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Copyright Lost

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COPYRIGHT LOST

GLYNN S. LUNNEY, JR.

CONTENTS

I have a dream. I dream of a law that "promote[s] the Progress of Science."[1] The law ensures a fair, just, and efficient return to those who author and distribute works of authorship, and by doing so, guarantees that those who enjoy such works will have a wide and varied supply at a reasonable price. I call that dream copyright. In a 2001 article, *The Death of Copyright*, I feared my dream had died.[2] In the opening two sentences of that article, I proclaimed:

> Copyright is dead. The Digital Millennium Copyright Act ("DMCA") has killed it.[3]

As I explained, I was not worried that copyright, as a law, as a set of exclusive rights, had died, but that "copyright" as a law that served a public, rather than a private, purpose had died. As it turns out, I was worried

[1] U.S. CONST. art. I, § 8, cl. 8.
[2] Glynn S. Lunney, Jr., *The Death of Copyright: Digital Technology, Private Copying, and the Digital Millennium Copyright Act*, 87 VA. L. REV. 813 (2001).
[3] *Id.* at 814.

about the wrong thing. Copyright is dead. But it was not the DMCA that killed it. It has become increasingly clear to me that copyright, as a law that serves the public interest, was only ever a dream. In the real world, it never existed at all.

In my dream, copyright is built on a simple premise: more copyright yields more money for copyright owners, and more money in turn means more and better creative work. In my dream, rent-seeking is part of copyright; to fulfill its purpose, copyright generates rents (or incentives, if you prefer) for copyright owners. But it does so only to the extent that those rents are necessary and inextricably tied to ensuring more and better creative works. At the time my *Death of Copyright* article was published in 2001, file sharing had only just gotten started. With Napster opening its virtual doors in the summer of 1999, sales revenue had begun to fall for the recording industry.[4] But by 2001, the fall had just begun. How far revenue would fall or what effect that might have on creative output we could not yet determine.

The lack of evidence did not stop the copyright industries from proclaiming that the sky was falling.[5] In their view, if file sharing was not stopped, no one would pay

[4] As I discuss elsewhere, the Recording Industry Association of America reports that sales of recorded music in the United States in constant dollar terms peaked in 1999. *See* GLYNN LUNNEY, COPYRIGHT'S EXCESS: MONEY AND MUSIC IN THE US RECORDING INDUSTRY 75, 81 (2018).

[5] Brief for Law Professors as Amici Curiae Supporting Respondents, Metro-Goldwyn-Mayer Studios, Inc., v. Grokster, Ltd., 545 U.S. 913 (2005) (No. 04-480), at *4–5 ("In the 1980s, it was the Betamax and the home taping of television broadcasts; today, it is P2P file sharing and musical works. But the 'sky is falling' rhetoric remains the same."); *see also* Mark A. Lemley, *Is the Sky Falling on the Content Industries?*, 9 J. TELECOMM. & HIGH TECH. L. 125, 125 (2011) ("Are the content industries doomed? They certainly seem to think so. The music industry tells us, as their revenues decline because of file sharing, 'we can't compete with free,' and so we're history. No one is going to create new music anymore.").

for music.[6] And if no one would pay for music, no one would create or distribute music, at least not good music. In my 2001 article, I questioned this reasoning. While other scholars writing at the time largely accepted it,[7] I was not so sure. First, I did not believe that just because music consumers could free-ride that they inevitably would.[8] Their own self-interest would lead, at least some, and perhaps enough, consumers to pay for the music they wanted. Second, I did not believe that the loss in revenue would impact marginal artists as strongly as it impacted superstars.[9] Because superstar earnings far exceeded their reservation cost, I posited that revenue could fall sharply without reducing creative output at the margins. Third, I argued that reducing income for the superstars might even increase creative output.[10] As I explained in the article: "While copyright simplistically assumes that more incentive means more productivity, this assumption is flawed. At some point, higher returns for a given author's work will likely reduce that author's creative output."[11]

While this might seem counterintuitive, it reflects a well-established principle in labor economics known as the backward-bending labor supply curve.[12] When wages are low, a slight increase in pay will lead most individuals to work longer hours in order to capture the greater income the increased wage makes available (the "substitution" effect).

