Publications in Economics of Science

"The Productivity of Science & Engineering PhD Students Hired from Supervisors' Networks" (co-authors Stefano Baruffaldi and Annamaria Conti). *Research Policy*, Forthcoming

We compare the scientific productivity of PhD students who are hired from a fine-grained set of mutually exclusive affiliation types: a PhD supervisor's affiliation, an external affiliation from which the supervisor derives her coauthors, and an external affiliation with which the supervisor has no coauthorship ties. Using a novel dataset of science and engineering PhD students who graduated from two major Swiss universities, we find that the most productive PhD category is the one made of students who are affiliated with universities other than their supervisors' affiliation, but from which the PhD supervisors derive their coauthors. This result suggests an inverted U-shaped relationship between PhD students' productivity and the social distance from their supervisors. Additionally, we find evidence consistent with the role of supervisors' coauthor networks in resolving information asymmetries regarding PhD talent.

"A Revealed Preference Analysis of PhD Students' Choices Over Employment Outcomes" (co-author Annamaria Conti). *Research Policy*, Volume 44, Issue 10, December 2015, Pages 1931-1947

We develop a revealed preference approach to elicit PhDs' preferences over employment outcomes, exploiting cohort size variations. Increments in cohort size reduce the expected monetary rewards of PhDs' ideal employment choices, making them less attractive. Thus, these choices are less frequently observed when a PhD cohort is large and more frequently so when it is small. Examining two major European universities, we find that PhDs equally value employment in R&D-intensive companies and highly-ranked universities. Moreover, these employment categories are preferred to low-ranked universities and non-R&D-intensive firms. There is preference heterogeneity across PhDs depending on their research field.

"Science and Engineering Ph.D. Students' Career Outcomes, by Gender" (co-author Annamaria Conti). *PlosOne*, August 2015

We examine differences in the careers of men and women Ph.D.s from two major European universities. Having performed regression analysis, we find that women are more likely than men to be employed in public administration when the alternatives are either academia or industry. Between the latter two alternatives, women are more likely to be employed in academia. These gender differences persist after accounting for Ph.D.s' and their supervisors' characteristics. Gender gaps are smaller for Ph.D.s with large research outputs and for those who conducted applied research. Restricting the analysis to Ph.D.s who pursued postdoc training, women are less likely than men to be employed in highly ranked universities, even after controlling for their research outputs. Finally, we find gender differences in Ph.D.s' appointment to professorship, which are explained by the Ph.D.s' publication output and the quality of their postdoc training.