

**SEVENTEEN FAMOUS ECONOMISTS WEIGH IN ON
COPYRIGHT: THE ROLE OF THEORY, EMPIRICS, AND
NETWORK EFFECTS**

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I. INTRODUCTION

On May 20, 2002, seventeen economists, including five Nobel laureates, presented an amicus curiae brief discussing the economics of copyright extension in support of the petitioners in *Eldred v. Ashcroft*, a Supreme Court case challenging the constitutionality of the Sonny Bono Copyright Term Extension Act of 1998 (“CTEA”).¹ The economists’ amicus brief was unusual in several respects, not least in that it brought together a group of economists almost as notable for its diversity of opinion (spanning the ideological spectrum from Kenneth Arrow to Milton Friedman) as for its academic distinction.²

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1. Brief of George A. Akerlof et al. as Amici Curiae in Support of Petitioners at 12, *Eldred v. Ashcroft*, 537 U.S. 186 (2003) (No. 01-618).

2. The signatories to the amicus brief are: George A. Akerlof, Kenneth J. Arrow, Timothy F. Bresnahan, James M. Buchanan, Ronald H. Coase, Linda R. Cohen, Milton Fried-

When such a distinguished and broad panel of economists appears to agree on a subject, it would be reasonable to assume that they reflect the profession's views as a whole. Further, it would be natural to expect that any document signed by these economists would meet the same exacting standards normally associated with their works. Also, that this document was used in an important legal matter reasonably merits an even higher degree of confidence in its integrity. In short, readers would have every reason to believe that the arguments set forth in this document are sound down to the smallest details. Yet this is not the case.

The *Eldred* case is now resolved; the Supreme Court has found against the petitioners. Nevertheless, active debates in both the legal and economic literatures raise questions regarding the particulars of copyright law and its underlying principles. Thus, the issues raised in the economists' brief remain important. Critics of copyright are making bold claims, in some instances even advocating its abolition.³ Scholars in the fields of law and economics will continue to address the economics of copyright duration in the foreseeable future, so it is important that they understand the imperfections in the economists' brief. This Article provides a counterweight to the amicus brief, identifying some points the economists ignored, clarifying some discussions they did not quite get right, and providing data that runs counter to some assumptions they made.

II. BACKGROUND

The CTEA has two major provisions: First, it extends the term of copyright protection for a given work from fifty years after the author's death to seventy years after the author's death, or, in the case of institutional authors, from seventy-five to ninety-five years.⁴ Second, it applies this extension retroactively to works produced prior to its enactment.

The CTEA was criticized vigorously from a number of perspectives, but most forcefully from an active academic community advocating expansion of an "information commons."⁵ *Eldred v. Ashcroft* became one of the vehicles for this opposition to copyright extension

man, Jerry R. Green, Robert W. Hahn, Thomas W. Hazlett, C. Scott Hemphill, Robert E. Litan, Roger G. Noll, Richard Schmalensee, Steven Shavell, Hal R. Varian, and Richard J. Zeckhauser. Akerlof et al., *supra* note 1, at 1.

3. Michele Boldrin & David Levine, *The Case Against Intellectual Property*, AM. ECON. REV., May 2002, at 209-12 (suggesting that no protection of intellectual property, either de facto or de jure, is needed); see also Raymond S.R. Ku, *The Creative Destruction of Copyright: Napster and the New Economics of Digital Technology*, 69 U. CHI. L. REV. 263 (2002) (suggesting that intellectual property protection is unnecessary for digital products).

4. 17 U.S.C. § 302 (1998).

5. See, e.g., Creative Commons, at <http://creativecommons.org> (last visited Mar. 15, 2005).

and became a *cause celebre* in the online and academic communities. The litigation was coordinated at the Berkman Center for Internet and Society and argued before the Supreme Court by Lawrence Lessig, a leading advocate for expansion of the public domain.

Eric Eldred publishes literary works on the Internet that have entered the public domain. The CTEA prevented certain works from entering the public domain that he intended to provide on his website. Eldred claimed that the CTEA was unconstitutional on two grounds: First, he argued that it violated the Patent and Copyright Clause of the Constitution, which specifies that patents and copyrights are provided for a limited time and that they are authorized in order to promote the "Progress of Science and the useful Arts."⁶ Second, Eldred claimed that the CTEA was a violation of free speech. The Supreme Court has now ruled on the case, rejecting Eldred's claims.

While legal briefs do not always provide balanced views, the prominence of the *Eldred* economists appears to lend their brief substantial credibility. Without appropriate scrutiny, their brief could be taken by scholars and the general public as expressing the definitive view on the costs and benefits of copyright. This Article argues not that the CTEA extensions are clearly efficient, but that the case is not as one-sided as the economists' brief suggests.

There are important aspects of the economics of copyright that are ignored or not fully considered by the *Eldred* economists. They overlook factors, such as the elasticity of supply of creative works, which might reverse their conclusion about the impact of copyright extension on the creation of new works. They neglect the possibility that network effects in the market for derivative works might make a copyright commons inefficient, independent of any impact on supply. Finally, they avoid the difficult empirical work needed to support their conclusion.

III. BASIC POINTS IN THE BRIEF

The amicus brief makes two points:

(1) The portion of the law making the copyright extension retroactive makes little economic sense. The Constitution provides for copyright to provide incentives for authors to create. Yet there can be no incentive impact when copyright is extended on items that have already been created under a previous copyright regime.

(2) Extending copyright from life plus fifty years to life plus seventy years affects creation only through incremental revenues that accrue many years in the future. The impact of these incremental

6. U.S. CONST. art. I, § 8, cl. 8. A portion of the clause reads, "to promote the Progress of Science and useful Arts by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."

revenues on present values is so small that it can have little incentive effect. Copyright extension brings about incremental deadweight losses that are incurred far in the future and discounted heavily. Although both factors are likely to be very small, the *Eldred* economists argue that copyright should not be extended, because copyright imposes current costs on the creators of new copyrighted items who reuse old material in their new works.

This Article agrees with the *Eldred* economists on the first point, if the analysis is restricted to incentives to create. It argues at length below, however, that there are other important considerations that might reverse this conclusion. The economists' second point is not as clear-cut and is incompletely explored in the brief. The following sections consider each of these points in reverse order. Finally, the Article presents data relevant to the evaluation of copyright extension.

