Comparison of Regular and Non-Regular Workers' Economic Activity after Work-Related Injury Absence in Korea

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Introduction

- To find the relationship between economic activity of workers before and after work-related injury absence due to occupational accidents.

- Antecedents and consequences of occupational accidents have been studied for a long time (Christian et al., 2009), but focusing on economic activity after returning from injury absence have not been studied much yet.

Continuing Growth of Non-Regular Workers in Korea

- Korea experienced rapid growth in the non-regular labor force, representing an externalizing trend in employment relations from 2001 to 2014 (26.8% → 32.4%)

<Table 1> Number of regular and non-regualr workers in Korea from 2001-2014 (In thousands)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Workers	13,540	14,030	14,149	14,584	14,968	15,351	15,882	16,104	16,479	17,048	17,510	17,734	18,240	18,776
Regular	9,905 (73.2%)	10,191 (72.6%)	9,542 (67.4%)	9,190 (63%)	9,486 (63.4%)	9,894 (64.5%)	10,180 (64.1%)	10,658 (66.2%)	10,725 (65.1%)	11,362 (66.6%)	11,515 (65.8%)	11,823 (66.7%)	12,295 (67.4%)	12,699 (67.6%)
Non-Regular	3,635 (26.8%)	3,839 (27.4%)	4,606 (32.6%)	5,394 (37%)	5,483 (36.6%)	5,457 (35.5%)	5,703 (35.9%)	5,445 (33.8%)	5,754 (34.9%)	5,685 (33.3%)	5,995 (34.2%)	5,911 (33.3%)	5,946 (32.6%)	6,077 **(32.4%)**

Source: Employment and Labor Statistics of Korea 2014

- Before 1997: Lifetime employment and job security
- Post-1997: Economic problems led vast change in organizations, such as legal change allowing dismissals for employment adjustment and the transference of flexible labor markets.

Continuing Growth of Non-Regular Workers in Korea

- 76.6% of total regular workers choose their regularly job voluntarily, but only 48.8% of non-regular workers choose their contingent job voluntarily (13.3% on daily-workers)

<Table 2> Percentage of voluntary and involuntary workers in different employment status

