Always connected: Antecedents and Inhibitors of Techno-Stress among Public Managers

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Public service work is one of the most stressful and demanding professions

ICTs may further increase public demands and administrative workload on public managers

(Tummers et al., 2016)

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Techno-stress:

Stress created by information and communication technology on work processes and productivity

(Brod, 1984; Tarafdar, et al., 2007)

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INPS official hospitalized for stress after comments outcry

(ANSA) - Crotone, April 19 - The head of the Italian pensions and social security agency INPS said Friday that a female official who had prompted a furore by responding impolitely to comments on the agency's Facebook page had been hospitalized due to stress from the incident.

insultare chi vi risponde qui, sempre con gentilezza, può essere diffamazione nei confronti di una Pubblica Amministrazione, quindi cortesemente fate un po' di attenzione e se volete segnalarci problemi o chiedere informazioni aiutateci a svolgere il nostro lavoro correttamente. grazie

What individual and organizational practices related to ICT use increase or decrease techno-stress?

ICT tools and social media are increasingly utilized to complete daily tasks in public organizations.

More than 90 percent of local governments post important information online such as municipal codes, ordinances, council meeting minutes, and online services (Norris & Reddick, 2013)

H1:
Public managers who more often use ICTs will report greater levels of techno-stress.

Boundaries between personal and professional life are more difficult to discern because of ICT pervasiveness.

The pervasiveness of ICTs in an individual's life often results in almost constant "connectivity" through e-mail, the Internet, and the phone. (Tarafdar, Tu, Ragu-Nathan & Ragu-Nathan, 2014)

H2:
Public managers who more often use ICTs for personal purposes while at work will report greater levels of techno-stress

Individuals must manage how much separation work and home responsibilities should have.

New work-life conflicts develop from the possibility to connect to work activities while at home, which leads to incompatible role demands such as allocation of time between professional and personal requests outside working hours. (Greehause & Beutell, 1985)

H3:
Public managers with *more work-life balance* will report lower levels of techno-stress.

Policies establish limits for using ICTs and define online actions and behaviors that are **acceptable.**

Policies can identify best practices to use ICTs, define how and for what purposes employees should use social media, and limit the use of social media in the workplace or during working hours, among others. (Campbell, et al., 2014; Jacobson & Tufts, 2012; Klang & Nolin, 2011)

H4:
Public managers working in organizations with social media policies will report lower levels of techno-stress.

Monitoring means individuals need to be **more careful** in how they use technology, what they post, and with whom they communicate with.

Monitoring includes several activities such as storing and searching employees' emails, checking employees' private social media profiles, recording phone calls, and tracking web activities (Fusi & Feeney, 2017)

H5:

Public managers who are exposed to greater organizational monitoring will report **greater levels of techno-stress.**

