The Relationship between Doctoral Completion Time, Gender, and Future Salary Prospects for Physical Scientists

GEOFF POTVIN, Department of Engineering & Science Education, and Department of Mathematical Sciences, Clemson University, ROBERT H. TAI, Curry School of Education, University of Virginia — Drawing from a national survey of Ph.D.-holding physical scientists, we present evidence that doctoral completion time is a strong predictor of future salary prospects: each additional year in graduate school corresponds to a substantially lower average salary. This is true even while controlling for typical measures of scientific merit (grant funding and publication rates) and several other structural and career factors expected to influence salaries. Extending this picture to include gender effects, we show that women earn significantly less than men overall and experience no effect of doctoral completion time on their salaries, while men see a significant gain in salary stemming from earlier completion times. Doctoral completion time is shown to be largely unconnected to measures of prior academic success, research independence, and scientific merit suggesting that doctoral completion time is, to a great extent, out of the control of individual graduate students. Nonetheless, it can be influential on an individual’s future career prospects, as can gender-related effects.

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