

Höstmöte - Framtidens forskning inom arbets- och miljömedicin

Svenska Läkaresällskapetets sektion för arbets-och miljömedicin (ARM)

14 November 2018



Development of demands, decision authority and social support in industries with different gender composition

Sweden, 1991-2013

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Background



- Sickness absence for psychiatric disorders have been increasing in Sweden
 - 2014: most common cause of sick leave
- 1990s in Sweden: NPM (new public management) and economic crisis
 - Deterioration of work environment in the public sector
- Labour market in Sweden is highly gender-segregated: horizontal and vertical segregation
- Psychosocial work factors – mental ill health and sickness absence

Aim



Study whether job demands, decision authority and social support among women and men:

1. have changed over time within industries, based on their gender composition;
2. differ between industries with different gender composition.

Methodology



Study population

- Swedish workers in paid job (>30%), respondents to the Swedish Work Environment Surveys (self-reported)
- Every other year from 1991 to 2013 (12 waves): n=109,698
- Data connected to LISA (Longitudinal integration database for health insurance and labor market studies)

Industry – gender composition



Industry	SNI 2002 category and code	SNI 2007 category and code	Proportion of women in the whole sample
Goods and energy production	<ul style="list-style-type: none"> • Mining and quarrying (C) • Manufacturing (D) • Electricity, gas and water supply (E) 	<ul style="list-style-type: none"> • Mining and quarrying (B) • Manufacturing (C) • Electricity, gas and air conditioning supply (D) • Water supply; sewerage, waste management and remediation activities (E) 	26.51%
Machinery operations	<ul style="list-style-type: none"> • Agriculture, hunting and forestry (A) • Fishing (B) • Construction (F) • Transport, storage and communication (I) 	<ul style="list-style-type: none"> • Agriculture, forestry and fishing (A) • Construction (F) • Transportation and storage (H) 	21.03%
Labor intensive services	<ul style="list-style-type: none"> • Wholesale and retail trade, repair of motor vehicles, motorcycles, personal and household goods (G) • Hotels and restaurants (H) • Other community, social and personal service activities (O) 	<ul style="list-style-type: none"> • Wholesale and retail trade, repair of motor vehicles and motorcycles (G) • Accommodation and food service activities (I) • Arts, entertainment and recreation (R) • Other service activities (S) • Administrative and support service activities (N) 	52.65%
Knowledge intensive services	<ul style="list-style-type: none"> • Financial intermediation (J) • Real estate, renting and business activities (K) 	<ul style="list-style-type: none"> • Information and communication (J) • Financial and insurance activities (K) • Real estate activities (L) • Professional, scientific and technical activities (M) 	45.93%
Public administration	<ul style="list-style-type: none"> • Public administration and defence; compulsory social security (L) 	<ul style="list-style-type: none"> • Public administration and defence; compulsory social security (O) 	53.81%
Education	<ul style="list-style-type: none"> • Education (M) 	<ul style="list-style-type: none"> • Education (P) 	77.30%
Health and social care	<ul style="list-style-type: none"> • Health and social work (N) 	<ul style="list-style-type: none"> • Human health and social work activities (Q) 	86.85%

Data analysis



Study whether job demands, decision authority and social support among women and men:

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Data analysis



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Proportions over time (1991-2013)

**Chi2, $p < 0.05$
1991-2007; 2009-2013**

2. differ between industries with different gender composition.

Data analysis



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1. have changed over time within industries, based on their composition

Proportions over time (1991-2013)

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Average Marginal Effects (AME)