Theoretical framework:
Antecedents and inhibitors of techno-stress among public managers
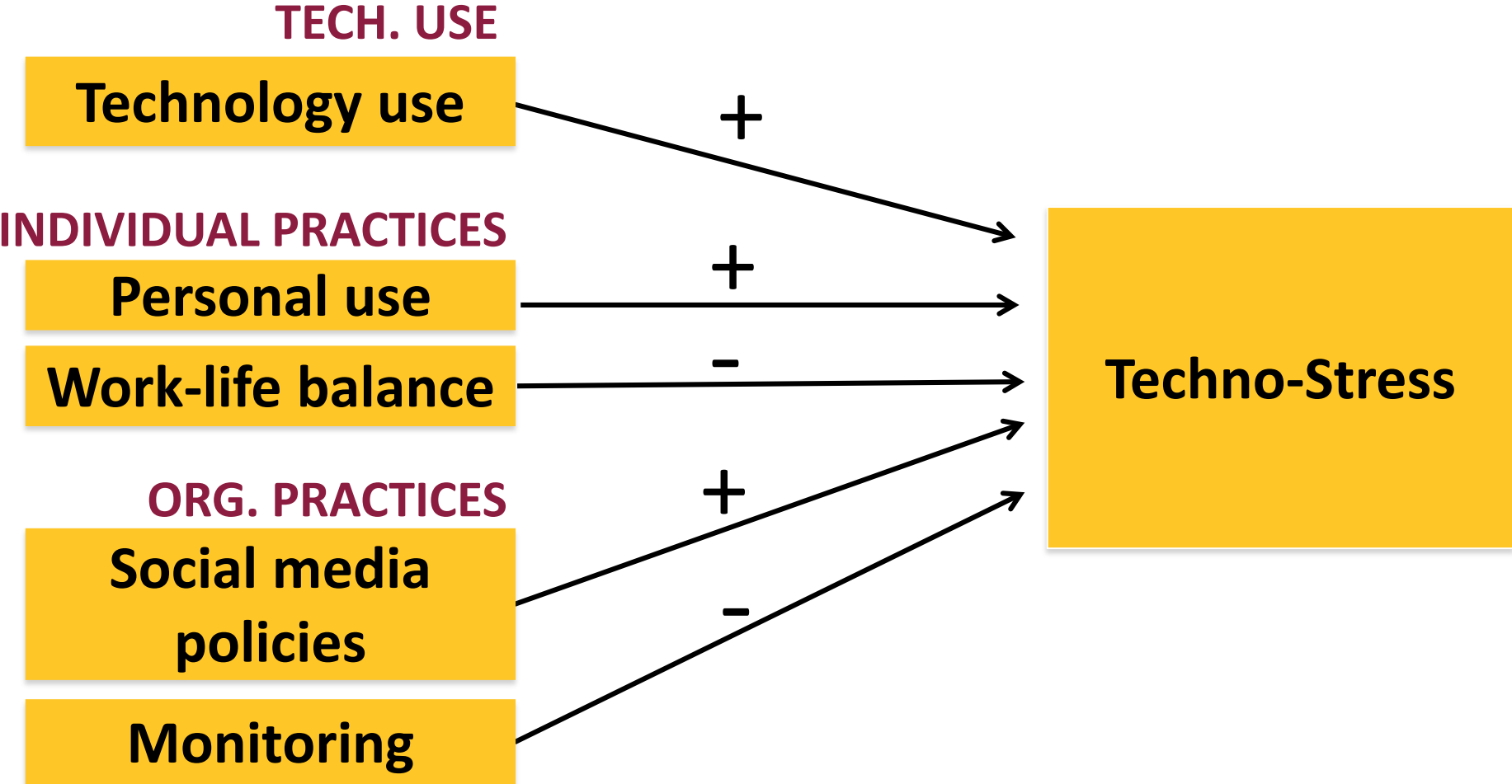
2014 National Study of Technology in Local Governments

Survey of 500 cities with populations ranging from 25,000 to 250,000

Mayor's Office
Community Development
Finance
Parks & Recreation
Police

N = 790
33.07% RR

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DEPENDENT VARIABLE: How much, if at all, have technologies such as the Internet, email, cell phones, and instant messaging...

Techno-Stress (Cronbach's Alpha = 0.79)	1. Increased your work hours 2. Increased stress in your job 3. Made it harder for you to forget about work at home and on the weekends 4. Made it harder for you to focus at work

(1= not at all to 4 = a great deal)

Independent variables

Technology use
(1 = Never, 6 = Daily or almost daily)
(Count variable)

- On average, how frequently do people in your organization use (FB, Twitter, YT, LinkedIn) for work purposes?
- To the best of your knowledge does your organization use (document collaboration, coordination, file sharing and Voice over IP tools?)

Personal use of technology
(1 = less than every few day or never; 5 = several times an hour)

- Check your personal email; (2) Send instant messages to friends and family; (3) Send text messages to friends or family; (4) Communicate with friends or family using social media.

Work-life balance
(1 = strongly disagree, 5 = strongly agree)

- "I am satisfied with the balance achieved between work and life"

Social media policies
(Count variable)

