




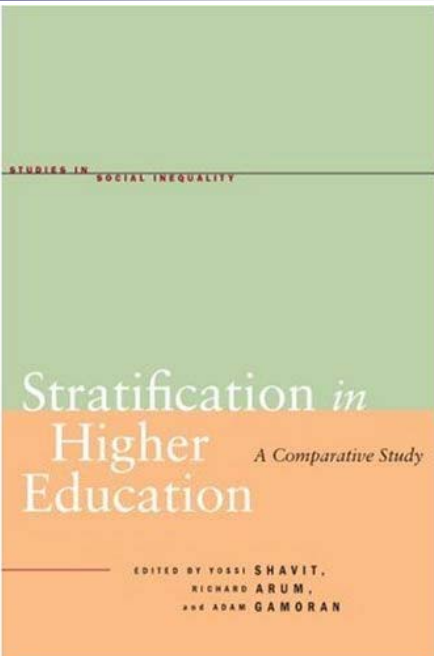
## More Inclusion than Diversion: Expansion, Differentiation, and Market Structure in Higher Education

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*.....with thanks to our colleagues from 15 countries*



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STUDIES IN SOCIAL INEQUALITY

Stratification in  
Higher Education *A Comparative Study*

EDITED BY YOSHI SHAVIT,  
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AND ADAM GAMORAN

## Higher Education Expansion

- The 20<sup>th</sup> century: an era of educational expansion
  - More people staying in school longer and longer
  - World-wide expansion, involving developed and developing countries

## Higher Education Expansion

- The key question for sociologists:
  - How does expansion affect inequality?
    - Does expansion reduce inequality by providing more opportunities for the disadvantaged?
    - Or does expansion exacerbate inequality by creating more opportunities for the privileged?

## Higher Education Expansion

- Expansion of higher education deserves special attention
  - Primary and secondary education are nearly universal in advanced societies
  - Tertiary education continues to expand
  - Higher education is the gateway to professional and management positions

## Higher Education Expansion

- Higher education is transformed as it expands
  - Expansion is accompanied by differentiation
  - Development of less selective colleges
  - Much of the growth occurs in the second tier
- Expansion creates new opportunities, but possibility of diminished value

## Higher Education Expansion

- One view: Higher education expansion is a process of *diversion*
  - Working class are diverted to the second tier
  - Elite institutions remain the bastion of the privileged
- Another view: Expansion reflects *inclusion*
  - Working class have a chance for the top tier
  - Even the second tier enhances opportunity

## The Comparative Project on Stratification in Higher Education

- How are expansion and stratification linked in 15 countries?
  - Western Europe: France, Italy, Germany, Netherlands, Sweden, Switzerland, UK
  - Eastern Europe: Russia, Czech Republic
  - East Asia: Japan, Korea, Taiwan
  - Others: Israel, US, Australia

## Expansion and Stratification

- Educational attainment as a sequence of transitions (Mare, 1980, 1981)
- Expansion brings many advantages (e.g., economic development), but it does not necessarily reduce inequality
  - Middle class families take advantage of new opportunities
  - Relative differences between classes are preserved

## Expansion and Stratification

- Maximally Maintained Inequality (MMI) (Raftery and Hout, 1993)
  - Inequality is preserved until the privileged class reaches saturation
  - That is, virtually all members of the privileged class attain a level of education
  - Only then does inequality in attainment of that level decline

## Expansion and Stratification

- With some exceptions, observed trends are consistent with MMI
  - Persistent Inequality (Shavit and Blossfeld, 1993)

## Expansion and Differentiation

- Most studies of educational transitions ignore differentiation
- In fact, educational choices often involve more than two options
  - E.g., drop out of high school, or remain in an academic or a vocational track
  - Or attend 2-year, 4-year, or no college
  - These distinctions have implications for inequality

## Differentiation and Stratification

- Organization theory: growth is accompanied by differentiation
- Educational expansion tends to follow this path
- Differentiation may be a consequence of expansion, but it may also *contribute* to expansion

## Expansion and Differentiation

- Modes of differentiation
  - Unified: No differentiation
    - Tend to be rigid, controlled by professorial elites who tend not to encourage expansion
    - Italy, Czech Republic
  - Diversified: multiple tiers, e.g. U.S., Japan
  - Binary: two tiers – academic and vocational
    - Most of western Europe

## Expansion and Differentiation

- Link between expansion and differentiation suggests a process of diversion
- But if lower-tier opportunities bring students into higher education who otherwise would not have continued, then it may represent inclusion

## Expansion and Market Structure

- Studies of expansion and stratification assume expansion is a result of demand
  - Holds for some cases, e.g. the U.S.
- But not others
  - Western Europe – state regulation
  - Sweden – quotas
  - Japan – shifting patterns of demand and supply



## Expansion and Market Structure

- One view: inequality may be greater in demand than in supply systems
  - Supply systems may limit inequality through state sponsorship
  - Demand systems may exacerbate inequality due to family differences in the ability to pay

## Expansion and Market Structure

- Another view: Inequality may be less in demand systems than in supply systems
  - In supply systems, institutions are status-seekers
    - They seek to preserve privileges for the elite
  - In demand systems, institutions are client-seekers, because funding depends on enrollment
    - More emphasis on bringing students into the postsecondary system
- By this logic, demand-based systems may be increasingly inclusive, while diversion occurs in supply systems

## Propositions

- Expansion and stratification
  1. Expansion is not associated with inequality, unless saturation is approached (MMI).
- Expansion and differentiation
  2. Tertiary expansion and differentiation are related, with causal effects in both directions.
  3. Differentiation of higher education diverts students away from first-tier enrollment.

