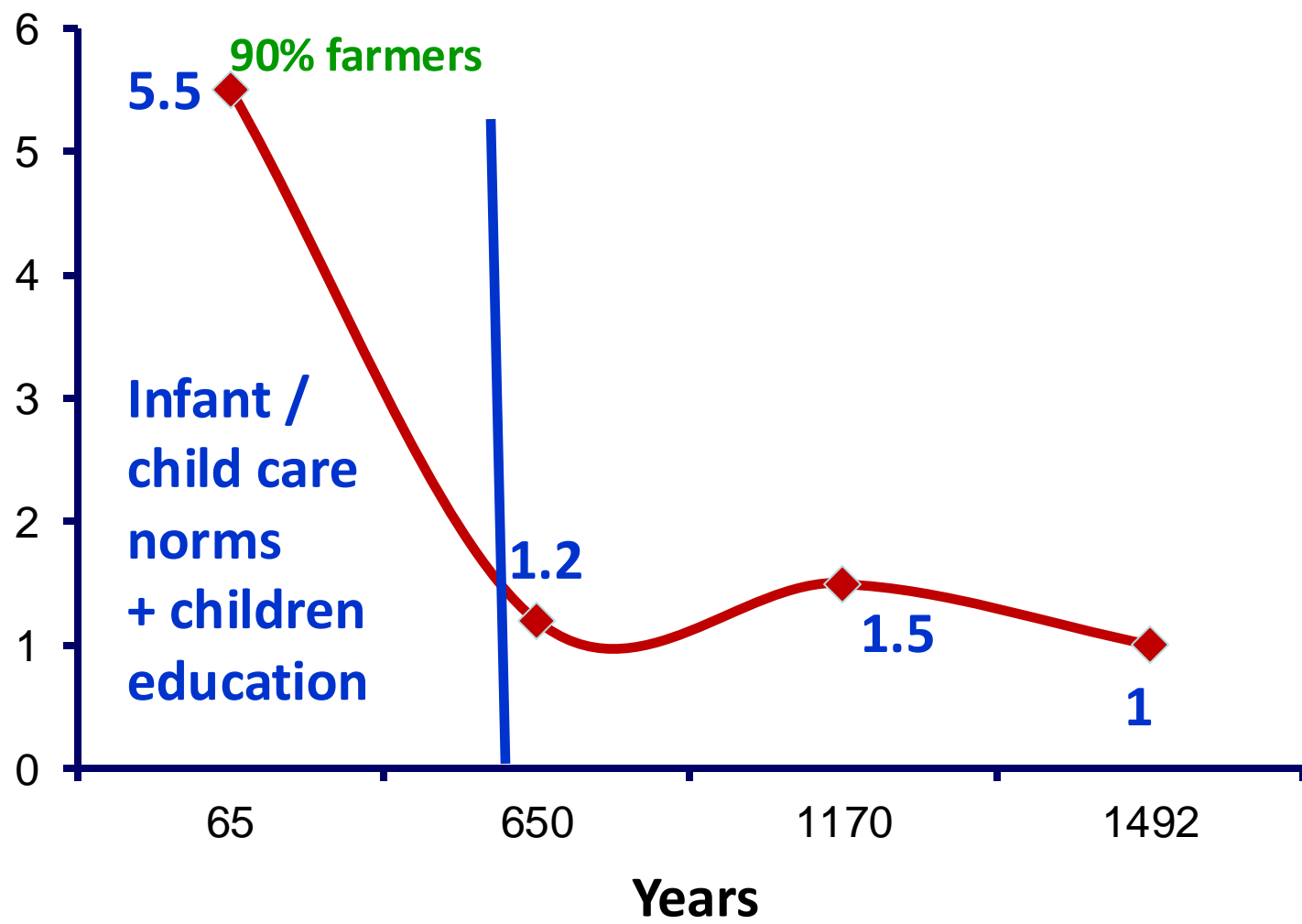
Puzzle

- ... ok. But: *why* did Jews had these norms and practices?

