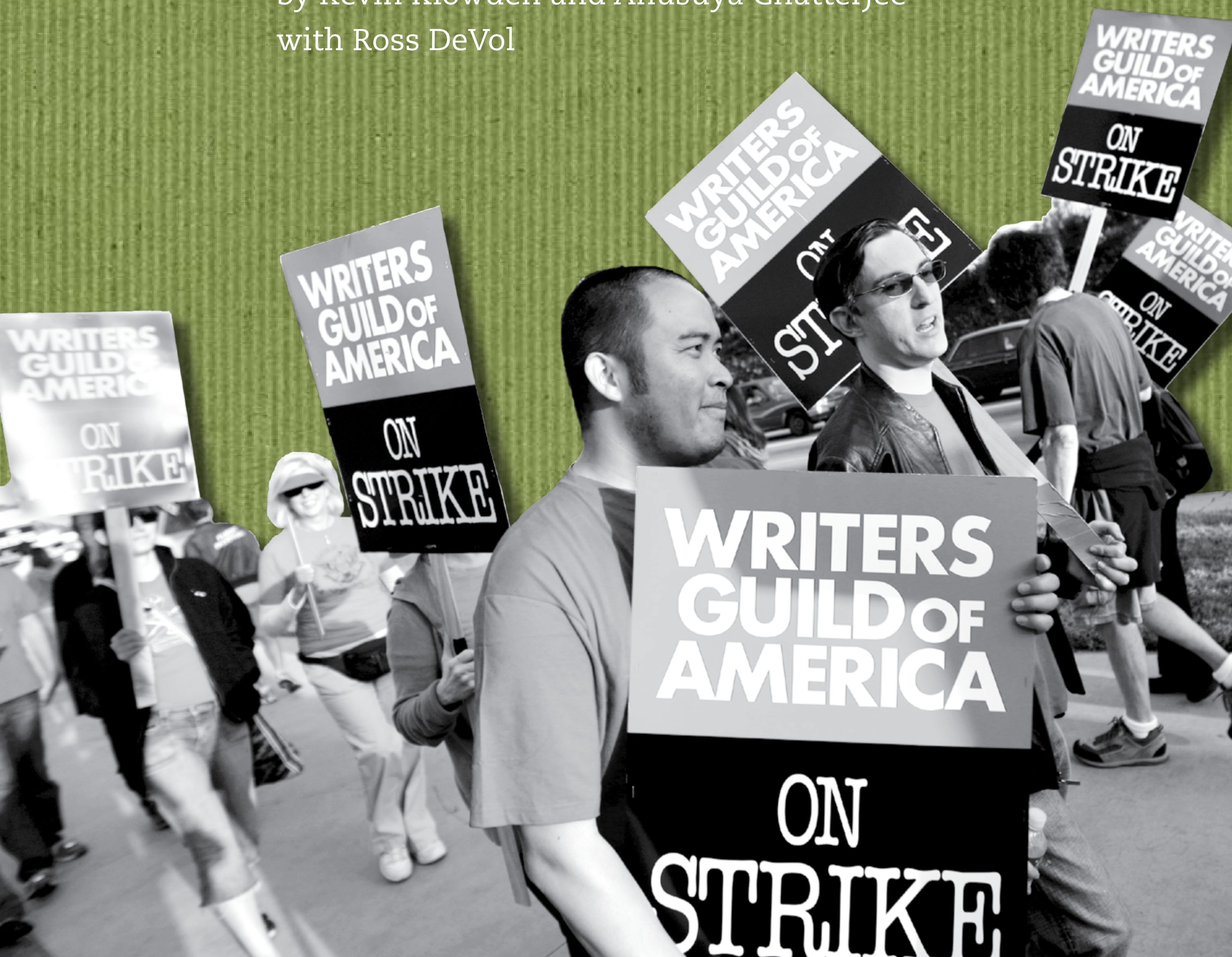
Milken Institute

California Center | June 2008

Writers' Strike of 2007–2008
The Economic Impact of Digital Distribution

by Kevin Klowden and Anusuya Chatterjee
with Ross DeVol



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INTRODUCTION

After almost two decades of relatively peaceful labor relations, Hollywood was hit by a contentious three-month writers' strike in late 2007. The entertainment industry is still recovering from the effects of the work stoppage and digesting the implications of the new labor agreement.

Revenue sharing from digital media was at the heart of the dispute. After talks completely broke down, the two unions of the Writers Guild of America (WGA) called a strike against the Alliance of Motion Picture and Television Producers (AMPTP) on November 5, 2007. Production immediately shut down on numerous films and many of television's most popular shows. After three months of unsuccessful negotiations, the AMPTP and the WGA finally reached an agreement that ended the strike on February 12, 2008. The new deal runs through May 1, 2011.

The strike has caused substantial losses in terms of employment, wages and salaries, and personal income that will continue throughout the calendar year 2008. The state is projected to show a total loss of 37,700 jobs and $2.1 billion in lost output from the fourth quarter of 2007 through the end of 2008. Total personal income and total wages and salaries are projected to decline by $3.1 billion and $2.3 billion, respectively. These losses can all be specifically attributed to the strike.

The three-month strike had a substantial impact on California's economy in general and on Los Angeles County in particular. The work stoppage came at an unfortunate moment, coinciding with a major downturn in the state's housing market. This lingering effect of the strike was one of several factors that tipped California into a recession in early 2008.[1]

For three months, the entertainment industry (which is part of the information, leisure, and hospitality[2] sector) was paralyzed as writers took to the picket lines and movie and television production shut down. Thousands of actors, production assistants, lighting technicians, hair and makeup artists, set decorators, camera operators, and others were thrown out of work. Those who directly serve the entertainment industry, such as caterers, hotels, and related services, were also adversely affected. The strike also made itself felt outside the information, leisure, and hospitality sector, harming allied industries, including professional and business services and the retail trade. The effects further radiated to other services such as finance, insurance, and health care. Since those workers who were most directly affected curtailed their consumer spending as a result of their income, the strike's impact was magnified. (For example, the construction industry may seem far removed from Hollywood, but some losses in this sector can in fact be attributed to the writers' strike; those who lost income were likely to postpone or forego major purchases—in this case, buying or renovating homes.)

It is important to note that effects of the strike were dynamic; this was not a discrete one-time hit. This three-month event will continue to resonate over time, causing direct impact on employment, output, and wages and salaries, in turn affecting retail sales and causing ripples through other industries. With this view in mind, our model examined not only the time frame of the strike itself but the entirety of 2008 and beyond.

Now that California has entered a full-fledged recession, it also faces the possibility of another work stoppage by the Screen Actors Guild (SAG), the labor union that represents film and television performers. Hollywood is currently bracing itself for the possibility of a strike if SAG does not reach an agreement with the AMPTP before its major contracts expire in June 2008. On May 28, 2008, the American Federation of Television and Radio Artists (AFTRA) announced a three-year contract with the AMPTP, with terms largely modeled on the WGA deal.[3]

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1. Ross DeVol and Armen Bedroussian, *The Economic Outlook for the U.S. and California: Slow Growth or Recession?* (Milken Institute, May 2008).

2. The information, leisure, and hospitality industry, among other things, includes motion picture and sound recording, television broadcasting, arts, entertainment and recreation, food services, and accommodations.

3. Ryan Nakashima, "Hollywood Studios, AFTRA Agree on 3-year Contract," Associated Press, May 28, 2008

(AFTRA had bargained jointly with SAG for decades, but disputes between the two unions led to separate negotiations in 2008.) AFTRA's deal may increase pressure on SAG to settle with the producers, but as of this writing, no agreement had been reached and a walkout by SAG cannot be completely ruled out. If the industry were to shut down yet again due to a SAG strike, it would deal a serious blow to California's prospects for economic recovery.

The writers' strike has also had significant and lingering effects on television viewership, causing a decline in revenues for the broadcast networks. The major networks would be especially hard-hit if a work stoppage by the actors derailed their efforts to rebuild audience loyalty.

This report contains two parts. We will begin by summarizing the overall effects of the writers' strike on California's economy. In Part 2, we will analyze the underlying causes of the dispute, examining in particular how the growing market for new media has changed the dynamics of the entertainment industry.

PART I:

ECONOMIC IMPACTS OF THE 2007–2008 WRITERS' STRIKE

The three-month WGA strike, which ran from November 2007 to February 2008, paralyzed the entertainment industry and had an immense economic impact on California, with ripple effects extending into other sectors. Moreover, the ramifications of the strike are likely to linger over time. The direct effect on employment, output, and wages and salaries in turn affected retail sales and other industries, including professional and business services, insurance, trade, transportation, utilities, and health care. This section summarizes the projected effects of the writers' strike of 2007–2008 on California's employment, output (Gross State Product), personal income, wages and salaries, and other major economic indicators.

One other major impact of the strike was a substantial drop in television viewership. As scripted television shows ran out of new episodes, people began turning away from network television in favor of other forms of entertainment. The major broadcast networks have watched their advertising revenue sink along with their ratings. This report will briefly discuss such effects.

The Strike's Effect on California's Economic Indicators

In this section, we will examine the effects of the writers' strike on projected economic indicators, showing the net changes from the baseline scenario (the situation as it would stand if no walkout had occurred). As the model demonstrates, not only did the strike have a significant effect on the state economy as a whole, but this effect has actually continued on well past the final settlement.

Our model projects indicators at annual rates. In order to provide an approximate quarterly figure of losses, we have divided annual rate estimates for each quarter by 4. Hence, we can add up the approximate quarterly estimates from the following figures to get the total effect for the year. In order to stay consistent within the model, projection data is utilized for all quarters of the strike, even where slightly different data has since been released.

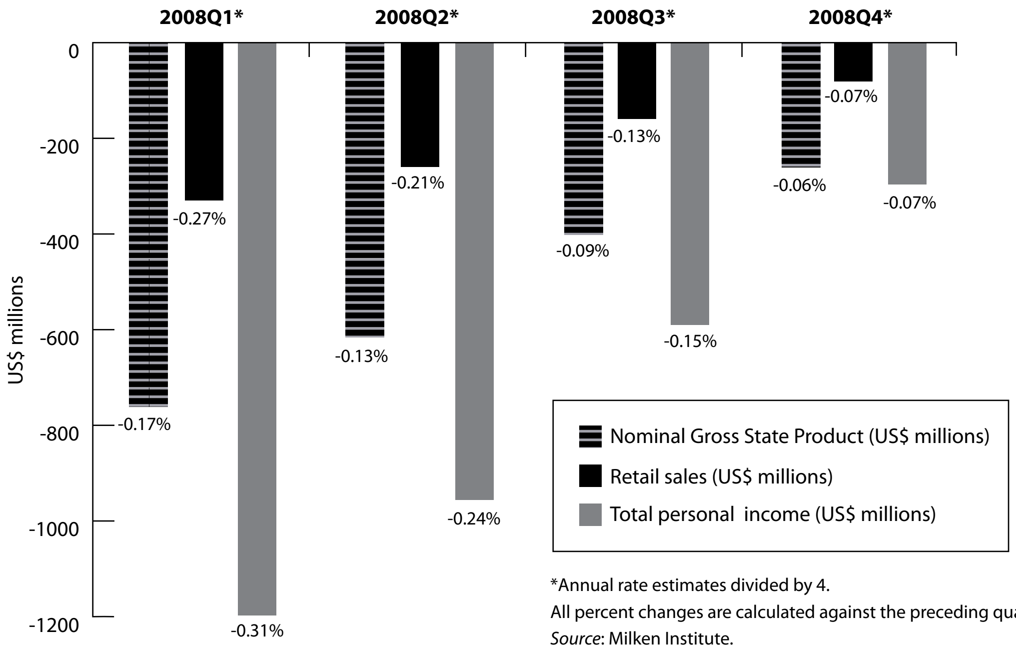
Our projection started with the fourth quarter of 2007. In that quarter, about 1,000 jobs were estimated to have been lost, with a projected nominal output loss of $57.5 million. It is also important to note that the strike started in November 2007; the fourth quarter of 2007 includes estimates for October and early November, when the writers were still on payroll, making fourth-quarter figures seem like an underestimation.