**1991-1993-1995
2009-2011-2013**

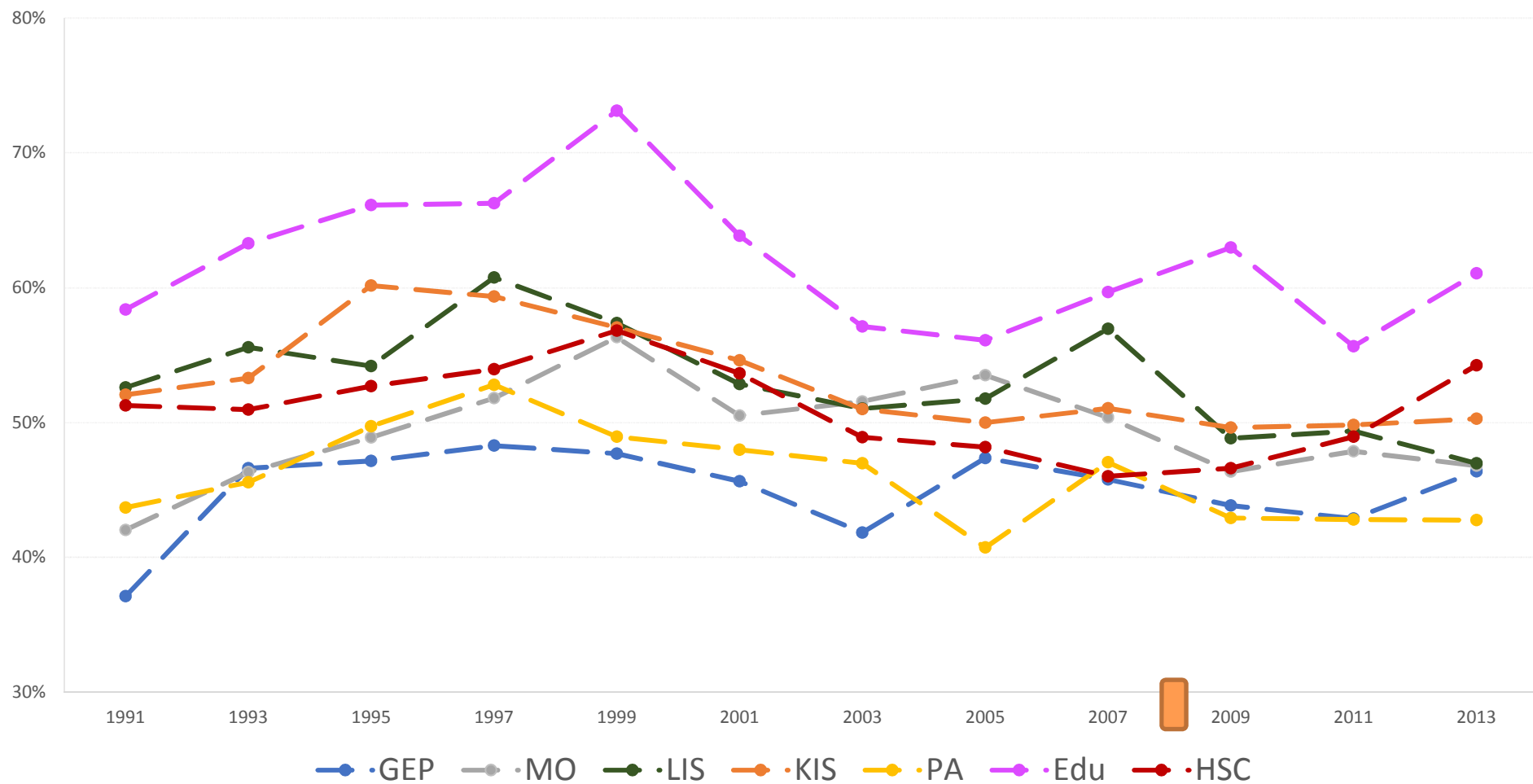
**Controlling for age, highest degree
of education and year of SWES**

High job demands

Composite variable, includes work overload, stressful work, concentration and quantity of work



