

**The Evolving Media Landscape:  
What do the Data Show?**

# **Copying in the Digital Age**

**Alejandro Zentner**

**Jindal School of Management**

**University of Texas at Dallas**

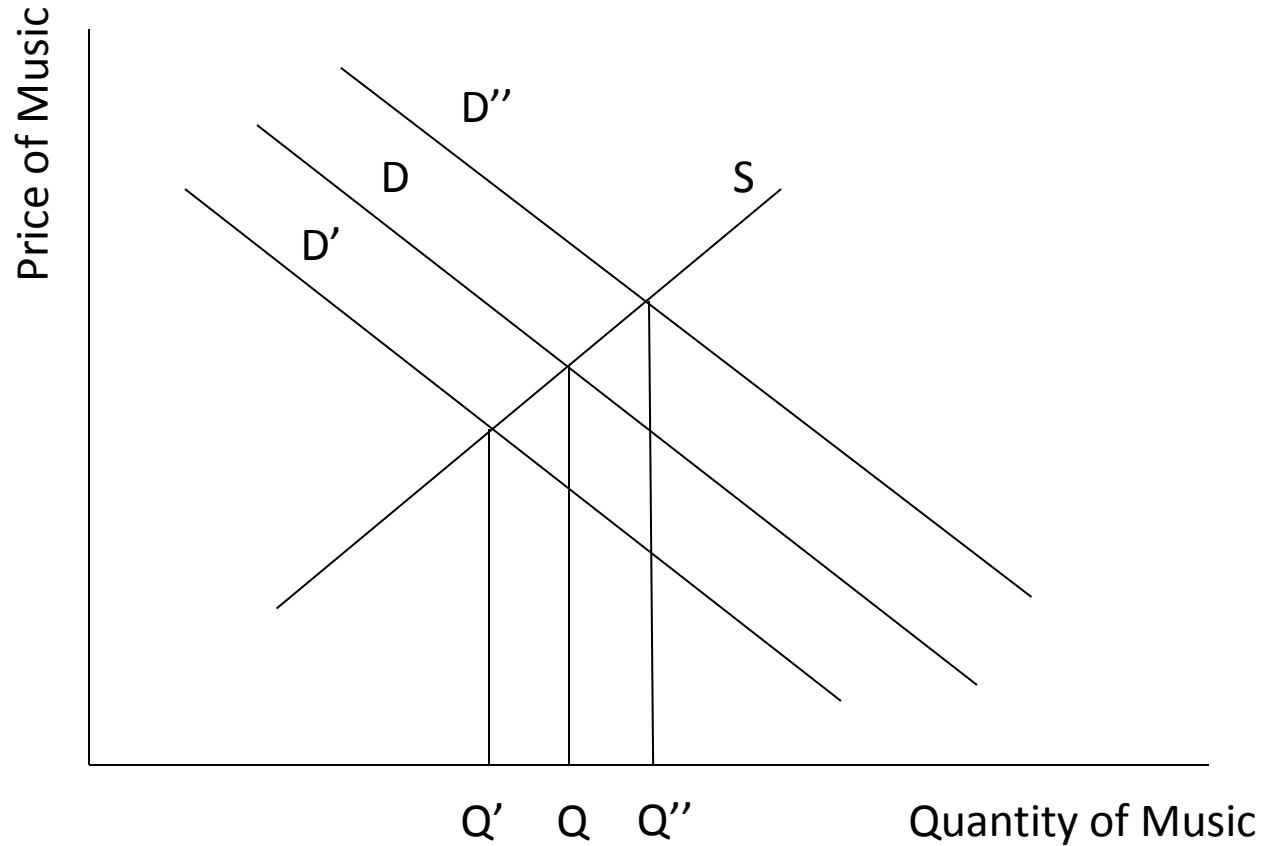
# Why do Copyright and Patents Laws Exist?

- Copyright and patent laws provide incentives for the creation of new products, new technologies, and new business models. For example, when drug companies create a new medicine they have exclusive rights to sell it without competition from generics for a number of years.

