As Good as It Gets?

Blockbusters and the Inequality of Box Office Results since 1950.

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1. Introduction

This paper analyses how success, measured by box office revenues, is distributed in the movie industry. The idea that “the winner takes all” is pervasive in describing the high degree of inequality in revenues, since we are all subject to the cognitive bias known as “recency effect,” and have myopic perceptions which make us think that recent events are more relevant. This makes us believe that inequalities are much more important today than they used to be. Blockbusters such as Avatar, The Black Knight, Pirates of the Caribbean, Dead Man's Chest or even Titanic lead us to overestimate revenue inequality. As is the case with many simplifications, this one is also misleading.

The “winner takes all” is an expression coined by Frank and Cool (1995), but the idea was developed by Rosen (1981) in his analysis of the economics of superstars: only very few artists or cultural products are exceptionally successful. This is especially true in the movie industry where high levels of risk and uncertainty generate the perception that box office revenues are highly concentrated (see De Vany and Walls, 1996). De Vany (2006, p. 641) suggests that “the top four movies account for 20% of revenues and the top eight for nearly 30%, … 20% of the movies earn 80% of revenues.” The music industry is subject to a similar phenomenon,1 but the situation is less extreme in

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1 See for instance Fernandez-Blanco et al., 2007 for Spain.
publishing where, according to Cowen (1998) the top 15 books account for less than one percent of total sales.

Our perception is fueled by the increased availability and accessibility of information on movies. The web offers weekly, and sometimes even daily, box office figures; blockbusters make it to the first page of newspapers, and moviegoers pay attention not only to directors, stars and awards but also to box office results. Presence among the top movies in the US box office is good advertising for a film that is released worldwide.

In nominal terms (current dollars), nine out of the top ten movies of the US all-time box office were released between 1997 (Titanic) and 2009 (Avatar) and some are far ahead of the pack. This was the case for Avatar in 2009 (with revenues that were 76 percent larger than that of the second movie), The Dark Knight in 2008 (67 percent), Dead Man’s Chest in 2006 (69 percent) and of course Titanic in 1997 (140 percent). In nominal terms these box office numbers look large, but we usually forget inflation, and there are movies produced in the past whose box office is much larger in real terms, as shown in appendix where we list the 20 most successful movies ever. Only three out of 20 were released between 1997 and 2009. We get carried away by our (usually poor) intuition, and end up believing that blockbusters released during the recent decades made inequality more severe, and that the past was more generous to a larger number of producers, though this had already happened a long time ago with Cinderella in 1950 (122 percent larger), Quo Vadis in 1951 (65 percent larger), The Ten Commandments in 1956 (86 percent), South Pacific in 1958 (88 percent), Mary Poppins in 1964 (96 percent), Butch Cassidy and the Sundance Kid in 1969 (98 percent) or The Godfather in 1972 (106 percent). These examples are dwarfed by Ben Hur in 1959 (200 percent larger) or Star Wars in 1977 (217 percent).

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2 McLean (2009, p. 7) for instance suggests that “from the 1970s onwards it became apparent to the major studios that the annual box office charts tended to be dominated by one or two films which clearly led over all releases. A studio’s income was not coming in equally from all of its releases.”
Inequality cannot be measured by just looking at the two or three first movies. In order to clarify this, we analyze how box-office inequality has evolved during the last 60 years (1950-2009) using a larger number of movies (from the twenty to the 130 top hits\(^3\)) and find, on the contrary, that inequality decreases after 1975. We relate our findings to the history of the film industry during the same period.

The chapter is organized as follows. The dataset used is described in Section 2, while the methodology and results are discussed in Sections 3 and 4. Some conclusions are drawn in the final section.

2. Data

We collected information on box-office performance of top American films in the American market from 1950 to 2009,\(^4\) a period of 60 years during which the industry underwent at least three important changes that will be described in Section 3, and will be shown to explain, at least partly, our results.

