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The Effects of Non-employment at Labor Market Entry upon Subsequent Employment Instability in Japan

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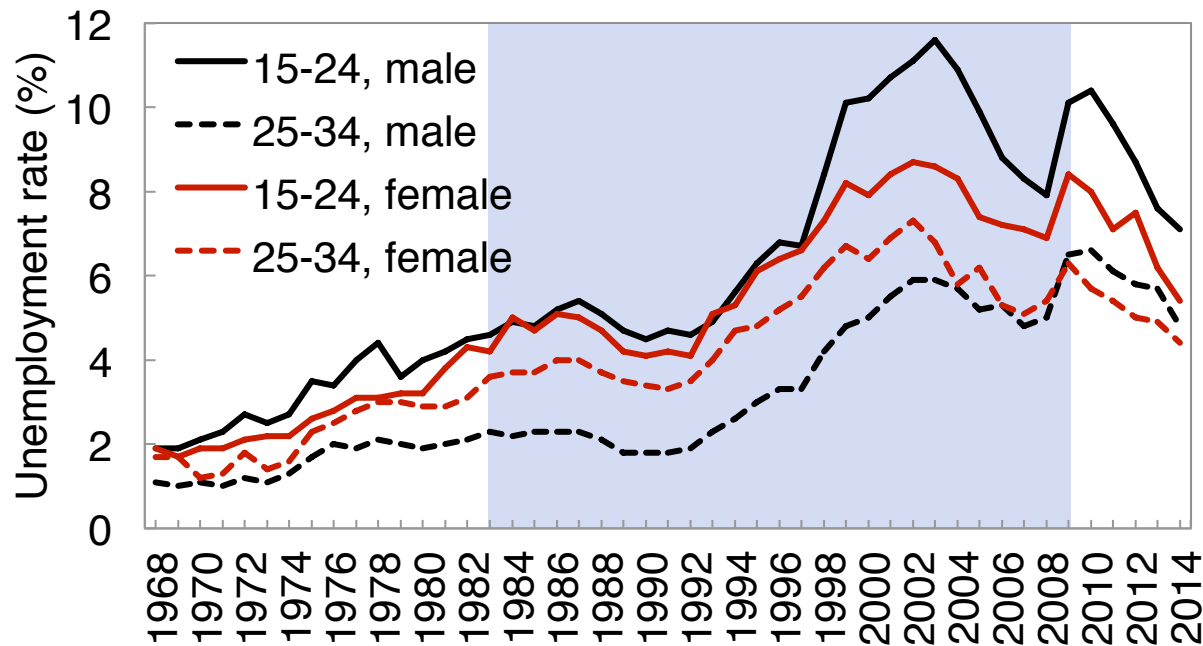
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Youth employment situation in Japan (1)

Japan has been known as the country with low unemployment rate (Ryan 2001). But recently, unemployment rate have been risen.

Figure Youth unemployment rate by gender, 1968-2014



Source: Labor Force Survey
(Statistics Bureau, Ministry of
Internal Affairs and Communications)