Next, we will show the projected effects of the strike on the four quarters of 2008. The figures on the following pages show the absolute (net) changes and percentage changes from the baseline.[4] Further detail is available in tables found in the Appendix.

4. All numbers reported are projections.

Figure 1. Effect of writers' strike on California's economic indicators

Projections for 2008

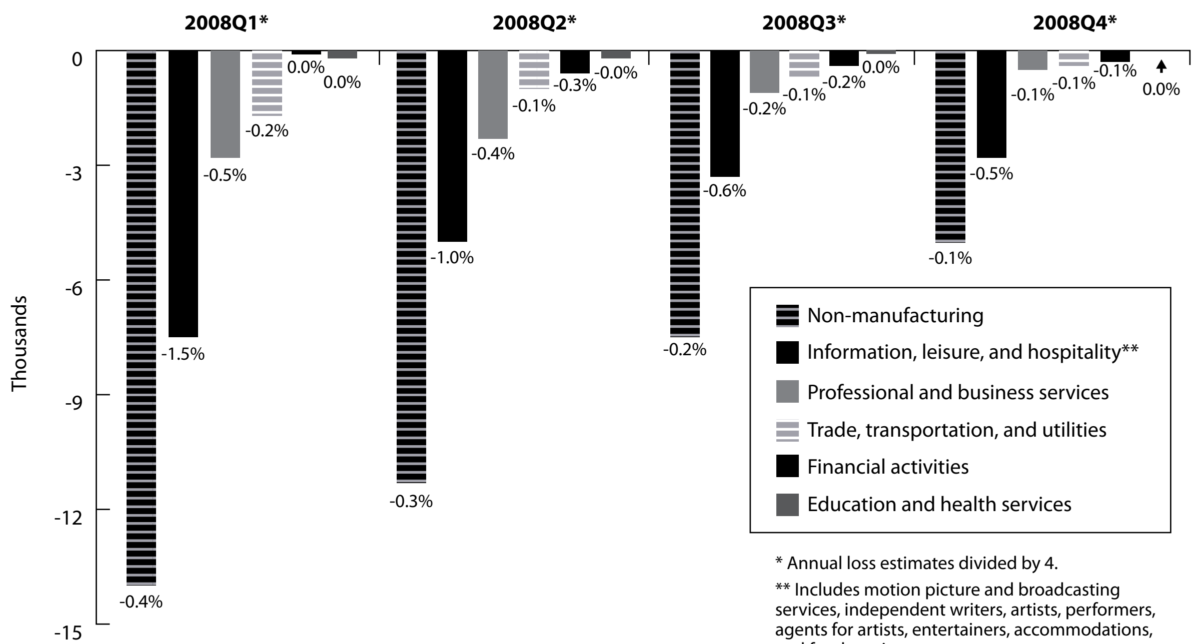


*Annual rate estimates divided by 4.
All percent changes are calculated against the preceding quarter.
Source: Milken Institute.

The figure above shows that in the first and second quarters of 2008, total output lost (nominal Gross State Product) is projected at $760.7 million and $616 million, respectively. Similarly, for the first and second quarters of 2008, retail sales are expected to show declines of $329.3 million and $259.7 million, respectively. Total personal income will fall by $1.2 billion and $955.8 million, respectively, in the first and second quarters of 2008.

Figure 2. Effect of writers' strike on California's establishment employment

Place of work, Thousands, Projections for 2008



* Annual loss estimates divided by 4.

** Includes motion picture and broadcasting services, independent writers, artists, performers, agents for artists, entertainers, accommodations, and food services.

All percent changes are calculated against the preceding quarter.

Source: Milken Institute.

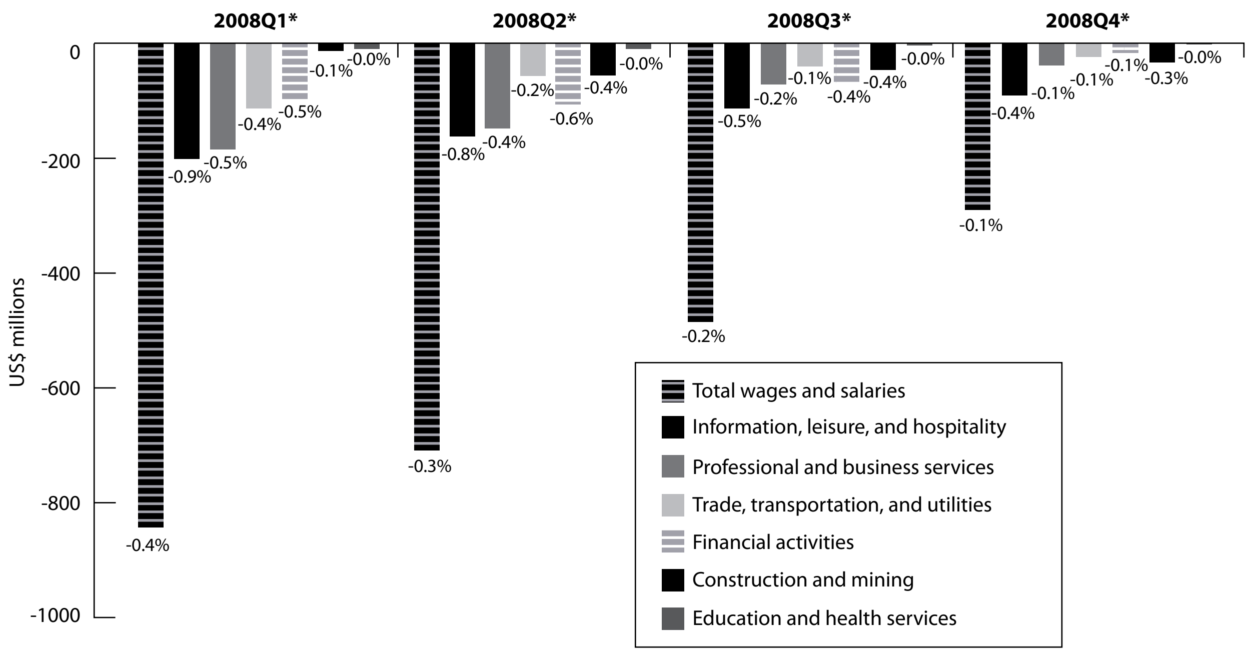
A glance at the effect on employment by industry type shows the non-manufacturing sector suffering a decline of 14,000 jobs in the first quarter of 2008. It is not surprising that employment in the information, leisure, and hospitality industry shows a major impact (7,500 lost jobs in first quarter of 2008, followed by 5,000 lost jobs in the second quarter of 2008).

It is estimated that professional and business services will show a loss of 2,800 jobs in first quarter of 2008, followed by another 2,300 jobs in the second quarter of 2008. Trade, transportation, and utilities are projected to shed 1,700 jobs and 1,000 jobs, respectively, in the first and second quarters of 2008. Financial activities, education, and health services show a relatively minor effect in the first quarter of 2008, losing only 300 jobs, but the situation is projected to worsen in the second quarter of 2008 with the loss of another 800 jobs.

The following figure illustrates the wages and salaries lost in different industries. Total wages and salaries lost in the first and second quarters of 2008 in California were $842.5 million and $708.7 million, respectively. Workers in the information, leisure, and hospitality industry are expected to suffer $200.4 million and $161.8 million of losses in wages and salaries in the first two quarters of 2008, respectively.

Figure 3. Effect of writers' strike on California's wages and salaries

US$ millions, Projections for 2008



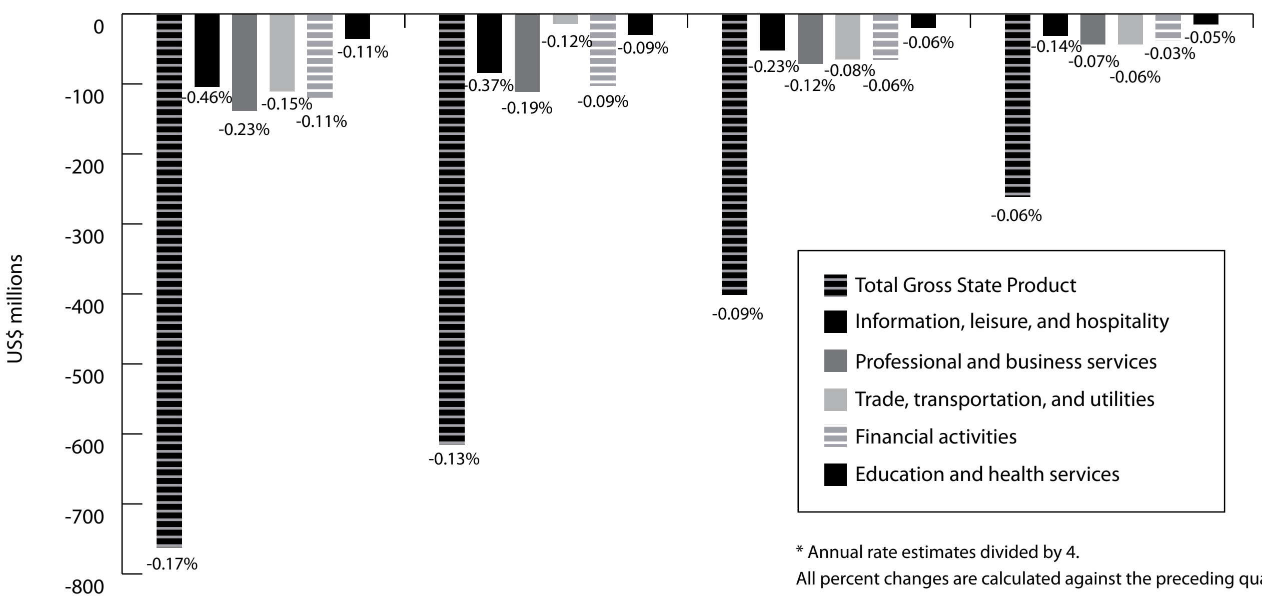
* Annual rate estimates divided by 4.
All percent changes are calculated against the preceding quarter.
Source: Milken Institute.

Professional and business services are expected to lose around $183.8 million in wages and salaries in the first quarter of 2008, followed by $147.3 million in the second quarter. Trade, transportation, and utility wages and salaries come in next, with $113.1 million and $56.4 million worth of losses in first and second quarters of 2008, respectively. Financial activities lose $98.5 million and $106.5 million in wages and salaries in the first two quarters of 2008, respectively. Construction and mining suffers $13 million in losses in the first quarter and further decline by $55.2 million in the second quarter of 2008. Education and health services will suffer $9.1 million of lost wages and salaries in the first quarter of 2008.