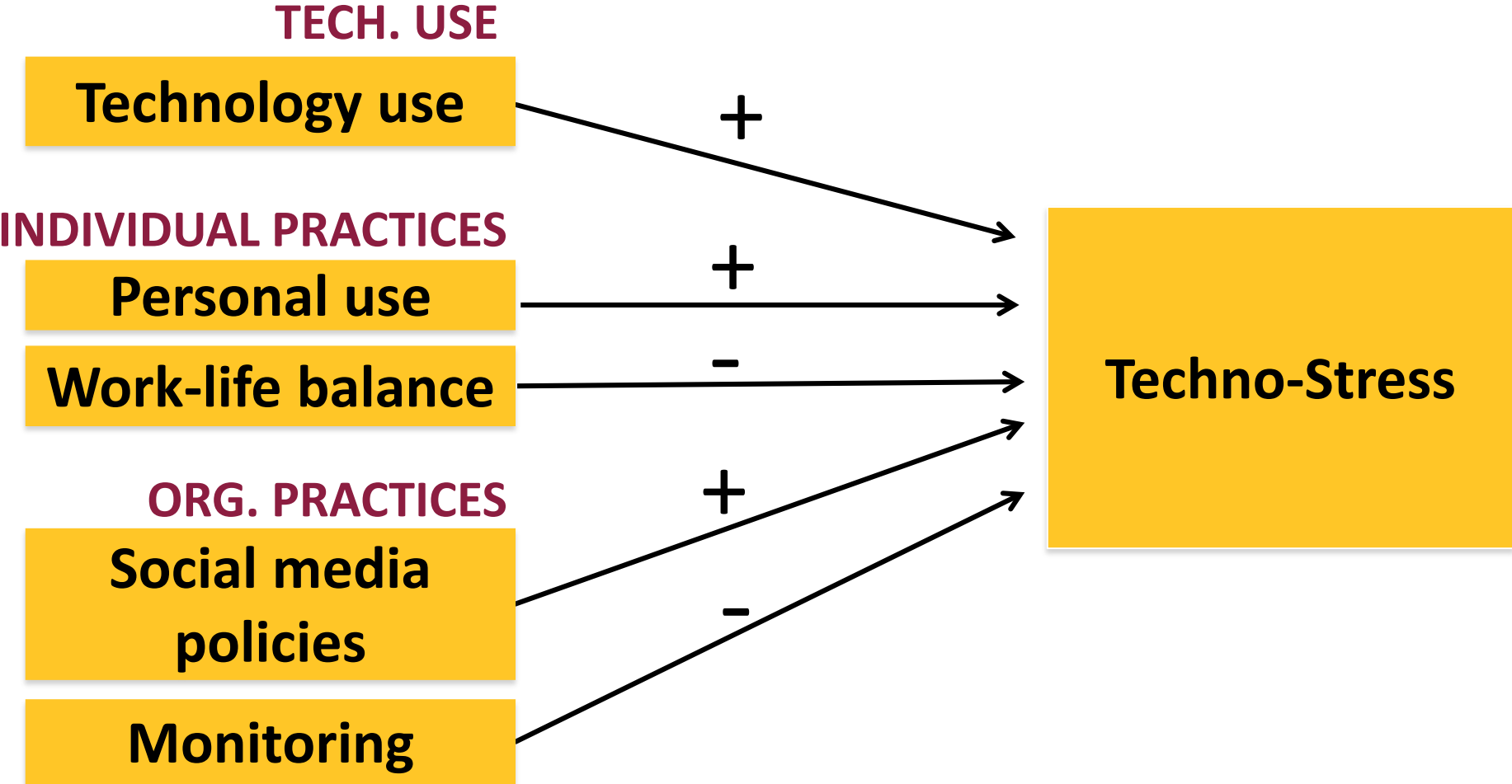- (1) Agency policies; (2) Best practices; (3) Guidance on acceptable use.