Observation window of our study

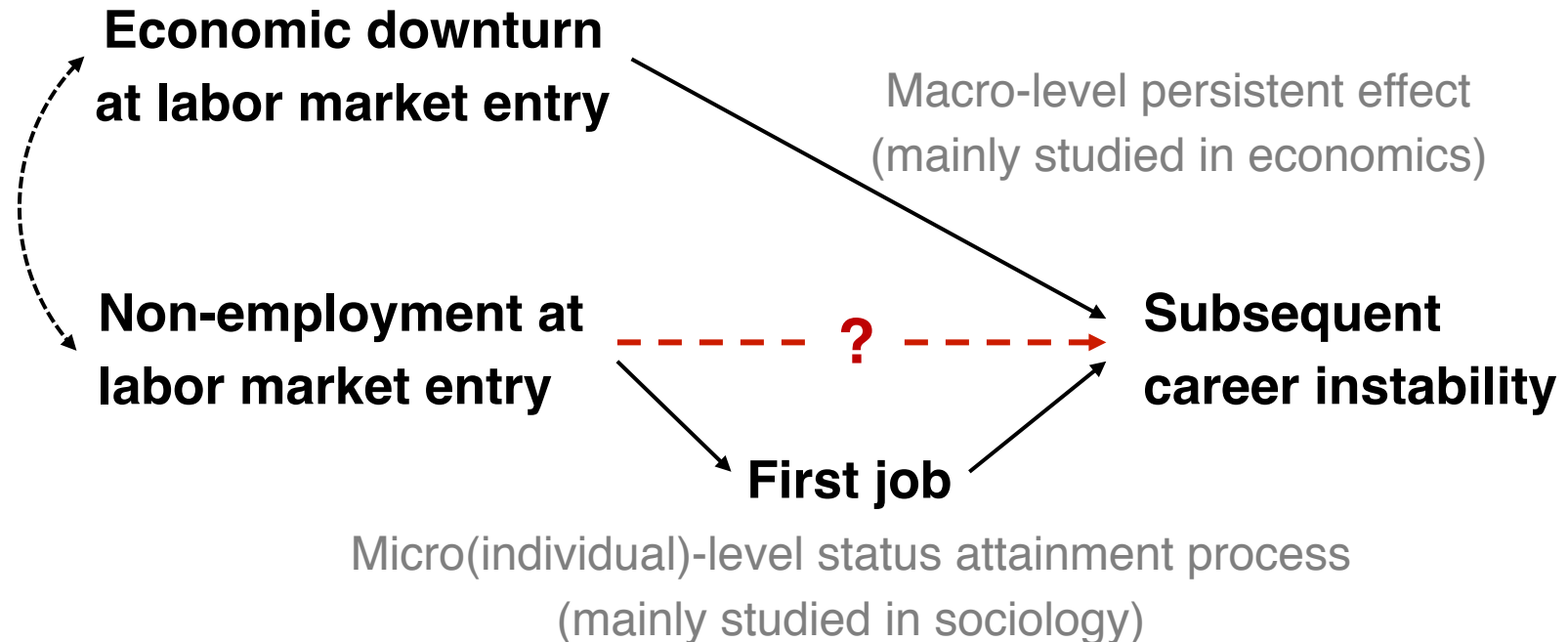
Youth employment situation in Japan (2)

Salient characteristics of Japanese youth transition from education to work:

1. Recruitment system that companies begin to recruit new graduates **before they leave schools** (*shinsotsu-ikkatsu-saiyo*)
2. Transition from education to work **without unemployment or non-employment** (*kandan-naki-ikō*)

But, besides the unique arrangements of transition, those who missed the timing to get job in school would lose the chance to obtain stable job and subsequent employment career.

Previous studies on Effect of non-employment in Japan



Research gap: micro-level relationship between experience of non-employment at entry and subsequent career instability

Research question

How does experience of non-employment at labor market entry affect subsequent employment instability?

- **Static approach**



Non-employment experience at entry $\xrightarrow{+}$ Subsequent probability of non-employment

- **Dynamic approach** using event-history analysis

Non-employment experience at entry $\begin{cases} \xrightarrow{+?} \text{Transition from Employment to non-employment} \\ \xrightarrow{-?} \text{Transition from Non-employment to employment} \end{cases}$

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Scar Effect of Youth Unemployment

Scar effect

Youth unemployment (non-employment) **persistently affects** subsequent career, such as wage, occupational mobility, and the probability of unemployment (Gregg 2001; Gangl 2003; Gregg and Tominey 2005; Mroz and Savage 2006; Steijn et al. 2006; Luijkx and Wolbers 2009).