## Propositions

- Expansion, differentiation, and market structure
  4. Enrollment rates are higher in systems with more funding from private sources.
  5. Systems with more funding from private sources are more likely to be diversified.
  6. Reliance on private funding is associated with inequality, but the direction of the association cannot be determined *a priori*.

## Methods

- Collaborative comparative method
- Countries that vary in:
  - Extent of expansion
  - Mode of differentiation
  - Degree of privatization

## Methods

- Logit regressions on
  - Eligibility for higher education
  - Entry into higher education
  - Entry into first-tier higher education

## Methods

- Independent variables
  - Parents' education
  - Father's occupational class
  - Sex
- Supplementary analyses with additional predictors as appropriate

## Methods

- Comparative analyses
  - Mode of differentiation: Taken from country-specific chapters

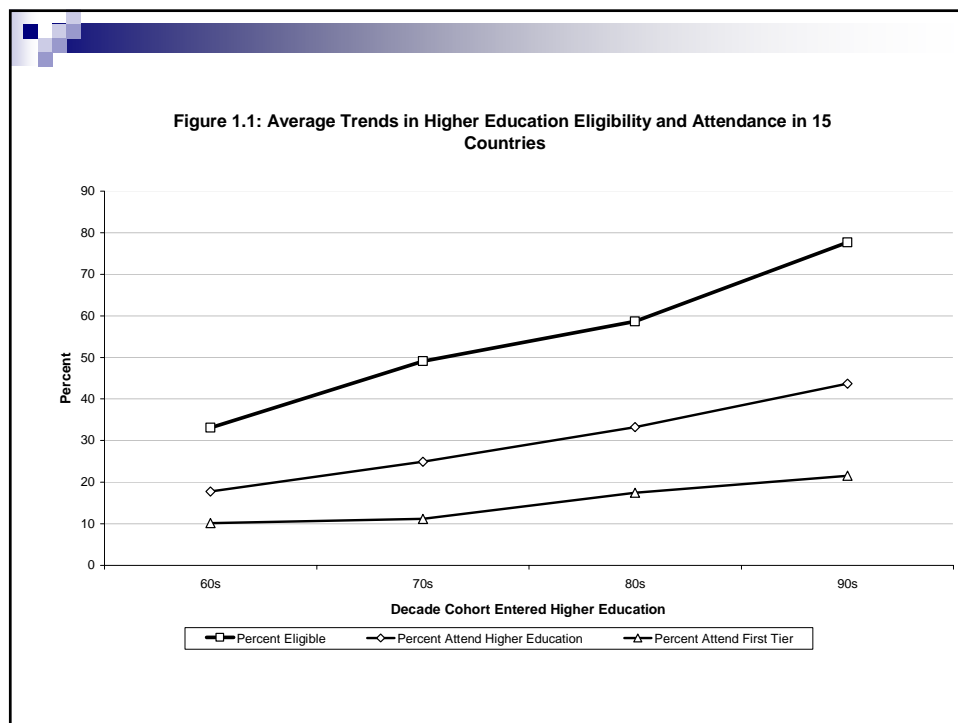
Country	Mode of Differentiation
Britain	Binary
France	Binary
Germany	Binary
Netherlands	Binary
Russia	Binary
Switzerland	Binary
Israel	Diversified
Japan	Diversified
Korea	Diversified
Sweden	Diversified
Taiwan	Diversified
United States	Diversified
Australia	Mixed/Other
Czech Republic	Unified
Italy	Unified

