

EXPOLIS-INDEX

“Time-microenvironment-activity patterns across Europe: How homogenous is the European adult urban population?”



by Christian Schweizer¹ on behalf of the EXPOLIS-INDEX team

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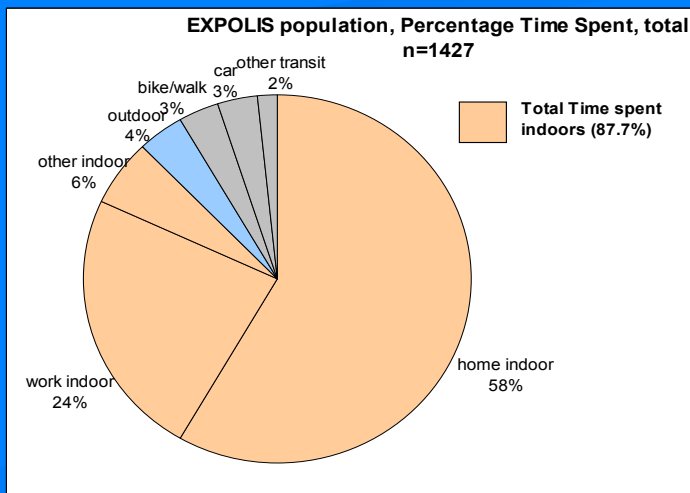
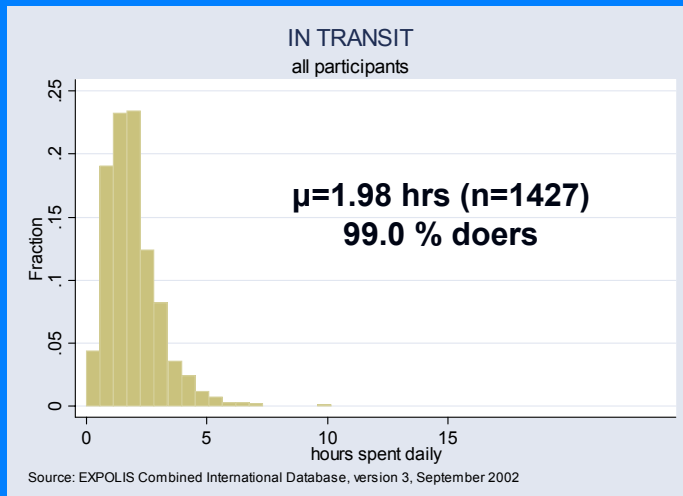
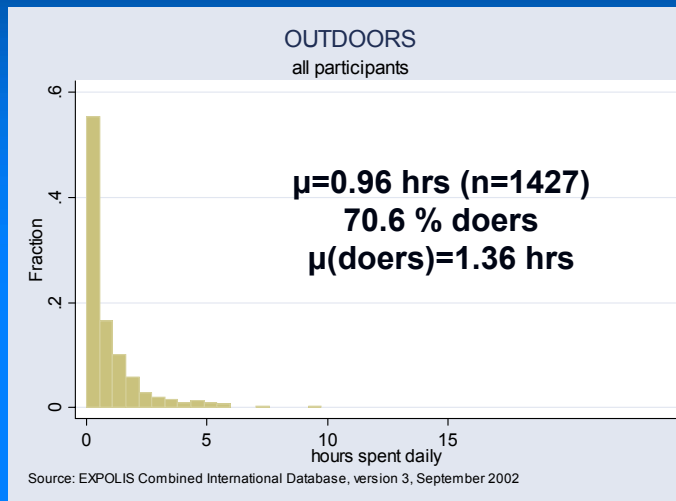
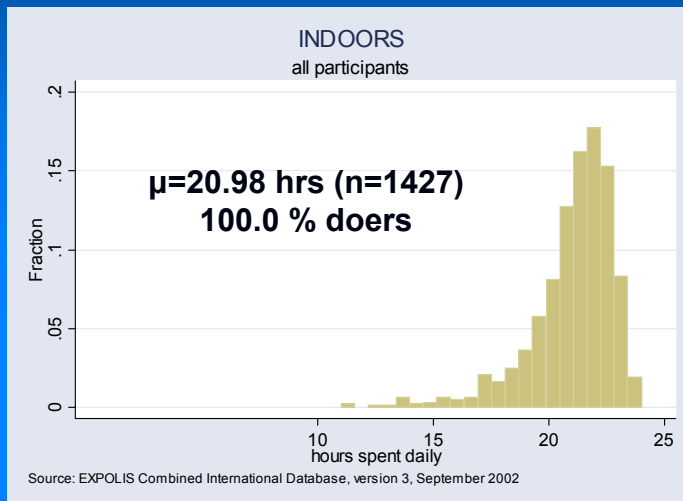
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Content