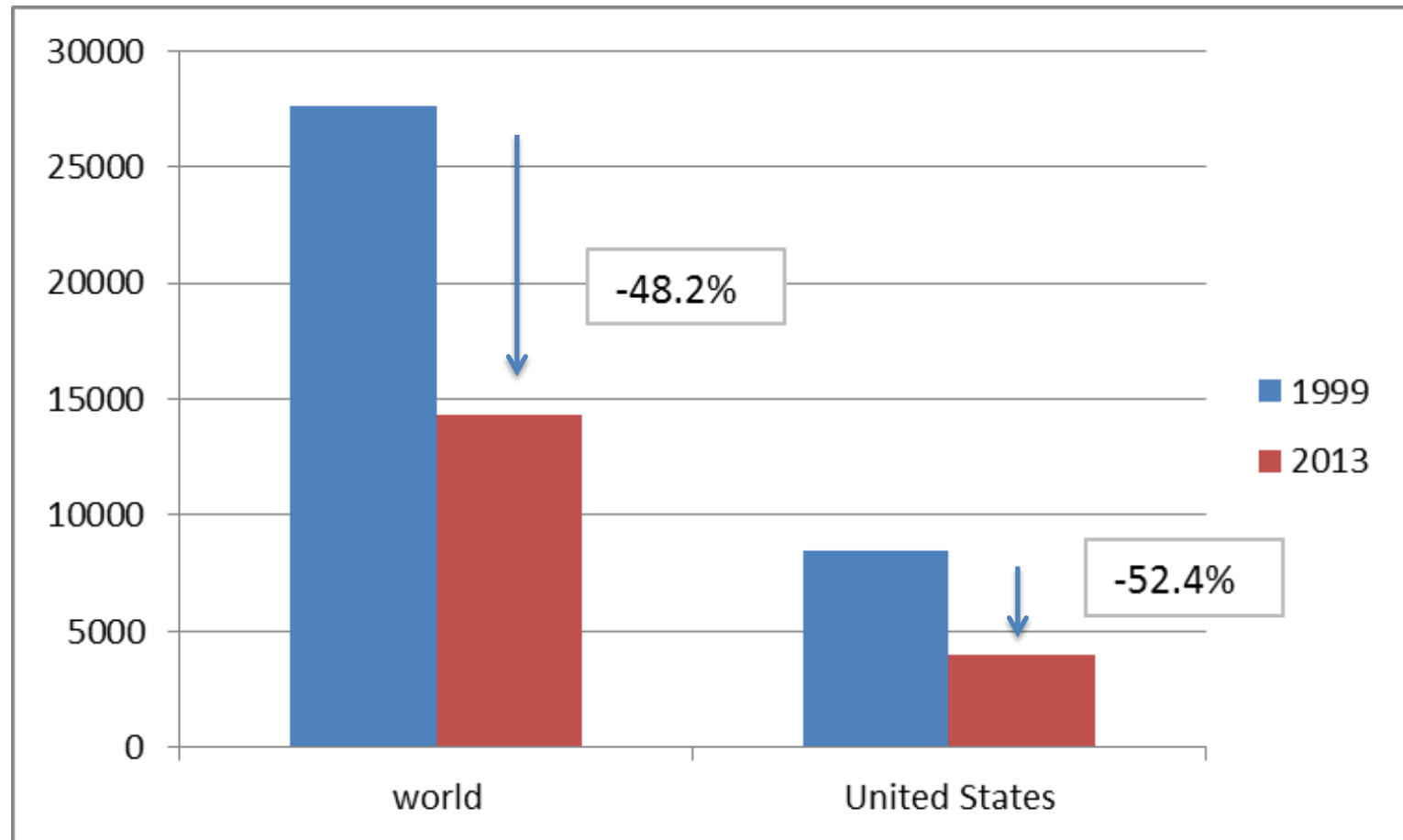
# File Sharing and Copyright

- File sharing of digital content (e.g., music or movies) was introduced in 1999 and researchers have been interested in answering whether file sharing affected the effective protection provided by copyright laws.