Proportion of men with high demands

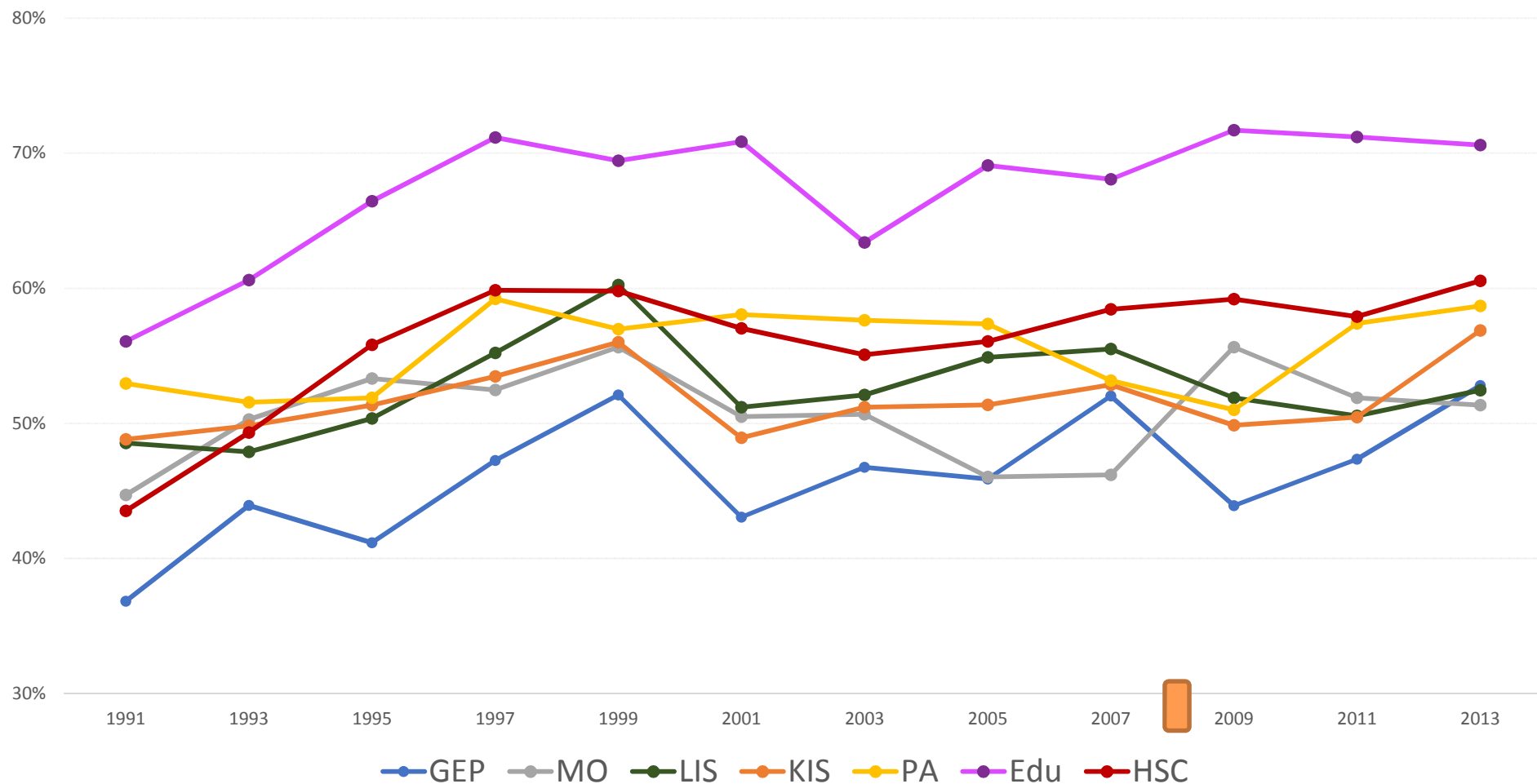


High job demands

Composite variable, includes work overload, stressful work, concentration and quantity of work



Proportion of women with high demands



High job demands

Composite variable, includes work overload, stressful work, concentration and quantity of work



