

“Does Copyright Piracy Pay? The Effects of U.S. International Copyright Laws on the Market for Books, 1790-1920”

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ABSTRACT

Does the lack of international copyrights benefit or harm developing countries? I examine the effects of U.S. piracy of copyright materials from more developed countries in the 19th century. U.S. statutes since 1790 protected the copyrights of American citizens, but until 1891 deemed the works of foreign citizens to be in the public domain. In 1891, the laws were changed to allow foreigners to obtain copyright protection in the United States if certain conditions were met. Thus, this episode in American history provides a natural experiment to investigate the cultural and economic consequences of international copyright piracy for a developing country over the long term. The analysis is based on copyright registrations, information on authors, book titles and prices, financial data from the accounts of a major publishing company, and lawsuits regarding copyright questions. These data are used to investigate the welfare effects of widespread infringement of foreign works, on American publishers, writers, and the public. The results suggest that the United States benefited from copyright piracy and that its intellectual property regime was endogenous to the level of economic development.

INTRODUCTION

“In literature ... there is nothing but supply and demand.”
--Mary Abigail Dodge, Battle of the Books (1870)

Copyright piracy has emerged as a central issue of the twenty-first century, but debates about economic and social progress have long included questions about the appropriate institutions to promote creations in the material and intellectual sphere. A pivotal legal argument in the eighteenth century proposed that copyright protection and enforcement was necessary because “literary works, like all others, will be undertaken and pursued with greater spirit, when, to the motives of public, utility and fame, is added the inducement of private emolument.”¹ Scholars today such as Douglass North suggest that intellectual property systems have had an important impact on the course of economic development and technological change.² Similarly, policymakers in international organizations tend to stress the need for laws and property rights in intellectual products that are well-defined and well-enforced.³ Others, however, argue that such institutions are more relevant to the needs of already developed countries, whereas newly industrializing societies (at least initially) may not benefit from their adoption or may need to tailor patent and copyright polices to fit their own specific circumstances.⁴

From an economic perspective, the question of intellectual property rights is especially important

¹ See the landmark debates in *Donaldson v. Beckett*, Proceedings in the Lords on the Question of Literary Property, February 4 through February 22, 1774. According to some sources, the notion of copyright and its infringement was apparent in classical Greek antiquity; and in Ireland in 550, when King Diarmait is reputed to have proclaimed in a dispute over literary rights, “To every cow its calf; to every book its copy.”

² See Douglass C. North, Structure and Change in Economic History, New York, US: Norton (1981); and Fritz Machlup, An Economic Review of the Patent System, Washington DC, U.S. Govt. Printing Office (1958).

³ Such approaches are reflected in the United Nations’ Universal Declaration of Human Rights, Article 27 (2): “Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.” General Assembly resolution 217 A (III), 10 December 1948.

⁴ See, for instance, Carsten Fink and Keith E. Maskus (eds), Intellectual Property and Development: Lessons from Recent Economic Research, New York: Oxford University Press, 2005; William P. Alford, To Steal a Book Is an Elegant Offense: Intellectual Property Law in Chinese Civilization, Stanford, California: Stanford University Press, 1995; Siva Vaidhyanathan, Copyrights and Copywrongs: the Rise of Intellectual Property and How it Threatens Creativity, New York University Press, 2001.

because ideas and information are public goods characterized by nonrivalry and nonexclusion. Once the initial costs are incurred, ideas can be reproduced at zero marginal cost and it is difficult to exclude others from their use. Thus, in a competitive market public goods may suffer from under-provision or may never be created because of a lack of incentive on the part of the original provider who bears the initial costs but may not be able to appropriate the benefits. Such market failure can be ameliorated in several ways, for instance through government provision, rewards or subsidies to original creators, private patronage, and through the legal creation of private property rights such as patents and copyrights. Patents and copyrights allow the initial producer a limited period during which he is able to benefit from a monopoly right. Patents and copyrights can also be traded in the market place, a process which assigns value and allows transactors to mobilize and allocate resources to their optimal use. Since private property rights exclude others from the free use of the output, they also inhibit social diffusion, but if the net present value of the social benefits of exclusion outweigh the social costs of limited diffusion, overall welfare is increased.

Numerous economic studies have analyzed property rights in inventions from both a theoretical and empirical perspective.⁵ Theoretical models of the optimal structure of the patent system include examinations of patent scope, the length of protection, and derivative inventions. Empirical studies have estimated the relationship between patents and productivity, patenting and firm size, and the question of appropriability. Economic historians have examined the rate and direction of inventive activity, as well as markets for invention in the eighteenth and nineteenth centuries.⁶ They have highlighted the significant and conscious differences in the objectives and outcomes of the American patent system

⁵ Suzanne Scotchmer provides an excellent overview of the economic issues in Innovation and Incentives, Cambridge: MIT Press, 2004.

⁶Schmookler's pioneering empirical work suggested that patenting was systematic and varied with the extent of the market (Jacob Schmookler, Invention and Economic Growth. Cambridge, MA: Harvard University Press, 1966.) Kenneth Sokoloff extended this approach, and demonstrated that, when previously isolated areas gained access to markets, patenting per capita increased markedly (Kenneth L. Sokoloff, "Inventive Activity in Early Industrial America: Evidence from Patent Records, 1790-1846," JEH 48 (4) 1988: 813-50.) Other research also established the existence of a rapidly growing market for patented inventions that was supported by strong enforcement from the legal system. See, for instance, B. Zorina Khan, "Property Rights and Patent Litigation in Early Nineteenth-Century America," Journal of Economic History, 55 (1) 1995, 58-97. Christine MacLeod and Harold Dutton have produced

relative to the British system, and argued that the former promoted a process of “democratization.”⁷

This impressive body of work on patents across time, regions and industries highlights the lack of empirical research into other aspects of the economics of intellectual property.⁸ The need for empirical studies of copyright protection is especially relevant today for at least two reasons. First, the rapid technological changes of recent years have created a plethora of new questions for intellectual property regarding the nature and scope of protection to accord mapping of DNA sequences and other genetic material, business methods, semiconductor chips, computer software, digital music, and transactions on the internet, among others. Some have argued that the historical separation of patent and copyright protection has become outmoded and unworkable given the current state of the arts, and advocate a new compendium intellectual property system that integrates both types of protection. Other scholars have recommended the adoption of “sui generis” protection for each type of technology; whereas a growing number are so concerned about the unprecedented enforcement of intellectual property today that they support its abolition. Under these circumstances, insights into the historical development of the intellectual property system would seem to be of some utility in understanding whether there is a need for drastic revision in a system which has incorporated and adjusted to social and technological innovations in the course of two centuries.⁹

extensive accounts of the patent system in Britain.

⁷See B. Zorina Khan and Kenneth L. Sokoloff, “Institutions and Democratic Invention in the United States: Evidence from ‘Great Inventors’, 1790-1930,” AER vol. 94 (May 2004): 395-401; B. Zorina Khan and Kenneth L. Sokoloff, “The Early Development of Intellectual Property Institutions in the United States,” JEP vol 15 (3) 2001: 233-246; B. Zorina Khan, The Democratization of Invention: Patents and Copyrights in American Economic Development, 1790-1920, Cambridge: NBER and Cambridge University Press, 2005.

⁸ Ivan P. L. Png, “Copyright: A Plea for Empirical Research,” Review of Economic Research on Copyright Issues, vol. 3 (2) 2006: 3-13. However, a number of recent articles address the issue of copyright piracy in the music and entertainment industries, including Kai-Lung Hui and Ivan Png, “Piracy and the Legitimate Demand for Recorded Music”, Contributions to Economic Analysis & Policy, Vol. 2: No. 1, Article 11 (2003); Rafael Rob and Joel Waldfogel, “Piracy on the High C’s: Music Downloading, Sales Displacement, and Social Welfare in a Sample of College Students” NBER Working Paper No. W10874 (November 2004). Michael D. Smith and Rahul Telang, “Piracy or Promotion? The Impact of Broadband Internet Penetration on DVD Sales” (unpublished paper, June 2006) claim that broadband Internet access, while facilitating movie piracy, was associated with higher DVD sales. Similar positive effects of piracy are reported in David Bounie, Marc Bourreau, and Patrick Waelbroeck, “Piracy and Demands (sic) for Films: Analysis of Piracy Behavior in French Universities” (Oct 2006) Telecom Paris Working Paper No. 06-12; in contrast to Rob Rafael and Joel Waldfogel, “Piracy on the Silver Screen,” NBER Working Paper No. 12010, Feb 2006.

⁹See Stephen Breyer, “The Uneasy Case for Copyright: : A Study of Copyright in Books, Photocopies, and Computer Programs,” Harvard Law Review, Vol. 84 (2) 1970: 281-351; and Arnold Plant, “The Economic Aspects

Second, the United States has been at the forefront of efforts to compel developing countries to recognize foreign copyrights.¹⁰ The tendency for “pirates” in other countries to reproduce American music, textbooks, periodicals, literature and movies without due compensation is costly to the United States, which is a net creditor in the trade of such items.¹¹ However, both theory and empirical research are unclear about whether the optimal policy for developing countries is to import intellectual property legislation and institutions along with other products of developed countries. Even if the static welfare gains from infringement in developing societies exceed the costs to the owners of copyright of lost profits, the dynamic consequences for these countries of ignoring intellectual property rights might lead to the conclusion that strong enforcement is still the optimal policy. Estimates of such dynamic models would require largely unavailable information such as the costs of imitation and of adapting pirated material to a different application or environment. One would also need to specify the role of learning by doing, as well as insights into the extent to which comparative advantage builds on cumulative technological innovation. In an environment where even basic data on the extent of piracy are difficult to acquire, it is impossible to know whether intertemporal resource allocation in developing countries is distorted or affected positively by weaker enforcement of intellectual property laws.

Fortunately, history provides us with a natural experiment that can shed more light on the economics of copyright piracy in developing economies. Although the United States today is the leader in the movement for stronger enforcement of patents and copyrights, it is somewhat ironic that during this key era of American economic growth – from 1790 through 1891 -- federal copyright statutes explicitly

of Copyright in Books," *Economica*, vol. 1 (2), May 1934: 167-195. For the relationship between intellectual property and technological or social change, see B. Zorina Khan, “Innovations in Law and Technology, 1790-1920” in *Cambridge History of Law in America*, (eds) Michael Grossberg and Christopher Tomlins, Cambridge University Press (forthcoming).

¹⁰ The movement for international copyright is ostensibly under the aegis of GATT. The Uruguay Round of GATT established an Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) in 1994, to be administered by the World Trade Organization. TRIPS protects general copyright clauses, such as the grant of property in expression and it protects computer programs as literary works.

