

Graduate Student Unions, Wages, and University Labs

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Abstract

The number of graduate student unions in the United States has increased rapidly in recent years, raising important questions about how collective bargaining agreements affect university research environments. Graduate student unions generally negotiate agreements with university administrators to increase stipends, improve benefits, and establish rules for working conditions. These efforts appear to have successfully raised compensation levels, yet it remains unclear how they impact the number of doctoral students being trained and scientific productivity. On one hand, higher labor costs could reduce demand for graduate student workers, lowering lab employment and the number of graduate students being trained. On the other hand, higher stipends could also accelerate career development if students complete their degrees more quickly or are more productive while in school. These trade-offs may be particularly acute because principal investigators (PIs) typically face fixed research budgets in the short run, limiting their ability to adjust overall funding in response to higher labor costs. This paper studies the consequences of union-driven increases in minimum graduate student stipends on university labs, scientific productivity, and early career outcomes. We construct a novel dataset combining information on changes in minimum stipend levels from CBAs with detailed lab-level employment and publication data from UMETRICS, as well as graduate student career outcomes from Steppingblocks. Using a staggered difference-in-differences framework, we find that following increases in negotiated minimum stipends, labs employ fewer graduate students and postdocs, and students' employment spells and doctoral training durations shorten. Despite declines in lab size, we find limited evidence of reductions in scientific output per lab. Higher stipends appear to be associated with faster degree completion, suggesting that compensation gains may trade off with the length of graduate training. These findings have important implications for understanding the role of unions in higher education and their broader impacts on the scientific workforce.