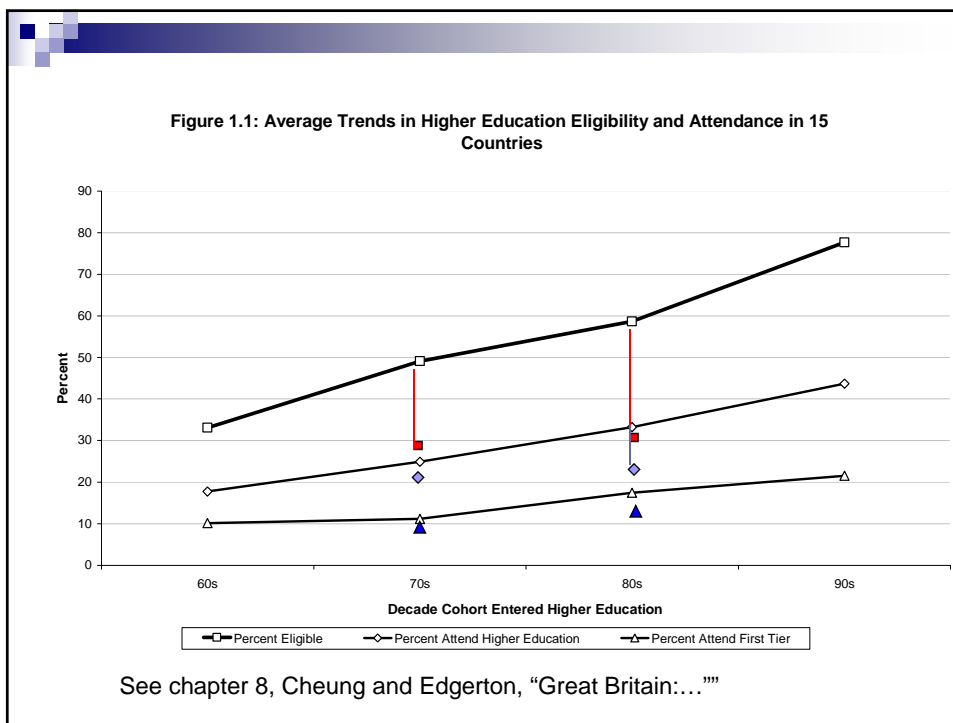
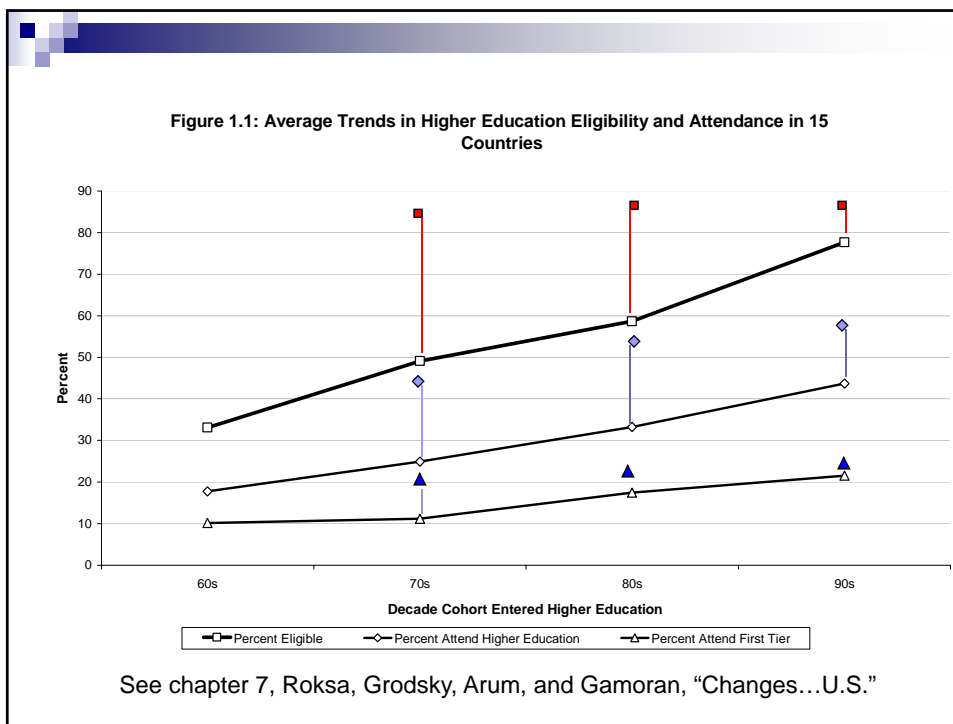
## Methods

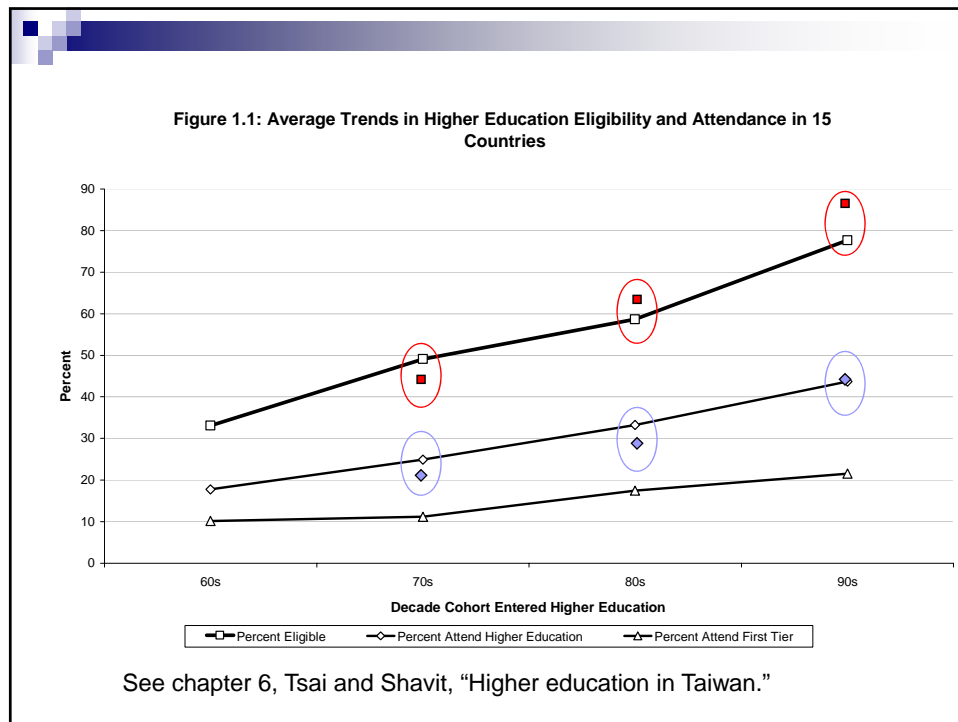
- Comparative analyses
  - Mode of differentiation: Taken from country-specific chapters
  - Extent of privatization: From OECD reports and supplementary reports
  - Measures of inequality: average logit coefficients
    - Father's occupation: classes I/II vs. V/VI
    - Parents' education: Higher education vs. secondary education
  - We focus on changes over the last two cohorts

## Results

- Expansion occurred at all levels
  - Eligible for higher ed, entered higher ed, attended higher ed
  - All countries experienced expansion, except Russia in the post-Soviet era