Answer

- **Parental investment in children's education** prompted by Jewish religious norm (Talmudic times) **went hand in hand with parental investment in infant and child care norms and practices** prompted by Judaism (Talmudic times)
- **New in the *Chosen Many*: link between children's education and infant/child care**

Judaism: norms regarding infant / child care & children education



Infant Mortality Rates per 1,000 live-born in PL and GA

	Jews	Total pop	Percentage difference
Until 1870	150	223	-33
1870-1910	155	279	-44
1910-1930	58	145	-60

Prior to 1870:

- Lower infant death was 2.4 more births per 1000:
~ half of the difference between Jewish and total pop
- Lower child mortality up to age 5 accounts for 70%
of lower death rate among Jews

Child-Care practices in early modern times, I

- a) **Postnatal isolation and "in-home" wet nursing**
- **Modern medicine** shows that non-exposure to unfamiliar environment preserves infant's immunity.
 - **Jews**
 - during postnatal period mother and newborn were usually well taken care of and they stayed home for four weeks until the ceremony of *Shabbat Yeziat ha-Yoledet*.
 - Jews insisted on employing Christian wet-nurses at home and thus limited newborn's exposure to unfamiliar germs.
 - **Christians**
 - Europeans in general sent more infants away for wet-nursing (in Poland it was less common).
 - Less care for new mothers at home especially among poor farmers (about 70% of population).

Child-Care practices in early modern times, II

b) Only one source of breast milk

- **Modern medicine** finds that switching sources of breast milk increases infant mortality
 - **Jews** insisted on having only one source of milk
 - **Christians** used multiple sources although they knew it might imply that babies stopped breastfeeding

c) First feeding

- **Modern medicine** recognizes that in order to develop a better immune system, a newborn needs *colostrum*
 - **Jews:** Ashkenazi mothers breastfed following birth with minimum delay (less among Sephardic mothers).
 - **Christians:** common view of not breastfeeding with colostrum and delay in mother's breastfeeding. They use several alternatives as wet-nursing and honey

Child-Care practices in early modern times, III

d) Weaning

- **Modern medical science** recommends **exclusive breastfeeding for 6 months** followed by breastfeeding combined with complementary foods until the age of two.
 - **Jews:** breast-feeding for 18-24 months and then with special food in the process of weaning
 - **Christians:** also advised 2 years of breastfeeding but there is much evidence of early weaning and premature introduction of unhealthy solids such as bread with sugar.

Child-Care practices in early modern times, IV

e) Family support and marriage patterns

■ Jews

- In eastern Europe (from 17th century) young couples established their first household in the home of the wife's family (*Kest*).
- Early age marriage and re-marriage were the ideal and most important part of men and women life. Very few non-married.

■ Christians

- later age of marriage
- lesser popularity of re-marriage
- no obligation for family support
- nuclear families.

To sum up

- **70%** of higher Jewish population growth rate in PL was due to **lower infant and child mortality**.

Why?

- **Jewish infant and child care norms and practices** dating back to Talmudic times, which **today medical knowledge recognizes as fundamental for infant and children's health**, lead to lower infant and child mortality rates --- and through this channel to Jewish exceptional population growth rate in PL.

Take-home message

- For non-Jews the emphasis was on procreation and children's strength for physical work
- For Jews was the same, *but* the **strength of cognitive skills necessary for studying and learning** was as important
- Hence, for Jews the return to parental investment in each child's care was higher

[nurture vs nature]

Religious norm  education (*Chosen Few*)

Religious norms  child care (*Chosen Many*)

More puzzles

- **But** – why this trend in Jewish population was higher in PL than in GA? or Italy? or the Middle East?
- **Distinctive institutions and economic conditions in PL from 1450 until 1800.**
Established before Jews arrived 1450-1569