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[6] This fear is not new. It has been proffered as an excuse for copyright since at least 1586. *See* Lunney, *supra* note 4, at 11 (quoting Stationer Guild's Petition to the Star Chamber).

[7] *See*, *e.g.*, WILLIAM W. FISHER, PROMISES TO KEEP: TECHNOLOGY, LAW, AND THE FUTURE OF ENTERTAINMENT (Stanford Univ. Press 2007); Neil W. Netanel, *Impose a Noncommercial Use Levy to Allow Free Peer-to-Peer File Sharing*, 17 HARV. J.L. & TECH. 1 (2003).

[8] *See* Lunney, *supra* note 2, at 858–68.

[9] *See id*. at 882–87.

[10] *Id.* at 890–92.

[11] *Id.* at 890.

[12] *Id.* at 890–92.

But as wages continue to increase, eventually they reach a point where the individuals begin to have enough money to spend on the things they want (the "income" effect). One of the things individuals want is leisure – spending time on the activities an individual most enjoys. Once wages have increased to the inflection point, individuals are earning enough that they want to buy more leisure rather than work. As a result, the income effect begins to outweigh the substitution effect, and the labor supply curve starts to bend backward. Beyond that point, further wage increases will lead the individual to work less, rather than more. In the late 1990s, copyright ensured an effective "wage" for our top artists and authors far in excess of their reservation price, and potentially above the point at which the labor supply curve began to bend backward. Thus, I argued that reducing revenue might actually lead some superstar artists to work more, rather than less.

While I did not have the evidence necessary to test these propositions empirically, I offered reasoning and anecdotes to support each.[13] Today, we have lived with the reality of file sharing for nearly twenty years. Even so, we still do not have evidence to test copyright's fundamental premise or file-sharing's impact across the full range of creative products that copyright protects. However, we do have evidence to test them for the sound recording industry – the industry where file sharing has had the greatest impact. In a newly-published book, COPYRIGHT'S EXCESS: MONEY AND MUSIC IN THE US RECORDING INDUSTRY,[14] I present and examine that evidence. Rather than support copyright's fundamental premise, it finds exactly the opposite relationship between money and music output. For the United States recording industry over the last fifty years, increased revenue was associated with fewer and lower

[13] *Id.* at 858–92.
[14] LUNNEY, *supra* note 4.

quality hit songs, *ceteris paribus*.[15] Decreased revenue was associated with more and better-quality hit songs, *ceteris paribus*.[16]

For me, this finding raises serious concerns regarding copyright. We tell ourselves that copyright enriches copyright owners, but only to ensure a vibrant and varied supply of creative works.[17] In this story, the public interest is paramount; the additional rents for copyright owners are only incidental. In rare moments of candor or doubt, we may acknowledge, in our minds if nowhere else, that the weight of these two interests may, in fact, be reversed. In the real world, the rents may, in truth, be copyright's *raison d'etre*; the additional creative works only incidental. We might also worry that overbroad copyright chills follow-on creativity. In our worst moments, we might even fear that copyright was in truth pure rent-seeking, generating rents for copyright owners without increasing creative output at all.

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[15] *Id.* at 192 ("[T]he net effect of maximizing copyright in order to maximize revenue has been, at least for the popular music industry in the United States, to reduce creative output.").

[16] *Id.*

[17] *See* U.S. v. Paramount Pictures, 334 U.S. 131, 158 (1948) ("The copyright law, like the patent statutes, makes reward to the owner a secondary consideration."); *see also* Feist Publ'ns v. Rural Tel. Serv. Co., 499 U.S. 340, 349 (1991) ("The primary objective of copyright is not to reward the labor of authors, but '[tlo promote the Progress of Science and useful Arts."' (quoting U.S. CONST. art. I, § 8, cl. 8)); Twentieth Century Music Corp. v. Aiken, 422 U.S. 151, 156 (1975) ("The immediate effect of our copyright law is to secure a fair return for an 'author's' creative labor. But the ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good."); Mazer v. Stein, 347 U.S. 201, 219 (1954) ("The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in 'Science and useful Arts." (quoting U.S. CONST. art. I, § 8, cl. 8)).