IV. NEW WORKS: COMPARISONS OF COSTS AND BENEFITS

The optimal length for copyright is not something that anyone can define with certainty. Although there have been claims in the literature that the optimal length is so short that copyright is unnecessary,⁷ there has been very little recent and serious examination of this issue.⁷ Putting aside for now the matter of efficient management of existing works, how much can be said about the efficiency of copyright extension?

To make a full determination of the costs and benefits of copyright extension, economists need to know more about these markets than they currently do. Economists are far from alone in this ignorance; the information requirements are severe. The data that economists would need, but do not have, include (1) the number and value of new works created as a result of extensions of copyright duration (i.e., the elasticity of supply of creative works and the surplus created by additional works); (2) the reduction of surplus for reproductions of copyrighted materials under extended copyright, relative to the surplus that would be generated if copyright protection were less lengthy (i.e., the increased unnecessary deadweight losses). The general structure of the tradeoff between creation and use is well known. Nevertheless, commentators rarely consider a detailed construction of the values they compare. This Article presents such a construction. First, it identifies a shortcut that the economists took that caused them to understate the potential benefit of copyright extension. Next, it argues that a portion of the "deadweight loss" that is identified in the monopoly model of copyright is properly understood as a necessary cost of

7. Some of the earlier claims include Arnold Plant, *The Economic Aspects of Copyright in Books*, 1 *ECONOMICA* 167 (1934); Robert M. Hurt & Robert M. Schuchman, *The Economic Rationale of Copyright*, *AM. ECON. REV.*, May 1966, at 421.

providing incentives for creation. This discussion sets the stage for presenting a diagrammatic model of the market for creative works. Using that model, this Article illustrates an instance in which copyright extension is beneficial. The model also permits identification of the various factors that one must account for to assess properly the merits of copyright extension.

A. The Gains and Losses from Extending Copyright

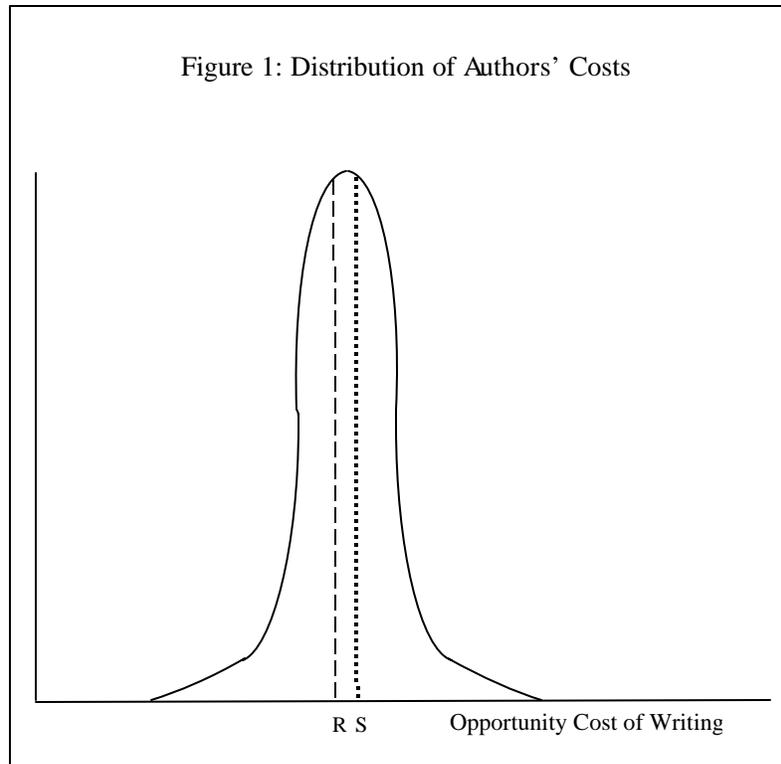
The *Eldred* economists use a shortcut to describe the benefits from an extension of copyright — they talk about the additional royalties generated by the extension. With such payments far in the future, the present value of extending copyright from, say, ninety to one hundred years, is likely to be very small. The *Eldred* economists emphasize the small present value of additional payments to authors in order to suggest that these payments can have only very limited effects on the creation of additional works. The benefits to society, however, are not the same as the present value of payments going to the copyright owners.⁸

Yet small increases in payment need not have small impacts on the creation of additional works. There is a possibility that for some authors, in some range of income and propensity to create, a small increase in present value could make an important difference in creative output, perhaps because they reach a point where they switch to full-time writing.⁹

At the conceptual level adopted by the amicus brief, it is certainly possible that there might be many potential authors with similar opportunity costs who, at the current copyright length, are on the margin of writing books. Figure 1 presents a very tight distribution of opportunity costs for authors. Even a trivial increase in the present value of royalty payments, such as the increase from royalties R to royalties S, might lead to a substantial increase in the number of works if the costs-of-creation distribution is dense at those magnitudes. If this is the case, small increases in payments from an expansion of copyright might result in large increases in the number of

8. See Wendy J. Gordon, *Authors, Publishers, and Public Goods: Trading Gold for Dross*, 36 *LOY. L.A.L. REV.* 159 (2002).

9. An example might be Charles Ives, working at his insurance job by day and writing music in his spare time. See Microsoft Encarta, Charles E(dward) Ives, available at [http://encarta.msn.com/encyclopedia_761551849/Ives_Charles_E\(dward\).html](http://encarta.msn.com/encyclopedia_761551849/Ives_Charles_E(dward).html) (last visited Apr. 23, 2005).



creative works, which in turn produces significant social benefits.¹⁰

Thus, the *Eldred* economists' focus on the royalty streams is incorrect. They should have focused instead on the impact of copyright changes on the value of forthcoming works. Section C will demonstrate that this error is not harmless. First, however, the next section reviews briefly the economic impacts of changes in the term of copyright.