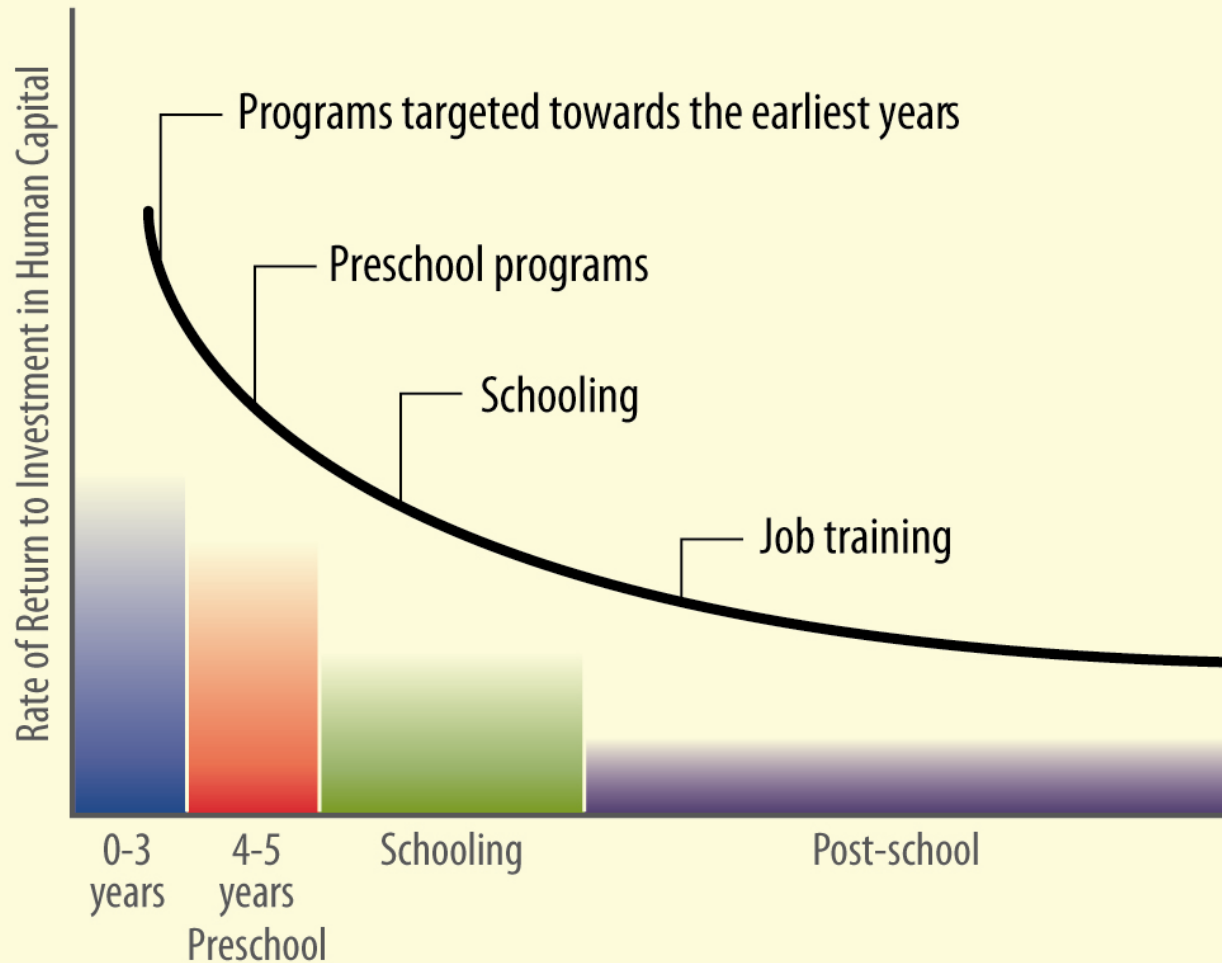
Legal rights and institutions; From money lending to arrendators – stable conditions

- From late 15th to mid-16th centuries, **property rights** in PL: **exclusive ownership** on means of production (labor, land, industry and cities) **to nobility** (10% of pop) and **the king** (elected by nobles).
- **Nobles leased properties and monopolies** by auctions to local bourgeoisie – Jews and non-Jews lease of monopolies (Alcohol).
- **Jews did better** in noble-owned estates and grew in these properties **faster** as nobles got more territories in Lithuania and Ukraine. Not allowed in kings' large cities (Warsaw, Krakow etc.)
- Main reason - **Institutions**: collective taxation (Council of 4 Nations); networking; insurance; common language.
- **No ghettos in PL**; no restrictions on Jews in Nobles cities. Communal privileges supporting Jews against burgers.
- All collapsed end-18th cent: Emancipation and industrialization⁴⁵

To sum up
NATURE OR NURTURE?

.... lessons for today?

RATES OF RETURN TO HUMAN CAPITAL INVESTMENT AT DIFFERENT AGES



SOURCE: J.J. Heckman, "Skill formation and the economics of investing in disadvantaged children." *Science*, 312(5782):1900-2, (June 2006).

What next: 1850 to 2020

- The 200 years of **great migration from Eastern Europe**, the holocausts and the Israel:
- **Migration to large** commerce and industrial cities in Poland, Lithuania and Ukraine as restrictions were not imposed
- **Migration to western Europe** as cities lifted ban on Jews
- **Migration to America** mainly to US (1880 to 1924)
- **Soviet Union and Holocausts** – ban on migration and lost of 6 millions
- **Migration to Israel** – 1925 to today from mainly less developed non-democratic countries

