An Introduction to Factorial Designs
Using the Example of Hiring Decisions

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\textbf{Abstract}

In this contribution, we use a factorial design to explore the moderating role of transaction costs on scarring due to previous unemployment and skills underutilization. Furthermore, we investigate the extent to which the perceived difficulty of recruiting moderates these effects. Factorial designs allow studying respondents’ evaluations as a function of multidimensional stimuli. In this application, we create a pool of hypothetical candidates, where we experimentally vary individual characteristics of young job applicants. We then measure how our respondents, actual recruiters, evaluate the hiring chances of these young people. We further use information provided by the respondents to estimate transaction costs.

Using data from a recent large-scale factorial survey of recruiters in four European countries ($N \approx 2,000$) and employing multilevel linear regression models, we found, overall, scarring due to skills underutilization to exceed scarring due to unemployment. Skills underutilization was especially penalized when recruiting for a particular position was considered easy. Indirect transaction costs, particularly anticipated time required for organizational socialization, were negatively associated with unemployment scarring, but positively with scarring due to skill underutilization. Unemployment spells only had a negative effect on hiring chances, for jobs where there were monetary expenses for introductory training.

Our findings constitute new evidence on the heterogeneity of scarring effects on hiring chances. We further contribute to the literature by highlighting the

\textsuperscript{*}Contribution to \textit{Methods and Research Meetings, Joint Seminar Series by SSP & FORS, Université de Lausanne, 24\textsuperscript{th} of April 2018}

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role of transaction costs and labor market performance.

*Keywords:* Factorial Design, Unemployment, Skills Underutilization, Hiring, Scarring, Transaction Costs, Labor Market