However, as it turns out, our fears regarding copyright fell far short of the truth. In the music industry over the last fifty years, broad and strong copyright protection has proven worse than pure rent-seeking.[18] Sure, copyright generated market power, the resulting rents, and associated rent-seeking and monopoly harms. But, more critically, it also reduced creative authorship. Moreover, it reduced authorship not in some incidental manner by occasionally chilling follow-on authorship. Rather, it reduced authorship directly and perversely by increasing the economic returns on authorship for our superstar artists so much that it led them to work less.[19]

And so, the copyright of my dreams is dead. It may in fact never have existed. At least for the recording industry in the United States over the last fifty years, strong and effective copyright protection did not "promote the Progress of Science." It did not increase creative output or make music more widely available. It reduced both the quantity and quality of music created; and for the music that was created, copyright limited its availability.[20] It is time to stop pretending otherwise.

In this essay, I will present a brief summary of some of that evidence.[21] Section I presents a history of the sound recording copyright, from its creation in 1971 through its "destruction" beginning in 1999 with the rise of file sharing. Consistent with the "more copyright equals more money" aspect of copyright's fundamental premise, we find a somewhat parallel rise and fall in revenue from the sales of recorded music. Section II then presents one measure of music output and shows that both the quantity and quality of music output fell during the 1990s when sales of recorded

[18] LUNNEY, *supra* note 4, at 192, 194.
[19] *Id.*
[20] *Id.*
[21] For a more complete version of the evidence, see LUNNEY, *supra* note 4.

music reached their peak. Section III explains why music output fell as revenues rose and then rose as revenues fell. Section IV concludes.

I. THE RISE AND "FALL" OF THE SOUND RECORDING COPYRIGHT

At the behest of the recording industry, Congress created a sound recording right in 1971.[22] The new copyright protected sound recordings made or "fixed" after February 15, 1972. Compared to the usual panoply of rights copyright provides, Congress limited the sound recording copyright in two respects. First, the reproduction and derivative work rights were limited to exact, mechanical duplication of the sounds recorded.[23] Someone else may re-create the same song or sounds exactly; they simply may not do so by mechanically copying the original recording.[24] Thus, if an artist wants to include a bass riff in a later song, the artist will infringe the earlier work's sound recording copyright if she samples the riff from a copyrighted sound recording. She will not, however, infringe if she re-creates the bass riff by playing it herself.

Second, when Congress originally enacted the sound recording copyright, it included no public performance right. In contrast, the copyright in the composition of a song, the so-called musical work copyright, had prohibited the unauthorized public performance right of the musical work

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[22] The Sound Recording Copyright Amendment of 1971, Pub. L. No. 92-140, § 3, 85 Stat. 391, 392 (1971).

[23] 17 U.S.C. § 114(b) (2012) (limiting the scope of the sound recording copyright to later works that "recapture the actual sounds fixed in the recording").

[24] *See*, *e.g.*, Bridgeport Music, Inc. v. Dimension Films, 410 F.3d 792, 800 (6th Cir. 2005) ("This means that the world at large is free to imitate or simulate the creative work fixed in the recording so long as an actual copy of the sound recording itself is not made.").

since 1897.[25] As a result, even after Congress created the sound recording copyright in 1971, to play a song on the radio, a radio station had to obtain and pay for a public performance license to the musical work copyright owner, but not to the sound recording copyright owner. In 1995, Congress gave sound recording copyright owners a public performance right, but it extended only to publicly performing a sound recording "by means of a digital audio transmission."[26] From the outset, the sound recording digital public performance right was not a full-fledged public performance right, but much more limited. For example, Congress expressly excluded nonsubscription radio and television broadcasts from its reach altogether.[27] The sound recording digital public performance right did reach certain subscription transmissions, as well as interactive and noninteractive digital transmissions over the Internet.[28] While these were not particularly significant sources of licensing revenue in 1995, in the last few years, they have become more significant with the rise of Internet music services, such as Spotify.

