

evening adult classes and public awareness campaigns). Patriotic sentiment furthered the literacy efforts in Kentucky and across the country when it was discovered that over one-fourth of the men called into military service in 1917 could neither read nor write.

As Baldwin documents in the remaining chapters, the inability to sustain volunteer efforts and continual fundraising, changing priorities in adult education (e.g., Americanization programs), and growing demands for professional, institutionalized education delivery would ultimately undermine the success of the grassroots literacy campaigns. Despite her “failure” to eliminate illiteracy in a single generation, Stewart’s contributions to promoting literacy and adult education are undeniable. Ahead of her time in many ways, Stewart’s recognition of the importance of parents’ literacy in the educational progress of their children foreshadowed current literacy programs that emphasize literacy training for entire families.

The obstacles that female reformers such as Stewart faced, in a period when opportunities outside of domestic circles were severely limited for women, is one of the book’s major themes. Baldwin emphasizes the challenges to women in finding “socially acceptable ways of interacting in the . . . patriarchal bureaucratic systems” of politics and reform (p. 10). In particular, the efforts of female reformers to expand the limited scope of issues deemed valid concerns for women, the necessity for women to obtain the approval and assistance of powerful male politicians, and their frustration at limited opportunities for holding political office even after the passage of the nineteenth amendment, are all topics Baldwin addresses through Stewart’s experiences.

Another major theme is the opposition that reformers had to overcome in the form of stereotypes and prejudices. For example, although it was commonly believed that learning was nearly impossible for older persons, blacks, and Native Americans, some of the Moonlight Schools’ most eager and successful students were members of these minorities and older whites, who were well into their eighties in some cases. Stewart, like others of her time, was able to use these counterexamples to argue for the extension of education reform to address the needs of individuals of all races and nationalities.

Although the book is filled with a number of other social themes, one final example is the changing nature of progressive activism during this era. Baldwin characterizes the progression of the literacy movement, like other reform efforts, from grassroots beginnings into more institutionalized social programs. Baldwin relates that reformers within both types of work viewed the other as a threat to their success.

Economic historians in search of a highly quantitative description of literacy and education trends in Kentucky (or the South) may be disappointed. Nonetheless, I recommend this thorough account of the development of the Moonlight Schools and the literacy movement to anyone interested in the history of literacy and education activism in the United States. Baldwin successfully traces the literacy movement through the broader context of American history and provides a new perspective on the social and political climate surrounding education reforms during the Progressive Era.

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*The Democratization of Invention: Patents and Copyrights in American Economic Development, 1790–1920.* By B. Zorina Khan. New York: Cambridge University Press, 2005. Pp. Xvii, 322. \$60.00.

In this NBER monograph, Zorina Khan describes the evolution of thought on the subject of intellectual property in the United States from the early Federal period to 1920 and compares the institutions that emerged with those that had been established

in Britain and France. An underlying theme is that the democratization of intellectual property rights, roughly interpreted as the widespread access of men and women from all walks of life to protection for their ideas, created an environment that promoted invention and ultimately led to higher rates of economic growth. The term “democratization” has recently itself become something of a “catch-all,” often used to represent some intangible social characteristics that may affect economic growth, political processes, credit markets, and a host of other outcomes. But here the author supplies substance to the notion by bringing to bear a wealth of information, both new and culled from her previous work, about the extent of patent applications, grants, and litigation in the United States.

The result is a comprehensive account of how technological progress occurred at the grass-roots level. There are no sweeping “general purpose technology”-type events here, but rather a gradual progression of knowledge facilitated by a seemingly benign U.S. patent authority that allowed returns for innovative thinking to accrue not only to great inventors, but to creators of more mundane accomplishments as well. In contrast, the systems that evolved in Europe are characterized as being concerned with ensuring property rights for the elite. Although the European system may have reduced the number of trivial inventions passing through the patent authorities, it also tended to favor large technical inventions rather than other useful ones that did not require as much expertise. The author argues convincingly that the resulting intellectual property system did not fuel further invention as much as might have been possible.