	Men				Women			
	1991 - 1993 - 1995		2009 - 2011 - 2013		1991 - 1993 - 1995		2009 - 2011 - 2013	
	AME	95% CI	AME	95% CI	AME	95% CI	AME	95% CI
High demands								
Knowledge intensive services	0.00		0.00		0.00		0.00	
Education	0.02	-0.02' 0.06	0.08	0.03' 0.13	0.05	0.02' 0.08	0.17	0.13' 0.20
Health and social care	-0.05	-0.09' -0.01	0.00	-0.05' 0.05	0.00	-0.03' 0.03	0.07	0.04' 0.11
Labour intensive services	0.04	0.02' 0.07	0.01	-0.03' 0.05	0.01	-0.01' 0.04	0.03	-0.01' 0.06
Public administration	-0.11	-0.14' -0.07	-0.08	-0.12' -0.03	0.00	-0.03' 0.04	0.02	-0.02' 0.07
Goods and energy production	-0.06	-0.08' -0.03	-0.03	-0.07' 0.00	-0.06	-0.10' -0.03	-0.02	-0.07' 0.02
Machinery operations	-0.02	-0.05' 0.00	0.01	-0.03' 0.04	0.01	-0.02' 0.05	0.04	-0.01' 0.10

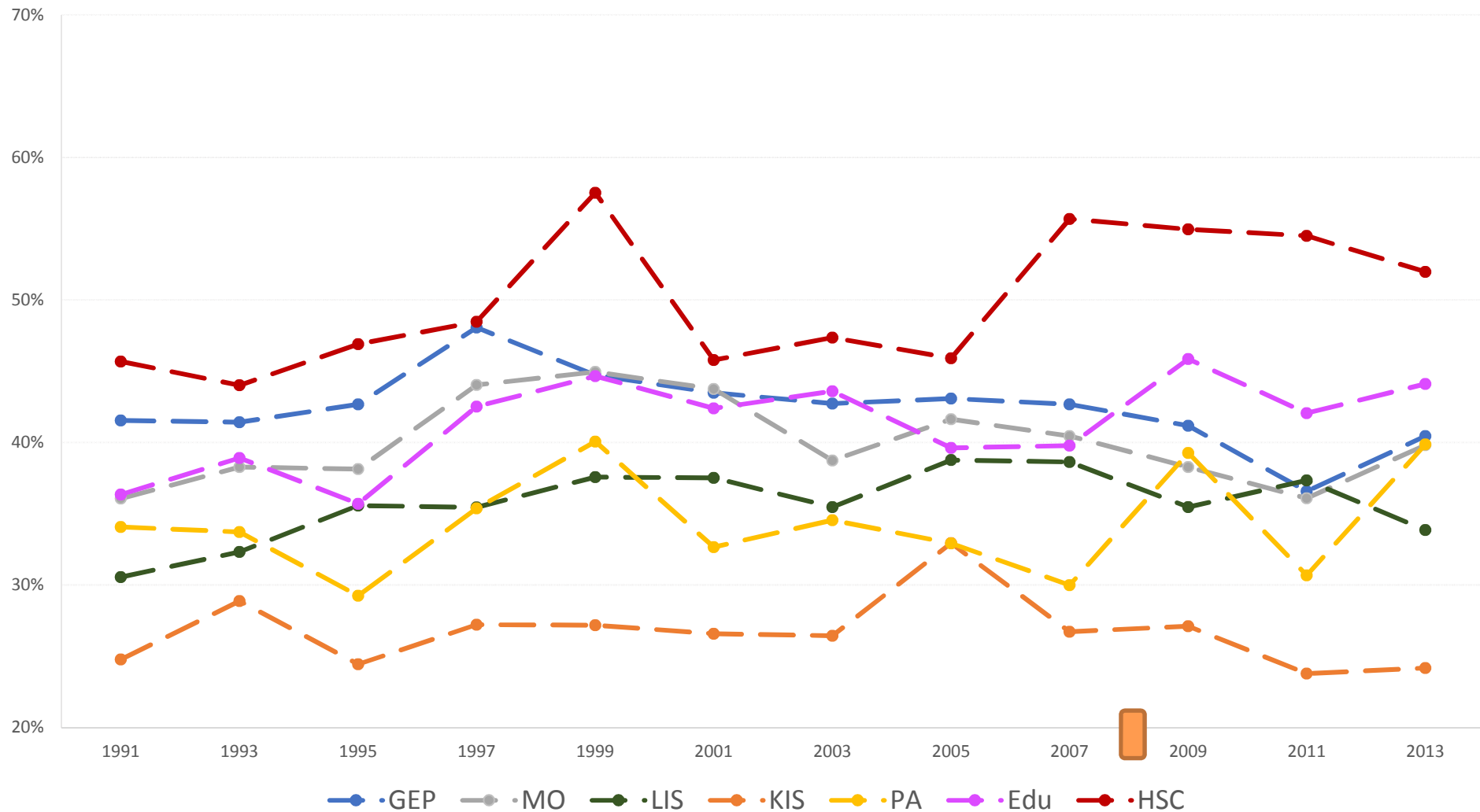
* Adjusted for age, education and year of SWES