¹¹ The U.S. copyright industries accounted for almost 40 percent of foreign sales and exports in 2005. The International Intellectual Property Alliance (despite the name, a consortium of American corporate copyright holders) estimated a loss from copyright piracy of over \$13 billion in 2005 [See <http://www.iipa.com>.] One might question the accuracy of these figures, but not the existence of widespread violation of U.S. copyrights both here and overseas.

condoned “piracy” of foreign works. This episode in U.S. history therefore provides us with a convenient way of investigating the likely dynamic effects of ignoring international legal standards. However, even today it would be impossible to obtain all the information that one would like to estimate the welfare effects of piracy, so the analysis is necessarily constrained by those records in the market for books that are available for the period under review. The data are drawn from the financial accounts of a major publishing company, book titles and prices, and biographical information on some 750 authors. I use these original data sets to address the welfare effects of unauthorized copying of foreign books on publishers, authors, and the public in general at a time when the United States was itself a developing country.

Did copyright piracy pay? To some extent, the persistent refusal to alter this element of its intellectual property policies, even in the face of widespread international condemnation, provides its own tacit answer to the question. The evidence presented here similarly does not support the arguments that the United States was injured because of dumping, disastrous effects on American authorship, ruinous competition and the like. Instead, during the period when the United States was a net debtor in the flow of cultural products and had yet to develop quality cultural output of its own, it likely benefited from piracy of foreign works. The gradual evolution of domestic American culture resulted in internationally competitive literary products that shifted the flow of funds in favour of the United States, and this seems to have made the arguments for reciprocal recognition of foreign copyrights more profitable and persuasive. The results suggest that American international copyright policy was endogenous to the stage of economic development.

INTERNATIONAL COPYRIGHT AND PIRACY OF CULTURAL GOODS

“Our literary workmen ... ask simply for markets,”
-- G H Putnam (1879)

The period before 1891 may be characterized as one of the most colourful episodes in the history of U.S. intellectual property largely because of its international copyright laws. According to Ainsworth

Spofford, Librarian of Congress between 1864 and 1897, “a group of publishing houses in the United States, which made a specialty of cheap books, vied with each other in the business of appropriating English and Continental trash, and printed this under villainous covers, in type ugly enough to risk a serious increase of ophthalmia among American readers.”¹² Unlikely coalitions formed during the nineteenth century, whose common objective was to change the laws toward international copyrights. Among them were Americans with international reputations such as Henry Clay, John Jay, Henry Wadsworth Longfellow, Louisa May Alcott and Samuel Morse; educational institutions including the University of Virginia, the University of California, and Longfellow’s alma mater Bowdoin College; miscellaneous groups such as the American Medical Association and the citizens of Portland, Maine; and Europeans Charles Dickens, Edmund Burke, Harriet Martineau, and Gilbert and Sullivan. Equally vociferous were groups that lobbied against the proposed reforms: concerned citizens from Richmond, Virginia to Bellow Falls, Vermont; paper producers in Boston, Newark and Pennsylvania; as well as Toledo printers, typographical unions, New York publishers and Hartford bookbinders.¹³

The United States in the nineteenth century was a net debtor in flows of material culture, and engaged in protectionist policies that benefited its residents at the expense of authors and artists in other countries.¹⁴ At the same time, the movement for international copyrights gathered momentum in other countries, most notably in Europe. England engaged in bilateral and multilateral treaties with other countries to establish reciprocity in the recognition of foreign copyrights. France was a leader in this process: copyrights were granted to foreigners conditioned on manufacturing clauses in 1810; foreign and domestic authors obtained equal rights in 1852; and France initiated the movement for international harmonization of copyrights. In marked contrast to its leadership in patent conventions, the United States declined an invitation to a pivotal conference in Berne in 1883, and did not sign the 1886 agreement of

¹² Cited in The Question of Copyright, (ed) George Haven Putnam, New York, G. P. Putnam’s Sons, 1896, p. 170.

¹³ International Copyright petitions (on either side) were submitted on more than 100 occasions in the Congressional sessions through 1875; see the House and Senate Journals for details.

¹⁴ Senator John Ruggles, who had overseen the reform of the patent laws, pointed out that “American ingenuity in the arts and practical sciences, would derive at least as much benefit from international patent laws, as that of foreigners. Not so with authorship and book-making. The difference is too obvious to admit of controversy.”

the Berne Convention which accorded national treatment to copyright holders. Moreover, until 1891 American statutes explicitly denied copyrights to citizens of other countries and the United States was notorious in the international sphere as a significant contributor to the “piracy” of foreign literary and cultural products.¹⁵ It has been claimed that American companies for the most part “indiscriminately reprinted books by foreign authors without even the pretence of acknowledgement.”¹⁶ The tendency to freely reprint foreign works was encouraged by the existence of tariffs on imported books that ranged as high as 25 percent.¹⁷

Numerous proposals to acknowledge foreign copyrights were brought before Congress throughout the 19th century.¹⁸ American and European authors, musicians and artists supported the movement to attain harmonization of U.S. laws with international copyright policies. Earlier attempts were defeated by publishers, printers, and representatives of the Democratic Party, and it was not until 1891 that Congress granted copyright protection to selected foreign residents.¹⁹ Even then, the bill was strongly contested and its passage was in doubt right to the end.²⁰ In its final form the statute included

Report to accompany Senate Bill No. 32, 25th Congress, 2nd Session, June 25, 1838.

¹⁵ Copyright policies in this dimension may be contrasted with patent policies designed to attain more uniformity across countries. The first international patent convention was held in Austria in 1873, at the suggestion of the United States, and was followed by other agreements including the International Union for the Protection of Industrial Property in 1884. The efforts of the United States were hampered by a lack of leverage: it was unable (or unwilling) to offer foreign delegations any concessions in exchange for reforms that the latter agreed to adopt, since American policy was already the world’s most liberal in granting equal rights to foreign patentees. Nevertheless, since its patent system was recognized as the most successful, it is not surprising that patent harmonization implied convergence towards the U.S. model. See Edith Penrose, Economics of the International Patent System, Baltimore: John Hopkins Press, (1951); and Khan, Democratization of Invention.

¹⁶ See John Feather, Publishing, Piracy and Politics: An Historical Study of Copyright in Britain, New York, Mansell, 1994, p. 154.

¹⁷ See Donald Marquand Dozer, “The Tariff on Books,” Mississippi Valley Historical Review, Vol. 36, No. 1. (Jun., 1949): 73-96.

¹⁸ For instance, S. 223 (1837); H.R. 779 (1868), “A Bill For securing to authors in certain cases the benefit of international copyright, advancing the development of American literature, and promoting the interests of publishers and book-buyers in the United States;” H.R. 470 (1871); and S. 688 (1872), among others. On February 18th, 1853, Millard Fillmore, President of the United States, sent to the Senate “with the view to its ratification, a convention which was yesterday concluded between the United States and Great Britain for the establishment of international Copyright,” but the Senate refused to comply with the request. See the Journal of the executive proceedings of the Senate of the United States of America, 1852-1855, February 24, 1853, p. 35.

¹⁹International Copyright Act of 1891, 26 Stat. 1106.

²⁰ “While a member of the Fifty-first Congress, an international copyright bill was reported by the Judiciary Committee, debated for two days, and failed of passage by a negative majority of about forty. Mr. Simonds then redrafted the bill, added its famous thirteenth section, and procured its favorable report to the House. On the third day of the short term he secured its passage through the House, after a vigorous fight, by a majority of about forty.

significant concessions to its opponents who insisted on the insertion of “manufacturing clauses.” First, a book had to be published in the U.S. before or at the same time as the publication date in its country of origin. Second, the work had to be printed here, or printed from type set in the United States or from plates made from type set in the United States. These clauses resulted in U.S. failure to qualify for admission to the Berne Convention until 1988, approximately one hundred years after the initial Convention.²¹

In short, it was not until after a century of lobbying by interested parties on both sides of the Atlantic based on reasons that ranged from the economic to the moral, that U.S. copyright laws were finally changed to allow foreign artists and authors to obtain copyright protection in this country. What was the impact of the change in the law on copyright registrations and on the market? Figure 1 shows the time series of registrations in copyrights filed in the United States before and after the 1891 reform. The critical change in the laws to allow foreign authors to obtain American copyright protection was accompanied by an immediate increase in the growth rate of registrations from 4.4 percent to 14.3 percent in 1891 and 11.9 percent in the following year. However, marked changes in the growth rates had been a feature of the time series for the previous two decades as well, so one cannot credibly attribute the pattern entirely to statutory changes.

In 1900 the U.S. Senate authorized Carroll D. Wright, the Commissioner of Labor, to investigate the effect of the reforms in the copyright system. Wright was discouraged from any statistical analysis by the marked lack of data on the publishing industry, and instead conducted a survey of printers and publishers, to find out whether the new law was viewed as “detrimental or beneficial.”²² Table 1 classifies the answers of members of the book trade who responded to the Wright survey. The

By reason of parliamentary tactics and maneuvers, it had to pass the House, in one shape or another, three times subsequently, each time after a fight over it, the last passage being about two o'clock on the morning of March 4, 1891, the day on which Congress adjourned. For this service in connection with international copyright the government of France conferred upon him the Cross of the Legion of Honor.” *Scientific American*, vol. 66 (n.s.), 18 June 1892, p 389.

²¹Berne Convention for the Protection of Literary and Artistic Works, opened for signature Sept. 9, 1886, 828 U.N.T.S. 221, S. Treaty Doc. No. 99-27, 99th Cong. (1986) (revised at Paris, July 24, 1979).

²²United States Bureau of Labor, “A report on the effect of the international copyright law in the United States.” Washington, Govt. Print. Off., 1901.

respondents gave their views regarding the effect of the reforms in terms of the impact on four groups: publishers, authors, employees in the printing industry, and the book-reading public. Foreign authors, it was felt, were unambiguously better off as a result of the reforms. American authors were held to have benefited because the previous régime had exposed them to “dumping and unfair competition” in the form of cheap uncopyrighted foreign works which had discouraged the development of domestic literature. Publishers who dealt in copyrighted books were also better off because they could now exclude unauthorized reprinters, whereas the latter class of publishers were quickly driven into bankruptcy by the passage of the act. Printers’ unions felt that the reforms had not caused any real change in the circumstances of their members. As for the public, results were held to be somewhat mixed: prices of copyrighted books now increased, fewer books of the “cheap and nasty sort” from the pens of foreign novelists were available, but the overall quality of available books had improved. In sum, the survey concluded, “piracy” had been costly to the United States. The consensus was that the United States had benefited from the reforms, and was in better standing with other countries as a result of the move towards harmonization.

The consensus from this survey begs the question of why, if they were so uniformly beneficent, the reforms in copyright had been so contentious and difficult to achieve. Wright was forced to rely on these subjective assessments because of the lack of statistical information on books and the publishing industry in the nineteenth century. Such data are still unavailable or incomplete. However, I intend to present a more systematic analysis of the impact of international copyright laws on the book trade in the nineteenth century than Wright was able to provide. My analysis employs data on books, the publishing industry, and biographical information about authors. These data are inadequate to precisely estimate the overall welfare effects of “piracy” in the nineteenth century, but they do allow us to assess the validity of specific assertions that featured in the debate about the impact of lack of legal copyrights in foreign books.