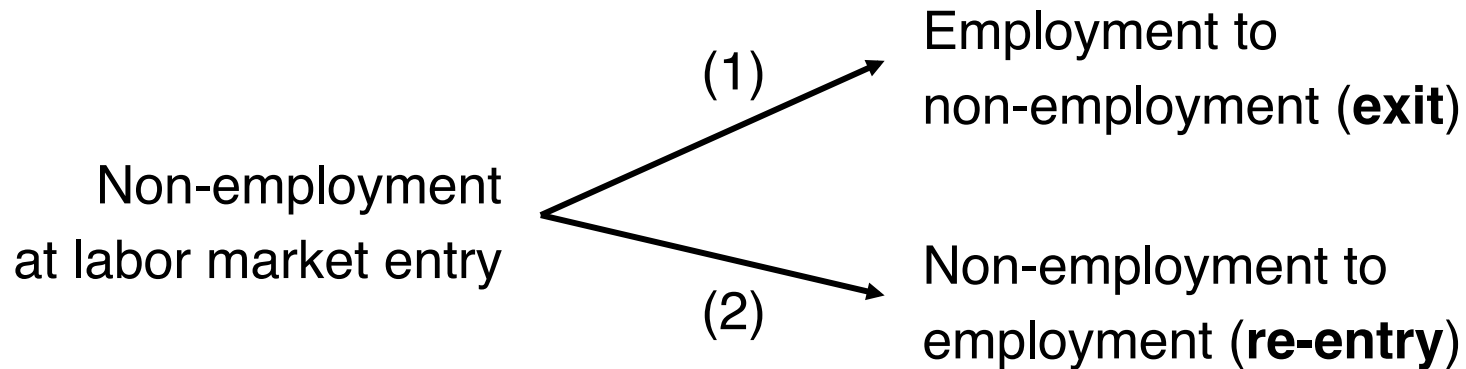
What types of non-employment affect subsequent career?

- In Europe and the U.S: **Duration** of non-employment
- In Japan: **Occurrence** of non-employment

Whether job applicants experience non-employment or not is crucially important to get stable employment at first job (Fong and Tsutsui 2015).

Hypotheses

Which does non-employment experience affect transition between employment and non-employment?



Hypothesis	(1)	(2)
1. Work motivation hypothesis	+	-
2. Segmented labor market hypothesis	+	None
3. Stigma hypothesis	None	-

Mediating or direct effect?

Does non-employment at labor market entry directly affect subsequent career instability, or indirectly?

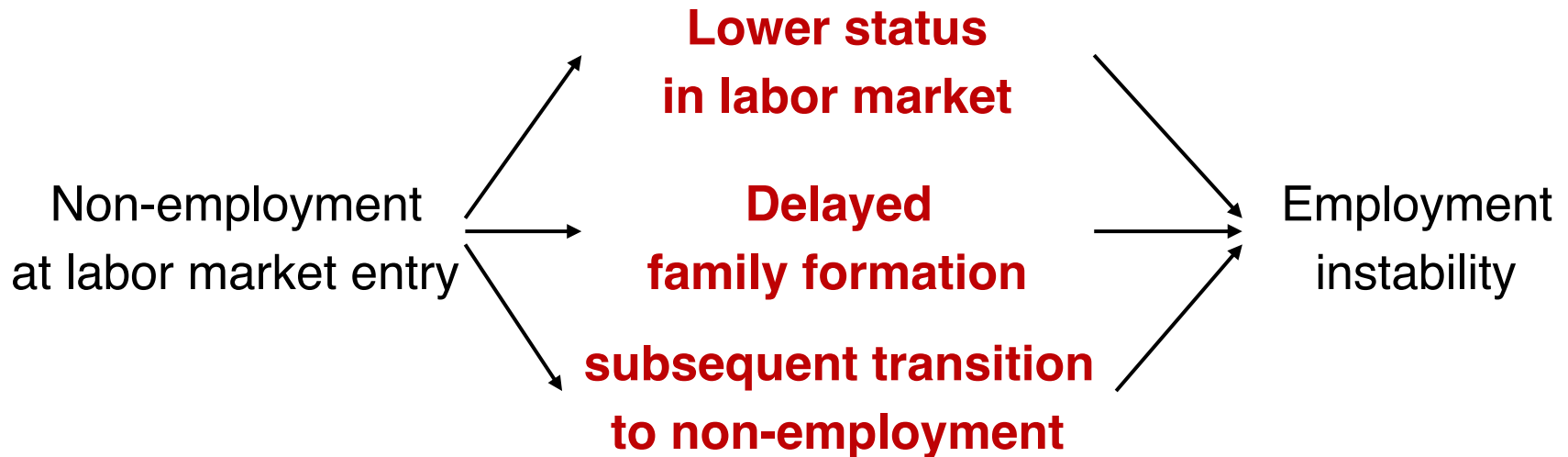


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Data

Data

- **The Japanese General Social Survey 2009 Life Course Study (JGSS-2009LCS)**
- Sampling: Two-stage stratified random sample of 6000 persons ranging in age from 28 to 42 (born in 1966 to 80), 2727 persons were completed, response rate is 51.1 per cent.