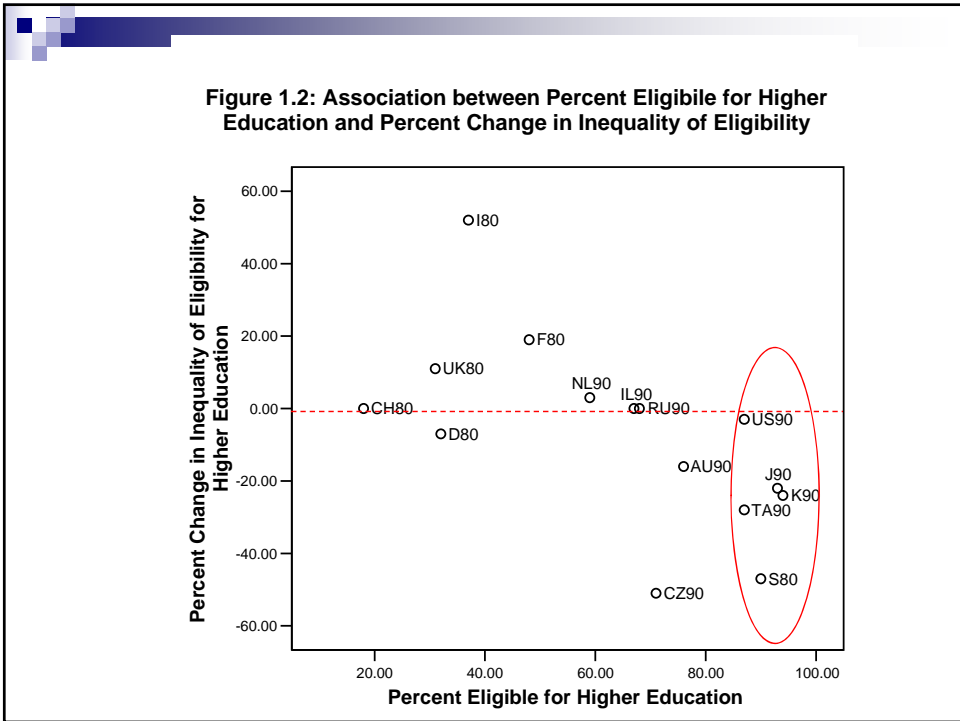
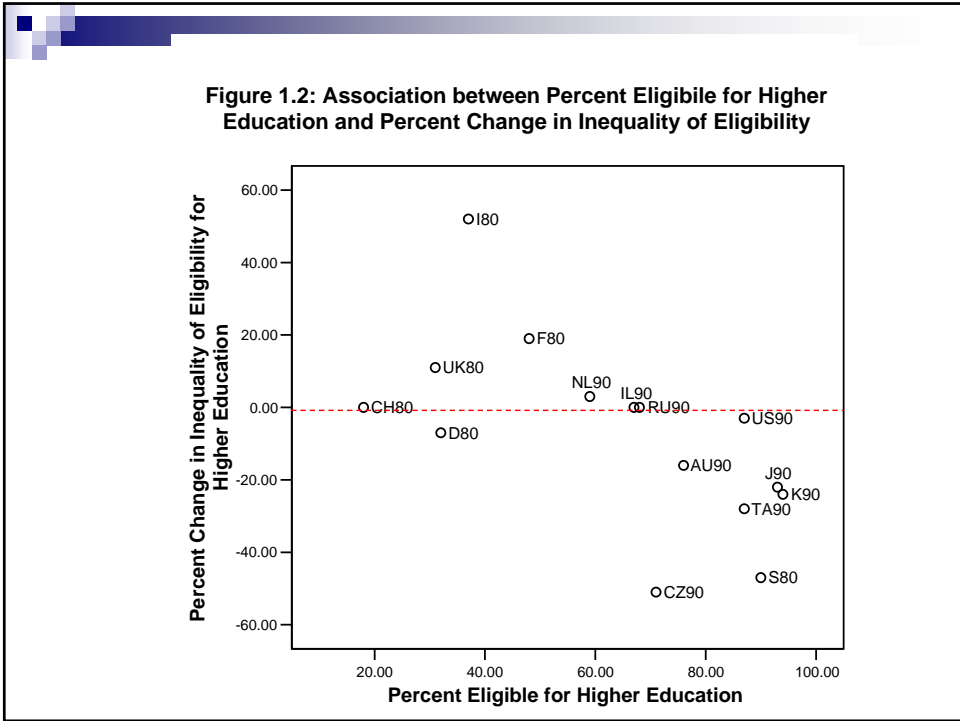




## Results

- Inequality is stable except in the context of saturation
  - Eligibility
    - Inequality declined in 5 countries, of which 4 had eligibility > 80 percent (near saturation)
    - Inequality did not decline in 10 countries; all but one or two had lower enrollment rates