BOOKS AND AUTHORS

According to observers such as Arthur Schlesinger, “So long as publishers ... could reprint, or pirate, popular English authors without payment of royalty, and so long as readers could buy such volumes far cheaper than books written by Americans, native authorship remained at a marked disadvantage.”²³ Professional authorship was discouraged because it was difficult for Americans to compete with established authors such as Sir Walter Scott, Charles Dickens and Lord Tennyson, and as a result “much of beauty, value and interest was lost to the world.”²⁴ In G H Putnam’s view, “an international copyright is the first step towards that long-awaited-for ‘great American novel.’”²⁵ This argument is somewhat suspect on its face, for a number of reasons. First, it supposes that the highest-valued product was deterred, rather than works at the margin. Second, it also assumes that there was a high degree of substitutability between cheap foreign reprints and domestic books. Third, if the claim were true, one would expect that domestic authors would respond to the competition by accepting lower royalties and less favourable contracts. Instead, one observes over time higher royalties and better terms being offered to American writers.²⁶

These observations do not disprove the counterfactual (but inherently untestable) claim that, if the laws had protected foreign copyrights, even better terms would have prevailed for native writers. Still, one can bring to bear some degree of systematic evidence to address questions that have relevance to this

²³ Arthur M. Schlesinger, The Rise of the City, 1878-1898, N.Y. 1933, p. 252.

²⁴ See Aubrey J. Clark, The Movement for International Copyright in Nineteenth Century America, Wash, DC, Catholic University Press, 1960, p. 49: “Writing as a profession would never be attractive to native talent as long as the average author had to compete with the great masters of England whose works were appropriated without cost.” Similarly, “The grant of copyright protection only to American citizens pushed the publishing industry in a direction that injured those who sought to make a living by creative writing in America,” p. xxiii, James Gilreath, (ed), Federal Copyright Records, 1700-1800, Washington, D. C. 1987.

²⁵ “International Copyright,” in Publishers’ Weekly, Feb. 22 (371) 1879, p. 237. This affirms my personal conviction that, Moby Dick notwithstanding, there was no great American novel in the nineteenth century.

²⁶ Many of the earlier books were published at author’s risk, or on commission. “Half-profits” was also a way of sheltering publishers from risk that prevailed until the 1830s. In the 1840s, reputable authors received an average of 10 percent, and between 10 to 20 percent. However, there was wide variation in contracts for unknown authors. For instance, as discussed in Bean v. Carleton et al., 12 NYS 519 1890, Fanny Bean advanced \$900 to publishers George W. Carleton & Co, to be repaid when 2000 copies of the book were sold, on the expectation of further royalties on sales after 2000. Until the 1890s authors had few means of monitoring their publisher; the 1896 decision in Savage v. Neely for the first time gave authors the right to inspect accounts of their publishers. The improvements in contractual terms could be due to sample selection, if lower quality authors were selected out of the

issue. First, consider the claim that foreign books were dominant because they were sold at lower prices than those by American authors.²⁷ Proponents of the copyright reforms frequently referred to the cheap “Libraries,” such as the Fireside and Franklin Square series that published English reprints at a retail price of ten cents, and argued that American authors were driven from the market by such prices. This argument confuses cause and effect, since “dime novels” were quintessentially American, and reprinters of low-end foreign fiction priced their books as a competitive response to this segment of the market.²⁸ The first number of the Lakeside Library that reprinted the works of foreign authors appeared in 1875 as an attempt to emulate the proven success of cheap American fiction, and was followed by the Home, Seaside, and Franklin Square Libraries.²⁹

Moreover, one cannot compare the price of a gilt-edged volume of history bound in morocco with a detective story printed on cheap yellow paper. It is necessary to control for other factors that might influence price, in order to assess whether books by American authors were indeed more expensive than those by foreign authors. In order to control for differences across publishing firms, I consider within-firm variation in prices for books published by Ticknor and Fields between 1832 and 1858.³⁰ Ticknor and Fields (the precursor of Houghton Mifflin) was one of the leading publishers of this period, and was especially noted for its publication of such foreign authors as Dickens, Tennyson, Browning, Kingsley, Reade, and de Quincey. The firm also published an impressive roster of well-known American writers including Hawthorne, Longfellow, Thoreau, and Lowell.³¹ Other less eminent figures included Josiah

market.

²⁷ John Tebbel, A History of Book Publishing in the United States, New York, Bowker (1972-1981), vol. 2, p. 23, cites an 1834 study that stated the average retail price for American authors was \$1.20 and for foreign reprints, 75 cents. However, it is unclear how this price was arrived at, and to what it refers, much less what a price that averages across all books indicates.

²⁸ Quentin Reynolds, The Fiction Factory, Random House, NY 1955, notes that dime novels were initiated by Irwin P. Beadle and Co in 1860 to publish American authors : “Its detractors could never deny the fact that this was a peculiarly American institution and not a pale replica of English tales” p. 72.

²⁹ Quentin Reynolds, The Fiction Factory, Pp. 75-76.

³⁰ See Warren S. Tryon and William Charvat, The Cost Books of Ticknor and Fields and Their Predecessors, 1832-1858 New York: Bibliographical Society of America (1949.) The firm also published an extensive array of commissioned pamphlets which are not included in these data. Ideally, one would want to conduct a difference-in-difference analysis that captures the relative price changes in foreign and American books before and after the change in the copyright laws, but these data are not available.

³¹ According to the editors of the Cost Books, “Of the outstanding American writers of the period only three names

Bumstead, the author of a set of best-selling children's readers, and Jacob Abbott, who wrote the popular juvenile "Jonas" series.

Figure 2 shows the pattern over time in the log of the average annual retail price of all books by American authors, relative to books by foreign authors. There is clearly a lot of noise in these data, especially in the prices of American books. This was partly due to the unsettled state of the book trade in the 1830s and 1840s, and partly to heterogeneity among books and authors. However, by the 1850s the two series converge. We need to consider whether these patterns were caused by differences in nationality, holding other covariates constant. Table 2 presents the results from a multivariate regression which examines the influence of such variables as time, gender, type of book, and nationality, on the log of nominal price. The unit of observation is an edition of an individual book published by the firm between 1832 and 1858.

The evidence from these regressions does not support the notion that American books were suffering from competition with cheaper foreign books. First editions are likely to be less predictable and thus more difficult to price than subsequent editions, but even here there is no significant difference between the price of a book by an American and a foreign reprint. Indeed, in the only instance in which the dummy variable for American nationality is significant, the coefficient is negative. Variation in prices is mostly explained by average variable cost.³² These results suggest that, after controlling for the type of publication, the cost of the work, and other objective factors, the prices of American books were lower than prices of foreign books. This is not surprising, since prices are not exogenously and arbitrarily fixed, but vary in accordance with a publisher's estimation of market factors such as the degree of competition and the responsiveness of demand to determinants. As one of the respondents to the Wright survey remarked: "The book-purchasing public has not been seriously affected by the act, inasmuch as the

are lacking from the Ticknor lists." These were Poe, Melville, and Whitman. See p. xviii, footnote 7.

³² Estimations of the average cost of publishing indicate strong economies of scale. Hence, independently of piracy, average cost in the United States was likely lower than in Britain because the market of readers was much more extensive in this country. Readers in urban centers in Britain were more likely to belong to commercial lending libraries or book clubs, which again would suggest a more narrow market for an individual work in that country.

ordinary law of supply and demand is sufficient to protect the general public against unfair prices...”³³

American book prices may also have been below those of foreign books to reflect lower perceived quality or other factors that caused imperfect substitutability between foreign and local products.³⁴ Such factors as the literary quality of the book are difficult to quantify, especially since there is likely to be little agreement as to what constitutes a “good book.” I investigated several proxies for quality, including measures of the eminence of an author (on the assumption that a quality author will pen books that are on average of greater merit), as well as proxies of the worth of the book itself.³⁵

Quantitative indices are obviously unlikely to capture all of the nuances and variation in the excellence of literary works, but despite this drawback it is reassuring that these different variables yield consistent conclusions. The third regression in Table 2 is estimated over higher-quality books, by limiting the number of observations to books whose authors received entries of two or more pages in the Dictionary of Literary Biography. When this control for quality is applied, the discount on American titles becomes smaller, suggesting that part of the price differential was due to lower quality among American books.

A second question is whether native authors were deterred by foreign competition. This would depend on the degree to which books by foreign authors were substitutable for books by American authors. It would also depend on the extent to which foreign works prevailed in the American market. According to one of the leading histories of publishing in this era, by 1850 most books in this country were written by Americans.³⁶ However, this is not entirely true for all classes of publications. Early in

³³ United States Bureau of Labor, “A report on the effect of the international copyright law in the United States.” Washington, Govt. Print. Off., 1901, p. 44.

³⁴ Demand might have been lower for a number of reasons, such as the claim that “The difficulties of early American authorship are often attributed to American prejudice against American literature” (Charvat, William, Literary Publishing in America, 1790-1850, Phila., University of Pennsylvania Press, 1959, p. 42). However, one may ascribe such “prejudice” to the higher perceived quality of foreign literature.

³⁵ These measures comprised both discrete and continuous variables regarding: the number of libraries that currently include the book title in their holdings; the number of journal articles that have been written about the author; the number of books written about the author to date; assessments of specific titles and authors in compilations of literary criticism; the total number of editions ever produced; and a composite index.

³⁶ “In all fields of authorship, American books were supplanting the British works. Goodrich estimates that in 1820 American authors wrote 30 per cent of the books, while British authors wrote 70 per cent, but for 1850 his estimate is reversed.” (Hellmut Lehmann-Haupt, The Book in America, 2 nd edition, Bowker, N.Y. 1952, p. 124.) Another frequently cited statistic is the claim that, between 1830 and 1842, “nearly half the publications issued in the United States were reprints of English books,” and that in 1853 there were 733 new titles, which included 278 English

American history the majority of publications were reprints of foreign titles.³⁷ However, nonfiction titles written by foreigners were less likely to be substitutable for nonfiction written by Americans; consequently, the supply of nonfiction soon tended to be provided by native authors. From an early period grammars, readers, and juvenile texts were written by Americans.³⁸ Geology, geography, history and similar works had to be adapted or completely rewritten to be appropriate for an American market.³⁹ Figure 3 shows the fraction of medical books that were written by foreign residents. Until the middle of the century, about half of all medical books were written by European authors, but this figure fell to approximately forty percent soon after. This was true even though the high fixed cost of production for medical volumes deterred rivalry among publishers of reprints, who feared predatory behaviour would lead to large losses.⁴⁰ Thus, publishers of schoolbooks, medical volumes and other nonfiction did not feel that the reforms of 1891 were relevant to their undertakings.⁴¹

On the other hand, foreign authors dominated the field of fiction, so it is worth exploring whether there might be some validity to the idea that there was no Great American Novel in the nineteenth century because of the refusal to acknowledge international copyright laws. If this hypothesis were valid, we might expect some discontinuity in the relative importance of imported and domestic literature as a result

reprints and 35 translations; 1854 765 titles and 277 reprints; and 1855, 1092 titles and 250 reprints. These figures were originally produced by a firm of London booksellers, and reproduced by the Publisher's Circular and Literary Gazette, Sept 13, 2 (37), 1856, p. 552. However, the Gazette later expressed doubts about the accuracy of the information, especially since even a casual count from publishers' trade lists reveal that the fraction of reprints was manifestly higher.