With the creation and rise of the sound recording right, revenue from sales and licensing of recorded music

[25] Act of Jan. 6, 1897, 54th Cong., 2d Sess., ch. 4, 29 Stat. 481, 481–82.
[26] Digital Performance Right in Sound Recordings Act of 1995, Pub.L. No. 39, 109 Stat. 336 (1995) (codified as amended at 17 U.S.C. 106(6) and 114(d)).
[27] 17 U.S.C. § 114(d)(1)(A)(iii) (2012) (excluding nonsubscription broadcast transmissions from the reach of the sound recording copyright's digital public performance right); *see also* Bonneville Int'l Corp. v. Peters, 347 F.3d 485, 488 (3d Cir. 2003) ("The paradigmatic 'nonsubscription broadcast transmission' was a traditional over-the-air radio broadcast.").
[28] LUNNEY, *supra* note 4, at 66–67.

also rose. Figure 1 tracks the rise of that revenue from 1961 to its peak in 1999 in constant 2013 dollars ("$2013").[29]

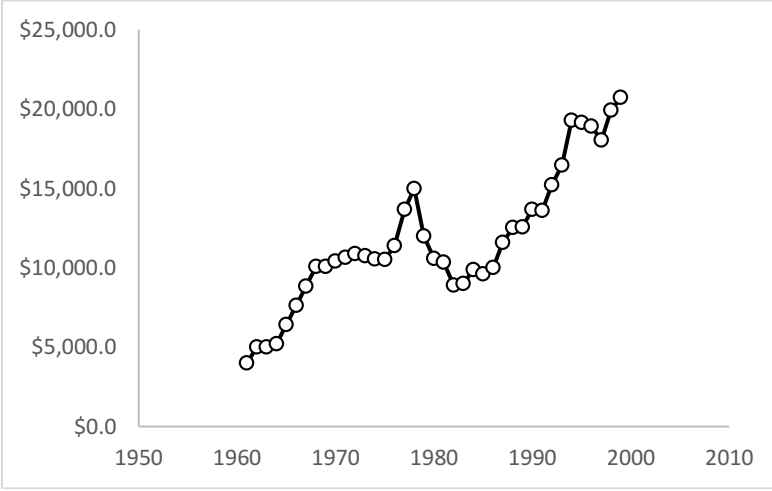

Figure 1. Music Sales (All Formats) in the United States (Constant 2013 Dollars, in Millions): 1961-1999.[30]

As Figure 1 reflects, sales of recorded music rose more or less steadily from 1961 through 1999. From under $4 billion ($2013) in 1961, sales rose to an initial peak in 1978 of just over $15 billion ($2013), and then fell back with second OPEC oil embargo and associated recessions until 1983. After 1983, sales resumed a steady upward trend until they reached record levels and peaked at just over $20.7 billion ($2013) in 1999.

[29] LUNNEY, *supra* note 4, at 68. From 1972 on, the data is from the Recording Industry Association of America's database. From 1961 through 1971, I obtained the sales data from Billboard Magazine.

[30] For the years 1973 and thereafter, the data for Figure 1 comes from the Recording Industry Association of America's shipment database (available at RIAA, www.riaa.com). For the years 1972 and before, the data comes from specific issues of Billboard magazine and is adjusted to constant dollars using the Bureau of Labor Statistics' CPI calculator. LUNNEY, *supra* note 4, at 67 n.34.

After Napster opened its virtual doors in 1999, this more-or-less steady upward progression in sales revenue came to an abrupt end. Although copyright owners pursued a relentless litigation campaign against file sharing services, and when that failed, against individual file sharers,[31] their successes in the courtroom did not put the file-sharing genie back into the bottle. To the contrary, Cisco estimates that file sharing traffic in North America has grown more-or-less steadily.[32] For 2016, Cisco estimated that file sharing traffic in North America exceeded one thousand petabytes per month.[33] That is roughly 250 million DVDs or 1.25 billion CD-quality albums a month.

As file sharing traffic increased, revenue from the sales of recorded music in the United States decreased. Figure 2 tracks the fall of that revenue from 1999 through 2014, again in constant 2013 dollars.

[31] *See* LUNNEY, *supra* note 4, at 70–72.

[32] CISCO, CISCO VISUAL NETWORKING INDEX: FORECAST AND METHODOLOGY, 2011-2018, at 11 (2014); CISCO, CISCO VISUAL NETWORKING INDEX: FORECAST AND METHODOLOGY, 2007-2012, at 4 (2008).

[33] CISCO, CISCO VISUAL NETWORKING INDEX: FORECAST AND METHODOLOGY, 2011-2018, at 11 (2014).