It is projected that California will show total lost output (in terms of Gross State Product) of $760.1 million in the first quarter of 2008. That is likely to be followed by $616 million and $401.7 million losses in the second and third quarters of 2008, respectively. The information, leisure, and hospitality industry is expected to absorb a large hit: $108.2 million and $87.2 million in lost output in the first two quarters of 2008. Figure 4 illustrates these losses, while Table 12 (in the Appendix) shows exact figures by industry.

Figure 4. Effect of writers' strike on California's Gross State Product

US$ millions, Projections for 2008



* Annual rate estimates divided by 4.
All percent changes are calculated against the preceding quarter.
Source: Milken Institute.

Longer-Term Ramifications for California's Economy

The effect of the writers' strike will gradually diminish over time. By the beginning of 2009, its effect on most industries will finally drop to a barely noticeable level. The figures on the following pages and the tables in the Appendix show California's projected economic indicators for 2009 through 2011.

But it is worth noting that these indicators do not include the impact of a potential actors' strike, which could come about at the end of June. If another work stoppage occurs, it could extend the impact of the writers' strike by up to an additional year.

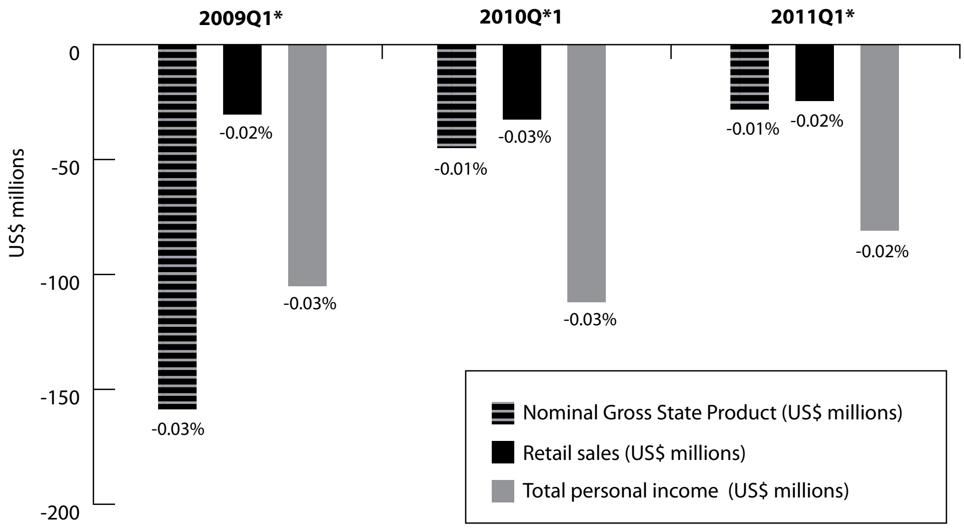
The previous major work stoppage came in 1988, when the writers walked out for 22 weeks; the Los Angeles County Economic Development Corporation estimated the impact of that strike at $500 million.[5] In 2001, when both the writers' and actors' unions were poised to strike, a study projecting the potential impact estimated that a one-month work stoppage would result in $1.2 billion of lost income plus a loss of 21,700 jobs by the third quarter of 2001. A three-month strike scenario was projected to cause $2.9 billion in lost income and 54,600 job losses by the third quarter of 2001.[6] (A strike was averted in that instance.) In 2008, a walkout by SAG coming so soon on the heels of the writers' strike could easily exceed those numbers.

5. Andrea Chang, "Strike 's Effects Ripple Beyond Studio Gates," *Los Angeles Times*, November 15, 2007.

6. Ross DeVol, et al., *The Impact of an Entertainment Industry Strike on the Los Angeles Economy* (Milken Institute, 2001), iv.

Figure 5. Long-term effect of writers' strike on California's economic indicators

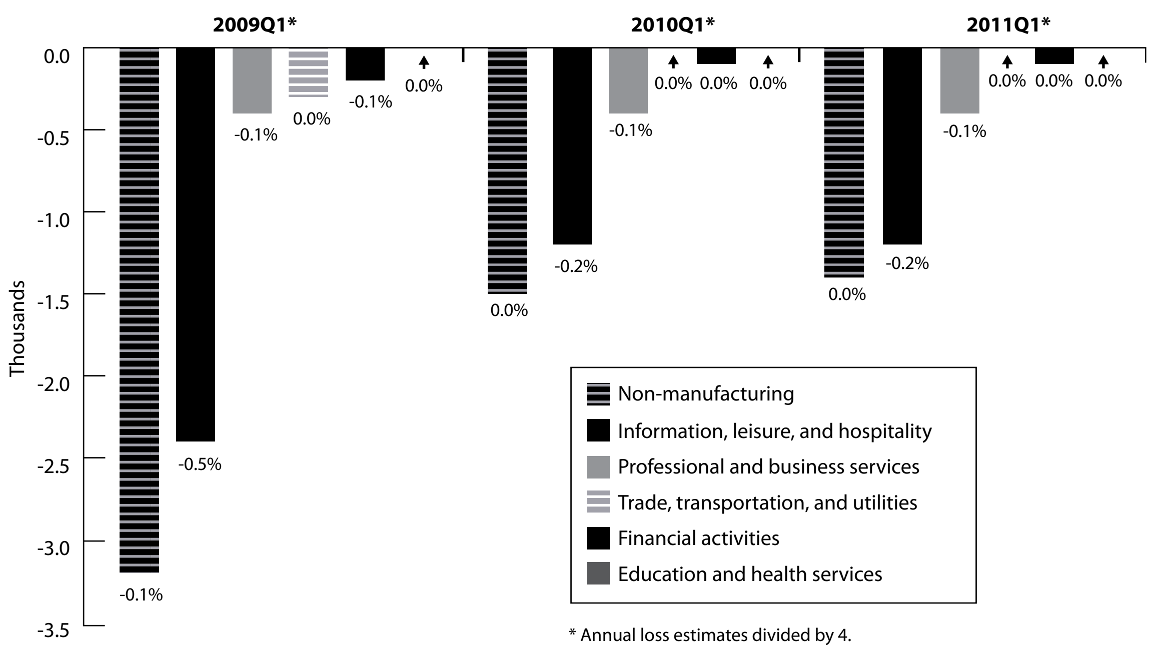
Projections for 2009–2011



*Annual rate estimates divided by 4.
All percent changes are calculated against the preceding quarter.
Source: Milken Institute.

Figure 6. Long-term effect of writers' strike on California's establishment employment

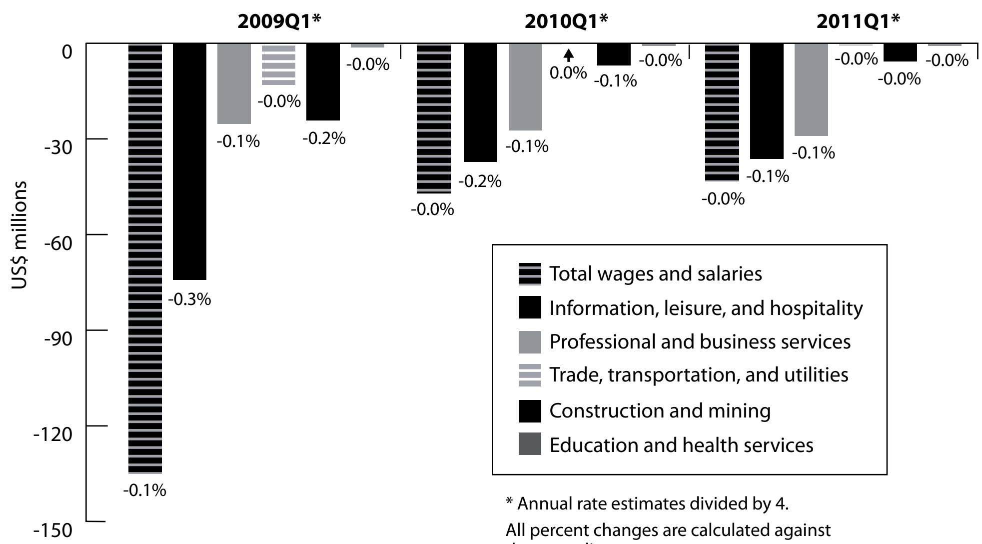
Place of work, Thousands, Projections for 2009–2011



* Annual loss estimates divided by 4.
All percent changes are calculated against the preceding quarter.
Source: Milken Institute.

Figure 7. Long-term effect of writers' strike on California's wages and salaries

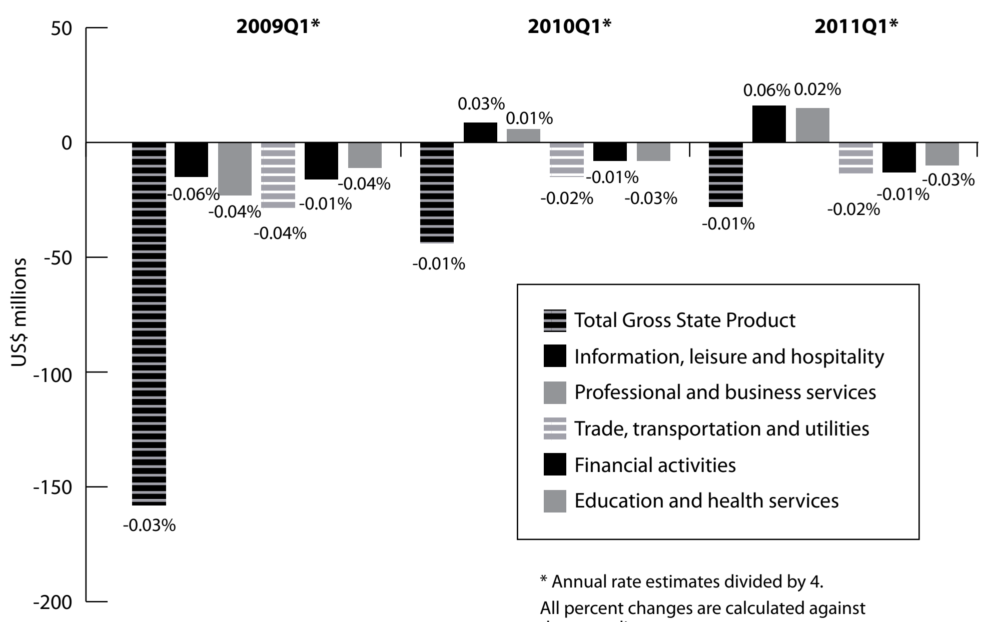
US$ millions, Projections for 2009–2011



* Annual rate estimates divided by 4.
All percent changes are calculated against the preceding quarter.
Source: Milken Institute.

Figure 8. Long-term effect of writers' strike on California's Gross State Product

US$ millions, Projections for 2009–2011



* Annual rate estimates divided by 4.
All percent changes are calculated against the preceding quarter.
Source: Milken Institute.