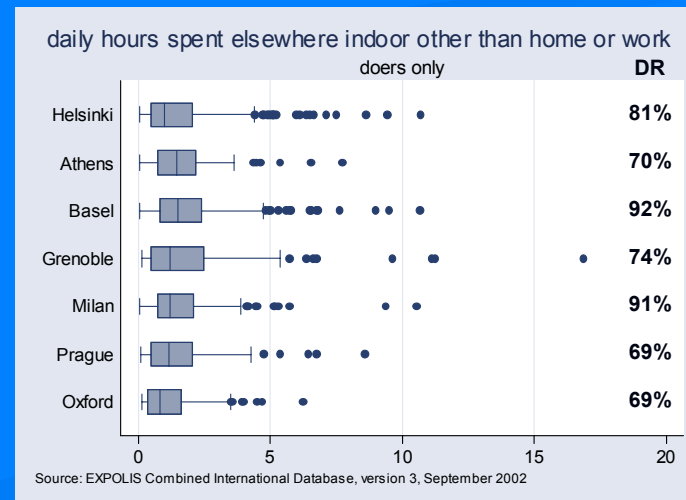
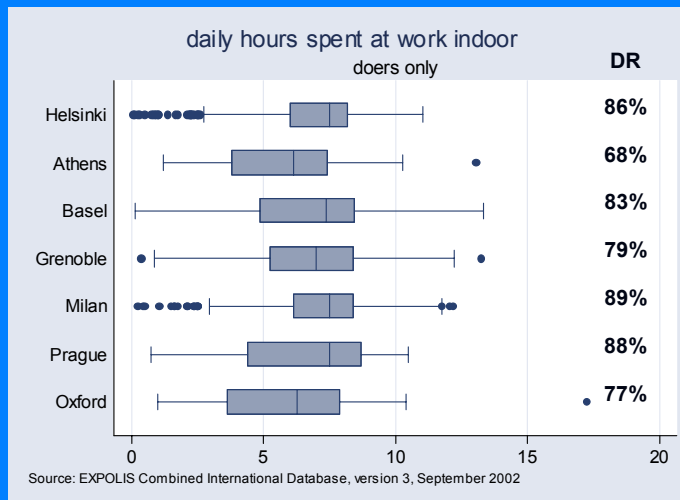
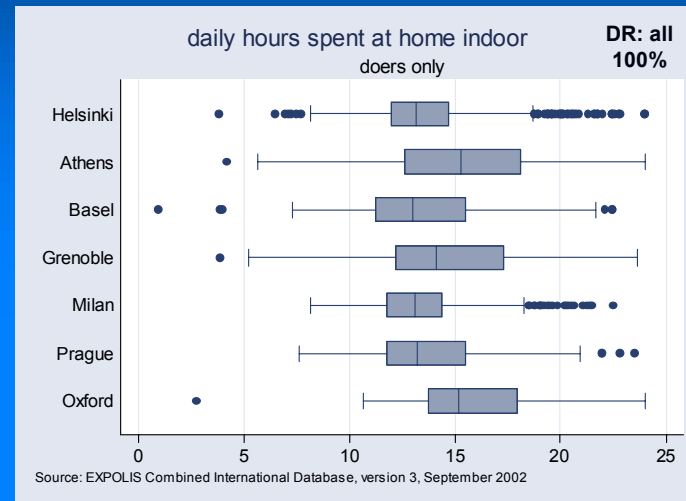
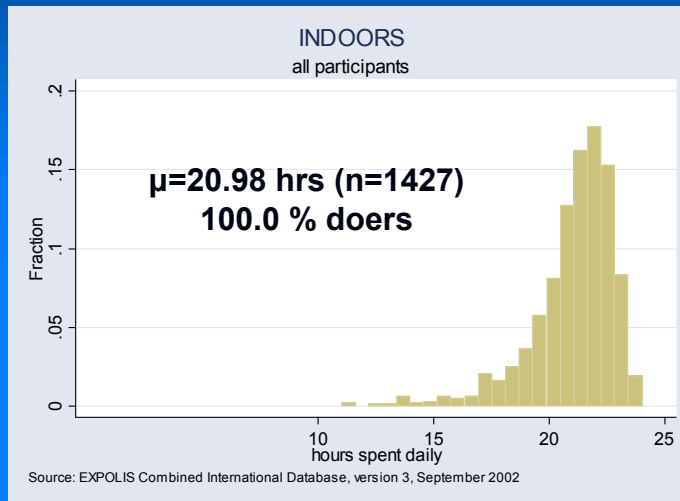
- Descriptive Statistics
- Influential factors for Doing
- Influential factors for Duration of Doers
- Doer Rate by Time of Day
- Conclusions