B. Productive and Unproductive Deadweight Loss

Calling a deadweight loss "productive" might seem oxymoronic. However, some deadweight losses serve a useful function if they are unavoidable consequences of an incentive system for which there is no better alternative. Copyright engenders a deadweight loss as a by-product of the incentives to create that it provides. A system of private

10. We assume that this large increase in works also leads to a large increase in surplus. We also assume that the new works do not decrease the surplus generated from older works. It is possible, of course, that the potential surplus for copyrighted works is limited, and that the increased surplus from these new works comes at the expense of decreased surplus for works that would otherwise have been consumed in place of the new works.

ownership providing the incentive for creation cannot give a reward to the creator without also having an apparent deadweight loss in the consumption market.¹¹

While it is misleading to refer to a copyright as equivalent to a monopoly, the monopoly model is the easiest to apply and is the standard vehicle illustrating these issues.¹² Moreover, the monopoly model is the framework for the arguments in the amicus brief. When the following text refers to “books,” readers should note that “books” stand in for any creative work.

Figure 2 is the standard textbook treatment of monopoly. Assume it represents the market for reproductions of a particular book title for some period of time. The demand for this title lasts for multiple time periods, each identical to the first.

The perfectly competitive solution is a price of P_c and quantity Q_c , which yields no profit in the reproduction market with which to pay the creator of the title. This maximizes the surplus in the reproduction market (the sum of areas 1–5) for this title. However, the title will not be produced if the creator requires a positive payment to induce creation, which implies that no surplus at all will occur without some copyright protection. This is one of the problems Arrow identifies in his classic 1962 article.¹³

Though it is not ideal, a copyright provision that results in a monopoly output level still is likely to produce a positive value for society compared to no production at all. If copyright induces creation of works, society benefits from the production of copies of this title in the amount of $1+2+3+4$, less the fixed costs of creation. Area 5 is normally called a deadweight loss, because one imagines that in a competitive market, it would be consumer surplus.¹⁴ However, being able to imagine an improvement is not the same as being able to bring it about, as Demsetz points out in his classic response to Arrow.¹⁵ Once a copyright regime is adopted as the mechanism to stimulate

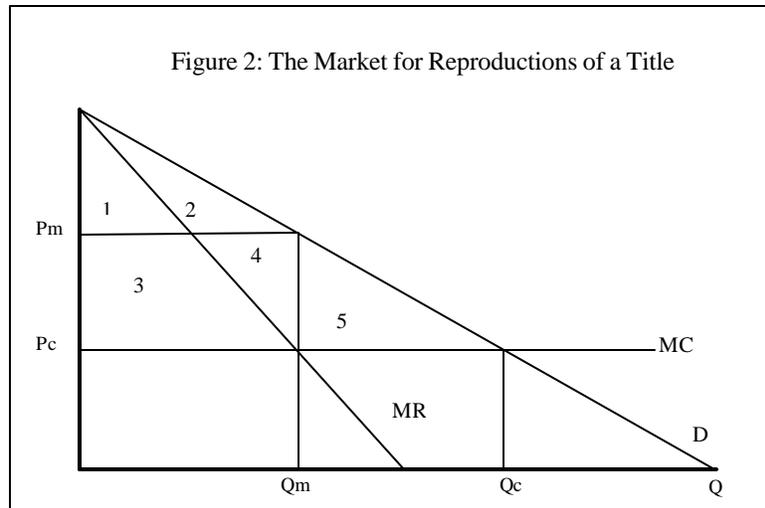
11. Perfect price discrimination can avoid the deadweight loss, and various approximations to such price discrimination can reduce this loss. Such measures, however, provide only imperfect relief.

12. Although copyright provides a monopoly over the particular title, there might be many close substitute titles available. This monopoly is no different than the fact that every firm has a monopoly on the name of its product. Kia and Mitsubishi have a monopoly over automobiles with their names, although few would argue that they have monopoly power in the automobile market. See Edmund W. Kitch, *Elementary and Persistent Errors in the Economic Analysis of Intellectual Property*, 53 VAND. L. REV. 1727, 1729 (2000).

13. See Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS 609 (R. Nelson ed., 1962).

14. This also assumes that copyright owners cannot perfectly price discriminate, because the ability to do so would convert area 5 into producers' surplus.

15. See Harold Demsetz, *Information and Efficiency: Another Viewpoint*, 12 J.L. & ECON. 1 (1969).



production of creative works, area 5 is no longer a feasible component of the surplus and thus is not really a deadweight loss. Area 5 can be thought of as a “productive” deadweight loss, or the cost of copyright, since it is required in order to generate any surplus at all.

The disagreement between Demsetz and Arrow largely hinged on defining the term “efficient.” Was the efficient output the theoretical ideal, as Arrow suggested, or was it the best that could be actually achieved, as Demsetz proposed? Although the Authors believe that Demsetz won that point, this Article does not need to answer that question for the purpose of evaluating copyright length. Once one accepts copyright as the mechanism to provide incentives for creative works, and agrees that all books are given the same copyright term, then the “productive” deadweight losses are best understood as irrelevant to welfare considerations, since there is no other manner in which they could become part of the surplus within the confines of the chosen copyright mechanism.

The analysis further suggests that deadweight losses need to be treated carefully in a determination of the optimal copyright duration. For example, if one were to adopt a methodology of comparing the gains to the losses when extending copyright, a proper cost-benefit analysis would not contrast the sum of areas 1 through 4 with area 5, since area 5 is not a loss. In other words, even if area 5 were larger than the sum of areas 1 through 4, it would be incorrect to conclude that society would be better off not having this good produced at all.

Of course, this diagram now illustrates gains (of copyright extension) with no balancing losses. How then could one arrive at any optimal length of copyright less than infinity? The answer is that once a creator has received sufficient payment to generate creation, any fur-

ther payment is unnecessary. Therefore, any further deadweight losses are no longer productive and are thus unnecessary.

If the creator receives a payment in the first period (the sum of areas 3 and 4) that fully covers the cost of creation, then, in the second period, area 5 is an old-fashioned deadweight loss. In this second period, the cost of copyright extension is not mitigated by a balancing benefit, since the author would have created the book anyway, based only on first period revenues.