Sample

- **Person-month files during 15 years** (180 months) **since entry into first jobs** after leaving education.
- Data are constructed from retrospective information on employment, family, and education history.

Variables

Dependent variables

- **Exit** from employment at time t to non-employment at time $t+1$
- **Re-entry** from non-employment at time t to employment at time $t+1$
 - and to regular or non-regular employment at time $t+1$.

Independent variables

- **Experience of non-employment at entry** from school into first job: those who have 1 or more months between beginning first job and leaving education =1, others = 0.
- And other control variables (macro-economic conditions or cohort, educational attainment, employment status, firm size, occupation, stage in life-course, number of transition, and duration since first job entry).

Empirical models

Discrete-time event history analysis using logistic regression with random-effects

- Model for transition to non-employment, and to employment

$$\log \left(\frac{p_{it}}{1 - p_{it}} \right) = \lambda(t) + \alpha D_i + \mathbf{X}_{it} \boldsymbol{\beta} + u_i, \quad u_i \sim N(0, \sigma_u^2)$$

- Model for transition from non-employment to regular and non-regular employment (multilevel multinomial regression)

$$\log \left(\frac{p_{itj}}{p_{it0}} \right) = \lambda_j(t) + \alpha_j D_i + \mathbf{X}_{it} \boldsymbol{\beta}_j + u_{ij}, \quad j = 1, 2$$

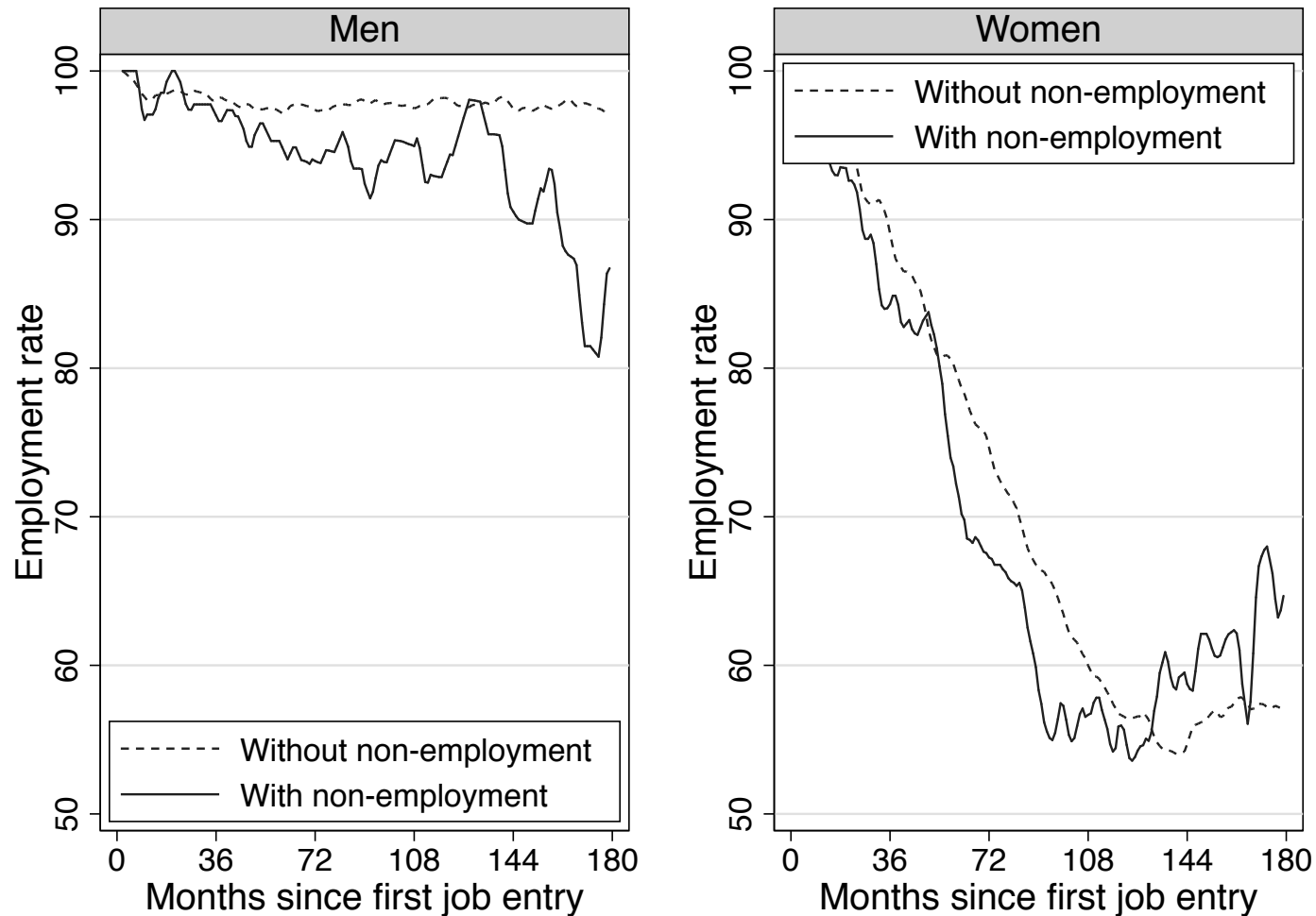
$$\begin{bmatrix} u_{i1} \\ u_{i2} \end{bmatrix} \sim N \left(\begin{bmatrix} 0 \\ 0 \end{bmatrix}, \begin{bmatrix} \sigma_{u_1}^2 & \psi_{u_1 u_2} \\ \psi_{u_1 u_2} & \sigma_{u_2}^2 \end{bmatrix} \right)$$