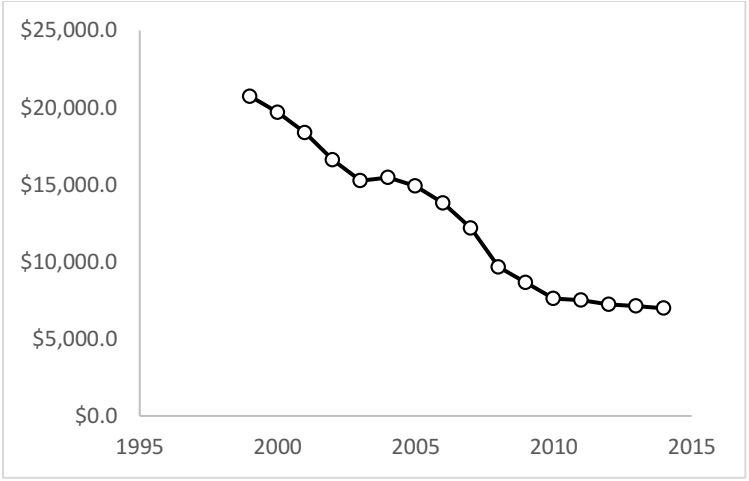

Figure 2. Post-Napster Music Sales (All Formats) in the United States (Constant 2013 Dollars, in Millions): 1999-2014.[34]

As Figure 2 reflects, there has been a steady decline in shipments of recorded music since the advent of file sharing in 1999. From its peak of $20.7 billion ($2013) in 1999, revenue from sales of recorded music have fallen in the United States to a low of just under $7.0 billion ($2013) in 2014. That is a decline in annual sales of $13.7 billion ($2013), or 66.4 percent.

While most of the legal and academic scholarship has focused on the extent to which file sharing is or is not responsible for this fall in revenue, that question does not interest me. In my view, the more interesting question, and the one that I raised in *The Death of Copyright* and attempted to answer in COPYRIGHT'S EXCESS, is how did that rise and fall affect music output. If the "more money means more and better music" aspect of copyright's fundamental premise is correct, then the quality and quantity of music released should have started low in the 1960s and risen to a peak in

[34] The data in Figure 2 comes from the RIAA's shipment database (available at RIAA, www.riaa.com).

the 1990s, as revenues peaked. As revenues fell after 1999, the quality and quantity of music released should also have fallen.

This should not be a subtle or difficult test for copyright's fundamental premise to pass. While it is a natural experiment and bears the associated weaknesses, revenue in constant dollar terms increased by more than four hundred percent from 1961 to 1999.[35] It then fell by nearly two-thirds from 1999 to 2014. These are very large changes in revenue. If there is any truth in copyright's "more money, more music" premise, then we should see a parallel rise and fall in music output. Moreover, given the size of the revenue changes, the parallel rise and fall in music output should be immediately and readily apparent to us all.

II. MEASURING MUSIC OUTPUT

In COPYRIGHT'S EXCESS, I looked at four measures of music output.[36] None of them supported copyright's fundamental premise that more money generated more or better music. To the contrary, the data found the exact opposite correlation: more money meant less and worse music. In this essay, I will present only one of those measures: the most popular 1,001 songs streamed on Spotify in 2014 world-wide that first appeared on the Billboard Hot 100 chart before 2006.

The Spotify data represents a direct measure of the satisfaction Spotify consumers derived in 2014 from

[35] *See* LUNNEY, *supra* note 4, at 119–20.

[36] *Id.* at 84–156. The four measures include: (i) a simple count of albums released each year; (ii) *Rolling Stone* magazine's list of the top 500 albums of all time; (iii) data drawn from the Billboard Hot 100 weekly chart; and (iv) Spotify's list of the top 1,001 songs streamed worldwide in 2014 that appeared on the Hot 100 chart before 2006. *Id.*

listening to music.[37] When I speak of more and better music, this is what I mean – music that consumers want to listen to. Given a choice of any song in Spotify's 25 million song catalog, these are the songs that consumers choose to listen to.

Spotify released the artist, title, and year of release for each of the top 1,001 songs and also released the number of times each song was streamed in 2014.[38] In COPYRIGHT'S EXCESS, I used this data to create three measures of music output: (i) the number of songs in the top 1,001 from each year from 1962-2005; (ii) the number of total streams from the songs in the top 1,001 from each year from 1962-2005; and (iii) the average number of streams from the songs in the top 1,001 from each year from 1962-2005.[39] Although all three measures show the same trend, in this essay, I will discuss only the total streams data.

