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This research examines an emergent class of highly paid academics – or top earners – employed across European universities in 10 countries. It differs from existing salary studies in its focus, sample and method. It goes beyond previous work that has studied academic salaries either in single institutions (Fox 1985), multiple institutions (Hamermesh et al. 1982) or national systems (Melguizo and Strober 2007). It explores cross-national differences in salary patterns based on large-scale international survey data regarding the academic profession (N=17,211). This research uses both logistic regression analyses and bivariate correlational analyses and examines the relationships between academic salaries and academic behaviors and productivity in a single institutional type, the European university. Finally, this research explores predictors of becoming an academic top earner from a comparative cross-national European perspective. The data refer to highly paid academics (the upper 20 percent), who are contrasted with the remaining 80 percent of academics; all are full-time employed and engaged in both teaching and research.

The financial instability of the academic profession as part of the traditional core component of the middle classes across developed countries has helped to drive this research. However, there are only a few cross-national comparative salary studies focusing on more than two countries (Shen and Xiong 2015). The reward structure in science consists of two components (Stephan 2010). First, science is governed by the priority system, a reward system that encourages the production and sharing of knowledge (Stephan 1996: 1202). And, second, the reward structure in science consists of remuneration. Academic positions provide both extrinsic rewards (salaries and other material benefits) and intrinsic rewards (derived from academic work) (Stern 2004). Poor salaries are a major impediment to effective faculty recruitment. National academic labor markets determine who academics are and who they will become in the future.

Scientists' engagement in research can be either investment-motivated (seeking future financial rewards), consumption-motivated (seeking research puzzles) or both (Thursby et al., 2007). Time spent on research reduces current earnings but increases future earnings, as in investment models of human capital. Economic models of academic salary determination have been predominantly based on the human capital theory; and in the prestige model of salary determination, universities behave as both firms and non-profit institutions, or 'hybrids' (Melguizo and Strober 2007: 634). In the prestige model, academic salaries are viewed as returns on the generation of prestige (for the individual academic, as well as the institution). The maximization of prestige, in this theoretical framework, is strongly correlated with faculty salaries. Academics who help their institution to become prestigious are rewarded by the institution with higher salaries.

Following the logic of this salary model, highly productive academics should be disproportionately over-represented among highly paid academics. Because more time spent on teaching means less time spent on research and vice versa, or there being only 'research'

and ‘non-research’ time investments (Levin and Stephan 1991: 115), academics spending, on average, more time on research should be receiving higher average salaries.

Our study shows that while top earners in three European countries work statistically significantly longer ‘total hours’, most importantly, in six countries, they work longer ‘service’ (four countries) and/or ‘administration’ hours (four countries). Statistically significant working time differentials between top earners and the rest of academics do not exist for teaching and research time investments. Previous research findings generally showed a strong positive correlation between research hours and salary levels and also a negative or no correlation between teaching hours and salary levels (Konrad and Pfeffer 1990; Fairweather 2005). Our research on the European sample does not confirm these findings. The traditional link between higher time investments in research and higher incomes does not currently seem to hold across Continental Europe. Interestingly, from the perspective of future academic careers, top earners tend to spend more time (than the rest of academics) on all academic activities *except* for teaching and research, and they especially spend more time on administration and service.

‘Top earners’ in the majority of countries studied are substantially more productive and produce much more internationally co-authored publications than the rest of academics (from the same older age cohort). While they work on average longer “administrative” and “service” hours (rather than research hours), they are much more academically productive. Top earners are disproportionately represented among top research performers: on average, 31.8 percent of national top research performers are among national top earners – from almost 80 percent in the United Kingdom to about 40 percent in Finland, Germany and Portugal and 30 percent in Norway. Overall research engagement – as studied through many variables in the multi-dimensional model – proves to be largely statistically insignificant as a predictor of belonging to the class highly paid academics.

This research has implications for current theoretical models in salary studies and policy implications for institutions and national systems. Our findings tend to suggest that the traditionally explored link between higher time investments in research and higher academic incomes – consistently demonstrated for Anglo-Saxon countries over the last four decades (from Katz 1973 to Gibson et al. 2014) – may not hold across Europe today as strongly as in Anglo-Saxon systems.

Academic salaries and the distribution of research/non-research time are at the core of the traditional university enterprise. The question of what to do (proportions of teaching, research and administration time and whether to conduct basic or applied research) is looming not only for individual academics but also at the institutional and national levels, guiding institutional and national higher education reform agendas. Seeking future financial rewards through research in Europe seems difficult, except for highly productive academics, but seeking satisfaction through solving research puzzles is also becoming more difficult than ever before because of the growing emphasis on the relevance and applicability of fundable research (Teichler et al. 2013). Thus, because both the traditional ‘investment motivation’ and the ‘consumption motivation’ for research (Levin and Stephan 1991) are scarce in European academia today, national-level and institutional-level policies may need to be rethought.

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