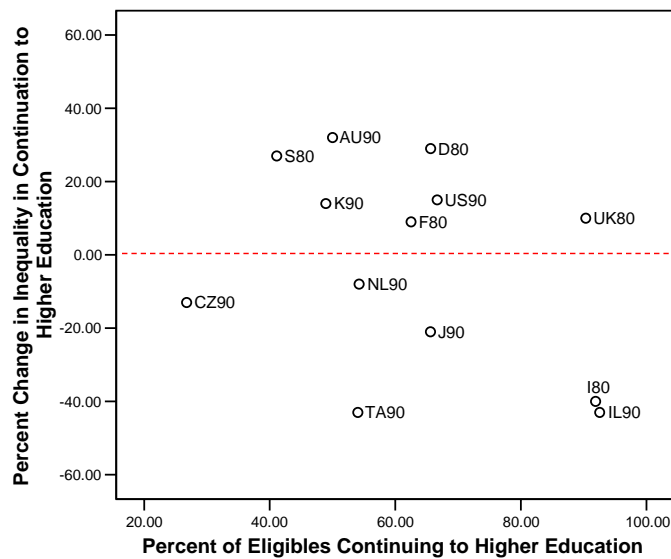


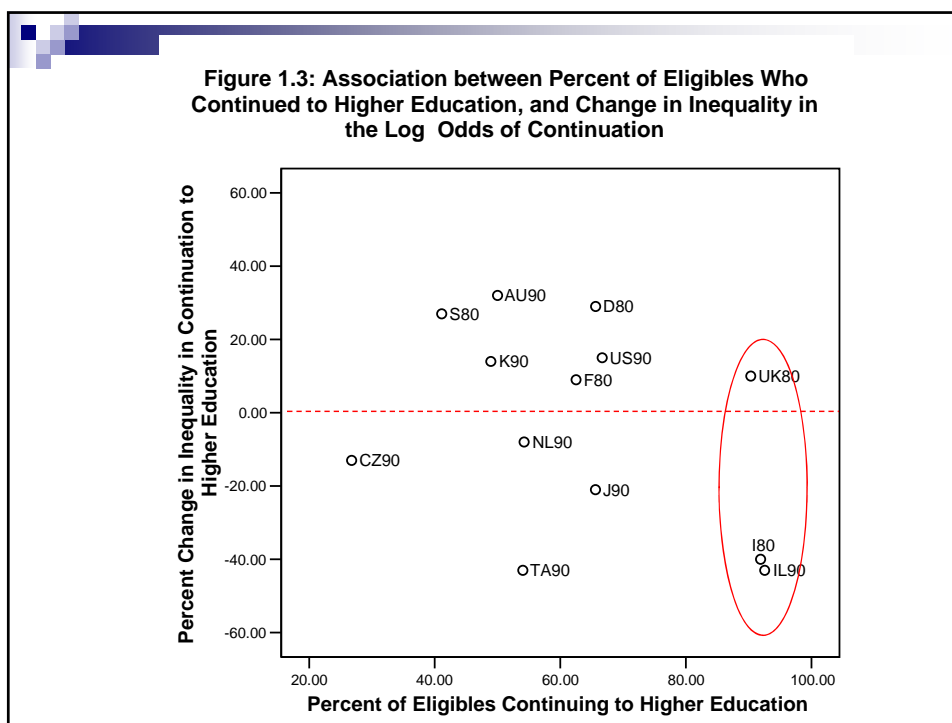


## Results: Expansion and Stratification

- Inequality is stable except in the context of saturation
  - Attendance at higher education
    - Three cases of saturation, two experienced declining inequality

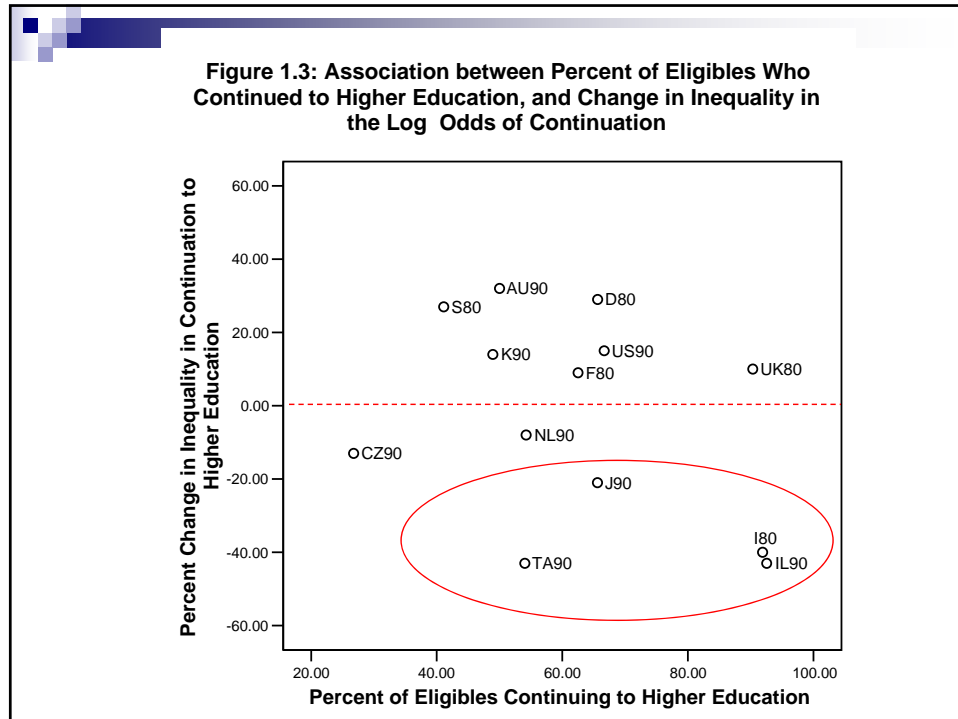
**Figure 1.3: Association between Percent of Eligibles Who Continued to Higher Education, and Change in Inequality in the Log Odds of Continuation**





## Results: Expansion and Stratification

- Inequality is stable except in the context of saturation
  - Attendance at higher education
    - Inequality declined in four cases
      - Two were near saturation (Israel and Italy)
      - Japan and Taiwan are exceptions
        - Rapid expansion in the 1990s after a period of retrenchment in the 1980s



## Results:

### Expansion and Stratification

- Inequality is stable except in the context of saturation
- In general, MMI is supported

## Results: Expansion and Differentiation

- Eligibility rates vary by mode of differentiation

		(1)	(2)	(3)	(4)	(5)	(6)
<b>Mode of Differentiation</b>	<b>n</b>	<b>Percent Eligible</b>	<b>Percent Attend</b>	<b>Percent Attend First Tier</b>	<b>Inequality in Eligibility</b>	<b>Inequality in Higher Education</b>	<b>Inequality in First Tier</b>
<i>Binary</i>	6						
<i>Diversified</i>	6						
<i>Unified</i>	2						
<b>Total</b>	14						

