

Joint Standing Committee on Treaties: ACTA

Question on Notice (Friday 23 March 2012)

Senator Ludlum asked whether I could point the Committee to any objective evidence about the cost of unauthorised downloads to the music industry.

The United States Government Accountability Office (GAO) Report to Congressional Committees on Intellectual Property (Observations on Efforts to Quantify the Economic Effects of Counterfeit and Pirated Goods) of April 2010 provides a useful review of the available evidence across the field of counterfeit trademarks and unauthorised use of copyright. This report is available at <http://www.gao.gov/new.items/d10423.pdf>. The GAO report is more balanced than the 2008 OECD report as it assesses both the benefits and the costs of counterfeit use of trademarked goods and unauthorised copyright use. While the OECD report focuses on only negative impacts, it does note the challenges in finding reliable data in this area: "In many instances, the assessments that parties have made rely excessively on fragmentary and anecdotal information; where data are lacking, *unsubstantiated opinions* are often treated as facts." (OECD, 2008, *The Economic Impact of Counterfeiting and Piracy*: 65, emphasis added).

In contrast to the OECD report the GAO report sets out a framework for investigating costs and benefits by broad sector, and investigates the reliability (or rather complete unreliability) of widely-cited estimates. It also reviews a range of academic studies.

Framework for assessing costs and benefits

In Table 2 (pp9-10) the GAO report sets out a framework for assessing both positive and negative effects on consumers, industry, government and the economy as a whole. The GAO report notes that the economic effects of these behaviours vary considerably between industries and between companies within any given industry (p.11).

Reliability of widely cited estimates

The GAO report also investigates three widely cited estimates of the cost of these behaviours to the US economy and is unable to substantiate any of the three estimates.

"Three commonly cited estimates of U.S. industry losses due to counterfeiting have been sourced to U.S. agencies, but cannot be substantiated or traced back to an underlying data source or methodology. First, a number of industry, media, and government publications have cited an FBI estimate that U.S. businesses lose \$200-\$250 billion to counterfeiting on an annual basis. This estimate was contained in a 2002 FBI press release, but FBI officials told us that it has no record of source data or methodology for generating the estimate and that it cannot be corroborated. Second, a 2002 CBP press release contained an estimate that U.S. businesses and industries lose \$200 billion a year in revenue and 750,000 jobs due to counterfeits of merchandise. However, a CBP official stated that these figures are of uncertain origin, have been discredited, and are no longer used by CBP. A March 2009 CBP internal memo was circulated to inform staff not to use the figures. However, another entity within DHS continues to use them. Third, the Motor and

Equipment Manufacturers Association reported an estimate that the U.S. automotive parts industry has lost \$3 billion in sales due to counterfeit goods and attributed the figure to the Federal Trade Commission (FTC). The OECD has also referenced this estimate in its report on counterfeiting and piracy, citing the association report that is sourced to the FTC. However, when we contacted FTC officials to substantiate the estimate, they were unable to locate any record or source of this estimate within its reports or archives, and officials could not recall the agency ever developing or using this estimate. These estimates attributed to FBI, CBP, and FTC continue to be referenced by various industry and government sources as evidence of the significance of the counterfeiting and piracy problem to the U.S. economy." (pp18-19)

Survey data

In reviewing survey data, the report notes that estimates by interested parties are plagued by either untenable assumptions or missing information about methodology. For example the Business Software Alliance use assumptions (especially one-for-one substitution) that raise substantial concerns among experts (p.21). Survey data from the Motion Picture Association are difficult to assess because information on key assumptions is missing (pp 21-22).

The report provides short summaries of two academic studies. These provide clear information about the methodology used and both reach quite different conclusions from those of the interested parties from the music industry. While care needs to be taken in extrapolating from such small studies, they do show how strongly the industry estimates of "losses" are influenced by the approach taken in developing estimates.

The first of these academic studies reviewed is by Rob and Waldfogel. The full discussion provided in the GAO report is:

"In a smaller-scale example of a survey method, Rob and Waldfogel surveyed students in American universities during parts of 2003 and 2004, asking not only about the amount of music albums they purchased and illegally downloaded, but also the titles and their valuation for the albums they purchased and illegally downloaded. Their main findings are: (1) downloading reduces legitimate purchases by individuals by 20 percent in the sample, that is, every five music downloads substitute one legitimate purchase; (2) on average, respondents downloaded music that they valued one-third to one-half less than their legitimately purchased music, suggesting that some of the music that was downloaded would never have been purchased as an album; and (3) while downloading reduces per capita expenditures by \$25, it raises per capita consumers' surplus by \$70. *The study indicated that downloading illegal music can have a positive effect on total consumer welfare.* However, as explained by the authors, this experiment cannot be generalized; the data consist of a snapshot of undergraduate students' responses, which is not representative of the general population." (p.22, emphasis added).

Another study cited in the GAO report, also in respect of the music industry, is:

"Hui and Png's study provided another example that used modeling. This study estimated that piracy in the music industry caused revenue losses of 6.6 percent in 1998. *The authors stated that their estimate is significantly less than the industry loss estimate.* In particular, for the year 1998 in the United States, legitimate sales of CDs were 3.73 CDs per capita, and the average loss in sales

per capita due to piracy was 0.044 CDs. The data set included CD prices, music CD demand, piracy level and country-specific characteristics for 28 countries, mostly provided by the International Federation of the Phonographic Industry. The main limitation for this study was that it only covered physical piracy. While digital piracy was not a major concern during the time period sampled, it has become so for at least the last decade due to the Internet. Another limitation is that the study used piracy rates that assumed a one-to-one substitution rate, including those used by the Business Software Alliance." (p.25, emphasis added).

What these two studies show are that there are losses to copyright holders in the music industry due to unauthorised use of copyrighted material, *but that these losses are substantially lower than the losses estimated by industry representatives*. The Rob and Waldfogel study is particularly interesting in that it provides a concrete estimate of the rate of substitution between primary and secondary markets – at least for this group of students the rate of substitution is only 1 in 5. That is, the one-to-one substitute ratio used by industry over-estimates losses by a factor of five. While the Hui and Png study used the industry over-estimate of one-to-one substitution it also concluded that losses were substantially less than the estimates put forward by industry. On a theoretical basis the characteristics of secondary markets in unauthorised use of copyrighted goods suggest that substitution rates will be low. This theoretical conclusion is confirmed by unbiased academic research.

The Rob and Waldfogel study also looks at the net impact on overall economic well-being of unauthorised use of copyrighted music. The private losses of the copyright owners are more than offset by increases in consumer welfare due to the access to a wider range of goods at lower prices. This releases income which can be spent in other industries and/or on greater purchases of music (depending on consumer taste).

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REFERENCES

Studies of unauthorised use of copyrighted music:

Rob, R. and J. Waldfogel, 2006, "Piracy on the High C's: Music Downloading, Sales Displacement, and Social Welfare in a Sample of College Students", *Journal of Law and Economics* 49(1): 29-62.

Hsu, Kai-Lung and Ivan Png, 2003, "Piracy and the legitimate Demand for Recorded Music", *Contributions to Economic Analysis & Policy*, 2(1), Article 11.

Principle references:

(GAO) United States Government Accountability Office, 2010, *Intellectual property: observations on efforts to quantify the economic effects of counterfeit and pirated goods*, Washington DC, GAO-10-423 (available at <http://www.gao.gov/products/GAO-10-423>)

OECD, 2008, *The Economic Impact of Counterfeiting and Piracy*, Paris: OECD.