³⁷ According to David Saunders, Authorship and Copyright, London and NY: Routledge, 1992, p. 156, "Harper's first catalogue contained 234 titles of which 90 percent were English reprints, the same pattern being true for Wiley and for Putnam."

³⁸ See Gilreath, Federal Copyright Records, p. xxii.

³⁹ For instance, Carey and Lea, the Philadelphia publishers, originally planned to simply pirate the German encyclopaedia, Konversations-Lexikon, by getting it translated. They soon found that it would need a great deal of original work to be suitable for the American public. The Encyclopaedia Americana appeared after 17 months and, even at a price of \$32.50, was an enormous success. See David Kaser, Messrs. Carey & Lea of Philadelphia, Phila: Univ. of PA Press, 1957.

⁴⁰ William Wood Co, in the Wright survey, p. 88, testified that "Medical works of English authors have but a limited sale in the United States, and even when, with rare exceptions, a book of this class is found to prove unexpectedly popular, the cost of manufacturing such books is so great as to deter one publisher from reprinting on another, with it absolutely understood that the first party would reduce his price so as to make any competition ruinous."

⁴¹ Ginn & Co pointed out in the Wright survey, p. 74, "The question of international copyright law is one which we have not considered very much, as it does not materially affect the schoolbook business. It has almost wholly to do with general literature. Each country has its own methods of teaching, and the school books of one country can not be pirated in another to advantage."

of the change in 1891. Instead, Figure 4 suggests a rather gradual decline over time in the role of foreign authorship. In the period between 1790 and 1829, two thirds of all authors of fiction bestsellers were foreign.⁴² By the early twentieth century Americans comprised the majority of best-selling authors in this country.⁴³ This fall over time in the fraction of foreign authorship was likely due to a natural evolutionary process rather than to the one-time change in the copyright laws in 1891. If there was indeed a discrete change in the relative success of American writers, it occurred after the 1830s with the entrance of such authors as James Fenimore Cooper, Henry Wadsworth Longfellow, Nathaniel Hawthorne and R H Dana. While a close reading of books from this period might lead one to agree that Americans did not produce any great works of literature during this period, there is at least some reason to doubt that this lacuna was due to the lack of copyright protection for foreign books.

Some have claimed that the cadre of professional Americans authors -- especially of novels -- was small or nonexistent because of foreign competition. For instance, the biographer of Edgar Allan Poe contends that Poe switched to short story format because unfair foreign competition meant he was unable to profit from the market for novels.⁴⁴ If it were indeed true that professional authorship was deterred, the reforms in 1891 should have been associated with a discrete rise in the number of Americans whose profession was writing, holding other factors constant.⁴⁵ In order to investigate whether copyright reforms influenced the propensity for Americans to become professional authors, I compiled a random

⁴² See Frank L. Mott, Golden Multitudes: The Story of Best Sellers in the United States. London: Macmillan, 1947, pp. 92-93.

⁴³ Alice P. Hackett and James Henry Burke, Eighty Years of Best Sellers, 1895-1975, New York, Bowker, 1977, imply a more abrupt change, since they argue that in 1895 American authors accounted for two of the top ten best sellers, but by 1910 nine of the top ten were written by Americans.

⁴⁴ See Hervey Allen, Israfel, The Life and Times of Edgar Allan Poe, p. 403, NY, Farrar & Rinehart, 1934. An alternative view (mine) is that even in the absence of any foreign competition Poe would have been an indifferent novelist.

⁴⁵ Some scholars define professional authors as individuals whose sole occupation or source of income was from writing. However, this definition is problematic since it is biased towards women writers who were markedly less likely than men to engage in jobs outside the home. It also to some extent equates professionalism with success, since one is less likely to depend on writing for one's income unless writing provides more income than available alternatives. I define a professional author as a person who is listed in a biographical dictionary as an author, or had written more than ten books. Lawrence Buell, New England Literary Culture: From Revolution through Renaissance, Cambridge: Cambridge University Press, 1986, argues that women writers may have been the first professional writers, because they had few other sources of employment. Between 1820 and 1865 writing was the sole source of income for 34 percent of women authors, relative to 17 percent for men. See Buell, pp. 375-92.

sample of 758 authors from biographical dictionaries. Table 3 describes the characteristics of the sample. Academic and religious books are less likely to be written for monetary returns, and their authors probably benefited from the wider circulation that lack of international copyright encouraged. However, the writers of these works declined in importance relative to writers of fiction, a category which grew from 6.4 percent before 1830 to 26.4 percent by the 1870s. The growth in fiction was associated with the increase in the number of books per author over the same period. Fifty nine percent of the 98 women writers in the sample published in the fiction-only category, but they did not account for more than 39 percent of all fiction authors. Expansions in the market, due to improvements in transportation and the increase in the literary and academic population, probably played a large role in enabling individuals who lived outside the major publishing centers to become professional writers despite the distance.⁴⁶

The average age of a writer of nonfiction at time of first publication was approximately forty years, relative to fiction where average age at first publication was in the early thirties. Since the data are organized by birth cohort, this implies that authors of fiction who were born in the 1860s were the most likely to have been influenced in their choices by the change in the copyright laws. The regressions in Table 4 are directed toward the question of whether writers were discouraged from choosing authorship as a career by the lack of international copyright protection. The results do not seem to support this contention. The first set of regressions report the coefficients from a linear probability model that estimates the factors that influenced whether an author was a professional author. The time dummies suggest a fairly steady increase over time in the likelihood of this occurrence, with the biggest increase in the cohort born in the 1880s, who would have become writers around 1910 or 1920. For fiction, the biggest increase occurs for the birth cohort between the 1840s and the 1850s, the members of which would have entered the market before the reforms of 1891.

Although these results do not support the hypothesis that the lack of copyright protection discouraged authors, this does not imply that intellectual property policy in this dimension was of little

⁴⁶ For a discussion of the influence of transportation on book distribution, see Ronald J. Zboray, *A Fictive People. Antebellum Economic Development and the American Reading Public*, New York : Oxford University Press, 1993.

economic significance. It is likely that the lack of foreign copyrights led to some misallocation of efforts or resources, such as in attempts to circumvent the rules. A number of authors changed their residence temporarily when books were about to be published so they could qualify for copyright protection. Marryat was a resident in the U.S. in 1838 and claimed eligibility on these grounds, but the courts ruled that one also must have the intention to become a citizen. American authors such as Samuel Clemens visited Canada in order to satisfy the more lenient British regulations which permitted copyright protection for books whose authors were present within the borders of Britain or its colonies at time of publication, regardless of actual citizenship. Others obtained copyright through other stratagems such as co-authorship with a foreign national. T H Huxley adopted this ploy, arranging to co-author with “a young Yankee friend ... Otherwise the thing would be pillaged at once.”⁴⁷ An American publisher suggested that Kipling should find “a hack writer, whose name would be of use simply on account of its carrying the copyright.” Harriet Beecher Stowe proposed a partnership with Elizabeth Gaskell, so they could “secure copyright mutually in our respective countries and divide the profits.”⁴⁸

Courts were somewhat sympathetic to these subterfuges, as a lawsuit involving the Encyclopaedia Britannica reveals. The British publishers engaged a number of American contributors for the volumes, and these individuals obtained copyright protection, which the infringers of the Encyclopaedia challenged as a mere colorable evasion of the law as it stood. The court ruled that “There was no impropriety in soliciting competent citizens of the United States to write upon its history, and I can perceive no unfairness or injustice towards the defendant company in the plaintiffs' use of the copyright laws for their pecuniary advantage, and as a weapon with which to repel a competition which is more enterprising than considerate.”⁴⁹

⁴⁷ Simon Nowell-Smith, International Copyright Law and the Publisher in the Reign of Queen Victoria, Oxford, Clarendon Press, 1968, p. 70.

⁴⁸ Susan Coultrap-McQuin, Doing Literary Business, Chapel Hill: UNC Press, 1990, p. 89. Elizabeth Gaskell was not persuaded by the scheme.

⁴⁹ See *Black v. Henry G. Allen Co.*, New York, 42 F. 618, June 26, 1890 . “The Encyclopaedia Britannica, as a whole, was the production of aliens, who could obtain no copyright in this country, and is a work of great value to the whole people. The employment of citizens of the United States to write articles which were to be used in some of its volumes, and the purchase of an interest in the copyright of such articles, were an attempt to deprive the defendant, and other like-minded persons, of a privilege which they would have otherwise enjoyed, and were for the

PUBLISHERS

The previous analysis related to authors, but it is widely acknowledged that copyrights in books during this period tended to be the concern of publishers rather than of authors (although the two were naturally not independent of each other). Early privileges and copyright in books in Europe were largely granted to regulate the book trade and to ensure that publications were non-seditious. Publishers were allowed copyrights in the books they produced, and authors frequently sold the copyright to the publisher outright, thus transferring all risk in exchange for a lower but more certain payment. Similarly, the U.S. copyright statutes allowed property rights to issue to “proprietors” as well as to authors, and the registration records show that it was a common practice in the United States for the publisher to file for the initial copyright in a book. However, even when authors retained the copyright, publishers were most at risk because they were required to make large fixed investments that might be lost if the sales of the book were low due to piracy.

Publishers in this country were able to prevent unauthorized copying of books by American authors and enforced their property rights in the United States through the threat of legal action.⁵⁰ The growth in actual litigation was minimal until the 1880s, suggesting that infringement of domestic authors was within manageable proportions.⁵¹ Many of the early copyright cases dealt with genuine questions

purpose of giving the foreign owners of the encyclopaedia an advantage in the sales of the work in this country. The attempt contained an element of unfairness, because the book, if written by foreigners, could be reproduced here, and the complainants have only a color of copyright interest, and therefore should not receive the sanction of the courts.... The acts of the Messrs. Black were for the purpose of making a use of the statutes which might assist them against pecuniary loss, and give them a more unobstructed field for their large commercial venture. The disputed point is whether there was an element of fraud or injustice in the scheme which would prevent a court from regarding it with favor.” See also *Carte v. Evans*, Circuit Court, D. Massachusetts, 27 F. 861 (1886) which related to a pianoforte arrangement for Gilbert and Sullivan’s *Mikado*: “There is nothing in our copyright law to prevent one of our own citizens from taking out a copyright of an original work composed by him, even though the work of composition was performed at the procurement and in the employment of an alien; or from assigning his copyright to an alien under an agreement made either before or after the composing of the work. A nonresident foreigner is not within our copyright law, but he may take and hold by assignment a copyright granted to one of our own citizens. The proprietor as well as the author is entitled to enter the work for copyright.”