		(1)	(2)	(3)	(4)	(5)	(6)
<b>Mode of Differentiation</b>	<b>n</b>	<b>Percent Eligible</b>	<b>Percent Attend</b>	<b>Percent Attend First Tier</b>	<b>Inequality in Eligibility</b>	<b>Inequality in Higher Education</b>	<b>Inequality in First Tier</b>
<i>Binary</i>	6	42.3 (18.2)	30.7 (7.6)	12.2 (5.0)			
<i>Diversified</i>	6	86.3 (9.9)	51.8 (10.0)	24.2 (2.2)			
<i>Unified</i>	2	54.0 (24.0)	26.5 (10.6)	26.5 (10.6)			
<b>Total</b>	14	62.8 (26.0)	39.1 (14.2)	19.0 (8.1)			

		(1)	(2)	(3)	(4)	(5)	(6)
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<i>Binary</i>	6	42.3 (18.2)	30.7 (7.6)	12.2 (5.0)	1.0 (.49)		
<i>Diversified</i>	6	86.3 (9.9)	51.8 (10.0)	24.2 (2.2)	.77 (.29)		
<i>Unified</i>	2	54.0 (24.0)	26.5 (10.6)	26.5 (10.6)	.92 (.71)		
<b>Total</b>	14	62.8 (26.0)	39.1 (14.2)	19.0 (8.1)	.90 (.43)		

		(1)	(2)	(3)	(4)	(5)	(6)
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<i>Binary</i>	6	42.3 (18.2)	30.7 (7.6)	12.2 (5.0)	1.0 (.49)	0.99 (.30)	
<i>Diversified</i>	6	86.3 (9.9)	51.8 (10.0)	24.2 (2.2)	.77 (.29)	.80 (.26)	
<i>Unified</i>	2	54.0 (24.0)	26.5 (10.6)	26.5 (10.6)	.92 (.71)	.85 (.33)	
<b>Total</b>	14	62.8 (26.0)	39.1 (14.2)	19.0 (8.1)	.90 (.43)	.88 (.28)	



		(1)	(2)	(3)	(4)	(5)	(6)
<b>Mode of Differentiation</b>	<b>n</b>	<b>Percent Eligible</b>	<b>Percent Attend</b>	<b>Percent Attend First Tier</b>	<b>Inequality in Eligibility</b>	<b>Inequality in Higher Education</b>	<b>Inequality in First Tier</b>
<i>Binary</i>	6	42.3 (18.2)	30.7 (7.6)	12.2 (5.0)	1.0 (.49)	0.99 (.30)	1.6 (1.21)
<i>Diversified</i>	6	86.3 (9.9)	51.8 (10.0)	24.2 (2.2)	.77 (.29)	.80 (.26)	1.3 (.99)
<i>Unified</i>	2	54.0 (24.0)	26.5 (10.6)	26.5 (10.6)	.92 (.71)	.85 (.33)	.85 (.33)
<b>Total</b>	14	62.8 (26.0)	39.1 (14.2)	19.0 (8.1)	.90 (.43)	.88 (.28)	1.4 (1.01)

		(1)	(2)	(3)	(4)	(5)	(6)
<b>Mode of Differentiation</b>	<b>n</b>	<b>Percent Eligible</b>	<b>Percent Attend</b>	<b>Percent Attend First Tier</b>	<b>Inequality in Eligibility</b>	<b>Inequality in Higher Education</b>	<b>Inequality in First Tier</b>
<i>U.S.</i>		87.0	58.0	25.0	1.16	1.29	1.23
<i>Diversified</i>	6	86.3 (9.9)	51.8 (10.0)	24.2 (2.2)	.77 (.29)	.80 (.26)	1.3 (.99)
<b>Total</b>	14	62.8 (26.0)	39.1 (14.2)	19.0 (8.1)	.90 (.43)	.88 (.28)	1.4 (1.01)

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<b>Mode of Differentiation</b>	<b>n</b>	<b>Percent Eligible</b>	<b>Percent Attend</b>	<b>Percent Attend First Tier</b>	<b>Inequality in Eligibility</b>	<b>Inequality in Higher Education</b>	<b>Inequality in First Tier</b>
U.K.		31.1	21.1	14.9	1.08	.95	1.15
<i>Binary</i>	6	42.3 (18.2)	30.7 (7.6)	12.2 (5.0)	1.0 (.49)	0.99 (.30)	1.6 (1.21)
Total	14	62.8 (26.0)	39.1 (14.2)	19.0 (8.1)	.90 (.43)	.88 (.28)	1.4 (1.01)

		(1)	(2)	(3)	(4)	(5)	(6)
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## Results:

