

INTERNATIONAL INTELLECTUAL PROPERTY ALLIANCE

2001 SPECIAL 301 REPORT

METHODOLOGY

Estimated trade losses due to piracy are calculated by IIPA's member associations. Since it is impossible to gauge losses for every form of piracy, we believe that our reported estimates for 2001 actually underestimate the losses due to piracy experienced by the U.S. copyright-based industries.

Piracy levels are also estimated by IIPA member associations and represent the share of a country's market that consists of pirate materials. Piracy levels together with losses provide a clearer picture of the piracy problem in different countries. Low levels of piracy are a good indication of the effectiveness of a country's copyright law and enforcement practices. IIPA and its member associations focus their efforts on countries where piracy is rampant due to inadequate or non-existent copyright laws and/or lack of enforcement.

BUSINESS SOFTWARE APPLICATIONS

The Business Software Alliance (BSA)'s calculation method compares two sets of data – the *demand* for new software applications, and the legal *supply* of new software applications.

Demand: PC shipments for the major countries are estimated from proprietary and confidential data supplied by software publishers. The data is compared and combined to form a consensus estimate, which benefits from the detailed market research available to these member companies.

Two dimensions break the shipments into four groups. Splitting the PC shipments between Home and Non-Home purchasers represents the market segments of each country. The PC shipments are also compared to the change in the installed base of existing PCs. The part of PC shipments which represents growth of the installed base is called "new shipments" and is separated from the "replacement shipments" which represent new PCs that are replacing older PCs.

A scale of the installed base of PCs by country compared to the number of white-collar workers was developed. PC penetration statistics are a general measure of the level of technological acceptance within a country. The level of penetration, for a variety of reasons, varies widely from country-to-country. This level is then ranked and each country is assigned to one of five maturity classes.

The number of software applications installed per PC shipment is provided by member companies, and the following ratios for the four shipment groups are developed:

Home-New Shipments
Non-Home - New Shipments
Home - Replacement Shipments
Non-Home - Replacement Shipments

For each shipment group, ratios are developed for each of five maturity classes. U.S. historical trends are used to estimate the effects of lagged technological development by maturity class.

Piracy rates can vary among applications. Grouping the software applications into three Tiers and using specific ratios for each Tier further refined the ratios. The Tiers were General Productivity Applications, Professional Applications, and Utilities. These were chosen because they represent different target markets, different price levels, and it is believed, different piracy rates.

Software applications installed per PC shipped are researched and estimated using these dimensions:

1. Home vs. Non-Home
2. New PCs vs. Replacement PCs
3. Level of Technological Development
4. Software Application Tier

From this work, a total software applications installed estimate was calculated for each country.

Supply: Data was collected by country and by 26 business software applications. Shipment data was limited in some instances, hence, uplift factors were used to estimate U.S. and world-wide shipments.

Piracy Estimates: The difference between software applications installed (demand) and software applications legally shipped (supply) equals the estimate of software applications pirated. The piracy rate is defined as the amount of software piracy as a percent of total software installed in each country.

Dollar Losses: The legal and pirated software revenue was calculated by using the average price per application. This is a wholesale price estimate weighted by the amount of shipments within each software application category.

To develop the wholesale dollar losses for U.S. software publishers, the wholesale dollar losses due to piracy were reduced by the ratio of the software shipped by U.S. software publishers as a percent of software shipped by all software publishers.

ENTERTAINMENT SOFTWARE

The Interactive Digital Software Association (IDSA) draws piracy rates from numerous estimates provided by member and non-member company representatives, distributors and enforcement personnel based on local market conditions. Separate estimates of piracy rate pertaining to console- and PC-based software are calculated, and then averaged into a single piracy rate based on the prevalence of each platform in the market.

Trade loss figures reported in this 2001 Special 301 Report are preliminary and are based only on partial data samples. These figures are likely to underestimate those to be reported upon completion of our review.

This year's dollar loss figures rely in part on estimates provided by member companies. These estimates are generated using proprietary methodologies that integrate market data of dedicated platform and PC entertainment software in both compact disc and cartridge formats and hardware shipments. These methodologies take into account market conditions including but not limited to the installed base of a given platform (console, PC-based, handheld, etc.) and actual distribution and sales figures.

Dollar loss figures also incorporate inferences from seizure statistics that result from border and other enforcement actions in the countries of production, export and import. These losses are attributed to the country of production where such is known. This aspect of the methodology relies on conservative estimates about the total number of piratical goods produced based on the numbers seized.