Khan proceeds to explore trends in patent litigation as well, concluding that courts in the United States were for the most part able to balance effectively between encouraging invention and not simply affirming indefinitely the market power of patent holders. In an interesting twist, she cautions against blind acceptance of the conventional view that U.S. courts made somewhat arbitrary decisions when enforcing patents before the major legislation of 1836 and became more inventor-friendly thereafter. The main point is that restricting attention to actual court decisions can lead to inferences about patent stance that are based only on unrepresentative samples of apparent infringements. By observing instead that earlier court decisions tended to be cited proportionally as much as later ones, the author demonstrates that a clear turning point in judicial attitudes towards patents across the mid-nineteenth century is unlikely. Rather, patent rights included in the original U.S. Constitution and their implications for the democratization of invention were internalized by the courts throughout the first 130 years of the nation’s history.

Two chapters on women inventors and the property rights of married women are among the more novel in the book. The author here points out that women could access the U.S. patent system about as easily as men could, and shows that increasing numbers of women took advantage of it over time. Though based on small samples compared to the wealth of general patenting data analyzed in earlier chapters, Khan nonetheless offers evidence that the growth rate of patents granted to women became higher than that for men as the nineteenth century progressed. Such a result immediately raises questions of why this was the case. Were women simply becoming more creative relative to men? Or, perhaps more likely, did women increasingly overcome the financial barriers to obtaining patents, leading to the release of a backlog of good ideas? Or did women benefit from a legal environment that became more sympathetic to their claims? These questions are not addressed in any depth, with focus instead on how the household had become a locus of invention and innovation. Other researchers, however, will no doubt be motivated by these chapters to attempt to tackle some of these larger questions.

Khan also argues that the stance of the U.S. courts towards copyright infringements differed considerably from the systems existing in Europe. She portrays the United States as a leader in this regard, arguing that by not providing excessive protection to the contents of the printed page, the nation eased frictions that would otherwise have existed in the dissemination of knowledge. The emphasis on not depriving the public domain of important resources seems almost a forerunner of the democratization of knowledge encouraged by the internet today.

I would recommend this book to anyone interested in a quantitative account of the path and patterns of technological change in the nineteenth-century United States. With a nearly exclusive focus on formal measures of innovation such as patents and copyrights, however, the forest never seems to come into full view. Indeed, a macro economist might even step away from the monograph with a view that innovation and technological change are incremental processes that are surprisingly well captured by the “A” parameter of standard growth models. But there are others, including this reviewer, who see technological changes as more lumpy processes that sometimes arrive with a flourish and offer new ways to think about the very act of inventing. Steam, internal combustion, and electrification may well be examples of such technologies. In this alternative world it is the importance of particular innovations and their association with a leading new technology that matter for understanding how innovation affects long-run outcomes, and these dynamics are not well captured by patent counts. More work may be able to integrate the two approaches, and I am confident that more strong contributions by this author and others will in the end achieve it.

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*Working the Navajo Way: Labor and Culture in the Twentieth Century.* By Colleen O’Neill. Lawrence: The University of Kansas Press, 2005. Pp. xvii, 235. \$29.95.

In this interesting book Colleen O’Neill addresses a question that has received surprisingly little attention: how did Indians adjust to economic changes in the twentieth century? Her subject is the Navajo tribe in the southwest. Too often studies ignore “Indian agency”—that is the active choices made by Indians. Indians are too often treated either as members of a traditional society to be studied before it disappeared through death or assimilation or as victims of the modern world. The author sums this up with a quote from a young Navajo woman who, on learning about her project, said “. . . that’s an important story to tell. Most people think we are silversmiths and drunks.”

The author begins by discussing related literature in labor history and ethnic studies. A number of studies look at the formation of class consciousness as part of the evolution of the labor market, with special attention to the efforts to form unions. Indians receive little attention in this literature because they are seen as traditional and not a part the modern labor market. Ethnic historians are often concerned with how native peoples define themselves in relationship to the majority culture, usually without reference to the labor market. O’Neill wants to bridge the gap between the two fields in this book by looking at how the Navajo maintained their cultural identity in the paid labor market. Not surprisingly (but unfortunately) neither literature is informed by research done by labor economists or economic history of the sort familiar to readers of this JOURNAL. Readers interested in applying economics to these events can easily do so for themselves, however.