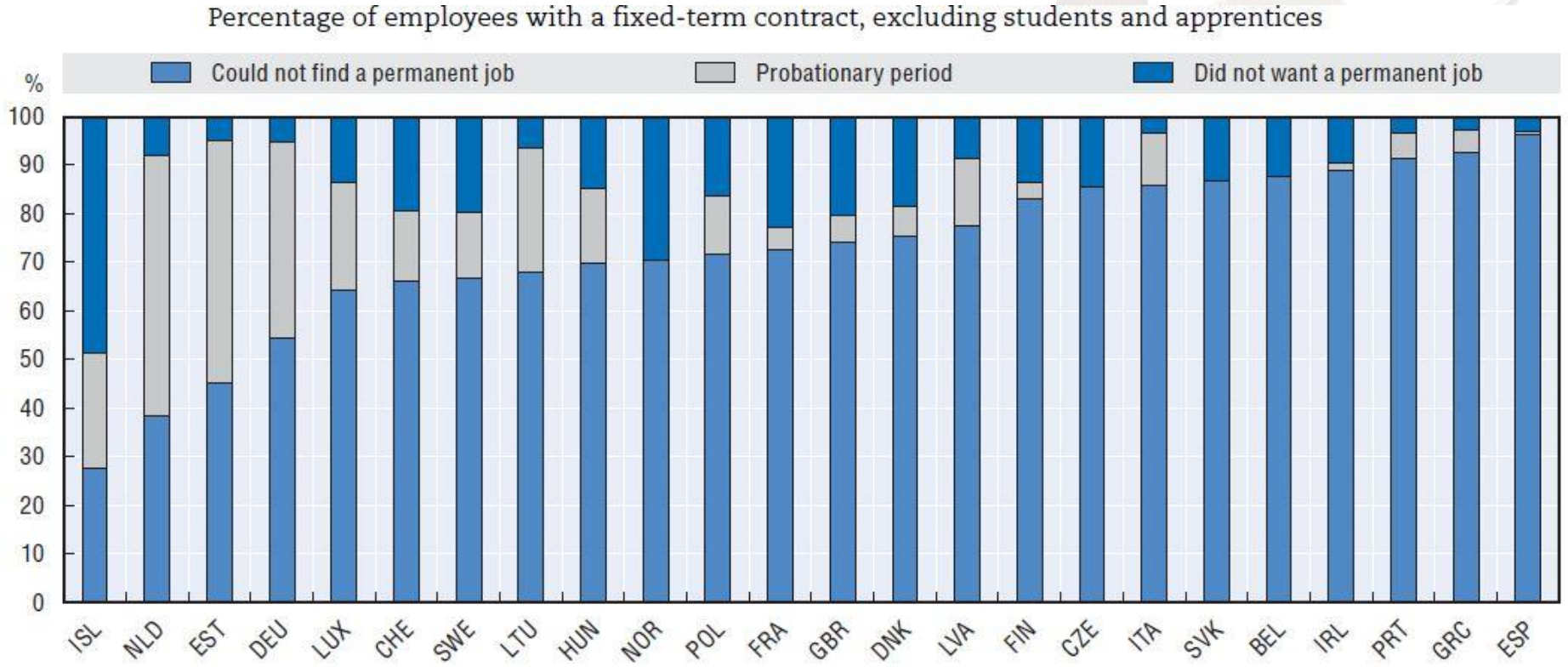
	Wage Earners	Regular Workers	Non-Regular Workers	Temporary Workers	Part-time Workers	Dispatched Workers	Daily Workers
Total (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Voluntary (%)	67.6	76.6	48.8	55.1	44.4	53.3	13.4
Involuntary (%)	32.4	23.4	**51.2**	44.9	55.6	46.7	**86.6**

Source: Economically Active Population Survey of National Statistical Department of Korea 2014
Note: Wage Earner = Economic active population − unemployed − self-employed,
Non-Regular Workers = Temporary + Part-time + Dispatched + Daily workers
Temporary Workers = Contract workers under one year

Continuing Growth of Non-Regular Workers in Korea

- The figure shows that in a large majority of countries, having a fixed-term contract is not a voluntary choice for most employees

  (OECD Employment Outlook, 2014)



Note: Students or apprentices in regular education are excluded.

Source: OECD calculations based on microdata from the European Union Labour Force Survey (EU-LFS).

StatLink http://dx.doi.org/10.1787/888933132602

Stigmatization of Non-Regular Workers
(Temporary Worker, Permanent Loser?)

- The growth of non-regular workforce is not only applied to certain country but also in the most of industrialized countries

- A key difference is employment status, which is due to the hierarchical nature of organizations and the tradition of according privilege by organizational rank (Katz & Kahn, 1978)

- Because the stigma associated with temporary work is derived from a lack of status, the influences on whether an individual contingent work is stigmatized are uniquely linked to status (Boyce et al., 2007).

Hypotheses

- Regular workers, characterized by their life-time employment and job security, are more likely to return to previous workplace.
- Workers who had gone through workers' compensation program are willing to keep their previous job after the return.

> "…return to work goal is addressed in the following order:
> 1. His or her original job;
> 2. Another job with the same employer;
> 3. A job in a related industry or business; or
> 4. A job in another business or industry."
>
> (Workers' Compensation Committee in Ohio, 2007)

- *Hypothesis 1: Regular workers are more likely to return to their original workplace after work discontinuity than non-regular workers.*

Hypotheses

- Non- regular job can be either a “stepping-stone” for some workers or a “trap” for others (Cockx & Picchio, 2012).
- For injured workers who experienced occupational accidents, being a non-regular worker can be a “trap”.
- Because of non-regular workers’ lack of job security, they would experience scarring effects of losing their previous job.