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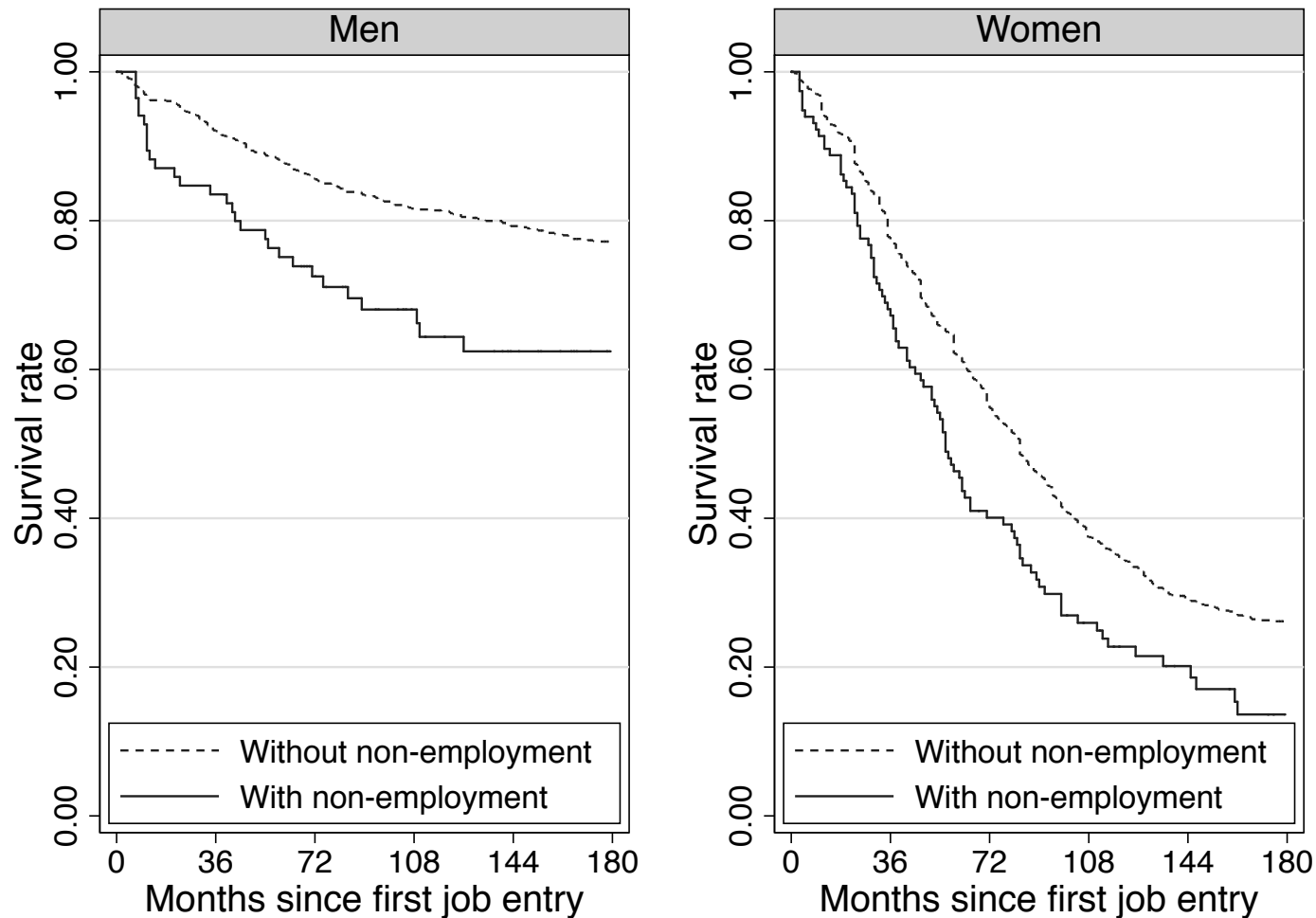
Employment rate