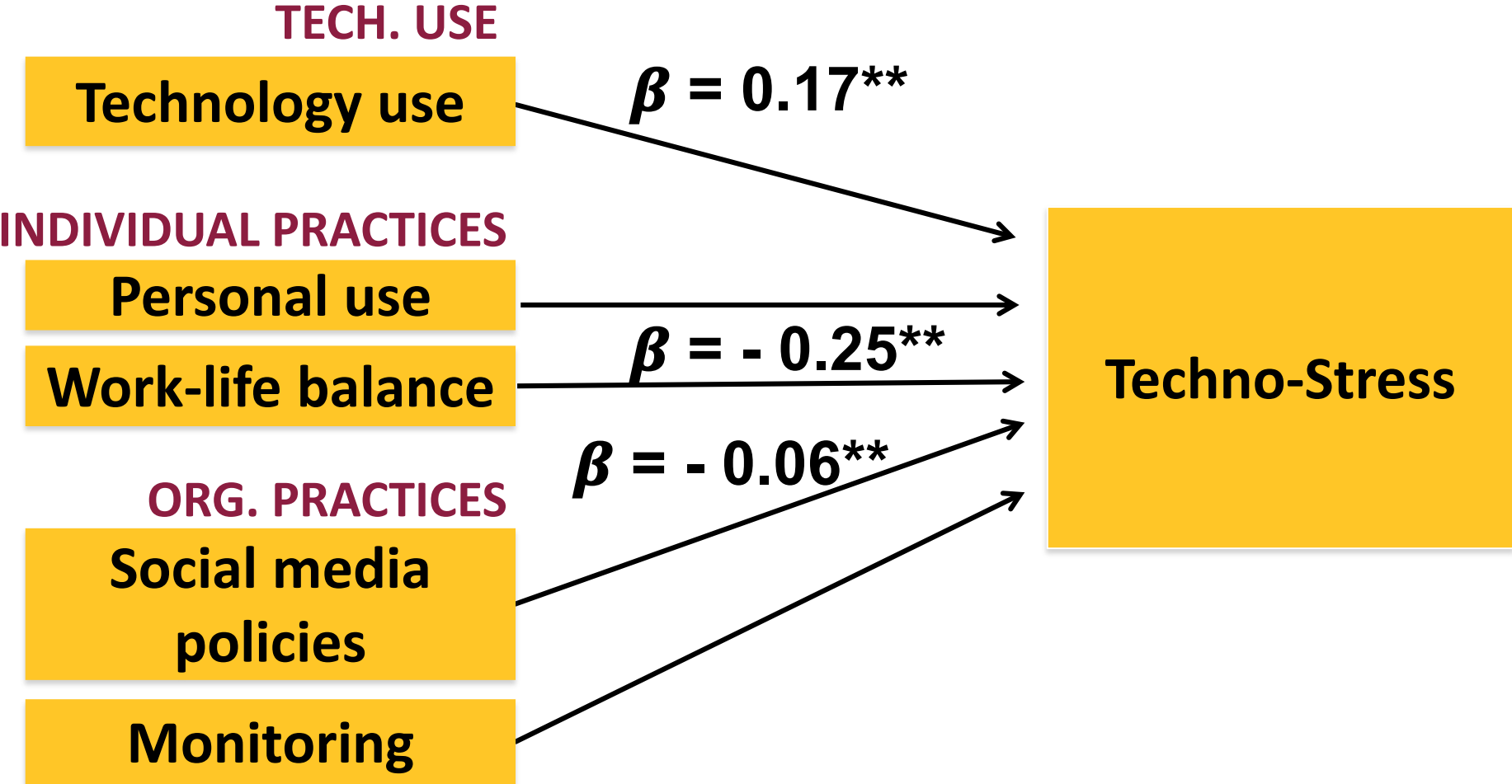**Organizational monitoring**
(Count variable)

- (1) Store and have access to all employees e-mail; (2) Scan employee emails; (3) Listen in on phone calls; (4) Record phone calls; (5) Monitor in the workplace by video camera; (6) Track web sites visited by employees; (7) Block Internet websites and use firewalls; (8) Monitor data transmissions; and (9) Monitor personal social media sites (e.g. Facebook).

Theoretical framework:
Antecedents and inhibitors of techno-stress among public managers

TECH. USE
Technology use

INDIVIDUAL PRACTICES
Personal use
Work-life balance

ORG. PRACTICES
Social media policies
Monitoring

Techno-Stress

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\+
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Theoretical framework:
Antecedents and inhibitors of techno-stress among public managers

TECH. USE

Technology use

$\beta = 0.17$**

INDIVIDUAL PRACTICES

Personal use

Work-life balance

$\beta = -0.25$**

ORG. PRACTICES

$\beta = -0.06$**

Social media policies

Monitoring

Techno-Stress

Conclusion

1. ICTs use for work-related purposes does **impact** public manager's **techno-stress**

2. Opportunity to **focus on organizational practices** to safe guard employees and promote "healthy" ICT use

3. **Monitoring and personal use** have **no effect** on techno-stress: but productivity?