We use two sources with some overlap for the period 1982-1989. For 1950-1989 we collected annual data on rentals for the first 20 movies (Sackett, 1990). There are two problems with this measure: rentals represent only some 50% of gross income (grosses) -- they are the part of the box office take that goes back to the distributor, i.e. they are the gross minus the percentage for exhibitors,\(^5\) and the data include total rentals over the lifetime of a movie. For instance, rentals of *Cinderella*, a movie released in 1950, but re-released several times (in 1957, 1965, 1973, 1981 and 1987), made $41.1 million in total, but only $12.5 million in 1950. Adding rentals during the whole commercial life of a movie may thus distort the inequality measure corresponding to a specific year. We corrected the data using the information of www.boxofficereport.com and

\(^3\) Box office results for the full set of movies produced each year is easy to find for recent years, but much less so for the period 1950-1980.

\(^4\) We exclude 2010 releases, since they may not be at the end of their career.

\(^5\) This is the definition of rentals given by the movie website www.imdb.com. Note that the percentage may slightly change if, for instance, the studio, the director or an actor (Schwarzenegger in *Terminator 3*) have good bargaining power.
www.imdb.com which list re-releases, their dates and their rentals. For the second period, which runs from 1982 to 2009, we use a different set of data acquired from ACNielsen EDI which gives data on movie grosses, not rentals.

The difference between rentals and grosses matters little here since it does not affect relative measures such as yearly inequality indices as long as these are computed without mixing grosses and rentals within the same year. We exploit the fact that we have both types of data for the period 1982-1989 to show that the “connection” between the two datasets is smooth.

3. Methodology and results

3.1. Constructing inequality indices

To analyze the concentration of box office revenues (rentals or grosses), we use the Gini index, which measures the degree of inequality in the distribution of those revenues. The index is related to the so-called Lorenz curve, which plots the proportion of income (on the vertical axis), which is cumulatively earned by a given percent of movies ranked from lowest to largest rental (on the horizontal axis). If all movies collect the same rental, the curve is a 45-degree straight line. The larger the inequality in rentals, the more the curve will be located below this line, as is illustrated in Figure 1. The Gini index is equal to the area between the curve and the 45 degree line divided by the area in the triangle below the 45 degree line, that is A/(A+B). It is easy to see that more equality implies that area A will be small, and so will the Gini index. In case of perfect equality of rentals, the index is equal to zero since the area between the curve and the 45 degree line will be zero. If all the rentals go to a unique movie, the Gini will be equal to one since area B will be equal to zero.

[Figure 1 approximately here]

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6 We found 20 movies that had a major re-release and corrected their rentals to make them compatible with the rest of the data.
We compute annual Gini indices using box office data of the top twenty movies for each year from 1950 to 2009.\textsuperscript{7} Their values are reproduced in Table 1. This table contains two columns of indices, the first of which is based on rentals, the second on grosses, as discussed in Section 2. Note that both rentals and grosses are available for the period 1982-1989. Though the values are not identical, they are fairly close. The largest differences are equal to 0.05 in 1983 and 1989, and the correlation coefficient between both series is 0.84. This leads to the conclusion that both sources of data are compatible and allows us to make a consistent analysis of inequality and its evolution during the whole period.

[Table 1 about here]

3.2. Analyzing the time path of inequality indices

Plotting the Gini indices as is done in Figure 2 produces a cloud of points\textsuperscript{8} that can be analyzed using a technique that produces the smooth curve that is also represented and summarizes the evolution of inequality over time.\textsuperscript{9} The largest and smallest values are 0.498 in 1965, and 0.137 in 1998.

[Figure 2 about here]

The figure shows that revenue inequality increased quite substantially between 1950 and 1970, reached a peak in the early 1970s,\textsuperscript{10} and is followed by a decrease that seems to stabilize after 1995. Note that from 1985 onwards, average inequality is lower than

\textsuperscript{7} We also tried other indices such as Theil’s index and Generalized Gini indices which corroborate the main results and trends identified by the Gini coefficient described above.

\textsuperscript{8} Note that for the years 1982 to 1989, both Gini coefficients (computed using grosses and rentals) are plotted.

\textsuperscript{9} To do this, we use the Nadaraya-Watson nonparametric smoother (Nadaraya, 1964 and Watson, 1964) with the Epanechnikov kernel (Epanechnikov, 1969).