Who would argue that all deadweight losses should be treated alike? Unfortunately, such a conclusion might occur to the casual reader of the economists' amicus brief, which states:

First, the CTEA [Copyright Term Extension Act of 1998] extends the period during which a copyright holder determines the quantity produced of a work, and thus increases the inefficiency from above-cost pricing by lengthening its duration. *With respect to the term extension for new works, the present value of the additional cost is small, just as the present value of incremental benefits is small.*¹⁶

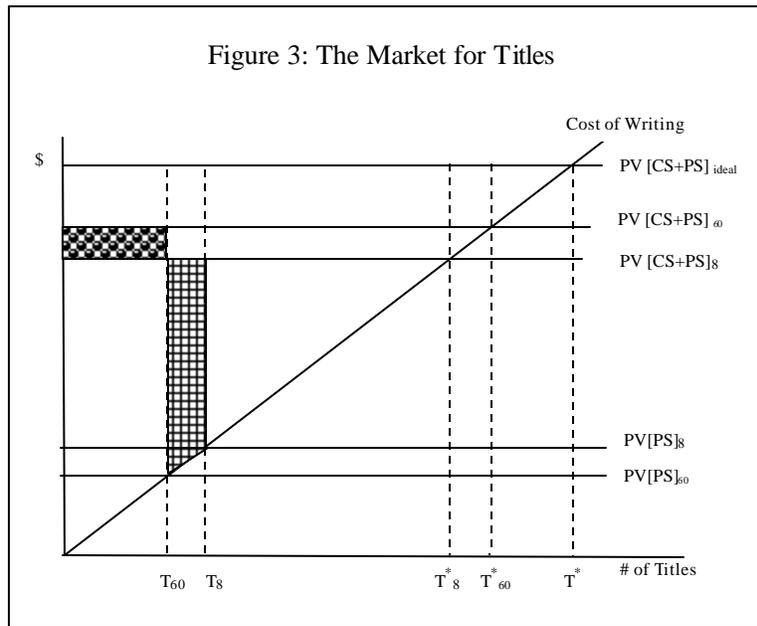
The *Eldred* economists talk about additional costs from extending the term of copyright, but neglect to explain how these costs are calculated, save for a brief discussion of the harm brought about by the monopoly restrictions on quantity. They make no attempt to distinguish those deadweight losses that are productive (i.e., necessary to bring about additional creative works) from those that are not.

Even more troublesome is their claim that the present value of additional benefits is necessarily small. The parallel construction between the benefits and costs in the italicized sentence incorrectly implies that both benefits and costs occur far into the future, which leads to their being heavily discounted and thus small. The logic is correct for the increased costs of copyright extension, which only begin to occur when the current copyright term expires, but it is not true for all benefits. The present value of additional *revenues* to authors might be heavily discounted (and small), but this need not imply that the impact of these revenues on the creation of works is small, since evaluators need to know something about the elasticity of creation before making any such statements. Further, the benefits from any additional creative works begin to accrue immediately; they are not discounted far into the future, the way that incremental revenues and incremental costs are.

16. Akerlof et al., *supra* note 1, at 1 (emphasis added).

C. An Example of Beneficial Copyright Extension

Figure 3 shows how copyright extension might lead to large benefits even with a lengthy original term of copyright. This diagram assumes that all titles have equal costs of reproduction and equal value to consumers, but have different costs of writing. The horizontal axis has new titles, aligned in increasing order by the cost of creation. All the dollar values are discounted to present values.



The opportunity cost of creation is represented by the upward-sloping “Cost of Writing” curve. This example assumes a linear curve to indicate a constant increase in titles as payments to authors increase. Books will be written as long as the (discounted) rewards to the author are greater than the costs of writing the book, where writing costs are stipulated to include editing, design, and any other fixed costs of creation that are avoided by follow-on publishers. These costs of writing are not included in the calculation of consumers’ and producers’ surpluses in the reproduction market, which are modeled in this diagram. The model assumes that the market for publishers’ acquisition of titles is perfectly competitive, so that the author captures the entire producers’ surplus in the market for the reproductions of a single title.

Since each title is assumed to have identical values to consumers and identical costs of reproduction, the present value of the sum of producer and consumer surplus is the same for each book and can be

represented by a horizontal line for any potential copyright regime. The ideal value of each title (e.g., perfect price discrimination by the publisher selling copies of titles, the present value of areas 1–5 in Figure 2) is represented by the highest horizontal line labeled $PV[CS+PS]_{ideal}$. For any number of titles, the area under this line represents the potential value of the titles to society — that is, the total value of the titles if each were exploited to exhaust all possible gains from trade before the costs of creation are considered.

T^* represents the optimal number of titles that would be produced in this ideal world, since all titles to the left have a potential surplus in the market for reproductions that is greater than the cost of writing the book, and all titles to the right have a creation cost greater than the potential surplus.

In a world of copyright, the surplus in the reproduction market is less than ideal, however. Figure 3 represents two cases: an infinite copyright life (represented by 8) and a sixty year copyright life, indicated by the subscripts. Although the extension of copyright length proposed by the CTEA was far less than infinity, this Article uses the assumption of infinite life for illustration.

The present values of the realized total surplus (producer plus consumer surpluses) under the copyright regimes are shown in the diagram as $PV[CS+PS]_{60}$ and $PV[CS+PS]_8$ for a sixty year and infinite copyright life, respectively. Assuming that the demand for each book title persists for more than sixty years, the present value of the total surplus in the reproduction market is less with an infinite copyright than with a sixty-year copyright since the reproduction market would never achieve its efficient (non-monopoly) output under an infinite copyright regime. The vertical difference between these two horizontal lines might be quite small. This is because the surpluses after sixty years are highly discounted in present value terms, as the *Eldred* economists argued, although this Article draws them as having a non-negligible difference in value.

The payments received by authors are the present values of the producer's surplus in the reproduction market, and are reflected by horizontal lines $PV[PS]$, with obviously smaller values than the total surplus.

Next, how does a change from a sixty-year term to an infinite term affect the market? The increase in unnecessary deadweight loss for the books that would have been written with a copyright length of sixty years (those books to the left of T_{60} in Figure 3) is given by the rectangle with the embedded spheres. This area reflects the lower surpluses in the reproduction market that result from the increased life of the monopoly restriction (from sixty years to infinity).