An Overview of the Information, Leisure, and Hospitality Industry

To understand exactly why the writers' strike had such an impact on the state as a whole, it is important to note the size and importance of the information, leisure, and hospitality industry. This sector (which encompasses motion picture and sound recording, television broadcasting, arts, entertainment, recreation, food service, and accommodations) plays a major role in California's economy.

California's leadership role in the entertainment industry and high technology can be directly observed in terms of its above-average concentrations of economic activity and jobs in industrial sectors directly related to entertainment and high tech. The following table shows that this industry ranks among the leaders in California in terms of location quotient, both for employment and output. (Note that the information industry should be considered together with the leisure and hospitality industry.) A location quotient of greater than 1.0 indicates that the industry is more concentrated in the region than the national average. While leisure and hospitality is slightly above the national average, the numbers show that the information industry has a very strong presence. This higher-than-average concentration means that the industry generates many high-value jobs and a significant share of output, but it also leaves the state economy highly vulnerable to a major disruption in this sector, such as the one caused by the entertainment strike.

Table 1. Top industries in California

By location quotient, 2007

	Location quotient*	
Industry	**Real GDP**	**Employment**
Information	1.31	1.38
Professional, scientific, and technical services	1.29	1.24
Real estate, rental and leasing	1.24	1.19
Professional and business services	1.20	1.14
Leisure and hospitality	1.12	1.04
Administrative, support, waste management, and remediation	1.08	1.09

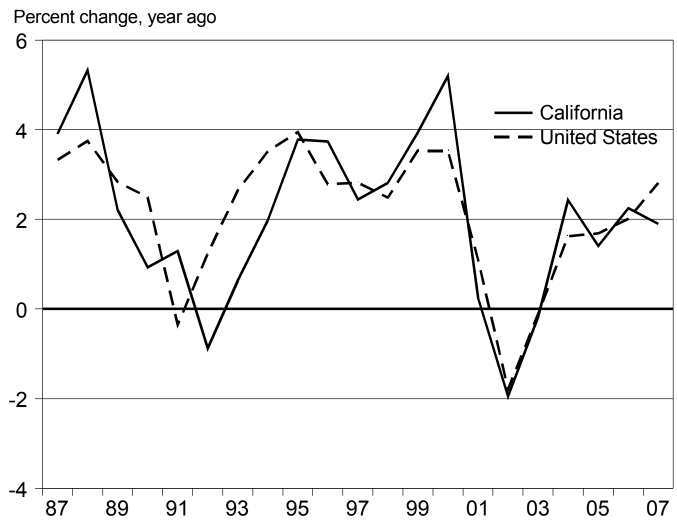
*U.S. average = 1.

Sources : Economy.com, Milken Institute.

The following graphs show that California's employment growth in this industry hovered around 2 percent for the last several years, whereas real output growth was around 6 percent in 2006. Although employment has grown slowly, the actual contribution of this sector to the state economy in terms of economic growth has been significantly higher.

Figure 9. Information, leisure, and hospitality

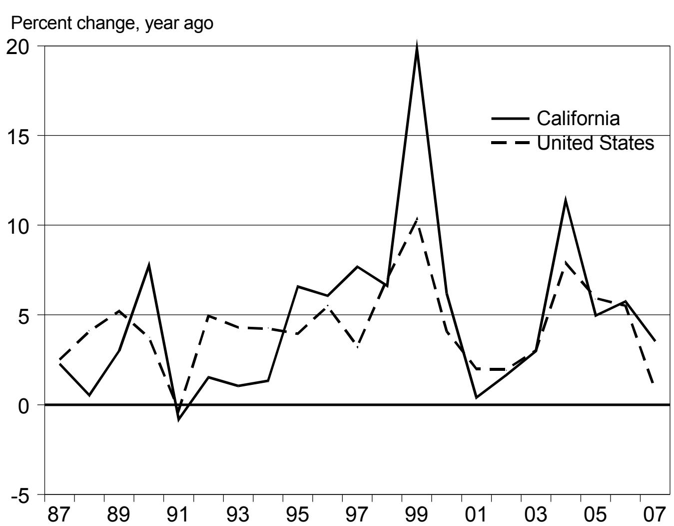
Employment growth



Source: Economy.com.

Figure 10. Information, leisure, and hospitality

Real output growth



Source: Economy.com.

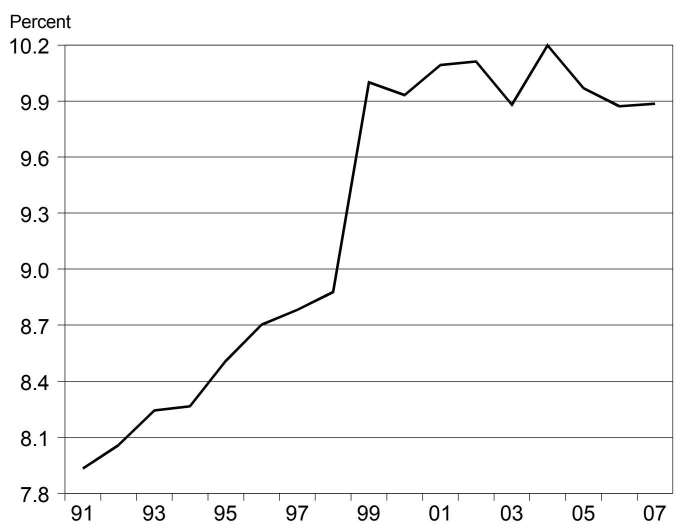
In 2006, the information, leisure, and hospitality industry constituted around 9.9 percent of the state's total output and 13.2 percent of its total employment. As of the third quarter of 2007 (just before the beginning of the strike), these industries accounted for 2,040,500 jobs and economic output of $181.3 billion in California. Since the sectors directly connected to the entertainment industry are responsible for around 10 percent of the state's economic output, the total impact of a strike is amplified, with cascading effects extending far into the state economy as a whole.

A snapshot of the information industry alone as of the third quarter of 2007 reveals that employment stood at approximately 474,300 jobs, with an output of $110.4 billion in 2007. Public perception is that the sector is largely dominated in California by the computer industry in Silicon Valley. But despite the high concentration of information technology jobs around San Jose, and secondary concentrations elsewhere in the state, motion picture and broadcasting make up a significant percentage of total employment and output in this sector. Figure 13 shows that in 2006, motion picture and broadcasting services constituted 36 percent of the output (shown on the left axis) and around 42 percent of the employment generated (right axis) by California's information industry.

As of the third quarter of 2007, leisure and hospitality employed 1,566,200 workers and produced an output of $70.9 billion in California. Leisure and hospitality includes the arts, entertainment, recreation, food services, and accommodations. Arts, entertainment, and recreation alone constituted 259,000 jobs with an output of $22.5 billion in 2007, as of the third quarter.

Figure 11. Output in California's information, leisure, and hospitality industry

Percent of state total



Sources: Economy.com, Milken Institute.

Figure 12. Employment in California's information, leisure, and hospitality industry

Percent of state total

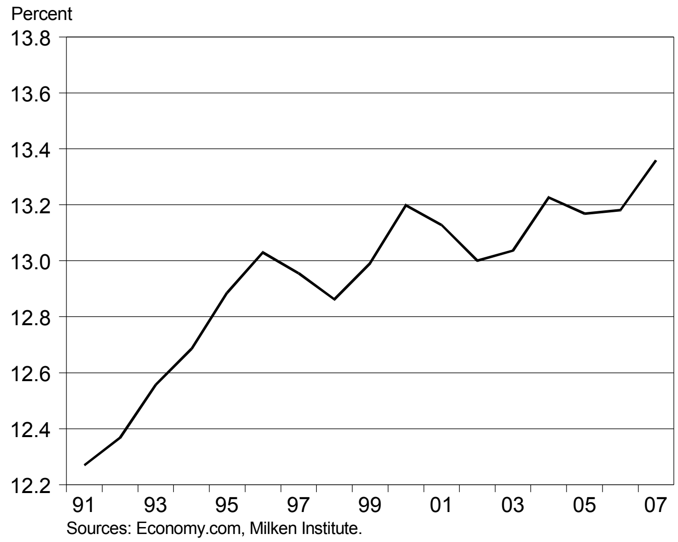
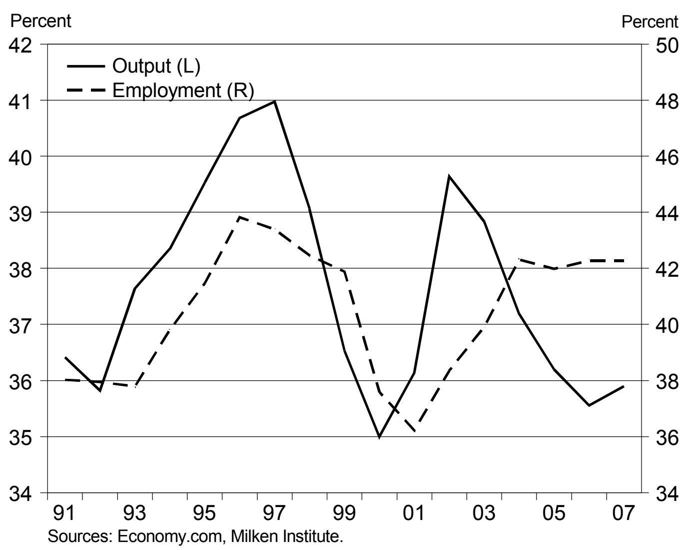


Figure 13. California's motion picture and broadcasting services

Percent of information industry



The Effects of the Strike on Television Broadcast Networks

The writers' strike had perhaps its most dramatic effect on the performance of the major television networks. The work stoppage crippled many scripted shows, driving down primetime network ratings. Network schedules for both the 2007–2008 and the 2008–2009 seasons have been significantly affected.

For the week of January 21–27, 2008, ratings for the top five broadcasting networks were down a collective 21 percent as compared to the corresponding week in 2007.[7] This drop is attributable mainly to the writers' strike. Even before all the episodes of scripted programs ran out, network ratings were down by 10 percent in aggregate when compared to the same period of the previous year. According to *Variety,* "NBC, the most aggressive with reality replacements and with the fewest scripted hits to begin with, has held up the best among the broadcasters this month—down 7 percent versus the same week a year ago. And in the four weeks of 2008, it ranked second to FOX in 18–49 groups."[8] ABC slid 23 percent, while CBS fell 26 percent from the same period last year. Networks with fewer scripted shows and more reality programming outperformed others. It is not surprising that Fox held the top ranking in 2008, bolstered by the season premiere of *American Idol* and *The Moment of Truth*.

As the three-month-old strike ended, a few shows came back and finished their regular season.[9] But others did not resume until the 2008–2009 season, when the effect on network ratings will continue to be felt.

During the strike, media buyers had to scramble to get their clients' advertising placed in appropriate replacement programming.[10] Disruptions have made it tougher for networks to guarantee that they can deliver audiences to advertisers, since viewer loyalty to a particular program drops as new episodes are delayed.[11] The networks have also been slow to recover from production delays and roll out new programming. ABC, for example, made its traditional spring upfront presentation to advertisers in May 2008, but announced that the network will introduce only two new series to its fall lineup.[12] As they struggle to win back audiences and secure advertising dollars, the major networks could find themselves in an even more precarious position if the Screen Actors Guild goes on strike this summer.[13] The effects on television may be mitigated, however, since the American Federation of Television and Radio Artists (AFTRA) has reached a separate agreement.