Figure 3 presents the total streams from the songs in the Spotify top 1,001 for each year from 1960-2005.

[37] Matt Daniels, *The Most Timeless Songs of All Time: Using Spotify to Measure the Popularity of Older Songs*, THE PUDDING, https://pudding.cool/2017/03/timeless/index.html.
[38] *Id.*
[39] *Id.*

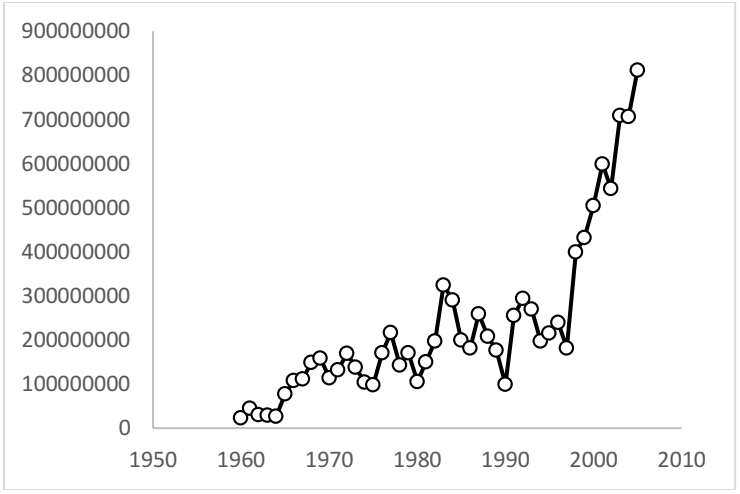

Figure 3. Music Output: Total Streams for Spotify Top 1001 by Year of Release.

Figure 3 reveals two immediate points. First, the total stream count does not rise and fall with sales revenue. There is no peak in the late 1970s, followed by a decline in the early 1980s. Similarly, there is no peak in the 1990s, followed by a decline through the post-Napster file sharing 2000s. Even without any further analysis, the Spotify data rejects the notion that more revenue led to more and better music.

Second, there is a definite time trend, or perhaps two time trends, in the data. From 1962 through 1997, there is a fairly steady increase in total streams each year. This may reflect that consumers have a preference for more recent music, or it may reflect that the age distribution of Spotify consumers skews to younger consumers. In any case, the preference for newer music accelerates beginning in 1998. That new stronger time trend then continues through the end of the available data in 2005.

We can use statistical techniques to take this time trend out of the data. For example, we can estimate expected total streams for each year by regressing the actual total

streams against year and year-squared. We can then subtract the actual total streams from the estimated total streams to get a normalized total stream count. This normalized count provides a measure of the popularity of the songs in the top 1,001 from each year, adjusted for the age of the music. Figure 4 presents this normalized or age-adjusted total stream count.

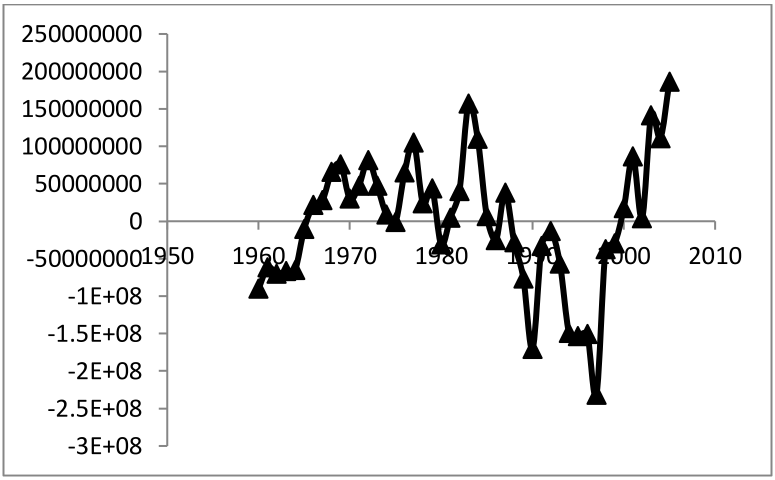

Figure 4. Music Output: Age-Adjusted Total Streams for Spotify Top 1001 by Year of Release.