The change in the number of new titles depends on the additional reward received by authors *and* on the elasticity of creation with re-

spect to reward. Figure 3 assumed a constant elasticity throughout, although Figure 1 illustrated a case where the elasticity was particularly large at the original copyright length.¹⁷ A greater elasticity would increase the value from copyright extension. The value to society from the increase in titles is given by the cross-hatched area, which is drawn to be larger than the harm from the unnecessary deadweight loss. In this example, it is clear that an infinite copyright is better than a sixty-year copyright. This is a straightforward possibility that is short-changed by the *Eldred* economists.

Note: (1) that the optimal number of titles in Demsetz' sense under either copyright regime is greater than the actual number of titles, because authors only receive part of the surplus, and (2) that the optimal number of titles declines as copyright term increases, because total surplus decreases. Note as well that the optimal number of titles is always less than the ideal number of titles (in Arrow's sense), because the total potential surpluses are not realized under any real-world copyright regime.

The full benefits from copyright extension include the consumer and producer surpluses, starting immediately and continuing into the future, resulting from any additional works generated by the copyright extension. These benefits are not all highly discounted. It is these full benefits — not the relatively minor incremental revenues that the *Eldred* economists discussed — that must be traded off against the additional deadweight losses that occur far in the future.¹⁸

A correct assessment of copyright extension balances the present value of the surpluses generated by the new works resulting from the copyright extension against the heavily discounted, *additional unnecessary* deadweight losses for those works that would be created in the absence of the extension.

Finally, there is the question of how realistic the construction of Figure 3 might be. That depends on many factors. In the real world, how dense is the distribution of opportunity costs otherwise portrayed in Figure 1? Where in that distribution are the points representing pre-extension and extended copyright length and what are the resulting elasticities of supply? How is the surplus divided between authors and readers? The assumption in Figure 3 that all titles are of ex post equal value is clearly false. Are the more valuable titles likely to get produced first? Without additional research, the *Eldred* economists were not in a position to state whether the current copyright length is too long or too short.

17. See *supra* Figure 1 and accompanying text.

18. The amicus brief argues that the deadweight losses are felt immediately. Akerlof et al., *supra* note 1, at 1. However, this is only true for the minority of cases involving aged preexisting works under *retroactive* copyright extension. In these cases, the works that were to enter the public domain in the immediate future instead remain under the control of the copyright owner, generating immediate deadweight losses.

V. RETROACTIVE EXTENSION OF COPYRIGHT TERM

The seventeen economists' claim regarding retroactive extension (point (2) in Part III above) appears obvious, because lengthening the term of copyright can have no effect on the size or quality of the body of creative works that existed at the time that the CTEA was enacted. However, lengthening the term of copyright increases the price for using already-created materials that would otherwise move into the public domain. This price elevation results in the monopoly dead-weight loss that occurs where intellectual property is priced above reproduction cost. Since these costs are not balanced by any new creations, the retroactive extension of copyright is clearly socially inefficient.

The *Eldred* economists thus claim that the argument regarding retroactive copyright extension is completely one-sided. However, there are certain features of copyright law that the economists ignored in their brief, inflating their estimation of the costs of copyright. Furthermore, there are social benefits to copyright extension. Therefore, the situation is not as dire as the economists predicted: the costs do not clearly outweigh the benefits.

The amicus brief does acknowledge the possibility that such after-the-fact extensions of copyright might increase the incentives to create for future authors who may expect the same treatment in any subsequent copyright extension. They regard this as a minor influence, however, and this Article agrees.¹⁹

A. Efficiency of Ownership

The political fight over the CTEA appears largely to have been about its impact on already existing works. Indeed, potential revenues in 2110 are probably not a big incentive for Marshall Mathers or Shania Twain to crank out CDs. However, the rights to derivative works are an important matter to current owners of aged works and to non-owners, such as Mr. Eldred, who would now like to use these aged works. Public choice considerations nicely predict the players in the recent controversy — on both sides, they are parties with interests in old works. These interests are worth pursuing because they are not discounted by seventy, eighty, or one hundred years.

Eldred is aggrieved because he is unable to republish works that were written in the 1920s. In support of the CTEA, amicus briefs were submitted by various well-known owners of mature copyrights, such as Dr. Seuss Enterprises, Allene White (owner of E.B. White's copy-

19. The *Eldred* Court did note, however, that Congress has consistently applied copyright extensions retroactively, citing fairness arguments that legislators have repeatedly raised to support that practice.

rights in *Stuart Little* and *Charlotte's Web*), and Barbara and Madeline Bemelmans (owner of Ludwig Bemelmans' copyrights in the Madeline series).

The issue is management of existing creative works. The economists' brief considers only the monopoly deadweight losses — one side of the argument — and concludes that all the weight is against extension. Another issue well-known to economists is not noted in the brief: open access is not a universally preferable way to manage a resource.²⁰ The tragedy of the commons is thought not to hold for non-rivalrous goods (i.e., the intellectual property itself), since the reading of a story by one person does not prevent others from reading it as well.²¹ It is possible, however, that one person's ownership of a copy of a book might alter the utility of another person's ownership, or that one person's creation of a derivative work based on the book might alter the value of another's derivative work. There are several reasons why consumers might want to circumscribe others' access to intellectual property through copyright law.

The Authors are certainly not the first to note a stewardship role in intellectual property protection. Edmund Kitch argues that patent is better understood as a claim-staking system rather than as a monopoly, allowing efficient exploitation of a technological realm.²² In a recent paper, William Landes and Richard Posner elaborate on the advantages of copyright ownership, noting the possibility of excessive or inappropriate uses of intellectual properties and the role of copyright in avoiding the common access problem.²³

1. The Possibility of Misuse

Movies, among other derivative works, are large, risky investments that would be made more risky in the absence of the exclusivity

20. The closest the brief comes to mentioning this issue is their acknowledgement that extending copyright might increase the copyright owners' incentives to invest in improvements to the creative work. Akerlof et al., *supra* note 1, at 9. The amici mostly dismiss this as an issue, noting that "a twenty-year copyright extension will have little or no incremental effect." *Id.* Misuse or excessive activity in the creation of derivatives does not appear in their discussion, nor does any role of copyright in addressing such problems.