Low decision authority

Composite variable, includes work tempo, work pace, influence over work planning, and influence over work



Proportion of men with low decision authority

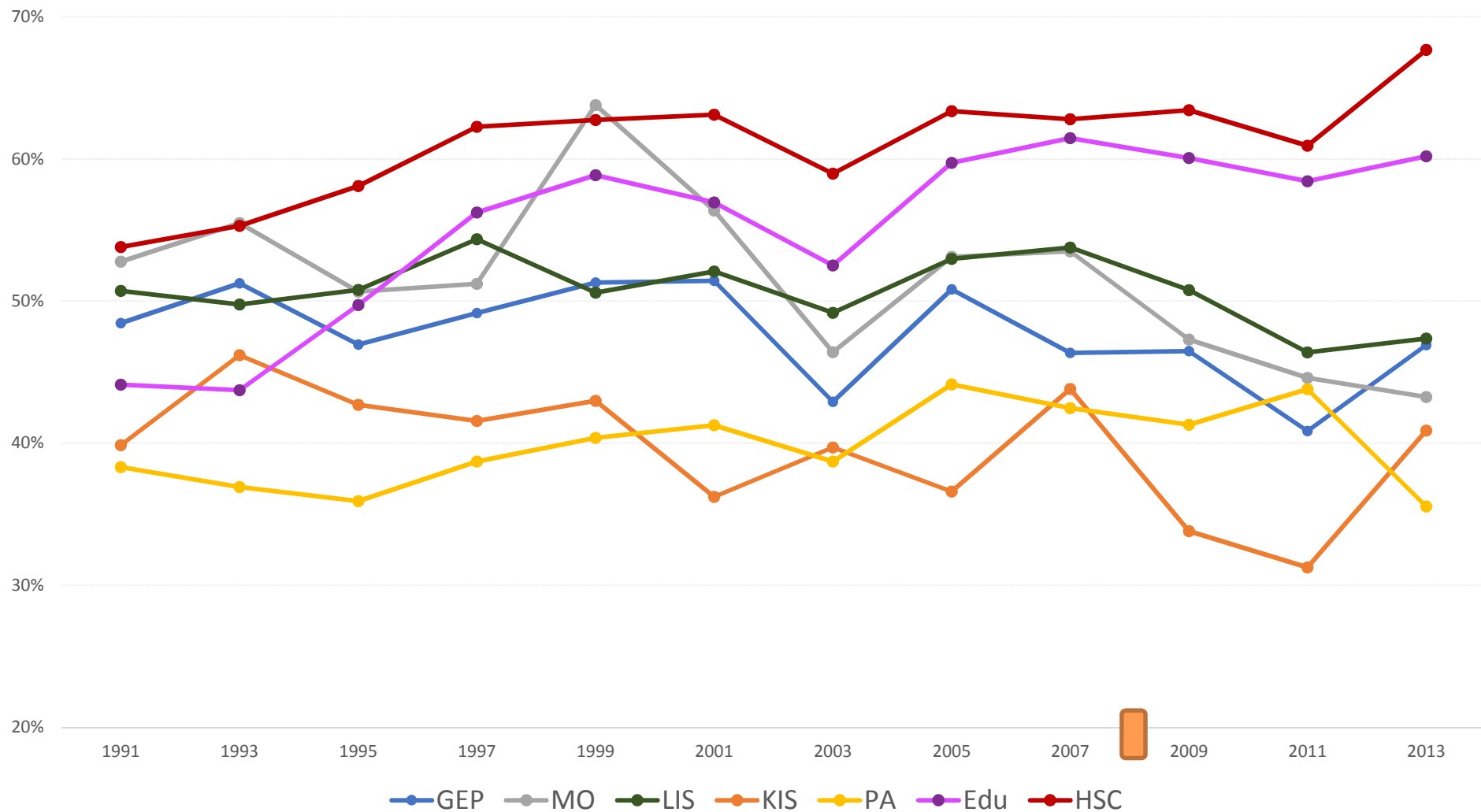


Low decision authority

Composite variable, includes work tempo, work pace, influence over work planning, and influence over work



Proportion of women with low decision authority



Low decision authority

Composite variable, includes work tempo, work pace, influence over work planning, and influence over work



	Men				Women			
	1991 - 1993 - 1995		2009 - 2011 - 2013		1991 - 1993 - 1995		2009 - 2011 - 2013	
	AME	95% CI	AME	95% CI	AME	95% CI	AME	95% CI
Low decision authority								
Knowledge intensive services	0.00	;	0.00		0.00	;	0.00	
Education	0.18	0.13; 0.22	0.24	0.19; 0.28	0.05	0.02; 0.08	0.25	0.20; 0.28
Health and social care	0.21	0.17; 0.26	0.31	0.26; 0.36	0.13	0.10; 0.15	0.27	0.24; 0.30
Labour intensive services	0.03	0.00; 0.06	0.09	0.05; 0.13	0.06	0.03; 0.09	0.11	0.07; 0.14
Public administration	0.10	0.06; 0.14	0.14	0.09; 0.19	-0.05	-0.09; -0.01	0.07	0.03; 0.12
Goods and energy production	0.13	0.10; 0.15	0.13	0.10; 0.17	0.05	0.01; 0.08	0.08	0.03; 0.12
Machinery operations	0.08	0.05; 0.11	0.11	0.07; 0.15	0.09	0.06; 0.13	0.08	0.02; 0.13