\textsuperscript{10} It is important to note that some Gini indices are quite large (1965 for instance), but when we construct the trend using the Nadaraya-Watson kernel regression we obtain a smoothing estimate of the function by locally weighted averages of the Gini values, based on several years. This is the reason for which the curve reaches its maximum around 1970, although, for instance, the particular indices for 1972, 1973, 1975 and 1977 are larger.
during the 1950-1970 period. Moreover, there is not a single year in the last fifteen years with a Gini index larger than those observed in the sixties and seventies. There is thus no empirical evidence corroborating the insight that box-office inequality increased during the last years. Even the outlying years 1993, 1994, 1997 and 2004 show Gini indices that would have been considered fairly small during the sixties and seventies.

The annual distribution of revenues became less skewed in recent times, which goes against the “winner takes all” theory, predicting that the earnings’ inequality among artists will increase over time. Frank and Cook (1995, p. 121) suggest that “the growing importance of winner-take-all markets thus implies a change in the pattern of incomes observed in the economy … we should see greater income variability now than in the past.” This is also what Rosen (1981, p. 855) had in mind in assuming that “an increase in the number of consumers or in the intensity of their demands … increases the market demand for services … The largest increases (in revenues) accrue to the most talented persons … Therefore, the distribution of rewards becomes more skewed than before.”

Meanwhile, demand dropped since alternatives to cinema were becoming more popular (TV, video, CDs, computers and video games in more recent years). This is compatible with Rosen’s hypothesis if the decrease in audience affects equally all movies. Maybe new 3-D technology will lead to an increase in demand (since substitutes will be more distant) and to supply shifts that will generate more inequality in the future. Avatar may pave the way for this change.

We now try to relate the three periods in the curve of Figure 2 with three turning points in the movie industry that led to important changes in its organization.

1950-1975. From the Paramount litigation to the birth of conglomerates. The 1948 Paramount litigation (United States v. Paramount Pictures Inc.) held that movie studios could no longer own movie theaters, breaking their vertical integration ties. This had a

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11 “In 1948, when home TV was still a rarity, theatres sold 4.6 billion tickets. By 1958, TV had penetrated most American homes, and theatres sold only 2 billions tickets. […] By 1988, tickets sales hovered at 1 billion.” (Epstein, 2010).
considerable impact on the industry and changed the way studios were used to produce and distribute. This was compounded by the fast growth of television, since watching television had replaced going to the movies as the first leisure time activity. Both factors generated a deep crisis in the industry: employment, attendance, box office revenues and profits during the fifties dropped very seriously. The industry offered two sequential responses: competing through product differentiation with new formats such as Cinerama, 70 mm movies, the first 3D experiments and collaboration with TV channels.

The crisis, which partly extended to the late 1960s as illustrated by the failures between 1967 and 1970 of Doctor Dolittle, 1967, Star, 1968, The Battle of Britain, 1969, Hello Dolly, 1969, Tora!, Tora!, Tora!, 1970 among others, forced old-fashioned studios to morph into large conglomerates with economic interests that went beyond the audiovisual industry. The great uncertainty of these years and the responses of the movie industry to changes in social preferences and to the threat of television that was putting efforts in some great movies (in terms of format and budgets) increased inequality.

The end of the sixties and the early seventies gave birth to a number of important changes: independent studios appear and grow, foreign markets and TV generate increasing income. This period is often called the “golden age” of American movies. Biskind (1998, p. 9) goes as far as writing that for the young generation, paradise on earth had a name: Hollywood. The movie industry was turned upside down by a series of political and other spectacular events that happened during the 1960s – John F. Kennedy’s shooting in 1963, a short document filmed by chance by Abraham Zapruder, about which Thoret (2006) writes that it changed the film industry; Martin Luther King’s assassination in 1968; the rebellion of the oppressed minorities; Lyndon B. Johnson’s design of the Great Society and his war against poverty between 1963 and 1969; the Vietnam War with the deployment of US combat troops in 1965 and increased anti-war political activism among students; Sharon Tate’s murder by Charles Manson – shake the American people used to heroes, and develops the concept of the anti-hero. Susan Sontag also strongly underlines the influence of the “vanguard ideas, rooted in the idea of cinema as a craft pioneered by the Italian films of the immediate postwar period. It was at this specific moment of cinema that going to movies, thinking
about movies, talking about movies became a passion among university students and other young people. You fell in love not just with actors but with cinema itself."\(^{12}\)

This is also the time at which the Production Code is abandoned, allowing movies to become more permissive. Triggered by aesthetic, political and historical necessity, producers start to show everyday’s reality rather than abstract and utopian events.