Descriptive TMAD



Descriptive TMAD

indoor environment



Influential Factors for Doing and Duration

General conceptual Model:

$$\text{Doing} = f \left(\begin{array}{l} \text{socio-demographics} \\ \text{home characteristics} \\ \text{workplace characteristics} \end{array} \right)$$







Potential covariates:

Sex, age, education, living alone, parenthood, smoking status, working status, traffic density, home and workplace locations

Influential Factors for Doing (y/n)

Odds Ratios (CI95) for doing		work indoor (DR=84%) Max. explained variance: 13.6%							other indoor (DR=83%) Max. explained variance: 14.4%						
		cities	H	A	B	G	M	P	O	H	A	B	G	M	P
male	pooled	2.6*** (1.8-3.6)							0.65*** (0.48, 0.88)						
	by city	**	***	***		***			*						
high education	pooled	1.6*** (1.2-2.3)							1.41* (1.00, 2.00)						
	by city								*						
children in the same household	pooled	0.9 (0.7-1.3)							0.70** (0.51, 0.95)						
	by city			***	**					**					

adjusted for all other covariates, season, smoking status, age, and city
 *** significant at the 0.01-level, ** significant at the 0.05-level, * significant at the 0.1-level
 H=Helsinki, A=Athens, B=Basel, G=Grenoble, M=Milan, P=Prague, O=Oxford

	OR well above 1		OR slightly below 1		OR equal 1
	OR slightly above 1		OR well below 1		Factor dropped