7. Rick Kissell, "Strike Takes Toll on Network Ratings," *Variety,* http://www.variety.com/VR1117979824.html. (accessed March 10, 2008).

8. Ibid.

9. "The TV Grid: Is Your Show Coming Back?," *Los Angeles Times,* http://www.latimes.com/business/la-striketvgrid-html,0,7606966.htmlstory. (accessed March 14, 2008).

10. Jon Lafayette, "Ad Buyers Face Strike Aftermath," *TV Week,* http://www.tvweek.com/news/2008/02/ad_buyers_face_strike_aftermat.php. (accessed February 17).

11. James Hibberd, "TV Shows Begin Trickling Back after Strike," *Washington Post,* http://www.washingtonpost.com/wp-dyn/content/article/2008/03/16/AR2008031603178.html. (accessed March 16, 2008).

12. Josef Adalian, "ABC's Slate Gets Two New Shows for the Fall," *TVWeek,* May 13, 2008.

13. Richard Verrier, "Studios Offer to Start Talks with Actors Soon," *Los Angeles Times,* March 13, 2008.

Part II:

STRIKING FOR A SHARE OF NEW MEDIA

The Writers Guild of America, East, and the Writers Guild of America, West (the two unions that comprise the WGA) went on strike on November 5, 2007, after failing to reach an agreement for a new contract with the Alliance of Motion Picture and Television Producers (AMPTP). The strike dragged on for three months until the two sides finally reached an agreement on February 12, 2008. The following table summarizes the original proposals from both sides, and the final contract terms that were reached.

Table 2. WGA and AMPTP contract proposals and final contract

Main issues, 2007–2008

Residuals	AMPTP proposal	WGA proposal	MBA 2008 contract*
Home video (videocassettes and DVDs)	0.3% of the distributor's gross for the first $1 million and 0.36% thereafter.	Home video residual to be 0.6% for the first $1 million in reportable gross and 0.72% over $1 million.	WGA removed their proposal before the terms of the MBA 2008 were agreed upon.
Non-traditional media (new media)	Electronic sell-throughs for permanent downloads of theatrical or television motion pictures will be paid in a manner similar to the home video/DVD formula. No payment for streaming that is free to the viewer(and ad-supported) and 0.3% home video residual when the viewer pays. For TV motion pictures on new media, 1.2% of company's receipts from licensing such rights will be paid.	All TV and theatrical content to earn 2.5% of the distributor's gross for reuse on non-traditional media, including the Internet, cellular technology, and any other delivery system not already covered in the MBA.	0.36% of distributor's gross receipts for the first 100,000 downloads of a television program and the first 50,000 downloads of a feature. After that, residuals are paid at 0.7% of distributor's gross receipts for television programs and 0.65% for feature films. For rentals, residuals are paid at the rate of 1.2% of distributor's gross receipts. Ad-supported streaming of feature films produced after July 1, 1971 is payable at 1.2% of distributor's gross receipts. Ad-supported streaming of television programs produced after 1977 (and a small number produced prior to 1977) are payable at 2% of distributor's gross receipt.
Jurisdiction over reality television	No jurisdiction over reality TV.	All the sub-genres of reality programming can be covered by existing categories of programs in the MBA, mostly in "Appendix A."	No jurisdiction over reality TV.
Jurisdiction over animation	No jurisdiction over animation except those already covered.	Modify the definitions of "television motion picture" and "theatrical motion picture" to expand coverage of the MBA to all theatrical and TV animation except those that are covered by other labor organizations.	No jurisdiction over animation except those already covered.

* Minimum Basic Agreement (MBA) 2008.

Sources: Writers Guild of America, West, Alliance of Motion Picture and Television Producers.

The WGA demanded a greater share of residuals from DVD sales, new media revenues (digital downloads of movies and television shows), and jurisdiction over animation and reality television shows, which employ non-union writers. Before the final settlement was reached, the WGA removed their proposal on DVD residuals and concentrated instead on the issues involving new media and jurisdiction over reality shows and animation.

After an agreement was reached, the Writers Guild of America, West, claimed success in negotiating one of their main issues as the AMPTP agreed to grant the writers jurisdiction over new media. Any content created by the writers for new media will be covered, and writers will be compensated for its reuse in traditional media. One of the major victories for the writers was negotiating a deal for residuals on new media based on the "distributor's gross," as opposed to the "producer's gross" (the parameter originally proposed by the AMPTP). Under the new agreement, electronic sell-through residuals on new media are paid at 0.36 percent of the distributor's gross receipts for the first 100,000 downloads of a television program and the first 50,000 downloads of a feature. After those benchmarks have been reached, residuals will be paid at 0.7 percent of the distributor's gross receipts for television programs and 0.65 percent for feature films. For rentals, residuals are paid at the rate of 1.2 percent of the distributor's gross receipts. Moreover, ad-supported streaming of feature films produced after July 1, 1971 is payable at 1.2 percent of the distributor's gross receipts. Similarly, ad-supported streaming of television programs produced after 1977 (and a small number produced prior to 1977) is payable at 2 percent of the distributor's gross receipts.[14]

The Writers Guild suffered a setback, however, ultimately failing in its attempts to extend jurisdiction over animation and reality TV shows. Nevertheless, the overall agreement comes close to what the writers proposed, since securing a share of new media was their top priority.

In the next few sections, we will focus on the markets for different types of media and WGA's stand on each of them. It should be noted that all the projections in this part of the study do not account for the effects of the writers' strike.

Residuals from DVD Sales

In 1997, DVDs were introduced to the market, and by 2001, they had become the dominant format, replacing VHS. As the cost of burning new DVDs became negligible, profits from DVD sales became an increasing source of revenue for production companies.

When DVDs first emerged as "unproven new media," the writers originally agreed to accept DVD residuals at a rate of 0.3 percent of gross sales up to $1 million, and 0.36 percent of sales beyond that. (DVD residuals were actually governed by an agreement struck in 1988 covering the VHS format. The Writers Guild was never able to renegotiate a better deal in the intervening years.) But DVDs soon began to churn out hefty profits for the producers, and the writers realized that these terms were insufficient; the WGA membership felt they were missing out on their fair share of a lucrative profit center. In the 2007 negotiations, they proposed a larger share of DVD residuals (0.65 percent on gross sales up to $1 million and 0.72 percent above that).[15]

It is expected that the physical sell-through markets for movies will continue to dominate the market for a while. In 2007, home video sales and rentals generated $24.7 billion, a figure that is projected to rise to $27.8 billion in 2011. However, DVD sales are flattening as new media (including Internet downloads and streaming, smart phone programming, on-demand online distribution, and video-on-demand television) makes inroads.

14. Writers Guild of America West, "Summary of the Tentative 2008 WGA Theatrical and Television Basic Agreement" (2008).

15. ———, "WGAContract 2007 Proposals," http://www.wga.org/subpage_member.aspx?id=2485. (accessed February 27, 2008)

The Growing Market for "New Media"

Paid digital downloads are growing in popularity. In 2006, digital/mobile spending[16] rose by 39 percent worldwide. Certain parts of the entertainment world—including advertising, music, radio advertising, magazines, newspapers, and books—increasingly face digital competition.

Table 3 shows that the annual growth rate of those areas subject to digital competition is slowing (posting only 1.8 percent growth in 2005, which further declined to 0.3 percent by 2007), although it is projected to pick up again (to 1.3 percent by 2009 and 2.6 percent by 2011). For those areas not subject to digital competition (a category that by its nature *includes* many forms of new media), annual growth fluctuates. Revenues for these areas (with a growth rate of 7.8 percent in 2007) are growing well beyond those forms of media that are coping with digital competition.

A few specific examples will illustrate how digital competition is changing the entertainment landscape. Table 4 shows trends in the market for filmed entertainment in the United States. Americans spent $180 million on online movie downloads in 2007, a 462.5 percent jump from the previous year.

Table 3. Entertainment market revenues in the United States

Revenues subject and not subject to digital competition, 2003–2011

	2003		2005		2007		2009*		2011*	
	US$ millions	Percent change	US$ millions	Percent change	US$ millions	Percent change	US$ millions	Percent change	US$ millions	Percent change
Subject to digital competition	207,248	2.9	220,321	1.8	220,140	0.3	226,266	1.3	238,122	2.6
Not subject to digital competition	259,082	6.0	303,070	6.5	358,645	7.8	415,978	6.8	473,136	5.8

*Projected

Sources: PricewaterhouseCoopers LLP, Wilkofsky Gruen Associates.

Table 4. Filmed entertainment market in the United States

Physical versus digital downloads, 2003–2011

	2003		2005		2007		2009*		2011*	
	US$ millions	Percent change	US$ millions	Percent change	US$ millions	Percent change	US$ millions	Percent change	US$ millions	Percent change
Box office	9,489	-0.3	8,991	-5.7	9,916	4.5	10,780	4.2	11,680	4.0
Home-video sales and rental										
Physical sell-through	14,476	18.1	16,670	0.1	17,300	2.4	18,600	3.9	20,700	5.6
In-store rentals	9,020	-9.1	7,615	-6.2	7,400	-1.3	7,225	-1	7,100	-0.7
Online movies	-	-	-	-	180	462.5	350	25	560	19.7
Online TV shows	-	-	-	-	135	80	324	47.3	600	36.4
Online rental subscription	312	-	959	44.0	1,800	51.3	2,610	17.9	3,360	12.3

*Projected

Sources: Motion Picture Association of America, PricewaterhouseCoopers LLP, Wilkofsky Gruen Associates.

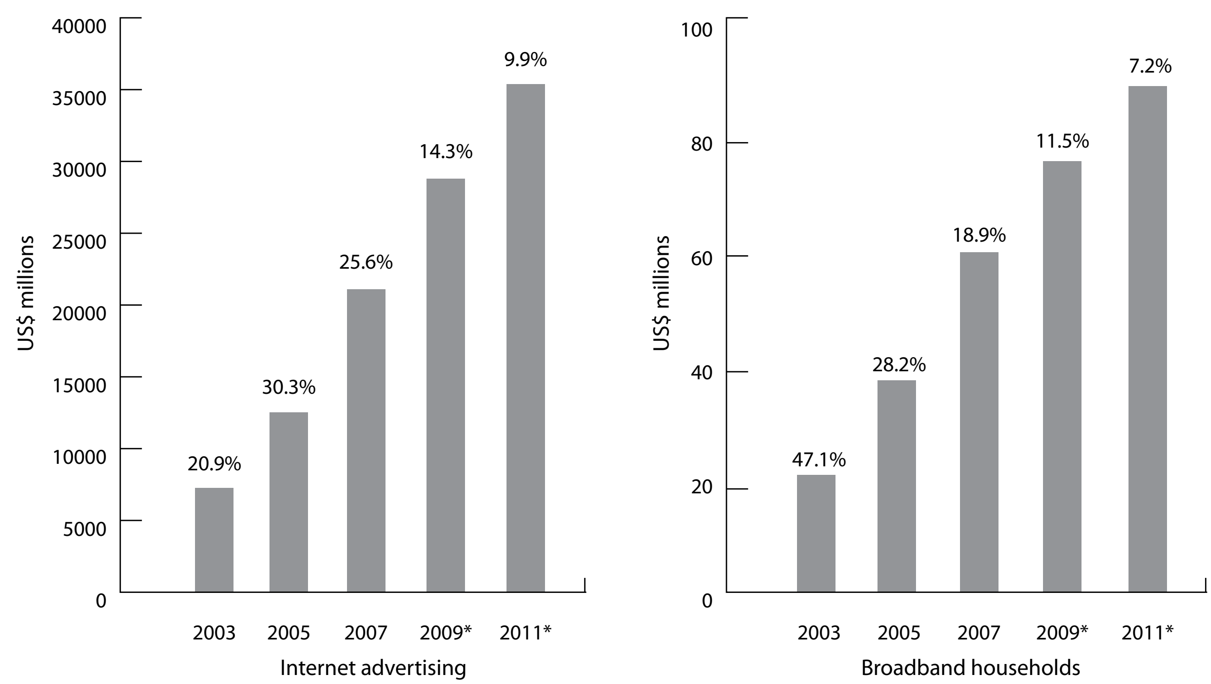
16. Includes online digital streaming, digital movie/TV downloads, video on demand, music downloaded from the Internet, music downloaded to wireless phones, online advertising, online video games, wireless video games, electronic books, and online gaming.