⁵⁰ The landmark Supreme Court case *Wheaton v. Peters*, 33 U.S. 591 (1834) did not recognize state common law rights for publications, in the interests of a national, uniform policy. Thus, the boundaries of property in patents and copyrights in this country are specified by federal statute and enforced by litigation in the federal courts. The Supreme Court found that no common law copyright protection existed for published works, which were products of the existing statutes. Unpublished works, however, were protected under common law. The dissenting minority opinion argued that authors held an inherent right in their creations beyond their statutory right.

⁵¹ See Kaser, p. 143, “the second quarter of the nineteenth century saw few copyright violations disturb the

regarding the boundaries of property rights in literary, dramatic and artistic works, rather than blatant disregard of the claims of legitimate property owners. By contrast, the situation was quite different for books by foreign authors for which no copyright protection existed in the United States. If all firms produced rival editions, competition was likely to drive prices down to marginal cost, in which case the high initial fixed investments would not be recovered. Throughout the period, publishers attempted to avoid such “ruinous competition” and engaged in numerous unsuccessful attempts to cartelize and fix prices. Alternatively, the first producer could saturate the market and others would suffer from their excess inventories. In the early years of the nineteenth century firms engaged in publication races in order to be the first in the market with popular books such as the works of Sir Walter Scott.⁵² A Waverley novel could be reprinted within twenty four hours through a gang system where the book was divided among as many as a dozen printers working at full capacity. Carey & Lea, a prominent Philadelphia firm, supplied the remote frontier markets before selling in New York, where rival printers stood ready to reprint at the first appearance of the books. If they judged the size of the market accurately, the winners of the race were able to sell all copies that they had printed, while the other firms lost their initial outlay.

One of the consequences of such races was a greater likelihood of mistakes or deliberate alterations in the attempt to be first and to reduce costs.⁵³ For instance, Carey & Lea paid Sir Walter Scott \$1475 for an early manuscript copy of his Life of Napoleon. Subsequently, readers were concerned that Scott had made changes after the proofs had been pulled, and these improvements were not reflected in the American edition. Within one month of the American publication date, a small New York firm produced an abridged version, without the author’s consent, which was advertised as preferable to the “voluminous” original. Complaints were also rife about Carey & Lea’s edition of The Pirate, which had

comparative quiet of the domestic publishing scene.” The data on copyright litigation support this claim (Khan, Democratization of Invention.)

⁵² The details about the firm of Carey & Lea are from Kaser, 1957.

⁵³ “Speed was of the greatest importance in any reprinting venture; and speed bred carelessness. American editions became more and more sloppily printed and bound. Workmanship degenerated. Proofreaders corrected only the most obvious errors. Printed sheets and bindings were often not properly pressed.” Kaser, p. 92.

omitted an entire chapter. Authors lost control of their work: for instance, Robert Browning sent a list of errata to Ticknor and Fields, in the hope that the American edition would be updated, but the corrections were never made.⁵⁴ Other complaints included charges that the spelling in Macaulay's History of England was Americanized, that hack authors were sometimes put to the task of creating a version that was more likely to appeal to American tastes, or even that enterprising unknowns marketed their work under the guise of a more meritorious foreign author's name. These allegations suggest that the lack of formal copyrights and the prevalence of publication races led to lower quality in the literary market. However, if consumers cared about quality over price, this created an incentive for sorting among publishers thus leading to appropriation through reputation and, indeed, the more "reputable" publishers were able to secure greater returns in part because they offered products that were more likely to be free of defects.⁵⁵

To the firm that won the race, profitability of foreign books was likely to be initially higher than for American works. The market for writers like Scott and Dickens was more predictable and certain. By trading in on the established reputation of foreign authors, the publisher also was able to lower advertising and marketing costs. Other things being equal, foreign books were likely to entail less risk at lower cost and higher margins than those by American authors. But competition and the probability of being the loser in the race decreased these advantages. Henry Carey paid an agent \$250 per year to send English titles to his firm in Philadelphia, and was so concerned about the delay of several days at the New York customhouse that he also hired another agent in New York to expedite the process.⁵⁶ Publishers increasingly bought early proof sheets to get an advantage over others who waited until the first imprinting. In order to secure early sheets, Ticknor and Fields make significant payments to foreign authors in the form of royalties or simple lump sums out of profits. For instance, the company offered

⁵⁴ Cost Books, p. 338.

⁵⁵ The reputational effect may partly explain why foreign pharmaceutical firms in Brazil increased their share of the domestic market even in the absence of patent protection. See C R Frischtak, "The Protection of Intellectual Property Rights and Industrial Technology Development in Brazil," in F W Rushing and C G Brown (eds), Intellectual Property Rights in Science, Technology, and Economic Performance, Westview, 1990.

⁵⁶The distance between Philadelphia and New York translated into a significant disadvantage for publishers in

£60 for the advance sheets for Robert Browning's Men and Women in 1855, and the following year paid £100 for the early sheets and engravings of Mayne Reid's juvenile fiction work, The Bush Boys. The firm also sent several unsolicited payments over the years to Tennyson out of profits on his poetry reprints.⁵⁷ Such payments ensured the coincidence of publishers' and authors' interests, and were recognized by reputable publishers as "copyrights."⁵⁸ However, they naturally did not confer property rights that could be enforced at law.⁵⁹ As the cost of advance payments and the probability of copying increased, the relative advantage to publishers of some means of exclusion became greater.

Publishers in England had faced similar problems before, in the market for books that were in the public domain, such as those by Shakespeare and Fielding.⁶⁰ Their solution was to collude in the form of strictly regulated cartels or "printing congers." Cooperation resulted in risk-sharing and a greater ability to cover expenses. The congers created divisible property in books that they traded, such as a one hundred and sixtieth share in Samuel Johnson's Dictionary that was sold for £23 in 1805. The unstable publication races in the United States similarly settled down during the 1840s to collusive standards that were termed "trade custom" or "courtesy of the trade." Publishing houses were acknowledged to have the exclusive right to reprint specific authors. For instance, Bulwer-Lytton was associated solely with Harper Brothers, whereas Marryat was customarily reprinted by Carey & Lea. In the case of new authors, the first publisher to receive the item or the first to list the work in a trade publication was deemed to have the

Philadelphia, and may ultimately have granted New York its precedence in the publishing industry.

⁵⁷ Thackeray noted that in the United States "Even the publishers are liberal one gives me a thousand dollars and another 500 or perhaps 1000 more for books to be republished." Cited in Peter L. Shillingsburg, Pegasus in Harness: Victorian Publishing and W. M. Thackeray, Charlottesville, Va. : University Press of Virginia, 1992.

⁵⁸ In the exchange between Charles Reade and Ticknor and Fields (p. 372 Cost Books), Reade authorized the firm to reprint his work It is Never Too Late to Mend. When it seemed that the Appletons would publish another edition, he wrote to Ticknor and Fields that this was unlikely because Appleton would desist when they found out that they would have to publish with a one-month delay behind Ticknor: "They might do the wrong thing for the Tea, but they are too respectable to do it for the Tea leaves!"

⁵⁹ As late as 1902, this issue was brought before the courts. See *Fraser v. Yack et al.*, 116 F. 285 (1902): "We are of opinion that the contract conferred no rights of proprietorship in the manuscript, but only the right of publication coincidentally with or in advance of the publication of the work in England."

⁶⁰See A. S. Collins, Authorship in the Days of Johnson, London, Robert Holden and Co., 1927. Aileen Fyfe, "Copyrights and Competition: Producing and Protecting Children's Books in the Nineteenth Century," Publishing History, vol. 45 (1999), pp. 35-59, argues that the "share-book" system survived until the middle of the 19th century in the market for children's books. The system served as a means through which participants could spread and share risk, raise capital, and also control competition.

right to exclude other reprinters. Firms that violated these rules were punished or at least threatened with punishment.⁶¹

If publishers were harmed by the lack of legal copyright it might be expected that this would be reflected in their profits, which would tend to be declining or negative as a result of the competition. Table 5 considers the profit margins for the firm of Ticknor and Fields, one of the leading reprinters in the United States during the nineteenth century. The lack of statistical significance in these regressions of the time dummies before 1860 do not support the view that profits were declining as a result of unbridled competition. Ticknor and Fields was well known for its poetry publications, which were apparently a source of profit for the firm relative to other types of books. Profits were somewhat higher for foreign titles, as shown by the negative coefficient on the dummy variable representing American nationality, but the magnitude of the effect is not large, especially since the costs do not include all lump sum payments to foreign authors. The publishing industry was able to secure relatively stable returns because competition among the major firms had settled into an established situation of tacit collusion. American firms, like their British counterparts in the previous century, were able to appropriate returns by means of “synthetic copyrights” that were created by publishers in the absence of legal protection.

The case of *Sheldon v. Houghton*, 21 F. Cas 1239 (1865), indicates that these rights were considered to be “very valuable, and is often made the subject of contracts, sales, and transfers, among booksellers and publishers.” Henry Houghton, who purchased the initial synthetic right from O. W. Wight, subsequently formed a partnership with Sheldon & Co of New York to publish, print and market the “Household Edition” of Charles Dickens’ works. In 1865 Houghton decided to terminate the contract, which Sheldon contested in court because the market value of the publication right had increased under the partnership to some thirty thousand dollars. The very fact that a firm would file a plea for the court to

⁶¹ According to Kaser, p. 150, “[Henry Carey] wrote almost weekly to the New York firm [Harpers] warning them, threatening them, advising them, not to challenge his firm to an all-out war.” The right to Thackeray’s books was adopted by Harper’s publishing company, which made Thackeray declare that “there’s no danger now of their being pirated in this Country [the United States], the Harper’s being the chief buccaneers, & the perfect terror of all their brethren in these seas” (quoted in Peter L. Shillingsburg, *Pegasus in Harness: Victorian Publishing and W. M. Thackeray*, Charlottesville, Va. : University Press of Virginia, 1992, p. 126).

protect its claim indicates how vested a right it had become. The plaintiff argued that “such custom is a reasonable one, and tends to prevent injurious competition in business, and to the investment of capital in publishing enterprises that are of advantage to the reading public.”