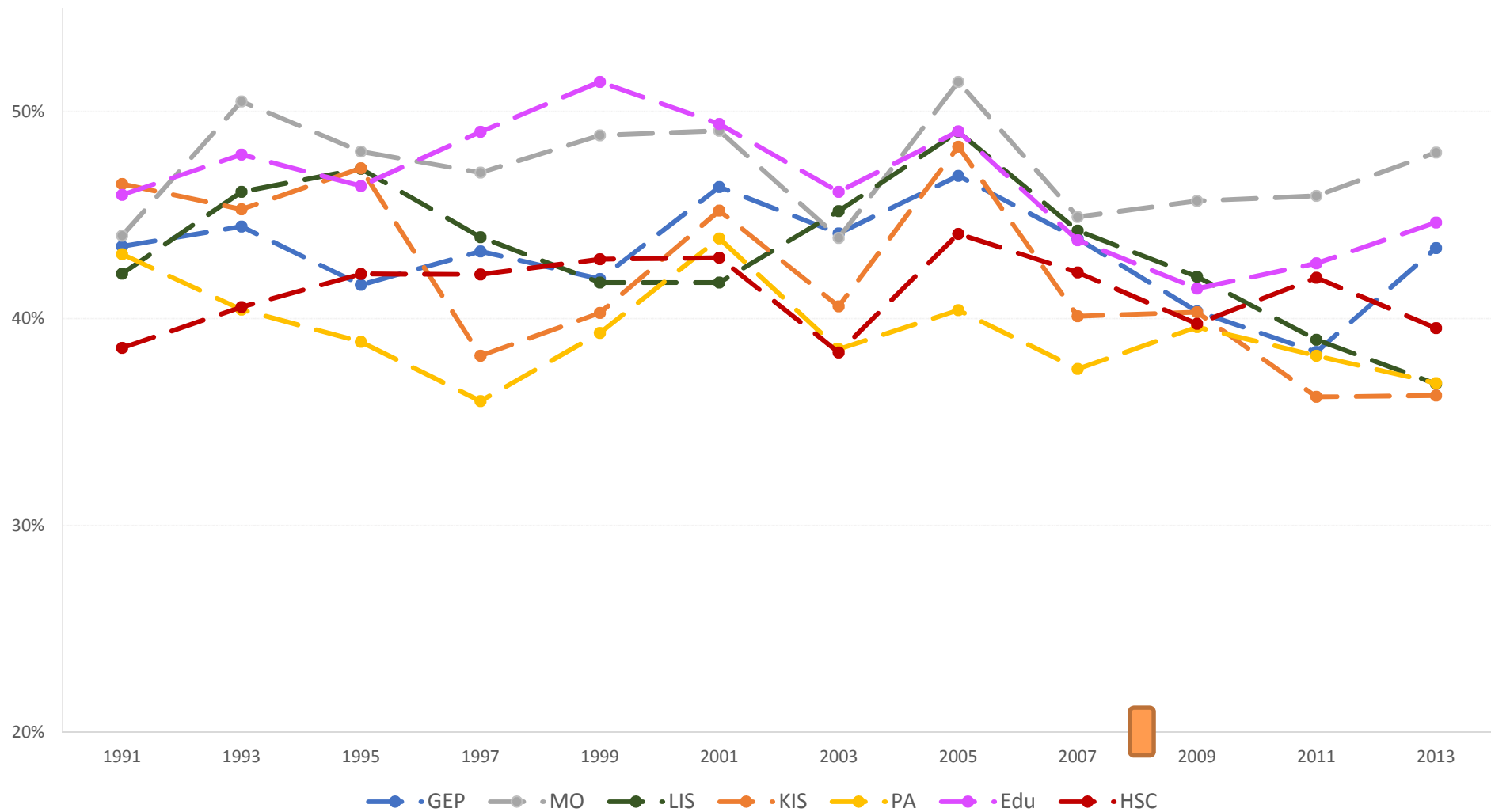
* Adjusted for age, education and year of SWES