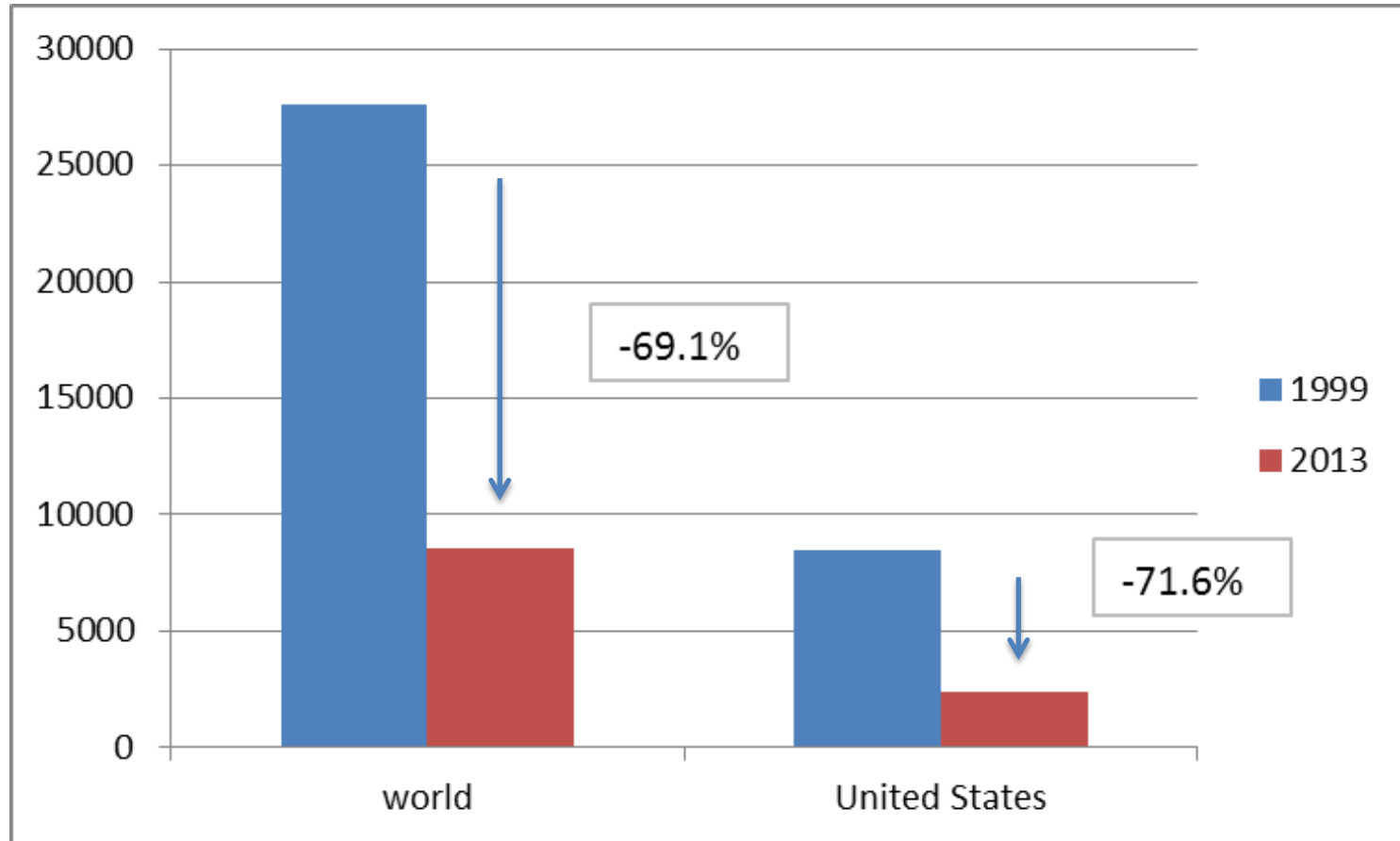
# Music Market: File Sharing Effects



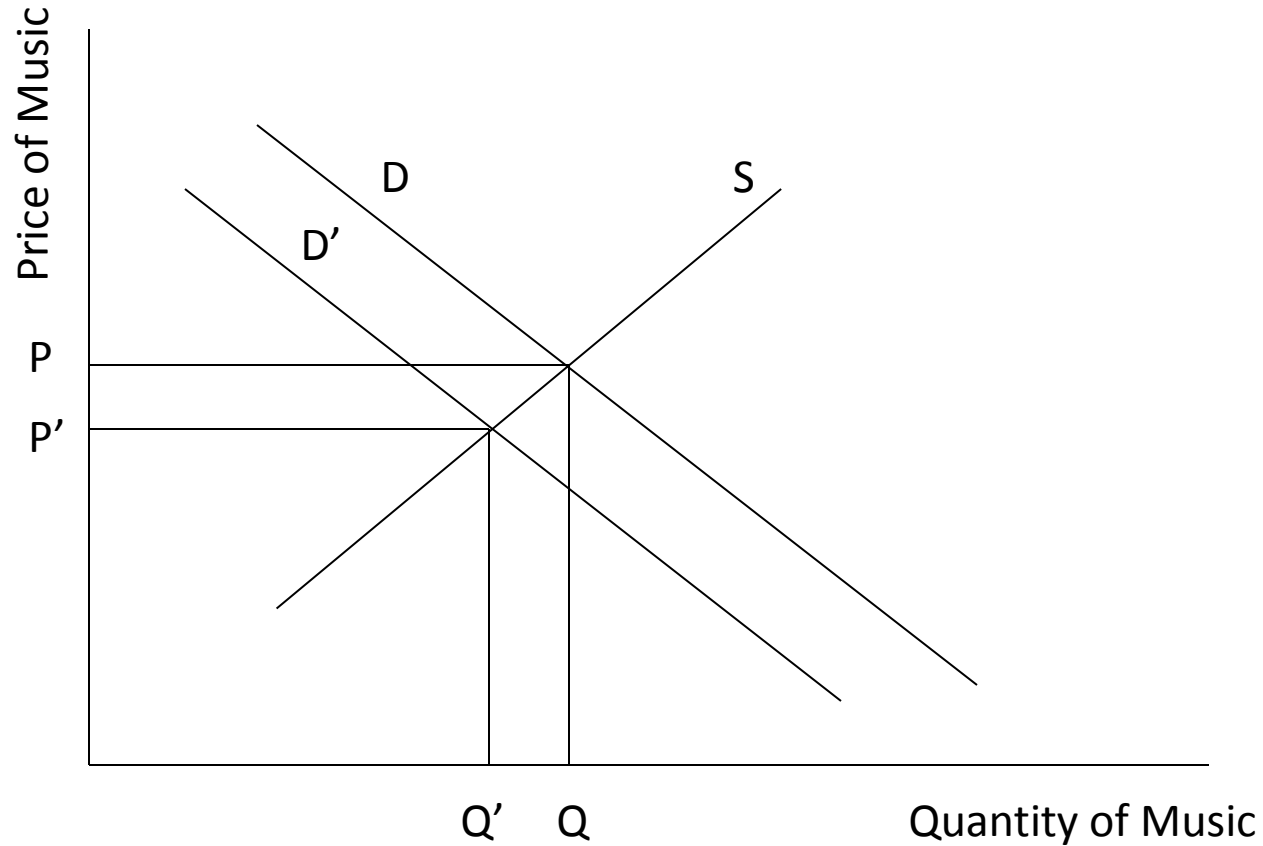
# Total Recording Revenues (in million US\$) Both Physical and Digital Sales



# Total Recording Revenues (in constant Million US\$) Both Physical and Digital Sales



# Music Market: File Sharing Effects



# File Sharing and the Supply of Talent

- We can study this question once we agree that file sharing changed revenues.



# File Sharing and the Supply of Talent

- Measuring how file sharing affected the supply of talent is difficult:
  - a) Suppose that we find that file sharing did not affect creation. A) One interpretation is that the supply of talent might not be substantially affected by monetary incentives. B) Another interpretation is that monetary incentives measured as revenue minus costs have not changed significantly – since new technologies have also reduced the cost of creation.
  - b) Economists have repeatedly examined the reaction of the supply of labor to tax increases. In spite of a very large amount of research we still haven't reached an agreement regarding how much raising income taxes affects the supply of labor or the GDP.
  - c) When a new technology reduces the cost of creation (e.g., a technology that reduces the cost of producing new drugs) do we want the same amount of creation we would have had without the cost reduction or do we want more creation (e.g., produce more new drugs since it has become cheaper to produce them)?
  - d) It might be too early for some industries (e.g., movie industry). It is difficult or impossible to extrapolate across industries.
  - e) Measuring quality is difficult.
  - f) We can evaluate the quantity of creation and also evaluate other margins (e.g., types of music).