The court pointed out that “if anything which can be called, in any legal sense, property, was transferred to this partnership, it must have been that incorporeal right to publishing this edition of Dickens.” However, this was based on the custom of the trade, which “is very far from being a legal custom, furnishing a solid foundation upon which an inviolable title to property can rest, which courts can protect from invasion. ... It may be an advantage to the party enjoying it for the time being, but its protection rests in the voluntary and unconstrained forbearance of the trade. I know of no way in which the publishers of this country can republish the works of a foreign author, and secure to themselves the exclusive right to such publication ... For this court to recognize any other literary property in the works of a foreign author, would contravene the settled policy of Congress.” Thus, synthetic rights differed from copyrights in the degree of security that was offered by the enforcement power of the courts. Nevertheless, even in the absence of legal property rights in foreign works, synthetic copyrights were able to transform a competitive environment into a quasi-monopolistic arena. These title-specific rights of exclusion decreased uncertainty, enabled publishers to recoup their fixed costs, and avoided the wasteful duplication of resources that would otherwise have occurred. In short, publishers were able to achieve some degree of appropriation through industry structure rather than through government-mandated monopolies.

CONCLUSION

The appropriate role of intellectual property in development remains a complex and unresolved issue. Theoretical models tend to provide ambiguous answers to the question of whether “piracy” results in net welfare benefits or costs, and the trade-offs over time are even less understood. Few studies

provide empirical assessments, especially from the point of view of developing countries. Thus, potentially useful insights may be gleaned from the nineteenth century, a period when the United States was itself a developing country. The United States maintained very different policies towards authors and inventors. American technology early on was internationally competitive, so it is not surprising that, in the case of patents, the social good was seen as coincident with the award of secure and strong patent rights to individual inventors regardless of their citizenship. However, the rationale for copyrights was not as unambiguous because of the weaker incentives from their grant and the higher social costs of restricted access. Moreover, the lack of distinction in American cultural output led to a negative balance of trade in such products and created an economic incentive to engage in international copyright piracy.

This paper investigated the welfare effects of such “piracy” in part by taking advantage of the natural experiment that occurred when the international copyright laws were reformed in 1891. The analysis explored the consequences of U.S. copyright piracy in the 19th century in terms of its impact on books, authors, publishers, and the general public. Claims had been made that prices of foreign books were so low that books by Americans could not compete; that professional authors were deterred by “unfair foreign competition”; that American society suffered from a lack of quality domestic literature as a result of copyright policies; and that publishers’ profits were driven down over time by the inability to exclude competitors. I find little support for these contentions. Publishers appear to have priced in accordance with the dictates of the market, and may have charged lower prices for American literature in part because of lower demand or lower perceived quality. According to conventional economic analysis, in the absence of legal protection the market prices of books are likely to be competitively bid down to marginal cost, and publishers would be deterred by their inability to recover fixed costs. This was not the case because, despite the lack of copyright protection, publishing houses were able to appropriate returns through cartelization, price discrimination across firms, and the creation of synthetic copyrights. However, the lack of formal enforcement of property rights may have led to higher costs of production for the industry, lower investments in quality, and a diversion of resources from production to rent-seeking.

After the copyright reforms in 1891, both English and American authors were disappointed to

find that the change in the law did not lead to significant gains from foreign royalties.⁶² This is consistent with the regression results, which suggest that professional American authorship seems to have developed through a natural evolutionary process. Foreign authors may even have benefited from the lack of copyright protection in the United States. Despite the efforts of publishing cartels, competition for synthetic copyrights ensured that foreign authors were able to ratchet up payments that American firms made to secure the right to be first on the market. It can also be argued that foreign authors were able to reap higher total returns from the expansion of the American market. For, the lack of copyright protection functioned as a form of international price discrimination, where the product was sold at a higher price in the developed country, and at a lower in the poorer country, with the result that the size of the market was larger than under a uniform pricing strategy. Under such circumstances, returns to authors might have been higher for goods with demand externalities or network effects such as “bestsellers” where consumer valuation of the book increases with the size of the market.⁶³

The inframarginal foreign writers were able to obtain returns through competition on the part of American publishers to gain their “authorization.” They were able to exploit network effects as piracy increased the scale of readership in the United States, in some instances far in excess of the high-priced and restricted European markets. Charles Dickens, who launched bitter diatribes in public appearances and in his writings against “the continental Brigands” who pirated his works in the United States, in fact benefited significantly from such bandwagon and network effects. He played American publishers off against each other, and as many as four companies paid him large sums and had legitimate claims for considering themselves his sole U.S. representative. Moreover, Dickens was able to parlay his popularity among readers of his pirated works into a heightened demand for complementary fee-based lectures. His

⁶² This section is based on “Results of the Copyright Law,” in G. H. Putnam, The Question of Copyright, New York, G P Putnam’s Sons, 1896: 162-174. After the change in the copyright law, publishers price discriminated across time rather than across region. They tended to bring out the higher priced, more elaborately bound volumes first, and the cheaper versions only after a year or two.

⁶³ Lisa Takeyama, “The Welfare Implications of Unauthorized Reproduction of Intellectual Property in the Presence of Demand Network Externalities,” Journal of Industrial Economics, v. 42 (2) 1994: 155-166. The designer fashion industry provides an example where a culture of copying benefits innovation, according to Kal Raustiala and Chirs

U.S. reading tour of 1867-68 comprised 76 appearances that earned the author the astonishing sum of \$228,000 in total receipts.⁶⁴

In general, the greater the responsiveness of authors to financial returns, the stronger the case for copyright protection. Financial incentives to authors tended to be relatively unimportant in the case of nonfiction, whose authors benefited more from diffusion (proselytizing and reputational effects), and we noted the predominance of nonfiction titles in the earlier part of the century. Thus, the emerging commercial market for new American fiction was the most affected, but from the point of view of many contemporary commentators, fiction was long regarded as a discretionary or luxury good. The movement for international copyright gained impetus only towards the end of the century because of the growing importance of popular fiction written by American authors.

The reading public appears to have gained from the lack of copyright which increased access to foreign works. American authors and the public were able to obtain foreign books at prices that were lower than in European markets, and this aided the expansion of a mass market and economies of scale in publishing in the United States. This was especially true of the market for fiction. After 1891, this “unnatural demand” for cheap fiction went unsatisfied in the case of new titles but, since the law was not retroactive, formerly unprotected works were still in the public domain. Books were no longer printed on the “scramble system” and it was argued that these were characterized by higher quality and accuracy. A number of cheap reprint establishments went bankrupt, although some observers attributed this not to the law, but to the “cutthroat competition” that had been prevalent among fringe firms. Moreover, the business depression of 1893 would have contributed to this shakeout even in the absence of the legal changes. Thus, after the reforms the prices of some books were higher, and the range of choices less

Sprigman, “The Piracy Paradox: Innovation and Intellectual Property in Fashion Design,” UCLA School of Law Research Paper No. 06-04, January 2006.

⁶⁴ See Andrew J. Kappel and Robert L. Patten, “Dickens’ Second American Tour and his “Utterly Worthless and Profitless” American Rights,” in *Dickens Studies Annual*, vol. 7 (1978), pp. 1-33. Similarly, William M. Thackeray “discovered with some astonishment that the lecture circuit was more lucrative in the short run than book publication,” according to Peter L. Shillingsburg *Pegasus in Harness: Victorian Publishing and W. M. Thackeray*, Charlottesville, Va. : University Press of Virginia, 1992.

extensive than would have been the case if the law remained unchanged. Still, the loss to consumers from this aspect of the reforms may have been insignificant, since the books and firms that had depended on the subsidy from the international copyright laws were likely of marginal value.

This episode in the history of intellectual property is broadly relevant to the 21st century, especially in terms of developing countries. The United States today evinces great concern about the consequences for corporate profits of both domestic and international piracy. However, Congress in the nineteenth century repeatedly rejected proposals for reform in U.S. international copyright laws because the emphasis in that era was on fulfilling the objectives of the Constitution in promoting the progress of social welfare. In a democratic society this was interpreted as a mandate for ensuring that the public had ready access to literature, information, education and other conduits for achieving learning and equality of opportunity. Such democratic values may even have furthered the interests of those who were the subject of so-called piracy since, as discussed here, even in the absence of copyright protection, foreign authors directly or indirectly benefited from the larger fraction of literate consumers in the United States. U.S. publishers were not demonstrably harmed by the lack of formal protection because they were able to create parallel rights that were privately enforced, and evolved effective firm-level strategies such as price and quality discrimination. This finding is borne out by the fact that the highest profit margins in book publishing today are derived from reprints of out-of-copyright “classics.”

At present there is a narrow emphasis on state-created rights and less on private market-generated means of exclusion such as private contracts or monitoring. However, given that firms’ strategies regarding appropriation are endogenous to the security of copyrights, strong measures by the state to counter “piracy” may lead to social overinvestment in property rights enforcement. Some scholars have expressed concern that technological methods of exclusion at the firm level have the capacity to unduly restrict public access in perpetuity, without the social balance of costs and benefits that underly welfare maximization. For others, the censure of both copyright “piracy” and price discrimination may rest on outmoded notions of competition since, in some contexts, copyright “piracy” may merely constitute fair

use by another name.⁶⁵ Some lessons may be derived from the period when the United States flourished as a “continental Brigand,” and for a century successfully resisted international pressures to conform. It is worth emphasizing that, once the U.S. had developed its own native stock of literary and cultural capital that was valued in the market place, it voluntarily had an incentive to recognize international copyrights.⁶⁶ In sum, the U.S. experience during the nineteenth century suggests that appropriate intellectual property institutions are not independent of the level of economic and social development.

⁶⁵ British copyright policies during the nineteenth century are instructive. Britain administered a two-tiered international intellectual property system that attempted to address the needs of its colonies. In 1847 Britain passed the Foreign Reprints Act which allowed colonies to import the works of British authors without copyright protection, and also allowed legal price discrimination with significantly lower prices for overseas editions. See B. Zorina Khan, *Intellectual Property and Economic Development: Lessons from American and European History*, Study Paper 1a, British Commission on Intellectual Property Rights, London (2002).

⁶⁶ William P. Alford, *To Steal a Book Is an Elegant Offense: Intellectual Property Law in Chinese Civilization*, Stanford, California: Stanford University Press, 1995, argues that Taiwan has successfully integrated international intellectual property laws because these rules were endogenously adopted as a result of internally-generated domestic political and economic changes. He contrasts these policies to China, where Western institutions were externally imposed with little regard for the local culture and conditions.

Table 1: Effects of Changes in Copyright Law
Survey of Firms in the U.S. Book Trade, 1900

Effects on:		
American Authors		
Beneficial	44	74.6%
Harmful	2	6.8
Mixed effects	2	3.4
None	9	12.9
Foreign Authors		
Beneficial	54	93.0%
Harmful	0	0.0
Mixed effects	2	3.5
None	2	3.5
Publishers		
Beneficial	52	74.3%
Harmful	13	18.6
Mixed effects	3	4.3
None	2	2.9
Public		
Beneficial	35	59.3%
Harmful	15	25.4
Mixed effects	6	10.2
None	3	5.0
Prices of Books		
Increased	25	47.2%
Decreased	7	13.2
Mixed	6	9.4
No change	16	30.2
Conclusion: Effects of Piracy		
Beneficial	15	23.4%
Harmful	41	64.1
Mixed effects	6	9.4
No effect	2	3.1

Source: A Report on the Effect of the International Copyright Law in the United States, Carroll D. Wright, Washington, GPO, 1901.