The methodology also assumes that piratical goods in the marketplace displace to some degree legitimate product sales. In these instances, displaced sales are multiplied by the wholesale price of legitimate articles rather than the retail price of the pirate goods.

MOTION PICTURES

Many factors affect the nature and effect of piracy in particular markets, including the level of development of various media in a particular market and the windows between release of a product into various media (theatrical, video, pay television, and free television). Piracy in one form can spill over and affect revenues in other media forms. Judgment based on in-depth knowledge of particular markets plays an important role in estimating losses country by country.

Video: As used in the document the term encompasses movies provided in video cassette as well as in all optical disc formats. Losses are estimated using one of the following methods:

1. For developed markets:
 - a. The number of stores that rent pirate videos and the number of shops and vendors that sell pirate videos are multiplied by the average number of pirate videos rented or sold per shop or vendor each year;
 - b. The resulting total number of pirate videos sold and rented each year in the country is then multiplied by the percent of those pirate videos that would have been sold or rented legitimately and adjusted to reflect the US producers' share of the market.
2. For partially developed markets:
 - a. The number of legitimate videos sold or rented in the country each year is subtracted from the estimated total number of videos sold or rented in the country annually to estimate the number of pirate videos sold or rented annually in the country;

- b. The resulting total number of pirate videos sold and rented each year in the country is then multiplied by the percent of those pirate videos that would have been sold or rented legitimately and adjusted to reflect the US producers' share of the market.
3. For fully pirate markets:

The estimated number of pirate videos of U.S. motion pictures sold or rented in the country each year is adjusted to reflect the wholesale price of legitimate videos which equals losses due to video piracy.

TV, Cable and Satellite: Losses are estimated using the following method:

1. The number of TV and cable systems that transmit U.S. motion pictures without authorization is multiplied by the average number of U.S. motion pictures transmitted without authorization by each system each year;
2. The resulting total number of illegal transmissions is multiplied by the average number of viewers per transmission;
3. The number of viewers of these illegal transmissions is allocated among those who would have gone to a theatrical exhibition or who would have rented or purchased a legitimate video. The number of legitimate transmissions of the motion picture that would have been made is also estimated;
4. These figures are multiplied by the producers' share of the theatrical exhibition price, the wholesale share of the video cost or the license fee per legitimate transmission, as appropriate, to estimate the lost revenue from the illegal transmissions.

Public Performance: Losses are estimated using the following method:

1. The number of vehicles and hotels that exhibit videos without authorization is multiplied by the average number of viewers per illegal showing and the number of showings per year;
2. The resulting total number of viewers of unauthorized public performances is allocated among those who would have gone to a theatrical exhibition or who would have rented or purchased a legitimate video. The number of legitimate TV and cable transmissions that would have been made of the motion pictures is also estimated;
3. These figures are multiplied by the producers' share of the theatrical exhibition price, the wholesale share of the video cost or the license fee per legitimate TV, cable and satellite transmissions, as appropriate, to estimate the lost revenue from the illegal performances.

SOUND RECORDINGS AND MUSICAL COMPOSITIONS

RIAA generally bases its estimates on local surveys of the market conditions in each country. The numbers produced by the music industry generally reflect the value of sales of pirate product rather than industry losses, and therefore undervalue the real harm to the interests of record companies, music publishers, performers, musicians, songwriters and composers.

Where RIAA has sufficient information relating to known manufacture of pirate recordings that emanate from a third country, this loss data will be included in the loss number for the country of manufacture rather than the country of sale.

In certain instances where appropriate, RIAA employs economic data to project the likely import or sale of legitimate sound recordings, rather than merely reporting pirate sales. In these instances, projected unit displacement is multiplied by the wholesale price of legitimate articles in that market rather than the retail price of the pirate goods.

BOOKS

The book publishing industry relies on local representatives and consultants to determine losses. These experts base their estimates on the availability of pirate books, especially those found near educational institutions, book stores and outdoor book stalls. A limitation here is that experts can only gauge losses based on the pirated books that are sold; it is impossible to track losses for books which are pirated but not available for public purchase. The trade loss estimates are calculated at pirate prices which are generally (but not always) below the prices which would be charged for legitimate books. Also included are conservative estimates of losses due to unauthorized systematic photocopying of books.