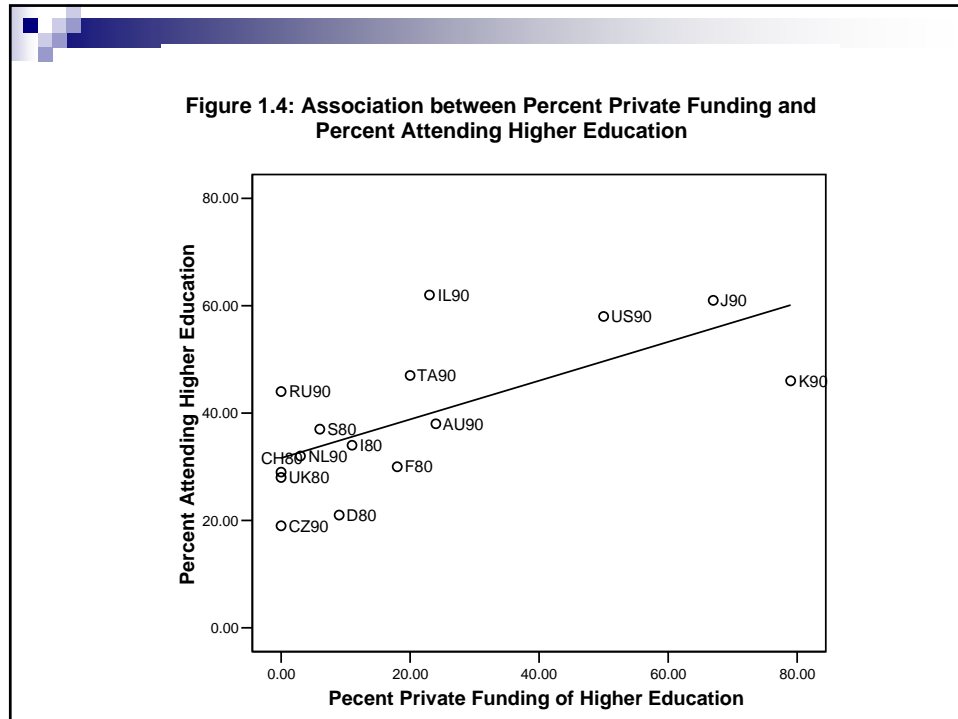
### Expansion and Differentiation

- Eligibility rates vary by mode of differentiation
- Proposition 2 is supported: Differentiation and expansion are related
- Proposition 3 is largely refuted: Differentiation does not necessarily lead to diversion

## Results:

### Expansion and Market Structure

- Countries with larger private sectors have higher levels of enrollment
  - Consistent with Proposition 4



## Results:

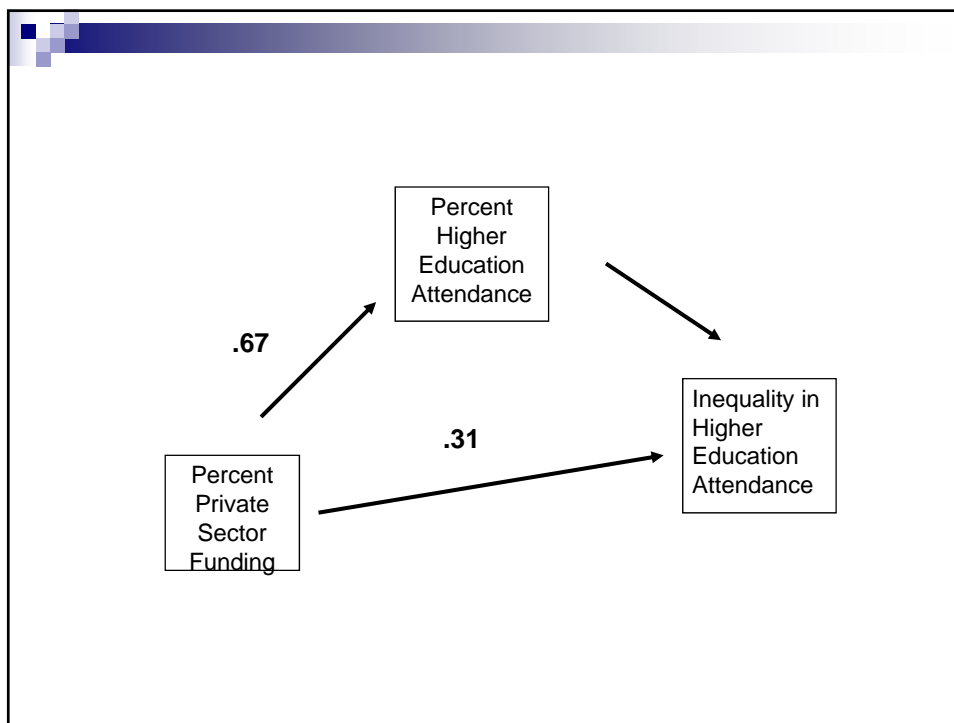
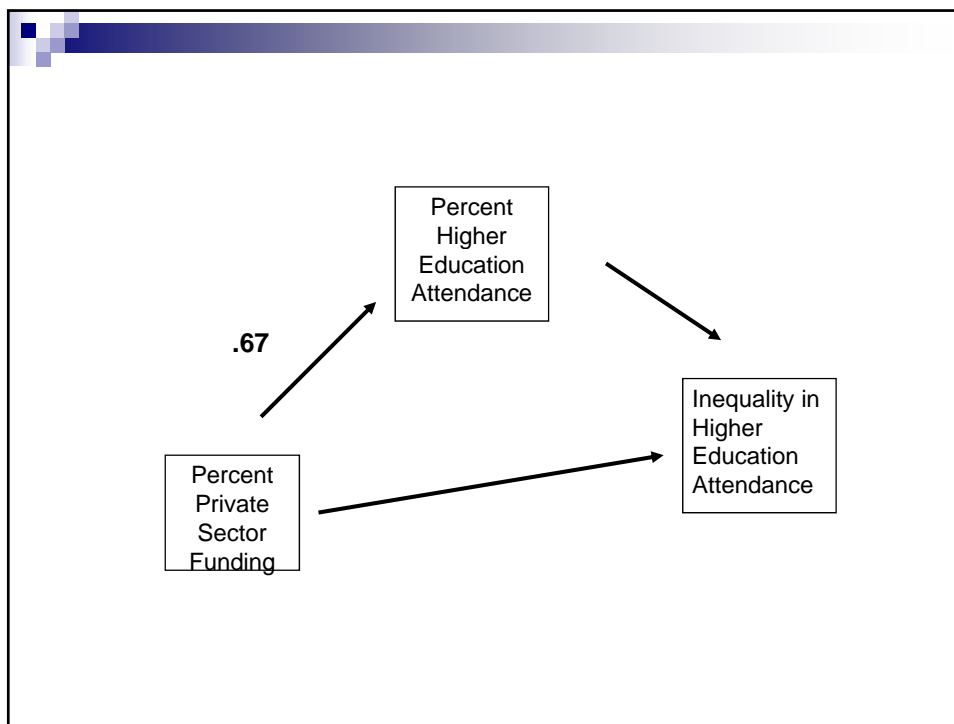
### Expansion and Market Structure