- *Hypothesis 2a: Non-regular workers are more likely to be unemployed after work discontinuity than regular workers.*
- *Hypothesis 2b: Non-regular workers are more likely to be employed to another job after work discontinuity than regular workers.*

Hypotheses

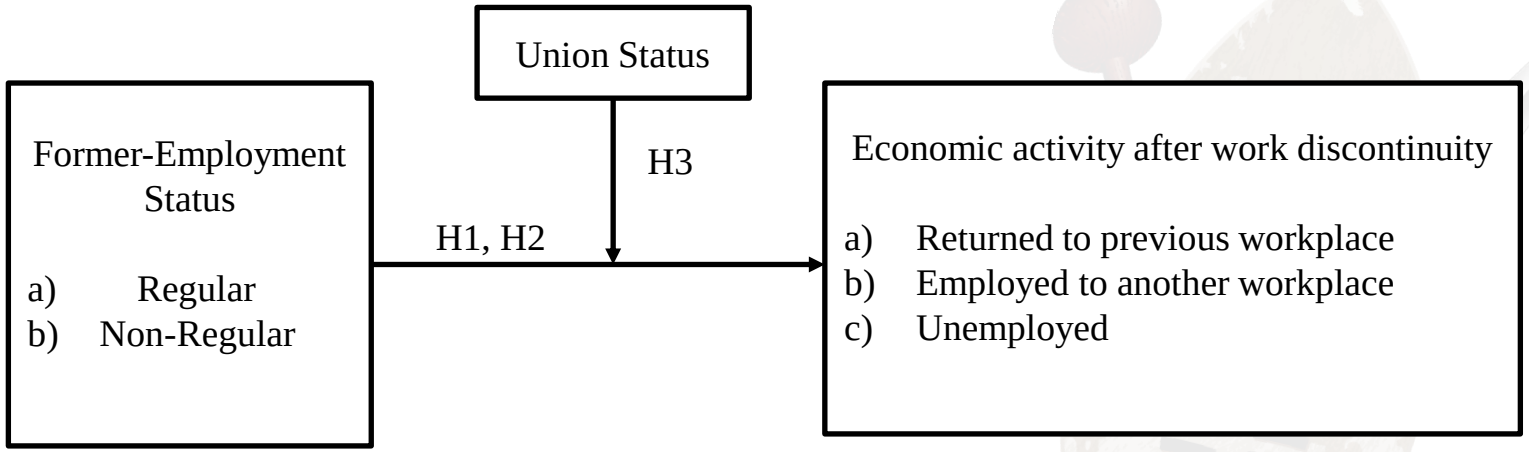
• Union members are more likely to receive workers' compensation benefits (Hirsch, Macpherson & Dumond, 1997)

• Union is able to provide information and support for legal issues, benefits, and job opportunity.

Hypothesis 3: Union status positively moderates the relationship of former-employment status and economic activity after work discontinuity

(Being a union member prevents being unemployed after work discontinuity).

Conceptual Model



Method

- Sample : South Korean Panel Study of Worker's Compensation Insurance (PSWCI) data

- 2,000 workers collected in 2013 by a government institution (Korea Workers' Compensation & Welfare Service) from 2012 to current period.

Employment Status		Frequency		Percent (%)	
Regular		1100		55	
Non-Regular	Temporary	893	268	44.7	13.4
	Daily		625		31.3
Self-employed / Employer		7		0.4	
Total		2000		100	

Variables

• Dependent variable: Workers' economic activity after work discontinuity

- Return to previous workplace (coded as 1), and others (coded as 0).
- Unemployed (coded as 1), and employed (coded as 0).
- Employed to another workplace (coded as 1), and others (coded as 0).