Thank you!

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Statistic	N	Mean	St. Dev.	Min	Max
Techno-Stress	766	2.82	0.77	1	4
Social Media	769	1.43	0.75	1	5
Instant Messaging	767	1.75	1.04	1	5
Email	769	3.64	0.73	1	5
Text	768	2.69	1.01	1	5
Personal Use	769	2.02	0.74	1	5
Professional Use	769	2.73	0.67	1	5
Org. Social Media	710	4.4	1.57	1	7
Work-related tools	729	1.91	1.44	0	4
Monitoring	720	4.2	2.01	0	9
Social media policies	755	1.95	1.09	0	3
Work-life balance	781	3.66	1.03	1	5
Boomers	790	0.58	0.49	0	1
Gen X	790	0.28	0.45	0	1
Silent	790	0.01	0.12	0	1
Millennials	790	0.02	0.14	0	1
Gender	790	0.76	0.43	0	1
Innovation	733	3.1	0.75	1	5
Routineness	727	2.53	0.65	1	5
Centralization	733	2.67	0.65	1	5
Education	731	0.48	0.5	0	1
Supervised employees	725	18.42	55.05	0	775
Form of Government	790	0.27	0.45	0	1
Population	790	11.14	0.66	10.1	12.39
Salary	721	3.99	1.04	1	5

Personal use While you are at work, how often do you…	1) Check your personal email 2) Send instant messages to friends and family 3) Send text messages to friends or family 4) Communicate with friends and family using social media 1 = "less often or never" to 5 = "several times an hour"
Professional use While you are at work, how often do you…	1) Check your work email 2) Send instant messages to work colleagues 3) Send text messages to work colleagues 4) Communicate with your work colleagues using social media 1 = "less often or never" to 5 = "several times an hour"
Work-life balance I am satisfied with the balance achieved between work and life	1 = "Strongly disagree to 5= "Strongly agree"

Org. Social Media On average, how frequently do people in your organization use the following media tools for work purposes?	Facebook / Twitter / YouTube / LinkedIn 1 = Never 2 = Less often than monthly 3 = About monthly 4 = About once per week 5 = Several times a week 6 = Daily or almost daily
Work-related tools To the best of your knowledge does your organization use any of these other technologies for any purpose?	Document collaboration tools (Google docs) / Work coordination tools (Google Calendar, MS Project) / File sharing tools (Dropbox) / Voice over IP (Skype) Scale counts how many tools respondents report that they use

Monitoring Indicates whether or not the organizations does any of the following activities aimed at monitoring…	1) Store and have access to all employees e-mail 2) Scan employee emails 3) Listen in on phone calls 4) Record phone calls 5) Monitor in the workplace by video cameras 6) Track web sites visited by employees 7) Block Internet website and use firewalls 8) Monitor data transmissions 9) Monitor personal social media sites
Social Media Policies Indicate whether their organization provides any of the following to guide social media: "Agency policies", "Best practices", "Guidance on acceptable use"	Summative scale on "Yes" responses

	Model 1		
	Beta	SE	
Intercept	2.23	0.63	***
Independent variables			
Personal Use	-0.07	0.05	
Professional Use	0.17	0.06	**
Org. Social Media	0.02	0.02	
Work-related tools	0.07	0.02	**
Monitoring	0.01	0.02	
Social media policies	-0.06	0.03	*
Work-life balance	-0.25	0.03	***
Gender	0.09	0.07	
Generation X	0.27	0.07	***
Millennials	-0.02	0.17	
Silent	-0.22	0.32	
Control variables			
Centralization	0.16	0.06	**
Innovation	-0.01	0.05	
Routineness	-0.15	0.05	**
Salary	0.10	0.04	**
Education	-0.05	0.07	
Supervised employees	0.00	0.00	
Form of government	0.08	0.08	
Population	0.05	0.05	
N	592		
R-squared	0.19		
P-value: *** < 0.001, ** < 0.01, * < 0.05, + < 0.1			
Reference categories: Boomers, Master, Mayors-Council			
Clustered standard errors by city; Sample design weights			