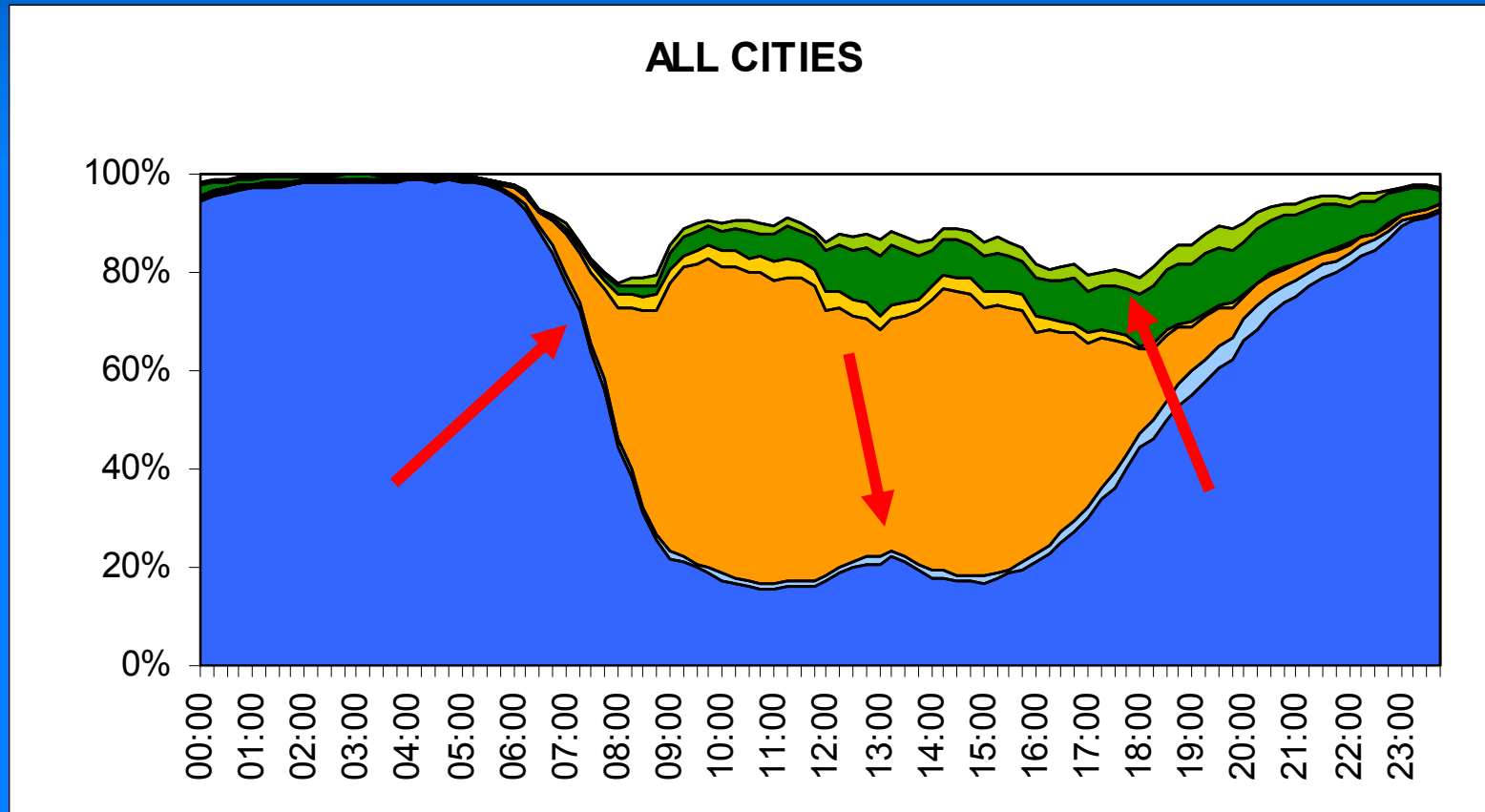
Influential factors for Duration [hrs] of Doers

Coefficients (CI95) for total time spent per day [hrs]		work indoor Max. explained variance: 11.6 %							other indoor Max. explained variance: 5.3 %						
		cities	H	A	B	G	M	P	O	H	A	B	G	M	P
male	pooled	0.15 (-0.13,0.42)							0.07 (-0.05, 0.19)						
	by city	**		***			**	**		**					
high education	pooled	-0.08 (-0.38,0.23)							0.20*** (0.07, 0.33)						
	by city					*			***						
children in the same household	pooled	-0.30** (-0.58,-0.01)							-0.24*** (-0.36, -0.12)						
	by city			***					**				***		

adjusted for all other covariates, season, smoking status, and city
 *** significant at the 0.01-level, ** significant at the 0.05-level, * significant at the 0.1-level
 H=Helsinki, A=Athens, B=Basel, G=Grenoble, M=Milan, P=Prague, O=Oxford

	Coef above 0.1		Coef.: 0 - -0.1		Factor dropped
	Coef.: 0 - 0.1		Coef below -0.1		Coef. equal 0