The profile of the audience changes in favor of younger, college-educated, and more affluent people, with preferences that are quite far from the traditional Hollywood supply and generate (or are generated, it is difficult here to establish in which direction causality went) to new “auteur” films (Bonnie and Clyde, 1967, The Graduate, 1967, Easy Rider, 1969, for instance) to be successful. The arrival of a new generation of directors (Scorsese, de Palma, Coppola, Spielberg) gave new life to the industry during the next 10 to 12 years.

The increase in box office inequality (inequality may increase even if the average box office results decrease, and vice-versa) during these years may be explained as follows.

The emergence of conglomerates may have contributed to the growth of inequality while the renewed presence of independent studios did not reduce it. This is the period during which some blockbusters (that we analyze further in Section 4) reap much larger revenues than the ones obtained by other movies present among the top twenty. Blockbusters themselves may be explained by Rosen’s superstar phenomenon. When there is competition among talents, very small differences in talent explain large differences in their income, which then leads to large box office differences.

But golden ages never last. In the mid 1970s, movie director Lucas, after having seen American Graffiti, 1973, claimed that it became depressing to go to the movies, and that it was time to make moviegoers happier. Biskind (1998) is of the opinion that Star Wars,

1977, marked the recovery of a simple, innocuous, binary [the good guys and the bad
guys] and predictable world.

1975-2000. From the success of Jaws (1975) and Star Wars (1977) to the new
millennium. This period started with the entry of new directors and producers who were
immediately very successful, while simultaneously “auteur” projects such as Heaven’s
Gate (1980) or One from the Heart (1982) miserably failed. It is characterized by the
importance of the name of the director and the need for majors to develop new
strategies to reduce risk: cutting costs, exploiting scope and scale economies, designing
new marketing practices, diversifying into merchandising and new outlets for
audiovisual products, taking advantage of their transformation into multimedia
conglomerates.

Movie audiences changed again. In the seventies, audiences were extremely young: 60
percent of moviegoers were 12 to 20 years old and aesthetically more conservative
(Belton, 1993). Hollywood opened its doors to new ideas, genres, tastes and tendencies,
more “arty” movies in the sense that the directors were made more responsible for
success, hence the Jaws (1975) and Star Wars (1977) blockbusters. As can be seen from
Table 2, audiences become older during the nineties and this trend kept going during the
first decade of the new millennium. These are the generations that were 12 to 24 years
old in the mid seventies and that the industry tried to capture, turning back to the
blockbuster policy, looking for standardized productions with sequels (four sequels to
Jaws after the first 1975 release), prequels (that is later productions, but which describe
events that took place before the first production: Star Wars I, II and III, were released
in 1999, 2002 and 2005, long after Star Wars IV, V and VI, produced in 1977, 1980 and
1983), franchises (James Bond movies, for instance), or imitating the style, contents and
ideas of previous successful blockbusters: the idea that if something runs, try it again,
remake it,\(^\text{13}\) and satisfy those who were young at the time of Jaws and Star Wars.

\(^{13}\) Ginsburgh, Pestieau and Weyers (2005) show that quality wise, remakes are not as “good” as originals,
and generate smaller revenues, but do not seem to loose money.
Single-screen theatres disappeared and were substituted by multi-screen ones located in new shopping malls, at some distance from the cities’ centres. After various episodes of mergers and acquisitions, the former Big Five (Metro Goldwyn Mayer, Paramount, Twentieth Century Fox, Warner Bros and RKO) and Little Three (Universal, Columbia and United Artists) gave way to the current majors: Paramount, TimeWarner, Sony (which controls Columbia, Metro-Goldwyn-Mayer and United Artists), NBC Universal, Fox Searchlight and Disney.\textsuperscript{14} Although they are vertically integrated, majors changed their \textit{modus operandi}: they put their main effort on distribution both in domestic and overseas markets but also in other distribution channels.