Figure 1 Employment rate by gender and non-employment experience at labor market entry



Exit from employment

Figure 2 Survival functions for first exit from employment, by gender and non-employment experience at labor market entry



Multivariate analyses for exit

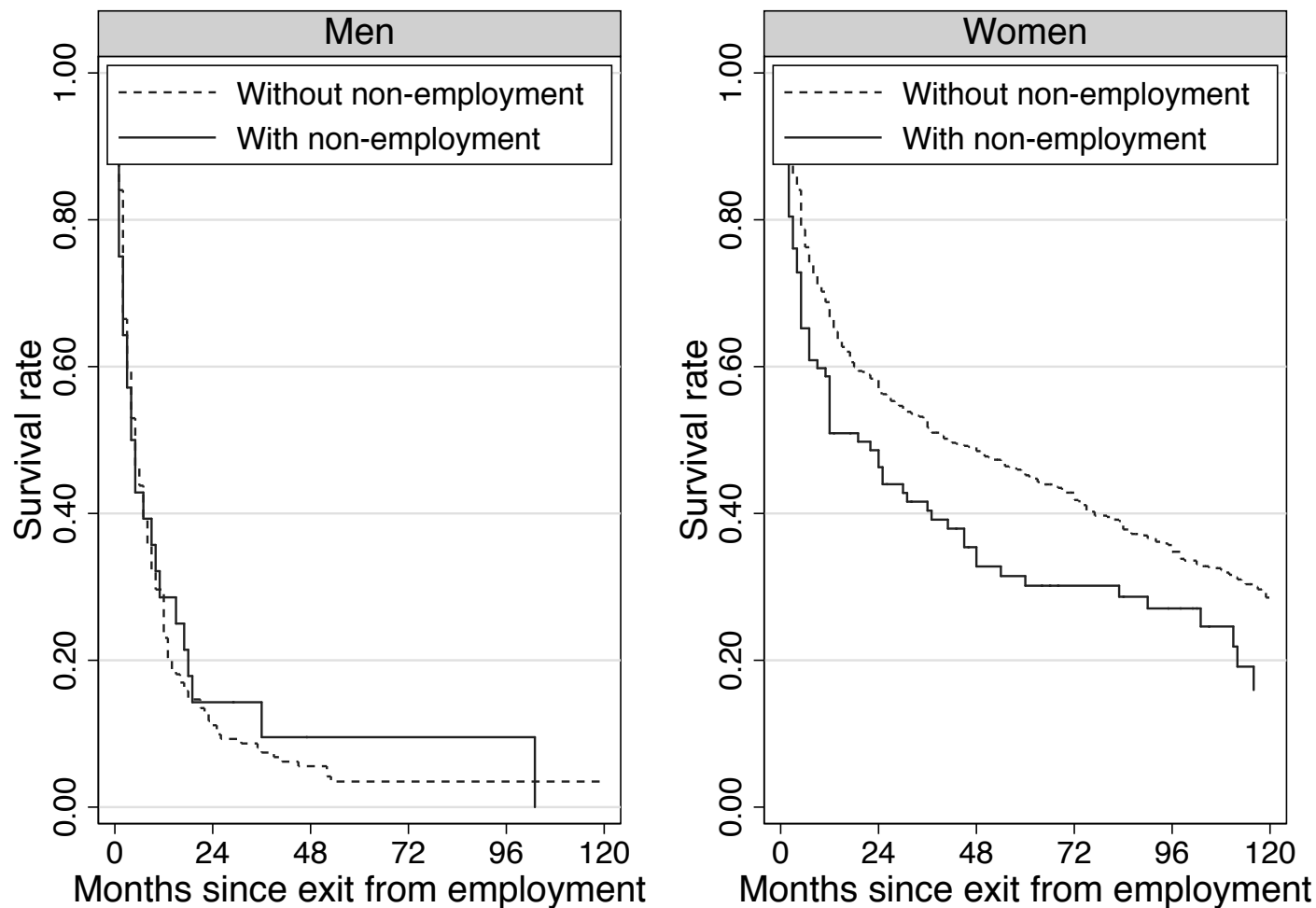
Table 2 Random-effects logistic regression analysis predicting exit from employment (excerpt)