Not wanting to repeat the mistake of undervaluing the potential revenues from a new form of media, which happened in the original negotiations for DVD rights, the WGA insisted on receiving a fair share of the increased revenue from digital downloads. They proposed that writers receive 2.5 percent of the distributors' gross for reuse of all television and theatrical materials through new media. They demanded a share of not only digital downloads but also Internet advertising. Initially, the AMPTP rejected that proposal, insisting that revenues from digital media are limited. In fact, the table above shows that growth in digital downloads is projected to slow over time, from 25 percent growth in movie downloads in 2009 to 19.7 percent growth in 2011.

Further, a recent study by Forrester Research argues that the growth rate for all types of paid digital downloads might have already peaked. According to the study, the paid download market in the United States grew from $98 million in 2006 to $279 million in 2007, but it is likely that the nearly 200 percent growth rate will be sliced in half by 2008.[17] However, as the Forrester study points out, the major source of revenue for digital TV or movie downloads actually lies in Internet advertising.

Figure 14. Internet advertising in the United States

2003–2011



* Projected
All percent changes calculated against the preceeding year.
Sources: PriceWaterhouseCoopers LLP, Wilkofsky Gruen Associates.

17. James L. McQuivey, Bradford J. Holmes, and April Lawson, "Paid Video Downloads Give Way to Ad Models: The Industry Must Pull in Mainstream Viewers to Grow Beyond Today's Modest Download Market" (Forrester Research, 2007).

In the United States, about 89 million households (representing an estimated market of $41.4 billion) will have broadband access by 2011. In an ideal setup, it would take more than six hours to download a movie of 700MB using a connection speed of 256 kbps, but that time would be cut to only twelve minutes with a speed of 10 mbps. But in reality, downloads tend to take much longer than the times listed in the following table.

Table 5. Digital movie downloads *

Transfer times

Connection speed	Transfer speed	Transfer time
56Kbps	7 KB/s	28 hours, 27 mins
128Kbps	16 KB/s	12 hours, 27 mins
256Kbps	32 KB/s	6 hours, 13 mins
512Kbps	64 KB/s	3 hours, 7 mins
1Mbps	128 KB/s	1 hours, 33 mins
2Mbps	256 KB/s	47 mins
10Mbps	1.25 MB/s	12 mins

* assuming a 700MB file.

Source : XviD Movies.

Growing the market for digital downloads requires not only increasing the number of households with broadband connections, but also improving the download time for movies. Recently, Cisco Systems demonstrated a Docsis 3.0 modem that claims to "support a downlink speed of 160 mbps and uplinks of 120 mbps."[18] This modem is expected to download a copy of a high-definition movie in just four minutes.[19] As new innovations appear in modems and technology, making it easier to download movies, this delivery method is expected to become a popular option for future customers. But at present, few households have means to download movies quickly. Besides, critics believe that there are currently other issues at work, including the physical comfort factor of watching a DVD in your living room versus watching a movie on your computer screen.[20] Those factors might contribute to a slower growth of online movie watching than originally predicted.

Nevertheless, the overall market for digital viewing of movies and TV shows is expected to rise in the future. In pursuit of these potential customers, Internet advertising is projected to hit $35.4 billion in 2011, a 9.9 percent jump from 2010. Forrester Research estimates that the market for in-video advertising on the Internet will grow from $471 million in 2007 to $3.2 billion by 2010. The in-video ad market for TV shows alone is predicted to grow from $250 million in 2007 to $1.7 billion by 2010.[21]

So even though AMPTP initially argued that digital downloads are not generating enough revenue to support the writers' demands, it's reasonable to assume that studios will eventually receive a boost in future revenues from Internet advertising. The WGA's demand to give writers a share of the profits from Internet advertising was not unjustified. They won this concession in the new agreement, which provides residual payments to writers for ad-supported streaming of television programs.

18. Bob Wallace, "CES: Cisco Demos Long-Awaited Docsis 3.0 Cable Modem," *Xchange Magazine* 2008.

19. Chloe Albanesius, "Comcast Talks 100 Mbit/s 'Net Access for Consumers," *PC Magazine,* January 8, 2008.

20. David Pogue, "Web Movies Show Why DVDds Sell," *New York Times*, February 21, 2008.

21. McQuivey, Holmes, and Lawson, "Paid Video Downloads Give Way to Ad Models: The Industry Must Pull in Mainstream Viewers to Grow Beyond Today's Modest Download Market."

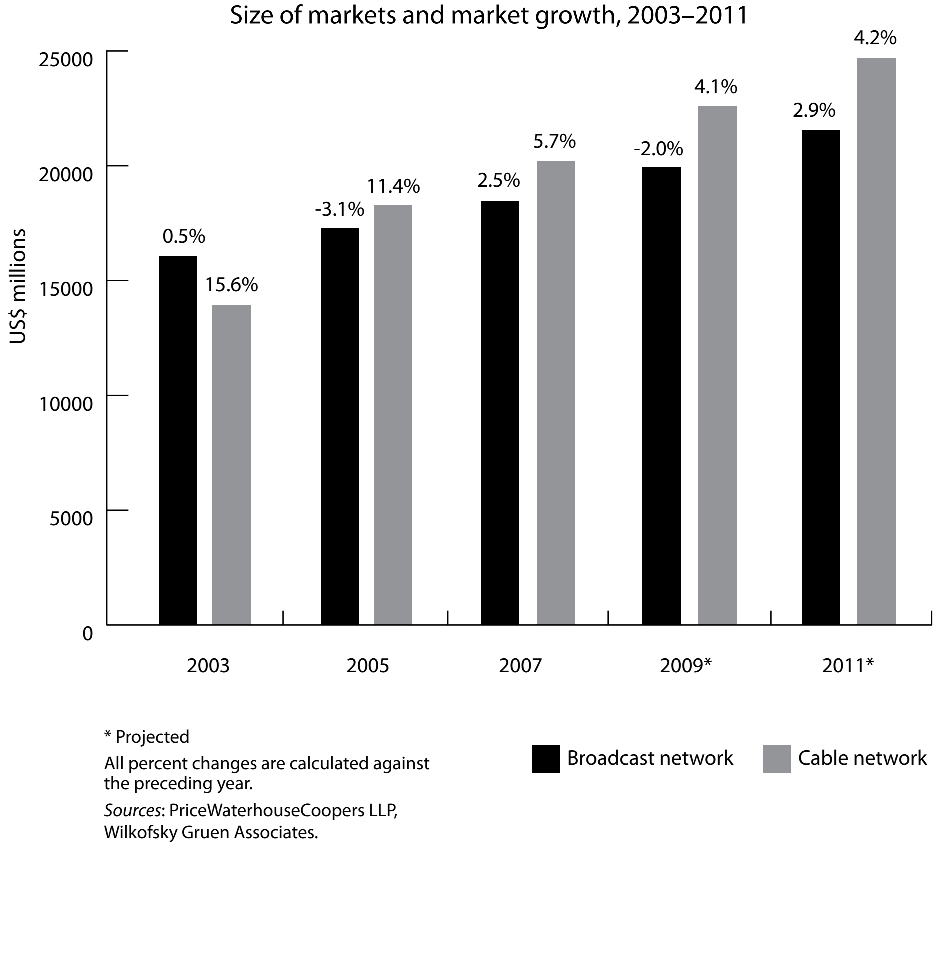
Television Networks

If advertisers move from the television networks to the Internet, will that lead to the gradual demise of television viewing? The following figure shows only modest growth in advertising on broadcast networks (from $18.5 billion in 2007 to $21.6 billion in 2011), but steadier growth in advertising on cable networks (from $20.2 billion in 2007 to $24.7 billion in 2011). The total market for advertising on broadcast and cable (which includes traditional ads, product placements, and license fees) is predicted to reach $85.4 billion in 2011 from $66.1 billion in 2007.

Although growth in advertising on broadcast networks might slow, the total market for broadcast and cable will continue to grow. One of the reasons for such a phenomena is that many viewers are now abandoning the broadcast networks in favor of cable networks, which can serve the interests of many niche audiences. The landscape is also changing with a significant shift toward digital TV, with digital video recorders (DVRs) and high-definition TVs (HDTV) becoming popular.[22]

Figure 15. Television advertising market in the United States

Size of markets and market growth, 2003–2011



* Projected

All percent changes are calculated against the preceding year.

Sources: PriceWaterhouseCoopers LLP, Wilkofsky Gruen Associates.

22. James L. McQuivey et al., "Benchmark 2007: Most Households Get Their TV Digitally" (Forrester Research, 2007).

Table 6. DVR and HDTV penetration in the United States

Households and penetration, 2003–2011

	2003	2005	2007	2009*	2011*
DVR					
Households (millions)	3.2	9.0	22.0	36.0	45.0
Penetration (percent)	3.0	8.2	19.7	31.7	38.9
HDTV					
Households (millions)	1.9	4.0	25.0	50.0	68.0
Penetration (percent)	1.8	3.6	22.4	44.0	58.7

* Projected

Sources: PricewaterhouseCoopers LLP, Wilkofsky Gruen Associates.

The table above shows that the penetration rates for DVR and HDTV are likely to double from 2007 to 2011. In 2007, penetration rates for DVR and HDTV, respectively, were 19.7 percent and 22.4 percent. By 2011, they are forecast to be 38.9 percent and 58.7 percent, respectively. Comcast is planning to offer more than 1,000 high-definition videos in 2008, including about 300 movies on demand (either free or by subscription). Further, they are creating "superservers" to store the extra video-on-demand content.[23] DVRs represent another profound departure. The entertainment industry is still struggling to incorporate this new technology into its business model, since DVRs give viewers the ability to fast-forward through commercials while watching a show. The increased availability of high-definition, commercial-free movies has the potential to further erode broadcast network viewership, and the advent of the DVR is giving advertisers pause about the effectiveness of placing commercials on traditional broadcast shows. Recognizing these long-term trends, the WGA pushed hard for a labor agreement that would offer the writers a share of the profits in a greatly altered entertainment landscape.