The industry tried to decrease risk which makes movies, especially blockbusters, more similar and this is reflected in lower Gini indices, which fall from 0.32 in the middle of the seventies to 0.22 at the end of the nineties.

The idea of explaining the turning point of the seventies by a new generation of directors is attractive. But Epstein provides another explanation that he calls “the samurai embrace,” that is, the introduction of the VCR by Japanese electronics companies. This was a milestone in making it possible to program and watch movies from your couch. Hollywood began producing teenagers-oriented movies especially aimed at the video market. This also contributed to reduce diversity. Again, quoting Epstein (2010, p. 191) “by 2000, Wal-Mart had become Hollywood’s single biggest customer, selling about a third of all DVDs, occasioning top studio executives to journey to Bentonville, Arkansas, to find out what ratings, stars, genres, and other attributes would help them win strategic placement in Wal-Mart stores.”

\textit{2000 and later. Digitization and the motion picture industry.} The new millennium defines the beginning of the third stage. Digitization deeply changes the business. It decreases production, distribution and transaction costs, it improves technical quality and opens new possibilities such as downloading music or movies. But this is also

\textsuperscript{14} RKO dropped out of the motion picture industry in 1957.
generating new problems: piracy, investment in new equipment, though the previous investments devoted to multiplexes and megaplexes were not yet written of, and a remarkable increase in costs, especially in marketing, advertising and copying. In the second half of the decade, uncertainty and high risk shied away banks and investment funds that had put their money on movies. The end of the period is characterized by the recurrence of 3D movies that seem to be an alternative for the industry though it means a new important increase in production costs. The industry is continuously suffering from technical shocks and is probably trying to define its new profile and position. In terms of inequality, this is a period of stability, though there is a new small increase of inequality at the very end of the period, which may be due to the effect of 3D movies. Since 3D production costs are higher only a few movies could be shot using this technique polarizing the movie market and increasing inequality.15

A possible limit to growing inequality is pointed out by Cutting, De Long and Nothelfer (2010) in their fascinating paper, where they analyze the pattern of shot lengths in 150 films released between 1930 and 2005, and show that these lengths, which have an effect on the attention of viewers are increasingly correlated with neighbouring movies over time. Thus movies become “closer” in terms of shot lengths, which may also explain why their box office results get closer.

3.3 Robustness checks

It is useful to verify whether decreasing inequality that started in the seventies is independent of the number of movies (20 observations) used to compute the Gini indices. Fortunately, Nielsen’s database (1982-2009) is richer than Sackett’s in terms of the number of films included so that we can compute alternative Gini indices that are based on more movies. We did this using respectively the top 50 and 130 movies produced in each year between 1982 and 2009.16 Obviously, as we increase the number

15 According to the International 3D Society, 3D movies have generated 33 percent of the total box office in the US since the release of Avatar (The Independent, 9 April 2010).
16 The number of 130 movies was selected because in some years, the Nielsen database contains only 130 movies. Selecting a larger number would have shortened the time period for which indices could be calculated.
of movies with smaller box office results (the lower tail of the box-office distribution) the values of the Gini indices will be larger with 50 and 130 movies than with 20, since the range of revenues increases. However, the important point is whether the number of movies used in the computations affects the evolution of inequality. If this is not the case, we can assume that our results are robust and be quite confident that they represent correctly the evolution of inequality.

As expected and as can be observed in Figure 3, the larger the number of movies included in the calculation of annual Gini indices, the larger their absolute value. But, and this is the relevant issue for us, the decreasing trend over time is robustly confirmed.

[Figure 3 about here]

4. “Winner takes all” movies

4.1 Outliers

Figures 2 and 3 include 95% confidence intervals (represented by the shaded areas) which inform us about the years that are far from the smoothed curve, pointing to outliers. Since we are interested in analyzing “the winner takes all” effect, we are especially concerned with the years that are above the confidence interval. Over the whole period, this happens during 14 years out of 60 (Figure 2). However, in the second half of the period (1980-2009), the outlying values of the index are around 0.30 – and do not contradict the observation that inequality is lower than during the first 30 years – with the exception of 1982 (and 1984, which is almost within the confidence interval).