As Figure 4 illustrates, on an age-adjusted basis, there is no preference among Spotify consumers in 2014 for music from the high revenue 1990s. To the contrary, of all the decades, the high-revenue 1990s performed the worst. The 90s are the music to which Spotify consumers in 2014 disproportionately did not want to listen, on an age-adjusted basis. In contrast, the best years for music in Figure 4 are 1983 and 2005, both low revenue years.[40]

[40] While the low revenue early 1960s do not fare well in Figure 4, we should keep in mind that songs by the Beatles were not available on Spotify in 2014. LUNNEY, *supra* note 4, at 122–56.

In COPYRIGHT'S EXCESS, I go beyond the visual appearance of Figure 4 and use a variety of regression techniques to try and find copyright's supposed correlation between money and music output.[41] As part of this search, I examine changes in music technology, both for creating and distributing music. I examine changes in demographics, particularly the size of the age 15-19 population cohort. I examine changes in the economy generally. I examine not just the total stream Spotify data, but all three Spotify measures, as well as three other measures of music output. In the end, the conclusion I reach is both consistent across these measures and striking: There is no evidence that more money meant more or better music. To the contrary, when I found a statistically significant correlation, I found that more money meant fewer and lower quality hit songs.[42] The question became why – why did more money mean less music?

III. WHY MORE MONEY MEANT LESS MUSIC

As it turns out, I was right all along. Copyright's simplistic assumption that more money means more music is wrong. As I explained in 2001, in the copyright industries, the backward-bending labor supply curve is real.[43] As ever-broader copyright continues to increase the economic return for authorship, particularly for our superstar artists and authors, at some point, those economic returns become so high that they push our superstars onto the backward-bending portion of the labor supply curve. When that happens, our superstar artists and authors began to work less.

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[41] *See id.*

[42] *Id.* at 156.

[43] *See* Lunney, *supra* note 2, at 890 ("While copyright simplistically assumes that more incentive means more productivity, this assumption is flawed. At some point, higher returns for a given author's work will likely reduce that author's creative output.").

This problem is particularly acute in the copyright industries because many markets for copyrighted works are, if not winner take all, winner take most. In such a market, using a uniform set of legal rights, such as copyright, to encourage production at the margins is an ineffective and poorly designed mechanism. Instead of incentives going to the marginal work, and thereby ensuring its expected profitability and hence production, most of the incentives go to the non-marginal work.[44] Giving additional incentives to a non-marginal work yields no social benefit. It is, at best, simply a waste.

We can get some sense for the size of this waste using the Spotify top 1,001 data. If instead of grouping the songs by year, we simply rank the top 1,001 Spotify songs by their total stream count, Figure 5 is the result.

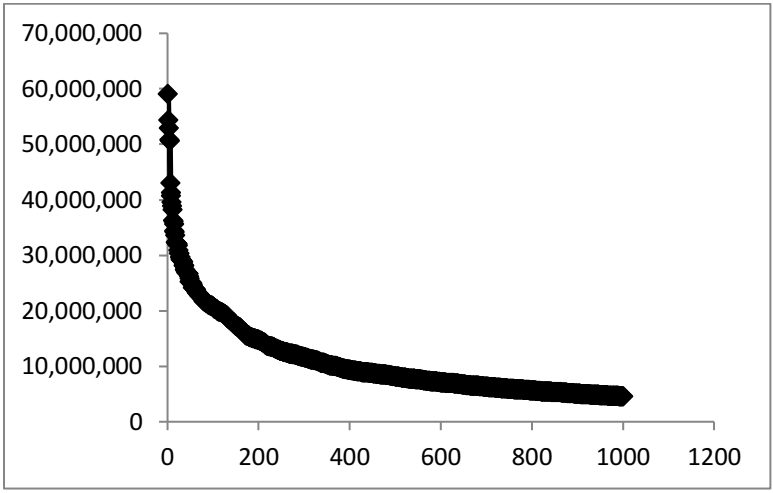

Figure 5. Spotify World-Wide Streams in 2014: Top 1001 Hot 100 Songs, 1958-2005.

[44] A non-marginal work is one that would already be profitable, and hence produced, even in the absence of copyright, or with a narrower or shorter copyright. *See* LUNNEY, *supra* note 4, at 5, 6.