Poor social support

Composite variable, includes support by colleagues and superiors



Proportion of men with lack of support

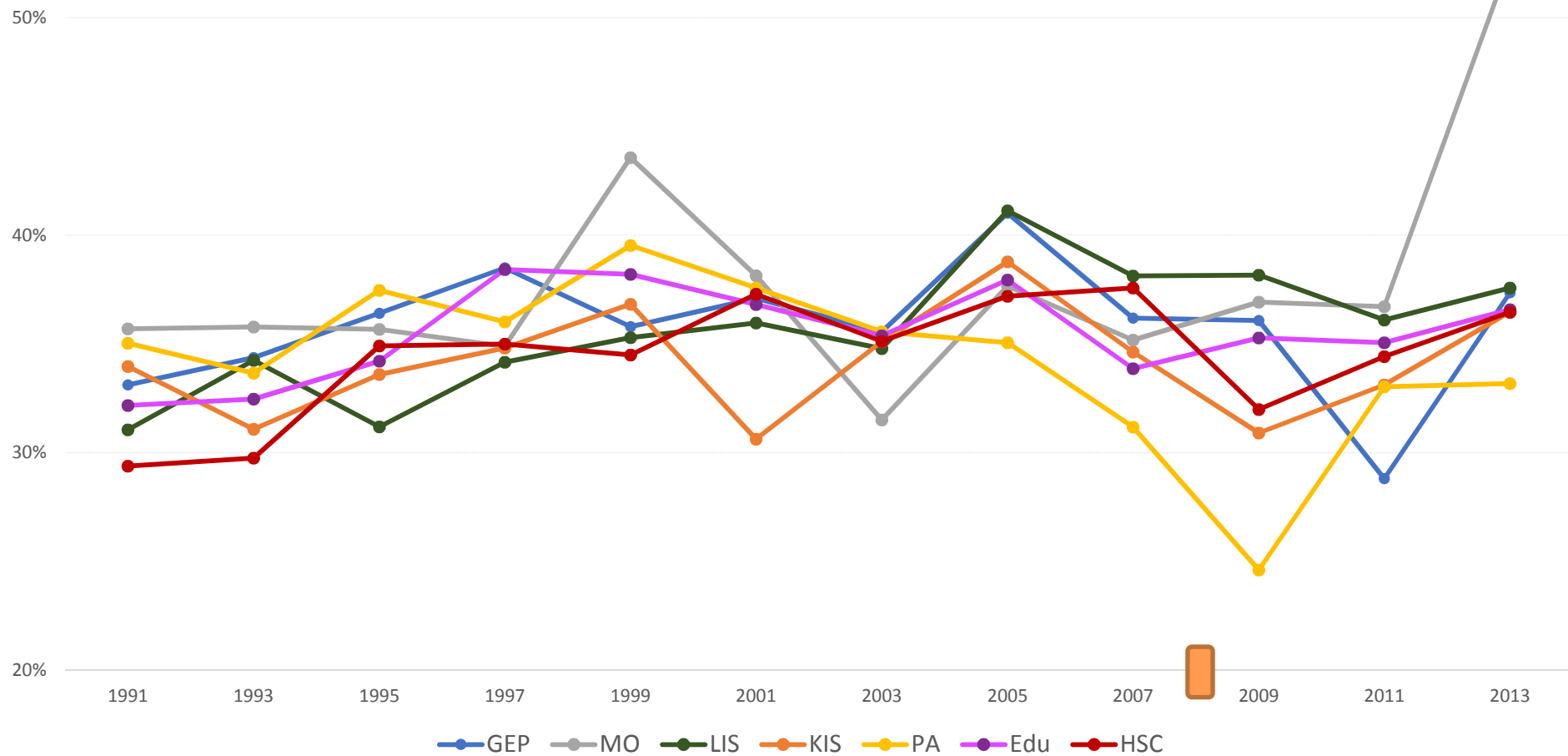


Poor social support

Composite variable, includes support by colleagues and superiors



Proportion of women with lack of support



Poor social support

Composite variable, includes support by colleagues and superiors



	Men				Women			
	1991 - 1993 - 1995		2009 - 2011 - 2013		1991 - 1993 - 1995		2009 - 2011 - 2013	
	AME	95% CI	AME	95% CI	AME	95% CI	AME	95% CI
Lack of support								
Knowledge intensive services	0.00		0.00		0.00		0.00	
Education	-0.01	-0.05' 0.03	0.04	-0.01' 0.09	-0.03	-0.06' 0.00	0.01	-0.03' 0.04
Health and social care	-0.06	-0.10' -0.02	0.02	-0.02' 0.08	-0.01	-0.04' 0.01	0.00	-0.03' 0.04
Labour intensive services	0.00	-0.03' 0.03	0.02	-0.01' 0.06	0.01	-0.02' 0.04	0.05	0.02' 0.09
Public administration	-0.07	-0.10' -0.03	0.00	-0.05' 0.05	0.02	-0.02' 0.05	-0.04	-0.08' 0.00
Goods and energy production	-0.02	-0.05' 0.01	0.02	-0.01' 0.05	0.03	0.00' 0.07	0.00	-0.04' 0.05
Machinery operations	0.02	-0.01' 0.05	0.08	0.04' 0.11	0.04	0.00' 0.08	0.08	0.02' 0.14

* Adjusted for age, education and year of SWES

Summary



- Demands and decision authority: negative development in female dominated industries
- Social support: machinery operations, (women in labour intensive services)



Implications for mental health and sickness absence in female dominated industries?!

Research Team



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Thank you!

Questions?!



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