21. See Denis S. Karjala, Statement of Copyright and Intellectual Property Law Professors in Opposition to H.R. 604, H.R. 2589, and S. 505, The Copyright Term Extension Act 9 (Jan. 28, 1998), available at <http://homepages.law.asu.edu/%7Edkarjala/OpposingCopyrightExtension/leg-mats/1998Statement.html>.

22. See Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 266 (1977).

23. William M. Landes & Richard A. Posner, *Indefinitely Renewable Copyright*, 70 U. CHI. L. REV. 471, 485 (2003). Landes and Posner discuss the possibility of copyright externalities, both technological and pecuniary. In turn, they are reacting to a statement in a brief by a group of intellectual property law professors that declares: "There can be no overgrazing of intellectual property, however, because intellectual property cannot be destroyed or even diminished by consumption." Karjala, *supra* note 21.

that copyright law provides. Absent copyright protection, others have every incentive to produce further derivative works. As an example, *The Grinch*, made in 2000, cost over \$125 million to produce. How would the prospects for the movie be affected if just before its release, the Grinch character suddenly appeared in pornographic movies or advertising for cigarettes, altering the public's view of the character? As rational actors, motion picture executives would anticipate this situation and possibly might not make the movie in the first place. The copyright owner's role is similar to the private owner of a natural resource that can be subject to crowding. In both cases, the owner tries to prevent dissipation of value through misuse of an asset. A rational owner would approve derivative projects that maximize his or her profits. Copyright policy must balance beneficial restrictions that constitute stewardship over resources against standard monopoly losses.

There are, of course, many expensive derivative works that are based upon creations entirely in the public domain. The question is whether they are produced as regularly or as well as they would be if they were protected by copyright. Further, one must consider whether they are produced under greater secrecy, raising their costs, in order to protect themselves from contemporaneous imitators. This is an empirical question to which economists do not yet have the answer.

Malicious or offensive derivative uses of some creative works might seriously diminish their value without a sufficient offset in the form of public benefit.²⁴ Of course, the law accepts some damage to the value of creative works when they are subject to parody or criticism. However, these fair-use exceptions to copyright protection exist because they clearly serve a purpose that is expected, in the aggregate, to pass a cost-benefit test.

2. Snob, Veblen, and Aesthetic Network Effects

A second concern for efficient management of intellectual property deals with a particular type of network effect. As currently used, the term "network effects" is almost exclusively associated with positive effects — each user's utility increases with the number of users. But, as congestion externalities show, network effects can also be negative.²⁵ One of the earliest and most original treatments of network effects (although that term was not yet in use) was the paper by Harvey Leibenstein, who considered both positive effects (i.e., "bandwagon") and negative effects (i.e., "snob" and "Veblen").²⁶ Snob

24. The existence of a "Madeline Does Dallas" might lead to some awkward questions during bedtime stories.

25. See Stan J. Liebowitz & Stephen E. Margolis, *Network Externality: An Uncommon Tragedy*, J. ECON. PERSP., Spring 1994, at 133.

26. Harvey Leibenstein, *Bandwagon, Snob, and Veblen Effects in the Theory of Consumers' Demand*, 64 QUARTERLY J. ECON. 183 (1950).

effects occur when consumers derive more utility as the number of other users of the product decreases, the opposite of the current use of network effects.²⁷ Veblen effects occur when consumers derive additional utility from a product as its market price gets higher.

Architectural works, which are protected by copyright, are instructive examples of negative network effects. Builders in housing developments usually offer a variety of elevations of houses of the same floor plan. The practice of building varied elevations cannot be a monopoly restriction to elevate price, since the restriction on any one design does not restrict the total output of a set of very good substitutes. Yet, builders do vary designs and often enter contracts obligating them to do so. The production of different elevations does increase cost, relative to building the same design over and over again, but the total value of a development must increase by more than these additional costs, or builders would discontinue the practice. In tract developments, a builder's ownership of a large number of lots may internalize the negative network effect of visually identical houses. In other instances, a subdivision's covenants and restrictions can internalize them. And of course, copyright can internalize this "aesthetic" network effect (to coin a new term).

These are real external effects, not just pecuniary ones. Many consumers derive less utility if their house looks very similar to all the others in their subdivision. If the market could not internalize consumer preference for variety, total wealth would be reduced. The decisions of individual consumers might lead to a lack of variety, since the harm to others from additional uses of a design does not directly enter the individual decision maker's utility calculus.

The scope of such external effects is quite large and underappreciated. For example, the literature on resale price maintenance suggests a "demonstration" motive by manufacturers who try to keep retailers from charging too low a price.²⁸ Some retailers may not provide needed demonstration services, relying instead on free-riding on other retailers who do provide it, causing the service to disappear under competitive pressures. An additional explanation, especially for those cases where demonstrations seem unimportant, would be that some retailers do not provide enough of an exclusive aura about their products (snob effect), or some retailers might lower the price to a

27. The term "snob" carries an unfortunate connotation that mischaracterizes many of these network effects. Ordinary consumers often evidence a preference for expressing individuality. An image may delight the eyes if it is seen every now and then, but it may seem absolutely banal if it appears on every telephone pole.

28. See Lester G. Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L. & ECON. 86, 91 (1960). Since the manufacturer receives the same price from the retailer independent of the retailer's price, it would appear that the manufacturer would be pleased to have the retailer increase total sales without the manufacturer needing to lower his price. Yet, there are numerous cases where manufacturers try to limit retailers from charging too little.

level that distresses other consumers of the product (Veblen effect), in either case lowering the utility for all the other users.

Such external effects also might explain why competition does not lower the prices of high-end items (top-of-the-line automobiles, stereo equipment, appliances, etc.) which are known to have higher margins and yet where monopoly power appears to be missing. Competitors with lower prices for equivalent products would not take customers away from the higher-priced product, and competition would not reduce markups, if the customers derive utility from the fact that the original product is sold to a more exclusive clientele. Such external effects can also explain why customers prefer diamonds to cubic zirconia.

Within the world of copyrighted works, evidence of these aesthetic network effects is plentiful. The practice among artists of numbering prints and publicizing the total number in the series, with a promise not to increase the number of prints, might be a mere monopoly restriction, but it also might be a way of increasing the actual utility that a consumer enjoys. Snob effects might help to explain why original paintings sell for so much more than almost perfect forgeries that seemingly provide the same visual experience.²⁹ These effects might help explain the behavior and existence of the designer clothing industry and the custom-home building industry. In all these cases, demand itself is a function of the number of users. Where these effects appear, they affect the shape of the demand curve — they are not simply movements along a demand curve.