• Independent variable: The previous employment status
- Regular workers (coded as 1), and non-regular workers (coded as 0)

•Control variables: demographics(age, gender, education), org. tenure, absence period, industry, firm size, union

Means, Standard Deviations, and Correlations Table

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11
1. Previous Employment Status	0.55	0.5											
2. Gender	0.84	0.36	-.040										
3. Age	3.45	1.12	-.244**	-.111**									
4. Union Membership	0.07	0.26	.218**	.072**	-.050*								
5. Industry type (Agriculture, Forestry, Fishery, Mining)	0.03	0.17	-.111**	.067**	.070**	-.003							
6. Industry type (Manufacturing)	0.38	0.49	.389**	.013	-.142**	.058**	-.137**						
7. Industry type (Construction)	0.28	0.45	-.533**	.237**	.180**	-.143**	-.109**	-.491**					
8. Industry type (Service)	0.31	0.46	.151**	-.268**	-.052*	.079**	-.116**	-.523**	-.418**				
9. Currently Involved in Economic Activity	0.71	0.46	.166**	.090**	-.144**	.111**	.002	.033	-.077**	.039			
10. Returned to Previous Workplace	0.5	0.5	.432**	-.056*	-.089**	.250**	-.039	.213**	-.337**	.108**	.[a]		
11. Employed to Another Workplace	0.33	0.47	-.238**	.076**	-.001	-.155**	.011	-.149**	.221**	-.063**	.469**	-1.000**	
12. Unemployed	0.31	0.46	-.174**	-.087**	.146**	-.115**	.008	-.035	.076**	-.041	-1.000**	.[a]	-.469**

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

a. Cannot be computed because self-employed and employer variable (7 samples) was eliminated.

Logistic Regression Analysis (H1,H3)

	Returned to Previous Workplace			
	Equation 1(H1)		Equation 2(H3)	
Predictors	**B**	**Exp(B)**	**B**	**Exp(B)**
Previous Employment Status	.935***	2.547	.909***	2.482
Gender	-.055	.947	-.069	.934
Age	.097	1.102	.097	1.101
Union Membership	1.028**	2.795	-.412	.662
Industry type (Agriculture, Forestry, Fishery, Mining)	.140	1.150	.125	1.133
Industry type (Manufacturing)	.149	1.16	.157	1.170
Industry type (Construction)	-.295	.744	-.281	.755
Constant	.098	1.103	.073	1.075
Previous Work Status x Union Membership			1.697+	5.455
-2 Log likelihood	1483.274		1480.625	
Cox & Snell R Square	.282		.283	
Nagelkerke R Square	.376		.378	
Hosmer and Lemeshow Test	.306		.378	

+p<.1
* p<.05
**p<.01
***p< 001

Logistic Regression Analysis (H2)

	Unemployed		Employed to Another Workplace	
	H2a		H2b	
Predictors	**B**	**Exp(B)**	**B**	**Exp(B)**
Previous Employment Status	-.323*	.724	-.462***	.630
Gender	-.630***	.533	.401*	1.494
Age	.111	1.118	-.059	.943
Union Membership	-.644*	.525	-1.019**	.361
Industry type (Agriculture, Forestry, Fishery, Mining)	-.192	.825	-.187	.830
Industry type (Manufacturing)	.253	1.288	-.263	.769
Industry type (Construction)	-.235	.790	.251	1.285
Constant	.874	2.397	-3.244***	.039
-2 Log likelihood	2050.301		2183.589	
Cox & Snell R Square	.151		.127	
Nagelkerke R Square	.213		.176	
Hosmer and Lemeshow Test	.064		.209	

* p<.05
**p<.01

Findings

- Regular workers tend to be engaged in economic activity after work discontinuity than non-regular workers, and regular workers are more likely to be returned to their previous workplaces.

- Female and non-regular workers suffer the most out of all types of employment status.

- Union members benefit from employment security more than non-union members.

- Non-regular workers experience scarring effect from their lack of job security and work status, and work discontinuity from occupational accidents has no exception.

Limitations

- The sample only consists of injured workers after work discontinuity.
- No disabled workers in the sample.
- Measuring worker's individual characteristics.

  (Workers' social network, Effort of getting a job)

  - Future research on self-efficacy or confidence of workers that might influence our result would be very interesting.
- Information asymmetry can also affect workers economic activity after work discontinuity.