Thanks

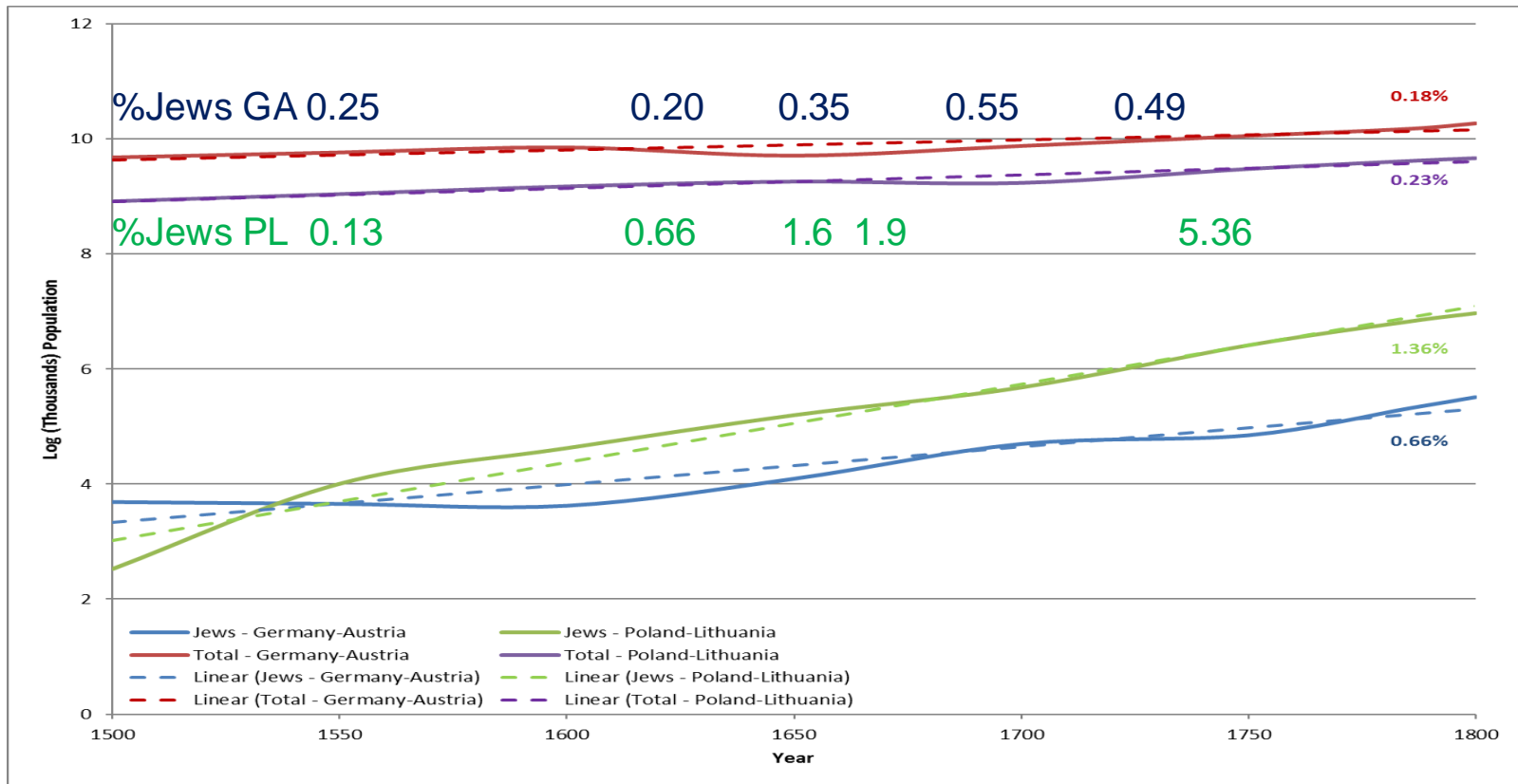
Introduction: World Jewish population 1500-1850 (thousands) % in parenthesis

Year	1490	1550	1600	1700	1800	1850
Eastern Europe	10-15 (1.5)	55 (9)	135 (19)	400 (36)	1070 (45)	2810 (53)
Germany – Austria Central Europe	40 (4.5)	40 (6)	40 (5)	110 (10)	250 (11)	500 (10)
Western Europe	90 (11)	110 (17)	100 (14)	70 (6)	160 (7)	240 (5)
Spain and Portugal	330 (40)	5 (1)	10 (1.5)	0	0	5 (1)
Czechoslovakia, Hungary/Rom	20 (2)	20 (3)	25 (3.5)	65 (5)	260	670 (13)
Balkan, Greece Turkey – SE Eur	40 (5)	50 (8)	55 (8)	75 (7)	95 (4)	115 (2)
Asia, ME N. Africa	300 (36)	340 (55)	350 (49)	400 (36)	500 (24)	560 (11)
N & S America	0	0	0	0	15 (0.5)	260 (5)
Total	830	620	715	1100	2350	5160

1650: Neo-feudal Poland-Lithuania and absolutist Germany-Austria



PART I: The Chosen Many: Jewish and General Demography, 1500–1850



Appendix