Doer Rate by Time of Day all cities

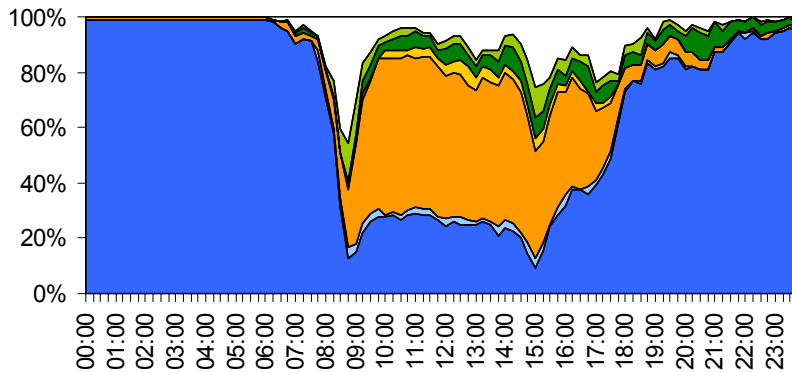


■ home indoor ■ home outdoor ■ work indoor ■ work outdoor
■ other indoor ■ other outdoor □ total transit

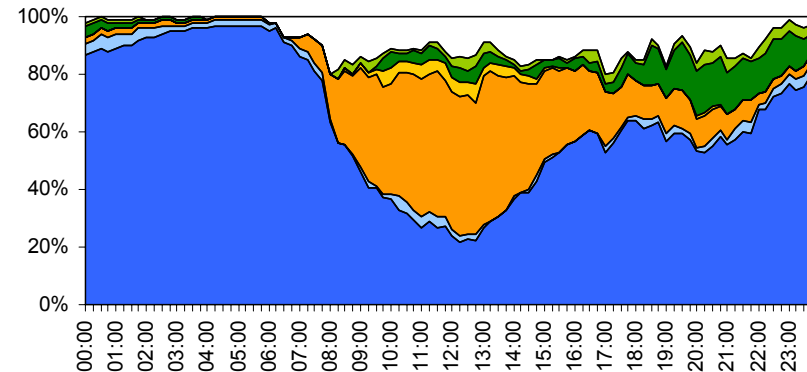
Doer Rate by Time of Day

selected cities

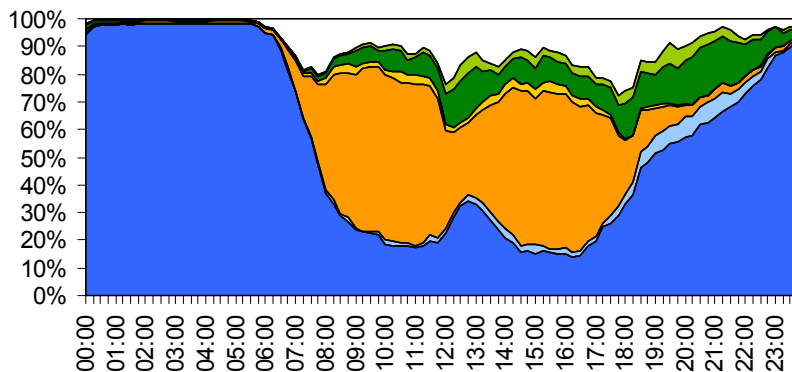
Oxford



Athens



Basel



Conclusions

Pan-European results:

- Total indoor time very similar in all cities
- App. 90% of the day is spent indoors
- Variation within cities substantial and higher than between cities
- Sex, education, and parenthood seem most influential for doing and duration
- The only factors with same effect in all cities:
 - *Parenthood* for doing and duration of time spent indoor elsewhere than home and work
 - *Level of education* for doing time at work indoor

City specific results:

- Split between different indoor compartments differs between cities; however, these differences are smaller than the variation within the cities
- City is a major effect modifier
- City-wide behavior differs between cities (doer rate by time of day)

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