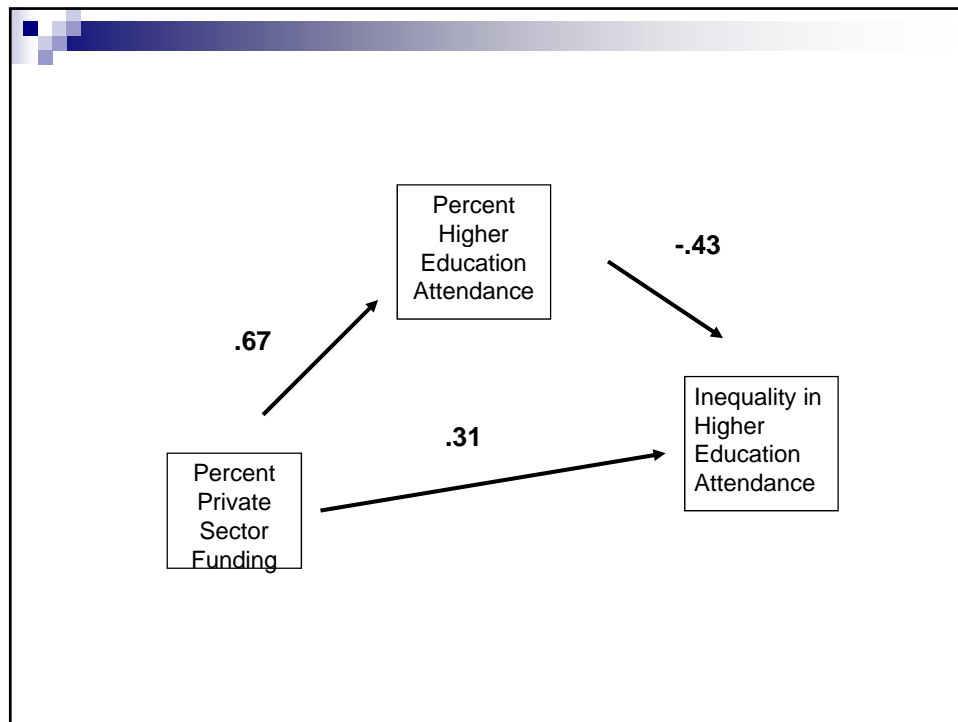
- Market structure is also related to differentiation
  - More privatized systems tend to be more differentiated
  - Consistent with Proposition 5

Mode Of Differentiation	Tertiary Education Reliance On Private Sector Funding		
	<i>Low</i>	<i>Moderate</i>	<i>High</i>
<i>Unified</i>	Italy Czech Republic		
<i>Binary</i>	Germany Russia Switzerland Britain Netherlands	France	
<i>Diversified</i>	Sweden	Israel Taiwan	Japan Korea United States

## Results: Expansion and Market Structure

- How does privatization relate to inequality?
  - Proposition 6: We could not predict the direction of association
  - Zero-order correlation = .03
  - Absence of correlation masks contradictory patterns of association





## Results:

### Expansion and Market Structure

- So the direct effects of privatization are to increase inequality, presumably due to family differences in the ability to pay
- But this is mitigated because privatization also stimulates growth, which is associated with lower levels of inequality

## Summary of Results

- Proposition 1 (MMI): Supported
- Proposition 2 (Expansion and differentiation): Supported
- Proposition 3 (Differentiation and diversion): Supported for binary systems but not for diversified systems.

## Summary of Results

- Proposition 4 (Privatization and expansion): Supported
- Proposition 5 (Privatization and differentiation): Supported
- Proposition 6: Privatization and inequality: The relationship is complex



## Summary of Results

- Overall: We find more evidence of inclusion than diversion
  - Expansion leads to declining inequality when saturation is approached
  - Differentiation can be inclusive, without a corresponding increase in inequality
  - Expansion is itself a form of inclusion, even when odds ratios are stable

## Inclusion and “persistent inequality”

- The claim that expansion is inclusive even with stable odds ratios gives a new interpretation to familiar findings
  - Not just “persistent inequality”
  - Other things being equal, expansion should result in greater inequality due to increased heterogeneity
  - In this sense, stable odds ratios are inclusive

## Inclusion and “persistent inequality”

- Empirically, our findings generally mirror those of *Persistent Inequality*
  - Only post-Soviet Russia exhibited increasing inequality
  - Of four cases of declining odds ratios, two may be explained by saturation (Israel and Italy) and two by rapid expansion following consolidation (Taiwan and Japan)
  - These findings post-date *Persistent Inequality*

## Inclusion and “persistent inequality”

- Education is not merely a positional good, whose value depends on relative allocation
- Value also lies in human capital, civic participation
- And in absolute level relative to other countries
- Educational expansion increasingly offers those from disadvantaged backgrounds national and global citizenship

## Key References

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