Notes: The survey was conducted in accordance with a resolution of the U.S. Senate in 1900. Questions included: “Has the international copyright law been detrimental or beneficial to – a. publishers or book manufacturers; b. printers and their employees; c. American authors; d. foreign authors; e. the book-purchasing public?” “Has the effect of the law been to increase or reduce the selling price of books?” and “Was “piracy” as practiced prior to the enactment of the international copyright law, beneficial or injurious to printers or publishers?” The questions were answered by printers and publishers in Boston (11), Buffalo and New York (34), Chicago (5), Cleveland (3) and Philadelphia (17). The respondents gave their opinions in essay form, which I have tabulated, not including in the totals instances where the question was not addressed.

Table 2
 Regressions of prices for books published by Ticknor and Fields, 1832-1858
 Dependent variable: Log of Retail Price

	ALL EDITIONS			FIRST EDITION	
	(1)	(2)	(3)	(4)	(5)
Intercept	4.10*** (39.88)	1.34*** (15.37)	1.60*** (13.40)	4.23*** (20.00)	2.08*** (8.95)
Time Dummies					
1840-44	-0.02 (0.14)	0.17 (1.56)	0.24* (2.02)	0.29 (1.07)	0.15 (0.76)
1845-49	0.14 (0.12)	0.24*** (3.66)	0.37*** (3.72)	0.02 (0.08)	0.12 (0.74)
1850-54	0.15 (1.34)	0.18*** (2.90)	0.44*** (4.75)	0.35 (1.62)	0.21 (1.32)
1855-58	0.15 (1.37)	0.18*** (2.90)	0.43*** (4.59)	0.37 (1.68)	0.21 (1.30)
Nationality	-0.07 (1.65)	-0.12*** (4.97)	-0.06*** (2.41)	-0.01 (0.09)	-0.01 (0.12)
Gender	0.10 (1.70)	0.01 (0.29)	-0.05 (1.49)	-0.06 (0.80)	-0.06 (0.97)
Fiction	0.19*** (3.68)	0.02 (0.78)	-0.10*** (3.07)	-0.18** (2.06)	-0.09 (1.42)
Poetry	0.30*** (5.80)	0.10*** (3.29)	0.01 (0.41)	-0.24*** (2.80)	0.00 (0.32)
Log(Av cost)	----- -----	0.84*** (41.54)	0.72*** (28.51)	----- -----	0.61*** (12.53)
	R-sq=0.08 F=8.12*** N=756	R-sq=0.72 F=216.15*** N=753	R-sq=0.69 F=119.76 N=492	R-sq=0.10 F=2.48*** N=190	R-sq=0.52 F=21.51*** N=189

Notes:

- * Significant at 5 percent level
- ** between 1 and 5 percent
- *** 1 percent level or below

Absolute value of t-statistics in parentheses. The observations refer to book titles published by Ticknor and Fields, and do not include annual publications that are not priced such as the firm's catalogues. The dependent variable is the log of the stated retail price, unadjusted for inflation. The results for the nontrend variables are qualitatively the same when adjusted for inflation. Costs are variable costs, excluding expenses that the firm allocated to "overhead" (salaries, rent, advertising, insurance, interest, taxes, postage and cost of travel). Costs do not include fixed payments for early sheets made to foreign authors. They predominantly comprise royalties and production costs (paper, composition and printing, illustrations, and binding.)

Source: Cost Books of Ticknor and Fields; Dictionary of Literary Biography, Gale, various years. See text.

Table 3
CHARACTERISTICS OF AUTHORSHIP

	Year of birth of author				ALL
	Before 1830	1830-49	1850-69	1870-89	
	Percent of Authors				(No.)
TYPE OF BOOK					
Religion	21.1%	9.8%	5.1%	6.2%	98
Fiction and juvenile	6.4	11.0	20.5	26.4	104
Poetry and Drama	1.6	4.9	11.0	9.1	41
Both fiction and nonfiction	7.7	8.0	14.6	12.5	75
Nonfiction	63.2	66.3	48.8	45.8	439
TOTAL NUMBER OF BOOKS PUBLISHED					
1-2	35.8%	37.4%	21.9%	10.3%	218
3-5	37.1	33.7	36.5	34.5	271
6-10	21.1	19.6	27.7	38.6	192
More than 10	6.1	9.2	13.9	16.6	77
PROFESSION					
Listed as Author	8.0%	13.5%	26.3%	24.5%	118
Professional Author	7.8	12.4	17.6	18.2	88
REGION OF BIRTH					
Mid-Atlantic	27.5%	37.7%	28.4%	27.1%	223
Midwest	1.9	9.9	18.7	33.3	95
New England	46.9	35.2	26.9	16.7	262
South	12.0	6.8	14.9	12.5	86
Foreign	11.7	10.5	11.2	10.4	83
RESIDENCE					
Mid-Atlantic	45.6%	46.5%	36.5%	39.0%	246
Midwest	5.6	12.7	16.2	27.1	62
New England	29.1	33.1	35.1	20.3	168
South	15.4	6.3	6.8	11.9	65
Foreign	4.2	1.4	5.4	1.7	19
RESIDENCE IN URBAN CENTER (Phila., Boston, NY, Chicago)					
	33.2%	31.9%	17.5%	0.7%	181
PERCENT WOMEN					
	6.4%	19.0%	19.7%	14.5%	99
AVERAGE AGE AT FIRST PUBLICATION (Years)					
Nonfiction	42.6	44.6	41.9	40.2	--
Fiction	30.2	31.7	33.9	34.8	--
SAMPLE SIZE					
	313	163	137	145	754

Sources: See Text.

Table 4
Factors Influencing Authorship in the Nineteenth Century

Variable	Dependent Var: Professional Authors		Dependent Var: Fiction Authors	
Intercept	0.12*** (2.20)	0.09* (1.92)	0.02 (0.41)	-0.00** (0.94)
DECADE OF BIRTH				
1810-19	0.00 (0.04)	0.02 (0.36)	-0.02 (0.27)	0.01 (0.13)
1820-29	0.11* (1.93)	0.09* (1.85)	0.02 (0.39)	0.01 (0.17)
1830-39	0.11* (1.95)	0.03 (0.63)	0.12** (2.22)	0.06 (1.29)
1840-49	0.14*** (2.49)	0.08 (1.49)	0.08 (1.58)	0.03 (0.56)
1850-59	0.29*** (4.91)	0.15*** (2.77)	0.26*** (4.73)	0.19*** (3.68)
1860-69	0.28*** (4.45)	0.17*** (2.97)	0.23*** (4.03)	0.18*** (3.38)
1870-79	0.20*** (3.30)	0.09 (1.74)	0.24*** (4.34)	0.21*** (4.16)
1880-89	0.48*** (4.94)	0.30*** (3.42)	0.35*** (5.94)	0.29*** (5.24)
REGION OF BIRTH				
Midwest	-0.12 (1.85)	-0.12* (1.96)	-0.01 (0.13)	0.02 (0.34)
South	-0.00 (0.04)	-0.04 (0.72)	0.10 (1.78)	0.10* (1.94)
Midatlantic	-0.04 (0.81)	-0.06 (1.24)	0.06 (1.28)	0.06 (1.42)
New England	0.01 (0.19)	-0.01 (0.29)	0.06 (1.34)	0.05 (1.14)
GENDER	-----	0.25*** (5.47)	-----	0.41*** (10.57)
FICTION	-----	0.39*** (9.60)	-----	-----
	R-sq=0.08 F=4.64 *** N=699	R-sq=0.28 F=19.04*** N=699	R-sq=0.09 F=6.28*** N=754	R-sq=0.21 F=15.25*** N=754

Notes:

- * Significant at 5 percent level
- ** 1 -- 5 percent
- *** 1 percent level or below

Absolute value of t-statistics in parentheses. The dependent variable in first two regressions has the value of 1 if the individual's primary occupation was listed as author OR if he or she had published more than 10 books. The dependent variable in the next two regressions takes on a value of 1 if the individual's primary occupation was listed as a fiction author. The excluded regional dummy represents authors who were born in other countries. Gender is 0 if male, 1 if female. Fiction is a dummy that has a value of 1 if the author published only in the area of fiction, poetry or drama. The results do not vary if a probit or logit model is used instead of the linear probability model.

Table 5
Profit Margins for Ticknor and Fields, 1832-1858

Variable	(Weighted by Number of Copies Published)	
	Parameter	Parameter
Intercept	-0.61*** (15.99)	-0.57*** (15.34)
Time Dummies		
1840-44	0.01 (0.14)	-0.01 (0.12)
1845-49	0.03 (0.77)	0.06 (1.43)
1850-54	-0.01 (0.28)	0.00 (0.04)
1855-58	0.01 (0.28)	0.01 (0.26)
Gender	0.02 (1.12)	0.04*** (2.37)
Fiction	0.02 (1.39)	0.01 (0.63)
Poetry	0.08*** (4.95)	0.08*** (5.24)
Edition	0.01*** (3.27)	0.01*** (4.66)
American	----- -----	-0.08*** (6.71)
	R-sq=0.06 F=5.72 *** N=750	R-sq=0.11 F=10.38*** N=750

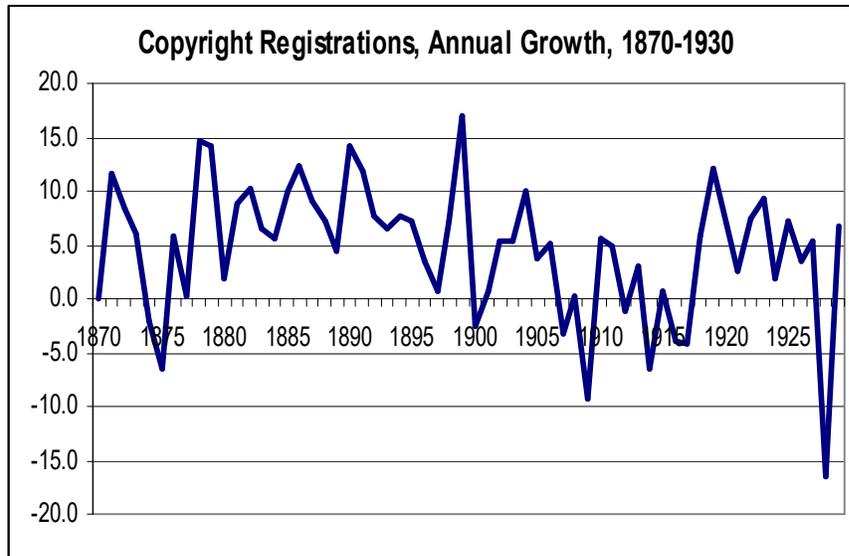
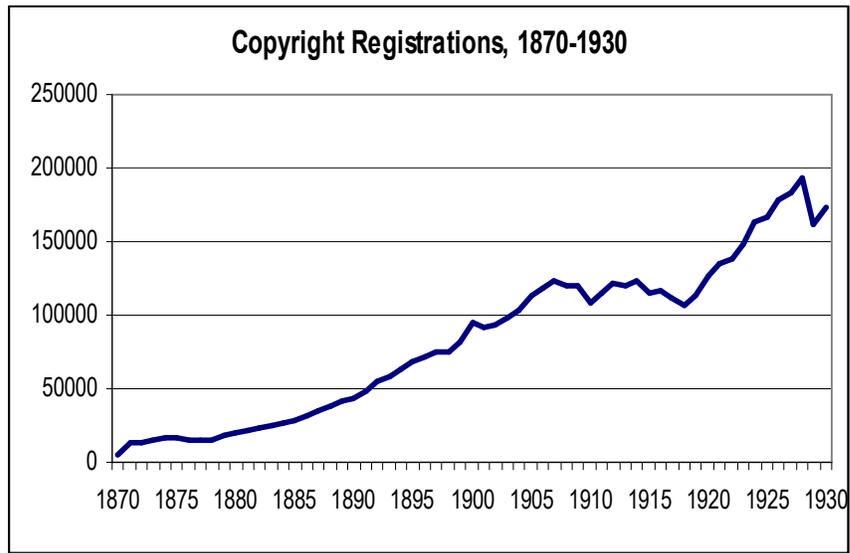
Notes:

- * Significant at 5 percent level
- ** between 1 and 5 percent
- *** 1 percent level or below

Absolute value of t-statistics in parentheses. The observations refer to editions published by Ticknor and Fields, and do not include annual publications that are not priced such as the firm's catalogues. The dependent variable is the profit margin ((price-average cost)/price). The data are unadjusted for inflation. The conclusions are the same when the data are adjusted for inflation. The dummy variable American has a value of 0 if foreign, 1 if American; Gender = 0 if male, 1 if female. Fiction includes drama and juvenile fiction. The regressions are weighted by the number of copies of each edition that was published. Since some copies may have been sold at a discount of the retail price, revenues are likely overestimated. The firm made fixed payments to foreign authors that were not always recorded in the cost books so costs for foreign works are underestimated. Costs refer to publishing costs, and exclude labour costs and certain fixed expenses such as advertising.

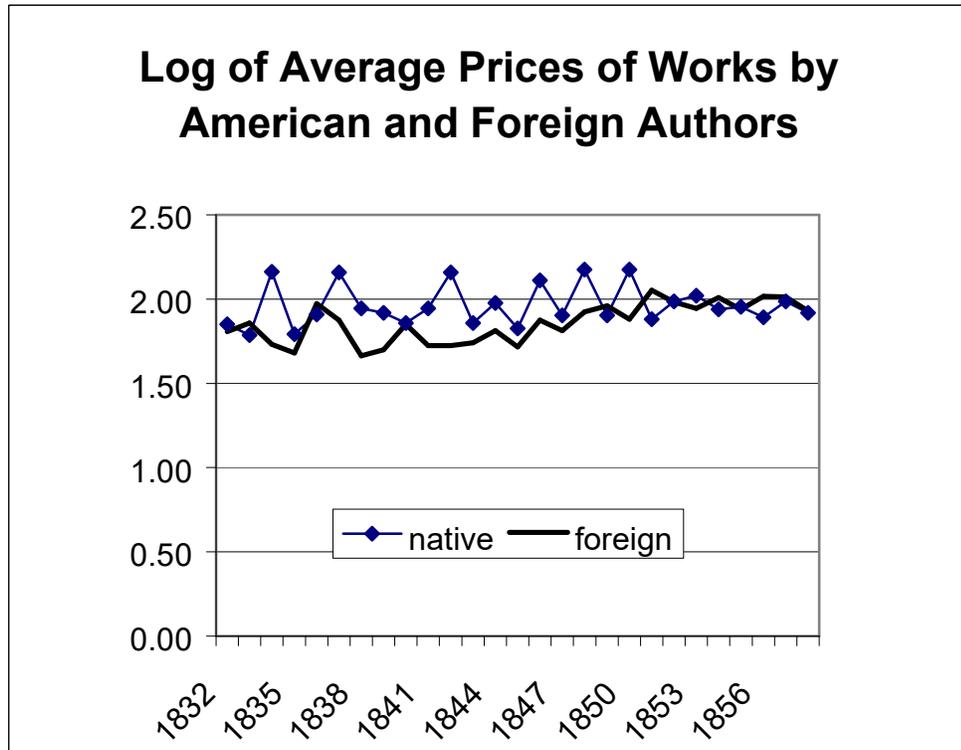
Source: Cost Books of Ticknor and Fields.

Figure 1: Copyright Registrations



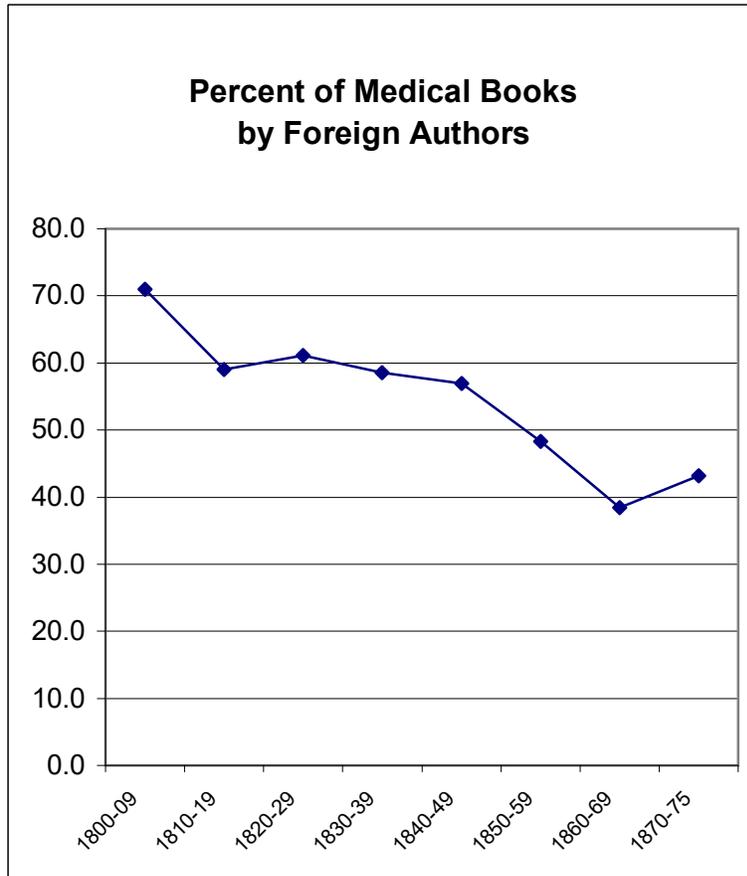
Source: Historical Statistics of the United States, Table Cg1-15.

Figure 2



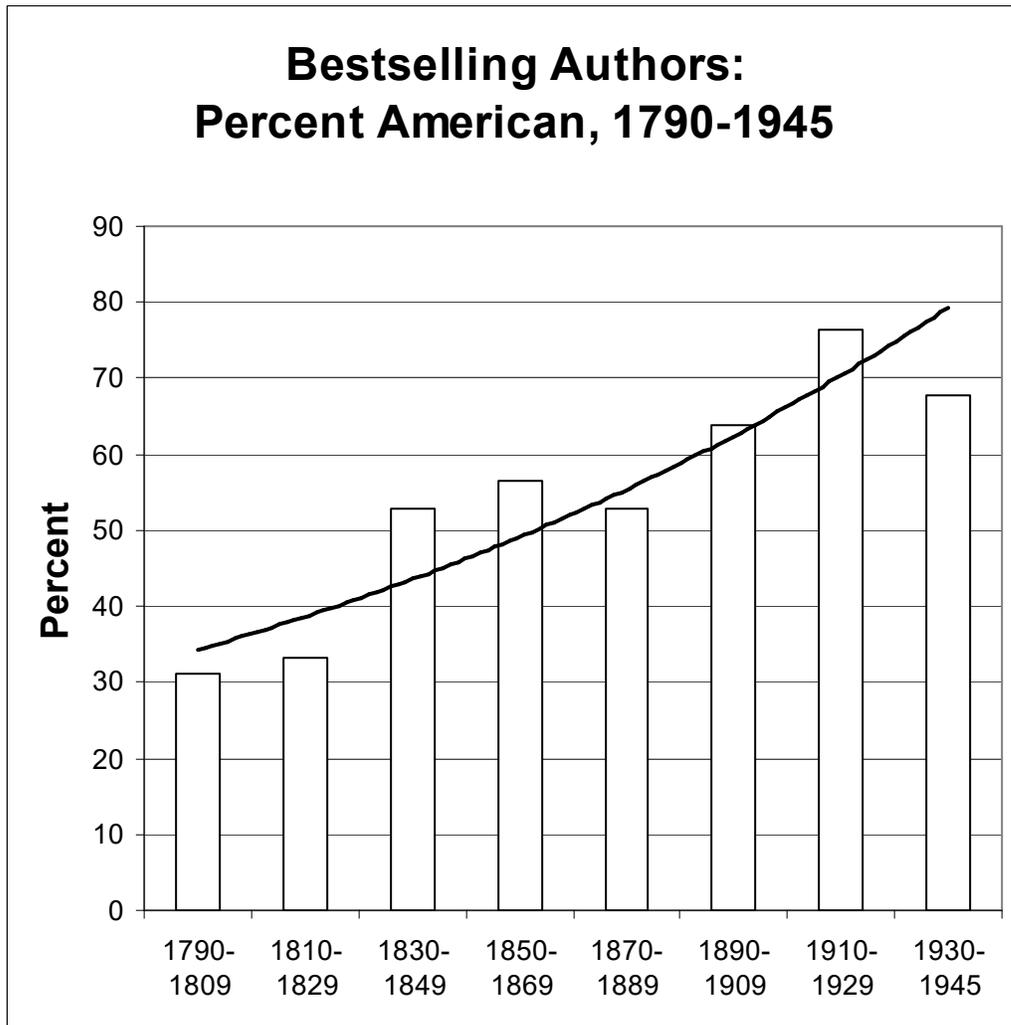
Source: Cost Books of Ticknor and Fields. See text and notes to Table 3.

Figure 3



Source: F. Cardoso, Medical Publishing in 19th Century America, Fairview, NJ: Junius-Vaughn Press, 1990

Figure 4



Source: L. Mott, Golden Multitudes: The Story of Best Sellers in the United States, NY: Macmillan, 1947, Appendix A. Best sellers are defined as books that had a total sale of one percent of the population in the relevant decade of publication. The data do not include Bibles, hymnals, textbooks, almanacs, cookbooks, medical works, manuals and reference books. Authors' nationalities were determined by country of birth.