	Men		Women	
	model 1	model 2	model 1	model 2
Non-employment experience	.535*	.392*	.371***	.375**
Other control variables				
Months since entry	Yes	Yes	Yes	Yes
Macro-economic conditions	Yes	Yes	Yes	Yes
Education	Yes	Yes	Yes	Yes
Job characteristics	No	Yes	No	Yes
Stage in life-course	No	Yes	No	Yes
Number of transition	No	Yes	No	Yes

Non-employment experience (directly) increases risk of exit from employment, both for men and women.

Re-entry into employment

Figure 3 Survival functions for first re-entry into employment by gender and non-employment experience at labor market entry



Multivariate analyses for re-entry

Table 3 Random-effects logistic regression analysis predicting re-entry into employment (excerpt)

	Men		Women	
	model 1	model 2	model 1	model 2
Non-employment experience	-.027	.033	.361**	.274*
Other control variables				
Months since entry	Yes	Yes	Yes	Yes
Macro-economic conditions	Yes	Yes	Yes	Yes
Education	Yes	Yes	Yes	Yes
Job characteristics	No	Yes	No	Yes
Stage in life-course	No	Yes	No	Yes
Number of transition	No	Yes	No	Yes

Non-employment experience has **no significant** effect on transition into employment for men, and has **positive effect** for women, **contrary to our hypothesis 1 or 3.**

Additional results: Transition to regular or non-regular employment for women

Table 4 Multilevel multinomial logistic regression analysis predicting re-entry into regular and non-regular employment (excerpt)

	Women	
	To regular employment	To non-regular employment
Non-employment experience	.165	.399*
Other control variables		
Months since entry		Yes
Macro-economic conditions		Yes
Education		Yes
Job characteristics		Yes
Stage in life-course		Yes
Number of transition		Yes

Non-employment experience promote re-entry into employment for women, but mainly into **peripheral sector in labor market**.

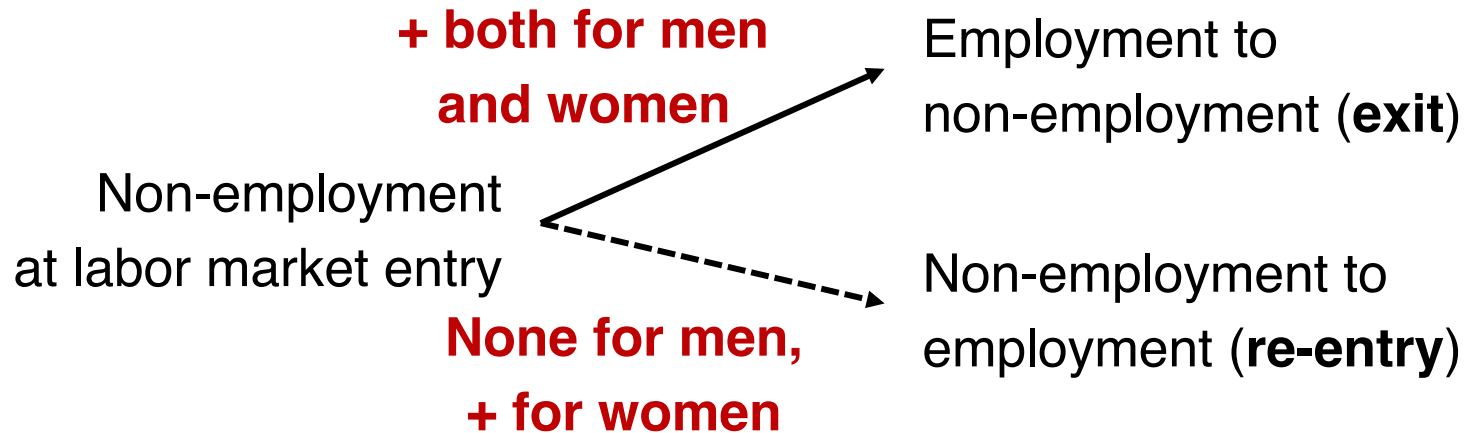
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Summary of findings