Some comments on outliers are in order. The largest inequality corresponds to 1965, a year in which two big blockbusters, The Sound of Music and Doctor Zhivago, largely dominated in terms of box office. The Sound of Music rentals were 2.8 times above the
third movie (*Thunderball*) and 5.7 times above the fourth (*Those Magnificent Men In Their Flying Machines*).\(^{17}\)

In seven cases, the top box office movie reaches revenues that were at least twice as large as those of the second movie, showing the strongest “winner takes all” effect: *Cinderella* (1950), *Ben Hur* (1959), *The Godfather* (1972), *Jaws* (1975), *Star Wars* (1977), *Return of the Jedi* (1983) and *Titanic* (1997).\(^{18}\) Only *Titanic* is reasonably recent,\(^{19}\) so once again, this leads us to reject the suggestion that concentration increased during recent years.

4.2 New contracts and technologies

Many blockbusters are the result of franchising. Disney, Spielberg or *Star Wars* are the most prominent examples, but this is also so for the franchises of *Superman, Star Trek, Harry Potter* or *James Bond* films. This is a smart strategy in a highly risky industry: a successful idea has to be milked as much as possible.

The effects of technological tricks such as cinemасope, 3D, Cinerama, used to lure people back to the movie theaters, did not prove very effective. When incorporated, they merely pushed the first film that used the technology to the top of the box office. *The Ten Commandments* (1956) is one such example.

Cinemасope (and similar technologies to shoot 70 mm movies) was probably the only more durable and frequently used technique. Cinerama was present in the industry at least during twenty years (from the beginning of the fifties to the beginning of the seventies) but only one movie, *This is Cinerama*, released in 1952, was able to lead the

\(^{17}\) 1998 has the lowest Gini: *Saving Private Ryan* is the top box-office movie, but the difference in grosses with the tenth movie (*Patch Adams*) is only $8 million.

\(^{18}\) *Mary Poppins* (1964) and *Butch Cassidy and the Sundance Kid* (1969) could also be added to this list since their rentals were almost one hundred percent larger than those of their main challengers.

\(^{19}\) Note that *Avatar* released in mid December 2009, made most of its grosses in 2010, and our data base only include gross revenues before January 20, 2010. Therefore around one third of its revenues are excluded from our data. However, this criterion was applied to all movies released at the end of 2009 but is especially important in this case.
box office ranking; eight other Cinerama movies reached the top 20. Traditional 3D was less successful: only House of Wax (1953) reached a high position (4th) in the rankings, and there is no other 3D film in the top twenty during the golden era of this kind of movies at the beginning of the fifties. In any case, the high production costs of these technologies and their moderate success certainly contributed to reduce their number.

4.3 Disney Studios, Steven Spielberg and George Lucas

Among the fourteen outlying years in which inequality is especially strong, Disney has two leading movies, though one could also include The Lion King (1994), which ranked second but just made $100,000 less than the leader, Forrest Gump. If we take into account the whole period, we find 9 Disney movies that lead box office results and another 124 movies among the top 20. Obviously, “Disney” does not guarantee success but seems to improve the probability of being profitable. Disney studios obviously have a good knowledge of the preferences of US citizens. Moreover, the studios followed the policy of re-releasing some of its classical movies, especially animated films. In many occasions these re-releases were also successful. This gives the impression that there are some intergenerational preferences that are passed from parents to children and grandchildren.

How did Steven Spielberg perform? Among the fourteen years with largest inequality, three of his movies were leaders: Jaws (1975), his first blockbuster, E.T. (1982) and Jurassic Park (1993). He also directed two other top box office movies, Raiders of Lost Ark (1981) and Saving Private Ryan (1998), and 12 that are included among the top 20. Starting with Jaws, Spielberg directed 23 fiction movies of which 17 are included among the top 20.²⁰ It seems clear that Lady Luck touched this man.