As Figure 5 illustrates, the distribution of streams, even within this select group, is highly skewed.[45] Spotify consumers streamed the top song in this group, *Lose Yourself*, by Eminem, nearly sixty million times in 2014. In contrast, they streamed the last song on the list, *Name* by the Goo Goo Dolls, only 4.6 million times in 2014.

If *Name* is the marginal work, trying to increase its earnings through a uniform set of rights is a costly, inefficient, and essentially futile approach. If we create or broaden a uniform set of legal rights, such as the sound recording copyright, in order to increase the earnings for the marginal song, then we would also increase, proportionally, the earnings of the more popular, but non-marginal songs.[46] Given the distribution of streams in Figure 5, to put one dollar in the Goo Goo Dolls' hands for *Name* through such a uniform broadening, we would have to put $2,343.25 in the hands of the artists of the more popular, but non-marginal works.[47]

Even for a government program, $2,343.25 in misdirected incentives for every dollar in properly directed

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[45] *Id.* at 20–21.

[46] Actually, the earnings for the top works may increase more than proportionally. With a higher demand, a uniform set of rights may enable a superstar artist such as Drake, Eminem, or Taylor Swift to negotiate, for example, with Spotify for a per stream royalty higher than the royalty for a marginal artist.

[47] That number understates the extent to which copyright's incentives are misaligned with its public purpose. The average song on Spotify was streamed only forty times a day, or just under fifteen thousand times a year. In contrast, the most popular song on Spotify, to date, is *One Dance*, by Drake, with featured appearances by Wizkid and Kyla, streamed a billion times in just 224 days. If we compare one billion streams for the most popular song to fifteen thousand streams for the average song, and assume that earnings are proportional to streams, then to generate one additional dollar in revenue for the average work, copyright's uniform set of rights must also generate $66,666.67 in additional revenue for the most popular, but obviously non-marginal work.

incentives seems terribly wasteful. However, it is not just that these misdirected incentives are wasteful, they are affirmatively harmful to copyright's public purpose. These misdirected and excess incentives ensure that our most popular artists are vastly overpaid. By providing these excess incentives, copyright encourages our superstar artists to work less. As a result, when revenues were high for the recording industry, as they were in the 1990s, our top artists produced fewer studio albums and fewer Hot 100 hits in the first ten years of their career.[48] In contrast, when revenues were low, both in the 1960s before the sound recording copyright and in the post-file sharing 2000s, our top artists produced more studio albums and more Hot 100 hits.[49] It is no coincidence that the most prolific artists in the study,[50] the Beatles and Taylor Swift, had their first Hot 100 hits in the low revenue years of 1964 and 2006, respectively. Indeed, of our top twenty, most prolific artists, all but one began their careers in low revenue eras.[51]

For the United States recording industry over the last fifty years, more money has not meant more and better music. It has meant less. The notion that copyright can serve the public interest by increasing revenue for copyright owners has, at least for the recording industry, proven false.

IV. COPYRIGHT IS DEAD, LONG LIVE COPYRIGHT?

Copyright is dead. The DMCA did not, however, kill it. Copyright, in the sense of a law intended to promote the public interest, never existed at all. It was only ever a dream.

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[48] LUNNEY, *supra* note 4, at 157–72.
[49] *Id.*
[50] Among artists who had their first hot 100 hit between 1962 and 2006. "Most prolific" is based upon the number of Hot 100 hits, as lead artist, in the first ten calendar years following their first Hot 100 hit. LUNNEY, *supra* note 4, at 94–95, 102–08, 159–69.
[51] *See* LUNNEY, *supra* note 4, at 158–62 (noting that Jay-Z was tied for twentieth).

For the recording industry over the last fifty years, when copyright protection was strong and effective, it forced consumers to pay more for music. If that increased price neither increased nor decreased music output, then copyright was merely an unproductive tax. It simply forced consumers to pay more for works of authorship that would have existed in any event, even in the absence of copyright.

As it turned out, however, the sound recording copyright was far worse than a mere unproductive tax. It affirmatively reduced creative output. It generated economic returns for our most popular superstar artists and authors far in excess of their reservations costs. By providing these excess incentives, copyright led our most important cultural contributors to produce fewer and lower quality works of authorship. Rather than promote culture, in the recording industry over the last fifty years, strong and effective copyright protection diminished our cultural patrimony.

Copyright is dead. If only copyright would die.