Where there are technological network effects such as these, it is important that these effects be internalized. Firms producing copies or derivatives of creative works after the copyright expires may be in the position of fisherman on an open access lake. They produce at their own private optima, not taking into account the effects that they have on other producers. Ownership can effectively manage these interactions, and copyright provides that ownership. The difficulty, of course, is distinguishing between pecuniary and real (technological) effects. Internalizing pecuniary effects leads to monopoly; internalizing real effects leads to efficient levels of activity.

These aesthetic network effects may be prevalent for some classes of creative works. They may be important for simple copies of visual works that are publicly displayed, musical and literary works that are used in advertising, and for decorative items. They may also be important for derivative works of all sorts. At a minimum, one needs to know something about the empirical realities of these markets before

29. Obviously, for works still under copyright, a forgery might sell for less, since it violates copyright. For the large number of works in the public domain, however, it is still the case that copies that can only be discerned by experts will not sell for as high a price as the original.

making pronouncements about the efficiency, or lack of efficiency, in the copyright law.

B. The Costs to Current Creators of Derivative Works

A major portion of the economists' *Eldred* brief is devoted to a purported increase in the costs of creation resulting from copyright extension. They claim that because creative works derive inspiration and form from the creative works of the past, copyright stifles new creation, and extended copyright stifles creation unnecessarily. Their discussion is largely misguided in that it fails to take account of some of the special features of copyright.

The economists' brief cites a seminal paper by Landes and Posner that notes the costs and benefits of copyright extension.³⁰ The economists' brief is largely consistent with the first part of Landes and Posner, which presents a model of copyright, but it neglects a central purpose of their paper. Landes and Posner build a model of an abstract copyright law to illustrate the properties of an optimal level of protection, the determinants of that optimal level of protection, and the trade-off that exists at the optimum. They then use their model as a platform for explaining some of the specific features of actual copyright law. Their approach is summarized as follows:

[V]arious doctrines of copyright law, such as the distinction between idea and expression and the fair use doctrine, can be understood as attempts to promote economic efficiency by balancing the effect of greater copyright protection — in encouraging the creation of new works by reducing copying — against the effect of less protection — in encouraging the creation of new works by reducing the cost of creating them.³¹

The economists' discussion of the costs of derivative works takes no note of the moderating influences of these features of copyright. There is no question that creators of derivative works have the greatest latitude, and therefore the lowest costs, where the works that they would employ are in the public domain. But the fair use exceptions and the distinction between the idea and the expression provide suffi-

30. William M. Landes & Richard A. Posner, *An Economic Analysis of Copyright Law*, 18 J. LEGAL STUD. 325, 347-61 (1989).

31. *Id.* at 333. If this Article limited its attention to the creation of additional works, it would conclude that retroactive extension of copyright is inefficient.

cient relief from copyright restrictions that a large share of creative reuses of protected works are permitted.³²

This Article could paraphrase the Landes and Posner discussion of both the idea-expression distinction and fair use, and although it might be a breach of academic etiquette, it would not be a copyright violation. There are two reasons: First, these matters are discussed in a number of places, so it would be difficult to establish that Landes and Posner were the source. Second, while it would reflect the ideas in their discussion, it would not use their expression unless it constitutes a “lazy copy.”

Copyright protects expression, not ideas. Many economists have seen *It's a Wonderful Life*, the Jimmy Stewart movie classic, and have read *The Choice*, Russell Roberts' treatment of free trade. Although Roberts uses the plot device of a man who must return to earth to earn his angel's wings, his book does not infringe the movie's copyright. Though clearly an important creative element of the movie, the plot device is not protected by copyright. Television addicts will also note the flock of shows that followed the *Friends* format or the current proliferation of *Survivor*-type shows. Artists do indeed draw on old themes, and they are allowed to do so. On the other hand, they are not allowed to incorporate details of copyrighted works. So the economists are correct in that copyright does raise artists' costs — copyright forces artists to do some work themselves. However, since only specific expressions are protected, extensive parts of the culture are not, as is sometimes claimed, walled off from creative re-use.

Fair use doctrine also includes important exemptions to copyright that further expand the legal reuses of existing works. An important example of fair use is parody, which allows works to be reused in certain kinds of creative transformations, such as comical parodies of books or movies using many recognizable details of the original work.

A recent case that captured a great deal of public attention illustrates that even very extensive borrowing from a creative work can fall under fair use. Alice Randall's novel, *The Wind Done Gone*, prompted objections from the Margaret Mitchell Trust, owners of the rights to *Gone with the Wind*.³³ *The Wind Done Gone* uses the characters and plot elements from the earlier work, but views them from the perspective of the slaves who lived and worked on the plantation.³⁴

32. Fair use is a defense against the claim of copyright infringement, and is often used to allow portions of copyrighted works to be copied when the copying is likely not to harm the market. See generally Wendy J. Gordon, *Fair Use as Market Failure: A Structural and Economic Analysis of the Betamax Case and its Predecessors*, 82 COLUM. L. REV. 1600 (1982).

33. See Houghton Mifflin, *The Wind Done Gone: Questions and Answers About This Dispute*, at http://www.houghtonmifflinbooks.com/features/randall_url/qandas.shtml (last visited Mar. 15, 2005).

34. *Id.*

Although an initial injunction delayed publication, the Eleventh Circuit subsequently found that this new perspective both transformed the original work substantially and did so to provide important criticism.³⁵ Here again, copyright did not bar use of important elements of our culture that were essential to a creative work of social criticism. Critics of copyright deplore that Ms. Randall was forced to defend her fair use in court, but the fact that copyright occasionally imposes legal costs is not a sufficient argument for curtailing it. Additionally, Ms. Randall could have told her story without so directly borrowing the particulars of *Gone with the Wind* and its reservoir of publicity and sentiment, although that might have limited the scope of her market.