Which does non-employment experience affect transition between employment and non-employment?

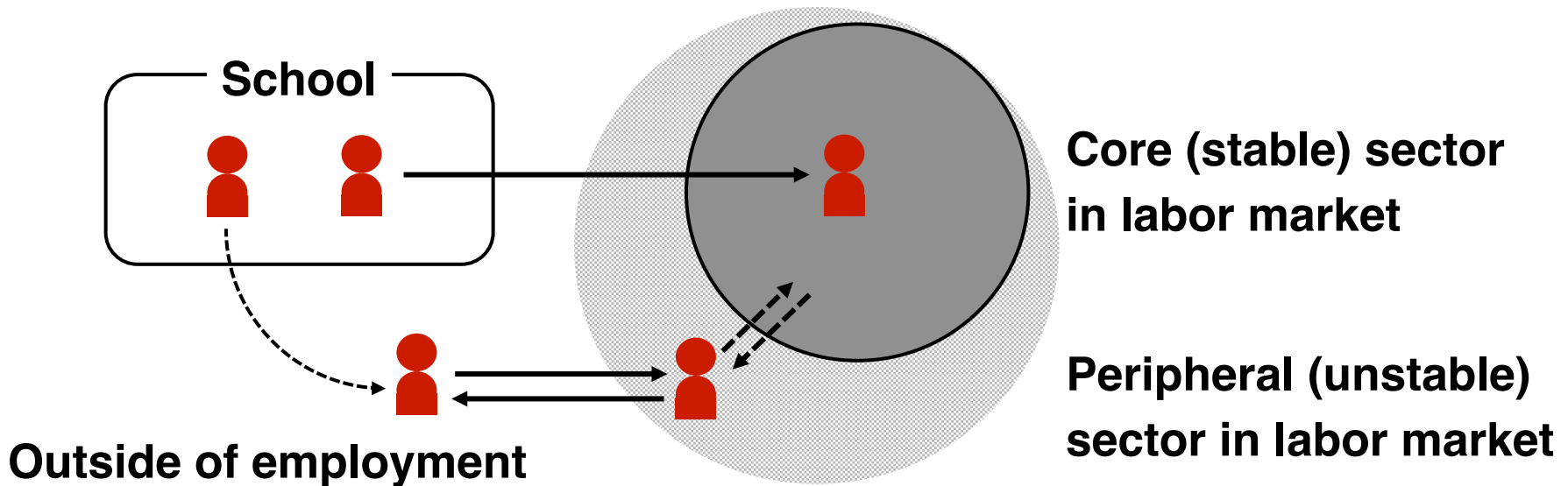


*mainly promote re-entry into non-regular employment

Hypothesis	(1)	(2)
2. Segmented labor market hypothesis	+	None

Youth labor market segmentation in Japan

Port of entry to core sector is opened only at once when students graduate school.



Mobility barrier between peripheral sector and outside is low, but between peripheral and core sector is high.

Future directions

1. Comparative analysis with other countries

Empirical studies in Western countries doesn't show which is crucial duration or occurrence of non-employment and why for subsequent career instability. → Different **labor market** mechanism

2. Heterogeneous effect of non-employment

The effect of economic downturn are stronger for high school graduates than university graduates(Genda, Ohta and Kondo 2010)

How does human, cultural, or social capital from **education and family** affect the relationship between experience of non-employment and subsequent career?