The Motivations to Create

Why do humans create new books, new songs, or new inventions? Is creation an innate and instinctive need that is being expressed, or is it an attempt to achieve rewards such as money and fame? Although this question has long beguiled philosophers and psychologists, our concern is the more prosaic one of wishing to understand how economic systems might promote creation, or at least promote creations where the benefits are greater than the costs.

The evidence from several recent academic studies may be interpreted as suggesting that intellectual property is not necessary for stimulating innovation. For instance, Boldrin and Levine (2005) study various industries and their conclusion is that intellectual property "is not necessary for innovation and as a practical matter is damaging to growth, prosperity and liberty." Scherer (2007) studies musical copyright in the 18th and 19th centuries, and he concludes that "the absence of effective copyright certainly did not cause creative musical output to be stalemated." A few studies focus on the supply of new music following the reduction in the effective copyright protection caused by file sharing, such as Waldfogel (2012) who finds "no evidence that changes since Napster have affected the quantity of new recorded music or artists coming to market."

Of prime importance in the discussion of whether intellectual property rights are necessary or useful is the assessment of the intellectual property's effectiveness in stimulating innovation. Because intellectual property provides pecuniary rewards to creators, assessing the intellectual property's effectiveness in promoting innovation hinges on the question of the extent to which monetary incentives induce new creations. If the behavior of firms and individuals is unresponsive to monetary incentives, or if labor supply curves are backward bending, intellectual property could decrease social welfare since it would bestow some unnecessary and socially costly monopolies to creators.

Some findings in the intellectual literature might be interpreted as suggesting the conclusion that nonmonetary rewards might suffice to induce innovation (e.g., the study by Scherer 2007 concludes that "many people became composers because they loved what they were doing"). Although these findings in the intellectual property literature are typically based on case studies using limited data (e.g., Scherer 2007 uses a dataset of 646 composers), the labor literature has used more comprehensive data and a typical finding in this literature is that wages do not substantially affect, at the margin, the labor supply for regular workers (i.e., the wage elasticity of the labor supply has been estimated to be fairly small – see Saez, Slemrod, and Giertz 2012).

The goal of this paper is to empirically study the extent to which innovators are financially motivated. Our focus is on the market for books. We use a large and detailed dataset of over two million books that contains information on book sales by author and title for the years 2004 through 2016 to measure the extent to which monetary incentives induce authors to publish additional books. One way to assess financial motivation using our data is to examine

the relationship between authors' past revenues from selling books and their future creation of new works.

Our purchased data cover thirteen years, 2004-2016, and in most of our analysis we group books into two periods, a six-year first-half consisting of years 2004-2009 and a seven-year second-half consisting of years 2010-2016, referred to as period 1 (P1) and period 2 (P2) respectively. To have a more homogenous group of authors and avoid complicated life cycle considerations, we conduct our analysis using only authors who published their first book in P1. More formally, we consider the following empirical model for the number of titles authors write in period 2:

$$Number\ of\ titles\ in\ P2_i = \alpha_0 + \alpha_1\ Revenues\ in\ P1_i + \alpha_2\ (Revenues\ in\ P1_i)^2 + \alpha_3\ Number\ of\ titles\ in\ P1_i + \alpha_4 Z_i + u_i$$

where we use the variable $Revenues\ in\ P1_i$ as a proxy for expected revenues for period 2, control for $Number\ of\ titles\ in\ P1_i$ as a way to capture author-level instinctual production as well as other factors that might be considered to be constant at the author level, and control for a vector of author-level characteristics, Z_i . Our hope is to use this model to predict production in P2 due to revenues in P1, and also predict production in P2 for a zero level of revenues in P1 as it would be the case if copyrights were to be abolished.

Using this model over various samples of authors and time periods (e.g., prior to e-books) we find evidence that authors publish more new books when they earned higher payments for previously written books, although at high enough levels of payment their production of new works begins to decline, consistent with a backward bending supply function. We also find that few authors are in the backward bending region and that the overall effect of payments to authors is to increase their output. Our results are also consistent with the belief that instinctual elements may play a large role in the creation of books.

Overall, the hope of this paper is to avoid a reliance on anecdotes and to answer, using an extensive data set, the question of how much creation is due to the prospect of monetary gain, at least among book authors in the early decades of the twenty-first century.

We have a preliminary version of a working paper that I could share upon request.

I have a coauthor in this project (Stan Liebowitz), but I am individually applying to this grant. I will be on Sabbatical in the spring of 2019 and I would use the funds to visit other schools.

Budget Estimate

I will be on sabbatical in the Spring of 2019 and would use all the funds to visit other schools during this time.