VI. WHAT DO ECONOMISTS KNOW ABOUT COPYRIGHT LENGTH?

The CTEA's extension of the copyright term occurs far into the future, relative to the time when a copyrighted work is created. What are the odds that the extension will have any consequence for a creative work? To answer this, one must know something about the longevity of copyrighted works.

The amicus brief reports a Congressional Research Service study that finds that only a small percentage of works copyrighted during the 1920s and 1930s and renewed in the 1950s and 1960s had commercial value in 1998 (eleven percent of copyrights in books, twelve percent in musical works, and twenty-six percent in motion pictures).³⁶ It also reports that less than one percent of books had their copyrights renewed.³⁷ This interesting result can be read in a misleading fashion. Copyrighted works do not start life as equals. The great majority of copyrighted works never have much market value. It is well-known that a small percentage of titles account for a large share of sales of copyrighted materials.

In the mid-1980s, Liebowitz conducted an unpublished examination of the longevity of titles, which examined the concentration of sales. In 1986, adult hardbound trade books and book club sales together totaled approximately \$1.7 billion.³⁸ That year, there were approximately 25,000 new hardbound trade titles produced, in addition to the hundreds of thousands of old titles in that category.³⁹ Best-

35. See *Suntrust Bank v. Houghton Mifflin Co.*, 268 F.3d 1257 (11th Cir. 2001).

36. Akerlof et al., *supra* note 1, at 7 (citing EDWARD RAPPAPORT, CONG. RESEARCH SERV., COPYRIGHT TERM EXTENSION: ESTIMATING THE ECONOMIC VALUES 6-14 (1998), available at <http://countingcalifornia.cdlib.org/crs/pdf/98-144.pdf>).

37. RAPPAPORT, *supra* note 36, at 6.

38. The Bowker Annual of Library and Book Trade Information 414 (33rd ed. 1988). Adult hardbound books numbered 1.025 billion and book clubs 0.698 billion.

39. *Id.* at 403-05. There were 41,925 new titles in 1986, including both paperback and hardbound. Approximately 17,000 of those were new paperback titles.

sellers for 1986, which numbered less than 200, therefore represented a small percentage of these titles. Yet, the top 124 best-sellers in 1987 generated combined sales of approximately 35 million copies.⁴⁰ The average 1986 price of a hardcover book was thirty-two dollars.⁴¹ Thus, best-sellers were likely to have generated nearly \$1 billion in sales out of a total of \$1.7 billion.⁴² Note that this does not include sales of best-sellers from previous years that were still selling in relatively large numbers. These numbers back up anecdotal evidence — that the distribution of book sales is very highly skewed toward the more successful book titles.

One question, then, is the longevity of those titles that actually have significant market value and make up the majority of sales in the market. To address this question, Liebowitz constructed a small data set consisting of a sample of titles reviewed in *Book Review Digest* in the 1920s, along with best-sellers. *Book Review Digest* reviewed approximately twenty-five percent of new titles. Generally, these were the titles attracting the most attention, written by the more important authors and published by the better-known houses. Table 1 gives the number of these titles that were in print after fifty-eight years.

Table 1: Life Expectancies of Titles			
	Number Of Titles	Number in Print After 58 Years	Percent in Print After 58 Years
All Books	236.00	97.00	41%
Best-sellers	91.00	49.00	54%
Non-best-sellers	145.00	48.00	33%

More than half of the best-sellers in the sample remained in print for a long enough period of time that the 1976 extension to the copyright law would likely have affected the present value of future book

40. *Id.* at 522–28 (detailing the number of copies sold of the sixty leading titles, and informing that an additional sixty-four titles sold approximately 150,000 copies each).

41. *Id.* at 408. The average price for fiction hardcover titles was seventeen dollars, so if fiction dominated the bestseller sales, the number in the text might need to be adjusted downward, but would still have bestsellers representing a very large component of sales.

42. This could be taken as evidence supporting the idea that optimal copyright length is not very long. If it were the case that best-selling authors derive far more income than their next best opportunity, then for two-thirds of the market, copyright would be longer than necessary. Without further examination of the income distribution of these authors, however, one cannot assert the truth of such a statement.

sales.⁴³ Even for non-best-sellers, a third still survived after fifty-eight years, indicating that a fairly significant share of other important books would likely be affected by changes in copyright law even when the copyright term is quite long.

Table 2 presents a further breakdown of longevity by category of title. There clearly are large differences among titles in different categories which have the likelihood of remaining in print for fifty-eight years. For some categories, the number of books remaining in print for this period is quite large.

Category	All Titles	Best Sellers Removed
Academic	68%	68%
Philosophical	52%	41%
History	51%	43%
Biography	49%	42%
Religion	46%	40%
Poetry	43%	40%
Fiction	36%	40%
Mystery	23%	16%
Comedy	25%	0%
Autobiography	19%	11%
Art	17%	17%
Travel	6%	6%
Sports	0%	0%

What is the importance of these findings for analyzing the *Eldred* case? They indicate that the inferences about depreciation rates of books drawn from overall survival rates are likely to be misleading. The great majority of books are obscure. They never had much market value, and their demise reflects this lack of viability more than it reflects depreciation. They are unlikely to have significant value in the public domain, just as they had insufficient value under copyright to keep them in print. However, for the small number of titles generating the lion's share of economic value, life expectancy is rather long. Extending copyright might have only a small change in expected reve-

43. 17 U.S.C. § 302 (2005). Prior to 1976, the copyright term was twenty-eight years followed by an additional renewal of twenty-eight years. The 1976 law increased this to fifty years after the death of the author.

nues for these books, but not because they have gone out of print or have lost commercial potential.

VII. CONCLUSION

It is amazing that copyright duration, a topic that has brought forth hardly any economic research, could bring together such a strong group of economists. Given both the ideological range and the distinction of this group, readers might well conclude that there is no other side to this issue. Copyright extension thus might seem to join rent control as one of very few things on which economists agree.

Nevertheless, there is another side to the economics of copyright extension, different from the one put forward by this distinguished group. A more complete view requires consideration of the responsiveness of creative efforts to marginal incentives and the function of ownership of intellectual property beyond the incentive to create. A more nuanced view requires attention to the limitations in the exclusionary aspect of copyright law. A more correct view requires an examination of empirical magnitudes that no one has fully undertaken.