Local broadcast channels face immense competition from digital downloads since they do not get a share of the revenue from those downloads. They typically rely heavily on revenue from local advertisers for syndicated shows, and the growth of digital downloads will eat into this revenue stream. In 2006, syndicated TV shows generated $4.23 billion in advertising in the top 100 markets, but that's only a 0.3 percent increase from the previous year ($4.22 billion in 2005). In 2004, advertising revenues from syndicated TV shows were $3.93 billion.

Table 7. Television advertising revenues

Top 100 markets, US$ billions

	2006	2005	2004
Local broadcast*	18.7	16.8	18.4
Network**	25.4	24.9	24.9
Syndicated	4.2	4.2	3.9
Total	48.4	45.9	47.2

* Includes both local and national spot activity in the top 100 markets.

** Network figures include WB, UPN, and PAX.

Sources: Television Bureau of Advertising, TNS Media Intelligence.

23. Chloe Albanesius, "Comcast Talks 100 Mbit/s 'Net Access for Consumers," *PC Magazine,* January 8, 2008.

The average consumer still watches television much more than any other medium, but pay-per-view movies and video-on-demand options are becoming increasingly popular. The following table shows how these markets are projected to grow in the future. In 2007, pay-per-view movies and video on demand generated $2.8 billion and $2.1 billion, respectively.

While these new technologies seem to be the wave of the future, some key obstacles remain for the development of the digital retail movie market, including the ability to deliver online movie content to the viewer's television,[24] confusion over new media rights, digital rights management (DRM), and high retail price points for digital content.[25]

Table 8. Television distribution market in the United States

Size of markets and market growth, 2003–2011

	2003		2005		2007		2009*		2011*	
	US$ millions	Percent change	US$ millions	Percent change	US$ millions	Percent change	US$ millions	Percent change	US$ millions	Percent change
Total end-user spending	49,541	8.8	58,330	7.1	66,935	6.6	77,192	8.3	88,571	7.0
Basic subscriptions	37,792	6.5	43,532	6.4	49,663	6.3	57,193	8.2	65,939	7.3
Premium subscriptions	9,148	13.4	10,987	7.1	12,300	5.7	13,755	6.5	15,068	4.5
Pay-per-view movies	1,943	16.6	2,501	10.6	2,848	5.8	3,141	5.6	3,346	3.0
Video-on-demand	658	97.0	1,310	28.9	2,124	22.9	3,103	20.2	4,218	15.1
Total advertising	28,328	0.2	29,658	-4.3	31,190	-2.2	33,000	-2.9	34,690	-1.5
Television stations	23,468	-2.4	24,300	-6.1	25,200	-3.5	26,350	-4.7	27,500	-2.8
Multichannel stations	4,860	15.0	5,358	5.0	5,990	4.0	6,650	4.7	7,190	3.8
Total distribution	77,869	5.5	87,988	3.0	98,125	3.6	110,192	4.6	123,261	4.4

*Projected

Sources: PricewaterhouseCoopers LLP, Universal McCann, Wilkofsky Gruen Associates.

24. Arash Amel and Dan Cryan, "Online Movie Strategies" (Screendigest, 2007).

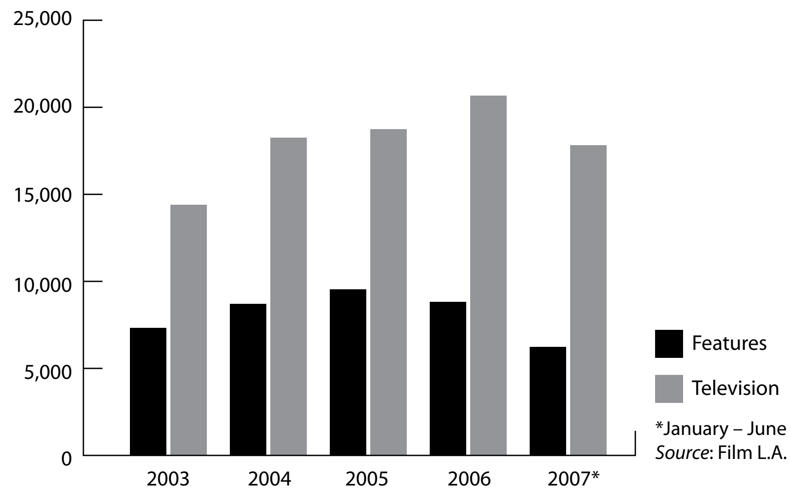
25. Ben Keen and James Garlick, "Video by Numbers: The Digital Retail Revolution" (Screendigest, 2006).

Reality Television Shows

Television content has changed dramatically in recent years, and that trend is likely to continue. Broadcast and cable networks alike are increasingly relying on reality shows in lieu of sitcoms and dramas, since this programming is so much cheaper to produce. These shows are created with non-union writers, and the WGA attempted to strike a new deal bringing reality shows under their jurisdiction. The AMPTP refused, and the new contract forged in early 2008 does not include jurisdiction over reality television shows or animation.

Figure 16. Production days, Los Angeles County

Permitted days of location shooting



*January – June
Source: Film L.A. Inc.

There were 20,652 production days in Los Angeles in 2006, up from 18,740 production days in 2005. In 2006, reality shows accounted for 41 percent of all TV production days, a 52.7 percent jump from 2005. Sitcom and drama production days also rose, but much more modestly. Reality shows have become an important component of the Los Angeles entertainment industry, supporting at least 30,000 local jobs.[26]

The above figure also shows that the feature film production in Los Angeles County fell to 8,813 production days in 2006, off 7.4 percent from 2005. Incentives offered by other states contributed to the decline (for example, a 15 percent tax credit in New York, a 20 percent credit in New Mexico, and a 25 percent credit in Louisiana). Other countries, including Canada and Australia, are also offering lucrative incentives. According to FilmL.A. Inc., new production facilities (such as the Albuquerque Studios complex), together with tax incentives, are responsible for production days moving to other states. This might be an indication that California will no longer continue to dominate production so heavily in the future, and the state may not claim the lion's share of production revenues in the new digital era. But this is just conjecture; as of now, California is still the biggest player in this field.

26. Richard Verrier, "Reality Check: Unscripted TV a Hit for L.A. Economy, " *Los Angeles Times*, January 25, 2007.

CONCLUSION

The WGA strike lasted for over three months, and in the meantime, few writers were even negotiating with venture capitalists to produce video entertainment that would bypass the studios for broadcast directly on the Internet.[27] They are still tied closely to the current studio and network system. The writers made it clear that they were intent on gaining a share of the emerging new media, and studios were forced to take note of that in order to continue a working relationship with the WGA.

Having suffered through a substantial loss of income, both the writers and producers welcomed the end of the strike. The union's membership generally did not think they secured the best deal possible, but most agreed that it was a solid improvement. The agreement, which governs work through May 1,2011, grants the WGA jurisdiction over all materials produced for new media. As these forms of media delivery continue to grow in popularity, the contract ensures that writers will be paid a percentage of a potentially lucrative new revenue stream.

Continued evolution in digital technology and distribution will only serve to further alter and develop the economics of Hollywood film and television production. Although in the short term, it seems unlikely that the net economic gains from the new contract will help the writers recoup their losses from the strike quickly or easily, the precedent has clearly been set for sharing revenues from the digital realm in the future. As broadband and video-on-demand options increase, the importance of the digital sector as a revenue source can only continue to rise.

The three-month writers' strike had a jarring effect on California's economy that will linger for a couple of years for many indicators. In an already sluggish economy, the strike caused growth to slow even more sharply. The major television broadcast networks, in particular, face an uphill battle in recovering from this event, as they work to reverse ratings declines that may be felt for some time to come.

In the aftermath of the writers' strike, the entertainment industry is now bracing for a possible strike by the Screen Actors Guild when its current contracts expire on June 30, 2008. If another work stoppage were to hit the industry so closely on the heels of the writers' strike, California's economy will face a longer and more difficult recovery.

27. Joseph Menn, "Striking Writers in Talks to Launch Web Start-Ups," *Los Angeles Times*, December 17, 2007.

APPENDIX

Table 9. Effect of writers' strike on California's economic indicators

Projections for 2008

	2008Q1		2008Q2		2008Q3		2008Q4	
	Difference	Percent Change*	Difference	Percent Change*	Difference	Percent Change*	Difference	Percent Change*
Total employment (Thousands)**	-16.3	-0.38	-7.9	-0.18	-7.2	-0.17	-5.3	-0.12
Nominal Gross State Product (US$ millions)***	-760.7	-0.17	-616.0	-0.13	-401.7	-0.09	-260.9	-0.06
Retail sales (US$ millions)***	-329.3	-0.27	-259.7	-0.21	-159.9	-0.13	-81.1	-0.07
Total personal income (US$ millions)***	-1,197.7	-0.31	-955.8	-0.24	-590.1	-0.15	-296.7	-0.07

* Quarter ago.

** Total annual loss estimates divided by 4. *** Annual rate estimates divided by 4.

Source: Milken Institute.

Table 10. Effect of writers' strike on California's establishment employment

Place of work, Thousands, Projections for 2008

	2008Q1		2008Q2		2008Q3		2008Q4	
	Difference*	Percent Change**	Difference*	Percent Change**	Difference*	Percent Change**	Difference*	Percent Change**
Non-manufacturing	-14.0	-0.4	-11.3	-0.3	-7.5	-0.2	-5.0	-0.1
Information, leisure and hospitality***	-7.5	-1.5	-5.0	-1.0	-3.3	-0.6	-2.8	-0.5
Professional and business services	-2.8	-0.5	-2.3	-0.4	-1.1	-0.2	-0.5	-0.1
Trade, transportation and utilities	-1.7	-0.2	-1.0	-0.1	-0.7	-0.1	-0.4	-0.1
Financial activities	-0.1	0.0	-0.6	-0.3	-0.4	-0.2	-0.3	-0.1
Education and health services	-0.2	0.0	-0.2	0.0	-0.1	0.0	0.0	0.0

* Total annual loss estimates divided by 4.

** Quarter ago.

*** includes motion picture and broadcasting services, independent writers, artists, performers, agents for artists, entertainers, accommodations and food services.

Source: Milken Institute.

Table 11. Effect of writers' strike on California's wages and salaries

US$ millions, Projections for 2008

	2008Q1		2008Q2		2008Q3		2008Q4	
	Difference*	Percent Change**	Difference*	Percent Change**	Difference*	Percent Change**	Difference*	Percent Change**
Wages and Salaries	-842.5	-0.4	-708.7	-0.3	-484.6	-0.2	-289.5	-0.1
Information, leisure and hospitality***	-200.4	-0.9	-161.8	-0.8	-112.7	-0.5	-90.0	-0.4
Professional and business services	-183.8	-0.5	-147.3	-0.4	-71.1	-0.2	-38.0	-0.1
Trade, transportation and utilities	-113.1	-0.4	-56.4	-0.2	-40.2	-0.1	-23.1	-0.1
Financial activities	-98.5	-0.5	-106.5	-0.6	-68.6	-0.4	-16.7	-0.1
Construction and mining	-13.0	-0.1	-55.2	-0.4	-46.1	-0.4	-33.0	-0.3
Education and health services	-9.1	0.0	-9.0	0.0	-2.9	0.0	-1.6	0.0

* Annual rate estimates divided by 4.