Lucas’s Star Wars (1977) saga is another interesting case. The movie is responsible for the 1977 outlying Gini index. It was followed by five sequels, of which four made it to

²⁰ We do not take into account those collective films where Spielberg directed only one or two segments.
the top box office movie. *Star Wars Episode II: Attack of the Clones* (2002) “only” made it to third place.\(^{21}\)

5. Conclusions

The time series of Gini inequality indices for each year between 1950 and 2009 show that inequality peaked in the early seventies, and is lower nowadays than it used to be during the fifties. The impression that box office inequality is increasing over time is due to our tendency of giving more relevance to more recent events and forgetting what happened in the past. Therefore, despite the enormous literature on “the winner takes all” and Rosen’s “superstar” effects, box-office revenues increasing inequality over time is rather an attractive idea than a real fact. This evolution can be linked to the history of the movie industry during these years, and to changing audiences.

Our findings are consistent with the idea that the 1970s are a turning point in the history of the film industry. In the late 1960s and the early 1970s, the traditional strategy of studios, putting their best efforts in one or a few great movies per year, proved ineffective to improve their financial situation, though some blockbusters were still successful, keeping box office inequality quite large. However, Hollywood productions did no longer correspond to the change in demand that was turning teenagers and young people to be the main groups of moviegoers. Nor to the social changes in the US shocked by Kennedy’s assassination and the Vietnam War. The first response (Biskind, 1998) was to put the reins of the business in the hands of a new group of “auteur” directors such as Coppola or Cimino. This failed and the latter even contributed to ruin United Artists.

Majors also changed their management procedures. They reduced “in house” productions and increased outsourcing or started dealing with smaller production companies. They found that distribution could be the profitable branch and discovered some other sources of income such as TV markets, merchandising, toys and, finally,

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\(^{21}\) George Lucas is another King Midas in Hollywood. Combining director and producer role, he has seven movies ranked in the first place and an other three movies ranked second or third.
DVD and videogames. In Epstein’s (2010, p. 174) words, “Hollywood’s future [comes] from creating films with licensable properties that could generate profits in other media over long periods of time.”

This procedure has survived to our days. Sequels, franchised movies, movies based on comics, or using characters that can be incorporated to videogames or other ancillary products, dominate the film market. As Finler (2003, p. 6) pointed out, “what the big entertainment companies are selling are not so much blockbuster movies as brands or franchises.” The American box office is an increasingly smaller part of the total revenue of a movie, ten percent in 2007 according to Epstein (2010, p. 23). Therefore, during the last two decades, movie production has been highly standardized and very predictable so that box-office differences become smaller as the decreasing Gini indices show.

References


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22 In Epstein’s opinion, the origin of franchises, toys, etc. does not come from Spielberg or Lucas but from Disney’s Snow White and the Seven Dwarfs.


Figure 1
The Lorenz Curve and the Gini Index
Figure 2
Inequality Evolution of Hollywood Movies Box Office Results (1950-2009)
20 Top Movies

Note: The shaded regions represent the 95 percent confidence intervals.
Figure 3
Inequality Evolution of Hollywood Movies Box Office Results (1982-2009)
130, 50 and 20 Top Movies

Note: The shaded regions represent the 95 percent confidence intervals.
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Source: * Sackett (1990) and boxofficereport.com; ** ACNielsen EDI
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Source: Silver and MacDonnel (2007).
## Appendix: Top USA Grosses

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<td>MGM</td>
<td>1,606</td>
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<td>Star Wars</td>
<td>1977*</td>
<td>Fox</td>
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<tr>
<td>3</td>
<td>The Sound of Music</td>
<td>1965</td>
<td>Fox</td>
<td>1,132</td>
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<td>E.T.: The Extra-Terrestrial</td>
<td>1982*</td>
<td>Universal</td>
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<tr>
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<td>1956</td>
<td>Paramount</td>
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<td>6</td>
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<td>1997</td>
<td>Paramount</td>
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<td>7</td>
<td>Jaws</td>
<td>1975</td>
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<td>867</td>
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<td>Disney</td>
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Source: www.boxofficemojo.com

Grosses are adjusted for ticket price inflation; * are documented multiple releases