** Quarter ago.

*** includes motion picture and broadcasting services, independent writers, artists, performers, agents for artists, entertainers, accommodations and food services.

Source: Milken Institute.

Table 12. Effect of writers' strike on California's Gross State Product

US$ millions, Projections for 2008

	2008Q1		2008Q2		2008Q3		2008Q4	
	Difference*	Percent Change**	Difference*	Percent Change**	Difference*	Percent Change**	Difference*	Percent Change**
Total Gross State Product	-760.7	-0.17	-616.0	-0.13	-401.7	-0.09	-260.9	-0.06
Information, leisure and hospitality***	-108.2	-0.46	-87.2	-0.37	-54.4	-0.23	-32.5	-0.14
Professional and business services	-138.5	-0.23	-112.6	-0.19	-71.4	-0.12	-44.2	-0.07
Trade, transportation and utilities	-110.4	-0.15	-93.9	-0.12	-63.2	-0.08	-43.9	-0.06
Financial activities	-120.9	-0.11	-102.1	-0.09	-66.1	-0.06	-38.7	-0.03
Education and health services	-34.0	-0.11	-29.3	-0.09	-20.3	-0.06	-15.0	-0.05

* Annual rate estimates divided by 4.

** Quarter ago.

*** includes motion picture and broadcasting services, independent writers, artists, performers, agents for artists, entertainers, accommodations and food services.

Source: Milken Institute.

Table 13. Long-term effect of writers' strike on California's economic indicators

Projections for 2009–2011

	2009Q1		2010Q1		2011Q1	
	Difference	Percent Change*	Difference	Percent Change*	Difference	Percent Change*
Total employment (Thousands)**	-2.8	-0.07	0.1	0.00	0.1	0.00
Nominal Gross State Product (US$ millions)***	-158.5	-0.03	-44.9	-0.01	-28.2	-0.01
Retail sales (US$ millions)***	-30.4	-0.02	-32.5	-0.03	-24.6	-0.02
Total personal income (US$ millions)***	-105.0	-0.03	-112.1	-0.03	-81.3	-0.02

* Quarter ago.

** Total annual loss estimates divided by 4. *** Annual rate estimates divided by 4.

Source: Milken Institute.

Table 14. Long-term effect of writers' strike on California's establishment employment

Place of work, Thousands, Projections for 2009–2011

	2009Q1		2010Q1		2011Q1	
	Difference*	Percent Change**	Difference*	Percent Change**	Difference*	Percent Change**
Non-manufacturing	-3.2	-0.1	-1.5	0.0	-1.4	0.0
Information, leisure and hospitality***	-2.4	-0.5	-1.2	-0.2	-1.2	-0.2
Professional and business services	-0.4	-0.1	-0.4	-0.1	-0.4	-0.1
Trade, transportation and utilities	-0.3	0.0	0.0	0.0	0.0	0.0
Financial activities	-0.2	-0.1	-0.1	0.0	-0.1	0.0
Education and health services	0.0	0.0	0.0	0.0	0.0	0.0

* Total annual loss estimates divided by 4.

** Quarter ago.

*** includes motion picture and broadcasting services, independent writers, artists, performers, agents for artists, entertainers, accommodations and food services.

Source: Milken Institute.

Table 15. Long-term effect of writers' strike on California's wages and salaries

US$ millions, Projections for 2009–2011

	2009Q1		2010Q1		2011Q1	
	Difference*	Percent Change**	Difference*	Percent Change**	Difference*	Percent Change**
Wages and Salaries	-135.2	-0.1	-47.1	0.0	-43.3	0.0
Information, leisure and hospitality***	-74.2	-0.3	-37.2	-0.2	-36.3	-0.1
Professional and business services	-25.3	-0.1	-27.3	-0.1	-29.1	-0.1
Trade, transportation and utilities	-13.0	0.0	-0.4	0.0	-0.8	0.0
Financial activities	28.9	0.1	19.7	0.1	23.0	0.1
Construction and mining	-24.3	-0.2	-6.9	-0.1	-5.8	0.0
Education and health services	-1.3	0.0	-0.8	0.0	-0.8	0.0

* Annual rate estimates divided by 4.

** Quarter ago.

*** includes motion picture and broadcasting services, independent writers, artists, performers, agents for artists, entertainers, accommodations and food services.

Source: Milken Institute.

Table 16. Long-term effect of writers' strike on California's Gross State Product

US$ millions, Projections for 2009–2011

	2009Q1		2010Q1		2011Q1	
	Difference*	Percent Change**	Difference*	Percent Change**	Difference*	Percent Change**
Total Gross State Product	-158.5	-0.03	-44.9	-0.01	-28.2	-0.01
Information, leisure and hospitality***	-15.3	-0.06	8.5	0.03	16.4	0.06
Professional and business services	-23.1	-0.04	5.7	0.01	15.0	0.02
Trade, transportation and utilities	-29.7	-0.04	-15.3	-0.02	-14.3	-0.02
Financial activities	-16.2	-0.01	-8.8	-0.01	-13.5	-0.01
Education and health services	-11.5	-0.04	-8.6	-0.03	-10.1	-0.03

* Annual rate estimates divided by 4.

** Quarter ago.

*** includes motion picture and broadcasting services, independent writers, artists, performers, agents for artists, entertainers, accommodations and food services.

Source: Milken Institute.

REFERENCES

Adalian, Josef. "ABC's Slate Gets Two New Shows for the Fall," *TVWeek*, May 13, 2008.

Albanesius, Chloe. "Comcast Talks 100 Mbit/s 'Net Access for Consumers," *PC Magazine*, January 8, 2008.

Amel, Arash, and Dan Cryan. "Online Movie Strategies." Screen Digest, 2007.

Chang, Andrea. "Strike's Effects Ripple Beyond Studio Gates," *Los Angeles Time*s, November 15, 2007.

DeVol, Ross C., and Armen Bedroussian. *The Economic Outlook for the U.S. and California: Slow Growth or Recession?* (Milken Institute, May 2008).

DeVol, Ross C., Joel Kotkin, Jonathan M. Orszag, Peter R. Orszag, Robert F. Wescott, and Perry Wong. *The Impact of an Entertainment Industry Strike on the Los Angeles Economy.* (Milken Institute, 2001).

Hibberd, James. "TV Shows Begin Trickling Back after Strike." *Washington Post*, http://www.washingtonpost.com/wp-dyn/content/article/2008/03/16/AR2008031603178.html. (accessed March 16, 2008).

Keen, Ben, and James Garlick. "Video by Numbers: The Digital Retail Revolution." Screen Digest, 2006.

Kissell, Rick. "Strike Takes Toll on Network Ratings." *Variety*, http://www.variety.com/VR1117979824.html. (accessed March 10, 2008).

Lafayette, Jon. "Ad Buyers Face Strike Aftermath." *TVWeek*, http://www.tvweek.com/news/2008/02/ad_buyers_face_strike_aftermat.php. (accessed February 17, 2008).

"The TV Grid: Is Your Show Coming Back?" *Los Angeles Times*, http://www.latimes.com/business/la-striketvgrid-html,0,7606966.htmlstory (accessed March 14, 2008).

McQuivey, James L. Ellen Daley, Heidi Lo, and April Lawson. "Benchmark 2007: Most Households Get Their TV Digitally." Forrester Research, 2007.

McQuivey, James L, Bradford J. Holmes, and April Lawson. "Paid Video Downloads Give Way to Ad Models: The Industry Must Pull in Mainstream Viewers to Grow Beyond Today's Modest Download Market." Forrester Research, 2007.

Menn, Joseph. "Striking Writers in Talks to Launch Web Start-Ups." *Los Angeles Times*, December 17, 2007.

Nakashima, Ryan. "Hollywood Studios, AFTRA Agree on 3-year Contract." Associated Press, May 28, 2008.

Pogue, David. "Web Movies Show Why DVDs Sell." *New York Times*, February 21, 2008.

Verrier, Richard. "Studios Offer to Start Talks with Actors Soon." *Los Angeles Times*, March 13, 2008.

---------. "Reality Check: Unscripted TV a Hit for L.A. Economy." *Los Angeles Times*, January 25, 2007.

Wallace, Bob. "CES: Cisco Demos Long-Awaited Docsis 3.0 Cable Modem." *Xchange Magazine*, 2008.

Writers Guild of America West. "Summary of the Tentative 2008 WGA Theatrical and Television Basic Agreement." 2008.

———. "WGA Contract 2007 Proposals." http://www.wga.org/subpage_member.aspx?id=2485. (accessed February 27, 2008).

ABOUT THE AUTHORS

KEVIN KLOWDEN is Managing Economist of the California Center and is part of the Regional Economics group at the Milken Institute. He specializes in the study of demographic and spatial factors, including how these are influenced by public policy and how they affect regional economies. He has written and spoken on the role of transportation infrastructure as it relates to the development of regional competitiveness. He also has a strong interest in the role of technology and media, and has spoken on and organized panels addressing the subject. Klowden coordinated the Milken Institute's Los Angeles Economy Project, seeking public policy and private-sector solutions to the challenges facing the region, including a growing pool of unskilled labor. He served on the editorial board of *Millennium*, the international affairs journal of the London School of Economics, where he earned a master's degree in the politics of world economy. Klowden also earned a master's degree in economic geography from the University of Chicago.

ANUSUYA CHATTERJEE is a Senior Research Analyst at the Milken Institute. Her expertise covers economic forecasting, health-care economics, labor economics, and public policy issues. After joining the Institute, she co-authored *Initial Examination on Reforming the California Lottery* and *An Unhealthy America: The Economic Burden of Chronic Disease*. Her prior publications include *Forecasting Macroeconomic Indicators of Indiana in a Bayesian VAR Framework*; *Effects of Macroeconomic News Announcements*; and *Estimating the Cost of Providing Outpatient Chemical Dependency Treatment Services in New York State*. Chatterjee previously worked as an assistant professor in economics at the University of Southern Indiana. She has also served as a member of the team for funded research projects with the New York State Office of Alcoholism and Substance Abuse Services. She received a Ph.D. in economics from the State University of New York, Albany; a master's degree from the Delhi School of Economics; and a bachelor's degree from Jadavpur University in India.

ROSS DeVOL is Director of the Regional Economics group and the Center for Health Economics at the Milken Institute. He oversees the Institute's research on the dynamics of comparative regional growth performance, technology and its impact on regional and national economies, and health-related topics such as chronic disease. An expert on the intangible economy and how regions can prepare themselves to compete in it, he authored *America's High-Tech Economy: Growth, Development, and Risks for Metropolitan Areas.* DeVol was the principal author of *An Unhealthy America: The Economic Burden of Chronic Disease*, which brought to light the economic losses associated with preventable illness. In 2001, he wrote a study commissioned by former Los Angeles Mayor Richard Riordan's office examining the impact of a potential entertainment industry strike on the Los Angeles and California economies. Prior to joining the Institute, DeVol was senior vice president of Global Insight, Inc. (formerly Wharton Econometric Forecasting), where he supervised the Regional Economic Services group. He is ranked among the "Super Stars" of Think Tank Scholars by *International Economy* magazine.

Milken Institute

1250 Fourth Street
Santa Monica, CA 90401

Phone: 310.570.4600
Fax: 310.570.4601
E-mail: info@milkeninstitute.org
www.milkeninstitute.org